TITLE
ASSESSING STUDENT LEARNING USING MODERN TOOLS AND TECHNOLOGIES OF 21ST CENTURY

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- OUTLINES
  - Introduction
  - Basic Types Of Assessment- (Formative And Summative)
  - Formative Vs Summative Evaluation Process
  - Approaches Used For Assessment
  - Assessment Tools And Technologies
  - Conclusions
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INTRODCUTION

- Student assessment has changed in the new millennium. New technologies based on Internet are evolving to replace old traditional paper and pencil methods.
- Online learning and assessment has become a new educational paradigm, gaining popularity at all levels of educational institutions including Higher education.
- Using latest technologies students has freedom to choose when, where, and how they wish to learn and be assessed for the grading

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What Is Assessment?

- Assessment is the process of gathering 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.

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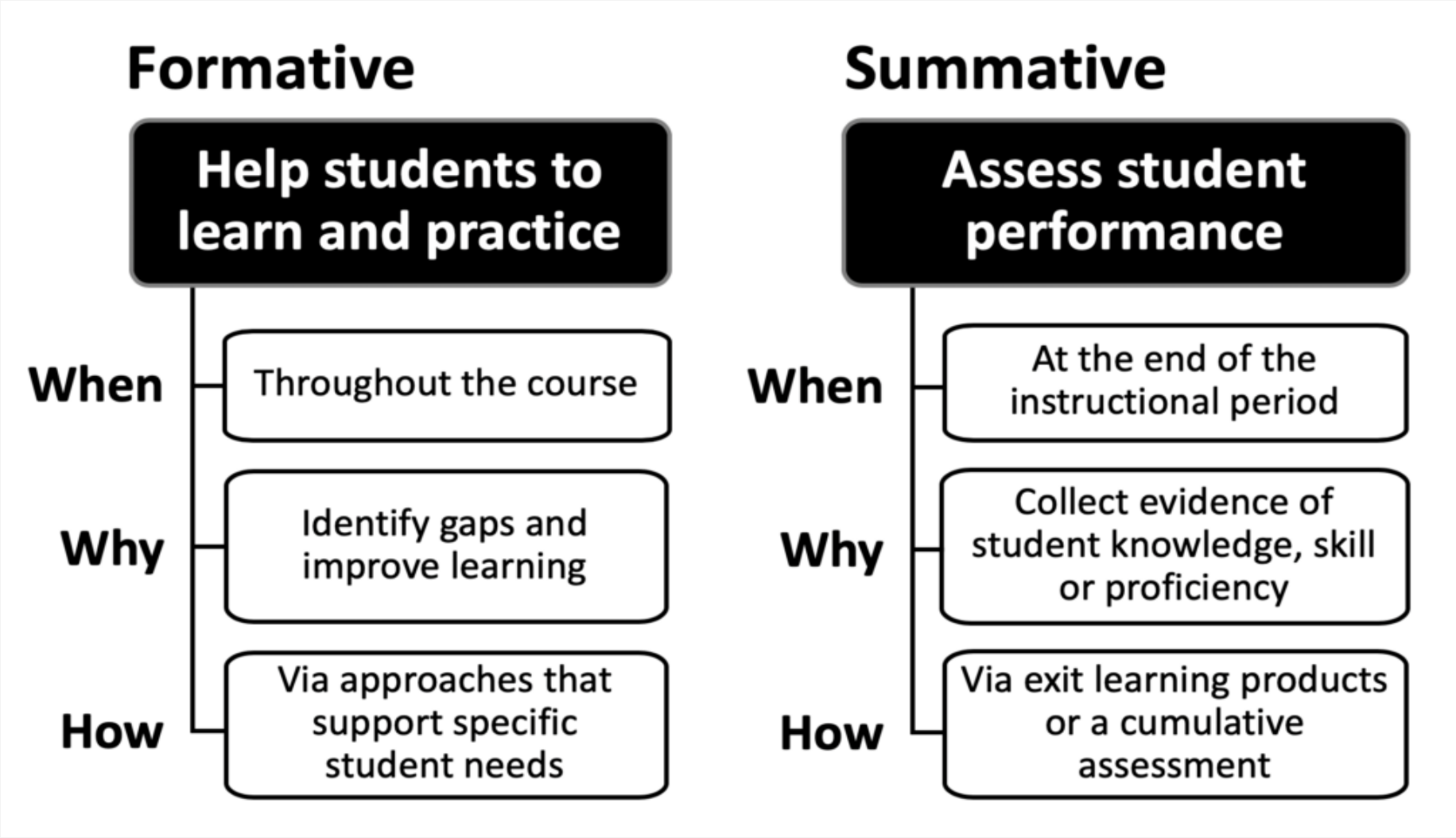
What is the purpose of assessment?

- As per the definition, the common goal of assessment is to evaluate and improve student learning, but the objectives can vary slightly, depending on the type of assessment that's used.

There are two basic types of assessment:

1. **Formative assessments** occur within an online course or lessons are used to determine how well a student is learning the material. They're best when they are **ongoing**, consistent, and provide critical feedback to learners.
2. **Summative assessments** are sometimes referred to as a **final exam** and measure what the student has learned after completing a course. They can validate how well your content supports the course's overall learning goals.

FORMATIVE VS SUMMATIVE ASSESSMENT



HOW ARE THESES EXECUTED? FORMATIVE VS SUMMATIVE

ASSESSMENT, MEASUREMENTS AND EVALUATION ARE TRIPLETS. HOWEVER

HERE WE ONLY EMPHASIZE MORE ON ASSESSMENT. THE PROCESS SHOWN HERE IS THE EXECUTION OF THE FORMATIVE AND SUMMATIVE ASSESSMENTS

FORMATIVE V/S SUMMATIVE EVALUATION

Quality	Formative	Summative
Purpose	detect strengths & weakness	Overall achievements
Frequency	During or end of unit	In end - point of certification, promotion
Area covered	One unit/no. of units	Course content
Administrative utility	Advisory, not always for permanent record	Decisive, for permanent record
Feedback to students	Done immediately	Inform regarding pass or fail
Feedback to faculty	If significant no. shows error than weakness in instruction	Overall pass or fail

APPROACHES FOR ASSESSING/EVALUATING STUDENTS

There are several approaches for assessing/ evaluating students: The best method to use will vary, based on the learning needs and objectives. For example, an online quiz will be appropriate if your goal is to measure knowledge gains quickly. But if you want to test your students' interviewing skills, you're better off using a dialogue simulation.

