

## **Adopting the Use of Low-Cost Assessment Strategies in Resource-Constrained Higher Education Institutions**

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### **Abstract**

*Assessment is an integral aspect of teaching and learning in an academic institution. It provides the primary information based on to make several decisions by the different stakeholders. The vital nature of this information makes assessment an expensive venture. Educational institutions incur a lot of costs in administration of these assessments and yet they are financially struggling to meet their budgets. However, low-cost strategies are available to bring about authentic assessment of learners. Consequently, this article presents findings about adoption of low-cost assessment strategies in financially constrained higher education institutions. Specifically, the study was conducted in teacher education pedagogy at one of the public universities in Uganda to establish the adopted low-cost assessment strategies. A qualitative research approach based on a descriptive study design was used to investigate this study. Data was collected using observation, interview and documentary review methods. Study findings established use of presentations, hands-on exercises, peer assessment, tests, drama and take-home assignments as the low-cost assessment strategies adopted by individual lecturers in higher education institutions in Uganda. It was concluded that the adopted low-cost assessment strategies in resource-constrained institutions have the potential to nurture 21<sup>st</sup> century citizens. And therefore, a recommendation for university-wide adoption of low-cost assessment strategies was suggested to management of higher education institutions in resource-constrained countries.*

**Keywords:** assessment, financing of higher education, formative assessment, feedback, teacher education pedagogy

In this article, authors argue for the need to adopt the use of low-cost assessment strategies in mitigating financial, instructional and human resource challenges in higher education (HE). Specifically, primary data was collected from one of the leading public universities in Uganda, having similar funding characteristics with other universities in the global south. Uganda has over 40 universities licensed and chartered by the National Council for Higher Education (NCHE). Among these, only nine are public universities namely; Makerere University, Mbarara University of Science and Technology, Kyambogo

University, Gulu University, and Busitema University. Others are; Muni University, Kabale University, Lira University and Soroti University. All the public universities are majorly funded by the Government of Uganda through the Ministry of Education and Sports (MOES) with additional funding from tuition fees collected from privately sponsored students (Kasozi, 2017; MOES, 2012; The Observer Reporter, 2017). Consequently, the public universities in Uganda are running deficit education budgets. This affects the pedagogical processes at these universities including assessment. It is therefore prudent for public universities to undertake pedagogical tasks that minimise expenditures among which is the adoption of low-cost but authentic assessment practices. Hence the objective of this study was to; “Assess the low-cost assessment practices that have been adopted by lecturers at one of the public universities in Uganda.”

### **Financing of Higher Education**

Ideally, financing of HE is a function of the college's and university's annual flows of incomes from endowments, gifts, grants and appropriation from government budgets (Bradburd & Mann, 1991). Unfortunately, for most education systems in the global south, the major source of income for HE has been from the government public expenditures (Kajubi, 1992; UNESCO, 2018). Consequently, following global financial crises, World Bank came up with Structural Adjustment Policies (SAPs) that had adverse effects on governments' public expenditures on HE in respective economies (Mathers, 2010; Mba, 2017; Tremblay, Lalancette, & Roseveare, 2012). Among others, there has been a reduction in public expenditure on HE in comparison to what is spent on secondary and primary academic institutions (Mathers, 2016; The Observer Reporter, 2017). Increased public expenditure on primary and secondary education has resulted into increased enrolment of students in higher education institutions (HEIs). For example, Ministry of Education and Sports (2012) reported that potential for enrolment at universities in Uganda had risen to 61,820 students in the financial year 2011/2012 from the less than 600 in the early 1990s reported by Kajubi (1992). The increment in the student population at HEIs is attributed to a young population and access to free and affordable education at both secondary and primary levels (MOES, 2012; UNESCO, 2018). The increased population at HE level has led to increased demand on the existing infrastructure that is not developing at the rate of the students' enrolments. Therefore, the increased enrolment has put pressure on both physical and human resources at HEIs (Bakkabulindi, n.d; Kasozi, 2017; Mba, 2017; The Observer Reporter, 2017). Due to the pressure posed on the human resources in HE by increased enrolment, it has been equally hard to sustain the best brains to teach in universities due to poor remuneration, freeze on recruitment, and poor fringe benefits system (Bakkabulindi, n.d.; Kajubi, 1992; The Observer Reporter, 2017). Besides the human resources, physical resources are equally constrained and dilapidated in most of the government HEIs. For over three decades, these institutions are grappling with inadequate instructional materials. Due to financial

constraints, HE administrators cut on instructional materials to make ends meet (Kajubi, 1992, Kasozi, 2017).

