

Using E-Assessment to Attain the Desired Learning Outcome in Higher Education

Dr. S. Latha Venkateswari

M.A., M.Phil., M.Ed., PGDTS, Ph.D.

Associate Professor of English

Government College of Technology

(Affiliated to Anna University, Chennai)

Coimbatore – 641013

drlathagct@gmail.com

Abstract

Higher education aims to equip the students with higher order thinking; the ability to apply the theoretical concepts to their daily life situations and contribute their knowledge to develop the society. Naturally, teachers have to find out the ways to meet the demands of higher education. Semester system does not give sufficient time for realizing the goals of education. Teachers are pressurized to complete the syllabus, administer tests periodically before the semester examinations, evaluate the test papers, prepare the students for taking up the semester examinations and produce better results. Given this situation, teachers hardly find quality time to assess the entry level behavior of the students and teach accordingly. However, the advent of technology and the subsequent E-Assessment has been a boon both to the teachers and the students. While the teachers easily identify the area where the students lag behind, the latter get immediate feedback to their responses, which create interest among the learners to do better every time that paves way for the teachers and the learners to achieve the goals of higher education. This paper analyses how E-Assessment can help teachers achieve the desired learning outcome and make the process of teaching and learning interesting and effective.

Keywords: E-Assessment, Higher Education Classes, Computer-Assisted Assessment, Computer-Based Assessment, Diagnostic, Formative, Summative Assessments, Online, Offline Assessment, Evaluation, Google Classroom, Kahoot.

Introduction

Assessment plays a vital role in education as it measures students' learning. As a result, teachers and students struggle hard to make this process better. Yet, assessments in the forms of tests and exams subject students to mental trauma. But when teachers adopt E-Assessment as a tool for judging students' mastery of subjects, learning takes place at a faster rate. Since, today's younger generation spend their time more on technology, English language teachers can conduct

assessments through mobile devices using online tools like Google Classroom or Kahoot. In turn, learners become enthusiastic about taking tests and break the myths about assessments.

This paper highlights the types of assessment, introduction to E-Assessment, challenges and need for E-Assessment, types of assessments, types of tests used in E-Assessment, merits and demerits of E-Assessment, and the classroom experience of the author in E-Assessment.

Types of Assessment

Educators across the globe use various types of assessments to judge the progress of learners in mastering concepts. The objectives of this assessment are to evaluate the skills and knowledge acquired by the students through learning and how these help students achieve the learning objectives and the effectiveness of the educational program taken up by the students. Academicians across the globe use “Formative Assessment, Summative Assessment and Diagnostic Assessment...to evaluate one’s skills and abilities” (Sharma, 29).

Diagnostic Assessment

Teachers do this assessment at the beginning of the course to identify the entry level mastery of the students in a particular subject. This assessment helps teachers identify the problematic areas of the students; decide the number of hours to be dedicated to teaching certain concepts in detail; decide on the pedagogy to be used; and the types of assessments to be used.

Formative Assessment

Teachers use this assessment while teaching a particular subject and it is continuous in nature. Teachers check the understanding level of students periodically; judge their efficiency in teaching particular concepts; conduct tests from a particular unit and repeat the tests till the specific objective is obtained.

Summative Assessment

In this assessment, teachers set question papers to assess the end behavior of the learners at the completion of the courses. Assessment is done on the basis of the general learning outcomes and long term goals; assesses the performance of students based on the complete syllabus of the course; judges the suitability of the methods of instruction and the effectiveness of the methodology adopted.

E-Assessment

E-Assessment “is a medium by which we can assess one’s cognitive skills, practical abilities and knowledge with the help of information technology” (Sharma, 29). The advent of technology has made the process of teaching and learning interesting, beneficial, objective oriented as well. Entry of internet to the lives of people has opened the gates of knowledge to a wide range of subjects. Especially, E-books and E-learning have seen a paradigm shift from

teacher-centered approach to learner-centered one. Unlike the teacher-centered assessment, learner-centered assessment gives immediate feedback to the learners thereby making the learners understand how to present ideas precisely. In fact, E-Assessment helps teachers achieve the objectives of the prescribed syllabus.

Challenges and Need for E-Assessment

Since E-Assessment is an off-shoot of technology, there are few challenges in implementing it in higher education system, which believes in established conventional examination pattern. Firstly, institutional authorities expect the teachers to submit the assessments in hard copies for the purpose of inspecting or auditing. Secondly, it seems to be quite expensive as the institute has to invest money for setting up good infrastructure to meet the demands of this assessment. Thirdly, teachers do not have enough knowledge on using E-Assessment or its tools. Above all, teachers are reluctant to spend their time for making online assessments.