1. Online quizzes-
2. Essay questions-
3. Drag-and-drop activities
4. Online interviews
5. Dialogue simulations
6. Online polls or survey
7. Game-type activities
8. Peer evaluation and review
9. Forum posts

1. ONLINE QUIZZES

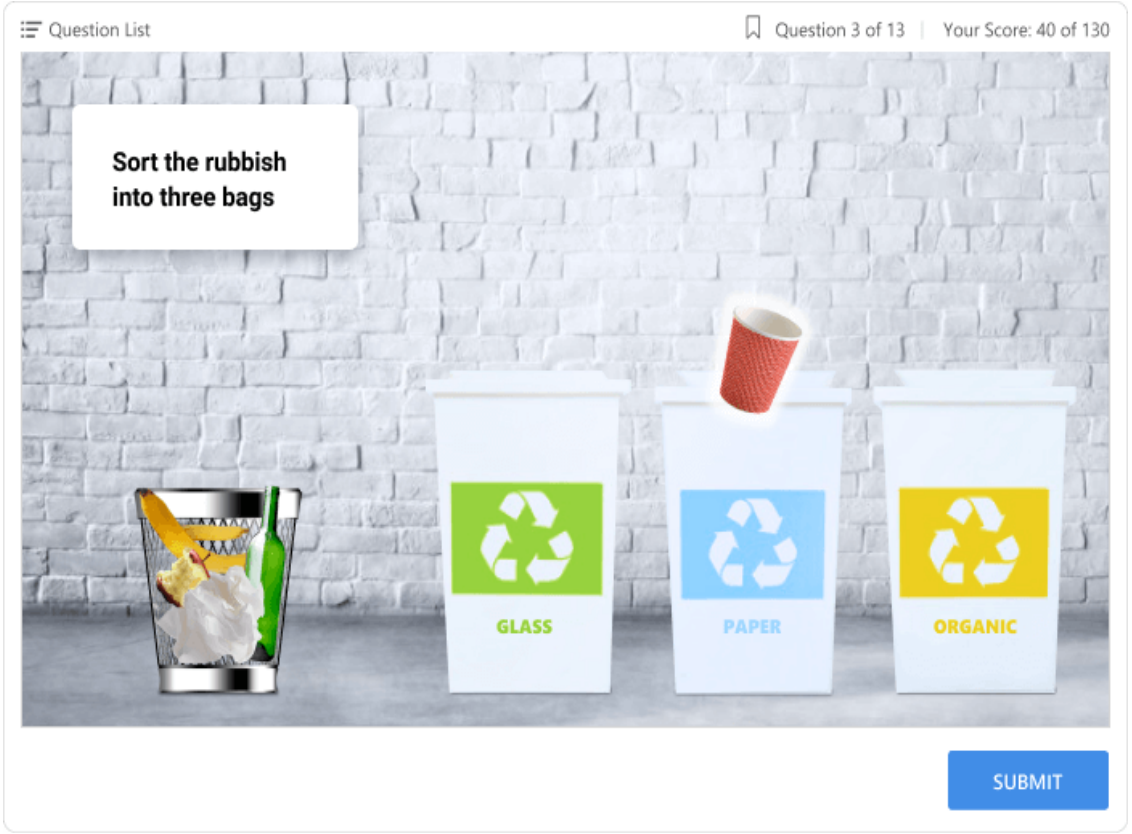
- **Online Quizzes-** Are traditional methods but when paired with technology, they are an excellent way to engage student learning. Quiz questions can take several forms, such as **multiple-choice, fill-in-the-blanks, True and False** .
- **benefit of quizzes**- short and easy to assess and question order and options can be randomized, so each student's quiz is unique.
- **Online quizzes are ideal for measuring learning results across a wide audience**. Since each student takes the same test, you can compare and contrast results across different classes, schools, or communities.
- **A non-graded online quiz can be given prior to the start** of a lesson to gain a baseline measurement of a student's existing knowledge. You can also embed a knowledge check test into a module to reinforce concepts taught in the lesson or make a **final graded test at the end of the course to evaluate students' overall performance.**

2. OPEN ENDED/ESSAY QUESTIONS

- Open-ended or essay-type questions are one of the most popular **qualitative assessment methods**.
- They prompt learners to **explore their thoughts, feelings, and opinions**, while testing their overall comprehension of a topic.
- This type of question **encourages critical thinking** and is best suited for **evaluating higher-level learning**. **Essay questions require a longer time** for students to **think, organize, and compose their answers**.

3. DRAG-AND-DROP ACTIVITIES

- Drag-and-drops are a type of assessment that show a learner's **ability to link information and apply knowledge to solve a practical problem**. You can incorporate both images and text in a drag-and-drop activity, giving it a real-world feel that is both challenging and engaging.
- It's essential to use this assessment type **when you want learners to be able to apply knowledge in a real-life situation.**



4. ONLINE INTERVIEWS

- You can incorporate a video conference within your online teaching to give learning a more personal touch. During brief online interviews, **students can demonstrate their proficiency in language, music, and other courses**,
- For example, where mastery of specific skills is an important requirement. Sometimes it may be **beneficial to conduct group interviews** – for **team project reports**, for example.
- Interviews can also include a **mentoring component enabling students to get immediate feedback from instructors** and help them feel more responsible about their studies.

