

Appendix 5. Fixed model of Meta-analysis for each construct and moderator analysis for cognitive demands in locomotion, frontal, and sagittal kinematic constructs

| Construct | k | Hedges' g | 95% CI | p | I² | Cochran's Q | df | p |
|---------------------------|----------|------------------|---------------|----------------------|----------------------|--------------------|-----------|----------|
| LAS | | | | | | | | |
| Postural stability | 38 | 0.36 | 0.27, 0.45 | <.001* | 58.38 | 88.91 | 37 | <.001* |
| Locomotion | 51 | 0.31 | 0.23, 0.38 | <.001* | 72.38 | 181.01 | 50 | <.001* |
| ACL | | | | | | | | |
| Frontal plane kinetics | 7 | 0.46 | 0.21, 0.70 | <.001* | 56.31 | 13.73 | 6 | .033 |
| Frontal plane kinematics | 12 | -0.15 | -0.36, 0.05 | .143 | 26.55 | 14.98 | 11 | .184 |
| Sagittal plane kinetics | 8 | -0.34 | -0.96, 0.29 | .289 | 84.09 | 43.99 | 7 | <.001* |
| Sagittal plane kinematics | 16 | 0.30 | 0.12, 0.47 | .001* | 20.39 | 18.84 | 15 | .221 |
| Impact loading | 5 | 0.21 | -0.09, 0.50 | .165 | 0 | 3.10 | 4 | .541 |
| Trunk mechanism | 5 | 0.31 | -0.01, 0.62 | .057 | 0 | 0.46 | 4 | .978 |
| Moderator | k | Hedges' g | 95% CI | I² | Cochran's Q | df | p | |
| Locomotion | | | | 82.24 | 181.01 | 50 | <.001* | |
| Single task | 29 | 0.34 | 0.24, 0.43 | | | | | |
| Dual task | 22 | 0.27 | 0.16, 0.39 | | | | | |
| Frontal Plane kinematics | | | | 26.55 | 14.98 | 11 | .184 | |
| Single task | 10 | -0.06 | -0.28, 0.15 | | | | | |
| Dual task | 2 | -0.97 | -1.62, -0.32 | | | | | |
| Sagittal Plane kinematics | | | | 20.39 | 18.84 | 15 | .221 | |
| Single task | 14 | 0.27 | 0.09, 0.45 | | | | | |
| Dual task | 2 | .062 | -0.003, 1.25 | | | | | |

LAS, lateral ankle sprain; ACL, anterior cruciate ligament; CI, confident interval; df, degree of freedom

* $p < .05$