Supplementary Tables

Table S1. Sex-stratified descriptive pre–post changes.

Outcome	Condition	Sex	n	Pre (mean ± SD)	Post (mean ± SD)	Δ post-pre
WITTY Errors (0–10)	A	F	9	1.67 ± 0.87	1.44 ± 0.73	-0.22 ± 0.44
WITTY Stimulus time (ms)	A	F	9	557.1 ± 249.0	485.4 ± 191.9	-71.7 ± 238.7
WITTY Max time (ms)	A	F	9	1229.4 ± 217.7	1045.9 ± 137.7	-183.6 ± 217.7
WITTY Errors (0–10)	A	M	10	1.60 ± 1.17	1.50 ± 0.53	-0.10 ± 1.20
WITTY Stimulus time (ms)	A	M	10	560.5 ± 361.5	428.0 ± 76.9	-132.5 ± 344.2
WITTY Max time (ms)	A	M	10	1322.9 ± 401.3	1082.6 ± 174.1	-240.3 ± 348.4
WITTY Errors (0–10)	B	F	9	1.89 ± 0.78	1.33 ± 0.50	-0.56 ± 0.73
WITTY Stimulus time (ms)	B	F	9	632.2 ± 258.7	449.7 ± 154.1	-182.6 ± 220.8
WITTY Max time (ms)	B	F	9	1091.8 ± 182.1	1156.4 ± 342.8	64.7 ± 194.0
WITTY Errors (0–10)	B	M	10	1.80 ± 0.92	1.90 ± 0.57	0.10 ± 0.74
WITTY Stimulus time (ms)	B	M	10	472.3 ± 219.9	491.2 ± 250.4	18.9 ± 234.8
WITTY Max time (ms)	B	M	10	885.6 ± 243.6	986.3 ± 442.4	100.7 ± 307.5
Shooting time (s)	A	F	9	12.57 ± 4.41	13.08 ± 4.37	0.50 ± 5.32
Miss rate (%)	A	F	9	2.2 ± 6.7	8.9 ± 17.6	6.7 ± 20.0
First-shot hit rate (%)	A	F	9	71.1 ± 20.3	46.7 ± 30.0	-24.4 ± 31.3
Shooting time (s)	A	M	10	11.03 ± 2.69	12.94 ± 3.99	1.91 ± 3.09
Miss rate (%)	A	M	10	4.0 ± 8.4	20.0 ± 31.3	16.0 ± 35.0
First-shot hit rate (%)	A	M	10	54.0 ± 16.5	38.0 ± 27.4	-16.0 ± 35.0
Shooting time (s)	B	F	9	11.60 ± 6.48	11.92 ± 5.89	0.32 ± 5.21
Miss rate (%)	B	F	9	15.6 ± 31.3	8.9 ± 20.3	-6.7 ± 28.3
First-shot hit rate (%)	B	F	9	66.7 ± 30.0	57.8 ± 27.3	-8.9 ± 24.7
Shooting time (s)	B	M	10	10.17 ± 3.81	10.95 ± 4.82	0.78 ± 3.79
Miss rate (%)	B	M	10	4.0 ± 8.4	8.0 ± 19.3	4.0 ± 15.8
First-shot hit rate (%)	B	M	10	56.0 ± 18.4	48.0 ± 30.1	-8.0 ± 31.6

Note: These summaries are descriptive only. The study was not powered for sex-specific inference. All sex-stratified rows use the final paired sample after participant-identifier harmonisation (women n = 9; men n = 10).

Table S2. Trial-level Hawk Eye timing model (trial_metric_raw; log scale, ratios).

Effect	ratio (95% CI)	% change	p
Pre vs Post (reference=Post)	1.254 [1.127, 1.396]	25.4%	<0.001
Condition B vs A (reference=A)	0.940 [0.755, 1.171]	-6.0%	0.582
Men vs Women (reference=Women)	0.979 [0.794, 1.207]	-2.1%	0.843
Interaction: (Pre vs Post) × Condition B	0.874 [0.738, 1.036]	-12.6%	0.121
Interaction: (Pre vs Post) × Men	0.918 [0.765, 1.103]	-8.2%	0.363
Within-block trial number (per +1 trial)	0.913 [0.900, 0.926]	-8.7%	<0.001

Note: Ratios are presented on the original scale after log-link back-transformation.

Table S2 continued. Model-based predicted means for trial_metric_raw by condition and sex.

Condition	sex	Predicted mean (Pre) ms	Predicted mean (Post) ms	Δ Post-Pre (ms)	Pre/Post ratio
A	F	828.8	660.8	-168.0	1.254
A	M	745.4	647.0	-98.4	1.152
B	F	681.1	621.2	-59.9	1.096
B	M	612.5	608.3	-4.2	1.007

Note: Predicted means are based on the trial-level GEE model.

Table S3A. Hawk Eye location-specific post–pre change in error rate.

Sequence	Location	Δ error rate (pp)
Sequence 1	A	-0.5
Sequence 1	B	4.4
Sequence 1	C	-8.3
Sequence 1	D	-1.1
Sequence 1	E	-20.6
Sequence 1	F	5.7
Sequence 1	G	-8.5
Sequence 1	H	5.0
Sequence 2	A	-2.2
Sequence 2	B	5.5
Sequence 2	C	12.2
Sequence 2	D	8.0
Sequence 2	E	-12.5
Sequence 2	F	-14.5
Sequence 2	G	-11.8
Sequence 2	H	-9.4

Note: Positive values indicate a post-load increase; negative values indicate a post-load decrease.

Table S3B. Shooting target-position-specific post–pre change in miss rate.

Sequence	Target position	Δ miss rate (pp)
Sequence 1	1	21.1
Sequence 1	2	15.8
Sequence 1	3	0.0
Sequence 1	4	10.5
Sequence 1	5	10.5
Sequence 2	1	-5.3
Sequence 2	2	5.3
Sequence 2	3	0.0
Sequence 2	4	5.3

Sequence	Target position	Δ miss rate (pp)
Sequence 2	5	-10.5

Note: Targets were engaged left to right. Positive values indicate a post-load increase; negative values indicate a post-load decrease.