# Teaching in Health Professions (Semester Two 2024/25)



1.

Association for the Study of Medical Education: Understanding medical education: evidence, theory, and practice. Wiley-Blackwell, Hoboken, NJ (2019).

2.

Hodges, B.D.: A practical guide for medical teachers. Elsevier, Edinburgh (2017).

3.

Marshall, S. ed: A handbook for teaching and learning in higher education: enhancing academic practice. Routledge, Abingdon, Oxon (2020).

4.

Mann, K.V., Holmes, D.B., Hayes, V.M., Burge, F.I., Viscount, P.W.: Community family medicine teachers' perceptions of their teaching role. Medical Education. 35, 278–285 (2008). https://doi.org/10.1111/j.1365-2923.2001.00769.x.

5.

Steinert, Y., Macdonald, M.E.: Why physicians teach: giving back by paying it forward. Medical Education. 49, 773–782 (2015). https://doi.org/10.1111/medu.12782.

6.

Grow, G.O.: Teaching Learners To Be Self-Directed. Adult Education Quarterly. 41, 125–149 (1991). https://doi.org/10.1177/0001848191041003001.

Elizabeth, M.: Constructivism: From Philosophy to Practice, http://files.eric.ed.gov/fulltext/ED444966.pdf, (1997).

8.

Kitchener, K.S., King, P.M.: Reflective judgment: Concepts of justification and their relationship to age and education. Journal of Applied Developmental Psychology. 2, 89–116 (1981). https://doi.org/10.1016/0193-3973(81)90032-0.

9.

P. M. Van Der Vleuten, D. H. J. M., C.: The need for evidence in education. Medical Teacher. 22, 246–250 (2000). https://doi.org/10.1080/01421590050006205.

10.

King, A.: From Sage on the Stage to Guide on the Side. College Teaching. 41, 30–35 (1993). https://doi.org/10.1080/87567555.1993.9926781.

11.

Marshall, S. ed: A handbook for teaching and learning in higher education: enhancing academic practice. Routledge, Abingdon, Oxon (2020).

12.

McCormick, R., Paechter, C.F., Open University, Scheffler: Learning and knowledge. Paul Chapman in association with the Open University, London (1999).

13.

Muijs, D.: Doing quantitative research in education with SPSS. SAGE, London (2011).

Skeff, K., Bowen, J., Irby, D.: Protecting Time for Teaching in the Ambulatory Care Setting. Academic Medicine. 72, 694–697 (1997).

15.

Luft, J.: The Johari Window: A graphic model of Awarness in Interpersonal Relations. Human relations training news. 5, (1961).

16.

McKimm, J., Swanwick, T.: Assessing learning needs. British Journal of Hospital Medicine. 70, 348–351 (2009).

17.

Amery, J., Lapwood, S.: A study into the educational needs of children's hospice doctors: a descriptive quantitative and qualitative survey. Palliative Medicine. 18, 727–733 (2004). https://doi.org/10.1191/0269216304pm9020a.

18.

Cantillon, P., Wood, D.F., Yardley, S. eds: ABC of learning and teaching in medicine. Wiley, Hoboken, NJ (2017).

19.

Hersey, P., Blanchard, K.H.: Great ideas revisited. Training & Development. 50, 42-47 (1996).

20.

Bloom, B.S., Krathwohl, D.R., Masia, B.B.: Taxonomy of educational objectives: the classification of educational goals. Longman, New York (1964).

21.

Atkinson, S.P.: Graduate Competencies, Employability and Educational Taxonomies: Critique of Intended Learning Outcomes. Practice and Evidence of Scholarship of Teaching and Learning in Higher Education. 10, 154–177 (2015).

22.

Bligh, D.A.: What's the use of lectures? Jossey-Bass Publishers, San Francisco (2000).

23.

Brown, G., Manogue, M.: AMEE Medical Education Guide No. 22: Refreshing lecturing: a guide for lecturers. Medical Teacher. 23, 231–244 (2001). https://doi.org/10.1080/01421590120043000.

24.

Pugsley, L.: How to design an effective PowerPoint presentation. Education for Primary Care. 21, 51–53 (2010). https://doi.org/10.1080/14739879.2010.11493876.

25.

Dunkin, M.J.: A Review of Research on Lecturing. Higher Education Research & Development. 2, 63–78 (1983). https://doi.org/10.1080/0729436830020105.

26.

Verner, C., Dickinson, G.: The Lecture, An Analysis and Review of Research. Adult Education Quarterly. 17, 85–100 (1967). https://doi.org/10.1177/074171366701700204.

27.

Gardiner, L.F.: Redesigning Higher Education: Producing Dramatic Gains in Student Learning. (1994).

28.

Stuart, J., Rutherford, R.J.D.: MEDICAL STUDENT CONCENTRATION DURING LECTURES. The Lancet. 312, 514–516 (1978). https://doi.org/10.1016/S0140-6736(78)92233-X.

