

Title: WHAT ARE THE INDIVIDUAL CHARACTERISTICS OR SKILLS ASSOCIATED WITH BASEBALL BATTING PERFORMANCE? A SCOPING
REVIEW

Running head: INDIVIDUAL CHARACTERISTICS OR SKILLS ASSOCIATED WITH BASEBALL BATTING PERFORMANCE

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Anthropometric measures – extraction synthesis			
Studies	Individual characteristics or skills	Batting performance indicators	Associations or predictions
(Farrel, Jones et al. 2024)	Height	Batted ball outcome (hit or no hit)	Batted ball outcome: (individual predictor: $\beta = 0.03$)
(Feng, Lochhead et al. 2024)		Exit speed, distance	Exit speed: Yes (individual predictor: $\beta = 0.032$); Distance: $\emptyset$
(Hamburg and Hines 1999)		BA, HR	BA: $\emptyset$; HR: Yes ($r = 0.30$)
(Hoffman, J et al. 2010)		TB, HR, SLG	TB: $\emptyset$; HR: $\emptyset$; SLG: $\emptyset$
(Kohn, Lochhead et al. 2024)		HHP, ZCP	HHP: Yes ($r = 0.48$); ZCP: Yes ($r = -0.22$)
(Nakata, Nagami et al. 2013)		Exit speed	Exit speed: Yes ($r = 0.88$)
(Tsutsui, Maemichi et al. 2022)		Swing speed	All subjects; Swing speed: Yes (individual predictor: $\beta = 0.62$) Major division; Swing speed: Yes (individual predictor: $\beta = 0.58$) Tee ball division: Swing speed: $\emptyset$
(Farrel, Jones et al. 2024)	Weight	Batted ball outcome (hit or no hit)	BBO: $\emptyset$
(Feng, Lochhead et al. 2024)		Exit speed, distance	Exit speed: Yes (individual predictor: $\beta = -0.01$); Distance: $\emptyset$
(Hamburg and Hines 1999)		BA, HR	BA: $\emptyset$; HR: Yes ($r = 0.42$)
(Hoffman, J et al. 2010)		TB, HR, SLG	TB: $\emptyset$; HR: $\emptyset$; TB: $\emptyset$

(Kohn, Lochhead et al. 2024)		HHP, ZCP	HHP: Yes (r = 0.51); ZCP: Yes (-0.19)
(Nakata, Nagami et al. 2013)		Exit speed	Exit speed: Yes (r = 0.87)
(Tsutsui, Maemichi et al. 2022)		Swing speed	All subjects; Swing speed: $\emptyset$ Major division; Swing speed: $\emptyset$ Tee ball division; Swing speed: $\emptyset$
(Crotin, Forsythe et al. 2014)	BMI	BA, HR, OBP, OPS, RBI, RS, SLG	BA: Yes (r = 0.20); HR: (0.29); OBP: (r = 0.31); OPS: (r = 0.37); RBI: (r = 0.34); RS: (r = 0.22); SLG: (r = 0.34)
(Hamburg and Hines 1999)		HR	HR: Yes (r = 0.31)
(Yuya, Yosuke et al. 2019)		TB, SLG, BA, RBI, OBP, OPS	TB: $\emptyset$; SLG: $\emptyset$; BA: $\emptyset$; RBI: $\emptyset$ OBP: $\emptyset$; OPS: $\emptyset$
(Hoffman, J et al. 2010)	Body fat %	TB, HR, SLG	TB: $\emptyset$; HR: $\emptyset$; TB: $\emptyset$
(Hoffman, J et al. 2010)	Lean body mass	TB, HR, SLG	TB: $\emptyset$; HR: $\emptyset$; TB: $\emptyset$

*Batting average (BA), Homeruns (HR), Total bases (TB), Slugging (SLG), Body mass index (BMI), Hard hit % (HHP), Zone contact % (ZCP).

