

Overview different assessment formats and measurement of competence

Assessment Format	Description	Target of Assessment	Extent of competence measurement		
			Constituents of competence	Facets of competence	Competence
Written formats					
Multiple Choice	<i>true/wrong type</i> consists of a question stem followed by statements, for each of which a decision must be made as to whether it is correct or incorrect.	factual knowledge	X		
	<i>best answer type</i> (single best, multiple selection) The best answer or best answers must be selected out of several options, which do not have to be entirely wrong, but merely do not represent the best option.	factual knowledge procedural knowledge decision making	X		
	<i>Extended Matching Questions (EMQ)</i> typically consists of a list of questions or statements that need to be matched with a corresponding list of options or answer choices. The options may be presented in a random order, and the task of the candidate is to select the correct options that match the given questions or statements. EMQs can have multiple correct options.	factual knowledge procedural knowledge clinical reasoning decision making	X	(X)	
Key Feature Exam	Presentation of a short clinical scenario (case vignette) followed by several questions (approx. 3-5). The focus of the questions is on the clinical decisions in the case, where most mistakes are made or where the difficult phases of case management are concerned.	factual knowledge procedural knowledge clinical reasoning decision making	X	(X)	
Open Ended Questions	Questions must be answered without given answer options. The answers are to be formulated mentally and written down.	factual knowledge procedural knowledge clinical reasoning decision making	X	(X)	
Script concordance text	candidates are presented with a series of patient cases or scenarios, each accompanied by a clinical question or decision point. Rather than selecting a single answer from a set of predetermined options, candidates are asked to rate	clinical reasoning decision making reflection	X	(X)	

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	the relevance or appropriateness of a range of possible actions or management options in response to the given scenario.				
Situational Judgement Text (SJT)	Situations/scenarios are demonstrated as text or video for which options for action must be selected from a list. The situations refer to student or professional settings.	professional behavior reflection		X	
Oral formats					
Oral exam	<i>Structured</i> Provides a blueprint and expectation horizon for the assessment. The assessment questions are standardized and have the same difficulty and scope for each student.	factual knowledge procedural knowledge clinical reasoning	X	(X)	
Clinical-Practical formats					
DOPS (Direct observation of procedural skills)	Workplace-based assessment frequently occurring practical (simple to difficult) workplace based	factual and procedural knowledge practical skills	X	X	
OSCE (Objective Structured Clinical Examination)	Structured, direct observation in a simulated setting. Clinical skills are broken down into different subcomponents to be presented in 5-10 minutes on average. Standardized simulation patients may be involved.	practical skills, factual and procedural knowledge, clinical reasoning decision making	X	X	(X)
Time-constrained scenario based practical examination (TSPE) ¹	Realistic and holistic representation of a patient's care in a simulated setting. Comparable to an OSCE, but providing a number of stations that are interdependent and relate to different processes within the same patient case. Standardized simulation patients may be involved.	practical skills, factual and procedural knowledge, clinical reasoning decision making	X	X	(X)
Mini-Clinical Evaluation	Workplace-based assessment	practical skills,		(X)	X

¹ Hall, E. J., Simpson, A., Imrie, H., & Ruedisueli, N. (2019). Time-constrained scenario-based practical examinations (TSPEs): an alternative to OSCEs?. *Veterinary Nursing Journal*, 34(6), 154-158.

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Exercise (Mini CEx)		factual and procedural knowledge, clinical reasoning			
Clinical Encounter Card (CEC)	Workplace-based assessment standardized framework for assessing and providing feedback on a learner's performance during clinical encounters. Direct observation of a student with feedback in-between tasks	factual and procedural knowledge practical skills clinical reasoning		(X)	X
Short Case	examination on selected aspects of various cases, which can be designed as a scenario or relate to real patients. Typically e.g. in the context of a ward round. Practical tasks may also be set to be demonstrated on the patient.	factual knowledge procedural knowledge practical skills clinical reasoning decision making	X	X	X
Long Case	Detailed processing of a complete real patient including taking a history, performing a physical examination under the observation of an examiner and preparation of a diagnostic and / or therapy plan.	factual knowledge procedural knowledge practical skills clinical reasoning decision making	X	X	X
Multisource formats					
Log book	systematic documentation of clinical activities. In comparison to the portfolio, reflection is not the main issue for this. It is used more for the structuring and documentation of training	practical skills	(X)		
Portfolio	collection of evidence that also self-reflectively demonstrates an individual's learning progress. It also contains evidence e.g. of work samples, feedback, and documents learning progress as well as competence development. It can be digital or paper-based.	factual knowledge procedural knowledge reflection	X	(X)	
MultiSource feedback, peer-assessment	collection of feedback on or from a student based on direct observation by various people in the work environment. The content	practical skills professional behavior reflection		X	X

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	can be, for example, the ability to work in a team, clinical behavior or interaction with patients.				
Reports					
Case report	Creation of a detailed patient report, which includes e.g. the current situation of the patient, the findings, diagnostics and therapy planning, prognosis and critically discusses and reflects on the current scientific literature.	factual knowledge procedural knowledge practical skills clinical reasoning	X	X	X
Medical report	Preparation of a complete and comprehensible medical report that reflects the patient's information, medical history, diagnostic, findings and treatment plan.	factual knowledge procedural knowledge practical skills clinical reasoning professional behavior	X		X
Academic paper/ research report	written document that presents original research, analysis, or argumentation on a specific topic within an academic discipline following a formal structure	factual knowledge procedural knowledge practical skills scientific reasoning professional behavior	X		X
Abstract	concise precise summary or brief overview of a longer text or scientific work. It provides a condensed representation of the content, objectives, methods, results, and often the conclusions of a study or article.	factual knowledge procedural knowledge practical skills scientific reasoning	X		X
Academic Presentation formats					
Presentation	verbal or visual communication of research or clinical findings, theories, or scientific concepts to an audience.	factual knowledge procedural knowledge clinical/scientific reasoning practical skills professional behavior	X		X
Poster	visual representation of research findings, typically	factual knowledge	X		X

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	displayed on a large poster to communicate research objectives, methods, results, and conclusions. Scientific posters combine text, figures, tables, and other visual elements to effectively convey information and engage viewers in a poster session format, where researchers can discuss their work and answer questions.	procedural knowledge clinical/scientific reasoning practical skills professional behavior			