Abel, M., Bäuml, K.-H.T.: Sleep can reduce proactive interference. Memory. 22, 332–339 (2014). https://doi.org/10.1080/09658211.2013.785570.

30.

Baddeley, A.D.: Human memory: theory and practice. Psychology Press, Hove (1997).

31.

Abercrombie, M.L.J.: The anatomy of judgement: an investigation into the processes of perception and reasoning. Free Association, London (1989).

32.

Dudley-Evans, Johns: The teaching of listening comprehension, https://www.teachingenglish.org.uk/article/teaching-listening-comprehension, (1981).

33.

The Dr. Fox effect: a study of lecturer effectiveness and ratings of instruction., http://journals.lww.com/academicmedicine/Abstract/1975/02000/The\_Dr\_\_Fox\_effect\_\_a\_st udy\_of\_lecturer.6.aspx.

34.

Hashweh, M.Z.: Effects of subject-matter knowledge in the teaching of biology and physics. Teaching and Teacher Education. 3, 109–120 (1987). https://doi.org/10.1016/0742-051X(87)90012-6.

35.

Shieh, K.-K., Lin, C.-C.: Effects of screen type, ambient illumination, and color combination on VDT visual performance and subjective preference. International Journal of Industrial Ergonomics. 26, 527–536 (2000). https://doi.org/10.1016/S0169-8141(00)00025-1.

French, M.M.J., Blood, A., Bright, N.D., Futak, D., Grohmann, M.J., Hasthorpe, A., Heritage, J., Poland, R.L., Reece, S., Tabor, J.: Changing Fonts in Education: How the Benefits Vary with Ability and Dyslexia. The Journal of Educational Research. 106, 301–304 (2013). https://doi.org/10.1080/00220671.2012.736430.

37.

Josephson, S.: Keeping Your Readers' Eyes on the Screen: An Eye-Tracking Study Comparing Sans Serif and Serif Typefaces. Visual Communication Quarterly. 15, 67–79 (2008). https://doi.org/10.1080/15551390801914595.

38.

Brown, G., Atkins, M.: Effective teaching in higher education. Routledge, London (1990).

39.

Roman, B., Hayden, C., Parmelee, D.: Medical Education Should Say Goodbye to Lectures. Academic Medicine. 96, 1499–1500 (2021). https://doi.org/10.1097/ACM.000000000004236.

40.

Prober, C.G., Norden, J.G.: Learning Alone or Learning Together: Is It Time to Reevaluate Teacher and Learner Responsibilities? Academic Medicine. 96, 170–172 (2021). https://doi.org/10.1097/ACM.000000000003741.

41.

Brown, S., Race, P.: Lecturing: a practical guide. Kogan Page, London (2002).

42.

Gibbs, G.: Learning by Doing: a guide to teaching and learning methods. (1988).

Astin, A.W.: What matters in college?: four critical years revisited. Jossey-Bass, San Francisco (1993).

44.

Hake, R.R.: Interactive-engagement versus traditional methods: A six-thousand-student survey of mechanics test data for introductory physics courses. American Journal of Physics. 66, (1998). https://doi.org/10.1119/1.18809.

45.

Bonwell, C., Eison, J.: Active learning: creating excitement in the classroom, http://files.eric.ed.gov/fulltext/ED336049.pdf, (1991).

46.

Redish, E.F., Saul, J., Steinberg, R.: On the effectiveness of active-engagement microcomputer-based laboratories. American Journal of Physics. 65, (1997). https://doi.org/10.1119/1.18498.

47.

Draper, S.W., Brown, M.I.: Increasing interactivity in lectures using an electronic voting system. Journal of computer assisted learning. 20, 81–94 (2004). https://doi.org/10.1111/j.1365-2729.2004.00074.x.

48.

Ruhl, K.L., Hughes, C.A., Schloss, P.J.: Using the Pause Procedure to Enhance Lecture Recall. Teacher Education and Special Education: The Journal of the Teacher Education Division of the Council for Exceptional Children. 10, 14–18 (1987). https://doi.org/10.1177/088840648701000103.

49.

Ernst, H., Colthorpe, K.: The efficacy of interactive lecturing for students with diverse science backgrounds. AJP: Advances in Physiology Education. 31, 41–44 (2007). https://doi.org/10.1152/advan.00107.2006.

Snell, Y.S., Linda S.: Interactive lecturing: strategies for increasing participation in large group presentations. Medical Teacher. 21, 37–42 (1999). https://doi.org/10.1080/01421599980011.

51.

Schell, J.: What is a flipped classroom? (in 60 seconds), http://blog.peerinstruction.net/2013/04/22/what-is-a-flipped-classroom-in-60-seconds/.

52.

Cardall, S., Krupat, E., Ulrich, M.: Live Lecture Versus Video-Recorded Lecture: Are Students Voting with their feet? Academic Medicine. 83, 1174–1178 (2008). https://doi.org/10.1097/ACM.0b013e31818c6902.

53.

Bergmann, J., Sams, A.: Flip your classroom: reach every student in every class every day. International Society for Technology in Education, Eugene, Oregon (2012).