Physical fitness tests – extraction synthesis			
Studies	Individual characteristics or skills	Batting performance indicators	Associations or predictions
MUSCLE STRENGTH			
(Miyaguchi and Demura 2012)	1-RM Bench press	Swing speed	Swing speed – Absolute value: Yes (r = 0.59) Swing speed – Kilogram/BW value: ø
(Papadakis, Padgett et al. 2021)	1 RM Squat	BA, OBP, SLG	BA: Yes (r = 0.30); OBP: ø SLG: Yes (r = 0.37)
(Miyaguchi and Demura 2012)	Isokinetic chest press Low speed (0.4 m/s) Middle speed (0.8 m/s) High speed (1.2 m/s)	Swing speed	Swing speed – (0.4 m/s) – Absolute value: Yes (Swing speed – (0.4 m/s) Kilogram/BW value: ø Swing speed – (0.8 m/s) – Absolute value: Yes (r = 0.51) Swing speed – (0.8 m/s) Kilogram/BW value: ø Swing speed – (1.2 m/s) – Absolute value: Yes (r = 0.551) Swing speed – (1.2 m/s) – Kilogram/BW value: Yes (r = 0.39)
(Nakata, Nagami et al. 2013)	Back strength	Exit speed	Exit speed: Yes (r = 0.87)
(Yuya, Yosuke et al. 2019)		TB, SLG, BA, RBI, OBP, OPS	TB: ø; SLG: ø; BA: ø; RBI: ø OBP: ø; OPS: ø

(Yuya, Yosuke et al. 2019)	Isokinetic knee extension	TB, SLG, BA, RBI, OBP, OPS	TB: $\emptyset$; SLG: $\emptyset$; BA: $\emptyset$; RBI: $\emptyset$ OBP: $\emptyset$; OPS: $\emptyset$
(Yuya, Yosuke et al. 2019)	Isokinetic knee flexion	TB, SLG, BA, RBI, OBP, OPS	TB: $\emptyset$; SLG: $\emptyset$; BA: $\emptyset$; RBI: $\emptyset$ OBP: $\emptyset$; OPS: $\emptyset$
(Yuya, Yosuke et al. 2019)	Grip strength	TB, SLG, BA, RBI, OBP, OPS	Dominant hand - TB: $\emptyset$; SLG: $\emptyset$; BA: $\emptyset$; RBI: $\emptyset$ OBP: $\emptyset$; OPS: $\emptyset$ Non-dominant hand - TB: $\emptyset$; SLG: $\emptyset$; BA: $\emptyset$; RBI: $\emptyset$ OBP: $\emptyset$; OPS: $\emptyset$
(Hoffman, J et al. 2010)		HR, SLG, TB	HR: Yes ($r = 0.32$) SLG: Yes ($r = 0.27$) TB: Yes ($r = 0.21$)
(Kohn, Lochhead et al. 2024)		HHP, ZCP	Dominant arm grip strength: HHP: Yes ($r = 0.40$); ZCP: $\emptyset$ Non-dominant arm grip strength: HHP: Yes ($r = 0.38$); ZCP: $\emptyset$
(Nakata, Nagami et al. 2013)		Exit speed	Right arm grip strength: Exit speed: Yes ($r = 0.90$) Left arm grip strength: Exit speed: Yes ($r = 0.88$)
(Papadakis, Padgett et al. 2021)		BA, OBP, SLG	BA: Yes ($r = 0.26$); OBP: Yes ($r = 0.23$); SLG: $\emptyset$

(Tsutsui, Maemichi et al. 2022)	Lower muscle torque – ABD	Swing speed	All subjects – ABD pivot leg; Swing speed: $\emptyset$ Major division – ABD pivot leg; Swing speed: $\emptyset$ Tee ball division – ABD pivot leg; Swing speed: $\emptyset$ All subjects – ABD step leg; Swing speed: $\emptyset$ Major division – ABD step leg; Swing speed: $\emptyset$ Tee ball division – ABD step leg; Swing speed: $\emptyset$
(Tsutsui, Maemichi et al. 2022)	Lower muscle torque – pivot leg – ADD	Swing speed	All subjects – ADD pivot leg; Swing speed: $\emptyset$ Major division – ADD pivot leg; Swing speed: $\emptyset$ Tee ball division – ADD pivot leg; Swing speed: $\emptyset$ All subjects – ADD step leg; Swing speed: $\emptyset$ Major division – step pivot leg; Swing speed: $\emptyset$ Tee ball division – step pivot leg; Swing speed: $\emptyset$