Amidst these constraints and limited resource base, HE further responded to SAP by introducing payment of tuition fees by individual students in both private and public universities (Bakkabulindi, n.d.; Bradburd & Mann, 1991; Maslen, 2010; MOES, 2012; Tremblay et al. 2012; Kasozi, 2017). Unfortunately, the tuition fees paid at all public universities in Uganda does not meet the unit cost of educating a university student. According to a study conducted by NCHE in four public universities in Uganda in relation to the unit cost of educating a Ugandan in eleven programs in academic year 2008/2009, it was established that HEIs were charging an average of 40% of the ideal annual tuition fees (Kasozi, 2017). By 2020, Makerere University, the oldest public university in Uganda had not even reached 50% charges of annual tuition in a number of programs as can be seen in Table 1 below:

Table 1

*Structure of Annual Tuition Fees Paid at Makerere University against the NCHE Recommended Unit Costs*

<b>Programme of Study</b>	<b>Proposed Fees Structure by NCHE in 2008/2009</b>	<b>Advertised Fees Structure by Makerere University for 2020/2021</b>	<b>Deficit</b>
Bachelor of Agriculture	9,406,106.000	4,088,112	5,317,994
Bachelor of Arts	4,252,764.000	1,916,302	2,336,462
Bachelor of Development Studies	4,019,799.000	2,129,226	1,890,573
Bachelor of Business Administration	4,179,822.000	3,498,012	681,810
Bachelor of Education with Arts	5,655,301.000	2,044,056	3,611,245
Bachelor of Education with Sciences	5,989,039.000	2,044,056	3,944,983
Bachelor of Economics	4,219,708.000	3,193,838	1,025,870
Bachelor of Medicine & Surgery	10,565,591.000	4,088,112	6,477,479
Bachelor of Sciences	7,882,535.000	2,299,564	5,582,971
Bachelor of Statistics	4,003,911.000	3,066,084	937,827
Bachelor of Information Technology	3,364,669.000	4,232,000	867,331*

Note. \*Excess. Source: Kasozi (2017) and Makerere University (2020)

Table 1 shows that among the eleven programs that were analysed by NCHE in 2008/2009 (Kasozi, 2017), only one is charging tuition fees commensurate to the unit cost of educating a student at a university in Uganda. Therefore, in light of budget deficits caused by inadequate tuition fees charged to students as well as reduced public expenditure on HE, it is high time that universities equally reduced on their expenditures. One of the expenditures that can be reduced and does not affect the education function of HEIs is the high cost related to students' assessments. Oketch (2018) reported that school practice – one of the assessment practices in the School of Education, Makerere University – costs six hundred million (Ug. Shs. 600,000,000) each academic year. These

costs are towards the assessment of an average of only two thousand (2,000) pre-service teacher trainees in their second and third year of studies. In addition, it is reported that just the School of Education at Makerere University incurs annual costs of fifty-two million shillings (Ug. Shs. 52,000,000) in supervision, collating and printing of end of semester examinations (Walimbwa, 2020). These costs exclude expenses incurred by university management in procurement of examinations booklets, specimens used for assessment of learners offering STEM subjects, facilitation of central marking, and payment of examiners. At the participating public university, researchers were told that for each script assessed, facilitators had to be paid one thousand shillings (Ug. Shs. 1,000). This translates into a total cost of three hundred and fifty million shillings (Ug. Shs. 350,000,000) for a public university with an average population of 35,000 students, each offering ten course units per semester. Therefore, HEIs are spending billions of money in assessment of learners. Hence, this is a call to these institutions to embrace low-cost assessment strategies that are more appropriate in nurturing a 21<sup>st</sup> century citizen than the current expensive ones and yet are promoting rote learning.

### **Assessment Practices in Higher Education**

Assessment at university is divided into two major forms: summative and formative. According to Opolot-Okurut (2006), summative assessment is conducted at the end of a course or programme of study and it is also referred to as assessment of learning because it is conducted at the end of the programme of study (Logaw, 2017). Opolot-Okurut argues that the results of summative assessment serve the purposes of grading students and accreditation of programmes and that these results are either expressed in a Norm-referenced assessment or Criterion-referenced styles. He further argues that in a Norm-referenced style, students are compared with other students and then rank-ordered and predetermined percentages of them assigned certain grades through making judgement about individuals. While in a Criterion-referenced assessment style, the students' performance is gauged against predetermined criteria and thus making judgement about performance. Turyatamba (2017) argues for criterion referenced assessment in contrast to norm-referenced style because the former is one sure way to develop 21<sup>st</sup> century competences among students. That before one is allowed to proceed to the next level of education or joining the world of work, he/ she must satisfy certain conditions and standards. In most cases, these standards measure high-order thinking.

