The Hunt Squash Accuracy Test – Test Error and Correlation Coefficients

If you would like to know more about this test or how to perform this test, please check out my blog post titled: A Review Of The Hunt Squash Accuracy Test.

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The following table outlines the individual test error scores for each shot type and the overall test error of the HSAT. This was used to determine the reliability.

Shot Type	Max Score	Test Error	Test Error %
Forehand Drive Middle	50	3.48	6.96
Backhand Drive Middle	50	1.66	3.32
Forehand Drive Back	25	1.45	5.80
Backhand Drive Back	25	1.17	4.68
Forehand Volley Drive	25	1.54	6.16
Backhand Volley Drive	25	1.64	6.56
Forehand Volley Drop	25	2.09	8.36
Backhand Volley Drop	25	2.32	9.28
Forehand Boast	25	1.50	6.00
Backhand Boast	25	2.52	10.08
Forehand Drop	25	1.47	5.88
Backhand Drop	25	1.83	7.32
Volley Mixed	25	0.97	3.88
Total Overall Score	375	6.94	1.85
Overall % Score	100	1.82	1.82

The following table outlines the individual HSAT score and compares this against the round robin tournament ranking and coach rank. This was used to determine the validity.

Player	HSAT Score	Round Robin Rank	Coach Rank
A	89	1	1
B	75	2	2
C	65	5	5
D	62	3	3
E	61	4	4
F	33	6	6
G	30	8	8
H	19	7	7
Correlation Coefficient vs HSAT		0.93	0.93

The following table looks at the correlations between total HSAT score, the % accuracy for combined shots and the player's tournament ranking.

	Accuracy %			Tournament Rank
	Backhand	Forehand	Total	
HSAT Pearson's r	0.937*	0.767*	0.902*	0.954*

The following table looks at the correlations between % accuracy for specific shot types, HSAT shot scores and the player's tournament ranking.

Accuracy %	Drive		Boast		Volley		Volley-Drop		Drop	
	Backhand	Forehand	Backhand	Forehand	Backhand	Forehand	Backhand	Forehand	Backhand	Forehand
Mean # of Shots Per Player	137 ± 30	62 ± 20	30 ± 16	27 ± 10	34 ± 11	14 ± 5	13 ± 5	5 ± 4	35 ± 14	16 ± 9
HSAT Pearson's r	0.923*	0.641	0.28	0.15	0.972*	0.455	0.367	0.534	0.142	0.624
Tournament Rank Pearson's r	0.928*	0.816*	0.564	0.024	0.844*	0.294	0.263	0.57	0.052	0.824*

Reference:

Williams, B. K., Hunt, G. B., & Bourdon, P. C. (2014). Reliability of the Hunt Squash Accuracy Test used to Assess Shot Ability. *Medicine & Science in Sports & Exercise*, *46*(5S), 845-846.

Williams, B. K., Hunt, G. B., Graham-Smith, P., & Bourdon, P. C. (2014). Measuring squash hitting accuracy using the 'Hunt squash accuracy test'. In *ISBS-Conference Proceedings Archive*.

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