



Assessment in the virtual learning environment

Dr Isabel Mark

ST5 General Adult Registrar, SWLSTG Trust

Honorary Clinical Lecturer at SGUL

@IzzieMark @AUTP2 #RCPsychIC

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1) Assessment core aims and considerations

- ▶ The primary aim of assessment should be *for* learning
- ▶ Assessment utility is a careful balance between five elements:
 - ▶ **Reliability:** producing consistent results?
 - ▶ **Validity:** measuring what we want to measure?
 - ▶ **Educational Impact:** influencing student learning?
 - ▶ **Cost:** cost effective?
 - ▶ **Acceptability:** appropriate, feasible, effective?



How might these be compromised when considering virtual assessments?

- ▶ In-person assessments cannot simply be transferred online
- ▶ Validity - threatened if online tasks are not authentic, not diverse or not supported
- ▶ Reliability- jeopardised if assessors not adequately monitored due to not being present physically, or students not receiving regular reliable feedback.
- ▶ Cost of some online applications
- ▶ Student motivation and engagement may be challenged

2) 'Assessment in a virtual world'



PROS

- ▶ Wide range of design options
- ▶ Convenience for some
- ▶ Flexibility
- ▶ Allows for social distancing
- ▶ Automatic data analysis and tracking
- ▶ A chance to rethink assessment quality and educational impact?

CONS

- ▶ Students less supported
- ▶ More tempted to cheat or collude with others
- ▶ Diversity challenges
- ▶ Technology availability
- ▶ Data storage and protection issues
- ▶ Loss of authenticity?

Suggested considerations for online assessment, adapted from QAA 2020 / Cantillon 2004

Practicalities and underlying assessment principles:

- Re-examine assessment design consider authenticity and focus on unique case studies and scenarios , Professional body requirements (validity). Open or closed book?
- Location of assessment (in student homes or test centres).
- Social distance requirements , Cost limitations

Technology issues:

- Students' means to access the assessment (required location of internet servers, hardware/software, network back-up, understanding of logistical issues such as start/stop times, log-in passwords)
- Approach for emergency technical issues , Data storage and protection issues , International students' ability to access the assessment

Security: Assessor and invigilator issues:

- Marking protocols - do they need review? Can technology be optimised to allow accurate automated marking?
- Guards against academic misconduct: invigilation, online declaration
- Feedback: how to offer timely and effective feedback to students

Student support factors:

- Student technical training and support options, including for those in different time zones
- Flexibility in timescales for students to complete assessments
- Reasonable adjustments to promote equality, diversity and inclusivity for students
- A form of effective communication from institutions to students, regarding all proposed changes

Changes within Psychiatry (due to Covid-19):



- ▶ Undergraduates: Medical student psychiatry examinations were either cancelled or required extensive transformation
- ▶ Postgraduates/psychiatric trainees:
 - ▶ The Royal College initially cancelled all 3 parts Paper A, Paper B and CASC examinations earlier in 2020.
 - ▶ Two diets (sittings) of each part of the examination rescheduled online
 - ▶ Finding a digital provider involved extensive piloting and preparatory work:
 - ▶ *Pearson Vue* were chosen to deliver Papers A and B
 - ▶ *Fry IT* delivered the CASC examination.

Options for online assessment within psychiatry

		Type of assessment?	
		SUMMATIVE	FORMATIVE
What is being assessed?	KNOWLEDGE (curriculum dependent, likely related to list of disorders students need to have knowledge of)	<ul style="list-style-type: none"> • Written MCQs/SBAs • Project presentations 	<ul style="list-style-type: none"> • Feedback from peers/ expert patients • Asynchronous quizzes • Synchronous quizzes • Situational judgement tests • Gaming scores
	SKILLS (including history taking, mental state examination, risk assessment, communication skills)	<ul style="list-style-type: none"> • Simulated OSCEs • Online logs/ work-place based assessment 	<ul style="list-style-type: none"> • Case presentations • Case-based discussions • Observed simulated clinics/ formative OSCEs • Feedback from peers/ expert patients • Active observation of videos • Situational judgement tests • VR activity/simulation



3a) Summative options

(formal evaluation tool for a 'grade')

- ▶ Multiple choice questions (MCQs)/Short answer questions (SAQs)
- ▶ Objective structure clinical examinations (OSCEs)
- ▶ E-portfolios (Online logs, work-based assessments)
- ▶ Project presentations



Summative options: Recent examples of inspiring practice

- ▶ Written examinations: RCPsych Examinations, individual University approaches
- ▶ Virtual OSCEs for nurse practitioners via Attend Anywhere (Prettyman et al 2018).
- ▶ Online ‘Log-books’ increasingly used within education (Alrefaie et al 2020).
- ▶ Project presentations: open-invite seminars via Microsoft Teams (Imperial College)



3b) Formative options

(informal and to support the learning process)

- ▶ Case presentations
- ▶ Case-based discussions group assessments
- ▶ Observed simulated clinics/formative OSCEs
- ▶ Active observation of videos
- ▶ Asynchronous quizzes
- ▶ Synchronous quizzes
- ▶ Situational judgement tests
- ▶ Gaming scores
- ▶ Virtual reality (VR) activity
- ▶ Receiving feedback from expert patients and peers



Formative options: Recent examples of inspiring practice (1)

- ▶ **Virtual cases:** Southampton Medical School developed a free online resource which incorporates videos into virtual cases with MCQs posed as the case develops alongside some short answer responses (Virtual cases, 2020)
- ▶ **i-SPOT:** Students responded to video clips via a webcam, could then view/ change their responses, compare them to expert responses and see common mistakes. After submission: student received feedback from the lecturer other students (Open University of the Netherlands) (JISC 2020 Future of Assessment)



Formative options: Recent examples of inspiring practice (2)

- ▶ **Psy-Q:** Free, mobile-compatible, web-based question bank in which students and educators can submit their own questions for revision purposes (Torous et al 2020)
- ▶ **SOLViT:** University College London ran an 11-week programme of ‘pub quiz’ style sessions for medical students called Student-led Online Virtual Team-based learning (SOLViT) (Casalotti, 2020)
- ▶ **Gameplay** in psychiatry education, varied between MCQs and simulated scenarios (Mosalanejad et al 2020)
 - ▶ Gamification elements included using avatars, battles, gifts, leaderboards, teams and virtual goods.
 - ▶ Topics include psychiatric disorders, drug options and psychosocial therapies.

Other options for student feedback



- ▶ Expert-patients
- ▶ Student buddy groups
- ▶ Wider peer networks:
 - ▶ WebPA
 - ▶ Buddycheck- similar to WebPA
 - ▶ PeerWise (New Zealand)
 - ▶ Pitch2Peer (Dutch)
 - ▶ Peergrade (Danish)



4) Key messages / Top tips

- ▶ A rapidly emerging field with so much potential
- ▶ Many sources of inspiration that can be replicated; many resources can be utilised
- ▶ We must still ensure that:
 - ▶ Assessment quality standards should be maintained
 - ▶ We always consider how assessment can be useful for learning
 - ▶ Quality of feedback remains paramount
 - ▶ Collaboration between educators and institutions is crucial

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