Despite the benefits in support of summative assessment in its various forms, there are criticisms advanced against it in line with its tendency to test lower-order thinking competences, failure to test real-world problems and being a one-shot form of testing that does not take care of circumstances under which examination takers are assessed (Kajoro, Chirure, & Simiyu, 2013). Summative assessments are prone to cram work and their results might be misleading as well as not being a true picture of one's abilities in solving real life problems for the 21<sup>st</sup> century (Hove, 2011). Hove (2011 pg.12) argues that;

a student who crams for an exam may be able to pass a test, implying that the student is demonstrating proficient content mastery. However, the problem is that most cramming feeds only the short-term memory; there's little assurance that students have put forth the effort, and utilized habits of critical thinking, to synthesize content into long-term memory. Mere memorization does not equate to thoughtful, insightful learning.

Therefore, it is hard to rely on summative assessments to ascertain their contribution in facilitating development of 21<sup>st</sup> century competences. Worst of all, some students do not put in enough effort to understand what they are taught or what they read. Bernasconi (2008) cited in Hove (2011) reports that quite a number of students are currently lazy to even come up with their own summaries. They quite often rely on online summary sources like those at Sparknotes.com and Pink Monkey or only read bits/ pieces of text in preparation for tests and exams (Bernasconi, 2008 in Hove, 2011).

On the other hand, Opolot-Okurut (2006) defined formative assessment as one that is conducted throughout the programme of study with continuous feedback to learners and other stakeholders. Due to its continuous nature of providing feedback to the teaching-learning process, formative assessment has also been categorized as assessment for learning (Meyer, 2009 in Logaw, 2017). Advocates of assessment for learning argue that formative assessment is a better strategy at nurturing the 21<sup>st</sup> century competences (Adeosun, 2010; Hove, 2011; Kajoro, Chirure, & Simiyu, 2013; Logaw, 2017; Nalova, 2017). Other arguments in favour of assessment for learning are in light of its ability to help students improve and move forward in their learning through providing relevant information that guides a learner in his/ her own learning as a result of the continuous feedback (Logaw, 2017). Learners are guided through their own learning by the nature of feedback they receive in an assessment that feeds into subsequent ones. Similarly, formative assessment offers opportunities of self and peer assessment. Hence, participants become critical of each other's work and consequently not only develop content-/ work-related competences but also relevant 21<sup>st</sup> century competences (Logaw, 2017). Formative assessments offer an opportunity to a student to continuously do a piece of assignment until he/ she has perfected (Hove, 2011; Turyatamba, 2017). Other benefits of formative or ongoing assessments according to Bransford, Brown and Cocking (1999) cited in Kajoro et al. (2013) are; offering opportunities for teachers to try out certain ideas they are not sure of if they use them with students because they need to first try them out and see what happens and to clarify ideas as well as to correct misconceptions so that they are not carried over into practice.

There are different ways in which formative assessment is conducted and these include critical reading to help overcome challenges of children who are growing up primarily engaged in passive activities; asking questions during lectures; individual and group assignments as well as sufficient opportunities to practice competences in microteaching that are practiced in some teacher-training institutions (Adeosun, 2010; Hove, 2011). Adeosun (2010) reveals that formative

strategies are ideal at exposing the extent to which student-teachers demonstrate their conceptual understanding of problem-solving and practical teaching competences through writing reflective journals about their experiences in the microteaching sessions.

As Adeosun (2010) investigated the mode of assessment in teacher education in Nigeria while Logaw (2017) examined how teacher training colleges assess competences among teacher trainees in Ethiopia. Results in the latter established that over 94% of the teacher educators among colleges studied never set competence-based assessments for their students. This has a long-term impact on the quality of teachers produced for the Ethiopian education institutions. It is pretty hard to offer what you do not have or what Oonyu (2017) reported that the quality of an education system is a reflection of the quality of its teachers.

