

IRB Under 21 World Championship 2004

STATISTICAL REVIEW AND MATCH ANALYSIS



IRB Under21 Rugby World Championship 2004

STATISTICAL REVIEW AND MATCH ANALYSIS

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UNDER 21 WORLD CHAMPIONSHIP 2004

Commentary

Just as in other Rugby World Championships, at whatever level, there are – invariably – a number of high scoring, comprehensive victories which reflect not only differences in ability but differences in the teams' preparation. In the Under 21 World Cup 2004, for example, some of the players of the more experienced teams were full-time professionals, some were part-time professionals while others were totally amateur. With certain unions, better resourced than others both in terms of numbers of participants and available resources, comprehensive and big margin victories are to be expected.

What was of particular interest in this year's Under 21 tournament however was the heavily contrasting approach of the two teams that reached the final – New Zealand and Ireland.

New Zealand was by far the highest passing team in the tournament and its rate of passing also comfortably outstripped all other teams. The data also showed that they made 50% more passes than Ireland. This was in sharp contrast to kicks – no team made more kicks than Ireland and no team kicked less than New Zealand. This resulted in New Zealand averaging 7.4 tries per game and 1.8 penalty goals, a ratio of 4:1. Ireland, on the other hand, averaged just 3 tries and 3 penalty goals per game, a ratio of 1:1. In addition, Ireland was the only team in the tournament that did not score more tries than penalty goals. A further contrast was noted when looking at the origin of tries. 54% of New Zealand's tries started from inside their own half compared with 13% of Ireland's.

There were also some interesting contrasts at the other end of the final standings table. Previous research suggests that the weaker teams in competitions not only score fewer points but have difficulty in obtaining and then retaining possession. They therefore create noticeably fewer rucks and also pass less – an example of this is Tonga who managed to obtain and retain less possession than any other team. Not only did they ruck and pass the least, their rate of rucking and passing was less than any other team. An illustration of this is that of their 207 passing sequences, not a single one contained more than 4 consecutive passes (New Zealand had 57) with 92% of such movements containing 2 or fewer passes. When this happens, the result is almost inevitably more kicks. The pressure is such that kicking becomes the only option.

This is what happened to Tonga – their rate of kicking was the highest in the tournament.

A further consequence of this is that when such teams score tries, they result neither from continuously recycled possession nor from possession obtained from far out. Russia, however, although finishing in penultimate position, showed little of these characteristics. They recycled the ball at a rate greater than any other team, with the result that in the build-up to their tries, they produced more rucks, mauls and passes than any other country. This is not usual and it served to illustrate again that some teams in this year's Under21 tournament showed quite different playing characteristics from teams in similar positions in the final standings.

The attached report also shows how this year's competition compared with that played in 2003. The differences were mostly small with one noticeable difference from last year's championship being the increase in ball in play time from 37% to 41%. This is almost certainly explained by the fact that there were appreciably fewer penalties awarded in this year's tournament.

Last year's competition averaged 32 penalties per game compared with this year's 25. There were also twice as many yellow cards issued last year than this year - and 3 times as many crooked scrum feeds were called in 2003. There could be several explanations for such differences - varying between the quality and experience of the differing group of referees to the discipline imposed by the teams themselves. Whatever the reason, the result was that the penalties awarded in this year's competition reflected very closely the number awarded at senior international level.

UNDER21 WORLD CHAMPIONSHIP 2004

STATISTICAL REVIEW AND MATCH ANALYSIS

summary

- the average number of points scored per match was **54** **2003**
59
- there were **7.2** tries and **3.0** penalties per game **7.6 and 3.4**
- tries accounted for **66%** of total points scored and **65%**
were over twice as frequent as penalty goals
- ball in play time was **41%** **37%**
- rucks/mauls averaged **134** per game **132**
passes averaged **225** **253**
open play kicks averaged **48** **52**
- 60%** of tries were converted: **62%** of penalty kicks were **66% & 63%**
successful
- of the 157 tries, **1 in 3** started from inside the scoring **1 in 4**
team's half
- 29%** of tries were the direct result of lineout possession **29%**
- 72%** of tries were preceded by 2 or fewer rucks/mauls **New stat**
- the winning team scored most tries on **73%** of occasions **90%**
- two thirds of all penalty goals were kicked in the first **No change**
half while most tries were scored in the second half
- 82%** of all passing movements contained 2 passes or less **New stat**
- retention of the ball at restarts by the kicking team **New stat**
was 1 in 10
- there were an average of **32** lineouts per game, **71%** **35** **66%**
were competed with retained possession at **78%** **81%**
- there were **22** scrums per game, with **87%** retained **21** **84%**
possession

