Optimizing Motor Learning in Rehabilitation: OPTIMAL Theory and Applications

Rebecca Lewthwaite, PhD,1,2 Gabriele Wulf, PhD,3 and Mike Studer, PT, MHS, NCS, CEEAA, CWT, CSST4

1Rancho Los Amigos National Rehabilitation Center, Downey, CA, 2University of Southern California, Los Angeles, CA, 3University of Nevada, Las Vegas, Las Vegas, NV, 4Northwest Rehabilitation Associates, Salem, OR

Course Description:
Evidence has been accumulating that indicates a new perspective on motor learning is in order. Recently, Wulf and Lewthwaite (2016) published the Optimizing Performance Through Intrinsic Motivation and Attention for Learning (OPTIMAL) Theory. The OPTIMAL theory centers on the conditions of practice (enhanced expectancies for future performance, autonomy support, and an external focus of attention) that facilitate efficient goal-action coupling for motor performance and learning. When paired with practice, these conditions align thoughts, motivation, attention, and neural and neuromuscular systems to the performer’s goals. We discuss key findings, theory tenets, and implications and clinical applications for establishing optimal motor learning conditions for rehabilitation.

Select References:


