

Assessment in Health Professions (Semester Year 2025/26)

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1.
dos S. Ribeiro, C., van de Burgwal, L. H. M. & Regeer, B. J. Overcoming challenges for designing and implementing the One Health approach: A systematic review of the literature. *One Health* **7**, (2019).
2.
Hodges, B. D. *A Practical Guide for Medical Teachers*. (Elsevier, Edinburgh, 2017).
3.
Association for the Study of Medical Education. *Understanding Medical Education: Evidence, Theory, and Practice*. (Wiley-Blackwell, Hoboken, NJ, 2019).
4.
A Handbook for Teaching and Learning in Higher Education: Enhancing Academic Practice. (Routledge, Abingdon, Oxon, 2020).
5.
Holmboe, Eric. S. & Durning, S. J. *Practical Guide to the Assessment of Clinical Competence*. (2024).
6.
Norcini, J. et al. Criteria for good assessment: Consensus statement and recommendations from the Ottawa 2010 Conference. *Medical Teacher* **33**, 206–214 (2011).

7.

Van Der Vleuten, C. P. M. The assessment of professional competence: Developments, research and practical implications. *Advances in Health Sciences Education* **1**, 41-67 (1996).

8.

van der Vleuten, C. P. M. & Schuwirth, L. W. T. Assessing professional competence: from methods to programmes. *Medical Education* **39**, 309-317 (2005).

9.

Schuwirth, L. W. & van der Vleuten, C. P. How to Design a Useful Test: The Principles of Assessment. in *Understanding Medical Education* (ed. Swanwick, T.) 277-289 (Wiley-Blackwell, Oxford, UK, 2019). doi:10.1002/9781119373780.ch20.

10.

van der Vleuten, C. P. M. et al. A model for programmatic assessment fit for purpose. *Medical Teacher* **34**, 205-214 (2012).

11.

Biggs, J. Enhancing Teaching through Constructive Alignment. *Higher Education* **32**, 347-364 (1996).

12.

Miller, G. The assessment of clinical skills/competence/performance. *Academic Medicine* **65**, (1990).

13.

Schuwirth, L. W. T. & van der Vleuten, C. P. M. Programmatic assessment and Kane's validity perspective. *Medical Education* **46**, 38-48 (2012).

14.

Epstein, R. M. Defining and Assessing Professional Competence. *JAMA* **287**, (2002).

15.

ten Cate, O. Nuts and Bolts of Entrustable Professional Activities. *Journal of Graduate Medical Education* **5**, 157–158 (2013).

16.

Ten Cate, O. Competency-Based Postgraduate Medical Education: Past, Present and Future. *GMS Journal for Medical Education* **34**, (2017).

17.

Cruess, R. L., Cruess, S. R. & Steinert, Y. Amending Miller's Pyramid to Include Professional Identity Formation. *Academic Medicine* **91**, 180–185 (2016).

18.

Cobb, K. A., Brown, G., Jaarsma, D. A. D. C. & Hammond, R. A. The educational impact of assessment: A comparison of DOPS and MCQs. *Medical Teacher* **35**, e1598–e1607 (2013).

19.

Jolly, B. & Dalton, M. J. Written Assessment. in *Understanding Medical Education* (eds Swanwick, T., Forrest, K. & O'Brien, B. C.) 291–317 (John Wiley & Sons, Ltd, Chichester, UK, 2018). doi:10.1002/9781119373780.ch21.

20.

Jolly, B. Written Assessment. in *Understanding Medical Education* (ed. Swanwick, T.) 261–261 (Wiley-Blackwell, Oxford, UK, 2019). doi:10.1002/9781119373780.ch21.

21.

Epstein, R. M. Assessment in Medical Education. *New England Journal of Medicine* **356**, 387–396 (2007).

22.

Hift, R. J. Should essays and other "open-ended"-type questions retain a place in written summative assessment in clinical medicine? *BMC Medical Education* **14**, (2014).

23.

The Gold Book - constructing written test questions for the basic and clinical sciences.

24.

Schuwirth, L. W. T. & van der Vleuten, C. P. M. ABC of learning and teaching in medicine: Written assessment. *BMJ* **326**, 643–645 (2003).

25.

Schuwirth, L. W. T. & van der Vleuten, C. P. M. Different written assessment methods: what can be said about their strengths and weaknesses? *Medical Education* **38**, 974–979 (2004).

26.

Schuwirth, L. W. T. & van der Vleuten, C. P. M. General overview of the theories used in assessment: AMEE Guide No. 57. *Medical Teacher* **33**, 783–797 (2011).

27.

Charlin, B., Roy, L., Brailovsky, C., Goulet, F. & van der Vleuten, C. The Script Concordance Test: A Tool to Assess the Reflective Clinician. *Teaching and Learning in Medicine* **12**, 189–195 (2000).

28.

Fournier, J., Demeester, A. & Charlin, B. Script Concordance Tests: Guidelines for Construction. *BMC Medical Informatics and Decision Making* **8**, (2008).

29.

Case, S. M. & Swanson, D. B. Extended-matching items: A practical alternative to free-response questions. *Teaching and Learning in Medicine* **5**, 107–115 (1993).

30.

Dory, V., Gagnon, R., Vanpee, D. & Charlin, B. How to construct and implement script concordance tests: insights from a systematic review. *Medical Education* **46**, 552–563 (2012).

31.

Farmer, E. A. & Page, G. A practical guide to assessing clinical decision-making skills using the key features approach. *Medical Education* **39**, 1188–1194 (2005).

32.

FENDERSON, B. The virtues of extended matching and uncued tests as alternatives to multiple choice questions. *Human Pathology* **28**, 526–532 (1997).

33.

Haladyna, T. M., Downing, S. M. & Rodriguez, M. C. A Review of Multiple-Choice Item-Writing Guidelines for Classroom Assessment. *Applied Measurement in Education* **15**, 309–333 (2002).

34.

McCoubrie, P. Improving the fairness of multiple-choice questions: a literature review. *Medical Teacher* **26**, 709–712 (2004).

35.

Miller, M. D., Linn, R. L. & Gronlund, N. E. *Measurement and Assessment in Teaching*. (Pearson Education, Boston, Mass, 2013).

36.

Palmer, E. J. & Devitt, P. G. Assessment of higher order cognitive skills in undergraduate education: modified essay or multiple choice questions?: research paper. *BMC Medical Education* **7**, (2007).

37.

Lubarsky, S., Dory, V., Meterissian, S., Lambert, C. & Gagnon, R. Examining the effects of gaming and guessing on script concordance test scores. *Perspectives on Medical Education* **7**, 174-181 (2018).

38.

Anderson, L. W. & Bloom, B. S. *A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives*. (Longman, New York, N.Y., 2001).

39.

Sam, A. H. et al. Very-short-answer questions: reliability, discrimination and acceptability. *Medical Education* **52**, 447-455 (2018).

40.

Cotton, D. R. E., Cotton, P. A. & Shipway, J. R. Chatting and cheating: Ensuring academic integrity in the era of ChatGPT. *Innovations in Education and Teaching International* **61**, 228-239 (2024).

41.

Boursicot, K. A. M., Roberts, T. E. & Burdick, W. P. Structured Assessments of Clinical Competence. in *Understanding Medical Education* (eds Swanwick, T., Forrest, K. & O'Brien, B. C.) 335-345 (John Wiley & Sons, Ltd, Chichester, UK, 2018).
doi:10.1002/9781119373780.ch23.

42.

Schoonheim-Klein, M. et al. Who will pass the dental OSCE? Comparison of the Angoff and the borderline regression standard setting methods. *European Journal of Dental Education*

13, 162–171 (2009).

43.

Regehr G1, MacRae H, Reznick RK, Szalay D. Comparing the psychometric properties of checklists and global rating scales for assessing performance on an OSCE-format examination. *Acad Med.* (1998).

44.

Harden, R. M. Misconceptions and the OSCE. *Medical Teacher* **37**, 608–610 (2015).

45.

Carraccio, Carol;Wolfsthal, Susan D.;Englander, Robert;Ferentz, Kevin;Martin, Christine. Shifting Paradigms: From Flexner to Competencies. *Academic Medicine* **77**,.

46.

Rushforth, H. E. Objective structured clinical examination (OSCE): Review of literature and implications for nursing education. *Nurse Education Today* **27**, 481–490 (2007).

47.

Spielman, A., Fulmer, T., Eisenberg, E. & Alfano, M. Dentistry, Nursing, and Medicine: A Comparison of Core Competencies. *Journal of Dental Education* **69**, 1257–1271 (2005).

48.

Harden, R. M., Stevenson, M., Downie, W. W. & Wilson, G. M. Assessment of clinical competence using objective structured examination. *BMJ* **1**, 447–451 (1975).

49.

Watson, R., Stimpson, A., Topping, A. & Porock, D. Clinical competence assessment in nursing: a systematic review of the literature. *Journal of Advanced Nursing* **39**, 421–431 (2002).

50.

Williams, D. M., Davies, S., Horner, M. & Handley, J. Peer and near-peer OSCE examiners. *Medical Teacher* **38**, 212–213 (2016).

51.

Brown, C., Ross, S., Cleland, J. & Walsh, K. Money makes the (medical assessment) world go round: The cost of components of a summative final year Objective Structured Clinical Examination (OSCE). *Medical Teacher* **37**, 653–659 (2015).

52.

Meskell, P. et al. Back to the future: An online OSCE Management Information System for nursing OSCEs. *Nurse Education Today* **35**, 1091–1096 (2015).

53.

Tavakol, M. & Doody, G. A. A novel psychometric programme for the rapid analysis of OSCE data. *Medical Teacher* **38**, 104–105 (2016).

54.

Eva, K. W., Rosenfeld, J., Reiter, H. I. & Norman, G. R. An admissions OSCE: the multiple mini-interview. *Medical Education* **38**, 314–326 (2004).