54.

Prober, C., Khan, S.: Medical Education Reimagined: A Call to Action: Academic Medicine. Academic Medicine. 88, 1407–1410 (2013). https://doi.org/10.1097/ACM.0B013E3182A368BD.

55.

Clark, D.: Ten reasons we should ditch university lectures.

56.

Mazur, E.: Peer instruction: Getting students to think in class. In: AIP Conference Proceedings. pp. 981–988. AIP (1997). https://doi.org/10.1063/1.53199.

Mazur, E.: Peer instruction: a user's manual. Prentice Hall, Upper Saddle River, N.J. (1997).

58.

Cantillon, P.: ABC of learning and teaching in medicine: Teaching large groups. BMJ. 326, 437–437 (2003). https://doi.org/10.1136/bmj.326.7386.437.

59.

Graffam, B.: Active learning in medical education: Strategies for beginning implementation. Medical Teacher. 29, 38–42 (2007). https://doi.org/10.1080/01421590601176398.

60.

Patient Assessment Questionnaire, http://www.westmidlandsdeanery.nhs.uk/Portals/0/Denistry/Dental%20PAQ%20VT%202007-2008.pdf.

61.

Gillispie, V.: Using the Flipped Classroom to Bridge the Gap to Generation Y. The Ochsner Journal. 16, (2016).

62.

Bell, R., Martin, S., McCulloch, G., O'Sullivan, C.: Research methods in education. Routledge, London (2011).

63.

BEME Collaboration, http://www.bemecollaboration.org/.

64.

Joanna Briggs Institute QARI, https://jbi.global/.

Brookfield, S.: Developing critical thinkers: challenging adults to explore alternative ways of thinking and acting. Open University Press, Milton Keynes (1987).

66.

Burls, A., Hayward Medical Communications Ltd: What is critical appraisal? Hayward Medical Communications, London (2014).

67.

The Campbell Collaboration, http://www.campbellcollaboration.org/.

68.

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

69.

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

70.

Da Silva, A.L., Dennick, R.: Corpus analysis of problem-based learning transcripts: an exploratory study. Medical Education. 44, 280–288 (2010). https://doi.org/10.1111/j.1365-2923.2009.03575.x.

71.

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). https://doi.org/10.1080/0260137910100403.

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). https://doi.org/10.3109/01421590903414245.

## 73.

Horsley, T., Hyde, C., Santesso, N., Parkes, J., Milne, R., Stewart, R.: Teaching critical appraisal skills in healthcare settings. Cochrane Database of Systematic Reviews. (2011). https://doi.org/10.1002/14651858.CD001270.pub2.

### 74.

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). https://doi.org/10.1080/10401334.2013.857335.

# 75.

Evaluation of a programme of workshops for promoting the teaching of critical appraisal skills. Medical Education. 32, 486–491 (1998). https://doi.org/10.1046/j.1365-2923.1998.00256.x.

## 76.

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). https://doi.org/10.1111/j.1365-2753.2006.00718.x.

# 77.

Kee, F., Bickle, I.: Critical thinking and critical appraisal: the chicken and the egg? QJM. 97, 609–614 (2004). https://doi.org/10.1093/qjmed/hch099.

#### 78.

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

Missimer, C.A.: Good arguments: an introduction to critical thinking. Prentice Hall, Englewood Cliffs, N.J. (1995).

80.

Moore, T.J.: Critical thinking and disciplinary thinking: a continuing debate. Higher Education Research & Development. 30, 261–274 (2011). https://doi.org/10.1080/07294360.2010.501328.

81.

Paul, R.: Critical thinking: how to prepare students for a rapidly changing world. foundation for critical thinking (1995).

82.

Paul, R., Elder, L.: The Miniature Guide to Critical Thinking: Concepts and Tools, https://www.criticalthinking.org/files/Concepts Tools.pdf, (2006).

83.

Yardley, S., Dornan, T.: Kirkpatrick's levels and education 'evidence'. Medical Education. 46, 97–106 (2012). https://doi.org/10.1111/j.1365-2923.2011.04076.x.

84.

Ajjawi, R., Rees, C., Monrouxe, L.V.: Learning clinical skills during bedside teaching encounters in general practice: A video-observational study with insights from activity theory. Journal of workplace learning. 27, 298–314 (2015). https://doi.org/10.1108/JWL-05-2014-0035.

85.

Benbassat, J.: Undesirable features of the medical learning environment: a narrative review of the literature. Advances in Health Sciences Education. 18, 527–536 (2013). https://doi.org/10.1007/s10459-012-9389-5.

Birch, L.: Strategies to implement the recommendations of the Francis report. British Journal of Healthcare Management. 21, 558–563 (2015).

87.

Byrne, A.M., Sias, S.M.: Conceptual Application of the Discrimination Model of Clinical Supervision for Direct Care Workers in Adolescent Residential Treatment Settings. Child & Youth Care Forum. 39, 201–209 (2010). https://doi.org/10.1007/s10566-010-9100-z.