It is therefore important to resort to competence-based assessments in education systems to help nurture and usher out graduates ready to manage real-life problems. Some national bodies in countries like Uganda and Cameroon have put in place oral examinations in language-based subjects to help in the assessment of competences. Specifically, oral assessments in the respective countries are intended to test competence levels in speech, reading and listening in languages like German and French (Capuc & Weerhe, 2017; Monono, Awa, & NguFoncha, 2017). Several studies have been conducted to establish the importance of oral assessments over traditional written tests and exams. Bhat (2012), Jensen (2010), Monono (2017), and Simper (2010) report that oral assessment has the following benefits; it is the best way to assess particular learning outcomes or abilities through provision of insight into students' cognitive processes. Specifically, Jensen (2010) argues that unlike written exams that mostly tap abilities to cram and reproduce content, oral assessments offer students an opportunity to explain their clear understanding of the subject matter. Other benefits of oral assessments are its ability to offer judgment about students' interpersonal and intrapersonal competences which may not be evidenced in other forms of assessment; permission of probing of the depth and extent of students' knowledge through the use of follow-up questions that can be used to determine the limits of what the students know unlike written examinations; and offering learners opportunities to simulate and reflect the world of practice as most fields of practice are dominated by talking rather than writing (Joughin, 2008 in Monono, 2017). Finally, Joughin (2008) in Monono (2017) highlight that oral assessment is advantageous to students who express themselves better orally than in writing, it is authentic as it is a proof of ownership of learning by the particular student being assessed hence minimizing plagiarism common in written tasks (Bhat, 2012). On the side of the facilitator, Jensen (2010) considered its ease at assessment by facilitators, that is, oral assessment is less laborious compared to marking scripts written by students.

On the other hand, Bhat (2012) and Joughin (2008) in Monono et al. (2017) stated the following as the difficulties and challenges that might arise in using oral based assessments: uncoordinated presentations by group members;

undue anxiety; hearing or speech difficulties; time consuming with large classes; lack of anonymity; and worries about some examiners who might be influenced by students' gender, ethnicity and socio-economic background. Other shortcomings of oral assessment are failure to have a record of the assessment for future reference in case of appeals as making and storing audio or video recording is always a daunting task, as well as possibility of examiners to mistake a student's articulateness for knowledge.

Whereas oral assessments have been successfully carried out in language, nutrition, engineering and finance-based disciplines, the profession of teaching requires one's well-developed communication competences that can to a large extent be developed through oral assessment. HEIs in charge of teacher education can resort to use of microteaching and tutorials to conduct oral assessments. But in the due course of utilization of oral assessments through available options like presentations in lectures and tutorials or microteaching sessions, care must be taken to safeguard against the above identified difficulties.

The foregoing discussion on formative, summative and oral assessments is indicative that students in HE can be assessed in several ways. Some of these assessment strategies are either expensive or cheap to academic institutions. They equally bring about performance-based results that is a major requirement at today's workplace. Therefore, this study was conducted to establish the adoption of low-cost assessment strategies in teacher education pedagogy at one public university in Uganda.

### **Method**

A qualitative research approach was used to investigate the adoption of low-cost assessment strategies by teacher educators at the university. Specifically, a descriptive case study design was adopted to help us understand the context in which various assessment methods are used in resource-constrained teacher education pedagogy. The data collection methods used were observation of lectures, focus group discussions (FDGs) with teacher trainees, interviews with teacher educators and review of documents. In this article, findings have been presented according to themes that were derived from coded data by the researchers. In writing the article, due diligence with regard to anonymity of participants and study site has been ensured. Where names are used, they are pseudonyms.

### **Participants**

Primary data for this study were collected from one public university in Uganda. Both teacher educators and teacher trainees participated in the study. Teacher educators were specifically studied to establish the forms of assessment they used in evaluating their learners, while teacher trainees were involved in this study to ascertain the assessment practices they were engaged in. A total of 19 and 150 teacher educators and trainees were studied respectively. Nine of the teacher educators were observed conducting both lectures and tutorials while the other ten were engaged in in-depth interviews. On the other hand, the 150 teacher

trainees participated in this study through focus group discussions as well as making presentations in tutorials. Specifically, 46 teacher trainees participated in the FGDs while 104 presented in tutorials under the observation of one of the researchers.

### **Data Collection Methods and Instruments**

Data about assessment practices at the participating public university was collected using observation, in-depth interviews, focus group discussions and documentary review. We started by analysing 51 course outlines that were being used to conduct lectures in semester one 2018/ 2019. Analysis of the course outlines helped us establish the proposed assessment practices at the participating public university. Data collected from the documents was found not adequate to establish in-class authentic assessment practices at the university and hence we had to observe ongoing lectures as well as interview the participants.

