Adult Learning Theories

[Taylor DCM & Hamdy H (2013) Adult learning theories:](https://www.ncbi.nlm.nih.gov/pubmed/?term=)+Adult+learning+theories%3A+Implications+for+learning+and+teaching+in+medical+education%3A+AMEE+Guide+No.+83.+Medical+Teacher%2C)

[Implications for learning and teaching in medical education: AMEE Guide No. 83. Medical Teacher,](https://www.ncbi.nlm.nih.gov/pubmed/?term=)+Adult+learning+theories%3A+Implications+for+learning+and+teaching+in+medical+education%3A+AMEE+Guide+No.+83.+Medical+Teacher%2C)

[35(11):e1561-e1572. PMID:24004029 DOI: 10.3109/0142159X.2013.828153](https://www.ncbi.nlm.nih.gov/pubmed/?term=)+Adult+learning+theories%3A+Implications+for+learning+and+teaching+in+medical+education%3A+AMEE+Guide+No.+83.+Medical+Teacher%2C)

This is a guide of common adult learning theories and how they can be used for curriculum planning or individual learning.

[Draganski B, Gaser C, Busch V, Schuierer G, Bogdahn U and May A (2004) Neuroplasticity: changes in grey matter induced by training. Nature, 427(6972):311-2. PMID: 14737157 DOI: 10.1038/427311a](https://www.ncbi.nlm.nih.gov/pubmed/?term=Draganski+B%2C+Gaser+C%2C+Busch+V%2C+Schuierer+G%2C+Bogdahn+U+and+May+A+(2004)+Neuroplasticity%3A+changes+in+grey+matter+induced+by+training.+Nature%2C+427(6972)%3A311-2.+PMID%3A+14737157+DOI%3A+10.1038%2F427311a)

This is a Brief Communication in Nature describing structural changes in the brain as a result of learning a new physical task (juggling) as determined on serial magnetic resonance imaging.

[Moon PJ (2008) Death-talks: transformative learning for physicians. Am J Hosp Palliat Care, 25(4):271-7. PMID: 18550777 DOI: 10.1177/1049909108318567](https://www.ncbi.nlm.nih.gov/pubmed/?term=Moon+PJ+(2008)+Death-talks%3A+transformative+learning+for+physicians.+Am+J+Hosp+Palliat+Care%2C+25(4)%3A271-7.+PMID%3A+18550777+DOI%3A+10.1177%2F1049909108318567)

This is a brief article describing the utility of end of life discussions as opportunities for transformative learning.

[Hodges BD & Kuper A (2012) Theory and practice in the design and conduct of graduate medical education. Acad Med, 87(1):25-33. PMID: 22042213 DOI: 10.1097/ACM.0b013e318238e069](https://www.ncbi.nlm.nih.gov/pubmed/?term=Hodges+BD+%26+Kuper+A+(2012)+Theory+and+practice+in+the+design+and+conduct+of+graduate+medical+education.+Acad+Med%2C+87(1)%3A25-33.+PMID%3A+22042213+DOI%3A+10.1097%2FACM.0b013e318238e069)

This is a review of three different types of education theories (bioscience, learning and sociocultural) and how they can inform graduate medical education.

[Kaufman DM & Mann KV (2010) Teaching and learning in medical education: how theory can inform practice. In “Understanding Medical Education: Evidence, Theory and Practice” Edited by Tim Swanick. ISBN: 978-1-405-19680-2](https://onlinelibrary.wiley.com/doi/book/10.1002/9781444320282)

This is a chapter that describes the utility of eight different education theories in medical education.

[Mayer RE (2010) Applying the science of learning to medical education. Med Educ, 44(6):543-9. PMID: 20604850 DOI: 10.1111/j.1365-2923.2010.03624.x](https://www.ncbi.nlm.nih.gov/pubmed/?term=Mayer+RE+(2010)+Applying+the+science+of+learning+to+medical+education.+Med+Educ%2C+44(6)%3A543-9.+PMID%3A+20604850+DOI%3A+10.1111%2Fj.1365-2923.2010.03624.)

This is an article that describes the merits of applying concepts of learning to medical education, especially as it relates to multimedia learning.

[Abela J (2009) Adult learning theories and medical education: a review. Malta Medical Journal, 21(1):11-18.](https://www.researchgate.net/publication/281060971_Adult_learning_theories_and_medical_education_A_review)

This is a review of andragogy and transformative learning in medical education with a focus on the ambulatory setting.

[Mezirow J (1997) Transformative learning: theory to practice. In “New Directions for Adult and Continuing Education”](https://onlinelibrary.wiley.com/doi/abs/10.1002/ace.7401)

This is a brief review of transformative learning authored by Jack Mezirow, the developer of this theory. It summarizes transformative learning and explains its relationship to autonomous thinking.

[Sprokay S and Cozolino L (2006) Neuroscience and adult learning. In “New Directions for Adult and Continuing Education”](https://onlinelibrary.wiley.com/doi/abs/10.1002/ace.214)

This is a chapter describing the impact of neuroscience on adult learning. Attention is paid particularly to neural plasticity, social interaction, stress and emotions.

[Schumacher DJ, Englander R, Carraccio C (2013) Developing the master learner: Applying learning theory to the learner, the teacher and the learning environment. Acad Med, 88:1635-45. PMID: 24072107 DOI: 10.1097/ACM.0b013e3182a6e8f8](https://www.ncbi.nlm.nih.gov/pubmed/?term=Developing+the+master+learner%3A+Applying+learning+theory+to+the+learner%2C+the+teacher+and+the+learning+environment)

This article reviews select learning theories that influence successful competency-based physician education.

[Sklar DP (2016) Trust is a two-way street. Acad Med, 91:155-8. PMID: 26813639 DOI: 10.1097/ACM.0000000000001046](https://www.ncbi.nlm.nih.gov/pubmed/?term=Sklar+DP+(2016)+Trust+is+a+two-way+street.+Acad+Med%2C+91%3A155-8.+PMID%3A+26813639+DOI%3A+10.1097%2FACM.0000000000001046)

This is an editorial articulating the importance of establishing trust in order to create a safe learning environment.

[Zull JE (2006) Key aspects of how the brain learns. In “New Directions for Adult and Continuing Education”](https://onlinelibrary.wiley.com/doi/abs/10.1002/ace.213)

This chapter makes the argument that understanding of the structure of the human brain informs the ways adults learn new things.