- 6 free kicks were awarded for a crooked scrum feed
ie 1 every 66 scrums or 1 every 3 games. **10**
1 every 35
1 every 2
- penalties averaged 25 per game **32**
- penalties for ground offences at ruck and tackle
accounted for 40% of all penalties **44%**
- 2 red cards and 30 yellow cards were issued **3 and 62**

IRB Under21 World Championship 2004

Tournament Schedule and Match Results

Day 1: 11 June 2004

Match

1	Ireland	43	Tonga	5
2	Australia	25	France	24
3	Italy	10	Argentina	43
4	Scotland	15	South Africa	69
5	Wales	46	Russia	11
6	New Zealand	42	England	13

Day 2: 15 June 2004

Match

7	Scotland	14	England	25
8	New Zealand	110	Russia	3
9	Ireland	26	Argentina	22
10	Wales	26	South Africa	27
11	Italy	26	France	27
12	Australia	64	Tonga	0

Day 3: 19 June 2004

Match

13	Scotland	29	Russia	17
14	New Zealand	49	South Africa	27
15	Ireland	27	France	19
16	Wales	14	England	23
17	Italy	31	Tonga	3
18	Australia	41	Argentina	3

Day4: 23 June 2004

Match

19	New Zealand	26	South Africa	11
20	Australia	13	Ireland	26
21	England	39	Argentina	13
22	Wales	29	France	21
23	Italy	33	Russia	20
24	Scotland	18	Tonga	17

Day5: 27 June 2004

25	1st/2nd play-off	New Zealand	47	Ireland	19
26	3rd/4th play-off	South Africa	44	Australia	10
27	5th/6th play-off	England	26	Wales	19
28	7th/8th play-off	Argentina	42	France	33
29	9th/10th play-off	Italy	27	Scotland	16
30	11th/12th play-off	Russia	44	Tonga	39

Final Standings

- 1 New Zealand**
- 2 Ireland**
- 3 South Africa**
- 4 Australia**
- 5 England**
- 6 Wales**
- 7 Argentina**
- 8 France**
- 9 Italy**
- 10 Scotland**
- 11 Russia**
- 12 Tonga**

UNDER21 RUGBY WORLD CHAMPIONSHIP 2004

STATISTICAL REVIEW AND MATCH ANALYSIS

1 SCORING PROFILES

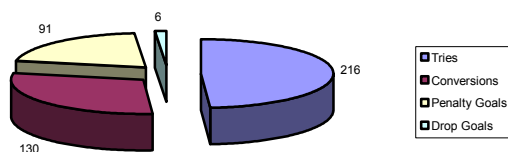
i Points scored

There were **1,631** points scored in the 30 matches played in the IRB Under21 World Championship 2004. They were made up as follows:

216 tries	1080
130 conversions	260
91 penalty goals	273
6 drop goals	18
	<u>1,631pts</u>

The average number of points per game was **54**

Scoring Profile for U21 RWC 2004



ii Tries, penalty goals and drop goals

The average number of tries, penalty goals and drop goals per game was

Tries	7.2
Penalty goals	3.0
Drop goals	0.2

Most tries in a game	16	(NZ v Russia)
Least tries in a game	4	(8 matches)

Most penalty goals in a game	8	(Wales v France)
Least penalty goals in a game	0	(6 matches)

There were over twice as many tries as penalty goals.

