

### **PREAMBLE**

In the 21st century, education has taken a new turn with technology being at the forefront. How we learn has changed drastically because how we study has changed as well. Technology is seeping into our education system and remote learning, online classes, and online courses are becoming the norm of the day. in this context online education is a pedagogy that uses Internet technologies to correspond and work together in an educational context. This includes technology that combines traditional face to face classroom training with web-based elements and learning environments. The employment of technology in learning is itself a great advantage as it allows you to learn through videos, pictures, audio, and gives you the opportunity to gain extensive knowledge about a particular topic. One can also take live tests and exams with the help of the internet. In this guide an attempt is made to help the instructors on how to effectively assess their online courses. TCU online for Online and Blended Delivery Mode of Courses for University Institutions in Tanzania which urges universities to ensure to ensure that online/blended programs offer quality instructions that meet the required standards, the whole process of delivering courses needs to be monitored and guided.

It is my considered opinion that this guide will help both the instructors as well as students to appreciate the need for assessment online and to guide the assessment process of our courses for the purpose of maintaining quality.

Deputy Vice Chancellor – Academic Kampala International University in Tanzania

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### **DEFINITION OF TERMS**

**Assessment**: This is the systematic basis for making inferences about the

learning and development of students.

**Online Assessment:** This is a type of assessment that is conducted using online

platform.

**Examination**: The mechanism used to establish whether the Candidate meets all

the Examination Requirements set by KIUT;

Examination Requirements: The requirements laid down by KIUT in the Preparation Guide for

passing an Examination.

**Moodle:** Is an acronym for "Modular Object-Oriented Dynamic Learning

Environment." It is an online educational platform that provides

custom learning environments for students.

**Online Examinations:** Is a way of conducting tests and other important exams with help

of the internet. This can be either done at an examination center or

at home.

**Zoom:** Is video conferencing platform used for online examinations.

Quality Assurance: Is the system of administrative procedures, set up to ensure that

effective quality control on online examinations.

#### **PART ONE**

# COURSE ASSESSMENT: AN OVERVIEW

# 1.1 Defining Assessment

Assessment is the process of determining the extent to which the desired results are on the way to being achieved and to what extent they have been achieved. In an education environment, the question becomes: Are students learning (or have they learned) what we want them to learn? In order to get a thorough picture if the students have learnt and understood what they have been taught, the assessor has to gather information on what students know based on their educational experience. The results are typically used to identify areas where improvement is needed and ensure that the course content meets learning needs.

Assessments are the most significant part of the education system as it gives an accurate picture to the students of where they stand. It acts as a catalyst and positive reinforcement to learners by encouraging them to perform better. Therefore, quality assessment is very important as it focuses on a targeted area with complete precision. In order for an assessment to be stated as a quality one, it must present the following characteristics:

- a) The content should be simple, clear and easy for candidates to understand. It should always comply with the syllabus and the specific topic taught.
- b) The test should have a measurable outcome; i.e. there should not be any flaws as regards the content. Moreover, it should be 100% accurate.
- c) The test should grasp students' interest, and that is mainly the reason why the test should be objective at all times. It should be creative and, of course, not boring for the students.

# 1.2 Bloom's Taxonomy

Bloom's Taxonomy is a great resource for designing assessments. It gives us verbs matched with learning outcomes. Developing good online assessments is hard. We need to know why we are assessing. Assessments must be linked to learning outcomes and instructional activities. Assessments demand precise language, a good deal of revision, and need to be aligned with learning outcomes and instructional activities. Above all, we need to use the right assessment

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tool to measure the right skill. Without these practices, even the best technology will not save a poorly designed assessment.

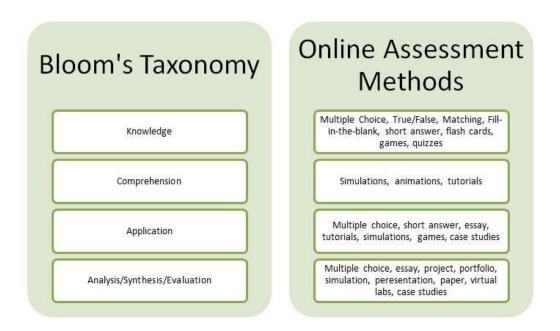


Figure 0.1: Online assessment methods which serve as appropriate measures of cognitive levels in bloom's taxonomy of educational objectives

### 1.3 Types of Assessments

There are several types of assessments, however for the purposes of this document we will classify assessment tools into three categories based on their purpose. These include diagnostic, formative, and summative.