Considering the benefits of E-Assessments, it is quite essential to implement this type of assessment in higher education. Online assessments are more authentic than paper-based assessments, as the former gives submission date and time, which can be retrieved from the database at any time. Besides, individuals get personal attention from the teachers in the form of explanations for wrong answers once they submit their responses. As a result, learners are encouraged and motivated to give a better performance every time. While speaking about good infrastructure, teachers can give assessment tasks at any computer lab with internet connectivity. This assessment practice will be successful only when the teachers are given sufficient training in using this mode of assessment.

Having understood the need for using technology and other latest methodologies for imparting language skills, Tamil Nadu Government has been conducting training programmes for teachers working in Government and Private Engineering colleges to educate them about the new methodologies of teaching English to the students since 2019. Despite enhancing one's technical knowledge, teachers are hesitant to spend their time for devising online assessments, which generally consume time. Unless teachers understand the importance of online assessments and volunteer to spend their time for designing E-Assessment questions, teaching and learning process will not fulfill the learning objectives.

Types of E-assessment

E assessments are of different types based on the use of internet and the device used.

Online Assessment

In an online assessment, questions are set on electronic forms and the link is shared with the students. They have to write the test either at one place in the institute or can use their mobile

device to complete the task at any time before the due date. The main advantage of this assessment is that the learners can take up the test from a place of their choice, get immediate feedback and know their scores. Moreover, when online assessment has quality, it “develops a student voice, addressing the issues of passivity, and academic dishonesty” (Holtz, 289).

Generally, online assessments are used for summative evaluation. It is also used for diagnostic purposes. Nowadays, college entrance tests are also conducted online. Assessments for courses like NET, edX, Coursera, Blackboard, Moodle and MOOC also fall under this category.

Offline Assessment

Learners attend to the courses online and take up assessments through offline mode such as paper-based exams or students have to take up the assessment in a lab where the software installed administers the test and evaluates the responses. In paper-based exams, teachers evaluate the performance and upload the results online. This type focuses on summative, formative and diagnostic assessments. Offline assessments are of two types: Computer-Assisted and Computer-Based.

Computer-Assisted Assessment

CAA “is a common term for the use of computers in the assessment of student learning. The term encompasses the use of computers to deliver, mark and analyse assignments or examinations” (Bull, 4). In this type, learners get assessment questions like quiz, assignment and other activities to be completed through computers. People can use this type to assess objective, subjective, formative, summative, and diagnostic along with criterion based assessments. Alongside, it is considered “successful for assessing learning and providing timely and useful feedback to students.” (Armatas, 98)

Computer-Based Assessment

In this type, computers assign questions to the students. It has two types: Linear and Adaptive assessments.

1. Linear Assessment: In this type, computers assign questions from simple to difficult irrespective of the standard or performance of the students. It is like a full-length exam, which covers the entire subject.

2. Adaptive Assessment: In this assessment, computers give questions to the learners based on their performance level. Since, it is a personalized assessment of an individual, it is called adaptive assessment. Generally, this is used for formative and diagnostic assessments.

Types of Tests Used in E-Assessment

Language in India www.languageinindia.com ISSN 1930-2940 20:4 April 2020

Dr. S. Latha Venkateswari

Using E-Assessment to Attain the Desired Learning Outcome in Higher Education

E-Assessments help teachers identify the difficult areas of students and track their progress while they are learning new concepts. Online teaching and learning platforms like Google Classroom and Kahoot offer various types of assessments such as Multiple-Choice Questions, Drop-down, Matching Exercises, Short Answers, Paragraph Questions, Check Box Questions, File Upload Questions, Linear Scale Questions, etc.

The author used E-Assessments to decide the teaching methodology and to cater to the needs of the heterogeneous group of the first year Mechanical and Electrical and Electronics Engineering students.

1. Multiple Choice Questions

Students' understanding is best judged through this assessment. Correct answers and distracters are given as multiple choices to test the understanding level of students. This test gives immediate feedback and releases the scores as soon as the students submit their answers.