55.

Lane, P. Recruitment into training for general practice—the winds of change or a breath of fresh air? *BMJ* **331**, s153–s153 (2005).

56.

Hodges, B., Regehr, G., McNaughton, N., Tiberius, R. & Hanson, M. OSCE checklists do not capture increasing levels of expertise. **74**, (1999).

57.

Hodges, B. & Mclroy, J. H. Analytic global OSCE ratings are sensitive to level of training. *Medical Education* **37**, 1012–1016 (2003).

58.

Ma, I. W. Y. et al. Comparing the use of global rating scale with checklists for the assessment of central venous catheterization skills using simulation. *Advances in Health Sciences Education* **17**, 457–470 (2012).

59.

Wood, T. J., Humphrey-Murto, S. M. & Norman, G. R. Standard Setting in a Small Scale OSCE: A Comparison of the Modified Borderline-Group Method and the Borderline Regression Method. *Advances in Health Sciences Education* **11**, 115–122 (2006).

60.

Harden, R. M. Revisiting 'Assessment of clinical competence using an objective structured clinical examination (OSCE)'. *Medical Education* **50**, 376–379 (2016).

61.

Harden, R. M., Lilley, P., Patricio, M. & Norman, G. R. *The Definitive Guide to the OSCE: The Objective Structured Clinical Examination as a Performance Assessment*. (Elsevier, Edinburgh, 2016).

62.

Denison, A., Bate, E. & Thompson, J. Tablet versus paper marking in assessment: feedback matters. *Perspectives on Medical Education* **5**, 108–113 (2016).

63.

ten Cate, O. Nuts and Bolts of Entrustable Professional Activities. *Journal of Graduate Medical Education* **5**, 157–158 (2013).

64.

Harden, R. M. Learning outcomes as a tool to assess progression. *Medical Teacher* **29**, 678–682 (2007).

65.

Ross, M. Entrustable professional activities. *The Clinical Teacher* **12**, 223–225 (2015).

66.

ten Cate, O. & Young, J. Q. The patient handover as an entrustable professional activity: adding meaning in teaching and practice. *BMJ Quality & Safety* **21**, i9–i12 (2012).

67.

Aylward, M., Nixon, J. & Gladding, S. An Entrustable Professional Activity (EPA) for Handoffs as a Model for EPA Assessment Development. *Academic Medicine* **89**, 1335–1340 (2014).

68.

Hauer, K. E. et al. Developing Entrustable Professional Activities as the Basis for Assessment of Competence in an Internal Medicine Residency: A Feasibility Study. *Journal of General Internal Medicine* **28**, 1110–1114 (2013).

69.

Orsini, C. & Binnie, V. I. Entrustment decisions in dental education: Is it time to start formalising? *Medical Teacher* **38**, 322–322 (2016).

70.

Auewarakul, C., Downing, S. M., Praditsuwan, R. & Jaturatamrong, U. Item Analysis to Improve Reliability for an Internal Medicine Undergraduate OSCE. *Advances in Health Sciences Education* **10**, 105–113 (2005).

71.

NEWBLE, D. I. & SWANSON, D. B. Psychometric characteristics of the objective structured clinical examination. *Medical Education* **22**, 325–334 (1988).

72.

Sturpe, D. A. Objective Structured Clinical Examinations in Doctor of Pharmacy Programs in the United States. *American journal of pharmaceutical education* **74**, (2010).

73.

Snell, L. S. & Frank, J. R. Competencies, the tea bag model, and the end of time. *Medical Teacher* **32**, 629–630 (2010).

74.

Gravina, E. W. Competency-Based Education and Its Effect on Nursing Education: A Literature Review. *Teaching and Learning in Nursing* **12**, 117–121 (2017).

75.

Read, E. K., Bell, C., Rhind, S. & Hecker, K. G. The Use of Global Rating Scales for OSCEs in Veterinary Medicine. *PLOS ONE* **10**, (2015).

76.

Wood, T. J. & Pugh, D. Are rating scales really better than checklists for measuring increasing levels of expertise? *Medical Teacher* **42**, 46–51 (2020).

77.

Hagel, C. M., Hall, A. K. & Dagnone, J. D. Queen's University Emergency Medicine Simulation OSCE: an Advance in Competency-Based Assessment. *CJEM* **18**, 230–233 (2016).

78.

Tekian, A., Ten Cate, O., Holmboe, E., Roberts, T. & Norcini, J. Entrustment decisions: Implications for curriculum development and assessment. *Medical Teacher* 1–7 (2020)

doi:10.1080/0142159X.2020.1733506.

79.

Peters, H., Holzhausen, Y., Boscardin, C., ten Cate, O. & Chen, H. C. Twelve tips for the implementation of EPAs for assessment and entrustment decisions. *Medical Teacher* **39**, 802–807 (2017).

80.

Kakadia, R., Chen, E. & Ohyama, H. Implementing an online OSCE during the COVID-19 pandemic. *Journal of Dental Education* (2020) doi:10.1002/jdd.12323.