# 1.3.1 Diagnostic Assessment

Diagnostic assessment is used to gather information about students' prior knowledge and to identify misconceptions. It precedes instruction and is not graded. Pretests and student surveys are two examples of diagnostic assessments that can be easily administered at the onset of an online course.

#### 1.3.2 Formative Assessment

Formative assessment provides instructors and students with timely and frequent feedback on mastery of course material and learning objectives. In essence, instructors are sampling student learning and providing feedback based on the results to modify instruction and learning experience. Students can use feedback to identify areas of weaknesses for further study. This type of assessment is not encouraged to be used in forming students' final grades.

#### 1.3.2.1 Tools for Formative Assessment

# **1.3.2.1.1** Discussion Post (boards/blogs/chat)

- a) Individuals or groups can present summaries or engage in conversation on various topics of discussion to promote interaction
- b) Instructors should provide guidelines, deadlines, and discussion forum space to facilitate
- c) Small groups can have one spokesperson who posts while another member can respond to questions/comments from rest of the class
- d) Groups can chat or post discussion board with a goal of coming to a consensus on a problem/issue then present their consensus to rest of class in blog, video, and forum
- e) All major topics need a separate topic area so students can post relevant to the topics while keeping learning objectives in mind when creating discussion topics
- f) Instructors can create a new topic thread when there is an interesting topic you want to emphasize from previous student discussion
- g) Instructors can also create a new thread to post external sources to help students on their weaknesses/misunderstandings from previous assignment
- h) Chats can be helpful when groups or students need an avenue to ask and answer questions to facilitate collaborative work. Instructors can also use chat as "office hour" to interact in real time with the students.

### 1.3.2.1.2 Quiz (short answer, multiple choice)

- a) Short but frequent quizzes can help both the instructor and the student track their learning progress. A quiz can be just 10-15 questions long to provide sufficient information for feedback.
- b) For multiple choice quizzes, automated grading can save instructors time and provide quick feedback for students.
- c) For short answer or short constructed response items, instructors may want to provide additional commentary feedback through emails or through the use of a private communication platform in a Learning Management System.

#### **1.3.3** Summative Assessment

Summative assessment results are used to assign student grades and make comprehensive conclusions about mastery of course learning objectives. Even though more assignments for assessment may be better than too few, instructors need to be cautious of using an excess of assignments. If there are too many assessments, students may focus on quantity rather than quality of deeper learning.

### 1.3.3.1 Tools for Summative Assessment

### 1.3.3.1.1 Midterm/Final exams

- a) Instructors can use mechanism in Learning Management Systems to increase academic integrity
- b) Plan and reserve computer labs well in advance if using human proctors.

# **1.3.3.1.2** Projects

- a) Projects can include simulations, role playing, case studies, problem solving exercises, group collaborative work, and brainstorming or debates on various topics.
- b) For individual projects, participants in group projects should receive peer feedback for a variety of viewpoints. An online environment allows students or the instructor to give and receive immediate feedback.
- c) Students can pursue special interests or pre-determined topics by the instructor, write or create for an audience, and publish or present their findings and conclusions via websites/blogs/forums/discussion boards.

d) Instructors need to provide evaluation forms for self-evaluation and peer assessment

# 1.3.3.1.3 Presentations

a) Presentations can be in the form of informational web pages such as blogs, web-based student-generated quizzes, video/audio, or slide shows.

