



# Empowering Learning Through Diverse Assessment Methods

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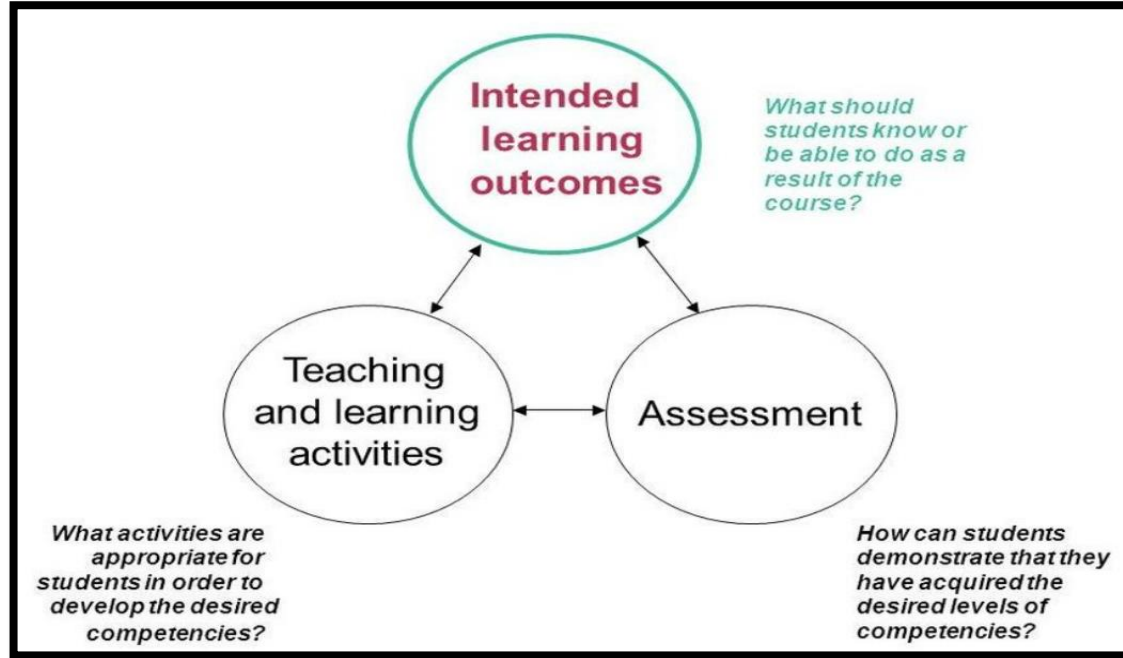
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CEDS - Directorate of Education - University of Liverpool

# Session outline

- Diagnostic, Formative and Summative assessments
- Other types of assessments
- Empowering students with assessments

# Constructive alignment



(Biggs, 1999)



# Diagnostic Assessment



# Diagnostic Assessment



# Diagnostic assessment (Process & Purpose)

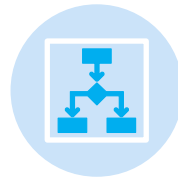
- **Target:** agreement by both teachers and students on learning goals and criteria for achievement. (*preparing stage*)
- **Measurement:** collection of data revealing level of student understanding and progress towards learning goals. (*core stage*)
- **Feedback:** provision of effective feedback to students (and to teachers). (*outcome*)
- **Adjustment:** adjustment of teaching and learning strategies to respond to identified learning needs and strengths. (*response*)



PREPARING



CORE



OUTCOME



RESPONSE

# Benefits of Diagnostic Assessments?

- Indicate students' **prior** knowledge.
- **Assess** the learning that has occurred during a teaching/learning session.
- Can help teachers **adjust** content and activities to encourage more effective learning.
- In some cases, **zeroing** in on content that needs to be taught and mastered.
- Can point out to students the **gaps** in student's reasoning and misperceptions about subject matter.
- May motivate students to **seek** accurate information and practice.
- **Anticipate** potential learning problems



# Formative and Summative Assessments





Which picture is formative (F) and which is summative (S) ?



- Write your answer in the chat box!

# Formative Assessment

# VS

# Summative Assessments

## What's the Difference?



Formative Assessments



Summative Assessments

## Formative vs Summative

*“When the cook tastes the soup, that’s formative assessment;  
when the customer tastes the soup, that’s summative assessment.”*



Paul Black



Who is the cook, who is the customer?

# Formative vs Summative

## Primary Users

<h3>Assessment of Learning</h3> <ul style="list-style-type: none"><li>➤ Policy makers</li><li>➤ Program Planners</li><li>➤ Supervisors</li></ul> 	<h3>Assessment for Learning</h3> <ul style="list-style-type: none"><li>➤ Students</li><li>➤ Teachers</li><li>➤ Parents</li></ul> 
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Who need what? Teacher's role?