81.

Ryan, A., Carson, A., Reid, K., Smallwood, D. & Judd, T. Fully online OSCEs: A large cohort case study. *MedEdPublish* **9**, (2020).

82.

J. G. Boyle. Viva la VOSCE? *BMC Medical Education* **20**, (2020).

83.

Hopwood, J., Myers, G. & Sturrock, A. Twelve tips for conducting a virtual OSCE. *Medical Teacher* **43**, 633–636 (2021).

84.

Norcini, J. J. The Mini-CEX: A Method for Assessing Clinical Skills. *Annals of Internal Medicine* **138**, (2003).

85.

Kessel, D., Jenkins, J. & Neville, E. Workplace based assessments are no more. *BMJ* (2012) doi:10.1136/bmj.e6193.

86.

Norcini, J. & Burch, V. Workplace-based assessment as an educational tool: AMEE Guide No. 31. *Medical Teacher* **29**, 855–871 (2007).

87.

Elstein, A. S., Sprafka, S. A. & Shulman, L. S. *Medical Problem Solving: An Analysis of Clinical Reasoning*. (Harvard University Press, 2013).

88.

Noel, G. L. How Well Do Internal Medicine Faculty Members Evaluate the Clinical Skills of Residents? *Annals of Internal Medicine* **117**, (1992).

89.

Kogan, J. R., Bellini, L. M. & Shea, J. A. Feasibility, Reliability, and Validity of the Mini-Clinical Evaluation Exercise (mCEX) in a Medicine Core Clerkship. *Academic Medicine* **78**, (2003).

90.

Durning, S. J., Cation, L. J., Markert, R. J. & Pangaro, L. N. Assessing the Reliability and Validity of the Mini-Clinical Evaluation Exercise for Internal Medicine Residency Training. *Academic Medicine* **77**, (2002).

91.

Holmboe, E. S., Huot, S., Chung, J., Norcini, J. & Hawkins, R. E. Construct Validity of the MiniClinical Evaluation Exercise (miniCEX). *Academic Medicine* **78**, (2003).

92.

Torsney, K. M., Cocker, D. M. & Slessor, A. A. P. The Modern Surgeon and Competency Assessment: Are the Workplace-Based Assessments Evidence-Based? *World Journal of Surgery* **39**, 623–633 (2015).

93.

Mitchell, C., Bhat, S., Herbert, A. & Baker, P. Workplace-based assessments of junior doctors: do scores predict training difficulties? *Medical Education* **45**, 1190–1198 (2011).

94.

Williams, R. G., Verhulst, S., Colliver, J. A. & Dunnington, G. L. Assuring the reliability of resident performance appraisals: More items or more observations? *Surgery* **137**, 141–147 (2005).

95.

Murphy, D. J., Bruce, D. A., Mercer, S. W. & Eva, K. W. The reliability of workplace-based assessment in postgraduate medical education and training: a national evaluation in general practice in the United Kingdom. *Advances in Health Sciences Education* **14**, 219–232 (2009).

96.

Archer, J. C. Use of SPRAT for peer review of paediatricians in training. *BMJ* **330**, 1251–1253 (2005).

97.

Quantrill, S. J. & Tun, J. K. Workplace-based assessment as an educational tool. *Guide supplement 31.5 – Viewpoint. Medical Teacher* **34**, 417–418 (2012).

98.

Hurst, Y. K., Prescott-Clements, L. E. & Rennie, J. S. The patient assessment questionnaire: A new instrument for evaluating the interpersonal skills of vocational dental practitioners. *British Dental Journal* **197**, 497–500 (2004).

99.

Humphrey-Murto, S., Côté, M., Pugh, D. & Wood, T. J. Assessing the Validity of a Multidisciplinary Mini-Clinical Evaluation Exercise. *Teaching and Learning in Medicine* **30**, 152–161 (2018).

100.

Rekman, J. et al. A New Instrument for Assessing Resident Competence in Surgical Clinic: The Ottawa Clinic Assessment Tool. *Journal of Surgical Education* **73**, 575–582 (2016).

101.

Sutherland, R. M., Reid, K. J., Chiavaroli, N. G., Smallwood, D. & McColl, G. J. Assessing Diagnostic Reasoning Using a Standardized Case-Based Discussion. *Journal of Medical Education and Curricular Development* **6**, (2019).

102.

Driessen, E. W., Muijtjens, A. M. M., van Tartwijk, J. & van der Vleuten, C. P. M. Web- or paper-based portfolios: is there a difference? *Medical Education* **41**, 1067–1073 (2007).

103.

Driessen, E. & van Tartwijk, J. Portfolios in personal and professional development. in *Understanding Medical Education* (ed. Swanwick, T.) 255–262 (Wiley-Blackwell, Chichester, UK, 2013). doi:10.1002/9781119373780.ch18.

104.

Siau, K. et al. Changes in scoring of Direct Observation of Procedural Skills (DOPS) forms and the impact on competence assessment. *Endoscopy* **50**, 770–778 (2018).

