MASSIFICATION AND THE QUALITY OF TEACHING IN KYAMBOGO UNIVERSITY

BY

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A DISSERTATION SUBMITTED TO THE DIRECTORATE OF GRADUATE TRAINING IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF A MASTER OF EDUCATION IN POLICY, PLANNING AND MANAGEMENT OF KYAMBOGO UNIVERSITY

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DECLARATION

I Nicholas Peter Murungi Kasaija declare that this is my original work and has never been presented in any institution for any award.

Signature:……

Date:……...

APPROVAL

This research dissertation entitled “Massification and the Quality of Teaching in Kyambogo University” has been conducted under our supervision and submitted with our approval.

Signature…….

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DR. PHILIP OWINO

DEDICATION

I dedicate this work to my wife Dinah who rendered me unwavering support and to my children Mercy, Grace, Praise and Shalom. May this work inspire you to achieve more.

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LIST OF ACRONYMS AND ABREVIATIONS

CCK:	Classroom Climate in Kyambogo University
CMK:	Classroom Management in Kyambogo University
DV:	Dependent Variable
GER:	Gross Enrolment Ratios
HEIs:	Higher Education Institutions
ICALT:	International Comparative Analysis of Learning and Instruction
ISK:	Instructional Strategies in Kyambogo University
IT:	Information Technology
ITEK:	Institute for Teacher Education Kyambogo
IV:	Independent Variable
KYU:	Kyambogo University
MHE:	Massification of Higher Education
MoES:	Ministry of Education and Sports
NCHE:	National Council for higher Education
OECD:	Organization for Economic Cooperation and Development
PLCC:	Pearson's Linear Correlation Coefficient
SAQs:	Self-Administered Questionnaires
SPSS:	Statistical Packages for Social Scientists
UNESCO:	United Nations Education Scientific and Cultural Organization
UNISE:	Uganda National Institute of Special Education
UOTIA:	Universities and Other Tertiary Institutions Act
UPK:	Uganda Polytechnic Kyambogo

ABSTRACT

The focus of this study was on massification of higher education and the quality of teaching in Kyambogo University (KYU). The objectives of the study were: to examine the relationship between massification of higher education and classroom climate in Kyambogo University; establish the relationship between massification of higher education and classroom management in Kyambogo University and assess the relationship between massification of higher education and teachers' adoption of effective instructional strategies in Kyambogo University. The study mostly used a correlational survey with mixed research approach. The participants comprised of 243 finalist students from different faculties of KYU plus ten staff members from the academic registrars' department out of the sample size of 377 giving a response rate of 66%. Quantitative data was collected on the study variables from the students using self-administered questionnaires. Qualitative data was collected from the ten staff members from the office of the academic registrar using face to face interviews. Data was analyzed using relative frequencies and descriptive statistics especially the means. Pearson's linear correlation coefficient was used to relate massification of higher education to the dependent variables, namely, classroom climate, classroom management and teachers' adoption of good/effective instructional strategies respectively at the bivariate level. However, the regression analysis were finally used to establish the impact of massification on each of the dependent variables, namely classroom climate, classroom management and instructional strategies simultaneously. Findings revealed that massification of higher education had an insignificant relationship with classroom climate and this study therefore concludes that massification of higher education was not a determinant of classroom climate at KYU. Based on this finding, this study therefore recommended that Kyambogo University should not focus on massification of higher education as a predictor of classroom climate. This study established that massification of higher education had a positive significant relationship with classroom management and this study concluded that massification of higher education was a predictor of classroom management in KYU. This study therefore recommends that the management of KYU should attach more emphasis on massification of higher education as a predictor of classroom management. Finally, this study established that massification of higher education had an insignificant relationship with instructional strategies and based on this finding, this study concluded that massification of higher education had very little influence on instructional strategies in KYU.

CHAPTER ONE

INTRODUCTION

This chapter presents the background to the study in four perspectives, namely; the historical perspective, theoretical perspective, conceptual perspective and the contextual perspective; and it also presents the statement of the problem, the purpose and objectives of the study, hypotheses, scope of the study, limitations and definition of key terms.

1.1 Background

1.1.1 Historical perspective. According to a review by the Organization for Economic Cooperation and Development: OECD (2008) of Tertiary Educational Policy, higher education has changed significantly over the past few decades from traditional universities as centers of elite education where only a select few could access higher education to becoming an increasingly important topic on national agenda. Trow (2000) defined massification as a phenomenon in higher education institutions where there is a sharp rise in students' enrolments in comparison with the facilities and resources (Varghese, 2013). The issue of teaching quality was one that could not be avoided in present educational system, and whatever institutions undertake to ensure that teaching quality was the highest priority and most successful of all efforts and initiatives. However, the quality of graduates has decreased as a result of rising demand for higher education (Basheka, Muhenda, and Kittobe 2009). The 4 Cs forces changing university norms and features; rising competition; rising prices; and looming crises have an impact on the quality of teaching in higher education. Higher education institutions must constantly

strengthen themselves to grasp these influences or else they will no longer be centers of academic success (Mpaata, 2010).

Since the 1980s, China has significantly increased access to higher education for its citizens as compared to other countries on a global scale (Yang & Zang, 2011). Similarly, in fewer than 20 years, the number of postsecondary education students in the United States doubled, making it the country with the biggest population of tertiary education students in the world (Yang & Zang, 2011). However, the quality of education was threatened by population expansion without an equal rise in governmental funding. For example, according to Trow (1974), the quality of university education in China was negatively impacted by the high number of students enrolled in the universities with poor quality of those graduates who were unemployable. Therefore, it was essential that greater attention was paid to examine the underlying forces that could negatively impact on the quality of university education in China and other countries including Uganda as higher education becomes increasingly mass-produced (Lin, 2010).

Research interest in the subject of teaching quality in higher education has increased in the recent years, but opinions on what teaching quality was and how to achieve it remained divided (Wittek and Habib, 2013). Every education system puts emphasis on the quality of teaching, and higher education institutions were not an exception to this demand. In order to produce graduates who can meet the needs of society, all educational institutions aspire to adopt the most up-to-date pedagogical strategies in their teaching and learning processes. The global labor market expects higher education institutions to equip students with the knowledge,

skills, and attitude necessary for fulfilling employment (Inter University Council for East Africa, 2010).

The quality of instruction was still a problem in institutions of higher learning in sub-Saharan Africa despite rising enrollment rates (Altbach, Reisberg and de Wit, 2009). According to Altbach et al (2009), over the past 60 years, higher education has undergone alterations that are unmatched in scale and variety. Higher education was crucial for innovation and the development of human capital, and it was essential for the success and sustainability of the knowledge economy (van Vught, Kaiser, File & Gaethgener, 2010).

1.1.2 Theoretical perspective. The study was guided by Trow's (1974) stage theory of higher education development which Martin Trow also referred to as the theory of massification of higher education. The main assumption of the massification theory is that access to higher education often gradually changes from being exclusive to being open to everyone causing a sharp rise in students' enrolment as compared to facilities and educational resources (Zhang & An, 2010). The massification theory affirms that any significant change connected to increased enrollment in higher education will always have an impact on the standard of instruction (Liu & Mulinda, 2016). The massification theory implies that the rising need for resources, which include the need for adequate and suitable teaching resources to support a variety of teaching styles, a flexible seating arrangement, and improved technology resources were not readily available in most higher education institutions to serve the rising student enrolments (Machika, Troskie-de Brain & Albertyn; 2014).Therefore, massification results in a fundamental shift from elite to mass, which not only entails a dramatic increase in

the number of people who can pursue higher education but also a change in quality, which is crucial to this shift (Lin,2010). Elite higher education institutions are typically limited in size and focus on transmitting a general culture and way of life while training the elite for skilled professions (Marginson, 2010).

The conventional model of universities as centers of elite education, where only a select few are admitted, is challenged by the massification, a process that lowers the standard of instruction and learning (Hornsby and Osman, 2014). According to the stage theory of higher education development by Trow (1974), good teaching and learning require both sufficient human resources and functional physical infrastructure. Because of the mismatch between the number of students enrolled and the academic facilities that are available, sometimes massification has a negative impact on the quality of teaching and learning that influences modification of processes (Chevaillier & Conlon, 2003, Adu & Orivel 2006). Because of massification, inadequate physical facilities combined with poor upkeep cause physical infrastructure to deteriorate. The quality of learning is impacted by the deterioration of laboratories, administrative buildings, lecture halls and theaters, and libraries (Mohamedbhai, 2008).

To ensure the quality of university education, the stage theory of higher education development by Trow (1974) theory advocates for ongoing monitoring and evaluation. According to this idea, excessive student enrollment at universities causes significant changes in viewpoints, aims, contents, structures, academic standards, functions, ways of establishing education, and management systems. Given the implications of this theory's postulates, it gives guidance for this study's examination of the effects of university education's massification on teaching

quality, making it the ideal choice. The massification theory was suitable and applicable for achieving this based on the assumptions of this theory since research evidence in African HEIs reveals a growth in institutional enrolments that has to be addressed with its attendant effect on the quality of instruction.

1.1.3 Conceptual Perspective. The independent variable in this study was massification of higher education. In the context of higher education systems, Lin (2010) used the word "massification" to describe the sharp rise in student enrollment. The definition of massification of higher education is a fundamental shift from the elite to the mass, which includes not only a significant rise in the number of individuals who can pursue higher education but also a change in quality, which is crucial to the shift from the elite to the mass (Lin, 2010). The concept of massification in this study was adapted from Mohamedabhai (2008) and measured in terms of; increasing students' enrolment and related challenges (unmatched staffing, inadequate physical facilities and study equipment), access to higher education and diversity.

The dependent variable in this study was quality of teaching in higher education which was defined as instruction that transforms students' learning in terms of qualitative change, augmentation, and empowerment, or the creation of new knowledge (Nabaho, Aguti & Oonyu; 2019). Quality, according to the stage theory of higher education development, is defined as a change in the concept of education, an expansion of the function of education, a diversity of teaching purposes and methods, a change in the organization of the curriculum, teaching methods, admissions standards, and management (Zhang & An, 2010). The utilization of pedagogical strategies to achieve learning outcomes for students is

referred to as the quality of teaching (Cishe, 2014). The term "quality of teaching" refers to the viewpoints that teachers bring to the classroom, the pedagogical techniques they employ, and the learning environment in addition to the competency of the teachers (Hill, Charalambous and Kraft; 2012).

The concept of quality of teaching used in this study is taken from van der Scheer, Glas, and Visscher (2017), and it includes the following six scales: classroom management, clear and engaging instruction, adapting instruction, teaching learning strategies, and student engagement. Utilizing measures modified from Van de Grift's approved International Comparative Analysis of Learning and Instruction (ICALT) lesson observation tool, aspects of quality of teaching were measured (van de Grift,2007).

A friendly, upbeat, inclusive learning environment, encouraging strong teacher-pupil connections, and encouraging positive feedback were all considered indicators of a safe and engaging learning environment. The effectiveness of classroom management was evaluated based on the clarity of the rules and procedures, the ability to control disruptive conduct, and the organization and structure of the courses (Day, Sammons, Kington, Regan, Ko, Brown & Robertson, 2008). The effectiveness of the teacher's instructional strategies was evaluated in terms of how they connected their lessons to what the students already knew, clarified the material so that the students understood it, involved the students through assignments and activities, and gave feedback (Hattie & Timperley, 2007; Hollingsworth & Ybarra, 2009).

1.1.4 Contextual perspective. Universities in Uganda are dealing with a growing number of difficulties when it comes to performing their basic duties of

instruction, research, and community service. Studies show that the delivery of higher education in Uganda is gradually deteriorating in quality (NCHE, 2014). Research evidence (NCHE, 2014; Bunoti, 2012; Nabayego and Itaaga, 2014; Kasozi, 2005) indicates that Uganda's universities including KYU are characterised by inadequate library space, crowded classes, high teacher/ student ratios, delay in release of examination results, low research output and high workload for academic staff.

The Uganda Polytechnic Kyambogo (UPK), founded in 1928, the Institute of Teacher Education Kyambogo (ITEK), founded in 1986, and the Uganda National Institute of Special Education (UNISE), founded in 1988, were merged to form Kyambogo University (KYU), which was established by the Act of Parliament, namely, Universities and Other Tertiary Institutions Act (UOTIA), (2001). KYU became an independent University by the Act of Parliament in 2003 (UOTIA, Amendment, 2003) with powers to award its own degrees. KYU now consists of two schools and six faculties offering many programmes (Mugabi, 2012). With more than 21, 000 students enrolled, KYU was one of Uganda's oldest public universities (Agababyona, 2014). According to Trow's theory, any significant change in higher education has an impact on the standard of instruction (Liu & Mulinda, 2016). Massification may pose rising resource needs, including the need for adequate and suitable teaching resources that support the adoption of wide a range of teaching styles, flexible teaching styles, and enhanced technical resources (Machika et al., 2014). Therefore, the shift from elite to mass may have an impact on quality as well, which is crucial to the shift from elite to mass in and of itself. This impact on quality is not limited to an increase in the number of

people getting higher education (Lin2010). If research evidence (e.g. NCHE, 2014; Bunoti, 2012; Nabayego and Itaaga, 2014; Kasozi, 2005) indicates that Uganda's universities including KYU are characterised by inadequate library space, crowded classes, high teacher/ student ratios, delay in release of examination results, low research output and high workload for academic staff. Challenges faced by universities when not addressed can compromise their role in preparing and equipping graduates with skills and knowledge needed for social transformation, rendering it urgent for this study to examine the relationship between massification and the quality of teaching in Kyambogo University so that recommendations are suggested to address them and ensure quality teaching.

1.2 Statement of the Problem

Some studies have shown that massification of higher education may pose challenges on the attainment of learning outcomes and quality of higher education creating opportunities for improvement (Mok, Ke and Tian, 2022). With a strong conviction to transform the country and prepare its people to cope with the growing competition of the globalizing market, quality of teaching in HEI's has been the top agenda in various countries (Mok & Jiang, 2016). Higher education systems have experienced a transformation from elite to mass form, imposing great pressure on the resources and processes in higher education institutions (Chou & Li-Tien, 2012).

Research evidence (NCHE,2014, Nabayego 2014) affirms that HEI's in Uganda are typically budget constrained; ultimately resulting in inadequate resources, inadequate facilities and human resources which may compromise the

quality of teaching which may deprive the sector of its ability to play an effective role in the socio-economic development process of the country as envisaged. Similarly, Bunoti (2012) reported that lecturers in Ugandan universities delayed to mark students work, had low research output and this was attributed to high workload due to large class sizes (NCHE, 2014). It is against this background that this study was prompted to examine the effect of massification of Higher Education on quality of teaching at Kyambogo University. This study was prompted by the persistent criticism of graduates from Uganda's universities being of poor quality, with low research output and yet the universities were characterized as resource constraints (Bunoti 2012; Nabayego, 2014; NCHE 2014).

1.3 Purpose of the Study

The purpose of this study was to investigate the relationship between Massification of higher education and the quality of teaching in Kyambogo University.

1.4 Specific Objectives

The objectives of this study were:

(i) To examine the relationship between massification of higher education and classroom climate in Kyambogo University.

(ii) To establish the relationship between massification of higher education and classroom management in Kyambogo University.

(iii)To assess the relationship between massification of higher education and the teachers' adoption of good/ effective instructional strategies in Kyambogo University.

1.5 Research Questions

This study intended to answer the following questions:

(i) What is the relationship between massification of higher education and classroom climate in Kyambogo University?

(ii) How does massification of higher education relate with classroom management in Kyambogo University?

(iii)Does massification of higher education have a relationship with the teachers 'adoption of good/ effective instructional strategies in Kyambogo University?

1.6 Hypotheses

This study intended to test the following hypotheses:

(i) Massification of higher education has a statistically significant relationship with classroom climate in Kyambogo University.

(ii) Massification of higher education has a statistically significant relationship with classroom management in Kyambogo University.

(iii)Massification of higher education has a statistically significant relationship with the teachers' adoption of good/ effective instructional strategies in Kyambogo University.

1.7 Scope

1.7.1 Geographical Scope. Geographically, the study was conducted at Kyambogo University main campus, found in Kampala district. Kyambogo University is located in Kyambogo Hill, Nakawa Division just 8 Km to the east from Kampala city center along Jinja road. Kyambogo University was selected for this study due to its convenience to the convenience it offered the researcher in terms of accessibility since it was near for easy data collection. Besides that, Kyambogo University had a long history with part of it having been the Institute for teacher Education and therefore expected to have highly trained professional staff on matters regarding quality teaching which the main variable in this study was.

The merger of Uganda Polytechnic Kyambogo (UPK), founded in 1928, the Institute of Teacher Education Kyambogo (ITEK), founded in 1986, and the Uganda National Institute of Special Education (UNISE), founded in 1988, Kyambogo University (KYU) offered an ideal context to examine the capacity of emerging public universities to offer quality education and underlying factors that might influence it such as Massification among others.

1.7.2 Content Scope. In respect to content scope, the study was confined to the study variables; the dependent variable, namely, quality of teaching in university education, operationalized as classroom climate, classroom management and teachers adoption of good/effective instructional strategies; which were hypothesized to be impacted on by the independent variable, namely, massification of higher education which is conceptualized in terms of increasing student enrolment, access and diversity in Kyambogo University.

1.7.3 Time scope. In terms of time scope, the proposed study intended to use data pertaining to students admitted in Kyambogo University from its inauguration as an independent University in 2003. However, only the third year students who were admitted in the academic year 2018/2019 were sampled for the proposed study. This study preferred to use the third year students who had had an extended interaction with the lecturers over a number of course units and experienced some degree of awareness in relation to the dimensions of the quality of teaching, namely, classroom climate, classroom management and adoption of good/ effective instructional strategies in Kyambogo University. The third years also had some relevant information based on their extended stay in the university relating to massification in terms of increases of students on their programmes, adequacy of resources, facilities and access to study equipment.

1.8 Significance

This study examined experiences on massification and quality of teaching considered from a cross disciplinary perspective, seeking insights on this study variable and their interplay. This study will be of great benefit to a number of stakeholders including the following:

Institutions of higher learning: Practically the insights and findings from this study can be of great help to the managers and administrators in higher education settings. For example, the university administrators can benefit from the findings and recommendations of this study and the same would apply to policy agents including the MoES, and the universities governing councils among others.

They can get some evidence to guide them in policy formulation and make more informed decisions for better management and administration of their institutions.

Body of Knowledge: Theoretically the study engages conceptual debates underpinning quality teaching in higher education agenda as a function of Massification and frames the challenges and opportunities associated with it, taking into account political economy considerations like socio-economic development. Theoretically, this study further informs and encourages more studies on issues regarding Massification of higher education in developing countries; this is through its contribution to existing literature and body of knowledge, methodology and recommendations for future studies. Academic staff in HEI's and other researchers with interest in this study's variables can refer to the findings of this study for guidance.

The local and international community: This study contributes to the local and international community by fostering integration of international, intercultural and global dimensions into the purpose, functions and delivery of mass higher education in Uganda's universities in terms of harnessing technology for quality teaching, research and community service which can be strongly backed by theories and policies.