(Tsutsui, Maemichi et al. 2022)	Lower muscle torque – pivot leg – IR	Swing speed	All subjects – IR pivot leg; Swing speed: $\emptyset$ Major division – IR pivot leg; Swing speed: $\emptyset$ Tee ball division – IR pivot leg; Swing speed: Yes (individual predictor: $\beta = 0.56$) All subjects – IR step leg; Swing speed: Yes (individual predictor: $\beta = 0.22$) Major division – IR step leg; $\emptyset$ Tee ball division – IR step leg; Swing speed: Yes (individual predictor: $\beta = 0.53$)
MUSCLE POWER			
(Miyaguchi and Demura 2012)	Bench press peak power	Swing speed	Swing speed – Absolute value: Yes ($r = 0.41$) Swing speed – Kilogram/BW value: $\emptyset$
(Tsutsui, Maemichi et al. 2022)	Backward overhead med ball throw - distance	Swing speed	All subjects - Yes (individual predictor: $\beta = 0.38$) Major division - Swing speed: Yes (individual predictor: $\beta = 0.32$) Tee ball division - Swing speed: $\emptyset$
(Taniyama, Matsuno et al. 2021)	Rotational medicine ball throw - velocity	Exit speed, Swing speed	Exit speed: Yes ($r = 0.53$) Swing speed: Yes ($r = 0.65$)
(Taniyama, Matsuno et al. 2021)	Broad jump - distance	Exit speed, Swing speed	Exit speed: $\emptyset$ Swing speed: $\emptyset$

(Yuya, Yosuke et al. 2019)		TB, SLG, BA, RBI, OBP, OPS	TB: Yes (r = 0.56); SLG: Yes (r = 0.51); BA: Yes (r = 0.48); RBI: Yes (r = 0.38) OBP: $\emptyset$; OPS: Yes (r = 0.43)
(Nakata, Nagami et al. 2013)		Exit speed	Exit speed: Yes (r = 0.83)
(Taniyama, Matsuno et al. 2021)	Lateral to medial jump - distance	Exit speed, Swing speed,	Exit speed: $\emptyset$ Swing speed: $\emptyset$
(Kohn, Lochhead et al. 2024)	Countermovement jump (peak force)	HHP, ZCP	HHP: Yes (r = 0.38); ZCP: Yes (r = -0.21)
(Kohn, Lochhead et al. 2024)	Countermovement jump (peak power)	HHP, ZCP	HHP: Yes (r = 0.51); ZCP: Yes (r = -0.28)
(Hoffman, J et al. 2010)		HR, SLG, TB	HR: Yes (r = 0.48); SLG: Yes (r = 0.47); TB: Yes (r = 0.28)
(Papadakis, Padgett et al. 2021)		BA, OBP, SLG	BA: $\emptyset$; OBP: $\emptyset$; SLG: $\emptyset$
(Hoffman, J et al. 2010)	Countermovement jump (mean power)	HR, SLG, TB	HR: $\emptyset$; SLG: $\emptyset$; TB: $\emptyset$
(Papadakis, Padgett et al. 2021)		BA, OBP, SLG	BA: $\emptyset$; OBP: Yes (r = 0.25); SLG: $\emptyset$
(Kohn, Lochhead et al. 2024)	Countermovement jump - Height	HHP, ZCP	HHP: $\emptyset$; ZCP: $\emptyset$
(Papadakis, Padgett et al. 2021)		BA, OBP, SLG	BA: $\emptyset$; OBP: $\emptyset$ SLG: $\emptyset$
(Yuya, Yosuke et al. 2019)		TB, SLG, BA, RBI, OBP, OPS	TB: Yes (r = 0.55); SLG: Yes (r = 0.46); BA: Yes (r = 0.45); RBI: $\emptyset$ OBP: $\emptyset$; OPS: Yes (r = 0.41)
(Kohn, Lochhead et al. 2024)	Countermovement jump – flight time	HHP, ZCP	HHP: $\emptyset$; ZCP: $\emptyset$
(Kohn, Lochhead et al. 2024)	Countermovement jump – Peak normalized power	HHP, ZCP	HHP: $\emptyset$; ZCP: $\emptyset$