#### **1.3.3.1.4** Portfolios

- a) Students can be creative in showcasing their learning and growth through various combinations of papers, audio/video, and/or presentations.
- b) Instructors can also pre-determine what ought to be included in each portfolio
- c) Instructors can use rubrics to assess portfolios
- d) Peer reviews of portfolios can also serve as an effective learning and assessment tool

Formative Assessment	Formative and Summative Assessment	Summative Assessment
Case Study		
Discussion (blog, board, chat) Quiz	Paper	Project Portfolio Presentation
	Self-Assessment	
	Simulation/Animation	
	Reflective Journal	
	Virtual Lab/Game	

Figure 0.2: Categories of assessment and their tools

### 1.3.4 Tools for both Summative and Formative Assessment

### **1.3.4.1** Case study

- a) Case studies can be used for individual or group assessment
- b) Asynchronous communication environment (discussion/blogs instead of chat) is actually more appropriate for problem based approaches because students have more time to reflect and collaborate with each other.
- c) Teams of 5-6 are recommended.
- d) Here is an example of using case study for online assessment: Each team member can be responsible for contributing responses for one or more cases by posting their reports and supporting materials. Other team members then respond with questions to the original posts. Based on question and critiques from team members, students can revise individual

reports. Instructor can follow up by asking students to develop a case from their real world experience. Students can use a variety of methods such as simulation/games, videos, slide shows, photos, staged dialogue, and narration over text and images.

### 1.3.4.2 Paper

- a) At the beginning of the course, clearly state submission policy.
- b) The length of papers can range from a short paragraph to a full research report. Regardless of length, students can post their work online for their classmates' critique and feedback as well as instructor feedback.
- c) Students can submit short but weekly papers to assess whether or not the students are understanding the material for that particular week.
- d) One minute paper: Students summarize most important aspect of learning and reflect upon questions regarding their understanding
- e) Muddiest point: Students write on learning that was unclear after a particular lesson or groups of lessons
- f) One sentence summary: Students write a sentence that answers the questions, "who, when, where, how, and why?"
- g) End of course papers can also serve as a comprehensive assessment tool.

### 1.3.4.3 Online self-assessment

- a) Students can assess their own learning and their level/skills.
- b) Short/timed multiple choice self-tests (10-15 questions) using automated scoring are useful for providing quick feedback

# 1.3.4.4 Simulation/Animation/Virtual Lab/Game

- a) Lab simulations are particularly helpful for science courses. However, lab simulations can be expensive. If simulations are not available, an instructor can put together simple lab kits that students can use to conduct science experiments at home.
- b) Another alternative can be to have students work in labs at nearby campuses.
- c) Instructors can also utilize videoconferencing technology to have students observe lab experiments

d) For games, a student creates a game based on their topic or a student chooses a role to play pre-designed by the instructor. For example, the student can play role as a company consultant to solve case studies.

#### **PART TWO**

# ONLINE EXAMINATION REGULATIONS

#### 2.1 Introduction

The Kampala International University in Tanzania (KIUT) has adopted the following guidelines in relation to online examinations:

- a) Online exams can never be administered and taken in exactly the same way as face-to-face exams, with students physically attending;
- b) Exams (examination methods and conduct) are full responsibility of the lecturer concerned:
- c) Oral exams are considered to be the most effective and efficient assessment method.

Moreover, we would like to remind you that:

- a) Online examinations shall be carried out in the ways set out in the list of registered students (oral, written, oral + written);
- b) Online exams will take place via live streaming, and no recording shall be made;
- c) IT support services will be available only when using the softwares and platforms included in this document:
- d) Marks will be recorded by the usual methods.

Please note that this document may be subject to changes or additions that shall also be made during the summer examination session, provided that the changes in question are intended to make a clear improvement for all those involved, without disadvantage to anyone.

# 2.2 Quality Assurance

As part of the measures adopted by the University, the guidelines on online exams require each lecturer, who is the only person in charge of the module, to identify the most appropriate examination methods. These may differ from what was defined at the beginning of the academic year, but always ensuring the overall achievement of the learning objectives set.

