Published in **TGfU**

Serve Receive Passing Research 2014

18 Jun 2014 Written by Mark Mann

A Case Study on the Importance of

Serve Receive for Paralympic and

NCAA Volleyball Teams:

by:

Mark Mann Ph.D.

Director: TWU Coaching M.S. Degree

Research Questions:

1. What skill in the sport of volleyball is the most important to winning points?Answer: Serve Receive Passing
2. Is there a strong relationship (Pearson R) between serve receive passing accuracy and serve receive point scoring for Paralympic as well as “able bodied” volleyball players? Answer: Yes, and it is statistically significant.
3. What is the way that passing skills are being taught by teams that have the serve receive passing “ball control” edge (Average Serve Receive Passing Score of 2.75 vs. 2.10)?

_____

A Case Study on the Importance of

Serve Receive for Paralympic and

NCAA Volleyball Teams:

by:

Mark Mann Ph.D.

Director: TWU Coaching M.S. Degree

_____

Research Questions:

1. What skill in the sport of volleyball is the most important to winning points? Answer: Serve Receive Passing

2. Is there a strong relationship (Pearson R) between serve receive passing accuracy and serve receive point scoring for Paralympic as well as “able bodied” volleyball players? Answer: Yes, and it is statistically significant.

3. What is the way that passing skills are being taught by teams that have the serve receive passing “ball control” edge (Average Serve Receive Passing Score of 2.75 vs. 2.10)?

_____

Research Question #1: What skill in the sport of volleyball is the most important to winning points?

A 2010 Study on Skill Importance in Women’s Volleyball by Fellingham, et.al. determined that Serve Receive Passing is the skill that most determines points scored in NCAA D1 Volleyball…

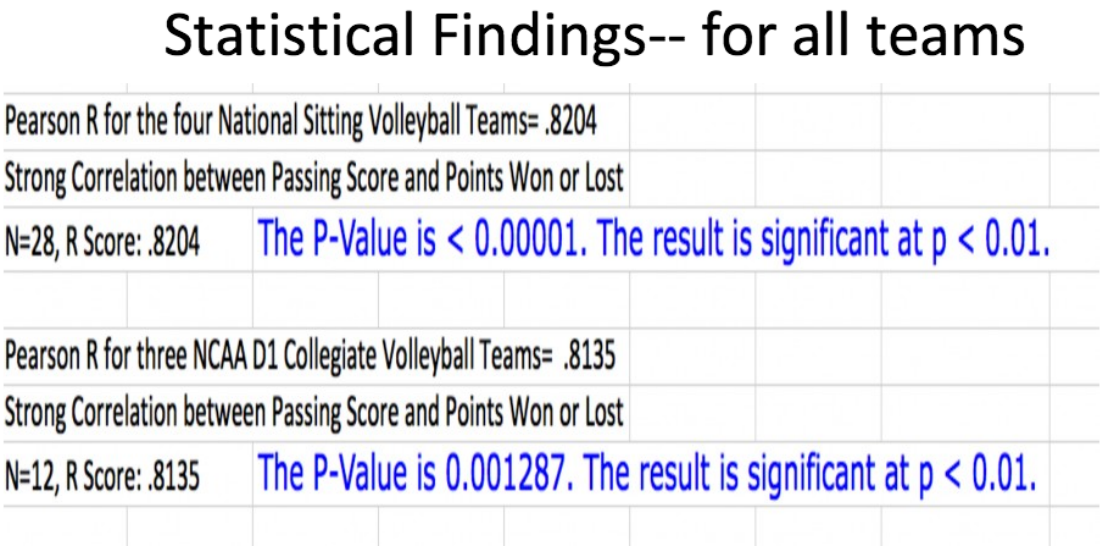
Table 4: Importance scores for the volleyball logistic regression analysis.