# Formative vs Summative Assessment

- **Assessment for learning (formative)**, it involves both teachers and students in ongoing dialogue, descriptive feedback, and reflection throughout instruction.
- **Assessment of learning (summative)**, it involves determining the quality of the learning that has taken place at the end of a unit/term/year.
  - Specific learning outcomes and standards are reference points, and grade levels may be the benchmarks for reporting.

(Department of Education, Canada)

# Formative assessment (why?)

“To classify evaluation that gathered information for the purpose of improving instruction” Scriven (1967)

- **Ongoing observations** and methods of evaluation designed to measure student comprehension of a concept or task in order to identify areas that require enhanced or adapted instruction.
- It emphasizes the **mastery of classroom content** instead of the earning of grades or test scores and is conducted throughout the entire instructional process to gauge students' progress.
- Results are then used to adapt instruction to meet students' needs.
- Examples of formative assessments include *journals, learning logs, the minute paper, concept maps, directed summarization, anecdotal records, diagnostic tests, and quizzes.*

# Summative assessment (why?)

- A method to **judge** the worth of a curriculum at the end of the syllabus where the focus is on the outcome. (Scriven, 1967)
- **Cumulative evaluation** used to measure growth after instruction and are generally given at the end of a course in order to determine whether long term goals have been met (Coffey, 2012)
- Summative assessment focus on what the student has **learned** at the end of a unit of instruction or at the end of a grade level (e.g. standard one, National Test) ( Johnson & Jenkins, 2009).
- Summative assessment purpose is to let the teachers, students, department and institution know the **level of accomplishment attained**. The final exam is classic example (Woolfolk et al 2008).

# Examples of Formative and Summative Assessments

## **Formative: Learn and practice**

In-class discussions

Clicker questions (e.g., Top Hat)

Video quiz

1-minute reflection writing assignments

Peer review

Homework assignments

Surveys

## **Summative: Assess performance**

Instructor-created exams

Standardized tests

Final projects

Final essays

Final presentations

Final reports

Final grades



# Challenges with formative feedback

- Ungraded/ignored feedback
- Looking at mark only
- Tell me the correct solution, not what is wrong with me
- Adaptation to individual learning needs
- Timely consuming
- Potential of over-assessment

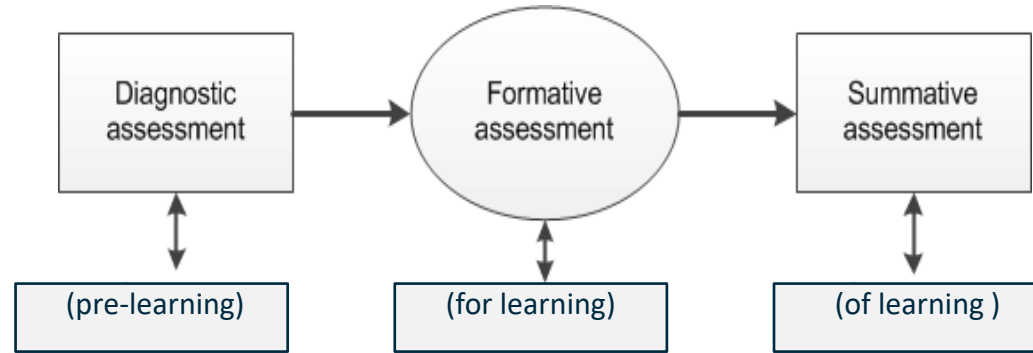


# Challenges with summative feedback

- Demotivates individuals
- Rectification is late
- Disruptive, fear, anxiety
- Effectiveness?
- Issues with teaching and curriculum
- Reliability and validity
- Cheating, correcting error?



# Summative, Formative, Diagnostic Assessments



What?

Why?


When?

How?




## Other Types of Assessments

# Teacher-Centred

A graphic for Criterion-Referenced Assessment featuring a yellow circle with a white center, set against a grey background with a yellow arrow pointing right.


## Criterion-Referenced Assessment

*Evaluates specific skill-set or knowledge.*

A graphic for Ipsative Assessment featuring a purple circle with a white center, set against a grey background with a purple arrow pointing right.

## Ipsative Assessment

*Tracks learners' progress against their previous performance.*

A graphic for Confirmative Assessment featuring a green circle with a white center, set against a grey background with a green arrow pointing right.