Funders of Higher Education: The findings from this study provide practical and useful insights for institutions and their supporters for funding partners to make informed financial decisions. Higher education is particularly resource intensive requiring strategic decisions on resource allocation for goal attainment and institutional efficiency. Therefore, the findings of this study come at the right time to provide the urgently needed guidance to offer deeper insights

that can encourage the funders of HEI's to make such important useful decisions to remit more resources in the contexts of massification of Higher Education

1.9 Conceptual Framework

The theorized effect of massification on the quality of teaching in university education was illustrated in the conceptual framework (Figure 1.1):

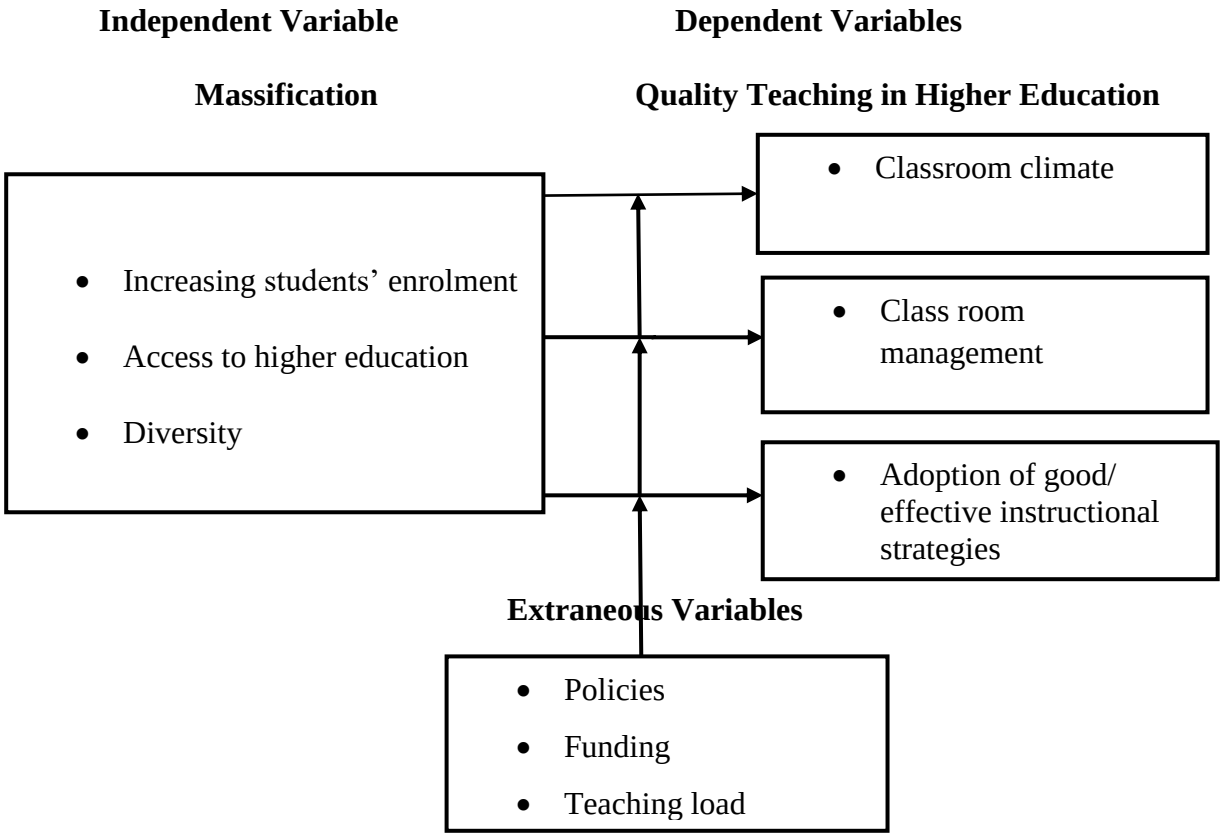


Figure 1.1:

Conceptual Framework illustrating the effect of massification on the quality of teaching.

Concepts adapted from; Trow, (1974), Mohamedabhai (2008), den Brok, Brekelmans, Van de Grift, (2007), Day et al., (2008), Hattie & Timperley, (2007) and Hollingsworth &Ybarra (2009).

The conceptual framework suggests that massification of education has an effect on the dimensions of quality teaching, namely, classroom climate, classroom management and adoption of instruction in HEI's. The conceptual framework postulates that the dimensions of Massification, namely, increasing students' enrolment, physical facilities staffing and Study equipment have an effect on the dependent variable which is the quality of teaching in totality or its dimensions which include classroom climate, class room management and adoption of instruction. However, the conceptual framework also suggests that the interaction between the study variables may be affected by some extraneous variable including policies, funding and teaching load among others. For example, good policies, increased funding and manageable workload in higher education institution could have the potential to improve the quality of teaching and attainment of educational outcomes. In summary, massification could pose challenges that can offer opportunities for improvement in higher education delivery.

CHAPTER TWO

REVIEW OF LITERATURE

2.0 Introduction

This chapter presents the literature review in two sub-sections, namely, the theoretical review and the review of related literature done in respect to the three objectives of the study.

2.1 Theoretical Review

The factors that affect the quality of instruction in educational situations can be explained using a variety of theories. Martin Trow's (1974) theory of massification of higher education, however, guided this study. The main idea advanced by the massification theory is that a variety of factors influence the quality of instruction and educational outcomes in higher education institutions. According to Martine Trow (1974) massification of higher Education is characterized by consistency of development in terms of resource allocation for the increasing student enrolment standardization, factor adaptability, serving, and variety is its criterion. The theory of massification of Higher education assumes more access to Higher education to all students, as the term "massification" suggests. This has an impact on the university's daily operations and means that, as a result of over-enrollment in universities, viewpoints, purposes, contents, structures, academic standards, functions, forms of establishing education, and management systems change significantly.

Trow categorized massification of higher education into three levels: elite, mass, and universal (Trow, 2000). The elite level is for forming the ruling class and preparing for elite roles, while the mass level is for skill transmission and preparing for a wider range of technical and economic roles, then the universal level for the adaptation of the entire population to society's rapid social and technological change (Trow, 2005). The three phases of massification demonstrate how everyone's access to higher education changes from an elite privilege to a mass right and then to a universal necessity (Marginson, 2017). The classification depends on how many students in the appropriate age group are enrolled in elite, mass, and universal higher education, with GERs below 15%, between 15% and 50%, and above 50%, respectively (Huang, 2011; Hui, 2009; Owuor, 2012; Songkaeo & Yeong, 2016; UNESCO, 2004; Trow, 1974). Trow (1974) emphasized that rising up a higher education level does not completely eliminate the preceding level; in other words, mass higher education might exist at the level of universal higher education (Marginson, 2017, Trow 1974).

According to Roberts and Ajai-Ajagbe (2013), massification of higher education offers a major advantage that every person must pursue. But since the beginning of the massification of higher education around the world, and particularly in Sub-Saharan Africa, the philosophy has faced many difficulties, such as the inability to meet rising demands for access, science and technology, equity, increased pressure on institutions of higher learning to raise more money, and the development of both competition and corporations in higher education.

Given how it has altered our knowledge of current higher education systems, the idea of the massification of higher education remains helpful and

relevant as an analytical tool in higher education (Scott, 2000). According to Scott (2000), the massification theory has the ability to anticipate the future and explains the irreversible move towards more stakeholder participation and wider access to higher education. Despite worries about its possible effects on academic quality and standards and financial restrictions, this expansion has proceeded. Additionally, the theory of mass higher education has drawn attention to the strong social pressures that have fueled expansion. Finally, the concept of mass higher education has changed in modern higher education contexts since it has impacted coherent and less coherent systems with diverse outcomes rather than just a dispersed collection of institutions and increased enrolments.

Massification theory has gained popularity for over 50 years since Trow (1974) first proposed it yet it is still useful in providing guidance to studies involving mass higher education contexts, especially those that place emphasis on the fundamental dynamics of expansion, the underlying social forces that are driving this expansion, and the necessity of redefining systems both in the developed and underdeveloped countries.

Therefore, this study considered the massification theory very relevant and suitable to explain the current trend of higher education expansion in the Ugandan HEI's, specifically with reference to Kyambogo University.

2.2 Review of Related Literature

2.2.1 Massification and classroom climate. Numerous research has looked at how massification affects the learning environment. For instance, Bunoti (2012) studied the quality of higher education in Uganda with the help of students from one

public institution and discovered that the lecture halls were too small for the number of students who periodically attend lectures while standing, with an overflow on the verandas. Additionally, the lecture halls lacked soundproofing, which frequently resulted in the cancellation of lectures due to intolerable loudness. A health risk is posed by the lecturers' usage of dusty chalk on chalkboards. Additionally, Bunoti (2012) found that if public address systems are present, they are unreliable due to power outages in courses with more than 500 students. The class discussions were expected to continue till 10:00 p.m. yet there were no backup generators to bridge the power outages. As a result, classes ended whenever the lights went off. Similarly, the challenges of traffic, a lack of teaching staff, inadequate facilities, and the perception of low-quality education that results all have an impact on classroom climate. However, Bunoti (2012) did not examine massification and its alleged consequences on the caliber of instruction in higher education settings in the context of Uganda, which this proposed study urgently needs to address.

Long-standing wisdom holds that having more students in a class degrades the conditions for learning (Cuseo, 2007; Ehrenberg, Brewer, Gamoran, and Willms; 2001). Large classes in particular are thought to be associated with poor student performance. Regarding instructional objectives and the standard of the educational experience, class size matters (Mwebi, 2015). Higher education's objectives go beyond rote memorization to encourage student participation and higher order cognitive skills like critical thinking and problem-solving, which are deep learning qualities. Here, class size plays an important role and can have an impact on how well the learning environment is run and how well students learn

(Cooper & Robinson 2000; Mulryan-Kyne, 2010). This advises that more research, beyond what has already been done by these earlier studies, be done on the impact of massification on the quality of teaching at Kyambogo University.

Tettey (2010) in his study titled challenges of developing and retaining the next generation of academics: deficits in Academic Staff Capacity at African Univ ersities found that lack of skilled teaching staff is a sign of poor instruction. For instance, by 2008, the proportion of academic employees at Kenyatta University with PhDs was 34%, compared to 66% with Masters-level qualifications (Tettey, 2010). Postgraduate courses were frequently taught by Master's degree holders, without reading or reference materials, or with exams scaled back to suit weaker students or shorter semesters. As a result, the growing number of students enrolling in universities would experience academic procedures of poor quality. The lack of qualified faculty in African universities could have an impact on the effectiveness of instruction; Kyambogo University should also look into this.

Setting up effective instruction and fostering strong teacher-student interactions through praise and feedback require creating a friendly, upbeat, and inclusive classroom environment (den Broket al, 2002). Similar to this, Muijs, Kyriakides, van der Werf, Creemers, Timperley and Earl (2014) established that factors affecting the quality of teaching include the atmosphere of work and discipline in the classroom, the amount of actual learning time, the opportunities for learning, the structured nature of learning, the feedback provided to students, and teachers' high expectations. According to Telli, Maulana and Helms-Lorenz, (2020) teacher behavior affects student learning and outcomes and impacts the effectiveness of instruction in learning contexts. NCHE (2014) found that HEIs in

Uganda are understaffed, and some hire academic staff that are under qualified and lack the ability to innovate and provide a positive learning environment for students. Investigation of the present initiatives to foster a supportive learning environment for the growing student enrollment at Kyambogo University is urgently needed, although past studies have not done so.

The evaluation of teaching effectiveness has been mostly based on research into successful classroom strategies and "what works" in the classroom (Reynolds, Sammons, De Fraine, Van Damme, Towsend, Teddlie and Stringfield (2014). A number of teacher behaviors that support student learning have been identified in research to identify effective teaching techniques (Hattie & Timperley, 2009; Muijs et al., 2014; Pianta & Hamre, 2009; Reynolds et al., 2014; Sammons, 1985; van de Grift, 2007). These falls into three categories that is fundamental to education (Day et al., 2008). First and foremost, creating a welcoming, upbeat, and inclusive classroom environment is crucial as well as, encouraging strong teacher-student interactions through praise and feedback (den Brok, et al. 2002). However, none of these previous studies examined massification in relation to classroom climate, its opportunities and challenges in the context of Kyambogo University which the current study examined.

2.2.2 Massification and classroom management. Studies that looked into how massification affected classroom management in various educational environments found a detrimental influence. Large classes, for instance, are a sign of massification, and this is reflected in how well students are taught and how they learn (Hornsby & Osman, 2014). Despite having less facilities and resources, institutions enroll a large number of students in programs. Higher education

institutions are experiencing an academic crisis as a result of a lack of academic personnel brought on by inadequate classroom management owing to massification. The lecturers are overwhelmed by student numbers and they have too much workload (Bloom, Canning, Chan and Luca; 2005). The current study intends to obtain and analyze in-depth information pertaining to the context of Kyambogo University in respect to institutional related massification and explore the interaction between it and classroom management strategies employed by the teachers, unlike the previous studies that used quantitative methods that are generalizable.

Similar to this, Bunoti (2012) found that students complain of bureaucratic tendencies in which getting one's concern addressed is a very drawn-out and frustrating procedure that they claim wastes a lot of valuable time. They often complain about crammed classes, which lead to pupils skipping class. Additionally, according to Bunoti (2012), bad record-keeping causes certain results to be lost, which leads to students having to retake exams, which is very upsetting for the students. Additionally, there is lack of secrecy; for example, outcomes are posted on notice boards. Additionally, when lecturers fail to provide pertinent material on time, students are dissatisfied with the information flow. Controlling behavior for large classes is so challenging and frustrating to the lecturers. Classroom management quality can be used to identify an effective teacher and quality teaching (van de Grift, 2007). Clear norms and routines, limiting disruptive behavior, and having organized and scheduled courses are all parts of effective classroom management (Day et al., 2008).

Competent teachers use emulation as a behavior management technique, foster peer learning, create pleasant learning environments in their classrooms, and encourage interdependent interactions in order to enhance learning and establish strong learning culture (Cishe, 2014). An effective teacher's top priority is to develop a method of instruction that stimulates students' minds and advances their education (Hattie and Timperly, 2007). An effective teacher effectively delivers the material (the organization of the teaching and learning process) and provides clear directions and justifications (Dey et al., 2008). Effective teachers focus on the important parts of the course, check for understanding, and ask lots of questions, according to Maulana, Helms-Lorenz and Van de Grift (2016)a typical lesson plan might include (for instance) visually appealing, mentally interesting, and timely exhibits. A competent teacher uses assessment techniques that are obviously intended to enhance student learning and direct pedagogical decisions and activities, such as asking open-ended and subject-related questions and giving regular, helpful feedback (Maulana et al., 2016). Although the tactics for instructors to use to ensure appropriate classroom management are emphasized in all of these studies, none of them describe the extent to which the teachers at Kyambogo University put these strategies into practice in the face of massification, as this study has done.

2.2.3 Massification and teachers' adoption of instruction in Higher education Institutions. According to research, massification has an impact on the innovation and adoption of instructional practices in the classroom. For instance, Bunoti (2012) found that the number of students admitted was out of proportion to the facilities offered in her study on the quality of higher education in Uganda. The

bulk of the books in the libraries are outdated, and they are too tiny for the number of students who use them. When assignments and tests are at their busiest and there is a shortage of space in the libraries, students frequently skip meals. Despite being relatively contemporary, there aren't enough computers for the number of students. One group of students studied IT (Information Technology) for an entire year in a theoretical setting without having the chance to use a computer. Additionally, the students claimed to have only intermittent internet connection. According to NCHE (2014), the academic staff also experienced inadequate facilitation and a shortage of space and equipment like laptops. This limited their ability to embrace new ideas and innovate. To determine the current status about Kyambogo University, this investigation was undertaken.

The teacher's method of instruction is a crucial sign of good instruction (Van der Scheer., Bijlsma and Glas; 2019). Students are engaged through assignments and activities, the lesson is connected to what they already know, the material is explained in a way that students can understand it, and feedback is given (Hattie & Timperley, 2007; Hollingsworth & Ybarra, 2009). These three characteristics of successful classes are supplemented by two teaching dimensions by van de Grift (2007). Effective teachers, according to van de Grift (2007), also impart learning strategies to their pupils. They encourage their students to think critically and learn about themselves (Arends, 2009). Then, instruction is broken down into manageable sections where professors present simplified problems, exhibit problem-solving techniques, and have students think aloud as they solve difficulties (Mwebi, 2015). Furthermore, van de Grift (2007) and Maulana et al., (2016) emphasize the value of tailoring teaching methods to the (many)

requirements of students in the classroom. Making sure that lessons have meaning for pupils is another characteristic of good lessons (Keuning & van Geel, 2016; Kyriakides, Campbell and Gagatsis; 2000). This entails that instructors establish specific lesson objectives, explain them to the students at the start of the lesson (what they are studying and why), ensure that all instructional activities connect to these objectives, and evaluate the objectives (Locke & Latham, 2002).

Nabayego and Itaaga (2014) discovered that the amount of interactive learning is very low, involving solely the usage of activities chosen and managed by lecturers, in their study on how university education in Uganda might be improved to produce graduates who are economically productive. In practically all of the chosen universities, the amount of student initiative and self-directed learning using activities based in the environment is insignificant, which is detrimental to the students' future roles and responsibilities at the workplace.

According to Altbach et al., (2017), higher education needs to be both diverse and unique. Higher education diversification opens up opportunities for more students in the same category to enroll (Unangst, 2017). Teicler (2008) states that there are both horizontal and vertical diversifications in diversification. While horizontal diversification refers to the unique knowledge profile, quality of teaching and learning, and problem-solving emphasis, vertical diversification distinguishes higher education based on quality, reputation, and anticipated standing of graduates. This prompts the development of novel approaches to student training, including online learning, remote learning, and the use of new technology to instruct students outside of traditional academic settings. Differentiation is a concept that refers to distinctions made between institutions of

higher learning according to their goals, methods of knowledge development, and methods of dissemination. Vertical and horizontal differences exist inside and across higher education institutions as a result of differentiation in higher education. Vertical differentiation is driven by the pressures of the labor market, whereas horizontal differentiation is driven by access issues. Vertical differentiation is based on the skills and competencies needed in the job market, while horizontal differentiation is dependent on the availability of higher education options and access to them (Altbach et al., 2017).

Massification has traditionally been viewed as problematic in light of research showing that the majority of students enter higher education contexts using learning techniques centered on memorizing of facts and the straightforward replication of knowledge, or so-called surface learning (Exeter, Ameratunga, Ratima, Morton, Dickson, and Hsu; 2010). Such students require instruction on how to develop the problem-solving and critical-thinking abilities necessary for an innovation economy and a knowledge society (Mwebi, 2015). Unfortunately, massification learning environments tend to favor didactic teaching methods, which are antithetical to this goal. When the quantity and quality of student-teacher interaction declines, as is common in big class settings, the performance of those students who depend on interaction for motivation is especially likely to suffer (Exeter et al., 2010; Mulryan-Kyne, 2010). Research demonstrates that when faced with huge classes, students also demonstrate poor levels of engagement with the subject matter, less dedication to the courses, and lower levels of motivation (Mulryan-Kyne, 2010). This shows that classroom settings with lots of students are not good for developing higher order cognitive skills.

However, it seems that massification of higher education is a trend that will continue. Discovering innovative solutions to the problems caused by the massification of higher education therefore requires finding adaptive instruction and seeking for examples of it.

We pose queries like, "How can higher education institutions in developed and developing nations convert this challenge into an opportunity?" How is excellent education, which is defined as encouraging the development of higher order cognitive abilities like critical thinking and problem solving, possible in an environment that does not support student engagement, motivation, or performance? Such inquiries necessitate both practical solutions and consideration of the philosophical implications of huge classes. There is currently a growing body of research that focuses on pedagogy adoption in higher education, particularly as it relates to developing nations (Hornsby, Osman and de Matos Ala. 2013). This is being done in order to take into account how innovation and adaptation in support of high-quality education are occurring across a variety of situations.