88.

Darongkamas, J., John, C., Walker, M.J.: An eight-eyed version of Hawkins and Shohet's clinical supervision model: the addition of the cognitive analytic therapy concept of the 'observing eye/I' as the 'observing us'. British Journal of Guidance & Counselling. 42, 261–270 (2014). https://doi.org/10.1080/03069885.2014.895797.

89.

Donaldson, A.L.: Pre-Professional Training for Serving Children With ASD: An Apprenticeship Model of Supervision. Teacher Education and Special Education: The Journal of the Teacher Education Division of the Council for Exceptional Children. 38, 58–70 (2015). https://doi.org/10.1177/0888406414566995.

90.

Geller, E., Foley, G.M.: Broadening the "Ports of Entry" for Speech-Language Pathologists: A Relational and Reflective Model for Clinical Supervision. American Journal of Speech-Language Pathology. 18, (2009).

91.

Hauer, K.E., ten Cate, O., Boscardin, C., Irby, D.M., Iobst, W., O'Sullivan, P.S.: Understanding trust as an essential element of trainee supervision and learning in the workplace. Advances in Health Sciences Education. (2013). https://doi.org/10.1007/s10459-013-9474-4.

McCarthy, C.P., McEvoy, J.W.: Pimping in Medical Education. JAMA. 314, (2015). https://doi.org/10.1001/jama.2015.13570.

93.

Bhuiyan, P.S., Rege, N.N., Supe, A. eds: The art of teaching medical students. Reed Elsevier India Pvt Ltd, New Delhi (2015).

94.

Veenman, S.: The Training of Coaching Skills: an implementation study. Educational Studies. 21, 415–431 (1995). https://doi.org/10.1080/0305569950210307.

95.

Westerman, D.A., Smith, S.A.: A Research-Based Model for the Clinical Supervision of Student Teachers. (1993).

96.

Sweet, J., Pugsley, L., Wilson, J.: Stakeholder perceptions of chairside teaching and learning in one UK dental school. BDJ. 205, 499–503 (2008). https://doi.org/10.1038/sj.bdj.2008.934.

97.

Sweet, J., Wilson, J., Pugsley, L.: Chairside teaching and the perceptions of dental teachers in the UK. BDJ. 205, 565–569 (2008). https://doi.org/10.1038/sj.bdj.2008.983.

98.

Sweet, J., Wilson, J., Pugsley, L., Schofield, M.: Tools to share good chairside teaching practice: a clinical scenario and appreciative questionnaire. BDJ. 205, 603–606 (2008). https://doi.org/10.1038/sj.bdj.2008.1026.

99.

Sweet, J., Wilson, J., Pugsley, L.: Educational innovations for dentistry. BDJ. 206, 29–34

(2009). https://doi.org/10.1038/sj.bdj.2008.1123.

100.

Wilson, J., Sweet, J., Pugsley, L.: Developmental guidelines for good chairside teaching - a consensus report from two conferences. European Journal of Dental Education. 19, 185–191 (2015). https://doi.org/10.1111/eje.12120.

101.

Najim, M., Rabee, R., Ahmed, M., Sherwani, Y., Ashraf, M., Anjum, O.: The trend toward digital in medical education – playing devil's advocate. Advances in Medical Education and Practice. (2015). https://doi.org/10.2147/AMEP.S95309.

102.

Ferguson, Z.: Technology-enhanced learning should be employed alongside – not instead of – bedside teaching. Advances in Medical Education and Practice. (2016). https://doi.org/10.2147/AMEP.S102902.

103.

Woodley, N., McKelvie, K., Kellett, C.: Bedside teaching: specialists versus non-specialists. The Clinical Teacher. n/a-n/a (2015). https://doi.org/10.1111/tct.12373.

104.

Eby, L.T.: Cross-lagged relations between mentoring received from supervisors and employee OCBs: Disentangling causal direction and identifying boundary conditions. Journal of Applied Psychology. (2015).

105.

Rose, G.L.: Group Differences in Graduate Students? Cconcepts of The Ideal Mentor. Research in Higher Education. 46, 53–80 (2005). https://doi.org/10.1007/s11162-004-6289-4.

Sambunjak, D., Marušić, A.: Mentoring. JAMA. 302, (2009). https://doi.org/10.1001/jama.2009.1858.

107.

Sambunjak, D., Straus, S.E., Marušić, A.: Mentoring in Academic Medicine. JAMA. 296, (2006). https://doi.org/10.1001/jama.296.9.1103.

108.

Taherian, K., Shekarchian, M.: Mentoring for doctors. Do its benefits outweigh its disadvantages? Medical Teacher. 30, e95–e99 (2008). https://doi.org/10.1080/01421590801929968.

109.

Zerzan, Judy T. MD, MPH; Hess, Rachel MD; Schur, Ellen MD; Phillips, Russell S. MD; Rigotti, Nancy MD: Making the Most of Mentors: A Guide for Mentees.

110.