In collecting observation data, observation notes were written down by one of the researchers in the course of 25 lectures and 33 tutorials that were observed while in session. Observation notes were written in line with the study question of; “What low-cost assessment practices have been adopted by lecturers at the public university?” Secondly, ten in-depth interviews were conducted with teacher educators to establish the perceived assessment practices at the university. The interview questions were developed by the researchers but adjusted in the course of the interview sessions to collect data that was in line with the study objective. Teacher educators expressed their views about the various low-cost forms of assessment that they used to evaluate their teacher trainees. Similarly, six focus group discussions were held between the researchers and teacher trainees to establish the perceived assessment practices at the public university.

### **Validity and Reliability**

To ensure reliability and validity of observations conducted, member checks with participants about the data collected were done. After transcribing each interview conducted and observation notes from lectures and tutorials observed, we gave each of the transcripts to the concerned participants to read through. This ensured the accuracy of the data that was recorded. This was followed by backward translations for data collected from lectures and tutorials that were observed but conducted in Luganda language. Two of the researchers translated those transcripts to English from Luganda. Afterwards, a teacher educator of Luganda language was contracted to back translate the English version to Luganda. There was a 95% agreement between the original version and the back translated ones.

After the transcriptions and back translations of data sets, researchers engaged in inter coding of the data. Each of the researchers coded the data independently and afterwards their codes were compared. There was a 90% intercoder agreement in the codes developed by the researchers. Inter coding was done so as to transition from data collection to analysis (Saldana, 2013 in Ouma, 2019). In writing this article, we have tried to make thick descriptions of our



presentation. Therefore, we have endeavoured to ensure dependability, accuracy and validity of the information collected and presented throughout the article.

### Data Analysis

Data analysis was guided by the thematic analytic model bearing in mind data reduction, data display, data verification and drawing conclusions (Miles & Huberman, 1994 cited in Ouma, 2019). In an attempt to reduce data, data recorded from observation notes, interviews, focus group discussions and documentary reviews were transcribed and verified by checking the field notes and transcripts by both the researchers and participants (Ouma, 2019). Review of the transcripts was done to improve on the logical flow of ideas, and general quality of the transcripts (Ouma, 2019). Themes that emerged in this study have been presented qualitatively with quasi statistics developed based on the four sources of data collection.

### Results / Findings

Results of data analysis led to the emergency of the following themes from the findings; take-home assignments, small-group discussions, tutor-marked tests, presentations in lectures and tutorials, hands-on exercises, as well as use of drama. The frequency of use of the adopted low-cost forms of assessment is presented in Table 2 below:

Table 2

*Adopted Low-Cost Assessment Practices at a Public University in Uganda*

<b>Mode of Assessment</b>	<b>Course Outlines (Frequency/51)</b>	<b>Interviews (Frequency/19)</b>	<b>FGD (Frequency/6)</b>	<b>Observation Notes (Frequency/25)</b>
Take-home assignment	51	16	06	15
Tutor-marked tests	51	12	06	03
Small-group discussions	51	13	06	7
Presentations	40	15	06	5
Hands-on exercises	N/A	07	01	05
Drama	N/A	N/A	01	N/A

Table 2 indicates that data about the adopted low-cost forms of assessment at the participating public university was collected using four methods. Namely; documentary review, interviews, FGD and observations. Specifically, 51 course outlines were reviewed, 19 teacher educators were interviewed, six FGDs were conducted and 25 lectures were observed. A detailed description of the findings about low-cost assessments methods adopted in teacher education pedagogy at the public university is provided in the narrative below;

### **Take-Home Assignments**

First and foremost, study findings established the use of take-home assignments as one of the assessment methods used in teacher education pedagogy in Uganda. All (100.0%) of data from course outlines showed a proposal to use take home assignment as one of the assessment strategies. In practice, 100.0% of FGD and 84.2% of interview data revealed that teacher educators issued out take-home assignments to teacher trainees. Take-home assignments are either done individually or in groups as emphasized by Gloria who revealed that, “assessment is done through both individual and group coursework we do” as well as Lamula’s submission that, “they give me personal coursework or individual tasks like writing plays, narratives and poems.” Whereas Gloria puts emphasis on collaborative learning during assessment, Lamula emphasizes individualized learning when she reports that, the assignments given to her are intended to assess her individual effort in coming up with creative articles and projects.

Interview data exposed that teacher educators adopted the issuing out of take-home assignments to fulfil the departmental guidelines in assessment of teacher trainees. There are departments that required students to be examined using take home assignments. For example, in interviews held with teacher educators from the Departments of History and Political Science as well as Religious Studies, they revealed that, take-home assignments constituted 15% of the semester marks. That, this was a requirement from their heads of departments.