Marginson (2017) demonstrates how efforts to innovate and adapt in the face of massification may support student learning and guarantee high-quality instruction. Existing research on student learning offers some crucial insights that can help overcome the difficulties massification and teaching in large classes bring. For instance, student learning tactics might be modified to guarantee that a course is successfully completed (Mwebi, 2015). Encouragement is given to teachers' adaptability and resilience, and the significance of teaching and assessment procedures for improving student learning is emphasized (Exeter et al.

2010; Meyers and Nulty 2002; Mulryan-Kyne 2010). Student learning results and engagement are influenced by curriculum design, instructional strategies, and assessment (Mwebi, 2015). According to Meyers and Nulty (2002), learning environments must be built in a way that ensures students' adaptive reactions to the curriculum become coherent with the course's objectives in order to maximize the quality of their educational experience (Mwebi, 2015). As a result, issues related to the massification of higher education and large class teaching environments can be addressed, and quality education can be ensured, by focusing on the structure of the curriculum, the instructional strategies used, and the manner in which students are assessed (Meyers & Nulty, 2002).

2.2.4 Summary of literature Review and research Gaps. The literature review was conducted according to the objectives of the study. The literature reviewed based on past studies revealed that there were consistent findings establishing negative relationships between Massification of higher education and the dimensions of quality of teaching in contexts examined. The literature affirms that Massification had significant negative relationship with classroom climate, classroom management and adoption of effective instructional strategies respectively.

However, most of studies reviewed in the literature on the relationship between Massification and the dimensions of quality teaching, namely, classroom climate, classroom management and adoption of instruction in HEI's revealed some research gaps. For example, most of the studies reviewed were conducted in HEI's found in developed parts of the world other than Kyambogo University, which rendered a contextual gap for the current study to bridge. The literature reviewed also reveals that most of the studies on the relationship between

Massification and quality of teaching in HEI's were conducted several years back yet the levels of students' admission and resource allocation to Kyambogo University and policies could have changed over time. This creates temporal gaps that necessitate current studies like this one to be conducted at Kyambogo University.

Some of the studies reviewed used qualitative approach of which there findings could not be generalized to the context of Kyambogo University holistically. This created a methodological gap for the current study to cover by using the mixed methods approach.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter presents the design, study population, sample size and selection of sample, data collection methods and instruments including their quality. It also presents the procedures for collecting data and concludes with an elaboration of how data were managed.

3.1 Research Approaches and Design

The study used both quantitative and qualitative approaches. However, it mainly used the quantitative approach since variables were mostly measured numerically and analyzed using statistical procedures (Creswell, 2003). It was a co-relational cross-sectional survey design since it involved using a large number of respondents from whom data was collected once and for all at a given point of time (Sekaran, 2004)). Then it was co-relational because its focus was to establish the relationship between massification and the quality of teaching using co-relational measures (Amin, 2005). Qualitative techniques were also used to seek for in-depth responses about the variables of the study from a few respondents.

3.2 Study Population

The study targeted the population of all the finalist students from Kyambogo University. Kyambogo University is the second largest public university in Uganda with an enrolment of over 21,000 students spread across the six faculties and the two schools. The six faculties are namely; the Faculty of education,

Faculty of Special Needs and Rehabilitation, Faculty of Science, Faculty of Engineering, Faculty of Vocational Studies and Faculty of Arts and Social Sciences. The two schools are namely; school of management and entrepreneurship and the school of Graduate Studies. However, the students form the school of Graduate Studies was exempted from this study. The enrolment of Kyambogo University being the second largest in Uganda was used to explore the interaction between the independent variable, namely, massification and the dependent variable namely, quality of teaching. The study targeted the third-year students from each of the six faculties and the school of management and entrepreneurship from Kyambogo University as they were considered to have more information pertaining to the study variables due to their longer stay in the University. The ten staff members from the office of the Academic Registrar were also considered as they could have relevant information about the study variables.

3.3 Sample Size

The study targeted to obtain information about the population of all the third-year students from Kyambogo University, which implied that there was need to take a representative sample. The third-year student population of Kyambogo University being so large and heterogeneous made it imperative to take a sample. The sample size was determined using Krejcies and Morgans (1970) table for determining sample size for research studies. The sample size for the students in total was (S = 367) from a population of 20702 (NCHE, 2014). For the case of other categories of respondents, they were ten in total namely, staff members from Academic

Registrar's office. In the entire sample size included the 367 finalist students plus the ten staff making the total sample size of 377 respondents.

Table 3.1:

Sample Size

Category	Population	Sample Size	Actual Response	Sampling Technique
Students	20702	367	243	Convenience
AR's staff	58	10	10	Convenience
Total	**20760**	**377**	**253**	

Table 3.1 shows that from the student population of 20702 students, a sample of 367 was selected for this study and only 243 out of the 367 SAQ's administered were retrieved making a response rate of 243/367 (66.2%) while all the 10 out of 10 (100%) staff members sampled from the office of the academic registrar participated in the interview schedules. Table 3.1 therefore reveals that out of the initial sample or 367 students plus the 10 staff members from the academic registrar's office totaling to a study sample of 377, the actual number of respondents who took part in the study were 243 students plus the 10 staff members from the office of the academic registrar making a total response rate of 253/ 377 (67.1%). The quantitative data analysis in chapter four will therefore refer to the 243 students who responded to the SAQ's while the qualitative data analysis will refer to the 10 academic staff from the office of the academic registrar.

3.4 Selecting the Sample

Though this study had earlier planned to select the 367 students using probability sampling techniques this proved not feasible as the class lists were not availed to the researcher and could not be accessed despite several attempts. The students sample size for this study consisted of 367 students and the researcher used convenience sampling instead of the random sampling technique. The information concerning the numbers of students in sub-samples from the six faculties and the two schools was not accessed by the researcher, and this rendered convenience sampling the better option to obtain a representative sample for this study. The ten staff members from the Academic Registrar's office were selected by the researcher purposively due to the fact that they could provide relevant information about the number of students on each programme and the quality of teaching in relation to availability of resources in Kyambogo University given the nature of their work.

3.5 Sources of Data

The data sources included both primary and secondary source of data. Primary sources of data included the first-hand information obtained from the respondents. Secondary sources were also used including sources that provided relevant information about the study variables on second hand basis including records and website information referred.

3.6 Data Collection Methods

Given the fact that the study used both quantitative and qualitative approaches, and being a survey involving a large number of respondents, this study used the survey method of data collection and an interview method. The survey method enabled quick collection of quantitative data from the large number of respondents reducing time to be used and costs. Besides, the SAQ based survey method was suitable for the sampled respondents given that they are literate and could read and interpreted the items and provide required information by responding to each item by following the instructions given. Interview method was used to obtain qualitative information from the administrative staff that held relevant information in respect to the variables being investigated. The respondents interviewed were the ten staff members from the Academic Registrar's office.

3.7 Data Collection Instruments

The study used one self-administered questionnaire (SAQ) (Appendix A) and an interview guide for collecting data from the students and the ten staff members from the Academic Registrar's office respectively. The SAQ was divided into sections. Section A (Background variables) had six items. Section B (The IV, Massification of higher Education) was measured using seven items as adapted from Mohamedabhai (2008), Teichler (2008) and Wolter (2012). Section C (DV1, classroom climate), was measured using six items. Section D (DV2, classroom management) was measured using six items. Section E (DV3, teachers' instructional strategies) was measured using seven items. The items in sections B, C, D and E were all adapted from the validated International Comparative

Analysis of Learning and Instruction (ICALT) lesson observation instrument by van de Grift (2007) and rated by respondents using a five-point Likert scale ranging from 1(Strongly disagree), 2(Disagree), 3(Neutral), 4(Agree) to 5(Strongly agree). Interview guide were used to obtain in-depth responses from the ten staff members from the Academic Registrar's office on the study variables for triangulation purposes and to minimize any instances of bias from one source of data. The interview guide was organized in sub-sections according to the study variables. Section A had 02 items seeking for background information about the respondent, Section B had 06 items on massification which was the dependent variable, while section C had 04 items examining classroom climate, then section C had 03 items on classroom management whereas section D had 04 items on teachers adoption of instructional strategies/ All the items in section B through C of the interview guide were open ended since they were intended to solicit for in-depth information about the study variables.

3.8 Quality of Research Instruments

3.8.1 Validity. This is how accurately research tools measure what they are meant to measure (Oso & Onen, 2008). The validity of the items in the SAQ and the interview guide was ensured by making each of the items relevant according to the study's conceptual framework (Figure 1.1). The supervisors helped to validate each of the items in the tools, by checking their relevance, wording and clarity. The researcher then calculated the content validity index. As advised for survey studies, the instrument was changed until the content validity index reached at least 0.7 (Amin, 2005). The validity of each of the constructs in this study was

established by computing the content validity index (CVI) using the items on SAQ and interview guide respectively. According to Amin (2005), content validity index can be computed using the formulae;

$$\text{Content Validity Index (CVI)} = \frac{\text{Number of items declared valid}}{\text{Total number of items}}$$

The content validity index for each of the constructs on the SAQ was established using formula above and the pertinent CVIs for the constructs is presented in Table 3.2.

Table 3.2:

Validity statistics for self-administered questionnaire constructs

Variable/ Construct	**Items rated valid**	**Total number of items**	**CVI**
Massification	07	08	0.87
Classroom Climate	05	06	0.83
Classroom Management	05	07	0.71
Teachers Instructional Strategies	16	20	0.80

The CVI for each of the variables/ constructs was well above 0.7 as recommended for survey studies (Amin, 2005). The content validity index for each of the constructs suggests that the questionnaire was valid and could be used for this study.

The content validity index for each of the constructs on the interview guide was established using formula above and the pertinent CVIs for the constructs is presented in Table 3.3.

Table 3.3:

Validity Statistics for Interview Guide Constructs

Variable/ Construct	Items rated valid	Total number of items	CVI
Massification	04	06	0.83
Classroom Climate	03	04	0.75
Classroom Management	02	03	0.66
Teachers Instructional Strategies	03	04	0.75

The CVI for each of the variables/ constructs was when rounded off was above 0.7 as recommended for social research studies (Amin, 2005). The content validity index computed using items for each of the constructs suggests that the interview guide was valid and could be used for this study.

3.8.2 Reliability of Instrument. According to Barifaijo, Basheka and Oonyu (2010), reliability is the consistency of measurement, or the extent to which an instrument measures the same way each time it is used under the same circumstances. This ensures consistent measurement over time and across the various items in the instrument (Sekaran, 2004). In other terms, a research instrument's consistency in producing results or data after numerous trials is measured by its reliability (Mugenda & Mugenda, 2003). To demonstrate the level of consistency of the intended instrument, a pilot study was conducted. The Cronbach alpha method, computed with SPSS, was used to assess the reliability of

the instruments for multi-item variables. For each multi-construct, the instrument achieved alpha values that were at least above 0.5, which is the ideal reliability value for social research (Sekaran, 2004). Table 3.4 displays relevant findings.

Table 3.4:

Reliability Statistics

Variable	**No. of items**	**Cronbach's Alpha**
Massification	08	0.738
Classroom Climate	06	0.774
Classroom Management	07	0.706
Teachers Instructional Strategies	20	0.748

According to Table 3.4, all constructs had their Cronbach alpha values above 0.5 for example massification (0.738), classroom climate (0.774), classroom management (0.706) and teachers' instructional strategies (0.748). This suggests that questionnaire was highly reliable.

The reliability of the qualitative items on the interview guide were incrementally established by making clarifications during the interview process and tightening the rigor with focus on study variables using relevant probing questions where necessary.

3.9 Procedure for Collecting Data

Once the research proposal went through the approval procedure, the relevant authorities at KYU issued an introductory letter (Appendix A) and granted

permission for data to be collected for this study during field research. On the basis of that letter, the Deans of the six faculties and the school of management and entrepreneurship were approached and notified that permission had been granted that the research be conducted in their respective academic units. The respondents were approached and requested to take part in the study. The self-administered questionnaires were distributed to the third year students during their lectures. Also, Interviews were scheduled and conducted with the relevant staff in the office of the Academic Registrar at Kyambogo University. The responses were properly recorded and transcribed in the interview scripts.

3.10 Data Management

First all the data collected was processed before analyzing them. Data processing involved coding before entering them into the computer for storage. Summary frequency tables and statistics for background variables on respondents were generated. Data was edited to remove errors. The data was analyzed using both descriptively and inferentially. Descriptive data analysis was done by computing relative frequencies (percent) from the frequency tables. Secondly, descriptive statistics especially the means were established on each numerical variable, this stage of data analysis was at the Univariate level. Inferential data analysis was then used to test the hypotheses. At the bivariate level each of the three hypotheses was tested by correlating the numerical independent variable, namely, Massification of higher education, at a time with each of the three dependent numerical variables, namely, learning climate, classroom management and teachers' adoption instructional strategies respectively. Pearson's linear co-relation coefficient

(PLCC) and regression analysis were used to test the hypotheses at the bivariate level. Finally, each of the three numerical dependent variables was regressed on the independent variable, namely, Massification. This was used to rank order the in terms of its impact on each of the three dependent variables, namely, learning climate, classroom management and teachers' adoption of instructional strategies respectively. The regression analysis test was used to conduct the multi-variate analysis. The Statistical Package for Social Scientists (SPSS) was used to facilitate all the above tests. The qualitative data that was obtained through the interview guides was analyzed by transcribing the responses from the interview scripts using an analytical framework that was developed using both deductive and inductive strategies. Guided by the theoretical framework explaining the impact of Massification on the aspects of quality teaching treated as dependent variables, broad themes were identified from the responses. The broad themes identified were the basis for drawing conclusions and triangulation of qualitative data with quantitative data.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.0 Introduction

This chapter presents the description of background of respondents, findings on the independent and dependent variables and ends with testing of pertinent hypotheses.

4.1 Response Rate

The study targeted a sample of 367 third year students from Kyambogo University and 10 staff members from the office of the academic registrar making a total sample size of 377 respondents who were expected to take part in this study (Table 3.1). However, after distributing all the 367 self-administered questionnaire to the finalist students at KYU, only 243 of them were retrieved making their response rate 243/367 (66.2%) while all the 10 staff members from the academic registrar's office took part in the interview s scheduled with each of them making the overall response rate 253/ 377 (67.1%) which was reliable enough to provide data for analysis in this study. Therefore, the quantitative data analysis in this chapter refers to the 243 students who responded to the SAQ's while the qualitative data analysis will refer to the 10 academic staff from the office of the academic registrar.

4.2 Background Variables

This study sought for information on the respondents' background variables. Because it would make it easier to assess whether the data gathered was pertinent to the research population, it was anticipated that this information would be useful to the investigation. The distribution of responders by age, sex, academic program, admittance, and faculty is shown in this subsection. All the background variables were applicable for distribution of student respondents while only sex and gender applied to the staff from the academic registrant's office whereas academic programme, admittance and faculty only applied to the students.

Table 4.1:

Distribution of Respondents by Age

Sex	**Frequency for students**	**Percent of staff members**	**Frequency for staff members**	**Percent of students**
20 – 25	201	82.7	00	0.0
26 – 30	42	17.3	02	20.0
31 – 35	0	0.0	03	30.0
35 +	0	0.0	05	50.0
Total	**243**	**100.0**	**10**	**100.0**

Source: Field data, 2021

The age distribution of the student respondents according to Table 4.1 reveals that the majority 201 (82.7%) were in the age range 20 – 25, followed by those in the age range of 26 - 30 who were 42 (17.3%) of the respondents, while none of them were in the age range of 31 - 35 and 35+ which each had 0 (0.0%) of the respondents respectively. The age distribution for the staff members from the

Academic registrar's office according to Table 4.1 was that 02 (20.0%) of them were aged 26 – 30 years followed by 03 (30.0%) of them who were aged 31 -35 years then 05 (50.0%) of them who were aged 35 years and above.

Table 4.2:

Distribution of Respondents by Sex

Sex	**Frequency of students**	**Percent for students**	**Frequency of staff members**	**Percent for staff members**
Male	100	41.2	04	40.0
Female	143	58.8	06	60.0
Total	**243**	**100.0**	**10**	**100.0**

Source: Field data, 2021

Table 4.2 shows that the majority 143(58.8%) of the respondents were female students as compared to the minority 100 (41.2%) of them who were male students. This distribution of the respondents suggested that there was disparity in terms of access to education for the female and male students to Kyambogo University which could also have negative effects on the intended opportunities offered by Kyambogo University as assumed by the Massification theory. Table 4.2 reveals that the majority 06(60.0%) of the staff from academic registrar's office were females while 04(40.0%) of them were males.

Table 4.3:

Distribution of Respondents by Study Session

Programme	Frequency	Percent
Day	147	60.5
Evening	80	32.9
Distance	13	5.3
Others	03	1.2
Total	**243**	**100.0**

Source: Field data, 2021

The majority 147 (60.5%) of the respondents according to Table 4.3 were from the day Session followed by those on the evening session who were 80 (32.9%) of the respondents then followed by 13 (5.3%) who were on the distance learning session while those on other sessions were 03 (1.2%) of the respondents. This distribution of respondents suggests that the larger percentage of students in Kyambogo University is on day programmes and most likely day students are not residential.

Table 4.4:

Distribution of Respondents by Admission

Programme	Frequency	Percent
Public	117	48.1
Private	126	51.9
Total	**243**	**100.0**

Source: Field data, 2021

From Table 4.4, the majority 126 (51.85%) of the respondents were admitted on private basis meaning they pay their tuition from private funds, while 117 (48.1%)

of them were admitted on public basis meaning their tuition is paid for from public funds. The distribution of respondents suggests that admissions of students to Kyambogo University are multifaceted with a number of strategies used were diversified and could promote massification elements.

Table 4.5:

Distribution of respondents by Faculty/ School

Programme	**Frequency**	**Percent**
Education	51	21.0
Special Needs	55	22.6
Science	23	9.5
Engineering	18	7.4
Vocational studies	22	9.1
Arts and Social Sciences	28	11.5
School of Management and Entrepreneurship	46	18.9
Total	**243**	**100.0**

Source: Field data, 2021

The majority of the respondents 55(22.6%) were from the Faculty of Special Needs followed by the Faculty of Education with 51(21.0%), then the School of Management and Entrepreneurship follows with 46(18.9%) of the respondents. The Faculty of Arts and Social Sciences contributed 28(11.5%) of the respondents, followed by Faculty of Science with 23(9.3%) of the respondents then faculty of Vocational Studies follows with 22(9.1%) of the respondents followed by Faculty of Engineering with 18(7.4%) of the respondents.

4.2 Description of the Independent Variable: Massification of Higher Education

The independent variable, massification of higher education was measured using eight quantitative items. The respondents were asked to rate massification levels at KYU using a five-point Likert scale ranging from 1= Strongly disagree, 2=Disagree, 3= Undecided, 4=Agree, 5=Strongly agree. Table 4.6 presents pertinent frequency tables:

Table 4.6:

Respondents' Rating on Massification of Higher Education in KYU

Indicators of Classroom Management	Strongly disagree	Disagree	Undecided	Agree	Strongly agree	Mean
B1. KYU has experienced increased enrollment since I joined my studies	6 (2.5%)	44 (18.1%)	67 (27.7%)	77 (49.2%)	49 (20.2%)	3.5
B2 There is increase in both human resources and study resources such as computers, textbooks over the years.	00 (0.0%)	17 (7.0%)	85 (35.0%)	101 (41.6%)	40 (20.2%)	3.7
B3. KYU has adequate facilities for the increasing number of students	3 (1.2%)	17 (7.0%)	90 (37.0%)	104 (42.8%)	29 (11.9%)	3.6
B4. There is equitable access to study materials and resources to all students at KYU	6 (2.5%)	13 (5.3%)	83 (35.8%)	104 (42.8%)	35 (14.4%)	3.6
B5. KYU has an overwhelming number of students admitted on its programmes	00 (0.0%)	28 (11.5%)	87 (35.8%)	83 (34.2%)	45 (18.5)	3.6
B6. The course I am doing is marketable in the job market	00 (0.0%)	18 (7.4%)	91 (35.8%)	84 (34.6%)	50 (20.6%)	3.7
B7. The course I am doing is my first priority choice	00 (0.0%)	18 (7.4%)	81 (33.3%)	87 (35.8%)	57 (23.5%)	3.8
B8. The lecturers at KYU have enough time to attend to all their students learning needs	00 (0.0%)	11 (4.5%)	62 (25.5%)	123 (50.6%)	47 (19.3%)	3.9

Source: Field data, 2021

According to Table 4.6, the majority of the respondents 126(51.9%) at least agreed on the item that, "*KYU has experienced increased enrollment since I joined my studies",* while 67(27.6%) of them were neutral as compared to 50(20.6%) of them who disagreed on that item. This was good rating of the item which was also supported by the high mean value of 3.5 confirming that the majority of the respondents accepted that there was an increase in the student enrollment at KYU.

