

Bookmarks in medical education

La valutazione formativa: inquadramento del tema, revisione della letteratura recente ed esposizione dell'esperienza maturata sul campo

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Summative assessment

- Valutazione della conoscenza alla fine del corso
- Feedback basato sul giudizio (**ego-involving**)
- Attività unilaterale

Formative assessment

- Valutazione per la conoscenza
- Feedback (**effective**) descrittivo e comportamentale, valuta la qualità del lavoro dello studente.
- Sviluppa la consapevolezza del proprio livello di conoscenza, delle insicurezze e debolezze e Identifica azioni mirate a colmare il gap (**self-regulation, reflection**)
- Processo bilaterale coinvolge lo studente nel processo di conoscenza

FORMATIVE ASSESSMENT FEATURES (10F rule)

1. **FACELESS:** anonimità (non valido per feedback individuali)
2. **FACILITATE SDL:** *self-regulation, life-long learning, reflection*
3. **FEEDBACK:** specifico, accurato, chiaro, tempestivo, evita la comparazione, enfatizza la possibilità di migliorare, aumenta l'autostima, informa sul gap di conoscenza fra livello attuale e quello desiderato
4. **FEEDFORWARD:** individua strategie mirate al recupero di aree specifiche; necessita monitoraggio dell'efficacia da parte del docente.
5. **FOCUS ON LEARNING:** identificazione precoce di studenti in difficoltà; aiuta il docente a modulare le strategie di teaching, sviluppo di teaching skills; promuove innovazione e sperimentazione didattica
6. **FLEXIBILITY:** *vari approcci valutativi*
7. **FAST:** *spaced-based*, consolida le conoscenze; impatto su forgetting curve
8. **FREQUENT:** è un processo di monitoraggio continuo; record dati
9. **FRIENDLY:** contesto sicuro e *supportive*, privo di paura, umiliazione e ridicolizzazione facilita l'accettazione dell'errore, incoraggia la partecipazione e facilita l'apprendimento duraturo promuove la curiosità e l'accettazione del rischio di mettersi in gioco
10. **FUN** «time for learning overlay with time for playing»

SELF-DIRECTED LEARNING (SDL)

- Approccio **student-centred**, basato sulla responsabilizzazione e consapevolezza.
- Autovalutazione, monitoraggio e individuazione obiettivi, planning attività
- **Deep-learning** method (motivazione basata sull'interesse alla conoscenza) contrapposta al **surface learning** (motivazione basata sulla paura di fallire o sul desiderio di completare il percorso).
- Promuove **retention and recall** fondamentale nel **decision making**.
- Enfaticizzato dal **problem-based learning**, requisito per il **life-long learning**.
- Promuove lo sviluppo di pensiero critico, skills comunicativi, assertività e responsabilità.
- Influenzato di fattori culturali come la percezione della posizione di potere del docente, non risente di fattori socio-demografici o di genere.

Table 1. Methods of assessment in medicine

	Method	Domain	Type of Use	Limitation	Strength
	MCQ	Knowledge	Summative	-Difficult to write -Cues	-High reliability -Computer graded -Efficient
	SAQs	Knowledge	Summative Some formative	Reliability dependant on training of graders	-No cueing -Assess problem solving
	Essays	Knowledge	Summative Some formative	-Time consuming -Interrater reliability	-No cueing -Higher order thinking required
- Direct Observation of Procedural Skills - Mini Clinical Evaluation Exercise	DOPs/MINI-CE X	Skills	Formative	-Time consuming	Feedback by experts
		Attitude	Some summative	-Selective behaviours	
	Oral	Knowledge Attitudes	Summative Some Formative	-Subjective -Time consuming -Training of examiners	Feedback by experts
	Simulator	Skills Attitudes	Formative Some summative	-Expensive -Can be artificial	-Tailored to educational goals -Often reliable and credible
	Peer	Attitudes	Formative	-Confidentiality -Anonymity -Student buy-in	-Correlates with future clinical performance
	Self	Knowledge Skills	Formative	-Training required	-Fosters reflection and learning
	Portfolio	Knowledge Skills Attitudes	Formative	-Time consuming -Student selects best material	-Fosters reflection and learning

Modified from Epstein, 2007.

Teacher factors affecting the quality of formative assessment

Knowledge	level of competence of the teacher
Attitude to teaching	empathy with students, ability to communicate goals, desire to help student improve, concern for the integrity of their own judgements
Skill in constructing assessments	use of varied assessment tools to develop different skills
Knowledge of assessment criteria	awareness of expectation of student performance at a certain level within the curriculum based on learning outcomes and previous experience of student achievement and appropriate standard
Experties in giving feedback	identification of strengths and weaknesses, evaluative comments in relation to criteria, suggestion for alternative learning methods, examples of different ways to achieve the goals.

Adapted from Sadler

Formative assessment and academic achievement in pre-graduate students of health sciences

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Determining if active learning through a formative assessment process translates to better performance in summative assessment

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Anne Chuck & Thomas James Millar

REVIEW ARTICLE

Motivating student learning using a formative assessment journey

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Spaced approach

Table 1 Details of each assessment type used in the formative assessment journey.

Assessment	Release time (Module is 10 weeks)	Mode/location of delivery	Answers/feedback
'Who Wants to be an Anatomist?'	During each lecture (weeks 1–7)	Interactive coloured card quiz, lecture theatre	Immediate
Anatomical wordsearch	At the end of each lecture (weeks 1–7)	Puzzle, managed learning environment	One week after release
Dissection session checklist	At the end of each dissection session (weeks 1–7)	Checklist and questions, anatomy laboratory	Immediate
'Anatomy Quiz of the Week'	At the end of each 2-week period of anatomy teaching (weeks 2, 4, 6, 8)	PowerPoint-based quiz, managed learning environment	One week after release
Anatomy self-assessment quiz	Week 6	PowerPoint-based quiz, lecture theatre and tutorial rooms	Immediate
Anatomy spotter test	Week 7	Anatomical specimens/models, anatomy laboratory	One day after dissection session
'A Question of Anatomy' Revision quiz	Week 8	Screencast quiz, managed learning environment	Immediate
Anatomy viva	Week 8/9	Oral assessment, anatomy laboratory	Immediate and result 1 day later
Online picture quiz	Week 7–10 (new questions added each week)	Interactive online quiz, managed learning environment	Immediate (plus league table)