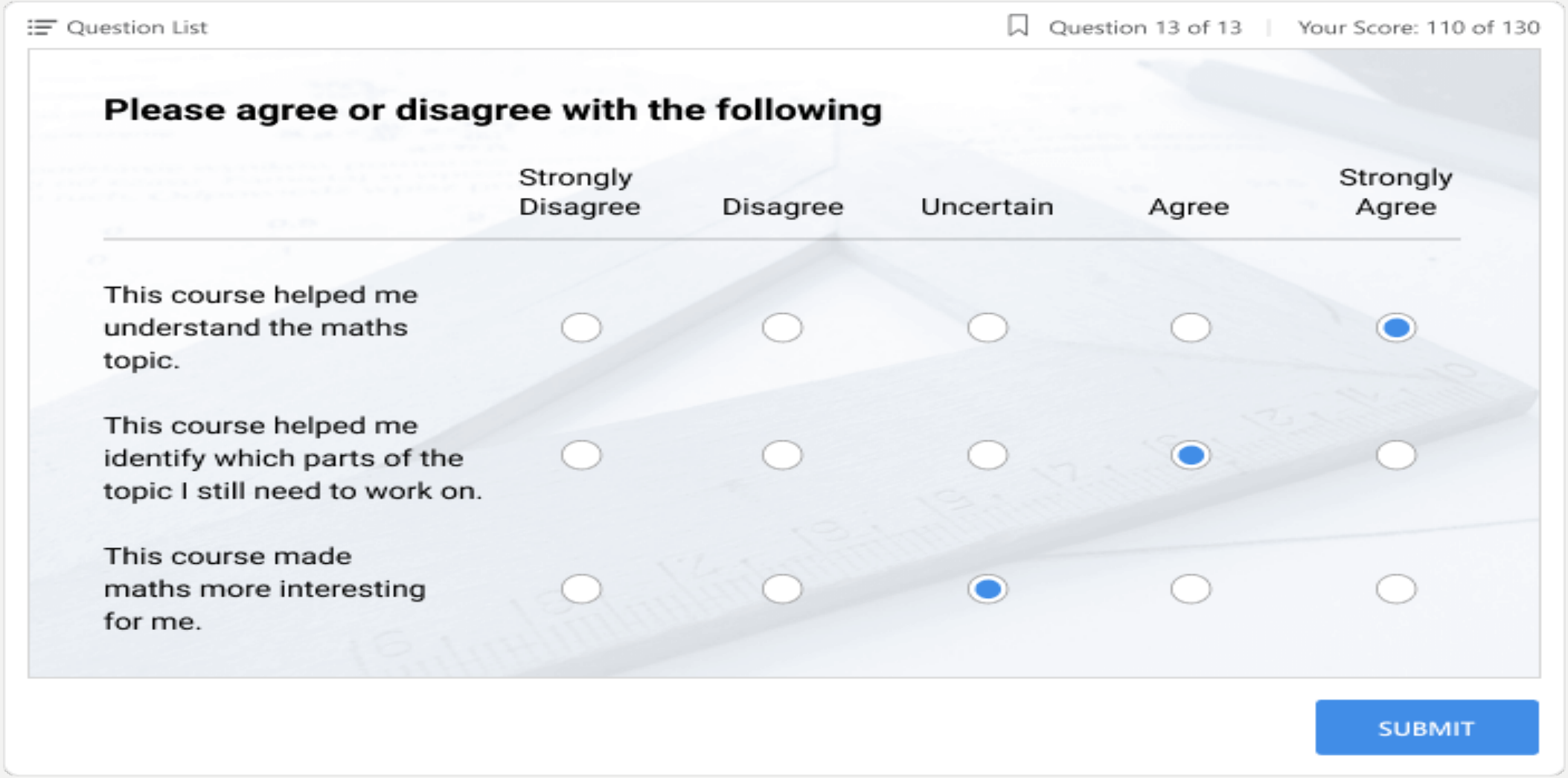
5. DIALOGUE SIMULATIONS

- A dialogue simulation is a way to train learners for **real-life conversations with customers, colleagues, and others**. When creating a conversation activity based on a situation that a student may face on the job, let them know what to expect and provide a safe place to **practice their reactions and responses**.
- For example, with dialogue simulations, you can help your students master sales and customer service skills **or test how well they are prepared for a job interview.** These activities can also be a good learning support tool for experienced workers who want to refresh skills they haven't used in a while.

6. ONLINE POLLS

- Polls allow you to capture **feedback directly from your audience** about their learning experience. They can be used to measure anything from learning satisfaction to why a student made a particular choice during a lesson.
- Online surveys are highly engaging for learners because they allow them to share their opinions, make themselves heard, and are quick to complete.
- You can also use poll questions when you want to quickly grab and focus your learners' attention on something important or break the ice during an online group interview session. For the latter, you can simply carry out a mood survey.

6. ONLINE POLLS- CREATED USING ONLINE E-LEARNING AUTHORING TOOLS



7. GAME-TYPE ACTIVITIES

- Game-type form a series of test questions into a game. For example, a trivia game might ask learners to answer a certain number of questions within a period of time and award points based on the number of correct answers.
- Game-based assessments are considered fun, and not “tests”, so they are generally a good indicator of **true skills and knowledge**. Besides, they have been shown to enhance learning by promoting the **development of non-cognitive skills, such as discipline, risk-taking, collaboration, and problem solving.**
- Add game-type activities when you want to engage and challenge your students in a non-traditional way.

8. PEER EVALUATION AND REVIEW

- Peer evaluation turns the tables to put learners into the instructor's seat and **allow students to review and edit each other's work.** Such activities give each participant a chance to reflect on their knowledge and then communicate their feedback in a consistent and structured way.

9. FORUM POSTS

- A forum is an online discussion board organized around a topic. Asking students to contribute to a forum post is an **excellent way to gauge their understanding, their interest, and support their learning**. In this activity, students are given a **critical thinking question based on a lesson or a reading** and are asked to reflect on both. Their answers are posted to a forum and their peers are given the chance to respond.
- **Use this method when you want learners to interact, communicate, and collaborate as part of the learning process,** while checking their comprehension of the topic.

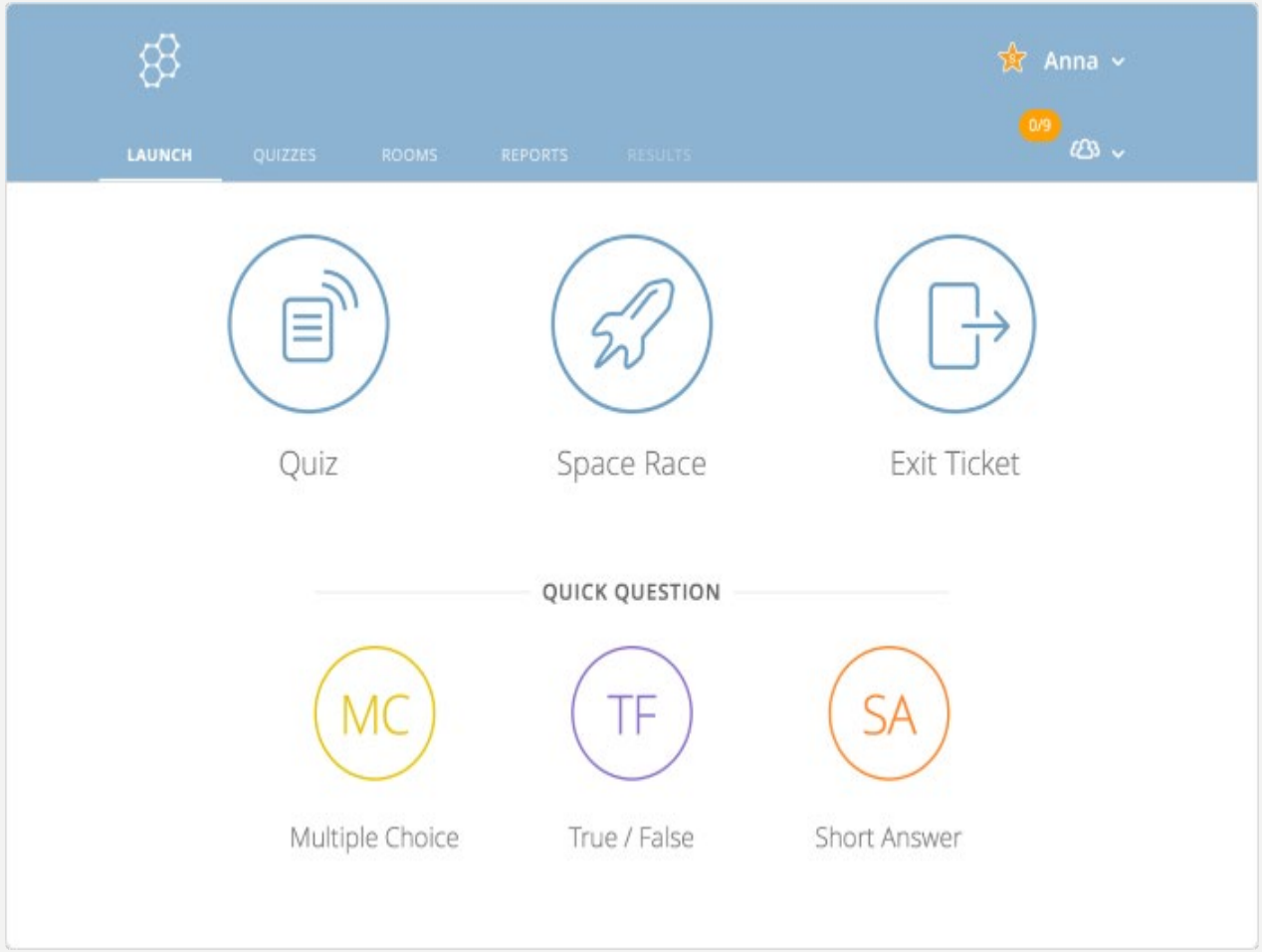
TOOLS DEVELOPED TO ASSIST THE ASSESSMENTS [1]