Concerning the item that, *"There is increase in both human resources and study resources such as computers, textbooks over the years*". Table 4.6 shows that the majority 141 (58.1%) of the respondents agreed on that item while 85 (35.0%) of them were neutral on that item in comparison to the minority 17 (7.0%) of them who disagreed on that item. This item had good rating also confirmed by the high mean value of 3.7 indicating that most of the respondents expressed the view that there was an increase of both human and study resources at KYU during the period of their studies.

On the item that, *"KYU has adequate facilities for the increasing number of students*", Table 4.6 reveals that the majority 133 (54.7%) of the respondents agreed on that statement while 90 (37.0%) of them were neutral as compared to the 20 (8.2%) of them who disagreed on that same statement. The item was rated well by most of the respondents as confirmed by the high mean value of 3.6 indicating that KYU had adequate facilities at least for the number of students admitted.

From Table 4.6 the majority 139 (57.2%) of respondents agreed on the item that, *"There is equitable access to study materials and resources to all students at KYU",* while 85 (35.0%) of them were neutral on that item as

compared to 19 (7.8%) of them who disagreed on that statement. The high mean value of 3.6 confirms the good rating of the item suggesting that most of the respondents accepted that there is equitable access to study materials to all students of KYU which could enable them to study well.

About the item that, *"KYU has an overwhelming number of students admitted on its programmes",* Table 4.6 revealed that the majority 128 (52.7%) of the respondents at least agreed on that statement while 87 (35.8%0 of them were neutral on that item as compared to 28 (11.5%) of them who disagreed on that item. The high mean value also supported the good rating of the item confirming that most of the respondents expressed that KYU has an overwhelming number of students admitted on its programmes.

Table 4.6 shows that 134 (55.2%) of the respondents at least agreed on the item that, *"The course I am doing is marketable in the job market*", while 91 (37.4%0 of them were neutral on that statement as compared to the 18 (7.45) of them who disagreed on that item. The high mean value confirmed the good rating of the item indicating that the majority of the respondents were doing courses that felt to be marketable in the current job market. Table 4.6 also reveals that 144 (59.3%) of the respondents agreed on the item that, *"The course I am doing is my first priority choice"*, while 81 (33.3%) of them who were neutral on that statement as compared to 18 (7.1%) of them who disagreed on that item.

Finally, concerning the item that *"The lecturers at KYU have enough time to attend to all their students' learning needs in their course units*", Table 4.6 reveals that 170 (69.9%) of the respondents agreed on that item, while 62 (25.5%) of them who were neutral as compared to 11 (4.5%) of them who disagreed on that

item. The high mean value of 3.9 confirms that most of the respondents accepted that the lecturers at KYU have enough time to attend to their students' learning needs in their different course units.

However, an average index was computed in order to establish the general picture on how the respondents rated the independent variable, Massification of higher education in Kyambogo University. The average index was generated using the SPSS and the pertinent statistics are presented in Table 4.7.

Table 4.7:

Average index on Massification of higher Education at KYU

Descriptives			Statistic
Standard Error			
Massification of	Mean		3.65
.034			
higher Education	95% Confidence	Lower Bound	3.59
	Interval for mean	Upper Bound	3.72
	5% Trimmed Mean		3.66
	Median		3.63
	Variance		0.28
	Std. Deviation		0.53
	Minimum		2.25
	Maximum		5.00
	Range		2.75

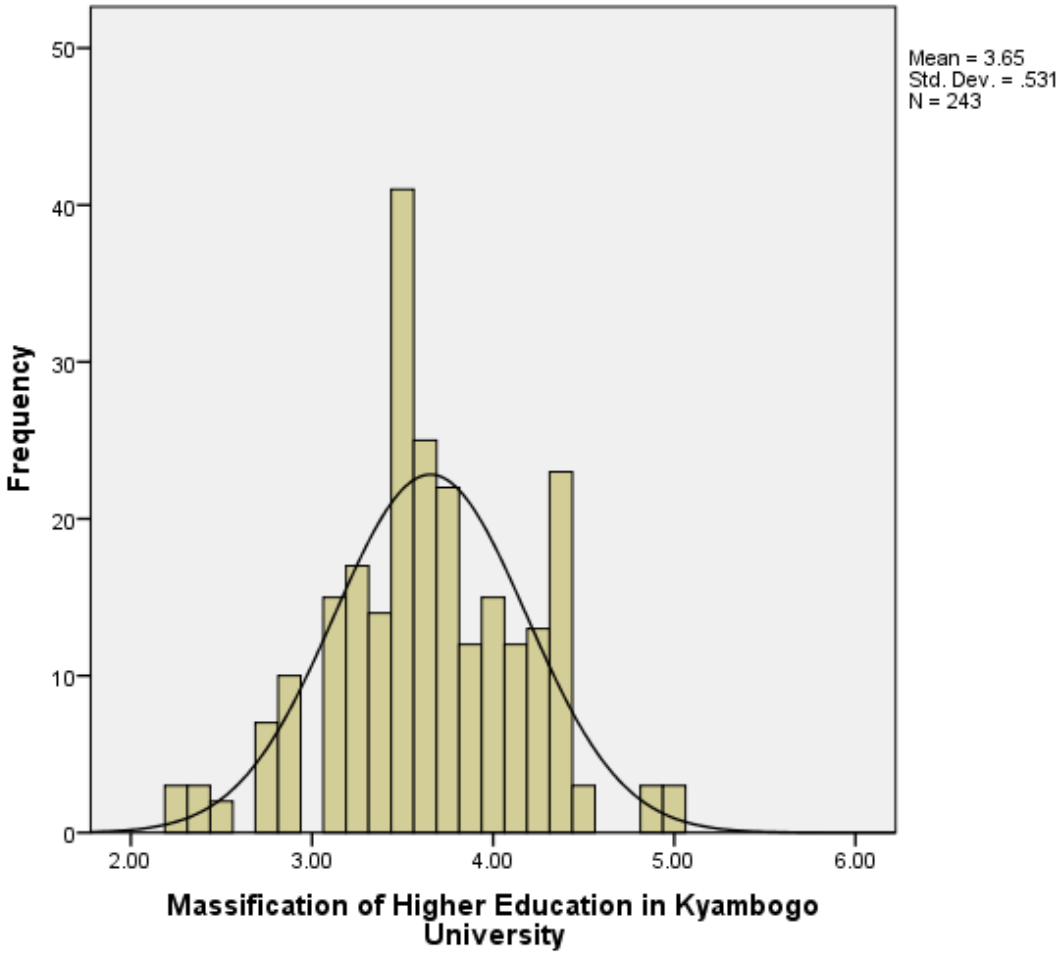
Source: Field data, 2021

From Table 4.7, the rating of massification high rating as suggested by the mean of 3.65 with confidence interval of 3.59 to 3.72 at 95% confidence interval. This suggested that most respondents expressed that there was massification of higher education in Kyambogo University. However, Table 4.7 reveals that some of the

respondents disagreed most items on massification of higher education at Kyambogo University as confirmed by the minimum of 2.25 while others rated strong agreement as confirmed by the maximum of 5.00. The range, 2.75 suggested that there was disparity in scoring by the respondents. The suggested normal distribution of the rating on massification was confirmed using the histogram in Figure 4.1.

Figure 4.1:

Histogram showing the distribution of the rating of Massification of Higher Education in Kyambogo



Source: Field data, 2021

The qualitative data obtained through the interviews with the members of staff from academic registrar's office also supported the negatively skewed distribution of the rating of massification that indicated disparity in rating.

Some of the positive responses on the item that;

> "In your view how do you rate the capacity at which Kyambogo University is operating" were as follows: "It is just operating at average"; "Below capacity"; "just within its capacity".

The negative responses from the interviewees from the office of the Academic Registrar include the following: *"Kyambogo University is operating above capacity"*.

On the item that "*What is your overall view in respect to the diversity and relevance of the courses offered at Kyambogo University*" the emerging responses that were positive on that item included the following:

> *"The courses offered by Kyambogo University are relevant"; "The courses offered by Kyambogo University are very relevant"; "Kyambogo University offers a wide range of courses that are very relevant to the needs of society"; "The courses are marketable"; "Most of the courses are relevant"*

However, some of the negative responses from the interviewees from the office of the Academic Registrar on this item were as follows:

> *"Some of the courses offered by Kyambogo University are not marketable and do not attract A-level entrants, Kyambogo University needs to focus on courses such as medicine, law and more graduate programmes".*

Concerning the item that; *"Do you believe that most programmes are operating to their full capacity or some are below while others are above their capacity in terms of human resources and facilities",* some of the positive responses were as follows: *"The courses are operating on average capacity"; "Some of the courses at Kyambogo University are operating to their full capacity"*

However, some of the negative responses on this item were as follows:

> *"Most of the courses at Kyambogo University were not operating to their full capacity due to understaffing"'; "The courses operate below capacity here with some courses having very few students"; "Averagely operating below capacity though the facilities are there"; "Some are operating below their capacity"*

For the item that *"In your opinion what should Kyambogo University do to address the increasing demand for higher education*", the emerging themes from the responses that were positive included the following:

"Improve the overall budget to support human resources and infrastructure development"; "Start programmes that are attractive but missing in the university such as medicine and law among others"; "Improve the infrastructure"; "Open up more study centers across the country and outside Uganda"; "Develop more infrastructure and increase on its human resources"; "Improve on the learning environment"; "Advertise and extend career guidance to schools"; "Strengthen the faculties and put more human resources there".

In respect to the item that *"Do you think Kyambogo University is able to meet the educational needs of the students it admits on its various programmes, and if no explain why you think so"*, the emerging themes from the responses were as follows:

"Kyambogo University is able to meet the educational needs of the students it admits on its programmes and this is explained by the high graduation rates"; "Kyambogo University meets the needs of its students".

However, some of the responses on this item were negative and these included the following:

"Kyambogo University does not meet the educational needs of students because the facilities are inadequate"; "No, Kyambogo University lacks the laboratories, workshops and equipment to meet students' needs especially in practical work and students have to go

elsewhere to do their practice"; "The budget and funds allocated to Kyambogo University do not enable it to meet the students' needs"

For the item that *"How would you rate the level of market performance of the Programmes offered by Kyambogo University in the job market",* the emerging themes from the qualitative data included the following:

"The programmes are very marketable"; "Some programmes are marketable like education, Social Sciences and Engineering among others"; "They are highly marketable"; "Highly demanded in the market"; "Very marketable"

However, some of the negative responses included the following:

"Some of the courses are performing poorly in the job market"; "The students face under employment or unemployment after their studies due to the mismatch of market driven courses from Kyambogo University"

4.2.1 Description of the classroom climate in Kyambogo University. The first objective in this study was to examine the relationship between massification of higher education and classroom climate in the different faculties in KYU ant it was measured using six quantitative items. The finalist Bachelor's degree students of KYU in their different faculties were asked to rate learning climate at KYU using a five-point Likert scale ranging from 1 = Strongly disagree, 2 = Disagree, 3 =

Undecided, 4 = Agree, 5 = Strongly agree. Table 4.8 presents pertinent frequency tables.

Table 4.8:

Respondents' Rating on classroom climate in KYU

Indicators of Classroom Management	Strongly disagree	Disagree	Undecided	Agree	Strongly agree	Mean
C1. My lecturer is nice to me when I ask questions	05 (2.1%)	21 (8.6%)	63 (25.9%)	97 (39.9%)	57 (23.5%)	3.7
C2. I like the way my lecturer handles me when I need help	04 (1.6%)	12 (4.9%)	64 (25.9%)	97 (39.95)	66 (27.2%)	3.9
C3. My lecturer wants me to do well at university	00 (0.0%)	09 (3.5%)	75 (30.9%)	112 (46.1%)	47 (19.3%)	3.8
C4. When I am sad or angry my lecturer helps me to feel better	16 (6.6%)	10 (3.5%)	75 (30.5%)	92 (46.1%)	59 (24.3%)	3.7
C5. My lecturer seems to know if something is bothering me	11 (4.5%)	12 (4.9%)	83 (34.2%)	108 (44.4%)	29 (11.9%)	3.5
C6. I like this programme.	02 (0.8%)	09 (3.7%)	73 (30.0%)	90 (37.0%)	69 (28.4%)	3.9

Source: Field data, 2021

From Table 4.8 the majority 154 (63.4%) of the respondents agreed on the item that, "My lecturer is nice to me when I ask questions", while 63 (23.9%) of them were neutral on that item as compared to the 26 (10.7%) of them who disagreed on that item. The item rating was good as confirmed by the high mean value of 3.7 indicating the most of the respondents accepted that their lecturers were nice to them when they asked questions during the teaching and learning situation.

Concerning the item that, *"I like the way my lecturer treats me when I need help"*, Table 4.8 shows that the majority 163(67.1%) of the respondents agreed on that item while 64(26.3%) of them were neutral on the same statement as

compared to the 16(6.5%) of them who at least disagreed on that item. The high mean value of 3.9 supported the good rating of the item confirming that the majority of the respondents accepted to being treated well by their lecturers in their classrooms.

About the item that *"My lecturer wants me to do well at the university"*, Table 4.8 reveals that the majority 159 (65.4%) of the respondents agreed on that item while 75 (30.9%) of them were neutral on that same statement as compared to 9(3.7%) of them who disagreed on that item. The item rating by the respondents was good and this is also confirmed by the high mean value of 3.8 indicating that most of the respondents expressed their awareness that their 'lecturers' wanted them to do well while at the university.

Table 4.8 also shows that the majority 15 (62.2%) of the respondents agreed on the item that, "When I am sad or angry my lecturer helps me to feel better", while 66(27.2%) of them were neutral on that statement as compared to 26(10.7%) of them who at least disagreed on that item. The respondents rated the item well also confirmed by the high mean value of 3.7 indicating that most respondents held the view that their lecturers helped them to feel better when they are sad or angry over something.

For the item that "My lecturer seems to know if something is bothering me", Table 4.8 shows that the majority 137(56.3%) of them agreed on this item while 83(34.2%) of them who were neutral on this item as compared to the 23(9.4%) of them who disagreed on that item. The high mean value of 3.5 also supported this finding confirming that most of the respondents accepted that their lecturers always seemed to know if something was bothering them.

Finally, Table 4.8 reveals that the majority 159(65.4%) of the respondents agreed on the item that “I like this class”, while 73(30.0%) of them were neutral on that item as compared to the 11(4.5%) of them who at least disagreed on that item. The high mean value of 3.9 also supported this finding where most of the respondents liked their classes.

In order to get an overall view on how the respondents rated classroom climate in Kyambogo University an average index was computed using SPSS and the pertinent statistics are presented in Table 4.9.

Table 4.9:

Descriptive statistics on Average index of Classroom Climate in KYU

Descriptives	**Statistic**	**Standard Error**	
Classroom Climate	Mean	3.76	.034
in Kyambogo University	95% Confidence	Lower Bound	3.69
	Interval for mean	Upper Bound	3.82
	5% Trimmed Mean		3.75
	Median		3.83
	Variance		.28
	Std. Deviation		.53
	Minimum		2.50
	Maximum		5.00
	Range		2.50

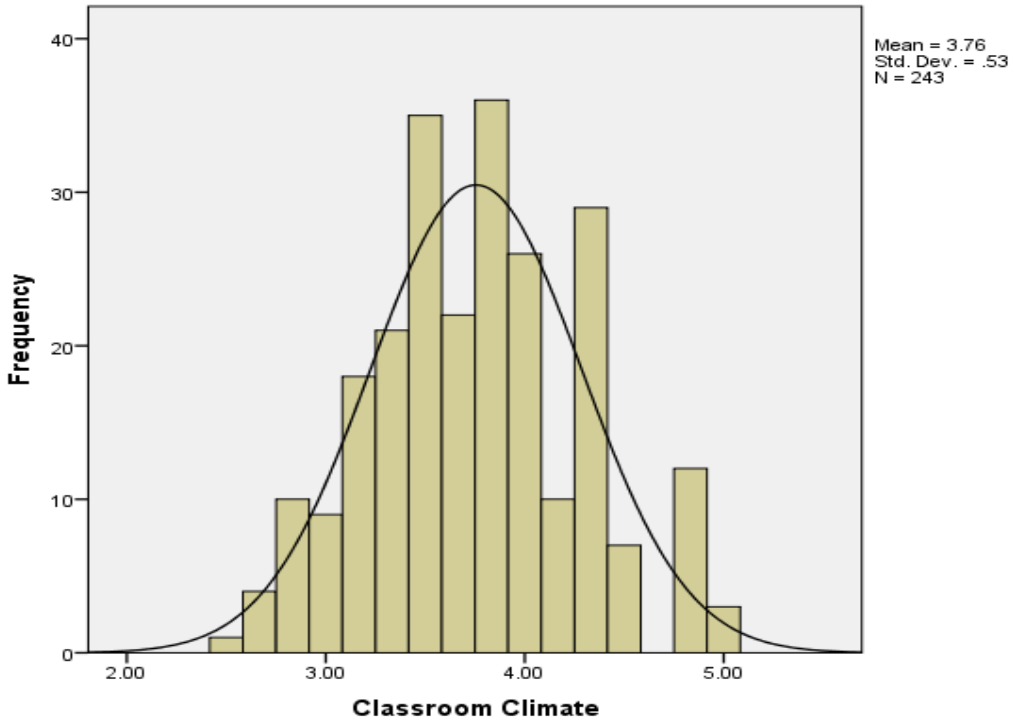
Source: Field data, 2021

According to Table 4.9, the computed average index on the rating of classroom climate had a mean value of 3.76 with confidence interval of 3.69 to 3.82 at 95% confidence interval. This suggested that most respondents expressed that the lecturers in Kyambogo University ensured good classroom climate. However, Table 4.9 reveals that some of respondents disagreed on some of the items about

classroom climate in Kyambogo University confirmed by the minimum of 2.50 while others rated strong agreement indicated by the maximum of 5.00. The range, 2.50 suggesting that there was disparity in scoring by the respondents. The suggested normal distribution of the rating on classroom climate was confirmed using the histogram in Figure 4.2:

Figure 4.2:

Histogram showing the normal distribution of the rating of classroom climate in Kyambogo University



Source: Field data, 2021

The histogram (Fig. 4.2) confirms that there was disparity in the way the respondents treated the variable. Figure 4.2 shows that some respondents expressed agreement while others expressed disagreement on the items used to measure classroom climate at KYU.