(Teske, Beck et al. 2021)	Countermovement jump = Sparta scores	PA, wOBA, OPS	PA: $\emptyset$; wOBA: $\emptyset$; OPS: $\emptyset$
SPEED			
(Hoffman, J et al. 2010)	10-yard sprint	HR, SLG, TB	HR: $\emptyset$ SLG: $\emptyset$; TB: Yes ($r = -0.25$)
(Nakata, Nagami et al. 2013)		Exit speed	Exit speed: Yes ($r = -0.70$)
(Kohn, Lochhead et al. 2024)	30-yard sprint	HHP, ZCP	HHP: $\emptyset$; ZCP: $\emptyset$
ENDURANCE			
(Lin, Huang et al. 2013)	Static extensors endurance	Swing speed	Swing speed: $\emptyset$
(Lin, Huang et al. 2013)	Static flexors endurance	Swing speed	Swing speed: Yes ($r = -0.40$)
(Lin, Huang et al. 2013)	Dynamic extensors endurance	Swing speed	Swing speed: $\emptyset$
(Lin, Huang et al. 2013)	Dynamic flexors endurance	Swing speed	Swing speed: Yes ($r = -0.31$)
(Lin, Huang et al. 2013)	Static flexors/extensors ratio	Swing speed	Swing speed: Yes ($r = -0.30$)
(Lin, Huang et al. 2013)	Dynamic flexors/extensors ratio	Swing speed	Swing speed: $\emptyset$
(Nakata, Nagami et al. 2013)	Sits ups	Exit speed	Exit speed: Yes ($r = 0.66$)
MUSCLE FLEXIBILITY			
(Yuya, Yosuke et al. 2019)	Stride-leg straight leg raise – flexibility	TB, SLG, BA, RBI, OBP, OPS	TB: $\emptyset$; SLG: $\emptyset$; BA: $\emptyset$; RBI: $\emptyset$ OBP: $\emptyset$; OPS: $\emptyset$
(Yuya, Yosuke et al. 2019)	Pivot-leg straight leg raise - flexibility	TB, SLG, BA, RBI, OBP, OPS	TB: $\emptyset$; SLG: $\emptyset$; BA: $\emptyset$; RBI: $\emptyset$ OBP: $\emptyset$; OPS: $\emptyset$
(Nakata, Nagami et al. 2013)	Trunk flexibility	Exit speed	Exit speed: Yes ($r = 0.675$)
BALANCE			
(Tsutsui, Maemichi et al. 2022)	Modified SEBT - balance	Swing speed	All subjects – pivot leg; Swing speed: $\emptyset$ Major division – pivot leg; Swing speed: Yes (individual predictor: ($\beta = 0.22$)) Tee ball division – pivot leg; Swing speed: $\emptyset$

			All subjects – step leg; Swing speed: ø Major division – step leg; Swing speed: ø Tee ball division – step leg; Swing speed: ø
COORDINATION			
(Hoffman, J et al. 2010)	Pro-agility test	HR, SLG, TB	HR: ø; SLG: Yes ø; TB: ø
(Nakata, Nagami et al. 2013)	Side steps	Exit speed	Exit speed: Yes (r = 0.77)

*Batting average (BA), On-base % (OBP), On-base plus slugging (OPS), Runs batted in (RBI), Slugging (SLG), Total bases (TB), Hard hit % (HHP), Zone contact % (ZCP).

