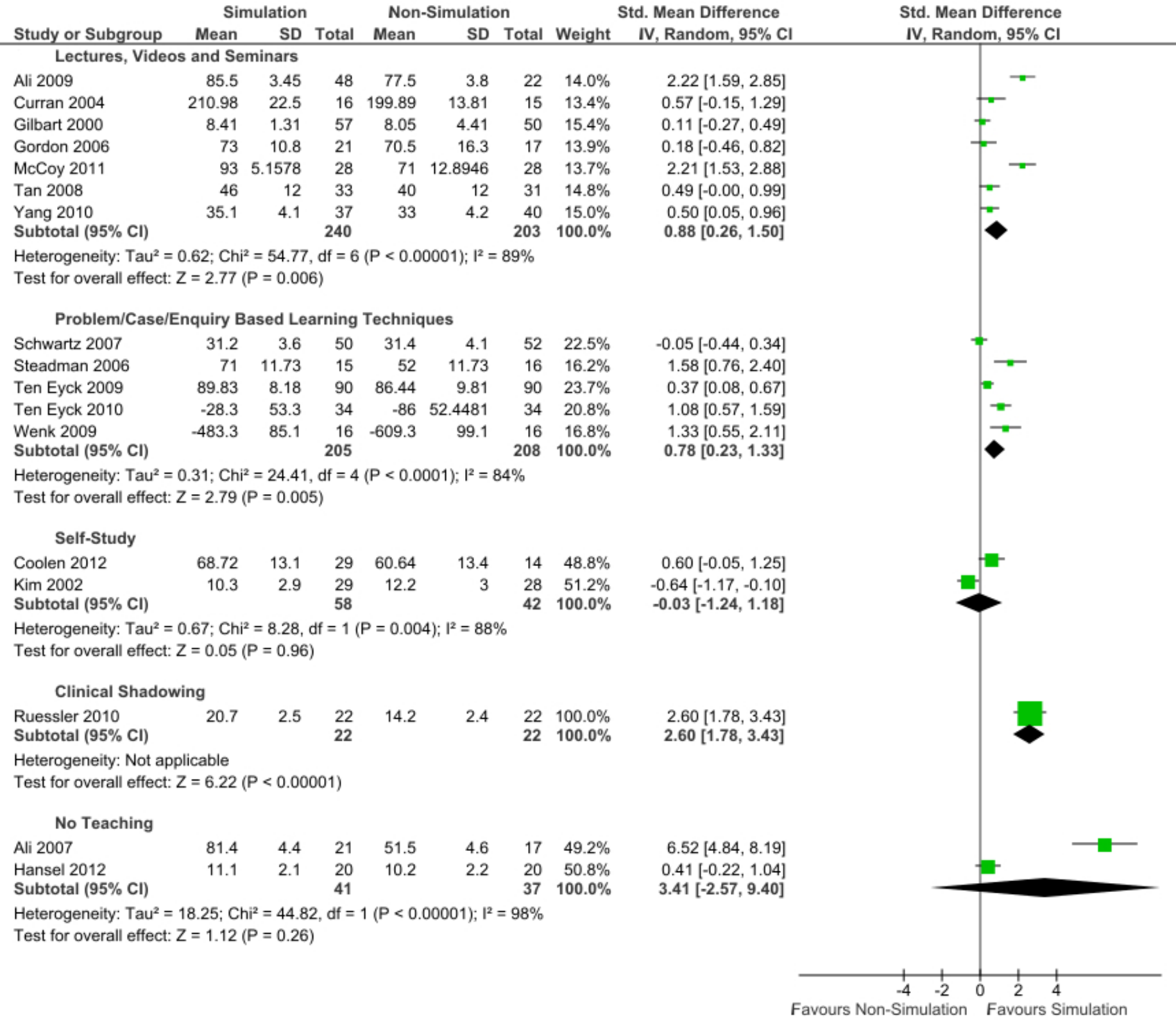
Simulation
Non-Simulation
Std. Mean Difference
Std. Mean Difference
Study or Subgroup Mean SD Total Mean SD Total Weight IV, Random, 95% CI
IV, Random, 95% CI
Lectures, Videos and Seminars
Ali 2009 85.5 3.45 48 77.5 3.8 22 14.0% 2.22 [1.59, 2.85]
Curran 2004 210.98 22.5 16 199.89 13.81 15 13.4% 0.57 [-0.15, 1.29]
Gilbart 2000 8.41 1.31 57 8.05 4.41 50 15.4% 0.11 [-0.27, 0.49]
Gordon 2006 73 10.8 21 70.5 16.3 17 13.9% 0.18 [-0.46, 0.82]
McCoy 2011 93 5.1578 28 71 12.8946 28 13.7% 2.21 [1.53, 2.88]
Tan 2008 46 12 33 40 12 31 14.8% 0.49 [-0.00, 0.99]
Yang 2010 35.1 4.1 37 33 4.2 40 15.0% 0.50 [0.05, 0.96]
Subtotal (95% CI) 240 203 100.0% 0.88 [0.26, 1.50]
Heterogeneity: Tau² = 0.62; Chi² = 54.77, df = 6 (P < 0.00001); I² = 89%
Test for overall effect: Z = 2.77 (P = 0.006)
Problem/Case/Enquiry Based Learning Techniques
Schwartz 2007 31.2 3.6 50 31.4 4.1 52 22.5% -0.05 [-0.44, 0.34]
Steadman 2006 71 11.73 15 52 11.73 16 16.2% 1.58 [0.76, 2.40]
Ten Eyck 2009 89.83 8.18 90 86.44 9.81 90 23.7% 0.37 [0.08, 0.67]
Ten Eyck 2010 -28.3 53.3 34 -86 52.4481 34 20.8% 1.08 [0.57, 1.59]
Wenk 2009 -483.3 85.1 16 -609.3 99.1 16 16.8% 1.33 [0.55, 2.11]
Subtotal (95% CI) 205 208 100.0% 0.78 [0.23, 1.33]
Heterogeneity: Tau² = 0.31; Chi² = 24.41, df = 4 (P < 0.0001); I² = 84%
Test for overall effect: Z = 2.79 (P = 0.005)
Self-Study
Coolen 2012 68.72 13.1 29 60.64 13.4 14 48.8% 0.60 [-0.05, 1.25]
Kim 2002 10.3 2.9 29 12.2 3 28 51.2% -0.64 [-1.17, -0.10]
Subtotal (95% CI) 58 42 100.0% -0.03 [-1.24, 1.18]
Heterogeneity: Tau² = 0.67; Chi² = 8.28, df = 1 (P = 0.004); I² = 88%
Test for overall effect: Z = 0.05 (P = 0.96)
Clinical Shadowing
Ruessler 2010 20.7 2.5 22 14.2 2.4 22 100.0% 2.60 [1.78, 3.43]
Subtotal (95% CI) 22 22 100.0% 2.60 [1.78, 3.43]
Heterogeneity: Not applicable
Test for overall effect: Z = 6.22 (P < 0.00001)
No Teaching
Ali 2007 81.4 4.4 21 51.5 4.6 17 49.2% 6.52 [4.84, 8.19]
Hansel 2012 11.1 2.1 20 10.2 2.2 20 50.8% 0.41 [-0.22, 1.04]
Subtotal (95% CI) 41 37 100.0% 3.41 [-2.57, 9.40]
Heterogeneity: Tau² = 18.25; Chi² = 44.82, df = 1 (P < 0.00001); I² = 98%
Test for overall effect: Z = 1.12 (P = 0.26)
-4 -2 0 2 4
Favours Non-Simulation
Favours Simulation