Of all the tries scored, the following table shows the average number scored by each team:

	average no. of tries per game
New Zealand	7.4
South Africa	5.2
Australia	4.2
Wales	3.4
France	3.4
England	3.2
Argentina	3.0
Italy	3.0
Ireland	3.0
Russia	2.8
Scotland	2.6
Tonga	1.6

The table shows that New Zealand averaged over 40% more tries than the second placed team. A large percentage of this is accounted for by the 16 tries scored in their defeat of Russia. Even if this match is excluded however, New Zealand still came second in the try scoring table.

Penalty goals on the other hand showed a somewhat different country profile. Ireland, for example, scored as many penalty goals as tries. No other team came close to this 50:50 split. All other teams scored many more tries than penalty goals, with New Zealand, the other finalist, showing a ratio of 4 tries to one penalty goal. South Africa's ratio was even greater – 9 tries to each penalty goal.

The average number kicked per game per country is shown below:

Ireland	3.0
England	2.0
Italy	2.0
New Zealand	1.8
Wales	1.8
Australia	1.6
Scotland	1.4
France	1.4
Argentina	1.0
Russia	0.8
Tonga	0.8
South Africa	0.6

Not surprisingly, the last 3 teams – Scotland, Russia and Tonga – averaged the fewest number of tries. Russia and Tonga also averaged 2 of the 3 fewest number of penalty goals.

iii Place kicking success rates

The success rate of kicks at goal were as follows:

Conversions success rate: 60%

Penalties success rate: 62%

There were 146 penalty kicks at goal of which 91 were successful. There was an average of 5 penalty kicks at goal per game.

2 TRIES

i Tries scored by the winning team

All 30 matches produced a winning team:

the winning team scored the most tries on 22 occasions or in 73% of all matches

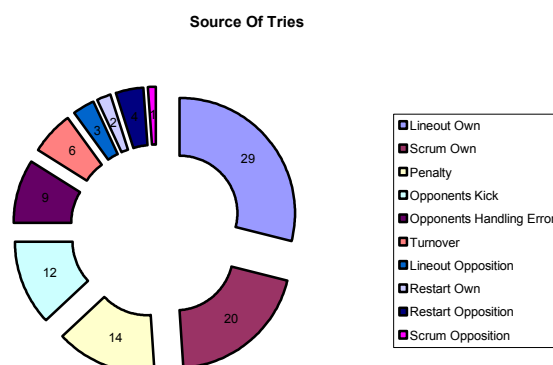
both teams scored the same number of tries in 4 matches

the winning team scored fewer tries but won through penalty goals on 2 occasions

ii Source of tries

There were **216 tries** scored in the IRB Under21 World Championship 2004.

The teams scoring the tries obtained possession of the ball prior to the scoring of the try from a variety of sources. This is shown in the following chart and table.

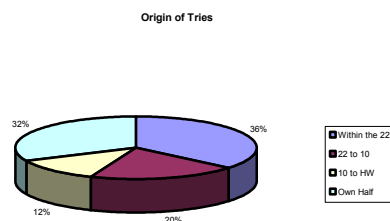


Possession gained:	% of all tries
Lineout Own	29
Scrum Own	20
Penalty	14
Opponents' Kick	12
Opponents' Handling Error	9
Turnover	6
Lineout Opposition	3
Restart Own	2
Restart Opposition	4
Scrum Opposition	1
	<u>100%</u>

There were 9 tries scored from opposition restarts. New Zealand scored five of them.

iii Origin of tries

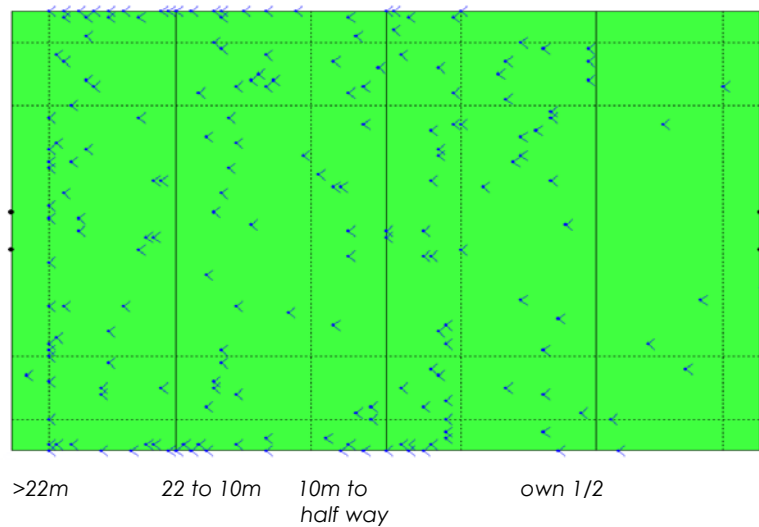
Tries originate from various parts of the pitch. The following chart shows where the attacking team obtained the possession from which they eventually scored.