During data collection, researchers established that take-home assignments would last between a week to a full semester. Sixty percent of observation data established that most of the participating teacher educators gave take home assignments and set deadlines to be done in a maximum of two weeks. On the other hand, interview data established that there were teacher educators who issued take home assignments that were done throughout the course of the semester. For example, Aloysius informed us that, “I only had two students offering creative writing and they combined their effort and came up with a novella which they submitted as their coursework before they did exams last semester.” This take-home assignment encouraged collaborative learning and equally students took adequate time to complete it.

### **Adoption of the Use of Lecture-Based Tests**

Secondly, 100.0% of both documentary and FGD data revealed the use of tests as another assessment strategy in teacher education at the public university. This finding was also supported by 63.2 % and 12.0% of interview and observed data respectively. During the course of data collection, we observed three classes (of Laura, Sharon and Brian) doing tests in the course of lecture proceedings. One of the researchers equally helped Sharon supervise a test she gave to her first-year students. Similarly, interview data confirmed the use of tests in teacher education at the university. Specifically, Rogers and Francis told us that tests constitute 10% of the semester marks in each course unit in the departments of History and Religious Studies. Teacher trainees through FGDs

equally confirmed the use of tests in teacher education pedagogy. For example, Monica stated that, “Learning is assessed through tests and coursework in the mid-semester by most lecturers and then examinations are given at the end of the semester.” Monica was further supplemented by Diane, when she reported that they are offered remedial assessment tests. For example, Diane explicitly put it out that, “They also give us remedial tasks whereby we re-do the tests in case we have not performed to their expectations.” Therefore, tests are integral aspects of the teacher education pedagogy at the university with purposes of obtaining the 10.0% semester scores as well as improvement of teacher trainees’ learning as stated by Monica that tests are offered for remedial purposes.

### **Small-Group Discussions**

According to Table 2, 100.0% of the data collected from FGDs indicated the use of small-class discussions. However, only 68.4% and 28.0% of the interview data from teacher educators and observed data from lectures were in agreement with students’ perceptions of the use of small-group discussions in assessment of learners at the participating university. Observations of lectures in both Geography and English facilitated by Simon and Brian respectively showed that some teacher educators have adopted the use of small-group discussions. In all the five lectures observed being facilitated by Simon, teacher trainees worked in small groups. Use of small groups in Simon’s lectures was because of the nature of information that was being taught. It was practical in nature and was supposed to be done on laptops. The entire class had six functioning laptops. Hence teacher trainees without laptops had to join colleagues who owned some. Brian on the other hand, told his students to work in groups of not more than five teacher trainees within lectures and in the take-home assignments. Therefore, small-group discussions in Brian’s classes consisted of in and out of class assessments. In three out of the seven lectures observed facilitated by Brian, there was use of small-group discussions. Equally, the two questions he issued out to students as their take-home assignment, he requested teacher trainees to do it in groups of at least five teacher trainees. Even when he gave an open book test, Brian permitted teacher trainees to first consult their colleagues before they would write their essays in a test.

Interview participants like; Rogers, Sharon, Monica, Maurice, Thelma, Alvin, Raphael, Gloria and Esther concurred with findings from lecture observations. These participants emphasized the adoption of small-group discussions both in class lectures and out of class private discussions among students. Within lectures, Monica had this to say; “Discussion is one of the classroom-based assessment activities that our lecturer engages us in. It is done in groups of ten people each and a question is given to be discussed by each group.” While outside lectures, Alvin reported that; “Lecturers give out coursework and assignments which may either be individual or group based and are meant to be done outside classroom.” Monica and Alvin’s reports during interviews highlight the fact that teacher educators use group-based activities as a means of facilitating as well as assessing learning outcomes among teacher

trainees at the participating university. Teacher trainees have to work in groups on several projects that lead to their assessment in the various course units. Issues raised by Monica and Alvin were in line with observations of lectures facilitated by both Simon and Brian who would generally leave group-based tasks for teacher trainees to be completed in the course of the week. Therefore, the major discrepancy as to why 100.0% FGD data reported adoption of small-group discussions and yet only 28.0% of observed data was in agreement is explained by the above submissions that a lot of these discussions are conducted from outside the lecture rooms.