## Confirmative Assessment

*Confirms the effectiveness of instructions.*

# Student-Centred



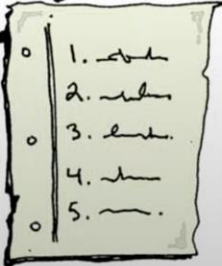
SELF-ASSESSMENT



STRENGTHS AND WEAKNESSES OF PRODUCTS



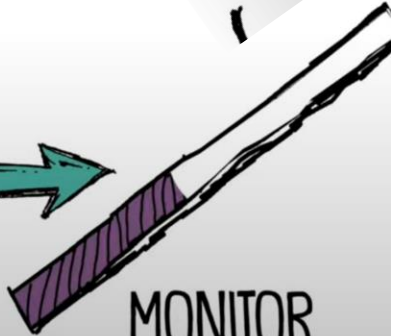
GOAL-SETTING



SET GOALS



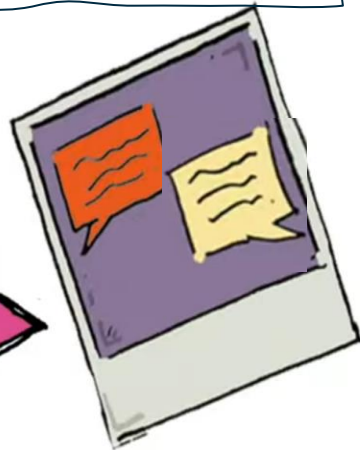
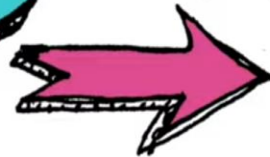
PLAN APPROACH



MONITOR PROGRESS



# Student-Centred



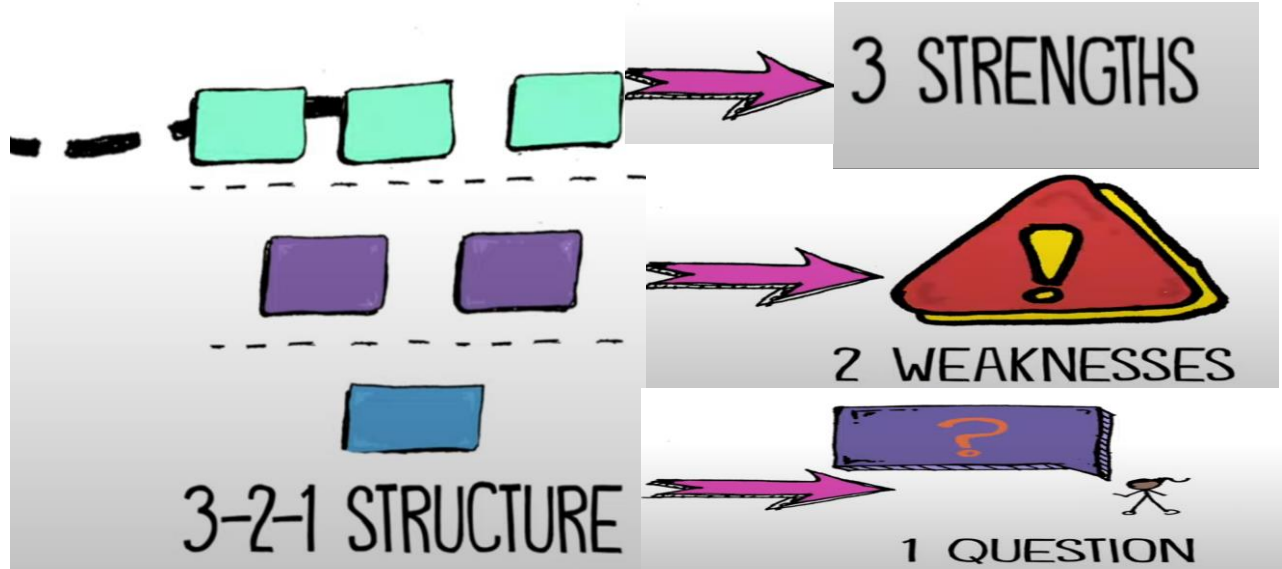
10-MINUTE PEER  
FEEDBACK SYSTEM



# Student-Centred



PEER ASSESSMENT





# Assessment map

Teacher-centred assessment



Student-centred



**Common assessments**

**Other assessments**

Peer  
assessment

Self-  
assessment

Formative  
assessment

Summative  
assessment

Confirmative  
Assessment

Criterion-  
reference d  
assessment

Ipsative  
assessment

# Blending Assessments

- Blending Assessments:** Combining formative (ongoing feedback) and summative (final evaluation) assessments to create a cohesive learning experience.
- Personalized Learning:** Allowing students to focus on areas where they need improvement, promoting autonomy and respect for their time (other types of assessments?)
- Empowering Students:** Encouraging students to take control of their learning journey by providing choices in assessments and learning activities.
- Flexible Assessment Design:** Implementing assessments that serve both evaluative and instructional purposes, such as quizzes that provide feedback and guide future learning.
- Challenging Traditional Assumptions:** Questioning the necessity of uniform assessment progression for all students and recognizing individual learning needs.