Visual skills – extraction synthesis			
Studies	Individual characteristics or skills	Batting performance indicators	Associations or predictions
(Chen, Stone et al. 2021)	12- element ocular-tracking index (latency, open-loop acceleration, steady-state gain, proportion smooth, saccadic rate, saccade amplitude, saccade dispersion, direction noise, direction asymmetry, direction anisotropy, speed noise, speed responsiveness)	Batted ball outcome (Hit or no hit) – hit rate	Batted ball outcome: Years of experience: $\geq 3 = \text{Yes } (r = 0.36)$ $\geq 4 = \text{Yes } (r = 0.41)$ $\geq 5 = \text{Yes } (r = 0.64)$ $\geq 6 = \text{Yes } (r = 0.77)$ $\geq 7 = \text{Yes } (r = 0.77)$ $\geq 8 = \text{Yes } (r = 0.74)$ $\geq 9 = \text{Yes } (r = 0.81)$ $\geq 10 = \text{Yes } (r = 0.85)$
(Liu, Edmunds et al. 2020)	General oculomotor speed	O-zone swing %, Z-Swing %, Z-Miss %	O-Zone swing %: $\emptyset$; Z-swing %: Yes (individual predictor: $\beta = 5.18$); Z-Miss %: $\emptyset$
(Liu, Edmunds et al. 2020)	Auto-refraction	O-zone swing %, Z-Swing %, Z-Miss %	O-Zone swing %: $\emptyset$; Z-swing %: $\emptyset$; Z-Miss %: $\emptyset$
(Liu, Edmunds et al. 2020)	General oculomotor latency	O-zone swing %, Z-Swing %, Z-Miss %	O-Zone swing %: $\emptyset$; Z-swing %: $\emptyset$; Z-Miss %: $\emptyset$
(Liu, Edmunds et al. 2020)	Smooth pursuit accuracy	O-zone swing %, Z-Swing %, Z-Miss %	O-zone swing %: Yes (individual predictor: $\beta = -0.05$); Z-swing %: $\emptyset$; Z-Miss %: $\emptyset$
(Liu, Edmunds et al. 2020)	Cardinal reaction time	O-zone swing %, Z-Swing %, Z-Miss %	O-Zone swing %: $\emptyset$; Z-swing %: $\emptyset$; Z-Miss %: $\emptyset$
(Liu, Edmunds et al. 2020)	Dynamic visual acuity	O-zone swing %, Z-Swing %, Z-Miss %	O-Zone swing %: $\emptyset$; Z-swing %: $\emptyset$; Z-Miss %: $\emptyset$

(Liu, Edmunds et al. 2020)	General processing speed	O-zone swing %, Z-Swing %, Z-Miss %	O-Zone swing %: Yes (individual predictor: $\beta = 4.20$; Z-swing: Yes (individual predictor: $\beta = 6.04$); Z-swing %: $\emptyset$; Z-Miss %: $\emptyset$
(Liu, Edmunds et al. 2020)	Visual clarity	O-zone swing %, Z-Swing %, Z-Miss %	O-Zone swing %: $\emptyset$; Z-swing %: $\emptyset$; Z-Miss %: $\emptyset$
(Burris, Vittetoe et al. 2018)		OBP, BB%, K%, SLG	OBP: $\emptyset$; BB%: $\emptyset$; K%: $\emptyset$; SLG: $\emptyset$
(Liu, Edmunds et al. 2020)	Contrast sensitivity	O-zone swing %, Z-Swing %, Z-Miss %	O-Zone swing %: $\emptyset$; Z-swing %: $\emptyset$; Z-miss %: $\emptyset$
(Burris, Vittetoe et al. 2018)		OBP, BB%, K%, SLG	OBP: $\emptyset$; BB%: $\emptyset$; K%: Yes (individual predictor: $\beta = 0.15$); SLG: $\emptyset$
(Laby, Kirschen et al. 2019)	EVTS -Core score (target size, target contract, display time)	Inside-zone swing %, Inside-zone fastball swing %, O-zone Chase %, Fastball chase %, BB per AB	Inside-zone swing %: Yes ($r = -0.15$); Inside-zone fastball swing %: Yes ($r = -0.13$); Chase %: Yes ($r = -0.11$); Fastball chase %: Yes ($r = -0.125$); BB per PA: Yes ($r = 0.09$)
(Burris, Vittetoe et al. 2018)	Depth perception	OBP, BB%, K%, SLG	OBP: $\emptyset$; BB%: Yes (individual predictor: $\beta = 0.21$); K%: $\emptyset$; SLG: $\emptyset$