1. ISPRING SUITE

It allows you **to create interactive quizzes, surveys, and dialogue simulations for student assessment**, as well as PowerPoint-based courses, video tutorials, interactions, and flipbooks

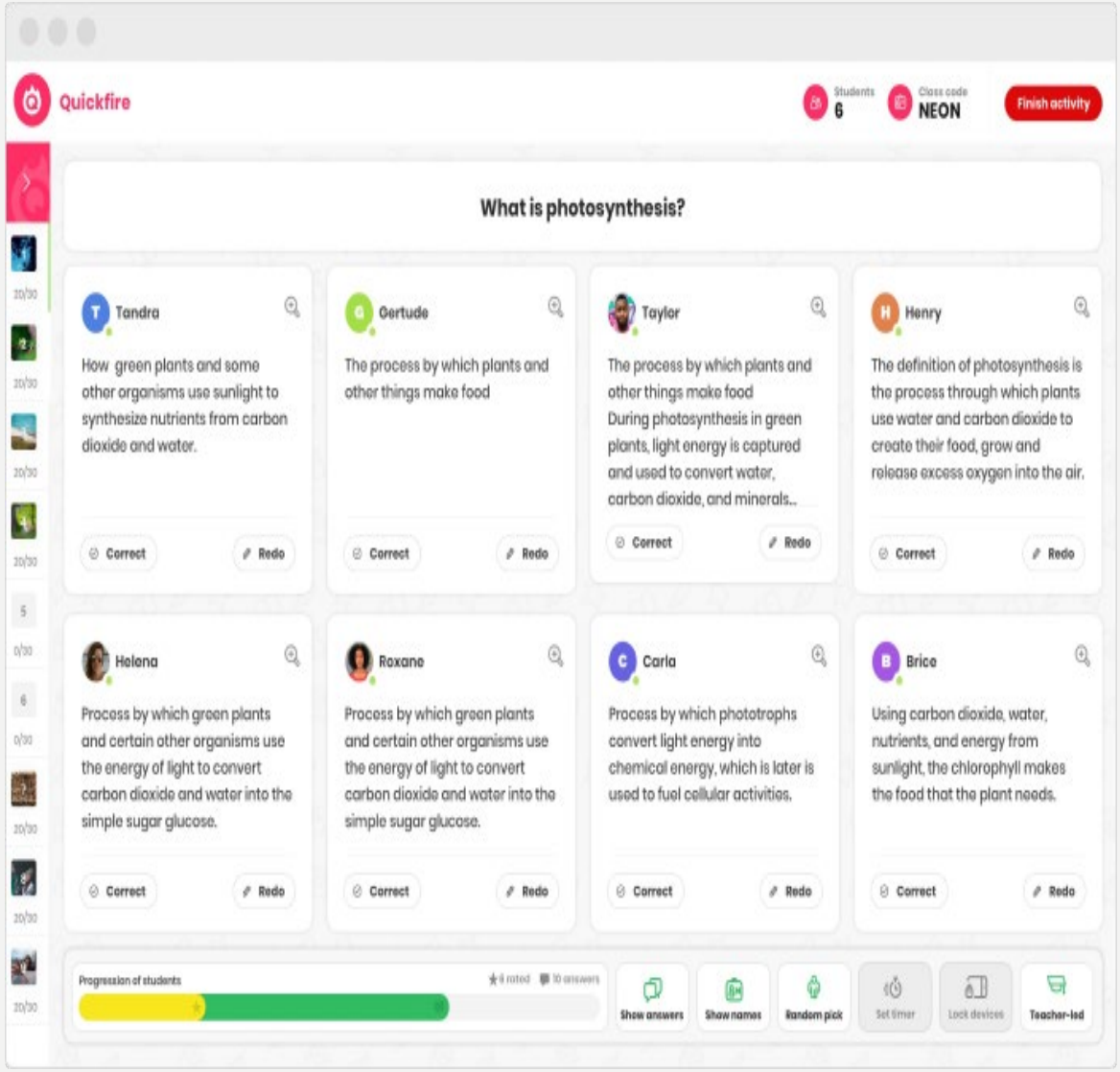
2.SOCRATIVE

Socrative is a quiz making tool that enables you to **create tests with multiple-choice, true/false, and short answer questions**. It also has some interesting features like exit tickets for the students to gather feedback on the lesson and a fun Space Race game where students “race” to the finish line.