# Blended Assessment Plan

## Example: Blended Assessment Approach in a Nursing Module

### Module: Clinical Decision-Making in Patient Care

#### 1. Blending Assessments

- **Formative:**
  - A **virtual simulation** where students respond to a deteriorating patient scenario in real time, receiving instant feedback on their decisions.
  - **Reflective journaling** where students document their thought process when making clinical decisions.
- **Summative:**
  - A **case-based OSCE (Objective Structured Clinical Examination)** where students demonstrate patient assessment and decision-making skills in a simulated clinical setting.
  - A **group case study presentation** analyzing a complex patient case and justifying clinical interventions.

#### 2. Personalized Learning

- **Diagnostic self-assessment** at the beginning of the module to identify strengths and areas needing improvement in clinical reasoning.
- Tailored **learning pathways** where students can choose additional resources (e.g., podcasts, research articles, case studies) based on their knowledge gaps.

#### 3. Flexible Assessment Design

- Instead of a traditional written exam, students can choose between:
  - **Video-recorded patient education session** where they explain a condition (e.g., diabetes management) to a standardized patient.
  - **Clinical decision blog** where they analyze a real-world patient case, linking theory to practice.

#### 4. Challenging Traditional Assumptions

- **Breaking away from rigid assessment formats** by integrating **peer-reviewed case discussions** where students assess each other's clinical decisions using structured feedback.
- **Scaffolded assessments** where students progressively build upon previous learning, with faculty feedback guiding improvement.

#### 5. Empowering Students

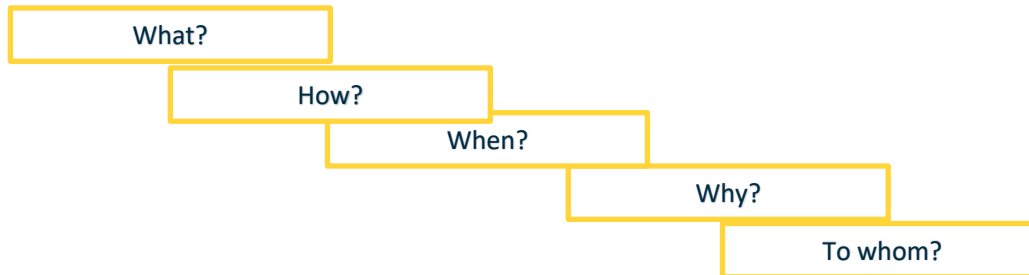
- Students take ownership of their learning through **self-reflective logs** on how they apply clinical judgment.
- Use of a **digital portfolio** to track growth in decision-making skills, linking clinical experiences with evidence-based practice.

#### Outcome

This blended approach ensures that assessments are **practical, reflective, and adaptable**, preparing nursing students for **real-world clinical challenges** while fostering autonomy in learning.

# Take away: assessment plan

	Formative	Summative	Other types
Items			
Purpose			
Methods to assess			
Characteristics			
Constraints			
Frequency			
Sample size			



# Resources

- Shepard, Lorrie A. “The Role of Assessment in a Learning Culture.” *Educational Researcher* 29, no. 7 (2000): 4–14. <https://doi.org/10.3102/0013189X029007004>
- Nicol, David J., and Debra Macfarlane-Dick. “Formative Assessment and Self-regulated Learning: A Model and Seven Principles of Good Feedback Practice.” *Studies in Higher Education* 31, no. 2 (2006): 199–218. <https://doi.org/10.1080/03075070600572090>.
- Turner, Monica & VanderHeide, Katie & Fyneweever, Herb & Shavelson, Richard. (2011). Motivations for and barriers to the implementation of diagnostic assessment practices - a case study. *Chem. Educ. Res. Pract.*. 12. 10.1039/C1RP90019F.
- Connors, C. B. (2021). Summative and Formative Assessments: An Educational Polarity. *Kappa Delta Pi Record*, 57(2), 70-74.
- Houston, D., & Thompson, J. N. (2017). Blending Formative and Summative Assessment in a Capstone Subject: ‘It’s not your tools, it’s how you use them’. *Journal of University Teaching & Learning Practice*, 14(3), 2.

## CEDS SEMINAR SERIES

# Enhancing Student Engagement in Online Learning

This session will discuss tools and techniques that can be used to foster interaction, participation, and a sense of community among online learners.



**Date:** Thursday, 20<sup>th</sup> February

**Time:** 2-3pm

**Venue:** Online (Microsoft Teams)

**Speaker:** Dr Nashwa Ismail, Lecturer in Digital Education and Innovation



Scan the QR code for more info and to register. Contact: [CEDS\\_SD@liverpool.ac.uk](mailto:CEDS_SD@liverpool.ac.uk)

Thank you



**Nashwa**

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