Skill	$E(\beta\|Y)$	$V(\beta\|Y)$	Importance Score
Pass	0.51946	0.00375	8.48683
Float Serve	0.81906	0.00992	8.22162
Jump Serve	0.74160	0.00949	7.61225
Set Distance	0.33156	0.00271	6.36639
Digs	0.51379	0.00951	5.26835

Research Question #2: Is there a strong relationship (Pearson R) between serve receive passing accuracy and serve receive point scoring for Paralympic as well as “able bodied” NCAA D1 volleyball players?

Our study conducted a correlational analysis comparing passing and scoring for 450 serve receive passes over ten matches for both InternaGonal Paralympic and NCAA D1 Volleyball Teams.

Statistical Findings-- for all teams



Findings-- for USA Paralympic & U of Tulsa

Findings-- for USA Paralympic & U of Tulsa

Pearson R for USA Sitting Volleyball Team= .7831	
Strong Correlation between Passing Score and Serve Receive Points Won or Lost	
N=10, R Score= .7831	The P-Value is 0.007384. The result is significant at p < 0.01.
Pearson R for Univesity of Tulsa Volleyball Team= .9194	
Strong Correlation between Passing Score and Serve Receive Points Won or Lost	
N=8, R Score: .9194	The P-Value is 0.001231. The result is significant at p < 0.01.
Stronger (more significant) for Tulsa than for USA Sitting Team	

These findings verify the significant statistical relationship between serve receive passing and percentage of side out points scored for both teams.

---

1. Research Question #3: What is the way that serve receive passing skills are being taught by teams that have the serve receive passing "ball control" edge (Average Serve Receive Passing Score of 2.75 vs. 2.10) ?

   If we look at the raw data for our study, we see that passing accuracy for the USA Paralympic Team (Olympic Silver Medal last three Olympics) and for the University of Tulsa (NCAA D1 Top 25- Top 50 over past 4 years) was significantly better on points won (2.75) than on points lost (2.08).

   Raw Data Sample: Tulsa Volleyball

Raw Data Sample: Tulsa Volleyball

	Volleyball Passing- University of Tulsa				
	Average Passing Score		Avg. Score on		
attempts	Points Won	attempts	Points Lost	Teams	
53	2.83	26	2.04	TU vs. ecarolina	10.20.13
44	2.66	14	2.14	TU vs. la tech	10.25.13
52	2.69	39	2.08	TU vs. Marshall	11.10.13
39	2.38	32	2.09	TU vs. Tulane	11.08.13
188		111			

2. Raw Data Sample: USA Paralympic Volleyball

Raw Data Sample: USA Paralympic Volleyball

Volleyball Passing Paralympic Sitting Volleyball Teams			
Average Passing Score on			
Points Won		Points Lost	Teams
2.51		2.19	usa vs.
2.29		1.57	china
2.08		1.47	usa vs.
2.3		1.59	russia
2.93		1.73	usa vs.
3.26		1.69	brazil
2.78		1.4	usa vs.
2.6		1.9	russia
3.15		2.19	usa vs.
2.97		1.82	china
2.47		1.26	brazil vs.
2.27		1.37	russia

Observation of Both NCAA (Tulsa) and USA Volleyball Teams and how both programs teach serve receive passing:

1. Questioning is used to engage critical thinking and strategy making for each type of serve receive pass situation. Teaching Games for Understanding (TGfU).
2. Serve Receive is conducted in high volume/high repetition drills such as 3 vs. 3, 2 vs. 2 half court, and fast knock out kinds of situations for both USA and TU Teams.
3. Serve Receive Passing is not taught as a “drill” in isolation from other skills of the game. Instead, serve receive is most often the part of a serve/pass/set/hit situation.

Contact Information:

http://www.twu.edu/kinesiology/

Mark Mann, Ph.D.

drmann@twu.edu

Journal of Athlete Centered Coaching

http://jacc.summit.edu/

Journal of Coaching Action Research Excellence

http://jcare.summit.edu/

Last modified on 10 Jul 2014

Read **48** times Tweet 0 Like Be the first of your friends to like this. g+1

Mark Mann

Mark Mann, Ph.D.

Website: jcare.summit.edu/

Login to post comments