4.2.2 Description of classroom management in Kyambogo University. The second objective was to examine the relationship between massification of higher education and effective Classroom Management in the different faculties in KYU and was measured using seven quantitative items. The finalist Bachelor's degree students of KYU in their different faculties were asked to rate Classroom Management at KYU in relation to massification of higher education using a five-point Likert scale ranging from 1 = Strongly disagree, 2 = Disagree, 3 = Undecided, 4 = Agree, 5 = Strongly agree. Table 4.10 presents pertinent frequency tables.

Table 4.10:

Respondents' Rating on Classroom Management in KYU

Indicators of Classroom Management	Strongly disagree	Disagree agree	Undecided	Agree	Strongly	Mean
D1.We start the lectures on time	2 (0.8%)	39 (16%)	77 (31.7%)	81 (33.3%)	44 (18.1%)	3.5
D2. When my lecturer explains something, it takes long time before everybody is listening	3 (1.2%)	33 (13.6%)	82 (33.7%)	86 (35.4%)	39 (16.0%)	3.5
D3. I know when I can ask my lecturer questions during work time	8 (3.3%)	17 (7.0%)	75 (30.7%)	100 (41.2%)	43 (17.7%)	3.6
D4. Our lecture room is neat and tidy	30 (12.3%)	36 (14.8%)	86 (35.4%)	68 (28.0%)	23 (9.5%)	3.1
D5. Everybody pays attention when my lecturer explains something	2 (0.8%)	13 (5.3%)	91 (37.4%)	117 (48.1%)	20 (8.2%)	3.6
D6. Everybody works hard in our class	3 (1.2%)	15 (6.2%)	78 (32.1%)	118 (48.6%)	29 (11.9%)	3.6
D7. Other course mates disturb me when we work individually	11 (4.5%)	32 (13.2%)	60 (24.7%)	102 (42.0%)	38 (15.6%)	3.5

Source: Field data, 2021

Table 4.10 shows that the majority 125(51.4%) of the respondents agreed on the item that *"We start the lectures on time",* while 77(31.7%) of them were undecided on that item as compared to 41(16.8%) of them who disagreed on that item. This was good rating of the item also supported by the high mean value of 3.5 confirming that most respondents agreed that their lectures often started on time. On the item that *"When my lecturer explains something, it takes long time before everybody is listening"*, Table 4.10 shows that the majority 125(51.4%) of the respondents agreed on that item while 82(33.7%) of them were undecided on that item as compared to 36(14.8%) of them who disagreed on that item. The high mean value of 3.5 also supports the good rating of the item confirming that most respondents often take time to internalize what their lecturers explain to them in class.

Table 4.10 reveals that the majority 143(58.9%) of the respondents agreed on the item that *"I know when I can ask my lecturer questions during work time",* while 75(30.9%) of them were undecided on that item as compared to 25(10.3%) of them who disagreed on that item. The high mean value of 3.6 also supported the good rating of that item implying that most respondents accepted that they know when to ask their lecturers questions during work time. Table 4.10 also shows that 91(29.5%) of the respondents agreed on the item that *"Our lecture room is neat and tidy"* while 86(35.4%) of them were undecided on that same item as compared to 66(27.1%) of them who disagreed on that same item. This was fair rating of the item also confirmed by the average mean of 3.1 confirming that it was only an average number of respondents who agreed that their lecture rooms were always neat.

Table 4.10 also reveals that 137(56.3%) of the respondents agreed on the item that *"Everybody pays attention when my lecturer explains something*", while 91(37.4%) of them were undecided on that item as compared to 15(6.1%) of them who disagreed on that item. The high mean value of 3.6 confirmed the good rating of this item congruent to most respondents holding the view that everybody pays attention when their lecturer explains something.

From Table 4.10 the majority 147(60.5%) of the respondents agreed on the item that *"Everybody works hard in our class"*, while 78(32.1%) of the respondents were undecided on that item as compared to 18(7.4%) of them who disagreed on that item. This was good rating of the item also supported by the high mean value of 3.6 implying that most respondents accepted that everybody works hard in their class.

Finally concerning the item that "Other course mates disturb me when we work individually", Table 4.10 reveals that 140(57.6%) agreed on that item while 60 (24.2%) of them were undecided on that item as compared to 43(17.7%) of them who disagreed on that item. The high mean value of 3.5 also supported the good rating of that item congruent to most respondents holding the view that their course mates disturb them when they work individually.

However, in order to get an overall view on how the respondents rated classroom management, an average index was computed using the responses on the seven items used to examine the variable with the aid of the SPSS. The pertinent statistics are presented in Table 4.11.

Table 4.11:

Descriptive statistics on Average index for rating of classroom management in KYU

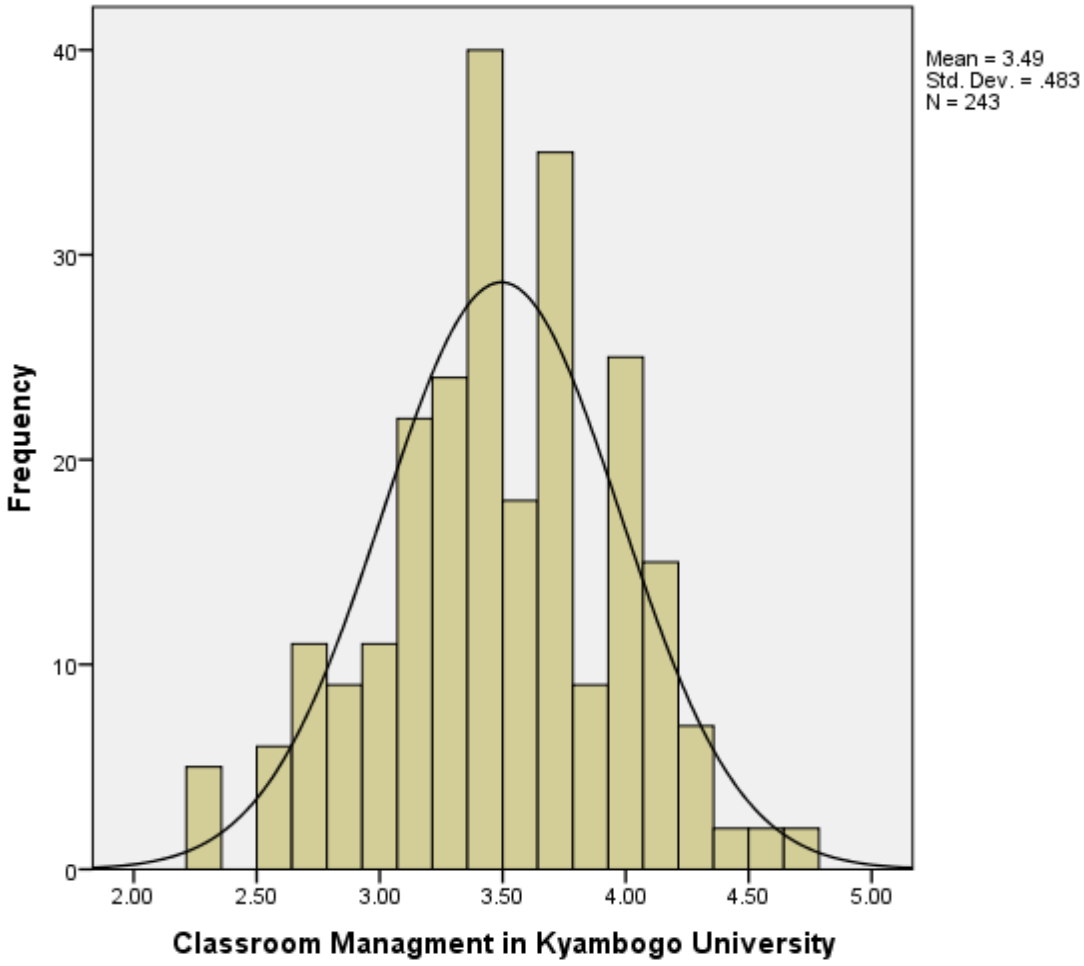
Descriptives	**Statistic**	**Standard Error**	
Classroom Management	Mean	3.49	.031
In Kyambogo University	95% Confidence	Lower Bound	3.43
	Interval for mean	Upper Bound	3.56
	5% Trimmed Mean		3.50
	Median		3.43
	Variance		.23
	Std. Deviation		.48
	Minimum		2.29
	Maximum		5.00
	Range		2.71

Source: Field data, 2021

From Table 4.11, the rating of classroom management in Kyambogo University was good as suggested by the mean of 3.5 with confidence interval of 3.4 to 3.6 at 95% confidence interval. This suggested that most respondents expressed that there was good classroom management in Kyambogo University. However, Table 4.11 reveals that some of respondents disagreed on some items on classroom management in Kyambogo University as confirmed by the minimum of 2.29 while others rated strong agreement as confirmed by the maximum of 4.71. The range, 2.43 suggested that there was disparity in scoring of items on classroom management by the respondents. The suggested normal distribution of the rating on classroom management was confirmed using the histogram in Figure 4.3.

Figure 4.3:

Histogram showing the distribution of classroom management in Kyambogo University.



Source: Field data, 2021

The histogram (Fig 4.3) shows the normal distribution of the rating of classroom management at Kyambogo University. It implies that some of the respondents were in agreement while others expressed disagreement on the items used to measure the variable.

4.2.3 Description of the teacher's adoption of Good/ effective instructional strategies in Kyambogo University. The Third objective of this study was to assess the relationship between massification of higher education and the teachers' adoption of instructional strategies in the different faculties in KYU and was measured using twenty quantitative items. The finalist bachelor's degree students of KYU in their different faculties were asked to rate teachers' instructional strategies at KYU using a five-point Likert scale ranging from 1= Strongly disagree, 2=Disagree, 3= Undecided, 4=Agree, 5=Strongly agree. Table 4.12 presents pertinent frequency tables.

Table 4.12:

Respondents' Rating on Instructional Strategies in KYU

Indicators of Classroom Management	Strongly disagree	Disagree agree	Undecided	Agree	Strongly
E1. My lecturer explains difficult things clearly	5 (2.1%)	18 (7.4%)	71 (29.8%)	74 (30.5%)	75 (30.9%)
E2. If I don't understand something, my lecturer explains it another way	00 (0.0%)	18 (7.4%)	59 (24.4%)	93 (38.3%)	73 (30.0%)
E3. When my lecturer explains something. I get it right(1.6%)	4 (1.2%)	3 (24.4%)	59 (44.9%)	109 (28.0%)	68
E4. My lecturer wants me to explain how I got to my answer	00 (0.0%)	8 (3.3%)	67 (27.4%)	105 (43.2%)	63 (25.0%
E5. My lecturer knows he/she can best explain something to me	02 (0.8%)	09 (3.7%)	74 (30.4%)	93 (38.2%)	63 (25.0%
E6 My lecturer knows when I understand something, and when I do not.	06 (2.5%)	06 (2.5%)	75 (30.4%)	107 (44.0%)	49 (20.2%
E7. My lecturer helps me if I do not understand something	00 (0.0%)	13 (5.3%)	65 (26.7%)	127 (52.3%)	38 (15.6%
E8. My lecturer asks questions to be sure I understand	00 (0.0%)	22 (9.1%)	63 (25.7%)	103 (42.4%)	55 (22.6%)
E9 My lecturer explains things just as long until I get it.	3 (1.2%)	30 (12.3%)	88 (36.7%)	85 (35.4%)	37 (15.5%
E10. If my answer to a question is incorrect, my lecturer explains why it is wrong.	3 (0.8%)	2 (0.8%)	113 (46.5%)	83 (34.2%)	43 (17.7%)
E11 My lecturer wants me to do my best	00 (0.0%)	11 (4.5%)	86 (35.4%)	94 (38.7%)	52 (21.4%)
E12. My lecturer thinks I can do my best if I try my hardest	02 (0.8%)	21 (4.5%)	71 (35.4%)	111 (38.7%)	38 (21.4%)
E13. My lecturer says we have to think carefully how to do the assignments	00 (0.0%)	19 (7.8%)	78 (32.5%)	109 (44.0%)	39 (16.0)
E14. My lecturer thinks I can learn everything if I do my best	00 (0.0%)	14 (5.8%)	79 (32.5%)	117 (48.1%)	33 (13.6%)
E15. My lecturer is only satisfied when we do the best we can	00 (0.0%)	09 (3.7%)	106 101 (41.6%)	27 (41.6%)	3.6 (11.7%)
E16. My lecturer tells us at the start of the lectures what we are learning	07 (2.9%)	09 (3.7%)	74 (30.5%)	108 (44.4%)	45 (18.5%

E17. My lecturer writes on my papers to help me understand when marking	05 (2.1%)	17 (7.0%)	59 (24.3%)	125 (51.4%)	37 (18.5%
E18. My lecturer asks at the end of the lecture what we have learned	00 (0.0%)	05 (2.1%)	69 (28.4%)	124 (51.0%)	45 (18.5%)
E19. My lecturer reminds me of the previous lecture when starting a new lecture	03 (1.2%)	17 (7/0%)	52 (21.4%)	139 (57.2)	32 (13.2%)
E20. My lecturer wants me to think carefully whether my answer is correct	03 (1.2%)	17 (7.0%)	52 (21.4%)	139 (57.2%)	32 (13.2%)

Source: Field data, 2021

From Table 4.12, the majority 149 (61.4%) of the respondents agreed on the item that *"My lecturer explains difficult things clearly"*, while 71 (29.3%) of them were neutral about that item as compared to the 23 (9.5%) of them who at least disagreed on that item. This was good rating of the item also supported by the high mean value of 3.8 congruent to most lecturers explaining difficult things to their students clearly during their instruction in Kyambogo University according to the respondents. Table 4.12 shows that the majority 166(68.3%) of the respondents agreed on the item that *"If I don't understand something, my lecturer explains it another way*" while 59(24.3%) of them were neutral on that item in comparison to 18(7.4%) 0f them who disagreed on that same statement. This item rating was good as confirmed by the high mean value of 3.9 equivalent to most respondents expressing that their lecturers often explain things that they don't understand in another way.

Concerning the item that *"When my lecturer explains something I get it right*", the majority 177(72.9%) of the respondents agreed on that item while 59(24.4%) of them were neutral on that item as compared to the 07(2.8%) of them

who at least disagreed on that item. This item was rated well as confirmed by the high mean value of 4.0 suggesting that most respondents get their lecturers right when they explain to them in class during instruction. Table 4.12 also reveals that 168(69.1%) of the respondents agreed on the item that *"My lecturer wants me to explain how I got to my answer"*, while 67(27.6%) of them were neutral on that item as compared to 08(3.3%) of them who disagreed on that item. This item had good rating as explained by the high mean value of 3.9 confirming that indeed most respondents expressed that their lecturers always want their learners to explain how they got their answers during instruction.

On the item that "*My lecturer knows how he/she can best explain something to me*", Table 4.12 shows that 156(64.2%) of the respondents agreed on that item while 74(30.5%) of them were undecided on that item as compared to 11(4.5%) of them who disagreed on that item. The high mean value of 3.9 confirmed the good rating of this item which was congruent to most respondents expressing the view that their lecturers knew how to best explain things taught in a lecture to their learners.

About the item that *"My lecturer knows when I understand something, and when I do not",* Table 4.12 reveals that the majority 156(64.2%) of the respondents agreed on that item while 75(30.9%) of them were undecided on that same item in comparison to 12(5.0%) of them who disagreed on that statement. The mean value of 3.8 was high confirming that most respondents expressed that their lecturers knew when they understood what was being taught and when they did not understand it. Table 4.12 shows that the majority 165(67.9%) of the respondents agreed on the item that *"My lecturer helps me if I do not understand*

something", while 65(26.7%) of them were undecided on that same item as compared to 13(5.3%) of them who disagreed on that item. The high mean value of 3.8 supports the good rating of the item indicating that indeed most of the respondents were often helped by their lecturers whenever they did not understand something.

In respect to the item that "*My lecturer asks questions to be sure I understand",* Table 4.12 shows that the majority 158(64.8%) of the respondents agreed on that item while 63 (25.9%) of them were undecided on that item as compared to 15(9.1%) of them who disagreed on that item. This was good rating of the item also supported by the high mean value of 3.8 congruent to most respondents expressing the view that their lecturers often ask them questions so as to be sure that their learners understand what they taught.

Table 4.12 also shows that the majority 122(50.2%) of the respondents agreed on that item that *"My lecturer explains things just as long until I get it*" while 88(36.2%) of them were undecided on that item as compared to 32(13.5%) of them who disagreed on that same item. This was good rating of the item also confirmed by the high mean value of 3.7 congruent to most respondents expressing the view that their teacher explained things to them just as long until they understood what was being taught which was good for purposes of consolidating learning outcomes according to Table 4.12, the majority 126(51.9%) of the respondents agreed on the item that *"If my answer to a question is incorrect, my lecturer explains why it is*" while 113 (46.5%) of them were undecided on that item as compared to 04(1.6%) of them who disagreed on that statement. This was good rating of the item also confirmed by the high mean value of 3.6 congruent to

the most respondents holding the view that their lecturers help them to explain why their answers were sometimes wrong.

From Table 4.12, the majority 146(60.1%) of the respondents agreed on the item that *"My lecturer wants me to do my best"* while 86(35.4%) of them were undecided on that same item as compared to 11(4.5%) of them who were undecided on that item. The high mean value of 3.7 confirmed the good rating of this item representing that most respondents held the view that their lecturers wanted them to do their best. For the item that *"My lecturer thinks I can do good work if I try my hardest"* Table 4.12 shows that the majority 149(61.3%) of the respondents agreed on that item while 71(29.2%) of the respondents were undecided on that item as compared to 23(9.4%) disagreed on that item. This was good rating of the item also supported by the high mean value of 3.8 congruent to most respondents holding the view that their lecturers think they can do good work if each of them tried their hardest.

On the item that "*My lecturer says we have to think carefully how to do the assignments*", Table 4.12 shows that the majority 146(60.0%) of the respondents agreed on that item while 78(32.5%) of the respondents were undecided on that item in comparison to 19(7.8%) of them who disagreed on that item. The high mean value of 3.7 equivalent to most respondents accepting that their lecturers encourage them to think carefully on how to do their assignments.

Concerning the item that "*My lecturer thinks I can learn everything if I do my best*" Table 4.12 shows that the majority 150(61.7%) of the respondents agreed on that item while 79(32.5%) of them were undecided on that item as compared to 14(5.8%) of them who disagreed on that same item. The mean value of 3.7 was

high confirming that the item rating was good implying that most respondents believe that their teachers think that they can learn everything if they do their best as students.

On the item that "*My lecturer is only satisfied when we do the best we can*", Table 4.12 shows that the majority 128(53.3%) of the respondents agreed on that item while 106 (41.6%) of them were undecided on that item as compared to 09(3.7%) of them who disagreed on that statement. This was good rating of the item also supported by the high mean value of 3.6 implying that most respondents knew that their lecturers could only be satisfied when they do the best they can which could still motivate them to work hard.

Table 4.12 also reveals that the majority 153(62.9%) of the respondents agreed on the item that "*My lecturer tells us at the start of the lecture what we are learning"*, while 74(30.5%) of the respondents were neutral on that item as compared to 16(6.6%) of them who disagreed on that item. This item had good rating also supported by the high mean value of 3.7 implying that most respondents were often told what they were going to study at the start of every lecture.

From Table 4.12 the majority 162(69.9%) of the respondents agreed on the item that *"My lecturer writes on my papers to help me understand when marking"* while 59(24.3%) of them were undecided on that item as compared to 22(9.1%) of them who disagreed on that statement. This was good rating of the item also supported by the high mean value of 3.7 congruent to most respondents accepting that their lecturers give them written feedback on their exercises and assignments to help them understand what is taught.