Byrne, A.: What is simulation for? Anaesthesia. 67, 219–225 (2012). https://doi.org/10.1111/j.1365-2044.2011.07053.x.

111.

Ellis, M.V.: Bridging the Science and Practice of Clinical Supervision: Some Discoveries, Some Misconceptions. The Clinical Supervisor. 29, 95–116 (2010). https://doi.org/10.1080/07325221003741910.

112.

Ellis, M.V.: A comparative study of clinical supervision in the Republic of Ireland and the United States. Journal of Counseling Psychology. (2015).

113.

Hauer, K.E., ten Cate, O., Boscardin, C., Irby, D.M., Iobst, W., O'Sullivan, P.S.:

Understanding trust as an essential element of trainee supervision and learning in the workplace. Advances in Health Sciences Education. (2013). https://doi.org/10.1007/s10459-013-9474-4.

114.

MacDonald, J., Kell, C.: Develop your Teaching through Peer Review | Wales Deanery, https://www.walesdeanery.org/how-to-guides/develop-your-teaching-through-peer-review.

115.

Ramani, S., Krackov, S.K.: Twelve tips for giving feedback effectively in the clinical environment. Medical Teacher. 34, 787–791 (2012). https://doi.org/10.3109/0142159X.2012.684916.

116.

Ramani, S.: Twelve tips to improve bedside teaching. Medical Teacher. 25, 112–115 (2003). https://doi.org/10.1080/0142159031000092463.

117.

Detsky, A.S.: The Art of Pimping. JAMA. 301, (2009). https://doi.org/10.1001/jama.2009.247.

118.

Kost et al, A.: Socrates Was Not a Pimp: Changing the Paradigm of Questioning in Medical Education.

119.

Association for the Study of Medical Education: Understanding medical education: evidence, theory, and practice. Wiley-Blackwell, Hoboken, NJ (2019).

Pai, H.-H., Sears, D.A., Maeda, Y.: Effects of Small-Group Learning on Transfer: a Meta-Analysis. Educational Psychology Review. 27, 79–102 (2015). https://doi.org/10.1007/s10648-014-9260-8.

## 121.

Second Teaching: A Study of Small Group Physics Learning.", https://eric.ed.gov/?id=ED479497.

#### 122.

Garrison, D.R.: Critical Thinking and Self-Directed Learning in Adult Education: An Analysis of Responsibility and Control Issues. Adult Education Quarterly. 42, 136–148 (1992). https://doi.org/10.1177/074171369204200302.

## 123.

Saye, J.W., Brush, T.: Scaffolding Critical Reasoning about History and Social Issues in Multimedia-Supported Learning Environments. Educational Technology Research and Development. 50, 77–96 (2002).

# 124.

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). https://doi.org/10.1080/03075070600572090.

## 125.

Walton, H.: Small group methods in medical teaching. Medical Education. 31, 459–464 (1997). https://doi.org/10.1046/j.1365-2923.1997.00703.x.

# 126.

Barrows, H.S., Tamblyn, R.M.: Problem-based learning: an approach to medical education. Springer Pub. Co, New York (1980).

Schmidt, H.G., Rotgans, J.I., Yew, E.H.: The process of problem-based learning: what works and why. Medical Education. 45, 792–806 (2011). https://doi.org/10.1111/j.1365-2923.2011.04035.x.

128.

Svinicki, M.D.: Moving Beyond "It worked": The Ongoing Evolution of Research on Problem-Based Learning in Medical Education. Educational Psychology Review. 19, 49–61 (2007). https://doi.org/10.1007/s10648-006-9040-1.

129.

Savin-Baden, M., Major, C.H., Society for Research into Higher Education: Foundations of problem-based learning. Society for Research into Higher Education & Open University Press, Maidenhead (2004).

130.

Strobel, J., van Barneveld, A.: When is PBL more effective? A meta-synthesis of meta-analyses comparing PBL to conventional classrooms, http://docs.lib.purdue.edu/cgi/viewcontent.cgi?article=1046&context=ijpbl.

131.

Hmelo, C.E.: Problem-Based Learning: Effects on the Early Acquisition of Cognitive Skill in Medicine. Journal of the Learning Sciences. 7, 173–208 (1998). https://doi.org/10.1207/s15327809jls0702 2.

132.

Prince, K.J.A.H., van Eijs, P.W.L.J., Boshuizen, H.P.A., van der Vleuten, C.P.M., Scherpbier, A.J.J.A.: General competencies of problem-based learning (PBL) and non-PBL graduates. Medical Education. 39, 394–401 (2005). https://doi.org/10.1111/j.1365-2929.2005.02107.x.

133.

Schmidt et al, H.G.: The development of diagnostic competence: comparison of a problem-based, an integrated, and a conventional medical curriculum.[Article].

Albanese, M.: Problem-based learning: why curricula are likely to show little effect on knowledge and clinical skills. Medical Education. 34, 729–738 (2000). https://doi.org/10.1046/j.1365-2923.2000.00753.x.

135.