*Bases on ball % (BB%), Strikeout % (K%), On-base % (OBP), Slugging (SLG), Outside zone swing % (O-zone swing %), Inside-zone swing % (Z-swing %), Inside-zone miss % (Z-miss %).

Perceptual skills – extraction synthesis			
Studies	Individual characteristics or skills	Batting performance indicators	Associations or predictions
(Liu, Edmunds et al. 2020)	Perception span	O-zone swing %, Z-Swing %, Z-Miss %	O-Zone swing %: $\emptyset$; Z-swing %: $\emptyset$; Z-Miss %: $\emptyset$
(Burris, Vittetoe et al. 2018)		OBP, BB%, K%, SLG	OBP: Yes (individual predictor: $\beta = 0.64$); BB%: $\emptyset$; K%: Yes (individual predictor: $\beta = 0.34$); SLG: Yes (individual predictor: $\beta = 0.29$)
(Reichow, Garchow et al. 2011)	Visual recognition - Tachiscope test (fastball, curveball, screwball, slider)	BA	BA: Yes ($r = 0.65$)
(Müller and Fadde 2016)	Anticipation skill (temporal occlusion test- 1) Front foot impact, 2) Shoulder square, 3) Release)	BA, OBP, SLG, BB, K, BB/K ratio.	Overall pitch type combination (Front foot impact): BA: $\emptyset$; OBP: $\emptyset$; SLG: $\emptyset$; BB: Yes ($r = 0.35$); K: $\emptyset$; BB/K ratio: $\emptyset$. Overall pitch type (Shoulder square): BA: $\emptyset$; OBP: $\emptyset$; SLG: $\emptyset$; BB: $\emptyset$; K: $\emptyset$; BB/K ratio: $\emptyset$. Overall pitch type (Release): BA: $\emptyset$; OBP: $\emptyset$; SLG: $\emptyset$; BB: $\emptyset$; K: $\emptyset$; BB/K ratio: $\emptyset$.

			Fastball/Changeup combination (Front foot impact): BA: $\emptyset$; OBP: $\emptyset$; SLG: $\emptyset$; BB: $\emptyset$; K: $\emptyset$; BB/K ratio: $\emptyset$. Fastball/Changeup combination (Shoulder square): BA: $\emptyset$; OBP: $\emptyset$; SLG: $\emptyset$; BB: $\emptyset$; K: $\emptyset$; BB/K ratio: $\emptyset$. Fastball/Changeup combination (Release): BA: $\emptyset$; OBP: Yes ($r = 0.37$); SLG: $\emptyset$; BB: Yes ($r = 0.37$); K: $\emptyset$; BB/K ratio: $\emptyset$.
(Morris-Binelli, Müller et al. 2018)	Anticipation skill (Temporal occlusion test – 1) PT + L – R, 2) PT+L – R+2, 3) PT+ L – R+5, 4) PT – R, 5) PT – R+2, 6) PT – R+ 5, 7) PL+ R, 8) PL – R +2, 9) PL – R+5	BA, OBP, SLG, BB, K, BB/K ratio.	SLG: (PL – R+2): Yes ($r = 0.19$) OBP: (PT- R + 5): Yes ($r = 0.23$) K: (PT- R + 5): Yes ($r = -0.28$) BB/K ratio (PT- R + 5): Yes ($r = 0.25$) SLG: (PL – R+2): Yes ($r = 0.19$)

* Bases on ball (BB), Bases on ball to strikeout ratio (BB/K ratio), Bases on ball % (BB%), Strikeouts (K), Strikeouts % (K%), On-base % (OBP), Slugging (SLG), Outside zone swing % (O-zone swing %), Inside-zone swing % (Z-swing %), Inside-zone miss % (Z-miss %).