Table 4.12 also reveals that the majority 169(66.6%) of the respondents agreed on the item that "*My lecturer asks at the end of the lecture what we have learned*" while 69(28.4%) of them were undecided on that item as compared to 05(2.1%) of them who disagreed on that item. The high mean value of 3.9 supported the good rating of this item implying that indeed most respondents accepted that their lecturers asked them what they had learned at the end of the lecture.

From Table 4.12 the majority 171(70.4%) of the respondents agreed on the item that "*My lecturer reminds me of the previous lecture when starting a new one*" while 52(21.4%) of them were undecided on that item as compared to 20(8.2%) of them who disagreed on that item. The high mean value of 3.7 confirmed the good rating of this item implying that most respondents were often reminded of the previous lectures before starting a new one.

Finally, Table 4.12 shows that the majority 137(56.4 %) of the respondents agreed on the item that "*My lecturer wants me to think carefully whether my answer is correct*" while 87(35.8%) of them were undecided as compared to 19(7.8%) of them who disagreed on that same item. This was good rating of the item also supported by the high mean value of 3.7 congruent to most respondents holding the belief that their lecturers want them to think carefully whether their answers are correct.

However, in order get an overall view on how the respondents rated the third dependent variable, namely, instructional strategies in respect to how it is influenced by Massification of higher education at Kyambogo University, an

average index was computed from the responses obtained on the 20 items using the help of SPSS. The pertinent statistics are presented in Table 4.13.

Table 4.13:

Descriptive statistics on how respondents rated teachers' adoption of instructional strategies in KYU

Descriptives	**Statistic**	**Standard Error**	
Teachers Adoption of	Mean	3.76	.23
Instructional Strategies	95% Confidence	Lower Bound	3.71
	Interval for mean	Upper Bound	3.81
	5% Trimmed Mean		3.77
	Median		3.75
	Variance		0.12
	Std. Deviation		.35
	Minimum		2.70
	Maximum		4.55
	Range		1.85

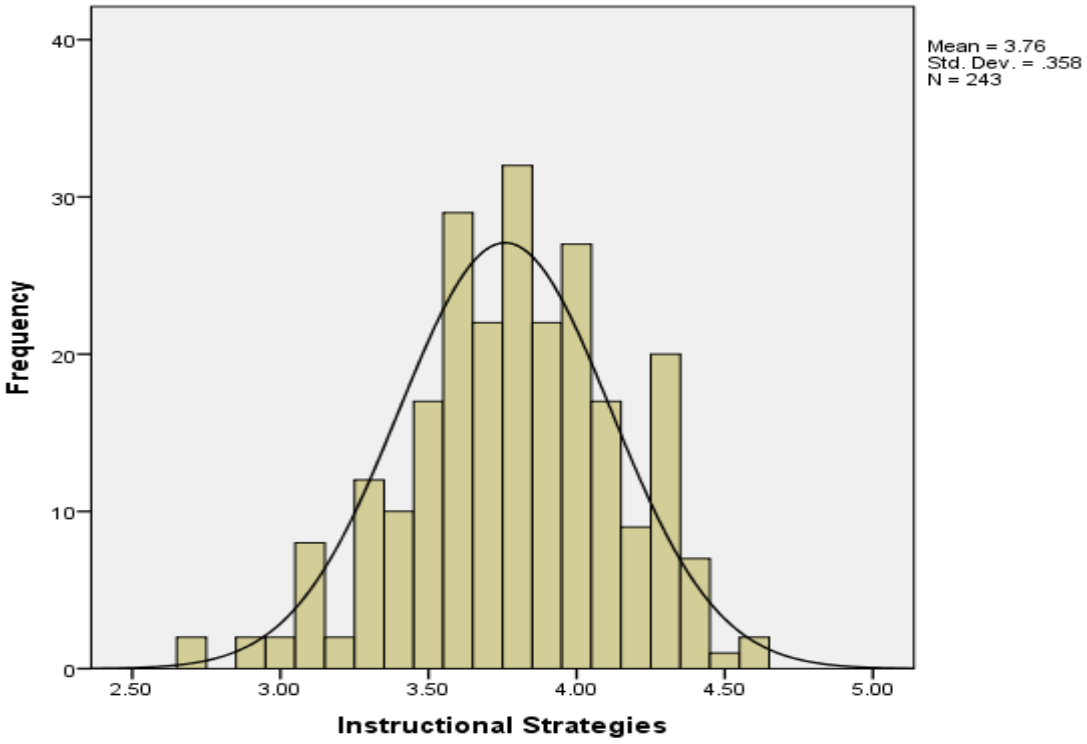
Source: Field data, 2021

From Table 4.13, the computed average index on the rating of instructional strategies was 3.8 with confidence interval of 3.71 to 3.80 at 95% confidence interval. This suggested that most respondents expressed that the lecturers in Kyambogo University used good instructional strategies. However, Table 4.13 reveals that some of respondents disagreed on some of the items about instructional strategies in Kyambogo University also confirmed by the minimum of 2.70 while others rated strong agreement indicated by the maximum of 4.55.

The suggested normal distribution of the rating of instructional strategies was confirmed using the histogram in Figure 4.4.

Figure 4.4:

Histogram showing the distribution of the rating of instructional strategies in Kyambogo University:



Source: Field data, 2021

The histogram (Fig. 4.4) confirms that there was disparity in scoring of instructional strategies with some respondents expressing disagreement while others expressed agreement on the items used to measure the variable.

4.3 Hypotheses Testing

The three objectives of this study were; to examine the effect of massification of higher education on classroom climate in Kyambogo University, to examine the effect of massification of higher education on effective classroom management in Kyambogo University and to assess the effect of massification of higher education on the teachers' adoption of instructions in Kyambogo University. Three hypotheses were formulated and tested to find out whether there were significant correlations between Massification of higher education (MHE) with each of the dependent variables, namely; classroom climate in Kyambogo University (CCK), classroom management in Kyambogo University (CMK) and adoption of effective/ good instructional strategies in Kyambogo University (ISK) using SPSS.

Objective one: To examine the effect of massification of higher education on classroom climate in Kyambogo University.

This study sought to establish the relationship between the three independent variable, namely, massification of higher education (MHE) with each of the three dependent variable, namely, classroom climate (CCK), classroom management (CMK) and adoption of effective/good instructional strategies (ISK) in Kyambogo University. This study hypothesized that the independent variable had a statistically significant relationship with each of the three dependent variables. The hypotheses were tested using Pearson's linear Correlation Coefficient (PLCC) and the Statistical Package for Social Scientists (SPSS) was used to generate the pertinent statistics presented in Table 4.14.

Table 4.14:

Correlation Matrix for massification, classroom climate, classroom management and adoption of effective/ good instructional strategies

	1	2	3	4
Massification of higher education	(1)	0.077	0.225**	0.075
		0.231	0.000	0.247
	N	243	243	243
Classroom climate	(2)	1	0.343**	0.268**
			0.000	0.000
	N		243	243
Classroom management	(3)		1	0.274**
			0.000	
	N			243
Adoption of instructional strategies	(4)			1

**Correlation is significant at the 0.05 level (2 tailed)

H_{01} There is a statistically significant relationship between massification and classroom climate in Kyambogo University

This study sought to test the first hypothesis which was that *"There is a statistically significant relationship between massification of higher education and classroom climate in Kyambogo University*". Table 4.14 reveals that PLCC (r = 0.077, p = 0.231) between Massification of higher education and classroom climate suggested a positive linear correlation between the two variables. The critical value was insignificant at above 0.01 and greater than 0.05 which is the bench mark for rejection of this hypothesis stating that massification of higher education has a positive effect on classroom climate at KYU. This finding implies that the relationship between massification of higher education and classroom climate was not significant at all.

H_{02} There is a statistically significant relationship between massification and classroom management in Kyambogo University.

This study sought to test the second hypothesis which was that *"There is a statistically significant relationship between massification and adoption of effective instructional strategies in Kyambogo University"*. The results in Table 4.16 show that Massification of higher education had a significant effect on classroom management with PLCC (r = 0.225, p = .000). The critical value was significant at below 0.01 and less than 0.05 which is the benchmark for accepting the hypothesis that massification of higher education has a positive effect on classroom management in KYU. This finding implies that the more Kyambogo University increases students' enrolment, increases access to higher education and diversifies programmes, the more it the classroom climate is improved by the teachers for effective learning.

H_{03}There is a statistically significant relationship between massification of higher education and adoption of effective/ good instructional strategies in Kyambogo University.

This study sought to test the third hypothesis which was that *"There is a statistically significant relationship between massification of higher education and adoption of effective/ good instructional strategies in Kyambogo University".* Table 4.18 further reveals that massification of higher education had an insignificant effect on instructional strategies at KYU with PLCC (r = 0.075, p=.247) between massification of higher education and adoption of instructional strategies in Kyambogo University. The critical value was insignificant above

0.01 and greater than 0.05 which is the bench mark for rejecting the hypothesis that Massification of higher education had a positive effect on instructional strategies at KYU. This finding implied that the massification of higher education did not significantly contribute to adoption of effective/good instructional strategies in Kyambogo University.

Testing Hypothesis: Multivariate

This study hypothesized that each of the three dependent variables, namely, classroom climate (CCK), classroom management (CMK) and adoption of effective instructional strategies had a statistically significant relationship with each of the independent variable, namely, massification of higher education (MHE) respectively in Kyambogo University. Therefore, the three dependent variables which were regressed on the independent variable. The regression analysis was done simultaneously with the help of SPSS. The following mathematical model was developed:

$$MHE = \beta 1\ CCK + \beta 2\ CMK + \beta 3\ ISK \ldots\ldots\ldots\ldots\ldots\ldots \quad (4.1)$$

From this model, when the beta was positive, it implied that the independent variable (MHE) had a positive relationship to that respective independent variable. On the other hand, when the beta was negative then the independent variable (MHE) had a negative correlation to that respective dependent variable. In each case, the respective beta had an accompanying significance (p) value that was used to confirm whether the given beta was significant. The pertinent statistics were

generated with the help of SPSS together with the betas and their p values. Fisher's ratio (F) and its significance (p) value were presented in Table 4.15.

Table 4.15:

ANOVA results of regression of classroom climate, classroom management and adoption of instructional strategies on massification of higher education.

Model	Sum of squares	df	Mean square	F	Sig (p)
Regression	3.711	3	1.237	4.602	004[b]
Residual	63.971	238			

a. dependent variables; Massification of Higher Education in Kyambogo University

b. Predictors (Constant); INS, Classroom Climate, Classroom Management in Kyambogo University

From Table 4.15, the value of F (4.602) is high and significant with the accompanying significance value (p = 0.001) lower than 0.05 confirming that it was a good regression model. Table 4.16 shows that the R square value of 0.55 implied that the independent variable namely, massification of higher education accounted for 55% (0.55 × 100) of the variation in each of the three dependent variables which were classroom climate (CCK), classroom management (CMK) and adoption of effective/good instructional strategies (ISK). Table 4.16 presents the pertinent betas and their respective significance (p) values.

Table 4.16:

Regression of classroom management, classroom management and adoption of effective/ good instructional strategies on massification of higher education

Independent variable	Standardized coefficient Beta (β)	Significance (p)
Classroom climate	0.002	0.876
Classroom management	0.231	0.001
Adoption of effective/good instructional Strategies	0.012	0.859

R2 = 0.55

Ho1 There is a statistically significant relationship between massification and classroom climate in Kyambogo University.

According to Table 4.16, classroom climate was accompanied by a negative beta (β = -.002, n = 243, p = 0.976, > 0.05) suggesting positive correlation between classroom climate and massification of higher education. However, the observed sig value (p = 0.976) was far greater than the popular sig value (p = 0.05), indicating that there was no significant correlation at the 5% level.

Qualitative results on the effect of massification on classroom climate

The qualitative data suggest disparity in scoring of the variable which partly confirms that massification was insignificant as a determinant of classroom climate at KYU.

The emerging themes from the responses on the item that *"Do you think Kyambogo University has clear policies to monitor and ensure quality assurance standards for good classroom climate during lectures"* were as follows:

"Kyambogo University has clear policies to monitor and ensure quality standards for good classroom climate"; "The NCHE has the policies governing these and Kyambogo University complies to such policies"

However, some of the negative responses on this item were as follows:

> *"Kyambogo University does not have a clear policy to monitor good classroom climate"; "The policy is there but nobody implements it"; "The policy is there but not well implemented"*
>
> *Concerning the item that "Do the authorities at Kyambogo University strictly follow procedures to enforce good classroom climate standards",*

The emerging themes included the following:

> *"The authorities in Kyambogo University are so strict and they enforce procedures to ensure good classroom climate"; "To a greater extent the procedures on good classroom climate are enforced by the teachers themselves"*

However, some of the respondents disagreed on this item and the emerging theme from their responses was that:

> *"Kyambogo University does not follow strict procedures to ensure good classroom climate"; "each lecturer manages classroom climate at their own level"*

About the item that "*In your view, how would you rate the level of classroom climate during lectures at Kyambogo University in general"* the merging themes were as follows:

"Classroom climate is ok"; "*Classroom climate in Kyambogo University is generally fair"; "Kyambogo University has good classroom climate with no cases of indiscipline"; "On average the classroom climate in Kyambogo University was good";*

However, some of the responses were negative on classroom climate and these were as follows:

"Classroom climate in Kyambogo is poor with cases of crowding"; "Classroom climate in Kyambogo University is still wanting"; "The space is still limited for some courses and sometimes students' study through the windows"

Finally, on classroom climate the emerging responses on the item that *"In your analysis, to what extent does classroom climate contribute to the quality of student learning in Kyambogo University"* were as follows:

"To a greater extent as students' interaction is positive"; "it plays an important role"; "Classroom climate contributes to students learning so highly"; "Students perform well in Kyambogo due to good classroom climate"

However, some of the responses were negative on this item and they were as follows:

"Classrooms in Kyambogo are not conducive for teaching and learning so they do not contribute to quality of students learning"; "The crowding in some classes makes this impossible"

In summary the qualitative results partly affirm that massification had an insignificant effect on classroom climate while other respondents disagreed on some items used to measure this variable.

Ho2 There is a statistically significant relationship between massification of higher education and classroom management in Kyambogo University.

Table 4.6 also reveals that classroom management was accompanied by a positive beta ($\beta = 0.231$, $n = 243$, $p = 0.001 < 0.05$) suggesting a positive correlation between massification of higher education and classroom management in Kyambogo University. The observed sig value ($p = 0.001$) for this relationship was less than the popular sig value ($p = 0.05$), confirming that there was a significant positive correlation at the 5% level. Based on the regression results the second hypothesis of this study was therefore accepted and the alternate hypothesis was rejected.

Qualitative results on the effect of massification on classroom management.

The significance of massification as a determinant of classroom management in Kyambogo University was partly supported by the qualitative data obtained from the respondents through interviews conducted. For example, some of the positive responses on the item that "In your view, do lecturers in Kyambogo University have good classroom management strategies" were as follows:

> *"The lecturers in Kyambogo University are highly skilled and use good management strategies"; "Kyambogo University has some of the best lecturers equipped with appropriate classroom*

management strategies"; "Our students well-disciplined indicating that their lecturers use the best classroom management strategies"

However, some of the responses on this item were negative as follows:

"Some of the lecturers do not use good classroom management strategies"; "There are some cases of serious collision between lecturers and their students due to poor classroom management strategies"

Concerning the item that *"What is your view on the level of Stakeholder awareness on affirmative action strategies at Kyambogo University"* the emerging themes from the qualitative data obtained were as follows: *"On average the stakeholders are aware of affirmative action*"; *"Stakeholders are aware of affirmative action and they are sensitized";*

However, the negative responses from this item were as follows*: "In most cases the majority of the stakeholders are not involved"; "The stakeholders are not so much aware of affirmative action"*

For the item that "*In your view to what extent have affirmative action strategies contributed to the enrolment of students at Kyambogo University"* the emerging themes from the qualitative data were as follows:

"To a great extent the enrolment has increased"; "Greatly the enrolment has gone high"; "All the categories including the disabled, direct entry, diploma entry, and sports facility have attracted increased enrolment at Kyambogo University"; "It has

mainly helped the girl child due to the 1.5 points and also the biological scheme has helped"

However, some negative responses on this item were as follows: "*No impact"; "Science based programmes have less female students"*

In summary the disparity in responses on the effect of massification on classroom management suggests more investigations on the effect of massification on classroom management so as to verify this finding.

H_o3 There is a statistically significant relationship between massification and adoption of effective instructional strategies in Kyambogo University.

The results in Table 4.16 further reveal that adoption of effective instructional strategies was accompanied by a positive beta ($\beta = 0.012$, $n = 46$, $p = 0.859 > 0.05$), suggesting a positive correlation between massification of higher education and adoption of effective/ good instructional strategies in Kyambogo University. The observed sig value ($p = 0.859$) was greater than the popular significance value ($p = 0.05$), confirming an insignificant correlation at the 5% level. Therefore, using regression analysis, this third research hypothesis was rejected revealing that massification of higher education did not have a significant relationship with adoption of effective/good instructional strategies in Kyambogo University.

Qualitative results on the effect of massification on instructional strategies

The qualitative data obtained from the respondents suggested a normal distribution in scoring of the variable on instructional strategies. For example, some of the responses were positive on the item that "*In your opinion how do you rate the*

lecturers' competence in application of appropriate pedagogical strategies in their lecture rooms", were as follows:

> *"The teachers' competence in application of appropriate pedagogy was good"; "pedagogical strategies are very productive in terms of student learning outcomes"; "The teachers in Kyambogo are highly competent in the application of appropriate pedagogical strategies in their classes*"

However, some of the negative responses on this item were as follows: *"Most of the teachers have poor instructional strategies in Kyambogo University*"

Concerning the item that *"In your view do the teachers in Kyambogo University apply instructional strategies that engage the students to satisfaction"* the emerging themes from the data collected were as follows: *"Yes the teachers in Kyambogo University apply instructional strategies that engage the students"; "The students are engaged but not satisfactorily*"

Then on the item that *"To what extent do the teachers in Kyambogo University apply instructional strategies with a focus on curriculum goals*" The emerging themes from the qualitative responses were as follows: *"To a greater extent"; "They are highly focused on the curriculum"; "Most lecturers are strategic in their instruction and follow the curriculum"*

Finally, on the item that;

> *"What mechanisms does Kyambogo University have in place to ensure the use of appropriate instructional strategies that address the needs of students by the lecturers in their lecture rooms",*

The emerging themes from the qualitative responses were as follows:

> "*Through Senate resolutions and activities"; "They use supervisory committees"; "Researching on instruction and following recommendations"; "By supervision by Senate"; "Emphasis is put on tutorials, discussions, seminars, workshops, laboratory practice and internship"; "Quality assurance mechanisms"; "Having a budget for such strategies"*

In summary the qualitative results suggest divergent views from respondents indicating that the qualitative results were so controversial with some voices rejecting the findings from the correlation and regression analysis while other voices supported the findings of the correlation and regression analysis respectively.

CHAPTER FIVE

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

Chapter five presents discussion of results of the study, conclusions drawn from findings and finally recommendations based on results and findings obtained from data analyzed.

5.1 Discussion

5.1.1 Massification and Classroom Climate in Kyambogo University. Hypothesis one stated that: "Massification of higher education has a statistically significant relationship with classroom climate in Kyambogo University". Data analysis and interpretation using multiple regression analysis revealed that there was an insignificant correlation between massification of higher education and classroom climate at Kyambogo University. The results of other earlier investigations did not support this finding. This finding, for instance, conflicts with that of Bunoti (2012), who used students from one public university to examine the quality of higher education in Uganda and found that the lecture halls were too small to accommodate the number of students who occasionally attend lectures while standing, with an overflow onto the verandas. Bunoti (2012) found that established that massification of higher education had a negative correlation with classroom climate which was not consistent with the current study.