Simons, K.D., Ertmer, P.A.: Scaffolding Disciplined Inquiry in Problem-Based Environments.

136.

Gilkison, A.: Techniques used by 'expert' and 'non-expert' tutors to facilitate problem-based learning tutorials in an undergraduate medical curriculum. Medical Education. 37, 6–14 (2003). https://doi.org/10.1046/j.1365-2923.2003.01406.x.

137.

Park, J., Carter, G., Butler, S.M., Wiebe, E.N., Reid-Griffin, A.R.-G.: Gestures: Silent Scaffolding within Small Groups. The Journal of Classroom Interaction. 41, 15–21 (2006).

138.

Savin-Baden, M., Wilkie, K., Society for Research into Higher Education: Challenging research in problem-based learning. Society for Research into Higher Education & Open University Press, Maidenhead (2004).

139.

Daloz, L.A.: Effective teaching and mentoring. Jossey-Bass, San Francisco, Calif (1986).

140.

Dolmans, D., H.J.M., Schmidt, H.G.: What drives the student in problem-based learning? Medical Education. 28, 372–380 (1994). https://doi.org/10.1111/j.1365-2923.1994.tb02547.x.

Haith-Cooper, M.: Problem-based learning within health professional education. What is the role of the lecturer? A review of the literature. Nurse Education Today. 20, 267–272 (2000). https://doi.org/10.1054/nedt.1999.0397.

#### 142.

Haith-Cooper, M.: An exploration of tutors' experiences of facilitating problem-based learning. Part 2—implications for the facilitation of problem based learning. Nurse Education Today. 23, 65–75 (2003). https://doi.org/10.1016/S0260-6917(02)00166-1.

# 143.

Schmidt, H.G., Moust, J.H.: What makes a tutor effective? A structural-equations modeling approach to learning in problem-based curricula.[Article].

## 144.

Andrews, M., Jones, P.R.: Problem-based learning in an undergraduate nursing programme: a case study. Journal of Advanced Nursing. 23, 357–365 (1996). https://doi.org/10.1111/j.1365-2648.1996.tb02679.x.

### 145.

Alavi, C.: Problem-based learning in a health sciences curriculum. Routledge, London (1995).

#### 146

Steele, D.J., Medder, J.D., Turner, P.: A comparison of learning outcomes and attitudes in student- versus faculty-led problem-based learning: an experimental study. Medical Education. 34, 23–29 (2000). https://doi.org/10.1046/j.1365-2923.2000.00460.x.

# 147.

Murray, I., Savin-Baden, M.: Staff Development in Problem-based Learning. Teaching in Higher Education. 5, 107–126 (2000). https://doi.org/10.1080/135625100114993.

Couto, L.B., Bestetti, R.B., Restini, C.B.A., Faria-Jr, M., Romão, G.S.: Brazilian medical students' perceptions of expert versus non-expert facilitators in a (non) problem-based learning environment. Medical Education Online. 20, (2015).

149.

Evensen, D.H., Hmelo-Silver, C.E.: Problem-based learning: a research perspective on learning interactions. Lawrence Erlbaum Publishers, Mahwah, N.J. (2000).

150.

Hitchcock, M.A., Anderson, A.S.: Dealing with dysfunctional tutorial groups. Teaching and Learning in Medicine. 9, 19–24 (1997). https://doi.org/10.1080/10401339709539808.

151.

Tanner, K.D.: Promoting Student Metacognition. CBE—Life Sciences Education. 11, 113–120 (2012). https://doi.org/10.1187/cbe.12-03-0033.

152.

Azer, S.A.: Challenges facing PBL tutors: 12 tips for successful group facilitation. Medical Teacher. 27, 676–681 (2005). https://doi.org/10.1080/01421590500313001.

153.

Johnson, D.W., Johnson, F.P.: Joining together: group theory and group skills. Prentice/Hall International, London (1991).

154.

Last, K.S., Appleton, J., Stevenson, H.: Basic science knowledge of dental students on conventional and problem-based learning (PBL) courses at Liverpool. European Journal of Dental Education. 5, 148–154 (2001). https://doi.org/10.1034/j.1600-0579.2001.50402.x.

Azer, S.A., Mclean, M., Onishi, H., Tagawa, M., Scherpbier, A.: Cracks in problem-based learning: What is your action plan? Medical Teacher. 35, 806–814 (2013). https://doi.org/10.3109/0142159X.2013.826792.

156.

Fatmi, M., Hartling, L., Hillier, T., Campbell, S., Oswald, A.E.: The effectiveness of team-based learning on learning outcomes in health professions education: BEME Guide No. 30. Medical Teacher. 35, e1608–e1624 (2013). https://doi.org/10.3109/0142159X.2013.849802.

157.

Koles, P., Nelson, S., Stolfi, A., Parmelee, D., DeStephen, D.: Active learning in a Year 2 pathology curriculum. Medical Education. 39, 1045–1055 (2005). https://doi.org/10.1111/j.1365-2929.2005.02248.x.

158.