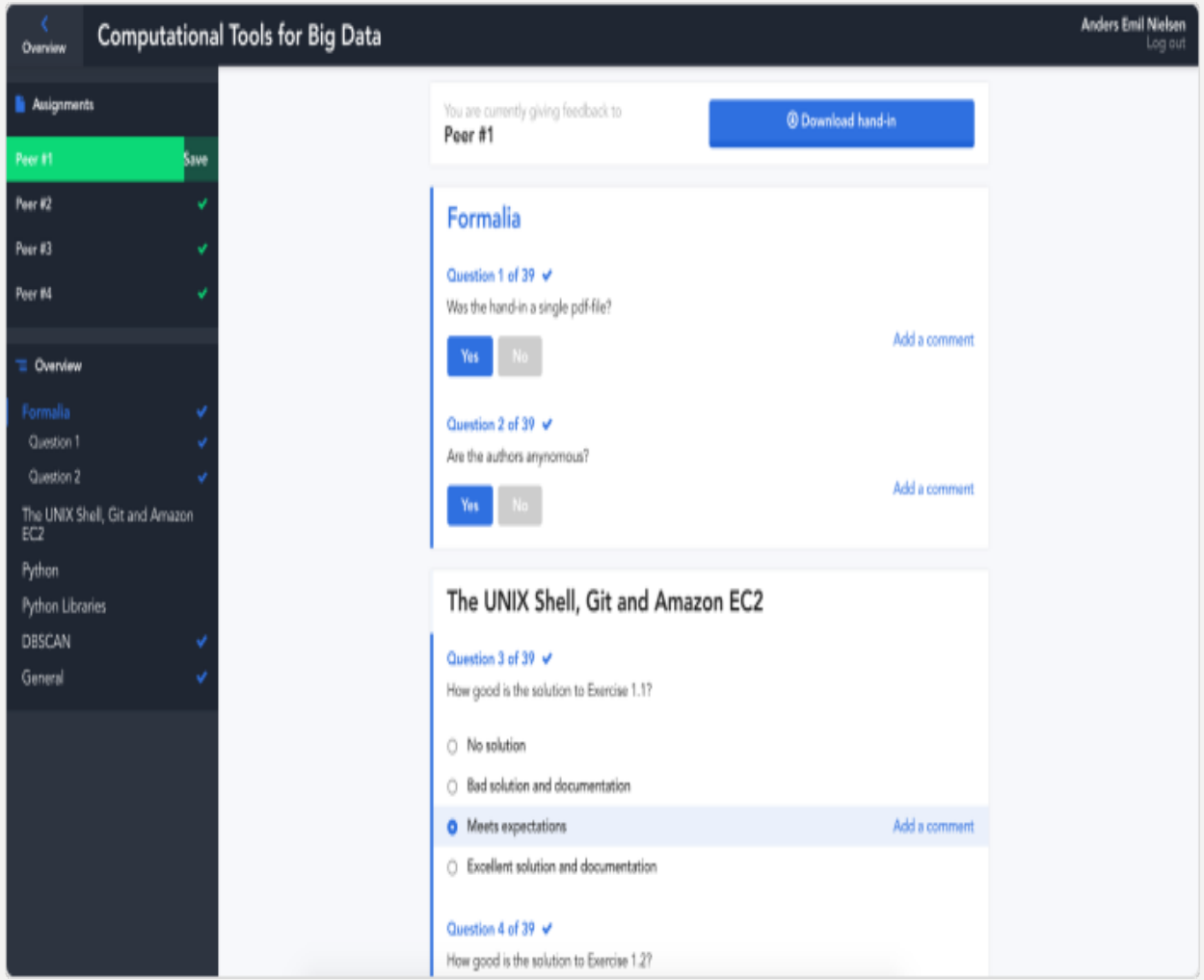
3. SPIRAL

Spiral is a set of **5 apps for formative assessment.** You can provide assessment in real time and hear from all of your students, turn slides into a discussion thread, let students create and share collaborative presentations, and turn videos into a live chat with questions and quizzes.



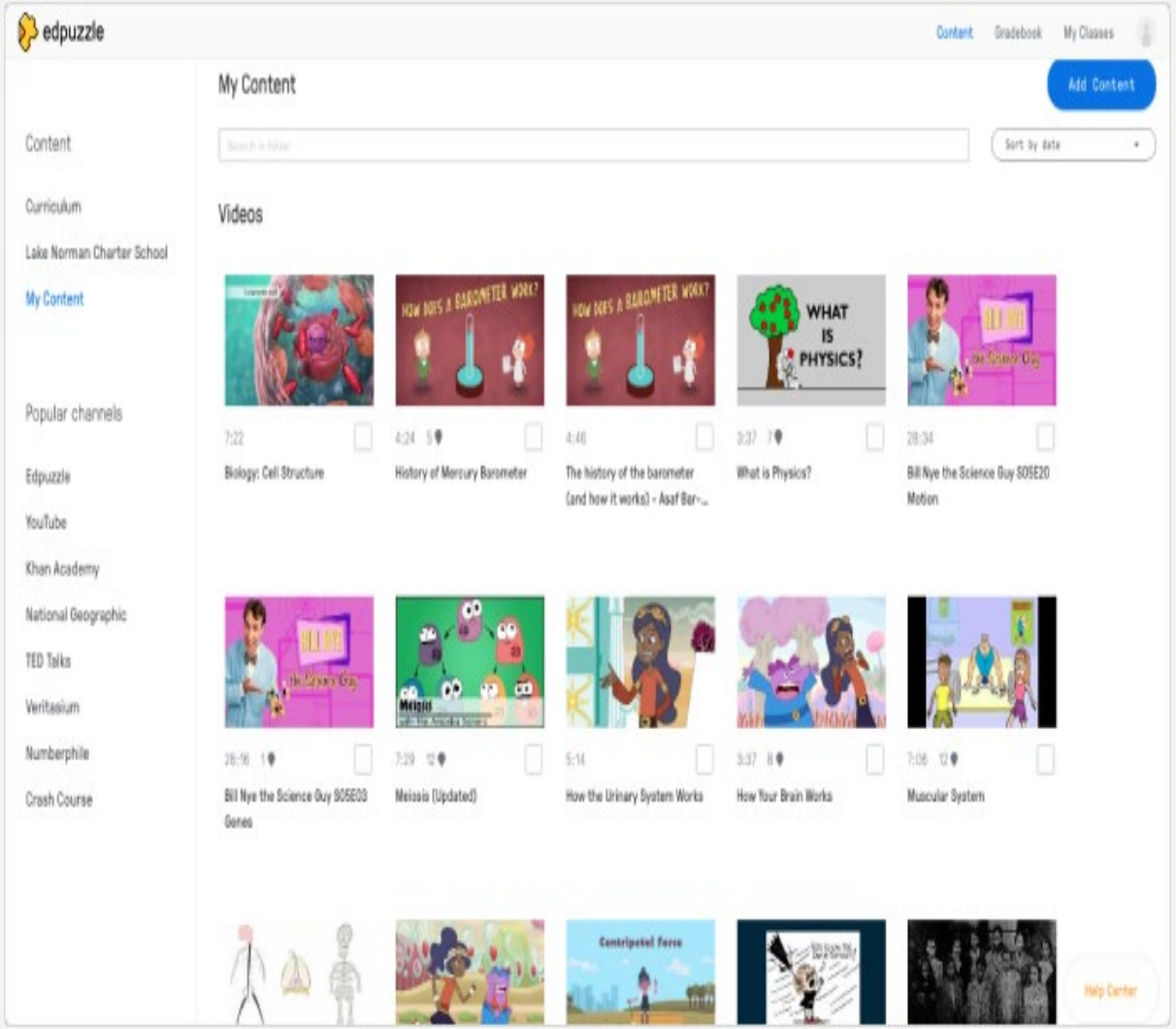
4.PEERGRADE

- Peergrade is an online platform for hosting peer feedback sessions with students. Once you set up your assignment, learners start working on and then submit their work – text, files, videos, links, and even Google docs. Students can review each other's works and act on the feedback. There's also a teacher overview where they can see everything that is happening in the assignment.