Visuomotor skills – extraction synthesis			
Studies	Individual characteristics or skills	Batting performance indicators	Associations or predictions
(Chen, Stone et al. 2021)	3-element manual-control index (RMS error, gain, phase lag)	Batted ball outcome (Hit or no hit) – hit rate	Batted ball outcome: Years of experience: $\geq 3 = \text{Yes } (r = 0.10)$ $\geq 4 = \text{Yes } (r = 0.13)$ $\geq 5 = \text{Yes } (r = 0.19)$ $\geq 6 = \text{Yes } (r = 0.39)$ $\geq 7 = \text{Yes } (r = 0.37)$ $\geq 8 = \text{Yes } (r = 0.36)$ $\geq 9 = \text{Yes } (r = 0.33)$ $\geq 10 = \text{Yes } (r = 0.41)$
(Liu, Edmunds et al. 2020)	Near-far quickness	O-zone swing %, Z-Swing %, Z-Miss %	O-Zone swing %: $\emptyset$; Z-swing %: $\emptyset$; Z-Miss %: $\emptyset$
(Burris, Vittetoe et al. 2018)		OBP, BB%, K%, SLG	OBP: $\emptyset$; BB%: $\emptyset$; K%: Yes (individual predictor: $\beta = 0.21$); SLG: $\emptyset$
(Liu, Edmunds et al. 2020)	Reaction time	O-zone swing %, Z-Swing %, Z-Miss %	O-Zone swing %: $\emptyset$; Z-swing %: $\emptyset$; Z-Miss %: $\emptyset$
(Burris, Vittetoe et al. 2018)		OBP, BB, K, SLG	OBP: $\emptyset$; BB%: Yes (individual predictor: $\beta = 0.23$); K%: $\emptyset$; SLG: $\emptyset$
(Liu, Edmunds et al. 2020)	Multiple object tracking	O-zone swing %, Z-Swing %, Z-Miss %	O-Zone swing %: $\emptyset$; Z-swing %: $\emptyset$; Z-Miss %: $\emptyset$
(Burris, Vittetoe et al. 2018)	Target capture	OBP, BB%, K%, SLG	OBP: $\emptyset$; BB%: $\emptyset$; K%: Yes (individual predictor: $\beta = 0.17$); SLG: $\emptyset$

(Burris, Vittetoe et al. 2018)	Eye-hand coordination	OBP, BB%, K%, SLG	OBP: $\emptyset$; BB%: Yes (individual predictor: $\beta = 0.46$); K%: Yes (individual predictor: $\beta = -0.19$); SLG: $\emptyset$
(Laby, Kirschen et al. 2018)	Eye-hand visuomotor reaction - Proactive	O-zone chase %, Fastball chase %, Z-swing %, Z-fastball swing %, BB per AB	O-zone chase %: Yes ($r = 0.17$); Fastball chase %: Yes ($r = 0.21$); Z-swing %: Yes ($r = 0.25$); Z-fastball swing %: Yes ($r = 0.18$); BB per AB: Yes ($r = 0.24$)

* Bases on ball (BB), Bases on ball per At Bat (BB per AB), Bases on ball % (BB%), Strikeouts (K), Strikeouts % (K%), On-base % (OBP), Slugging (SLG), Outside zone swing % (O-zone swing %), Inside-zone swing % (Z-swing %), Inside-zone miss % (Z-miss %), Inside-zone fastball swing % (Z-fastball swing%) *.