

CLASSROOM ASSESSMENT METHODS AND TOOLS:A REVIEW

¹Prasanthi.B.V & ²V.V.Vijetha Inti

^{1,2}Department of Computer Science & Engineering, Department of Electrical & Electronics Engineering, Vishnu Institute of Technology, Bhimavaram, India.

Received: February 23, 2019

Accepted: April 02, 2019

ABSTRACT: : Assessments are key components of all education system and play a major role in a students learning journey. It is the bridge between the teaching and learning .By measuring student's achievement and skill mastery, assessment facilitate the students to learn, teachers to improve instruction, administrations decide how to allocate resources and policymakers to evaluate the efficacy of education programs. There are several methods to assess student learning outcomes. This paper is a study of existing educational assessment methods and formative assessment tools.

Key Words: Assessment methods and formative assessment Tools.

1. Introduction

Analyzing students how they can understand and are able to give output in all the subjects is Assessment. Assessment is very significant to track progress and to plan next steps. The various techniques involved in assessment are the tools and instruments to collect the information about how the students can demonstrate desired learning outcomes.

There are a number of methods used to evaluate student learning outcomes. Even though the responses from student surveys are informative, when they are combined with test results of students they will be more meaningful. Direct methods of assessment help us to analyze the students learning while indirect methods help us to analyze those students to reflect on their learning. Some of the direct methods from which we can assess are slip tests, seminars, presentations by students etc. and some of the indirect methods for the assessment are surveys and interviews.

The course marks of students are a key basis of data about the achievement of the students. This data is not sufficient for the measurement of student's learning outcomes. There are many types of course work that can be used for the assessing Student Learning Outcomes.

The rubrics are developed for instructors to use for grading and scoring the assessment. These rubrics can be used by these programs

- Course exams
- Course assignments/projects
- Essays, written exams, research papers, etc.

Below are the guidelines to follow when selecting assessment methods for a particular program:

- To collect information that will answer the program's questions
- To use different methods to assess each student learning outcome
- To include both indirect and direct assessment methods
- To include both qualitative and quantitative methods
- To choose various methods that allows the assessment of both strengths and weaknesses

In this paper we are giving a brief review of various assessment techniques used for analyzing students in both direct and indirect methods. Hence these types of assessment give:

- Different ways for monitoring and learning of the student's progress
- It also helps in understanding their student's progress for providing report to parents

2. Types of Assessments

2.1 Diagnostic Assessment :

It is also called as Pre-Assessment. Before creating any instruction, it is necessary to know, to what kind of students we are teaching. Assessing a student's strengths, weaknesses, knowledge, and skills prior to instruction/course is called as Diagnostic Assessment. It is used to identify current knowledge and/or misconceptions about a topic. Based on this data ,we can plan our own instruction.

Eg: Pre and post tests, Self-Assessments, Interviews, Observations, Polling

2.2 Formative Assessment:

It is used in first attempt of developing instruction. In this method, assessing a student's performance during instruction, and usually occurs at regular intervals throughout the instruction process is done. It is used to monitor the student learning and to provide feedback during the course. It is used for finding a growth over a time.

Eg: Students Observations, Homework, Peer reviews, Informal presentations, Think/Pair/Share, Visual Thinking Strategies, Quiz, Feedback

2.3 Summative Assessment

Measuring a student's achievement at the end of instruction. It is to find mastery and performance levels. Long term benefits can be determined by the students who attended the course or test.

Eg: High Stake tests as Mid examinations, End University exams

2.4 Norm-Referenced Assessment

Comparison of a student's performance against other group/norm of students. It is relative grading.

Eg: SAT Test, IQ Test

2.5 Criterion-Referenced Assessment

It measures a student's performance against a goal, specific objective, or predefined performance standards. It checks what students are expected to know and be able to do at a specific stage of their education is an absolute grading.

Eg: ACT Test, The Smarter Balanced Assessment Test (SBAT)

2.6 Interim/Benchmark Assessment

Evaluating student performance at periodic intervals, frequently at the end of a grading period. It can predict student performance on end-of-the-year summative assessments.

Eg: Attitude scales, Interest Inventories, Critical thinking tests/checklists

2.7 Confirmative assessment

It is an extension of summative assessment. When a instruction has been implemented in a class room, it is necessary to take assessment that to check still is it a success after a year or not.

2.8 Ipsative assessment

It measures the performance of a student against his/her previous performances. This method is to check the progress of student to find the improvement.

3. Formative assessment tools

3.1 Google Forms:

These are used to create forms with hyperlinks, images, and videos. They are mainly used for surveying such as pre/post-course survey and for quizzes.

3.2 Plickers:

Plickers is a simple app that let the teachers collect real-time formative assessment data without the need for student devices such as pens, pencil etc. It is an assessment tool made by a teacher who are looking for a quick and simple way to check student understanding.

3.3 Edulastic:

It is a powerful formative assessment tool. It is an efficient platform supports teachers who are expected to assess and track student progress on meeting standards.

3.4 Poll Everywhere:

A real-time polling app that works with mobile, Twitter, or in our web browser. That enhances and amplifies classroom discussion, participation, and understanding.