Parmelee, D., Michaelsen, L.K., Cook, S., Hudes, P.D.: Team-based learning: A practical guide: AMEE Guide No. 65. Medical Teacher. 34, e275–e287 (2012). https://doi.org/10.3109/0142159X.2012.651179.

159.

Gullo, C., Ha, T.C., Cook, S.: Twelve tips for facilitating team-based learning. Medical Teacher. 37, 819–824 (2015). https://doi.org/10.3109/0142159X.2014.1001729.

160.

Coady, S., Kalet, A., Hopkins, M.A.: Online classrooms enhance clerkship small group teaching. Medical Education. 39, 1152–1153 (2005). https://doi.org/10.1111/j.1365-2929.2005.02305.x.

Wells, S., Warelow, P., Jackson, K.: Problem based learning (PBL): A conundrum. Contemporary Nurse. 33, 191–201 (2009). https://doi.org/10.5172/conu.2009.33.2.191.

162.

Rowan, C.J., McCourt, C., Beake, S.: Problem based learning in midwifery – The students' perspective. Nurse Education Today. 28, 93–99 (2008). https://doi.org/10.1016/j.nedt.2007.02.014.

163.

Uijtdehaage, S., O'Neal, C.: A curious case of the phantom professor: mindless teaching evaluations by medical students. Medical Education. 49, 928–932 (2015). https://doi.org/10.1111/medu.12647.

164.

Marshall, S. ed: A handbook for teaching and learning in higher education: enhancing academic practice. Routledge, Abingdon, Oxon (2020).

165.

E-learning methodologies, http://www.fao.org/docrep/015/i2516e/i2516e.pdf, (2011).

166.

Conole, G.: The 7Cs of Learning Design - a new approach to rethinking design practice, http://www.lancaster.ac.uk/fss/organisations/netlc/past/nlc2014/abstracts/pdf/conole.pdf, (2014).

167.

University Benchmark for the Use of Technology in Modules, http://staff.napier.ac.uk/services/vice-principal-academic/academic/TEL/TechBenchmark/Pages/home.aspx.

168.

ABC Curriculum Design Workshops | UCL Digital Education team blog,

http://blogs.ucl.ac.uk/digital-education/2015/09/30/9169/.

169.

Laurillard, D.: Teaching as a design science: building pedagogical patterns for learning and technology. Routledge, New York, NY (2012).

170.

Salmon, G.: E-moderating: the key to teaching and learning online. Kogan Page, London (2000).

171.

Garrison, D.R., Anderson, T., Archer, W.: Critical Inquiry in a Text-Based Environment: Computer Conferencing in Higher Education. The Internet and Higher Education. 2, 87–105 (1999). https://doi.org/10.1016/S1096-7516(00)00016-6.

172.

Mishra, P., Koehler, M.J.: Technological Pedagogical Content Knowledge: A Framework for Teacher Knowledge.

173.

Association for the Study of Medical Education: Understanding medical education: evidence, theory, and practice. Wiley-Blackwell, Hoboken, NJ (2019).

174.

Dale, V.H.M.: UCL E-Learning Evaluation Toolkit, http://discovery.ucl.ac.uk/1462309/, (2014).

175.

Rose, D.H., Meyer, A.: Teaching every student in the Digital Age: universal design for learning. Association for Supervision and Curriculum Development, Alexandria, Va (2002).

Fisher, M.: Digital learning strategies: how do I assign and assess 21st century work? ASCD, Alexandria, Virginia (2013).

177.

Undergraduate Teaching Faculty: The 2013-2014 HERI Faculty Survey, http://heri.ucla.edu/pr-display.php?prQry=151.

178.

Clark, R.C., Mayer, R.E.: E-learning and the science of instruction: proven guidelines for consumers and designers of multimedia learning. Pfeiffer, San Francisco, CA (2011).

179.

Peberdy, D. ed: Active learning spaces and technology: advances in higher and further education. DroitwichNet, Droitwich Spa, Worcestershire (2014).

180.

Seven principles for good practice in undergraduate education, https://www.flinders.edu.au/Teaching\_and\_Learning\_Files/Documents/7%20Principles%20of%20Good%20Practice%20in%20Undergrad%20Ed-ChickeringGamson.pdf, (1987).

181.

Race, P.: The lecturer's toolkit: a practical guide to assessment, learning and teaching. Routledge, London (2007).

182.

Biggs, J.B., Tang, C.S., Kennedy, G., Biggs, J.B.: Teaching for quality learning at university. Open University Press, Maidenhead (2022).

Okojie, M., Olinzock, A., Okojie-Boulder, T.: The Pedagogy of TEchnology Integration, http://files.eric.ed.gov/fulltext/EJ847571.pdf.

184.

Frost, J., de Pont, G., Brailsford, I.: Expanding assessment methods and moments in history. Assessment & Evaluation in Higher Education. 37, 293–304 (2012). https://doi.org/10.1080/02602938.2010.531247.

185.

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). https://doi.org/10.1080/02602938.2012.660131.

186.