105.

Martinsen, S. S. S. et al. Examining the educational impact of the mini-CEX: a randomised controlled study. *BMC Medical Education* **21**, (2021).

106.

Cohen, L., Manion, L. & Morrison, K. *Research Methods in Education*. (Routledge, London, 2018).

107.

Joanna Briggs Institute QARI. <https://jbi.global/>.

108.

Buckley, S. et al. The educational effects of portfolios on undergraduate student learning: A Best Evidence Medical Education (BEME) systematic review. BEME Guide No. 11. *Medical Teacher* **31**, 282–298 (2009).

109.

Brookfield, S. *Developing Critical Thinkers: Challenging Adults to Explore Alternative Ways of Thinking and Acting*. (Open University Press, Milton Keynes, 1987).

110.

Burls, A. *What is critical appraisal?* (2009).

111.

The Campbell Collaboration. <http://www.campbellcollaboration.org/>.

112.

CASP Critical Appraisal Skills Programme Oxford UK. <http://www.casp-uk.net/>.

113.

Cochrane | Trusted evidence. Informed decisions. Better health. <http://www.cochrane.org/>.

114.

Kee, F. & Bickle, I. Critical thinking and critical appraisal: the chicken and the egg? *QJM* **97**, 609–614 (2004).

115.

Da Silva, A. & Dennick, R. Corpus analysis of problem-based learning transcripts: an exploratory study. *Medical Education* **44**, 280–288 (2010).

116.

Garrison, D. R. Critical thinking and adult education: a conceptual model for developing critical thinking in adult learners. *International Journal of Lifelong Education* **10**, 287–303 (1991).

117.

Hammick, M., Dornan, T. & Steinert, Y. Conducting a best evidence systematic review. Part 1: From idea to data coding. BEME Guide No. 13. *Medical Teacher* **32**, 3–15 (2010).

118.

Horsley, T. et al. Teaching critical appraisal skills in healthcare settings. *Cochrane Database of Systematic Reviews* (1996) doi:10.1002/14651858.CD001270.pub2.

119.

Huang, G. C., Newman, L. R. & Schwartzstein, R. M. Critical Thinking in Health Professions Education: Summary and Consensus Statements of the Millennium Conference 2011. *Teaching and Learning in Medicine* **26**, 95–102 (2014).

120.

Jenicek, M. The hard art of soft science: Evidence-Based Medicine, Reasoned Medicine or both? *Journal of Evaluation in Clinical Practice* **12**, 410–419 (2006).

121.

Kirkpatrick, D. Great Ideas Revisited: Revisiting Kirkpatrick's Four-Level Model. *Training and Development* **50**, 54–59 (1996).

122.

Missimer, C. A. *Good Arguments: An Introduction to Critical Thinking*. (Prentice Hall, Englewood Cliffs, N.J., 1995).

123.

Moore, T. J. Critical thinking and disciplinary thinking: a continuing debate. *Higher Education Research & Development* **30**, 261–274 (2011).

124.

Paul, R. *Critical Thinking: How to Prepare Students for a Rapidly Changing World*. (foundation for critical thinking, 1995).

125.

Paul, R. & Elder, L. *The Miniature Guide to Critical Thinking: Concepts and Tools*. (2006).

126.

Yardley, S. & Dornan, T. Kirkpatrick's levels and education 'evidence'. *Medical Education* **46**, 97–106 (2012).

127.

Devine, O. P., Harborne, A. C. & McManus, I. C. Assessment at UK medical schools varies substantially in volume, type and intensity and correlates with postgraduate attainment. *BMC Medical Education* **15**, (2015).

128.

Ertmer, P. A. et al. Using Peer Feedback to Enhance the Quality of Student Online Postings: An Exploratory Study. *Journal of Computer-Mediated Communication* **12**, 412–433 (2007).

129.

Nicol, D. J. & Macfarlane-Dick, D. Formative assessment and self-regulated learning: a

model and seven principles of good feedback practice. *Studies in Higher Education* **31**, 199–218 (2006).

130.

Piedra, N., Chicaiza, J., Lopez, J., Romero, A. & Tovar, E. Measuring collaboration and creativity skills through rubrics: Experience from UTPL collaborative social networks course. in *IEEE EDUCON 2010 Conference* 1511–1516 (IEEE, 2010). doi:10.1109/EDUCON.2010.5492349.

131.

De Wever, B., Van Keer, H., Schellens, T. & Valcke, M. Assessing collaboration in a wiki: The reliability of university students' peer assessment. *The Internet and Higher Education* **14**, 201–206 (2011).

132.

Verkerk, M. A., de Bree, M. J. & Mourits, M. J. E. Reflective professionalism: interpreting CanMEDS' 'professionalism'. *Journal of Medical Ethics* **33**, 663–666 (2007).

133.

Cleland, J. A., Knight, L. V., Rees, C. E., Tracey, S. & Bond, C. M. Is it me or is it them? Factors that influence the passing of underperforming students. *Medical Education* **42**, 800–809 (2008).