According to other studies, it has long been held that having more students in a class degrades the environment for learning (Cuseo, 2007; Ehrenberg et al.

2001). Large classes in particular are thought to be associated with poor student performance. Class size matters in relation to education goals and the quality of the educational experience (Cuseo, 2007). In higher education, goals move beyond simple knowledge acquisition to promoting student engagement and higher order cognitive functions such as problem solving and critical thinking characteristics of deep learning. Some studies found that class size affects the quality of learning environment and student learning (Mulryan-Kyne, 2010). This suggests the need to explore the impact of massification on class size in Kyambogo University and its impact on learning environments which has not yet been done by these previous studies.

Tettey (2010) established that lack of qualified teaching staff is an indicator of lack of quality teaching in African universities. For example, in some African University, academic staff with PhD qualifications accounted for 34 per cent as compared to 66 per cent with Masters' level qualifications by 2008 (Tettey, 2010). It is common to have Masters' degree holders teaching postgraduate classes; courses taught without reading and reference materials; or examinations moderated downwards to accommodate weaker students or shortened semesters. Consequently, the increasing number of students accessing universities would be going through low quality academic processes. The issues of qualified staff in African universities could pose challenges on the quality of teaching; this should also be investigated in respect to Kyambogo University.

Providing a supportive, positive, and inclusive classroom climate is important in establishing quality teaching and promoting positive teacher–student relationships through praise and feedback (den Brok et al, 2002). Similarly, Muijs

et al (2014) contend that the climate of work and discipline in class, the real learning time, learning opportunities, the structured nature of learning, the feedback given to students and teachers' high expectations are all determinants of the quality of teaching. Telli et al (2020) found that teacher behaviour has significant impact on student learning and outcomes and determines the teaching quality in learning environments. NCHE (2014) points out that HEI's in Uganda are under staffed and some engage under qualified academic staff that do not have the experience to innovate and create desirable classroom climate for student learning. There is urgent need to investigate the current engagements intended to create supportive classroom climate for the increasing students' enrolment in Kyambogo University which earlier studies have not done.

The evaluation of teaching effectiveness has been mostly based on research into successful classroom strategies and "what works" in the classroom (Reynolds et al., 2014). Creemers (1994), Hattie (2009), Muijs et al. (2014), Pianta & Hamre (2009), Reynolds et al. (2014), Sammons et al, (1995), and van de Grift (2007) are just a few of the studies that have been done to identify effective teaching practices. These studies have revealed a variety of teacher behaviors that support student learning. This fall into three categories that are fundamental to education (Day et al., 2008). First, it's crucial to create a welcoming, upbeat, and inclusive classroom environment and to foster a positive teacher-student relationship by praising and providing feedback (den Brok et al, 2002). However, none of these previous studies have examined teaching practices and teachers' behaviour amidst massification and its opportunities and challenges in the context of Kyambogo University which the current study intends to do. This study therefore concludes

that Massification of higher education does not have a significant effect on classroom climate in Kyambogo University

5.1.2 Massification and Classroom Management in Higher Education Institutions. Hypothesis two stated that: "Massification of higher education has a statistically significant relationship with classroom management in Kyambogo University". Using multi regression analysis, data analysis and interpretation revealed that there was a significant positive relationship between Massification of higher education and classroom management at Kyambogo University. This finding was not consistent with some earlier studies that investigated the effect of massification on classroom management and found negative correlation between the two variables. For example, large classes, which are a sign of massification, are reflected in the quality of the students' instruction and learning (Hornsby & Osman, 2014). Despite having less facilities and resources, institutions enroll a large number of students in programs. Higher education institutions are experiencing an academic crisis as a result of a lack of academic personnel brought on by inadequate classroom management owing to massification. The lecturers are overwhelmed by student numbers and they have too much workload (Bloom, Hartley and Rosovsky; 2007). The current study analyzed in-depth information pertaining to the context of Kyambogo University in respect to institutional related massification and explored the interaction between it and classroom management strategies employed by the lecturers, unlike the previous studies that used quantitative methods that are generalizable.

Similar to this, Bunoti (2012) found that students complain of bureaucratic tendencies in which getting one's concern addressed is a very drawn-out and

frustrating procedure that they claim wastes a lot of valuable time. They often complain about crammed lecture rooms, which lead to students skipping class.

Additionally, according to Bunoti (2012), bad record-keeping causes certain results to be lost, which leads to students having to retake exams, which is very upsetting for the students. Additionally, there is a lack of secrecy; for example, outcomes are posted on notice boards. Additionally, when lecturers fail to provide pertinent material on time, students are dissatisfied with the information flow. For lecturers teaching large students, behavior control is extremely difficult and irritating. A teacher's effectiveness and the caliber of their instruction can be determined by the way the class is managed (van de Grift, 2007). Clear norms and routines, limiting disruptive behavior, and having organized and scheduled courses are all parts of effective classroom management (Day et al., 2008).

When a competent lecturer uses emulation as a behavior management technique, fosters peer learning, creates a pleasant learning environment in the lecture room, and encourages interdependent interactions in order to enhance learning and establish a strong learning culture (Cishe, 2014). An effective teacher's top priority is to develop a method of instruction that stimulates students' minds and advances their education (Hattie and Timperly, 2007). An effective lecturer effectively delivers the material (the organization of the teaching and learning process) and provides clear directions and justifications (Dey et al, 2008). Effective lecturers focus on the important parts of the course, check for understanding, and ask lots of questions, according to Maulana et al. (2014). A typical lesson plan might include (for instance) visually appealing, mentally interesting, and timely exhibits. Competent lecturers use assessment techniques

that are obviously intended to enhance student learning and direct pedagogical decisions and activities, such as asking open-ended and subject-related questions and giving regular, helpful feedback (Maulana et al, 2014). This study studied the methods lecturers use to ensure effective classroom management and describes how Kyambogo University professors put them into reality in the midst of massification. The results show promising results with regard to the massification of higher education. This study therefore concludes that Massification of higher education has a significant positive relationship with classroom management in Kyambogo University.

5.1.3 Massification and Instructional Strategies in Higher Education Institutions. Hypothesis three stated that: "Massification of higher education has a statistically significant relationship with teachers' adoption of good/ effective instructional strategies in Kyambogo University". Data analysis and interpretation done using multi regression, revealed that there was an insignificant positive relationship between massification and adoption of good/ effective instructional strategies in Kyambogo University. This conclusion is not in line with that of Bunoti (2012), who discovered that the number of students admitted is not in line with the facilities offered. The bulk of the volumes in the libraries are out-of-date, and they are too tiny for the number of students who use them. Particularly during the busiest time of assignments and exams, students frequently skip meals in order to squeeze into the confined spaces of the libraries. Despite being relatively modern, there aren't enough computers for the quantity of students. One group of students studied IT (Information Technology) for an entire year in a theoretical setting without having the chance to use a computer. Additionally, the students

claimed to have only intermittent internet connection. Similarly, NCHE (2014) reports that there was insufficient room and support for the academic staff as well as a paucity of computers and other equipment. This limited their ability to accept new ideas and provide inventive training. The settings established at Kyambogo University in the current investigation are not in conflict with these findings.

Unfortunately, because they tend to encourage didactic teaching methods, massification learning environments are often contradictory to this need. When the quantity and quality of student-teacher interaction declines, as is common in big class settings, the performance of those students who depend on interaction for motivation is especially likely to suffer (Exeter et al. 2010; Mulryan-Kyne 2010). Research demonstrates that when faced with huge classes, students also demonstrate poor levels of engagement with the subject matter, less dedication to the courses, and lower levels of motivation (Mulryan-Kyne 2010). This shows that classroom settings with lots of students are not good for developing higher order cognitive skills.

Equally, Nabayego and Itaaga (2014) concluded that the level of interactive learning is very low, involving solely the utilization of activities chosen and managed by lecturers, in their study on how university education in Uganda might be improved to produce graduates who are economically viable. In practically all of the chosen universities, the amount of student initiative and self-directed learning using activities based in the environment is insignificant, which is detrimental to the students' future roles and responsibilities at the workplace.

The results of this study, however, do not align with those of certain other studies, such as the teacher's instructional technique is a crucial sign of good

teaching (van der Scheer et al, 2019). Students are engaged through assignments and activities, the lesson is connected to what they already know, the material is explained in a way that students can understand it, and feedback is given (Hattie & Timperley, 2007; Hollingsworth & Ybarra, 2009). These three characteristics of successful classes are supplemented by two teaching dimensions by van de Grift (2007). Effective teachers, according to van de Grift (2007), also impart learning strategies to their learners. They encourage their students to think critically and learn about themselves (Arends, 2009). Then, instruction is broken down into manageable sections where professors present simplified problems, exhibit problem-solving techniques, and have students think aloud as they solve difficulties (Rosenshine, 1995). Furthermore, van de Grift (2007) and Maulana et al, (2014) emphasize the value of tailoring teaching methods to the (many) requirements of students in the classroom. Making sure that lectures have meaning for students is another characteristic of good lessons (Keuning & Van Geel, 2016; Kyriakides et al 2000). This entails that instructors establish specific lesson objectives, explain them to the students at the start of the lesson (what they are studying and why), ensure that all instructional activities connect to these objectives, and evaluate the objectives (Locke & Latham, 2002).

Massification has traditionally been viewed as problematic in light of research showing that the majority of students enter higher education contexts using learning techniques centered on memorizing of facts and the straightforward replication of knowledge, or so-called surface learning (Exeter et al. 2010). Such students require instruction on how to develop the problem-solving and critical-

thinking abilities necessary for an innovation economy and a knowledge society (Mwebi, 2015).

According to Altbach et al, (2017), higher education should be diversified and differentiated because it encourages the introduction of new methods of student instruction like distance learning, online learning, and new technologies to educate students outside the walls of a university or college. Vertical and horizontal differences exist inside and across higher education institutions as a result of differentiation in higher education. Vertical differentiation is driven by the pressures of the labor market, whereas horizontal differentiation is driven by access issues. Vertical differentiation is based on the skills and competencies needed in the job market, while horizontal differentiation is dependent on the availability of higher education options and access to them (Altbach et al, 2017).

However, it seems that massification of higher education is a trend that will continue. Discovering innovative solutions to the problems caused by the massification of higher education therefore requires finding adaptive instruction and seeking for examples of it. We pose queries like, "How can higher education institutions in developed and developing nations convert this challenge into an opportunity?" How is excellent education, which is defined as encouraging the development of higher order cognitive abilities like critical thinking and problem solving, possible in an environment that does not support student engagement, motivation, or performance? Such inquiries necessitate both practical solutions and consideration of the philosophical implications of huge classes. There is currently a growing body of research that focuses on pedagogy adoption in higher education, particularly as it relates to developing nations (Hornsby et al. 2013).

This is being done in order to take into account how adaptation and innovation in support of high-quality education are occurring in a variety of situations.

We want to demonstrate how efforts to innovate and adapt in the face of massification may support student learning and guarantee high-quality instruction. Existing research on student learning offers some crucial insights that can help overcome the difficulties massification and teaching in large classes bring. For instance, student learning tactics might be modified to guarantee that a course is successfully completed (Mwebi, 2015). Encouragement is given to teachers' adaptability and resilience, and the significance of teaching and assessment procedures for improving student learning is emphasized (Exeter et al., 2010; Meyers & Nulty, 2002; & Mulryan-Kyne, 2010). Student learning results and engagement are influenced by curriculum design, instructional strategies, and assessment (Mwebi, 2015). According to Meyers and Nulty (2002), learning environments must be built in a way that ensures students' adaptive reactions to the curriculum become coherent with the course's objectives in order to maximize the quality of their educational experience (Mwebi, 2015). As a result, issues related to the massification of higher education and large class teaching environments can be addressed, and quality education can be ensured, by focusing on the structure of the curriculum, the instructional strategies used, and the manner in which students are assessed (Meyers & Nulty, 2002). This study concludes that Massification of higher education does not have significant effect on instructional strategies used by the teachers at Kyambogo University though some studies indicated contradicting results as compared to this study’s finding.

5.2 Conclusions

The following conclusions were derived from the findings based on the three hypotheses:

1. The findings from this study led to the conclusion that massification of higher education did not generate a significant effect on classroom climate in Kyambogo University.

2. The findings from this study led to the conclusion that massification of higher education offered challenges that offered opportunities for lecturers to devise mechanisms that promote classroom management at Kyambogo University. Massification therefore boosted the teachers' capacity to manage classrooms even much better.

3. In conclusion the findings from this study affirm that massification of higher education was not a determinant of the teachers' instructional strategies at Kyambogo University by the time this study was conducted.

5.3 Recommendations

The following recommendations are suggested basing on findings and discussions in respect to the three hypotheses.

1. Kyambogo University should not focus on massification of higher education as a predictor of classroom climate. The effects of massification at Kyambogo University on classroom climate are negligible.

2. Kyambogo University should consider massification as a predictor of classroom management. This implies that Massification of higher education offers challenges that offer opportunities for the lecturers' and management of

Kyambogo to think outside the box and keep devising classroom management strategies that are working.

3. Kyambogo University should not consider massification as a predictor of instructional strategies. This implies that the current level of massification at Kyambogo University does not have either negative or positive effects on the instructional strategies there.

5.4 Recommendations for Further Research

This study therefore suggests that further research be conducted into the impact of massification of higher education in the context of Kyambogo University as well as in other contexts in order to verify the findings of this student since this had still remained controversial and therefore unresolved. These would help to resolve the question on to what was the relationship between massification of higher education and classroom climate and instructional strategies respectively. There is also need to probe other factors that might have significant impact and influence on the quality of teaching such as teachers training, resources and the entry standards into HEI's in Uganda.

REFERENCES

Adu, K., & Orivel, F. (2006). *Tertiary education funding strategy in Ghana*. Accra: Ministry of Education, Sports, and Culture.

Agababyona, B. (2014, November 4). Makerere students strike over absentee lecturers. *Chimp Reports*. Retrieved from: https://chimpreports.com/makerere-students-strike-over-absentee-e-lecturers

Altbach, P. G., Reisberg, L., & de Wit, H. (2017). *Responding to massification: Differentiation in postsecondary education worldwide*. Hamburg Transnational University Leaders Council.

Amin, M. E. (2005). *Foundation of statistical inference for social science research*. Kampala: Makerere University Printery.

Arends, R. I. (2009). *Learning to teach* (8th ed.). New York, NY: McGraw-Hill.

Barifaijo, K. M., Basheka, B. C., & Oonyu, J. (2010). *How to write a good dissertation/thesis: A guide to graduate studies*. Kampala: Uganda Management Institute.

Basheka, B. C., Muhenda, M. B., & Kittobe, J. (2009). Programme delivery, quality benchmarks and outcomes based on education at Uganda Management.

Bloom, D., Canning, D., Chan, K., & Luca, D. L. (2005). *Higher education and economic growth in Africa*. Education and Economic Growth. The Netherlands: Springer.

Brennan, J. (2004). The social role of the contemporary university: Contradictions, boundaries and change. In *Ten years on: Changing education in a changing world* (pp. 3-10). Center for Higher Education Research and Information, Milton Keynes: The Open University.

Bunoti, S. (2012). The quality of higher education in developing countries needs professional support. Kyambogo University, Kampala, Uganda.

Chevalier, A., & Conlon, G. (2003). Does it pay to attend a prestigious university? London School of Economics, CEE, DP 33.

Chou, C. P., & Li-Tien, W. (2012). Who benefits from the massification of higher education in Taiwan? *Chinese Education and Society, 45*(6), 8–20. https://doi.org/10.2753/CED1061-1932450501

Cishe, E. N. (2014). Fostering quality teaching and learning in higher education through academic staff development: Challenges for a multi-campus university. *Mediterranean Journal of Social Sciences, 5*(25), 272-277.

Creemers, B. P. M. (1999). Educational effectiveness and improvement in developing society: Some experiences from the primary education quality improvement project in Indonesia. *Tertium Comparationis, 5*(1), 32-51.

Creswell, J. W. (2003). *Research design: Qualitative, quantitative and mixed methods approaches* (2nd ed.). Thousand Oaks, CA: Sage.

Cuseo, J. (2007). The empirical case against large class size: Adverse effects on the teaching, learning, and retention of first-year students. *Journal of Faculty Development, 21*, 5–21.

Cooper, J. L., & Robison, P. (2000). Getting started: Informal small-group strategies in large classes. *New Directions for Teaching and Learning, 2000*(81), 17–24. https://doi.org/10.1002/tl.8102

Day, C., Sammons, P., Kington, A., Regan, E., Ko, J., Brown, E., & Robertson, D. (2008). *Effective classroom practice (ECP): A mixed-method study of influences and outcomes*. Nottingham: School of Education, University of Nottingham.

Den Brok, P., Brekelmans, M., Levy, J., & Wubbels, T. (2002). Diagnosing and improving the quality of teachers' interpersonal behavior. *International Journal of Educational Management, 16*(4), 176–184. https://doi.org/10.1108/09513540210432155

Ehrenberg, R. G., Brewer, D. J., Gamoran, A., & Willms, J. D. (2001). Class size and student achievement. *Psychological Science in the Public Interest, 2*(1), 1–30.

Exeter, D. J., Ameratunga, S., Ratima, M., Morton, S., Dickson, M., Hsu, D., et al. (2010). Student engagement in very large classes: The teachers' perspective. *Studies in Higher Education, 35*(7), 761–775.

Hattie, J. A. (2009). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. New York, NY: Routledge.

Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research, 77*(1), 81–112. https://doi.org/10.3102/003465430298487

Hill, H. C., Charalambous, C. Y., & Kraft, M. A. (2012). When rater reliability is not enough: Teacher observation systems and a case for the generalizability study. *Educational Researcher, 41*(2), 56–64. https://doi.org/10.3102/0013189X12437203

Hollingsworth, J., & Ybarra, S. (2009). *Explicit direct instruction (EDI): The power of the well-crafted, well-taught lesson*. Fowler, CA: Data WORKS Educational Research.

Hornsby, D. J., & Osman, R. (2014). Massification in higher education: Large classes. *Higher Education*. http://unesdoc.unesco.org/images/0014/001467/146736e.pdf

Huang, F. (2011). Higher education from massification to universal access: A perspective from Japan. *Higher Education*. https://doi.org/10.1007/s10734-011-9438-7

Inter University Council for East Africa: IUCEA. (2010). *Roadmap to quality: Handbook for quality assurance in higher education at program level*. ©The Inter University Council of East Africa/DAAD 2010.

Keuning, T., & Van Geel, M. (2016). Implementation and effects of a school wide data-based decision making intervention: A large-scale study. Enschede: University of Twente.

Kasozi, A. B. K. (2005). *State of higher education: Executive summary*. Kampala: NCHE.

Krejcie, V., & Morgan, D. V. (1970). Determining sample size for research activities. *Educational and Psychological Measurement, 30*, 607-610.

Kyriakides, L., Campbell, R. J., & Gagatsis, A. (2000). The significance of the classroom effect in primary schools: An application of Creemers' comprehensive model of educational effectiveness. *School Effectiveness and School Improvement, 11*(4), 501–529. https://doi.org/10.1076/sesi.11.4.501.3560

Lin, S. (2010). The construction of a guarantee system in graduate education. *China Electric Power Edition, (15)*, 34–35.

Liu, Z., & Mulinda, G. (2016). On progress of tertiary education: Case of Lebanon, Kenya and Oman. *Higher Education Studies, 6*(45), 1-11.