Choose correct answers:

2. Scratch one's head means --- 1 points

- imagine
- get confused ✓
- irritate
- think

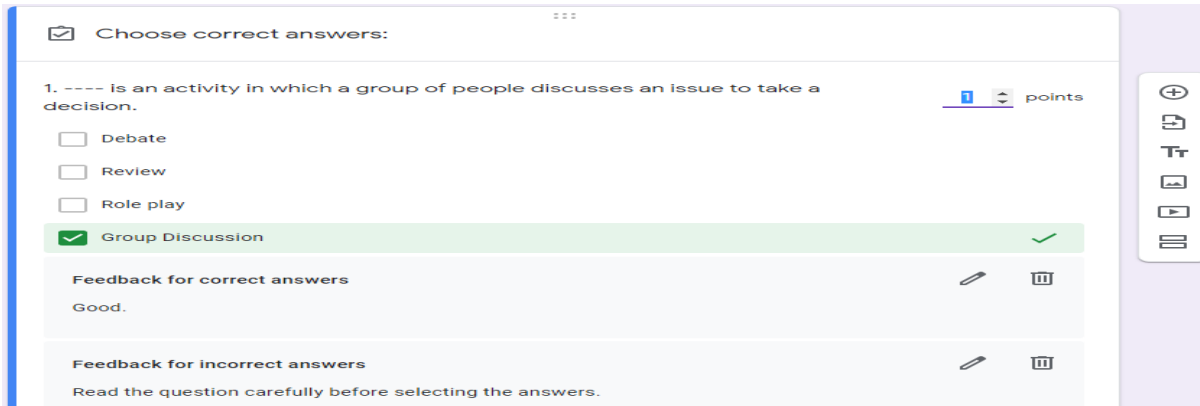
Feedback for correct answers ✎ 🗑️
Good

Feedback for incorrect answers ✎ 🗑️
In general, when people get confused, they'll be scratching their heads.

The author conducted this test at the beginning of the course to decide the standard of students, which helped her design different assessments for different groups without letting the students know of their standard.

2. Drop-Down Questions

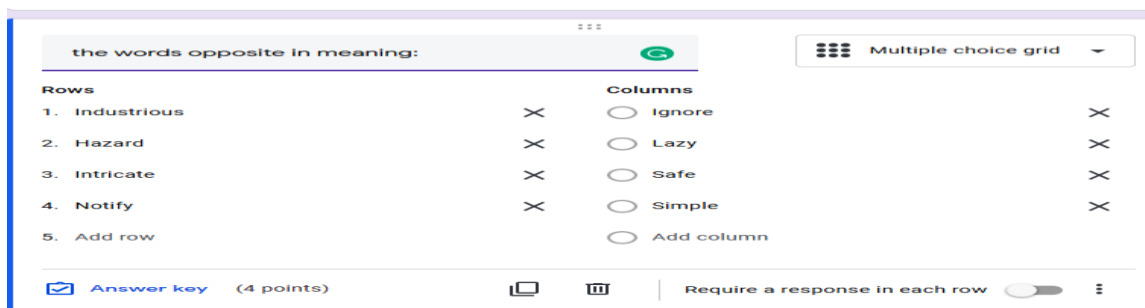
In this test, answers are given one below the other and students have to choose the right answer from a list of ideas, in which every answer seems to be right. Unless, the student has thorough understanding of the concept, it will be difficult for them to find the correct answer.



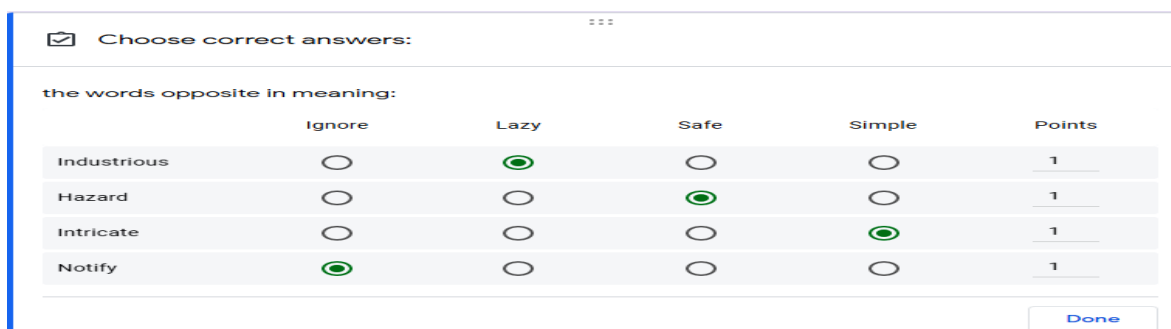
This test was conducted soon after the completion of every concept to check whether the students have understood the concept or not.