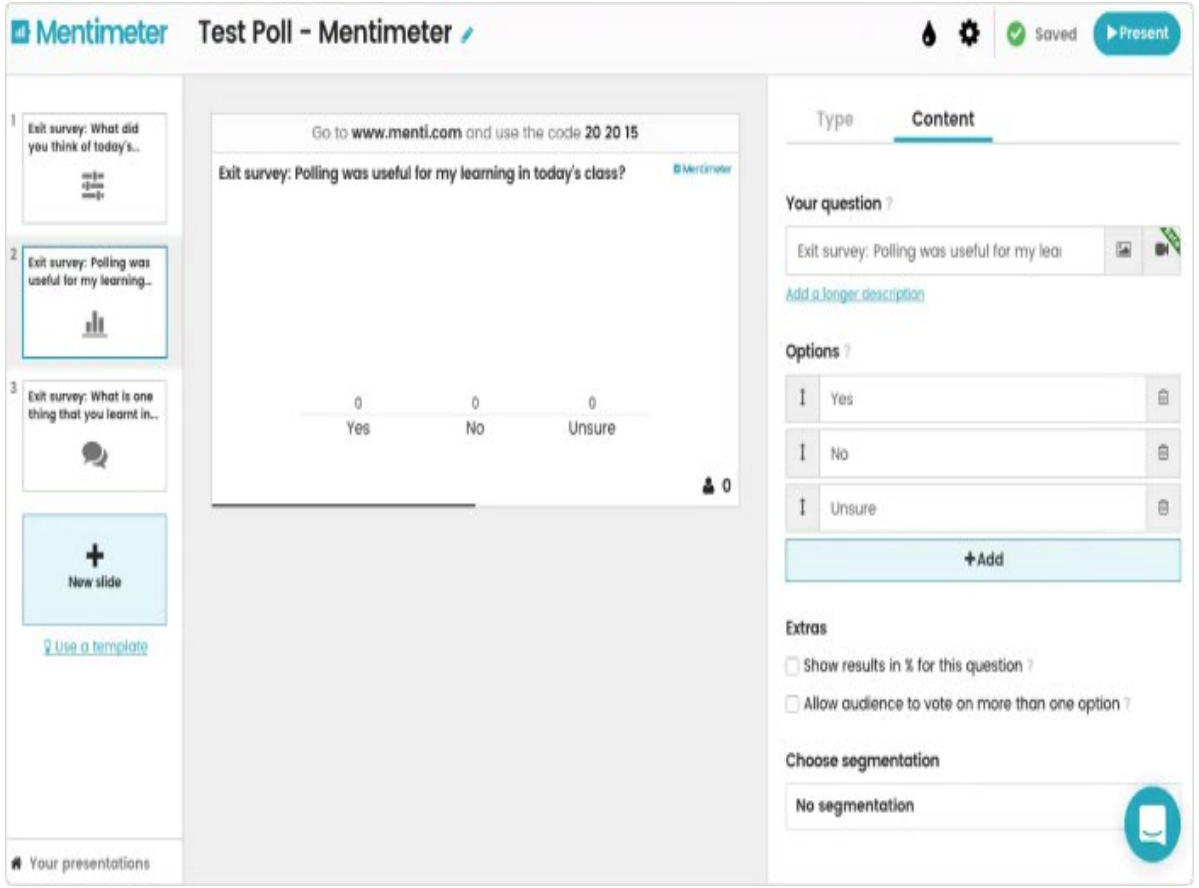
5. EDPUZZLE

EdPuzzle is a tool designed specifically for **working with videos.** It allows both teachers and students to add voice-overs, resources, comments, and quizzes to videos. Instructors can also check if learners are watching videos, how many times they're watching each section, and if they comprehend the content.



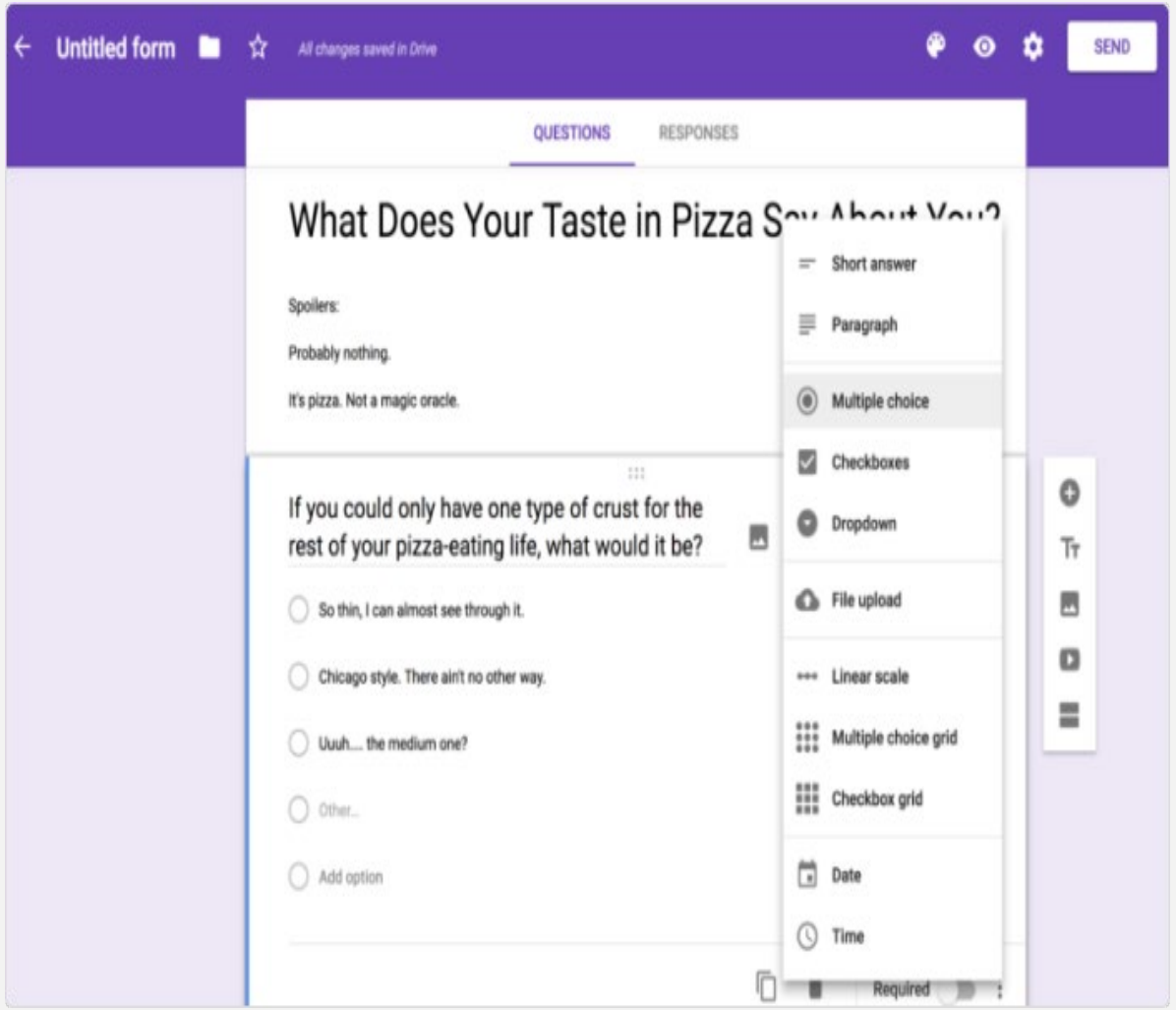
6. MENTIMETER

Mentimeter lets you build interactive presentations with **13 interactive question types, including word clouds and quiz, and see how the students vote on/respond to questions and engage with the presentation in real time.** With this tool, you can export results in a PDF or Excel file and analyze learners' results.