### **Presentations**

The fourth low-cost adopted assessment method established in this study was the use of presentations. According to Table 2, 100.0%, 78.4%, 78.9% and 20.0% of FGD, documentary review, interview and observation data respectively revealed that teacher trainees are assessed through presentations conducted in lecture sessions. Five out of the twenty-five lectures observed indicated that even within main stream lectures, teacher trainees were offered opportunities to present to colleagues. Observation data revealed that teacher trainees' presentations in mainstream lectures were common in lectures facilitated by Brian. For example, observations of lectures conducted by Brian revealed that he would either give a take-home assignment to teacher trainees to research about it in the course of the week and present it in the subsequent lecture, or he would provide group-based tasks in the course of the lecture and afterwards called upon representatives from those groups to present the contents of their discussions to the rest of class members. Further observation of 33 tutorials revealed actual presentations by teacher trainees to their colleagues and teacher educators that were assessing their performance.

In line with observed data, participants in all the six FGDs confirmed the adoption of presentations as an assessment strategy at the participating public university in Uganda. For instance, Thelma stated that, "We are assessed through class presentations. In this case, students are assigned a question to research on and present it to the whole class. Thus, assessing our progress in learning and checking if we are understanding." Similarly, Rita said that, "We make class presentations in different assignments thus assessing our progress in the learning process so that to check if we are getting the content" as well as Rita who reported that, "By presenting in class through assignments given to me the lecturers get to know if I got the topic well or not". Therefore, class presentations according to study participants have been adopted by lecturers in this public university. These presentations are important in checking the level of knowledge or understanding on any given topic being presented on.

There was proof of adoption of presentations at the university due to the fact that they are the basis upon which students are scored semester marks. Teacher educators informed us that, the adopted presentations in tutorials constitute 5.0% of the semester marks. Similarly, teacher trainees held this view that presentations are a basis to be scored marks. For instance, Isabella had this

to say, “In course units like Elements of Drama, lecturers came and watched what we were acting after giving us a period of time to prepare. They came and watched us act and they gave us marks.” In agreement with Isabella’s statement of awarding of marks at the spur-of-the-moment to presentation activities is Monica who reported that, “other lecturers assess through presentations in the classroom that involve giving marks there and then.”

### **Hands-on Exercises**

The fifth form of assessment established to have been adopted in the assessment of students at the participating university is the hands-on exercises. Table 2 indicates that 36.8%, 16.7% and 20.0% of interview, FGD and observation data established the adoption of the use of ‘hands-on exercises’ at the participating public university. However, most of the hands-on exercises were prominent in language-based disciplines. Observation data revealed that almost on all concepts being taught by teacher educators of language education, teacher trainees were tasked to try out on the chalk board or to write down in their note books. In one of the course units facilitated by Festus, teacher trainees had to write at least six exercises on the different literary features that culminated into the coursework assignment. For every concept they would study, the lecturer would tell the teacher trainees to relate it to at least one of the Literature textbooks they had ever read and to write the appropriate essay. Actually, at the end of each lecture, he always collected those essays. Equally important, teacher trainees in focus group discussions confirmed that there were hands-on exercises given to them in course units related to methods of teaching, research proposal writing and creative writing.

### **Adoption of Use of Drama as a Form of Assessment**

According to Table 2, 16.7% of the FGD data revealed the use of drama as another assessment strategy in Uganda. Lecturers’ adoption of drama at this public university was exposed by interview data from English and Literature teacher trainees. Drama was considered as one of the out-of-class activities that students offering Literature were engaged in by their lecturers. In the process of preparing a drama skit, participants reported that they had to adequately organize for it through rehearsals. They also conducted research on the various subject matters that were to be incorporated into the plays to be acted. This was revealed by Lamula who stated that in one of the course units, i.e., Elements of Drama, their facilitator encouraged them to act out drama series as one of the ways of assessing their understanding of literature devices related to drama. Lamula was complemented by Raphael who stated that: “Outside the class, lecturers engage us in acting the drama part of the course. We act plays and this is assessed.” Raphael’s submissions although limit drama to specifically one course unit, they make it clear that this particular course unit is not only taught theoretically, but teacher trainees undergo a hands-on exercise to practice what they are taught. This is why, they have to rehearse outside class and later act it out before their lecturers for assessment.

### Discussion

With regard to assessment and evaluation, Saveedra and Opfer (2012) suggest that both formative and summative forms of assessments can be used to evaluate one's performance in the 21<sup>st</sup> century competences especially in attaining high-order thinking competences. Similar strategies have been adopted at the participating university. However, the purposes of their existence and adoption differ. Whereas, Saveedra and Opfer report that in Finland, these are forms through which one's achievements in the various aspects of the 21<sup>st</sup> century competences can be measured, at the participating university in Uganda, similar forms of assessment serve the purpose of accrediting whether one qualifies to be awarded a pass grade in any given course unit.