3. Matching Exercises using Multiple Choice Grid

This test is given to see how students select the correct answer by connecting the meanings of one word with the other. This test aims at the analytical skills of the students.



Response given to the students' submission:



This test was conducted to judge students' understanding of synonyms, antonyms, phrasal verbs and idioms. This test aimed at building students' vocabulary.

4. Check Box Questions

This test is conducted to judge students' ability to select the relevant ideas related to a concept leaving out irrelevant ideas. This test promotes precision in learning.

Process description includes ----- 5 points

- opening sentence ✓
- discourse markers
- closing sentence ✓
- present continuous tense
- present perfect tense ✓
- simple present tense ✓
- active voice
- impersonal passive voice ✓

Feedback for incorrect answers

Process description focusses on the steps involved in the process, which do not use present continuous tense and active voice.

Done

This test was conducted after completing concepts like Process Description, Visual Interpretation, Paraphrasing passages, Email writing etc. This test helped students remember important ideas related to the concepts, which enabled them to write proper answers.

5. File Upload Questions

Monotony peeps in at certain points of time and when the teachers engage their students in assessments like file upload, the “Netizens” show keen interest in culling the details from the fields, which the teachers have posted. It tests the creativity, imagination and confidence of the students. The teacher has the freedom to allow the types and maximum number of files to be uploaded.

Speak for 2 minutes on any one of the topics given here: 1. How do you spend your days during this lockdown period or 2. Suggest some methods to overcome corona. 3. Suggest some measures to help daily wage workers or small scale business

File upload

Allow only specific file types

Maximum number of files 1

Maximum file size 10 MB

This form can accept up to 1 GB of files. [Change](#)

Answer key (15 points)

Required

This test was conducted to make students reflect on general topics, which helped them collect points needed for writing paragraphs and essays on general topics. Later, the materials submitted were posted on the Google Classroom page. This gave a chance for students to get an exposure to an array of topics.

6. Linear Scale Questions

E-Assessment not merely tests the understanding capacity of the students, but also acts as a tool for collecting the views of individuals. Besides, it is used for rating and survey.

State whether learning materials posted on Google Classroom are useful to you during this lockdown period. Select the choice as given here 1. Not at all 2. partially 3. useful 4. good 5. highly useful

1 2 3 4 5

Partially highly useful

The author regularly administered this test to know the difficulties of students both in the assessments and the teaching methodologies. For instance, students wanted to have more game based assessments and Kahoot was used to design tense activities.

7. Paragraph Questions

Teachers give paragraph questions to judge students' accuracy, brevity and clarity in presenting the ideas. Paper based assessment does not give a chance for analyzing these skills. But through E-Assessment, teachers can set word limit and other rubrics, which they want to test in the performance of the learners. When these questions are created through Google Documents and posted, teachers can easily open the word document of the answers, correct the language mistakes made by the students and return it to the students soon after assessing. Moreover, the corrections will be notified to the students, which help them understand how to avoid making mistakes in written tasks. This makes students good writers.

Describe the process of making tea using sentence connectors, opening, and closing sentences.