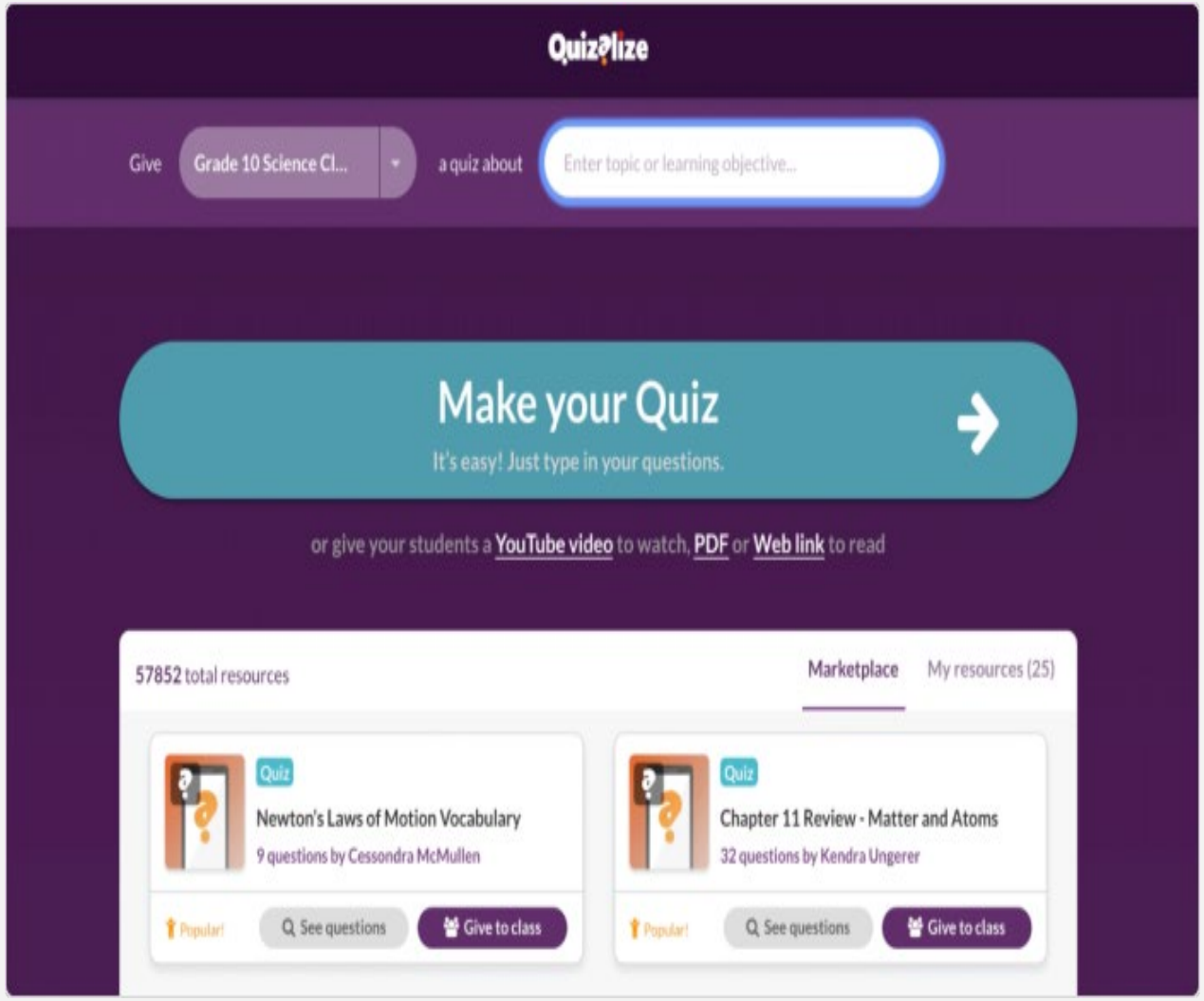
7. GOOGLE FORMS

- Google Forms is a simple widely used tool for building surveys and graded quizzes. You can create multiple-choice or short answer questions for students to complete, specify correct answers and points, and provide feedback for correct and incorrect responses.



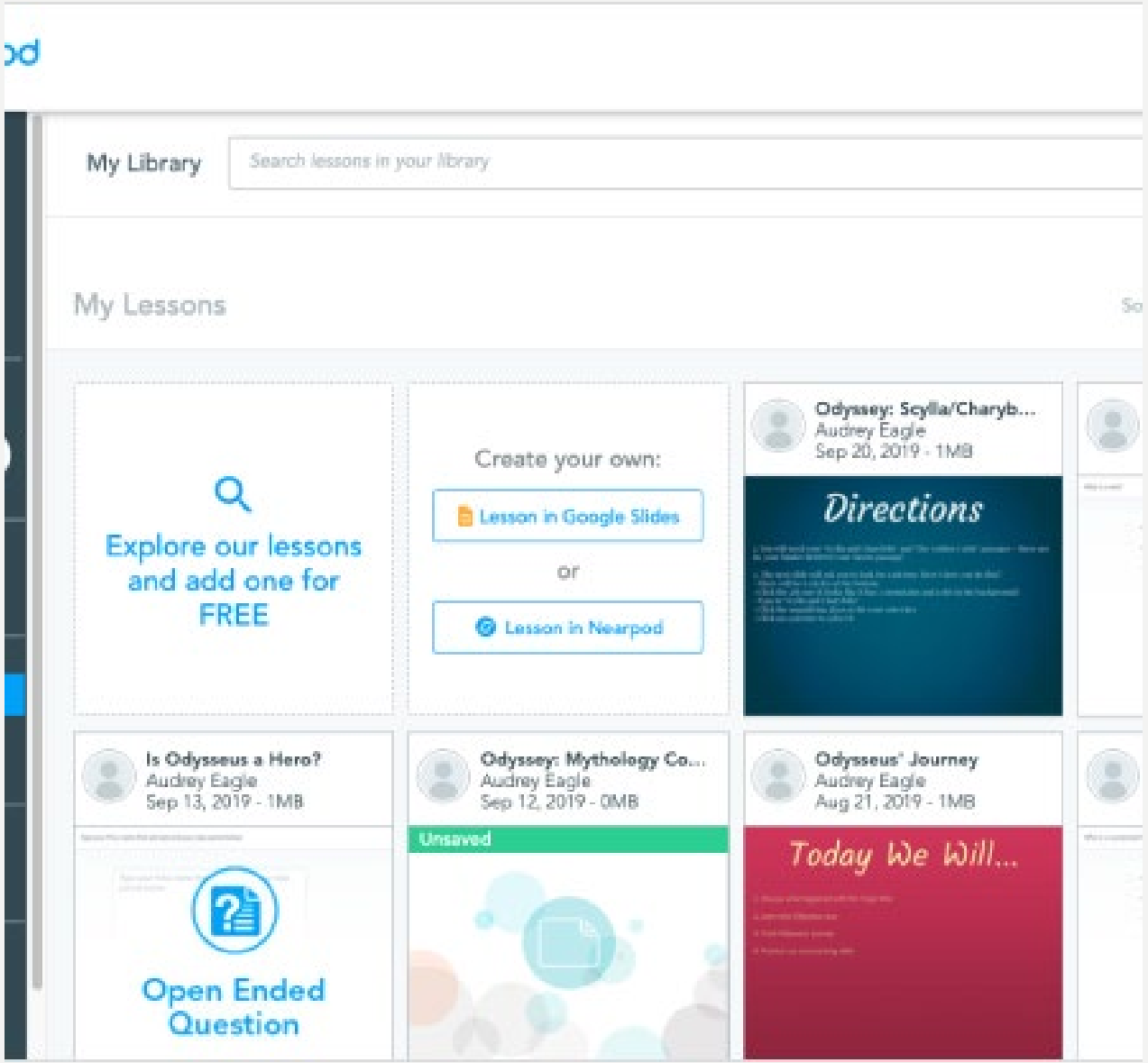
8. QUIZALIZE

- Quizalize is very similar to Kahoot. It lets you choose from over 12,000 official released tests to teacher-created resources or allows you to build your own. You can get instant data on each student's progress and automatically assign various resources to students depending on their quiz score.