Presentations held in tutorials would be ideal at offering opportunities to be introduced to management of real-world problems in the teaching profession (Hove, 2011), although majority of the teacher trainees from the departments of History and Religious Studies attended them for purposes of acquiring marks attached to them. Further, while in Nigeria it is a requirement for teacher trainees to write journals about their microteaching sessions (Adeosun, 2010), at the participating university in Uganda, teacher trainees just write essays about the questions they have presented in the tutorial and submit them for assessment. Thus, there are chances that sometimes lecturers do not assess the quality of presentations in tutorials but mind a lot about the essays which is too much on content knowledge.

Most of the adopted assessment strategies at the participating university in Uganda were oral in nature. They were putting emphasis on oral assessment. Participation in oral assessments like drama, presentations and sharing with colleagues on group-based assessments enables learners develop communication competences expected of 21<sup>st</sup> century citizens. Therefore, findings in this particular study are in agreement with Joughin (2008) cited in Monono et al. (2017) who views that use of oral assessment enhances students' inter and intrapersonal relationships and cognitive development. In our case, university students were supposed to demonstrate teamwork during tutorials to make well-balanced presentations before their audiences. Further, presentation in drama skits requires a blend of interpersonal skills, good comprehension of the plot in the story as well as good articulation skills to be scored highly.

The assessment practices at the participating university were generally cheap on the side of the university. The costs towards participating in the adopted assessment strategies were largely incurred by the students. This saves university management budgetary constraints. Even tests that were observed did not require a lot of human resource to supervise them. Instead, one of the participants adopted the use of open-book tests and peer consultation before a student would attempt the test. This mode of test administration is appropriate for development of 21<sup>st</sup> century citizens. University students were given opportunities to make independent decisions on the nature of information to consult on in the different assignments given either as take-home or in-class open-book tests.

The adopted assessment strategies are both formative and summative in nature. They serve purposes of assessment for and of learning. For instance, hands-on exercises, presentations in tutorials, tests, and use of drama served both as formative assessment strategies to guide learning as well summative assessment. Participation in drama for those offering Literature in English as well as hands-on exercises like for students offering creative writing course units, contributed to 30% meant for coursework from these assignments. Consequently, students at the participating university were assessed with a mindset of criterion referenced assessment. Some lecturers, were reported to be giving opportunities to students to do remedial tests so as to realize the minimum marks expected for passing a given course unit. Therefore, adopted low-cost assessment strategies offered students at the participating public university a mix of both high- and lower- order assessment tasks. Assessments like presentations in tutorials and drama greatly measured their high-order thinking capacities to synthesize tasks. This is in agreement with Turyatamba (2017) who encourages criterion-referenced assessment in order to ensure that learners' potentials are discovered.

### **Conclusion**

The most prevalent low-cost forms of assessment that have been adopted at the participating public university in Uganda are; take-home assignments, lecture-based traditional pen and paper tests, presentations in both lectures and tutorials, students acting of drama skits and hands-on exercises. However, the adopted low-cost assessment strategies so far contribute only 30% to the total semester marks. In addition, most of the low-cost assessment strategies have been adopted as a result of individual lecturers' initiatives. It is therefore important to bring university management on board to embrace these assessment strategies in order to bring about meaningful learning among university students as well as to minimise expenses incurred in running and supervising end-of- semester exams at the university. University-wide adoption of assessment strategies like acting a drama scene brings about more wholistic learning than the traditional paper-and-pencil tests. In addition, costs of participation in the drama scenes will be bore by the students instead of university management; adoption of lecture-based tests that permits open-book policies as well as students' discussions before they attempt a task is not only cheap in supervision costs but eliminates rote learning. Consequently, adopting low-cost assessment strategies will be helpful in nurturing a 21<sup>st</sup> century citizen expected of the current education system.

### **Implications to Higher Education**

HEIs that are resource-constrained are hereby advised to sanction the use of low-cost assessment strategies like take-home assignments, presentations, use of drama or role play to assess their students. Adoption and use of these low-cost assessment strategies will help institutions nurture appropriate graduates for the 21<sup>st</sup> century. Public university graduates shall be assessed based on their performance and competences other than what they can reproduce on examination scripts that are subject to cram work. It is therefore important for

management of academic institutions to award more marks to semester-based assessments than what is offered to end of semester examinations. For example, a revert to 60% coursework and 40% end of semester examinations or 70% coursework and 30% end of semester examinations. This will go a long way to promote assessment of students' performance in world-related assignments as opposed to cramming content and reproduction of the same on examination scripts.

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