134.

Cruess, R. The Professionalism Mini-Evaluation Exercise: A Preliminary Investigation. *Academic Medicine* **81**,

135.

Goldie, J. Assessment of professionalism: A consolidation of current thinking. *Medical Teacher* **35**, e952–e956 (2013).

136.

van Mook, W. N. K. A. et al. Approaches to professional behaviour assessment: Tools in the professionalism toolbox. *European Journal of Internal Medicine* **20**, e153–e157 (2009).

137.

Ginsburg, S., Regehr, G. & Lingard, L. Basing the evaluation of professionalism on observable behaviours: a cautionary tale. *Academic Medicine* **79**, S1–S4 (2004).

138.

Hodges, B. D. et al. Assessment of professionalism: Recommendations from the Ottawa 2010 Conference. *Medical Teacher* **33**, 354–363 (2011).

139.

Schubert, S. et al. A situational judgement test of professional behaviour: development and validation. *Medical Teacher* **30**, 528–533 (2008).

140.

Arnold, L., Shue, C. K., Kritt, B., Ginsburg, S. & Stern, D. T. Medical students' views on peer assessment of professionalism. *Journal of General Internal Medicine* **20**, 819–824 (2005).

141.

Arnold, L. et al. Can There Be a Single System for Peer Assessment of Professionalism among Medical Students? A Multi-Institutional Study. *Academic Medicine* **82**, 578–586 (2007).

142.

Finn, G., Sawdon, M., Clipsham, L. & McLachlan, J. Peer estimation of lack of professionalism correlates with low Conscientiousness Index scores. *Medical Education* **43**, 960–967 (2009).

143.

Gaufberg, E. & Fitzpatrick, A. The favour: a professional boundaries OSCE station. *Medical Education* **42**, 529–530 (2008).

144.

Ginsburg, S. Context, Conflict, and Resolution: A New Conceptual Framework for Evaluating Professionalism. *Academic Medicine* **75**,..

145.

Ginsburg, S., Regehr, G. & Mylopoulos, M. From behaviours to attributions: further concerns regarding the evaluation of professionalism. *Medical Education* **43**, 414–425 (2009).

146.

Ginsburg, S., van der Vleuten, C., Eva, K. W. & Lingard, L. Hedging to save face: a linguistic analysis of written comments on in-training evaluation reports. *Advances in Health Sciences Education* **21**, 175–188 (2016).

147.

GMC. Development of generic professional capabilities.
<http://www.gmc-uk.org/education/23581.asp>.

148.

Kelly, M., O'Flynn, S., McLachlan, J. & Sawdon, M. A. The Clinical Conscientiousness Index. *Academic Medicine* **87**, 1218–1224 (2012).

149.

McCormack, W. T., Lazarus, C., Stern, D. & Small, P. A. Peer Nomination: A Tool for Identifying Medical Student Exemplars in Clinical Competence and Caring, Evaluated at Three Medical Schools. *Academic Medicine* **82**, 1033–1039 (2007).

150.

McLachlan, J. C., Finn, G. & Macnaughton, J. The Conscientiousness Index: A Novel Tool to Explore Students' Professionalism. *Academic Medicine* **84**, 559–565 (2009).

151.

Norcini, J. J. Peer assessment of competence. *Medical Education* **37**, 539–543 (2003).

152.

Papadakis, M. A. et al. Disciplinary Action by Medical Boards and Prior Behavior in Medical School. *New England Journal of Medicine* **353**, 2673–2682 (2005).

153.

Pohl, C. A., Hojat, M. & Arnold, L. Peer Nominations as Related to Academic Attainment, Empathy, Personality, and Specialty Interest. *Academic Medicine* **86**, 747–751 (2011).

154.

Ramsey, P. G. Use of Peer Ratings to Evaluate Physician Performance. *JAMA: The Journal of the American Medical Association* **269**, (1993).

155.

Royal College of Physicians. *Doctors in Society: Medical professionalism in a changing world.* (2005).

156.

Stern, D. T., Frohna, A. Z. & Gruppen, L. D. The prediction of professional behaviour. *Medical Education* **39**, 75–82 (2005).

157.

Stern, D. T. *Measuring Medical Professionalism.* (Oxford University Press, New York, 2006).

158.

van Mook, W. N. K. A. et al. General considerations regarding assessment of professional behaviour. *European Journal of Internal Medicine* **20**, e90–e95 (2009).

159.

Wilkinson, T. J., Wade, W. B. & Knock, L. D. A Blueprint to Assess Professionalism: Results of a Systematic Review. *Academic Medicine* **84**, 551–558 (2009).

160.

Zijlstra-Shaw, S., Robinson, P. G. & Roberts, T. Assessing professionalism within dental education; the need for a definition. *European Journal of Dental Education* **16**, e128–e136 (2012).

161.

Patterson, F., Zibarras, L. & Ashworth, V. Situational judgement tests in medical education and training: Research, theory and practice: AMEE Guide No. 100. *Medical Teacher* **38**, 3–17 (2016).