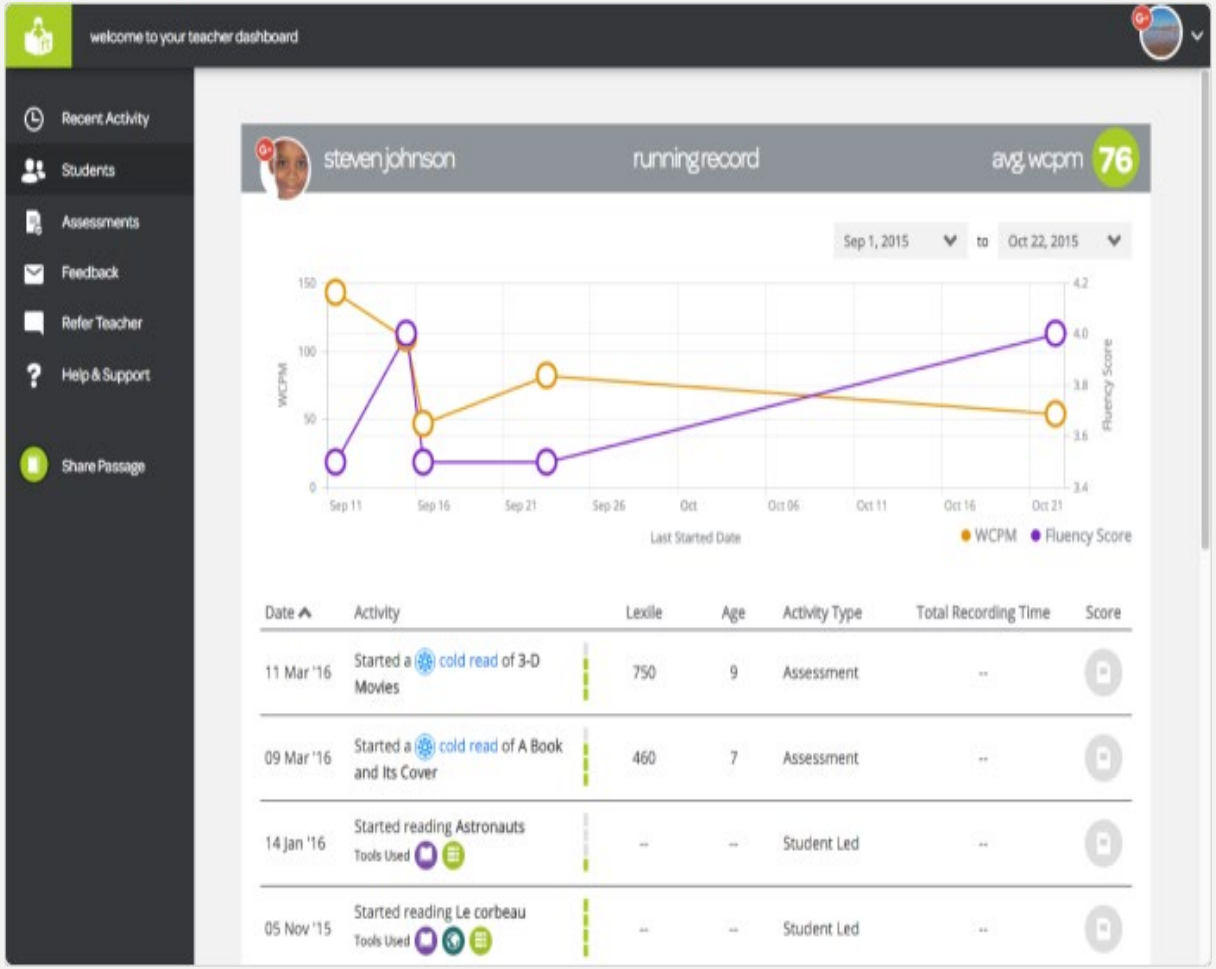
9. NEARPOD

Nearpod is a web-based tool for making **interactive classes with engaging activities like virtual reality, simulations, and gamified quizzes.** It allows you to remain abreast of how far along your students are with formative assessments, including polls, open-ended questions, draw its, and more. You can get student insights in real time and in post-session reports.



10. FLUENCY TUTOR

- Fluency Tutor is designed to track and assess students' oral reading progress. You can share reading passages with your class and receive recordings of the assigned passages. The tool comes with a library of over 500 ready-made reading fluency passages.



E-TECHNOLOGY FOR E-LEARNING

	E-TECH TOOLS	Examples
1	Assessment and survey tools	Respondus, Quiz builder, Study mate, Zoomarang, Survey Monkey, Exam- builder
2	Asynchronous communications	Emails, announcements, discussion forums, SMS
3	Digital repositories	Google scholar, e-portfolio, Equella, Youtube
4	Managements and administration Tools	Turnitin , Gradebook, I google, my Yahoo
5	Photosharing	Flicker, Gallary2, Zoomr, Picasa, Photobucket
6	Podcasts and Streaming	Podcast, iLecture, iTunesU, Mypod, ePodcast
7	Shared documents	Google Docs, Zoho Writer, Slideshare , Elgg, Clearspace

E-TECHNOLOGY FOR E-LEARNING

	E-TECH TOOLS	Examples
8	Social bookmarking	Del icio. us, CiteULike, Simple, Diigo, Connotea, Digg , Redit
9	Social networking	Facebook, Myspace, Bebo, Ning, LinkedIn
10	Subscribed content Delivery	Google reader, Bloglines, RSS feeds,
11	Synchronous Communications	Google Talk, iChat, CUworld, ICQ, Skype, Illuminate Live , MSN, Yahoo messenger
12	Virtual world	Second Life (SL) , Virtual Graffiti, eSimulations
13	Weblogs and Microblogs	Blogger, WordPress, Twitter, RAMBLE, Yammer
14	Wiki	PBWorks, Wikispaces, MediaWiki, WikiPad, Zwiki

FINAL THOUGHTS

- Online assessments are a critical part of e-Learning and should be undertaken with the same level of care and rigor that you put into creating your learning content. The good news is that you don’t have to be a programming genius to build them. There are many online assessment tools that allow you to generate engaging tasks for online evaluation. Choose your way to assess student learning and related software to align your needs and the results you want to achieve.

CONCLUSIONS

- L. R. Kearans [2] found form studies 5 categories of assessments 1) Written, 2) online discussions, 3) fieldwork, 4) quizzes and examinations (mid and end), and 5) presentations.
- Swan[3] Found 6 methods of assessment 1) Discussions, 2)Papers, 3) written assignments, 4) projects, 5) quizzes, and 6) group work
- Arend [4] found 7 assessment methods 1) Online discussions, 2) examinations , 3) written assignments, 4) problem assignment, 5) experimental assignment, 6) quizzes and 7) journals (reflective or synthesis journal)
- Gaytan and MC Evan[5] identified 6 methods 1) projects, 2) portfolios, 3) self-assessment, 4) peer evaluation with feedback, 5) timed tests and quizzes and 6) asynchronous discussions

Areas of concerned

- Beebe et all [6] identified area of concern 1) time management, 2) student responsibility and initiative, 3) structure of the online medium, 4) complexity of the content and 5) informal assessment (Nonverbal – observations-task performances, on and off task behaviors, student choice and body language)

MY EXPERIENCES AT IIUM MALAYSIA

- Undergraduate course assessment 1) case study-based presentations, 2) written assignment, 3) timed quiz, 4) **task assignment (written, video personations-asynchronous mode**) and 5) Time bound open book text examinations (**Task 5 is the Final assessment**)

- PG assessment- 1) each class-based task with quick presentations, 2) project development, 3) article writing and 4) project presentation (Task 4&5 are final assessment)

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Thanks for your time

Qs and As