# 2.3 Exam Requirements

Before taking an online exam, please make sure of the following:

- a) You can only sit an exam if the relevant module (subject) is included in your study plan: check that you have correctly entered the module of the exam you wish to take;
- b) Check that you have a valid Student ID card, or other suitable, valid identity document;
- c) Register for the exam online;
- d) Make sure you have, in addition to your smartphone, a computer device (PC or MAC) equipped with an audio system, webcam and microphone, and an Internet connection;
- e) Download and install on your computer the Client/Desktop version of Zoom
- f) Download an app for scanning documents (e.g. Tiny Scanner, Cam Scanner, Genius);
- g) Download the Moodle app from your 'app store'

#### 2.4 General Rules

In order to ensure that all exams are conducted regularly and smoothly, below are some general rules on how to deal with unforeseen events or exam irregularities.

Being aware that there may certainly be other possible circumstances in addition to those listed here, the main general rules of conduct are based on the following principles:

- a) Unexpected events beyond the student's control: the written examination will be replaced by an oral exam;
- b) Events resulting from a deliberate intention of the student to cheat in the exam will be cancelled.

Bearing in mind that any measure must be determined by the responsible lecturer and communicated to the student immediately, please find below some examples:

- a) If it is not possible to carry out the examination due to absolute lack of connection or low bandwidth, the written exam will be replaced by an oral exam;
- b) If the internet connection is lost, the exam will be replaced by an oral exam, regardless of the time of the interruption;

- c) If the student is caught cheating, the exam will be cancelled;
- d) If the student's workstation is abandoned before the end of the examination, regardless of the time of the interruption, the exam will be cancelled;
- e) If other people are present and/or interact with the student, the exam will be cancelled.

### 2.5 The Platform for Online Exams

All exams (both written and oral exams) shall be conducted and taken online, using the MOODLE platform.

On the Moodle platform, a dedicated section will be made available for each exam to all registered students and the responsible lecturers/invigilators.

### 2.5.1 Register for your exams

- i. As with usual face-to-face exams, it is important that you register for your online exam by the relevant deadline for registrations, so that you can be included in the list of registered students and be able to take the exam.
- ii. Please cancel your registration by the deadline if you have changed your mind or, in case the deadline has already expired, notify the responsible lecturer of your decision.
- iii. Only once the deadline for registrations online has expired (the day after the deadline for registrations), the responsible lecturer will include all registered students in the Moodle exam session. As a result, you will be automatically added to the exam session, without needing to do anything more.
- iv. You will then receive a confirmation email of your successful registration.
- v. On your online exams section you will then be able to find a list of all the online exams you have registered for.

### 2.5.2 Zoom meeting

- i. The lecturer creates a Zoom meeting as part of the exam on Moodle: such online session will be only open to those who registered for that specific exam on Moodle.
- ii. To log into the meeting, just click on 'Join'.

### 2.6 Oral Exams

The guidelines on oral exams include, in addition to what was outlined above, the following:

- a) Oral exams to be administered online follow the same procedures as for face-to-face oral exams:
- b) When taking an online exam, you will need to show your face and a valid ID document in order to be correctly identified;
- c) The exam will be entirely conducted online via live streaming on Zoom, or using other platforms.

Please note: in the latter case, it will not be possible to request support from the University's IT Helpdesk;

- a) You will be immediately informed of the mark obtained;
- b) Please note that, while taking an oral exam, students may choose to withdraw at any time until the examination commission has recorded the mark.

Please note that oral exams can also be managed on Moodle: as part of the exam session, lecturers can launch Zoom meetings and divide students into groups, if needed, and publish all the relevant information.

# 2.7 Written Exams 1 — Moodle Quiz

This is a type of written exam that is usually administered face-to-face through open-ended or multiple-choice questions, and can now be delivered online through the QUIZ activity on Moodle.

The exam takes the form of a Moodle Quiz, with online invigilation through a Zoom meeting. Each student can be placed in a separate virtual room - the so-called 'Breakout room' - to be invigilated during the exam.

The use of the Safe Exam Browser (SEB) is also being tested, which allows to put the student's computer in "lockdown" mode (i.e. regulating the access to any utilities and preventing students from using unauthorised resources), in order to ensure greater reliability of exam results.

Please note that you can only take part in the exam if you have previously registered online for exms.