162.

Gorania, R. Situational judgement stress. *British Dental Journal* **231**, 426–426 (2021).

163.

Royal College of Physicians. Advancing medical professionalism.
<https://www.healthcarevalues.ox.ac.uk/files/ampsummarypdf> (2018).

164.

Rimmer, A. Situational judgment test is scrapped under new system for allocating foundation training places. *BMJ* (2023) doi:10.1136/bmj.p1269.

165.

McKinley, D. W. & Norcini, J. J. How to set standards on performance-based examinations: AMEE Guide No. 85. *Medical Teacher* **36**, 97–110 (2014).

166.

Ben-David, M. F. AMEE Guide No. 18: Standard setting in student assessment. *Medical Teacher* **22**, 120–130 (2000).

167.

De Champlain, A. F. Standard Setting Methods in Medical Education. in *Understanding Medical Education* (ed. Swanwick, T.) 347–359 (Wiley-Blackwell, Oxford, UK, 2019). doi:10.1002/9781119373780.ch24.

168.

Cohen-Schotanus, J. & van der Vleuten, C. P. M. A standard setting method with the best performing students as point of reference: Practical and affordable. *Medical Teacher* **32**, 154–160 (2010).

169.

Downing, S. M., Tekian, A. & Yudkowsky, R. RESEARCH METHODOLOGY: Procedures for Establishing Defensible Absolute Passing Scores on Performance Examinations in Health Professions Education. *Teaching and Learning in Medicine* **18**, 50–57 (2006).

170.

Hofstee, W. K. B. *The Case for Compromise in Educational Selection and Grading. On Educational Testing* (1984).

171.

Fowell, S. L., Fewtrell, R. & McLaughlin, P. J. Estimating the Minimum Number of Judges Required for Test-centred Standard Setting on Written Assessments. Do Discussion and Iteration have an Influence? *Advances in Health Sciences Education* **13**, 11–24 (2008).

172.

Taylor, C. A. Development of a modified Cohen method of standard setting. *Medical Teacher* **33**, e678–e682 (2011).

173.

Karantonis, A. & Sireci, S. G. The Bookmark Standard-Setting Method: A Literature Review. *Educational Measurement: Issues and Practice* **25**, 4–12 (2006).

174.

Puryer, J. & O'Sullivan, D. An introduction to standard setting methods in dentistry. *BDJ* **219**, 355–358 (2015).

175.

Linn, A. M. J., Tonkin, A. & Duggan, P. Standard setting of script concordance tests using an adapted Nedelsky approach. *Medical Teacher* **35**, 314–319 (2013).

176.

Woodhouse, L. Comparison of Cohen and Angoff methods of standard setting: is Angoff worth it? European Board of Medical Assessors Annual Academic Conference: Crossing Boundaries: Assessment in Medical Education.

177.

Barbara S. Plake, James C. Impara and Patrick M. Irwin. Consistency of Angoff-Based Predictions of Item Performance: Evidence of Technical Quality of Results from the Angoff Standard Setting Method. *Journal of Educational Measurement* **37**, (2000).

178.

IC McManus. Implementing statistical equating for MRCP(UK) parts 1 and 2. *BMC Medical Education* **14**, (2014).

179.

Wood, D. F. Formative Assessment. in *Understanding Medical Education* (ed. Swanwick, T.)

317–328 (John Wiley & Sons, Ltd, Oxford, UK, 2019). doi:10.1002/9781119373780.ch25.

180.

Bing-You, R. G. Why Medical Educators May Be Failing at Feedback. *JAMA* **302**, (2009).

181.

Ramani, S. & Krackov, S. K. Twelve tips for giving feedback effectively in the clinical environment. *Medical Teacher* **34**, 787–791 (2012).

182.

Van De Ridder, J. M. M., Stokking, K. M., McGaghie, W. C. & Ten Cate, O. T. J. What is feedback in clinical education? *Medical Education* **42**, 189–197 (2008).

183.

Rushton, A. Formative assessment: a key to deep learning? *Medical Teacher* **27**, 509–513 (2005).

184.

Sender Liberman, A., Liberman, M., Steinert, Y., McLeod, P. & Meterissian, S. Surgery residents and attending surgeons have different perceptions of feedback. *Medical Teacher* **27**, 470–472 (2005).

185.

Duers, L. E. & Brown, N. An exploration of student nurses' experiences of formative assessment. *Nurse Education Today* **29**, 654–659 (2009).

186.

Olson, B. L. & McDonald, J. L. Influence of Online Formative Assessment Upon Student Learning in Biomedical Science Courses. *Journal of Dental Education* **68**, 656–659 (2004).

187.

Garrison, C. & Ehringhaus, M. Formative and Summative Assessments in the Classroom. (2007).

188.

Sadler, D. R. Formative Assessment: revisiting the territory. *Assessment in Education: Principles, Policy & Practice* **5**, 77-84 (1998).

189.

Ditchfield, C. How do learners make sense of the formative assessment opportunities available to inform their learning in a PBL course. (2007).