Suetsugu, N., Ohki, M., Kaku, T.: Quantitative Analysis of Nursing Observation Employing a Portable Eye-Tracker. Open Journal of Nursing. 06, 53–61 (2016). https://doi.org/10.4236/ojn.2016.61006.

187.

Richstone, et al, L.M.D.: Eye Metrics as an Objective Assessment of Surgical Skill.[Article].

188.

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). https://doi.org/10.1080/02602931003782525.

189.

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). https://doi.org/10.1080/03075070802049251.

Masters, K., Ellaway, R.H., Topps, D., Archibald, D., Hogue, R.J.: Mobile technologies in medical education: AMEE Guide No. 105. Medical Teacher. 1–13 (2016). https://doi.org/10.3109/0142159X.2016.1141190.

191.

Lovato, C., Wall, D.: Programme Evaluation: Improving Practice, Influencing Policy and Decision-Making. In: Swanwick, T. (ed.) Understanding Medical Education. pp. 443–455. John Wiley & Sons, Ltd, Oxford, UK (2019). https://doi.org/10.1002/9781119373780.ch30.

192

Tun, M.S.: Fulfilling a new obligation: Teaching and learning of sustainable healthcare in the medical education curriculum. Medical Teacher. 41, 1168–1177 (2019). https://doi.org/10.1080/0142159X.2019.1623870.

193.

Shaw, E., Walpole, S., McLean, M., Alvarez-Nieto, C., Barna, S., Bazin, K., Behrens, G., Chase, H., Duane, B., El Omrani, O., Elf, M., Faerron Guzmán, C.A., Falceto de Barros, E., Gibbs, T.J., Groome, J., Hackett, F., Harden, J., Hothersall, E.J., Hourihane, M., Huss, N.M., Ikiugu, M., Joury, E., Leedham-Green, K., MacKenzie-Shalders, K., Madden, D.L., McKimm, J., Nayna Schwerdtle, P., Parkes, M.W., Peters, S., Redvers, N., Sheffield, P., Singleton, J., Tun, S., Woollard, R.: AMEE Consensus Statement: Planetary health and education for sustainable healthcare. Medical Teacher. 43, 272–286 (2021). https://doi.org/10.1080/0142159X.2020.1860207.

194.

Dash, Nihar Ranjan: Evaluation of the integration of social accountability values into medical education using a problem-based learning curriculum. BMC Medical Education. 22, (2022).

195.

Bevan, J., Blyth, R., Russell, B., Holtgrewe, L., Cheung, A.H.C., Austin, I., Shah, V., Butler, M., Fraser, S., Pabellan, V., Shoker, S., Corriero, A., Lok, P., Wieczorek, K., Przypasniak, Z.,

Boydell, J., Farrow, A., Gibson, P., Miller, E., Chen, Y., Scrivin, T., Ismail, H., Barnes, S., Thie, A., Chohan, N., Waller, L., Yallowley, A.B., Tait, E., Yip, A., Mantova, M., Russi, M., Vasey, F., Ball-Wood, A., Bumma, M., Kassir, A., Joels, H., MacFayden, L., Awaineh, T.M., Singh, I., Wells, R., O'Hara, S.: Planetary health and sustainability teaching in UK medical education: A review of medical school curricula. Medical Teacher. 1–10 (2022). https://doi.org/10.1080/0142159X.2022.2152190.

196.

Tun, S., Martin, T.: Education for Sustainable Healthcare - A curriculum for the UK, https://www.medschools.ac.uk/media/2949/education-for-sustainable-healthcare\_a-curriculum-for-the-uk 20220506.pdf, (2022).

197.

Outcomes for graduates 2018,

https://www.gmc-uk.org/-/media/documents/dc11326-outcomes-for-graduates-2018\_pdf-75 040796.pdf, (2018).

198.

Infusing climate change and sustainability into the medical school curriculum - The BMJ, https://blogs.bmj.com/bmj/2021/06/07/infusing-climate-change-and-sustainability-into-the-medical-school-curriculum/.

199.

Richardson, J., Grose, J., Doman, M., Kelsey, J.: The use of evidence-informed sustainability scenarios in the nursing curriculum: Development and evaluation of teaching methods. Nurse Education Today. 34, 490–493 (2014). https://doi.org/10.1016/j.nedt.2013.07.007.

200.

Gandhi, V., Al-Hadithy, N., Göpfert, A., Knight, K., van Hove, M., Hockey, P.: Integrating sustainability into postgraduate medical education. Future Healthcare Journal. 7, 102–104 (2020). https://doi.org/10.7861/fhj.2020-0042.

Rourke, J.: Social Accountability. Academic Medicine. 93, 1120–1124 (2018). https://doi.org/10.1097/ACM.00000000002239.

202.

Meili, R., Fuller, D., Lydiate, J.: Teaching social accountability by making the links: Qualitative evaluation of student experiences in a service-learning project. Medical Teacher. 33, 659–666 (2011). https://doi.org/10.3109/0142159X.2010.530308.