# 2.7.1 Moodle Quiz

Quiz sessions on Moodle will be set up according to certain criteria and methods:

- a) Students can only answer one question at a time, and are not allowed to navigate back and forth between the questions this is to discourage any communication between them;
- b) Questions (and answers) are randomised for each student;
- c) At the beginning of the test, the student's computer will enter the "full screen" mode to prevent access to unauthorised online resources;
- d) A special feature will prevent multiple sessions on Moodle for the same user, to prevent students from receiving help from other people.

# 2.7.2 Moodle Quiz - technical details

The quiz is administered via Moodle based on the following methods:

- a) The quiz is accessed from the student's PC or laptop
- b) The quiz is monitored by the invigilator/s through a Zoom meeting, and as follows:
- c) The student's PC or laptop must be equipped with webcam and audio system (microphone and speakers);
- d) The student can be placed in a 'Breakout room';
- e) If needed, an individual Zoom video call on the student's smartphone may also be required for additional checks on the student's workstation and surrounding area.
- f) Students will be provided with the login password for the Moodle Quiz at the beginning of the exam.

# 2.7.3 Identity check

The Zoom meeting will be organised in such a way as to ensure a fair examination: to prevent messages and exchanges of information between students, the "rename" option, the chat between users and the "remote control" option will be disabled.

For identity checks during the test, the lecturer will use the ID report, a document which shows the student's photo, i.e. the picture on their student ID card. Students should therefore keep their Student ID card or suitable valid identity document handy. In case of any doubts of identity, or for additional checks, the lecturer may carry out a verification at the end of the test, inviting the students concerned to stay logged in for longer.

If the exam includes the use of a 'Waiting room' - a virtual waiting room in which students are placed when they log in, and where they will need to wait to be admitted to the test - the lecturer can make a check, by calling attendance before admitting the students to the meeting, so that only registered students can access the exam.

If, on the other hand, a virtual 'Waiting room' is not included, the lecturer may subsequently remove from the meeting anyone who, despite being logged in, has not regularly registered for the exam online.

Instructions for the exam will be provided to students during the main meeting before the virtual room being assigned to each student.

The student, before proceeding with the quiz, will be asked to enable the "share screen" option on their PC.

### 2.7.4 Moodle quiz - exam procedures

When the guiz starts, you (the student):

- a) Must have your webcam and microphone on at all times during the exam;
- b) Your PC will go in "full-screen" mode; if necessary, you will be required to use Safe Exam Browser (SEB);
- c) Can interact with your lecturer via Zoom or a common chat;
- d) Cannot submit the exam before the scheduled end time.

# 2.7.5 Completion

At the end of the time allowed by the lecturer to take the test, the quiz will be automatically closed by Moodle if it has been previously configured in this way, or by manual action.

At this point, you can leave the meeting; the certificate of attendance, if needed, can be requested to the lecturer by email at a later time.

# 2.8 Written Exams 2 - Paper-Based Exams On Moodle

This is a type of written exam which requires students to write by hand their exam answers on sheets of paper, and then scan them and upload them on Moodle (*attività compito*).

The test takes place on Moodle, with real-time online invigilation through a Zoom meeting. The student can be placed in a separate virtual session - the so-called "breakout room" - to be invigilated during the exam.

Please note that you will be admitted to the exam only if you have previously registered by the relevant deadline online.

In addition to two blue or black ink pens (check that these work properly before logging in for the exam), you will need to have with you an adequate number of lined sheets of paper.

### 2.8.1 Paper-based exam on Moodle - technical details

Online paper-based will be administered and taken as follows:

- a) The lecturer will invigilate students live via Zoom: this must have been previously installed on your PC or laptop. Please make sure both you and your sheets of paper are clearly visible on camera;
- b) Enable screen sharing on Zoom;
- c) Log into Moodle and view the exam paper (in PDF format);
- d) Your screen is then switched to full-screen;
- e) During the exam session, send a picture of your sheets of paper to the lecturer via the Zoom chat using your smartphone;

f) At the end of the exam, scan your sheets of paper (including the draft copy, if any) via the App and upload the PDF file on Moodle.

### 2.8.2 Identity check

The Zoom meeting will be organised in such a way as to ensure a fair examination: to prevent messages and exchanges of information between students, the "rename" option, the chat between users and the "remote control" option will be disabled.