190.

Weaver, M. R. Do students value feedback? Student perceptions of tutors' written responses. *Assessment & Evaluation in Higher Education* **31**, 379-394 (2006).

191.

Ferrell, G. Supporting assessment and feedback practice with technology: from tinkering to transformation. (2013).

192.

Black, P. & Wiliam, D. Assessment and Classroom Learning. *Assessment in Education: Principles, Policy & Practice* **5**, 7-74 (1998).

193.

Sadler, D. R. Formative assessment and the design of instructional systems. *Instructional Science* **18**, 119-144 (1989).

194.

Elnicki, D. M., Layne, R. D., Ogden, P. E. & Morris, D. K. Oral versus written feedback in medical clinic. *Journal of General Internal Medicine* **13**, 155–158 (1998).

195.

Norcross, W. A. The Consultation: An Approach to Learning and Teaching. *JAMA: The Journal of the American Medical Association* **253**, (1985).

196.

Jackson, J. L., Kay, C., Jackson, W. C. & Frank, M. The Quality of Written Feedback by Attendings of Internal Medicine Residents. *Journal of General Internal Medicine* **30**, 973–978 (2015).

197.

Rudolph, J., Raemer, D. & Shapiro, J. We know what they did wrong, but not why : the case for 'frame-based' feedback. *The Clinical Teacher* **10**, 186–189 (2013).

198.

Scally, G. & Donaldson, L. J. Looking forward: Clinical governance and the drive for quality improvement in the new NHS in England. *BMJ* **317**, 61–65 (1998).

199.

Shaw, S. Research governance: where did it come from, what does it mean? *Journal of the Royal Society of Medicine* **98**, 496–502 (2005).

200.

Dimensions of Quality. (2010).

201.

Anderson, D. & Ackerman-Anderson, L. S. Beyond Change Management: How to Achieve Breakthrough Results through Conscious Change Leadership. vol. 36 (Pfeiffer, San Francisco, 2010).

202.

Hay, D., Kinchin, I. & Lygo-Baker, S. Making learning visible: the role of concept mapping in higher education. *Studies in Higher Education* **33**, 295–311 (2008).

203.

Hay, D. B., Tan, P. L. & Whaites, E. Non-traditional learners in higher education: comparison of a traditional MCQ examination with concept mapping to assess learning in a dental radiological science course. *Assessment & Evaluation in Higher Education* **35**, 577–595 (2010).

204.

Richstone, L. et al. Eye Metrics as an Objective Assessment of Surgical Skill. *Annals of Surgery* **252**, 177–182 (2010).

205.

Suetsugu, N., Ohki, M. & Kaku, T. Quantitative Analysis of Nursing Observation Employing a Portable Eye-Tracker. *Open Journal of Nursing* **06**, 53–61 (2016).

206.

Gould, J. & Day, P. Hearing you loud and clear: student perspectives of audio feedback in higher education. *Assessment & Evaluation in Higher Education* **38**, 554–566 (2013).

207.

Frost, J., de Pont, G. & Brailsford, I. Expanding assessment methods and moments in history. *Assessment & Evaluation in Higher Education* **37**, 293–304 (2012).

208.

Harrison, C. J., Molyneux, A. J., Blackwell, S. & Wass, V. J. How we give personalised audio feedback after summative OSCEs. *Medical Teacher* **37**, 323–326 (2015).

209.

Voelkel, S. & Mello, L. V. Audio Feedback – Better Feedback? *Bioscience Education* **22**, 16–30 (2014).

210.

Ashraf, H. et al. Eye-tracking technology in medical education: A systematic review. *Medical Teacher* **40**, 62–69 (2018).

211.

Mayer, R. E. Cognitive Learning. in *Encyclopedia of the sciences of learning* (Springer, [S.I.], 2012).

212.

Ho, V. W., Harris, P. G., Kumar, R. K. & Velan, G. M. Knowledge maps: a tool for online assessment with automated feedback. *Medical Education Online* **23**, (2018).

213.

Guraya, S. Y. The Desired Concept Maps and Goal Setting for Assessing Professionalism in Medicine. *JOURNAL OF CLINICAL AND DIAGNOSTIC RESEARCH* (2016)
doi:10.7860/JCDR/2016/19917.7832.

214.

Kassab, S. E. et al. Generalisability theory analyses of concept mapping assessment scores in a problem-based medical curriculum. *Medical Education* **50**, 730–737 (2016).

215.

Courteille, O. et al. The use of a virtual patient case in an OSCE-based exam – A pilot study. *Medical Teacher* **30**, e66–e76 (2008).

216.

Downing, S. M. Guessing on selected-response examinations. *Medical Education* **37**, 670–671 (2003).

217.

Ingrid Tonni, Cynthia C. Gadbury-Amyot, Marjan Govaerts, Olle ten Cate, Joan Davis, Lily T. Garcia, Richard W. Valachovic. ADEA-ADEE Shaping the Future of Dental Education III. *Journal of Dental Education* **84**, 97–104 (2020).