Paragraph

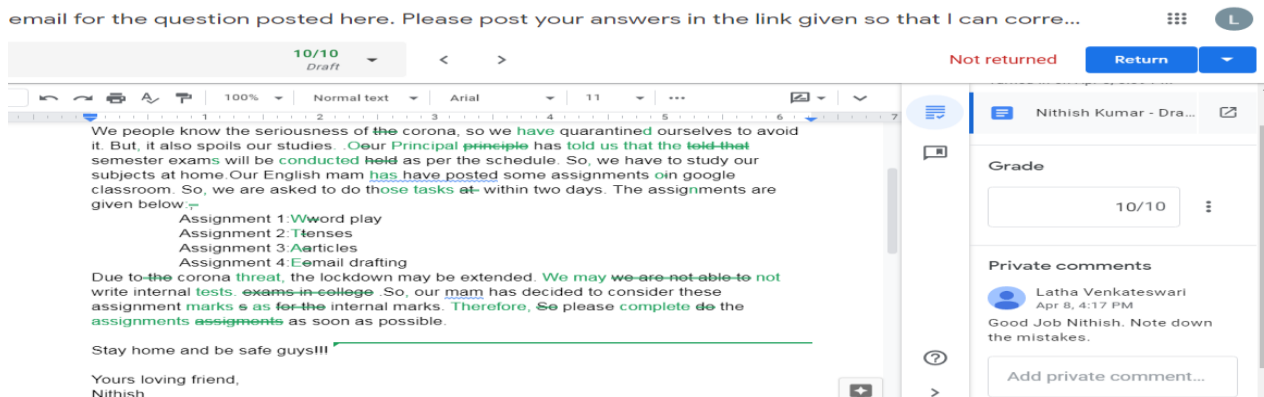
Description

Long answer text

Length Maximum character count 150 Custom error text

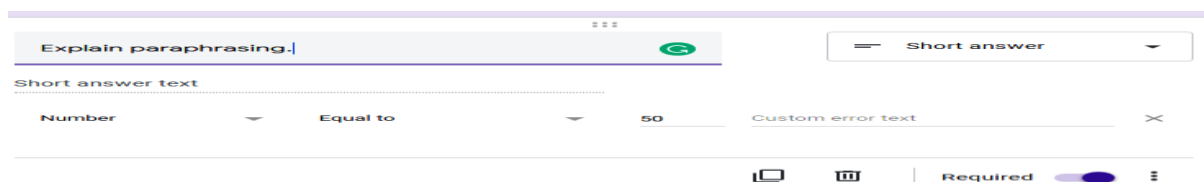
Required

Teacher's Response to the Students' Answers



8. Short Answer Questions

Such tests evaluate whether the students write apt content since the teacher sets the desired word limit needed for writing suitable answers. This makes the learners give relevant ideas alone to the questions. This test judges the students' appropriacy.



Merits and Demerits of E Assessment

E-Assessment has more benefits than demerits. To begin with, teachers and students experience accuracy in teaching and learning. Then, youngsters get fun filled activities through E-Assessment, which makes them enthusiastic about learning concepts. Besides, students are motivated to learn since they get prompt and regular feedback for all the tests that they take up. Moreover, E-Assessments simplify the endeavors of the teachers by evaluating the answers in seconds, prepares a report of the answers along with highlighting which aspect of the syllabus has to be given due importance as well. While students take up tests at anytime, anywhere with their mobile devices, teachers get freedom to post the tests at their convenience.

Teachers and students experience some problems related to E-Assessment. To start with, learners should have a smart phone, which is not an issue as most of the youngsters possess one in these days. Even otherwise, students can borrow their friends' device and complete the task. Then, students might not be serious about completing the tests. When teachers assign due dates for submitting tests along with the announcement that assessments will be considered for internal marking scheme, students take the tests seriously. Besides, teachers who hesitate to devote time for framing E-Assessment questions can collaborate with other teachers who prepare questions periodically for assessing students' performance.