3.5 Socrative.com:

A free web-based service that lets the students to access with prepared activities or on-the-fly questions to get immediate insight into understanding. It is Powerful and easy-to-use student-response system has the potential to support responsive teaching.

3.6 Nearpod:

Nearpod works in the browser of any device to let you create or upload a slideshow, to which you then add your own questions. Interactive slideshow tool engages students, promotes collaboration

3.7 Playposit:

It Integrates with a wide variety of learning management systems. The features in it are both basic and useful, it's an easy tool to learn; adding interactivity to video is a snap.

3.8 Classflow:

It is the collaborative and cloud-based lesson delivery software for interactive whiteboards and interactive displays. Classflow lets teachers to build lessons using cards and can create the content of our own choice.

3.9 Spiral:

Spiral is an interactive learning platform that teachers can use for quick assessment, student collaboration, interactive video, and flipped classroom activities.

3.10 Formative:

Formative lets you create lessons using any Internet-connected device and is optimized for 1:1, BYOD, flipped or blended classrooms. It gets the students results and respond in real time.

3.11 Classkick:

It allows teachers to create lessons and assignments that students work through on their devices at their own pace. Teachers can observe student progress in real time and provide immediate feedback. Teachers can Upload a PDF and add text, drawings, photos, hyperlinks, and audio recordings to create dynamic lesson content.

3.12 Padlet:

A free website for collecting and sharing text, images, videos, and files. It acts as an online bulletin board where users place "digital sticky notes". These digital stickies can contain text, web links, uploaded files, photos, and even video!

3.13 Seesaw:

Students show their work with photos, videos, drawings, text, PDFs, and links. Students get excited to choose from Seesaw's creative tools. It is used to encourage students engagement. We can also import directly from most popular apps.

3.14 Recap:

A free app, It is question-led chat tool augmented by the power of video that makes it easier to start deeper, more empowering discussions with students and teachers. It helps the students to explain their thinking on a question or topic using video.

3.15 Kahoot:

This is a popular free game based learning. It is used in educational technology in schools and other educational institutions. "Kahoots", are multiple-choice quizzes that allow user generation and can be accessed via a web browser.

3.16 Quizizz:

It is a free tool. It is an interesting game and quiz-making application. It works on any web browser. Teachers can assign Quizizz through google classroom, all the data of course is updated in classroom dashboard. Teacher receives the notifications when students complete the assignment. Even the response and grades of students are viewed

3.17 Quizlet:

Quizlet is mainly used for students to learn or revised the topics by studying with flashcards, games and more. The Students who participates in it, a rank is generated based on their responses in less time.

3.18 Quizalize:

This is a new website for playing class quiz games. The teacher inputs their own questions or they can use a pre-made quiz. It turns boring tests into fun classroom team games, effortlessly assign follow-up activities that boost student results.

3.19 Triventy:

It is a collaborative game-based learning platform. This is a tool for making group surveys and quiz games. Again, the teacher can use their own questions or use ones on the site. It allows teachers & students to co-author and play quizzes in class.

3.20 SketchParty TV:

A Pictionary-style drawing game, perfect for reinforcing vocabulary and visual communication skills.

4. Conclusion

Assessment methods are the techniques and tools for the collection of information, to find out the progress of students, to what extent they reached the desired learning outcomes. It is used to measure a student's expertise or knowledge of a given subject. This paper explains about existing assessment techniques and formative assessment tools. The tools help the students for recalibrating and give insights to differentiate instruction. It also allows the students to revise and reflect on formative assessments.

References:

1. HAN, X., & GAO, M. (2011). Study on the Net-based Formative Assessment and Summative Assessment [J]. *Journal of Hebei Radio & TV University*, 5.
2. Gikandi, J. W., Morrow, D., & Davis, N. E. (2011). Online formative assessment in higher education: A review of the literature. *Computers & education*, 57(4), 2333-2351.
3. Krause, J. M., O'Neil, K., & Dauenhauer, B. (2017). Plickers: A formative assessment tool for K-12 and PETE professionals. *Strategies*, 30(3), 30-36.
4. Juanes, J. A., & Ruisoto, P. (2018, October). Technological Devices for Enhancing Active Learning. In *Proceedings of the Sixth International Conference on Technological Ecosystems for Enhancing Multiculturality* (pp. 392-396). ACM.
5. Awedh, M., Mueen, A., Zafar, B., & Manzoor, U. (2015). Using Socratic and Smartphones for the support of collaborative learning. *arXiv preprint arXiv:1501.01276*.
6. Jing, T. W., & Yue, W. S. (2016). Real-Time Assessment with Nearpod in the BYOD Classroom. In *Assessment for Learning Within and Beyond the Classroom* (pp. 103-107). Springer, Singapore.
7. Mallon, M., & Bernsten, S. (2015). Collaborative learning technologies. *Tips and Trends Winter 2015*, ACRL American Library Association
8. Dellos, R. (2015). Kahoot! A digital game resource for learning. *International Journal of Instructional Technology and Distance Learning*, 12(4), 49-52
9. Dizon, G. (2016). Quizlet in the EFL classroom: Enhancing academic vocabulary acquisition of Japanese university students. *Teaching English with Technology*, 16(2), 40-56.
10. Dyer, K. The Ultimate List-65 Digital Tools and Apps to Support Formative Assessment Practices.