Locke, E. A., & Latham, G. P. (2002). Building a practically useful theory of goal setting and task motivation: A 35 year odyssey. *American Psychologist, 57*(9), 705-717. https://doi.org/10.1037/0003-066X.57.9.705

Machika, P., Troskie-de Brain, C., & Albertyn, R. M. (2014). The students experience of attending large classes: A South African higher education context. *Mediterranean Journal of Social Sciences, 5*(16), 375-380.

Marginson, S. (2010). Higher education in the global knowledge economy. *Procedia-Social and Behavioral Sciences, 2*(5), 6962-6980.

Marginson, S. (2017). Elite, mass, and high-participation higher education. In *Encyclopedia of international higher education systems and institutions* (pp. 1–8). https://doi.org/10.1007/978-94-017-9553-1_50-1

Maulana, R., Helms-Lorenz, M., & Van de Grift, W. (2016). The role of autonomous motivation for academic engagement of Indonesian secondary school students: A multilevel modeling approach. In R. B. King & A. B. I. Bernardo (Eds.).

Meyers, N., & Nulty, D. (2002). Assessment and student engagement. Learning communities and assessment cultures conference organized by the EARLI special interest group on assessment and evaluation, University of Northumbria, 28–30 August 2002. http://www.leeds.ac.uk/educol/documents/00002240.htm

Ministry of Education and Sports (MoES). (2010). Guidelines for quality assurance in higher education in Uganda. Kampala, Uganda.

Ministry of Education, Sports, and Culture. (2006). *Tertiary education funding strategy in Ghana*. Accra: Ministry of Education, Sports, and Culture.

Moses, I. (2002). Quality control in higher education: The issues at stake in Australian universities. In A. Arawole & J. Knight (Eds.), *Monitoring the quality of education in universities* (pp. 11-21). Washington DC: World Bank.

Muwagga, A. M. (2011). Uganda: Decolonizing the African mind through education. *Journal of Higher Education in Africa, 9*(1-2), 1-22.

Naidoo, R. (2005). University of South Africa in the market place. In K. M. van der Heijden, et al. (Eds.), *International Handbook of Higher Education* (pp. 111-125). Dordrecht: Springer.

National Council for Higher Education (NCHE). (2006). *The state of higher education and training in Uganda 2011: A report on higher education delivery and institutions*. Kampala: NCHE.

Obanya, P. (2004). *The Dilemma of Education in Africa*. Ibadan: Heinemann Educational Books (Nigeria) Ltd.

Obongo, M. J. (2010). Higher education quality in Kenya: A critical reflection of key issues. Nairobi: Tetra Tech ARD.

Oketch, M., & Kim, J. (2019). The expansion of higher education in sub-Saharan Africa: Challenges and opportunities. *Higher Education Quarterly, 73*(2), 197–212. https://doi.org/10.1111/hequ.12202

Pascarella, E. T., & Terenzini, P. T. (2005). *How college affects students: A third decade of research* (2nd ed.). San Francisco, CA: Jossey-Bass.

Pfeffer, J., & Fong, C. T. (2002). The end of business schools? Less success than meets the eye. *Academy of Management Learning & Education, 1*(1), 78–95.

Ping, W. (2009). *Higher education and economic development in Africa: A case study of Kenya*. Bloomington, IN: Indiana University Press.

Pinto, M., & Curran, J. M. (2016). Public versus private higher education institutions: A case study of Mozambique. *African Journal of Library, Archives and Information Science*, *26*(2), 179-189.

Quality Assurance Agency for Higher Education (QAA). (2010). *Code of practice for the assurance of academic quality and standards in higher education*. Gloucester: QAA.

Scott, P. (2000). Higher education in the 21st century: Global challenge and national response. In *The changing global context of higher education* (pp. 1–8). Washington, DC: Institute of International Education.

Tam, M. (2001). Measuring quality and performance in higher education. *Quality in Higher Education, 7*(1), 47–54.

Tiberius, R. G., & Billson, J. M. (1991). The social context of teaching and learning. *New Directions for Teaching and Learning, 45*, 67–86. https://doi.org/10.1002/tl.37219914508

Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition* (2nd ed.). Chicago, IL: University of Chicago Press.

Uganda National Council for Higher Education (UNCHE). (2011). The state of higher education and training in Uganda 2011: A report on higher education delivery and institutions. Kampala: UNCHE.

UNESCO. (1998). *World declaration on higher education for the twenty-first century: Vision and action*. Paris: UNESCO.

UNESCO. (2009). *Global education digest 2009: Comparing education statistics across the world*. Montreal: UNESCO Institute for Statistics.

UNESCO. (2012). *World atlas of gender equality in education*. Paris: UNESCO.

United Nations Development Programme (UNDP). (2016). *Human development report 2016: Human development for everyone*. New York, NY: UNDP.

United Nations Educational, Scientific, and Cultural Organization (UNESCO). (2011). *World data on education*. Paris: UNESCO.

Van Damme, D. (2001). Quality issues in the internationalization of higher education. *Higher Education, 41*(4), 415–441. https://doi.org/10.1023/A:1017564919609

Van Schalkwyk, S., Herman, N., & Muller, A. (2011). *The challenges of a scholarship of teaching and learning: From theory to practice*. Stellenbosch: SUN PReSS.

Weidman, J. C., & Schreiber, J. B. (2009). Conceptualizing student institutional integration: A critical review of Tinto's model. In J. C. Smart (Ed.), *Higher education: Handbook of theory and research* (Vol. 24, pp. 245–290). New York, NY: Springer.

World Bank. (2000). *Higher education in developing countries: Peril and promise*. Washington, DC: The World Bank.

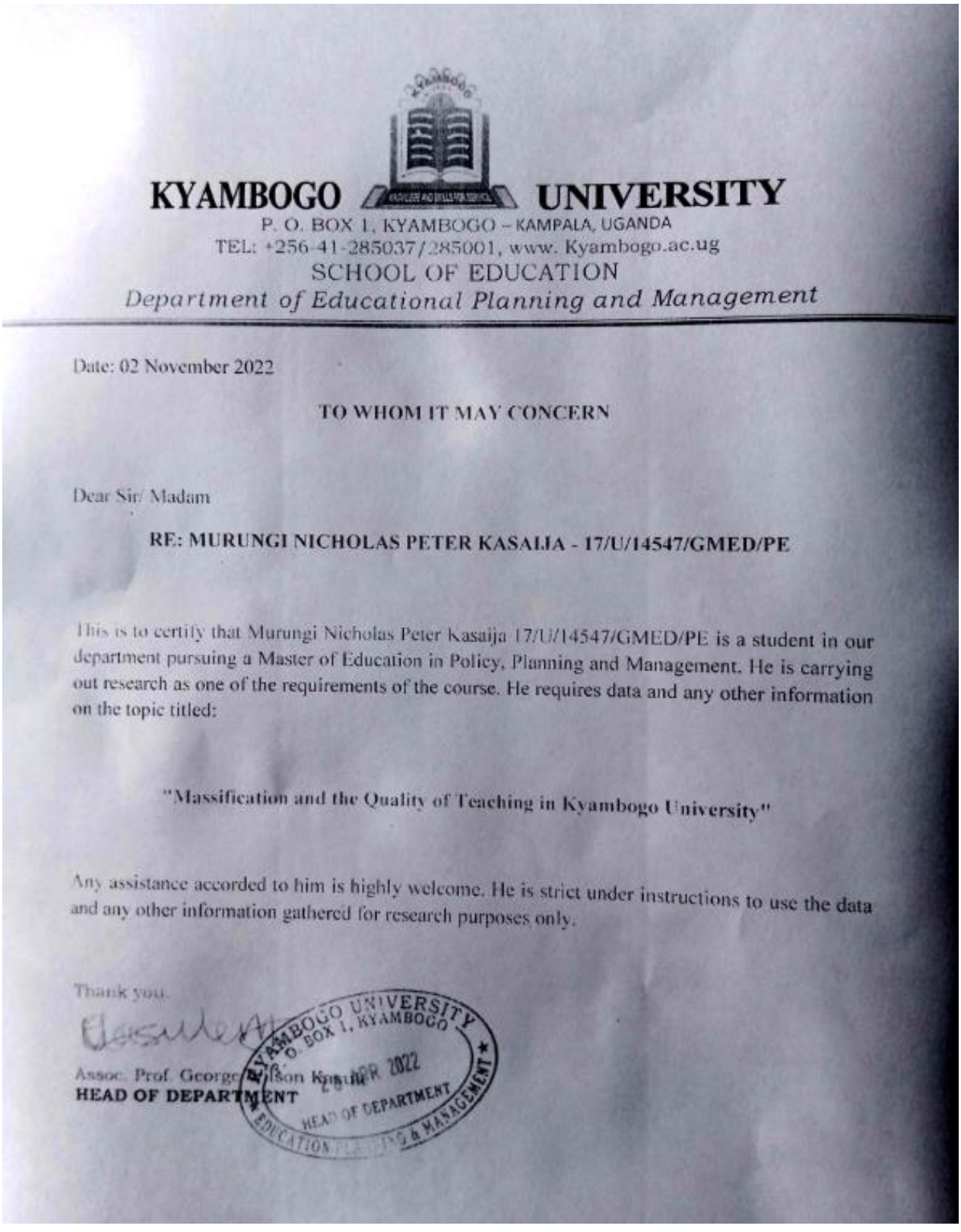
World Bank. (2012). *World development report 2012: Gender equality and development*. Washington, DC: The World Bank.

Yizengaw, T. (2003). Transformations in higher education: Experiences with reform and expansion in Ethiopian higher education system. *Journal of Higher Education in Africa, 1*(1), 110-145.

Zemsky, R., Wegner, G. R., & Massy, W. F. (2005). *Remaking the American university: Market-smart and mission-centered*. New Brunswick, NJ: Rutgers University Press.

APPENDICES

APPENDIX I: LETTER OF INTRODUCTION



KYAMBOGO UNIVERSITY

P. O. BOX 1, KYAMBOGO – KAMPALA, UGANDA
TEL: +256-41-285037/285001, www. Kyambogo.ac.ug
SCHOOL OF EDUCATION
Department of Educational Planning and Management

Date: 02 November 2022

TO WHOM IT MAY CONCERN

Dear Sir/ Madam

RE: MURUNGI NICHOLAS PETER KASAIJA - 17/U/14547/GMED/PE

This is to certify that Murungi Nicholas Peter Kasaija 17/U/14547/GMED/PE is a student in our department pursuing a Master of Education in Policy, Planning and Management. He is carrying out research as one of the requirements of the course. He requires data and any other information on the topic titled:

"Massification and the Quality of Teaching in Kyambogo University"

Any assistance accorded to him is highly welcome. He is strict under instructions to use the data and any other information gathered for research purposes only.

Thank you.

Assoc. Prof. George Wilson Kasule
HEAD OF DEPARTMENT

KYAMBOGO UNIVERSITY P. O. BOX 1, KYAMBOGO 2 NOV 2022 HEAD OF DEPARTMENT EDUCATIONAL PLANNING & MANAGEMENT

APPENDIX II: SELF-ADMINISTERED QUESTIONNAIRE

Self-Administered Questionnaire (SAQ) to students of Kyambogo University on the impact of Massification of higher education on the quality of teaching in Kyambogo University

Kyambogo University
P. O. Box 1
Kyambogo-Uganda
02nd December, 2020

Dear Sir/ Madam,

You have been selected to participate in this study leading to the award of a Master of Education Policy, Planning and Management Degree of Kyambogo University. University students in your category have relevant information and experience about the impact of Massification of higher education on the quality of teaching in Kyambogo University. It is on this account that this Self-Administered Questionnaire (SAQ) has been sent to you. You are therefore requested to fill the questions, following the instructions given. You are assured here that the responses given will be used for academic purposes only and will remain confidential.

Yours faithfully,

…….
Murungi Nicholas Peter Kasaija

Section A: Bio-data

Tick the alternative that is most appropriate to you

A1. Age: 1) 18 - 35 2) 36 -45 3) 46 - 55 5) 56+ years

A2. Sex: 1) Male 2) Female

A3. Academic programme: 1) Day 2) Evening 3) Distance 4) Others

A4. Admission category: 1) Public 2) Private 3) Affirmative action

A5. Faculty/ School: 1) Education 2) Special needs and Rehabilitation 3) Science 4) Engineering 5) vocational studies 6) Arts and Social Sciences 7) school of management

8) entrepreneurship

Section B. Independent Variable one: Massification of Higher Education

In this section you are requested to rate massification of higher education at Kyambogo University. Following a scale where 1=strongly disagree, 2=Disagree, 3=neutral, 4=Agree, 5=strongly agree

B1	Kyambogo University has experienced increased enrollment since I joined my studies.	1	2	3	4	5
B2	There is increased in both human resources and study resources such as computers, text books over the years.	1	2	3	4	5
B3	Kyambogo University has adequate facilities for the increasing number of students	1	2	3	4	5
B4	There is equitable access to study materials and resources to all students at Kyambogo University	1	2	3	4	5
B5	Kyambogo University has an overwhelming number of students admitted on its programmes	1	2	3	4	5
B6	The course I am doing is marketable in the Job Market	1	2	3	4	5
B7	The course I am specializing in is my first priority choice	1	2	3	4	5
B8	The lecturers at Kyambogo University have enough time to attend to all their students' learning needs in their course units	1	2	3	4	5

Section C: First Dependent variable: Classroom Climate

In this section you are requested to rate classroom climate at Kyambogo University following a scale where 1=strongly disagree, 2=Disagree, 3=neutral, 4=Agree, 5=strongly agree

C1	My lecturer is nice to me when I ask questions	1	2	3	4	5
C2	I like the way my lecturer treats me when I need help	1	2	3	4	5
C3	My lecturer wants me to do well at school	1	2	3	4	5
C4	When I am sad or angry, my lecturer helps me so I will feel better	1	2	3	4	5
C5	My lecturer seems to know if something is bothering me	1	2	3	4	5
C6	I like this class	1	2	3	4	5

Section D: Second Dependent variable: Classroom Management

In this section you are requested to rate classroom management at Kyambogo University following a scale where 1=strongly disagree, 2=Disagree, 3=neutral, 4=Agree, 5=strongly agree

D1	We start the lectures on time	1	2	3	4	5
D2	When my lecturer explains something, it takes a long time before everybody is listening	1	2	3	4	5
D3	I know when I can ask my lecturer questions during work time	1	2	3	4	5
D4	Our lecture room is neat and tidy	1	2	3	4	5
D5	Everybody pays attention when my lecturer explains something	1	2	3	4	5
D6	Everybody in our class works hard	1	2	3	4	5
D7	Other course mates disturb me when we work individually	1	2	3	4	5

Section F: Third Dependent Variable: Teachers adoption of good/ effective Instructional Strategies at Kyambogo University

In this section you are requested to rate teachers' instructional strategies at Kyambogo University following a scale where 1=strongly disagree, 2=Disagree, 3=neutral, 4=Agree, 5= Strongly agree

C1	My lecturer explains difficult things clearly	1	2	3	4	5
C2	If I don't understand something, my lecturer explains it another way	1	2	3	4	5
C3	When my lecturer explains something, I get it right away	1	2	3	4	5
C4	My lecturer wants me to explain how I got to my answer	1	2	3	4	5
C5	My lecturer knows how he/she can best explain something to me	1	2	3	4	5
C6	My lecturer knows when I understand something, and when I do not	1	2	3	4	5
C7	My lecturer helps me if I do not understand something	1	2	3	4	5
C8	My lecturer asks questions to be sure I understand	1	2	3	4	5
C9	My lecturer explains things just as long until I get it	1	2	3	4	5
C10	If my answer to a question is incorrect, my lecturer explains why it is so	1	2	3	4	5
	Student Engagement strategies					
C11	My lecturer wants me to do my best	1	2	3	4	5
C12	My lecturer thinks I can do good work if I try my hardest	1	2	3	4	5
C13	My lecturer says we need to think carefully about how to do the assignments well	1	2	3	4	5
C14	My lecturer thinks I can learn everything if I do my best	1	2	3	4	5
C15	My lecturer is only satisfied when we do the best we can	1	2	3	4	5
	Goal Orientation					
C16	My lecturer tells us at the start of the lesson what we are learning	1	2	3	4	5
C17	When my lecturer marks my work, he/she writes on my papers to help me understand	1	2	3	4	5
C18	My lecturer asks at the end of the lecture what we have learned	1	2	3	4	5
C19	My lecturer reminds us at the beginning of the lecture what we covered in the previous lecture	1	2	3	4	5
C20	My teacher wants me to think carefully whether my answer is correct	1	2	3	4	5

Thank you

APPENDIX III: INTERVIEW GUIDE FOR ADMINISTRATIVE STAFF OF KYAMBOGO UNIVERSITY ON MASSIFICATION OF HIGHER AND THE QUALITY OF TEACHING IN KYAMBOGO UNIVERSITY

Kyambogo University
P. O. Box 1
Kyambogo-Uganda
3rd December, 2020

Dear Sir/ Madam,

You have been selected purposively to participate in this study leading to the award of a Master of Education Policy, Planning and Management Degree of Kyambogo University. University administrators in your category have a lot of information and experience about students' Massification of higher education and the quality of teaching in Kyambogo University It is on this account that you have been identified to take part in this face-to face interview. You are therefore requested to fill the questions, following the instructions given. You are assured here that the responses given will be used for academic purposes only and will remain confidential.

Yours faithfully

…….

Murungi Nicholas Peter Kasaija

Section A: Bio-data

Tick the alternative that is most appropriate to the respondent.

What is your gender

1. Male 2. Female

Section B. Independent variable: Massification

A1. In your view how do you rate the capacity at which Kyambogo University is operating, below capacity or above its capacity?

……

A2. What is your overall view in respect to the diversity and relevance of the courses offered at Kyambogo University?

…….

A3. Do you believe that most programmes are operating to their full capacity or some are below while others are above their capacity in terms of human resources and facilities?

……

A4. In your opinion what should Kyambogo University do to address the increasing demand for higher education?

…….

A5. Do you think Kyambogo University is able to meet the educational needs of the students it admits on its various programmes, and if no explain why you think so?

……

A6. How would you rate the level of marketability of the Programmes offered by Kyambogo University in the Job Market?

……

Section C: Independent variable one: Classroom climate

In this section, the respondent will be requested to give his/her view on classroom climate at Kyambogo University.

C1. Do you think Kyambogo University has clear policies to monitor and ensure quality assurance standards for good classroom climate during lectures?

……

C2. Do the authorities at Kyambogo University strictly follow procedures to enforce good classroom climate standards?

……

C3. In your view, how would you rate the level of classroom climate during lectures at Kyambogo University in general?

……

C4. In your analysis, to what extent does classroom climate contribute to the quality of student learning in Kyambogo university?

…….

Section D: Second independent variable on: Classroom Management

In this section you are requested to give your views on classroom management.

D1. In your view, do lecturers in Kyambogo University have good classroom management strategies?

……

D2. What is your view on the level of Stakeholder awareness on affirmative action strategies at Kyambogo University?

……

D3. In your view to what extent have affirmative action strategies contributed to the enrolment of students at Kyambogo University?

……

Section E: Third Independent Variable: Teachers Instructional Strategies

E1. In your opinion how do you rate the teachers' competence in application of appropriate andragogic strategies in their classes?

……

E2. In your view do the teachers in Kyambogo University apply instructional strategies that engage the students to satisfaction?

……

E3. To what extent do the teachers in Kyambogo University apply instructional strategies with a focus on curriculum goals?

…….....

E4. What mechanisms does Kyambogo University have in place to ensure the use of appropriate instructional strategies that address the needs of students by the teachers in their classes?

……

END

APPENDIX IV: KREJCIE AND MORGAN'S TABLE OF SAMPLE SIZE DETERMINATION

N	S	N	S	N	S	N	S	S	
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	100000	384