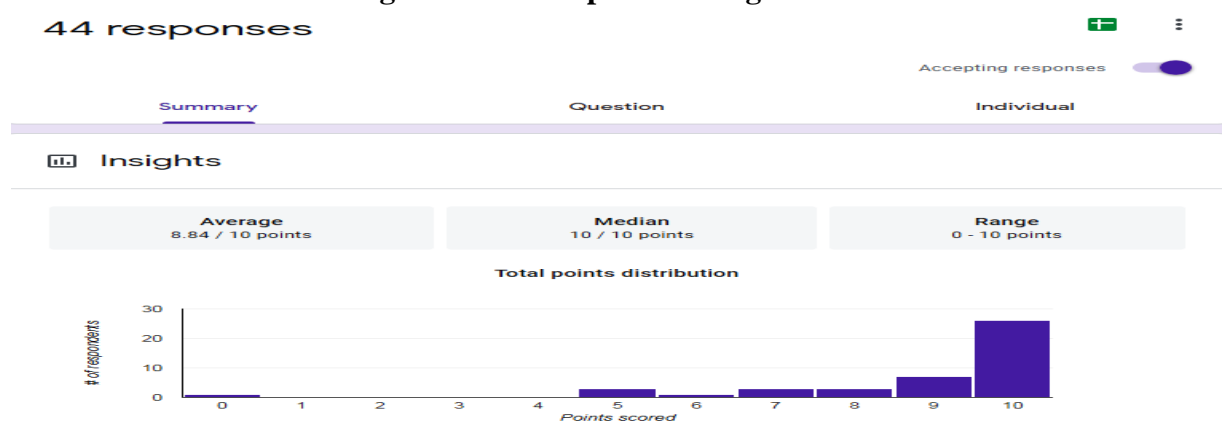
Students' Experience of E-Assessment

Having gained teaching and learning experience through conventional method all through the School Education system, students were quite uncomfortable with the introduction of E-Assessment as soon as they got into the first year studies of their engineering education. Initially, the author devoted few classes explaining the reasons and methods to be adopted for taking up E-Assessment. Initially, students had difficulties in submitting their answers. Google forms generate E-Assessment report only when students use “Turn in” option included in each assessment. Even after repeated instructions, students, oblivious of using the “Turn in” option went ahead with merely submitting their answers. This made google generate report where the students who submitted their answers were shown as “Assigned”, which means yet to complete the task. This resulted in confusion both to the students and the teacher. Subsequently, the teacher conducted mock E-Assessments, which later resolved the issues.

Authors’ Experience of E-Assessment

The author adopted E-Assessment only to free the students from undergoing the mental trauma of getting labeled as average, intermediate and advanced learners. Students’ mastery level in English was tested through MCQs at the beginning to assess their standard. Accordingly, students got customized assessment, which continued till the learners became thorough in their learning. E-Assessments dissolved the differences between the students and encouraged every individual to learn English with interest. Regular assessments after a month removed the differences between the groups and the teacher framed same set of questions to the entire class. The most interesting aspect of E-Assessment is that students learnt every concept at their own pace and got the urge to learn more with precision, which helped the author, do away with the differences between the grasping abilities of the students.

Diagnostic Test Report of Google Classroom



E-Assessments helped the author pay individual attention to the heterogeneous group of learners, keeping the students in the comfortable zone of learning and impart the knowledge required to each individual. Further, the teacher understood the progress of her students through the report generated for each assessment by online tools like Google classroom and Kahoot.

Sample Copy of Kahoot Report

	A	B	C	D	E	F	G	H
1	Duplicate of Synonyms & Antonyms							
2	Played on	13 Feb 2020						
3	Hosted by	venkateswari						
4	Played with	27 players						
5	Played	20 of 20						
6								
7	Overall Performance							
8	Total correct answers (%)	86.30%						
9	Total incorrect answers (%)	13.70%						
10	Average score (points)	22469.37 points						
11								
12	Feedback							
13	Number of responses	0						
14	How fun was it? (out of 5)							
15	Did you learn something?	0.00% Yes			0.00% No			

Initially, the teacher had to convince the office of the Controller of Examinations regarding the submission of online copies of the students' assessments rather than the written copies. Yet, time and date of submission of answers coupled with feedback given to the individual student strengthened the authenticity of the procedure adopted.

E-Assessments carried out in the classroom and for internal assessments facilitated students gain sufficient knowledge in listening, speaking, reading and writing skills. The customized assessments based on the LSRW skills made students use English language with confidence. E-Assessment adopted by the teacher for internal assessments helped more than 50% students get grades like O, A+ and A in the end semester exams. Above all, E-Assessments created a bond between the teacher and the students as the latter observed consistently, the role played by the teacher for improving the standard of every individual in the class; co-operated with the teacher in completing the tasks on time and remained thankful to the teacher.

Summation

The learning objective of any syllabus is to make students gain knowledge through learning and apply it to their real life situations. Semester system does not give enough time to complete the syllabus, assess the students' assignments with utmost care and impart the right knowledge to the learners at the learners' pace. But technology has put an end to this problem by offering teachers and students an array of tools to meet the demands of learning objectives of any course. Hence, when higher education system adopts E-Assessment both for internal tests and external exams, it will benefit both the teachers and the students.

References

1. Armatas, Christine & Colbert, Bernard (2009). Ensuring Security and Integrity of Data for Online Assessment. In Spratt, Christine (Ed.), Learning Technologies and Evidence-Based Assessment Approaches. (pp.97-116) Information Science Reference, New York.

2. Bull, Joanna & Mckenna, Colleen. *Blueprint for Computer Assisted Assessment*. Routledge Farmer, New York, 2004.
 3. Holtz and Radner (2006). *Assessment and College Progress: Capacity Building*. In David D. Williams, Mary Hricko (Eds.), *Online Assessment, Measurement, and Evaluation: Emerging Practices*. (pp. 275-291) Information Science Publishing, USA
 4. Sharma, Devansh., Gupta, Kajal., Joshi, Anurag., Gupta, Anamika., (2019). *Tools for E-Assessment Techniques in Education: A Review*. In Azevedo, Ana & Jose Azevedo (Eds), *Handbook of Research on E-Assessment in Higher Education* (pp.28-52) Information Science Reference, USA.
-