For identity checks during the test, the lecturer will use the ID report, a document which shows the student's personal photo, i.e. the picture on their student ID card. Students should therefore keep their Student ID card or suitable valid identity document handy. In case of any doubts of identity, or for additional checks, the lecturer may carry out a verification at the end of the test, inviting the students concerned to stay logged in for longer. The check will be carried out one student at a time in a special 'breakout' room.

If the exam includes the use of a 'Waiting room' - a virtual waiting room in which students are placed when they log in, and where they will need to wait to be admitted to the test - the lecturer can make a check, by calling attendance before admitting the students to the meeting, so that only registered students can access the exam.

If, on the other hand, a virtual 'Waiting room' is not included, the lecturer may subsequently remove from the meeting anyone who, despite being logged in, has not regularly registered for the exam online.

Instructions for the exam will be provided to students during the main meeting before the virtual room being assigned to each student.

Please make sure you leave a blank space on the first sheet of paper, where you will need to place your Student ID Card before scanning the document, so that you can scan your identity document together with your exam answers.

# 2.8.3 Paper-based exam on Moodle - Exam procedures

The lecturer, during the test, is allowed to carry out random monitoring and checking actions as follows:

- a) By checking the shared screen that all students must show in the first place;
- b) By asking students to take a picture of the exam papers together with their student ID card (or the document used for identification) and send it to the lecturer via Zoom Chat using their smartphone (a fast and simple option for sharing via Zoom can generally be found in the gallery of your smartphone).

During the exam, you (student):

- a) Must keep your webcam and microphone on at all times;
- b) Can interact with the lecturer via Zoom or a common chat;
- c) Cannot submit the exam before the scheduled end time;
- d) May be required to use the Safe Exam Browser (SEB).

# 2.8.4 Completion

Upon completion of the exam, you will need to scan your sheets of paper using an app for scanning (e.g. TinyScanner, Cam Scanner, Genius) on your smartphone, and bearing in mind to scan your Student ID card together with the first sheet of paper of your exam answers.

Once the papers have been scanned and saved as a PDF file, this must be uploaded on Moodle using the Moodle app on your smartphone.

At this point, you can leave the meeting; the certificate of attendance, if needed, can be requested to the lecturer by email at a later time.

# 2.9 Auxiliary Aids For Students With Sensory Disabilities And Special Educational Needs

# 2.9.1 Students who are in one of the following situations:

- a) Disability, supported by specific medical documentation;
- b) Specific Learning Disorder (SLD)/learning disabilities;
- c) Temporary disability or invalidity, supported by a medical certificate, and resulting from accidents, surgery, hospitalisations, prolonged illness, or other clinical conditions that prevent the student from attending classes; can request the necessary assistive technologies, depending on their needs, as well as extra time for completing their exams

Generally, in these circumstances students have the right to request assistance in reaching the class in which the examination will take place, while the extra time will be as follows: 50% extra time for people with disabilities; 30% extra time for people with Specific Learning Disorder (SLD)/learning disabilities. Since the online exam takes place in the student's home and the student in question cannot be helped by any people external to their household, a family member shall be appointed as 'Tutor' for the time of the online exam.

# 2.9.1 Exam procedures

Students intending to take an online exam will need to send their request by email to the respective department. The request must be submitted before the exam period, specifying the title of the module, the email address of the responsible lecturer, and their needs/support services they're entitled to.

Upon receiving the request, the department will check the documents proving the level of disability and provide the required support services in accordance with the relevant legislation.

Based on the existing supporting documentation and the legislation in force, the department will notify the lecturer of the rights of the student concerned.

Students who have registered for the exam and are entitled to 50% extra time or 30% extra time depending on their disabilities or Specific Learning Disorder (SLD)/learning disabilities, must be ensured, before the exam, that:

- a) The exam complies with the accessibility requirements based on the student's needs;
- b) Alternative examination methods are available (e.g. oral exam) if it is not possible to carry out the examination in compliance with the accessibility requirements needed.

# References

Bloom, B.S. (Ed.). (1956-1964). *Taxonomy of Educational Objectives*. New York: David McKay Company Inc.