This shows that:

- 36%** originated within the 22 metre line
- 20%** between the 22 and 10 metre line
- 12%** between the 10 metre and halfway line, and
- 32%** started within the scoring team's own half

The following chart shows where each individual try started i.e the point on the pitch where possession was obtained for the last time:



The pattern, however, varied between teams. Fifty per cent plus of all New Zealand and South Africa tries, for example, started from within their own half. In Italy's case, however, it was just one out of 15. Unlike the Under19 World Cup, it was not the weaker teams in the group that tended to score most if not all their tries from close to their opponents' goalline. In the Under21 World Cup, and recognising the extremes inherent in applying percentages to small numbers, there were no characteristics consistent with the teams' relative strengths and weaknesses eg New Zealand scored 54% of tries from inside their own half, while Ireland, the tournament runner-up scored just 13%. At the other end of the table, Italy scored 67% of their tries from within the opponents' 22 metre line: the figure for Tonga was 8%.

iv Build-up to tries

Possession of the ball that leads to tries is obtained from a number of sources – and they are listed above. More often than not, other actions –second phase,kicks,passes –then take place before the try is scored.

The first table below shows the number of **rucks and mauls (2nd phase)** that preceded each of the 216 tries scored in the 30 matches

<u>No of 2nd phases</u>	<u>frequency</u>	<u>%</u>	<u>cum</u>
None	66	31%	31
1	57	27	68
2	32	15	<u>72%</u>
3	25	12	<u>84%</u>
4	16	7	
5	7	3	
6	2	1	
7	3	1	
8	3	1	
10+	5	2	
	<u>216</u>	<u>100%</u>	

The table shows that 72% of tries were preceded by 2 or fewer second phases and 84% by 3 or fewer.

With regard to rucks/mauls preceding tries, the above table shows that 72% of tries involved two or less recycled ball and this was a characteristic of almost all countries. The two exceptions were Wales – where the figure was just over 50% - and Argentina whose figure was almost 90%. In Argentina's case, over half of all their tries (9 out of 17) did not involve one single recycled ball. With Ireland however, this occurred only twice in 15 occasions.

The next table shows the total number of **passes** that preceded each of the 68 tries.

<u>No of passes</u>	<u>frequency</u>	<u>%</u>	<u>cum</u>	
None	42	19%		
1	22	10		
2	30	14		<u>43%</u>
3	18	8		<u>51%</u>
4	21	10		
5	20	9		
6	21	10		
7	6	3		
8	7	3		
9	4	2		
10	5	2		
11	4	2		
12	1	1		
13	4	2		
14	4	2		
15	4	2		
18	3	1		
20+	2	<1		

The table shows that 43% of tries were preceded by 2 or fewer passes and 51% by 3 or fewer.

These were not figures that were seen consistently throughout all twelve teams however.

The lead-up to tries scored by Russia, for example, was noticeably different from that of the other teams. This is shown in the following table that gives the average number of passes per try scored by the leading countries:

Russia	7.0 passes per try
Wales	6.0
New Zealand	5.5
South Africa	4.3
France	4.1
Australia	3.9
Scotland	3.7
England	3.6
Ireland	3.5
Italy	2.6
Tonga	2.3
Argentina	1.8

The contrast between Russia and Argentina was interesting. In Russia's case, they recycled and passed more than any other country in order to score tries. This is unusual since history suggests that the teams that end up with the lowest rankings find it difficult to retain possession for any appreciable length of time.

v Times of scores

There was a clear difference between the time when tries were scored and penalties kicked.

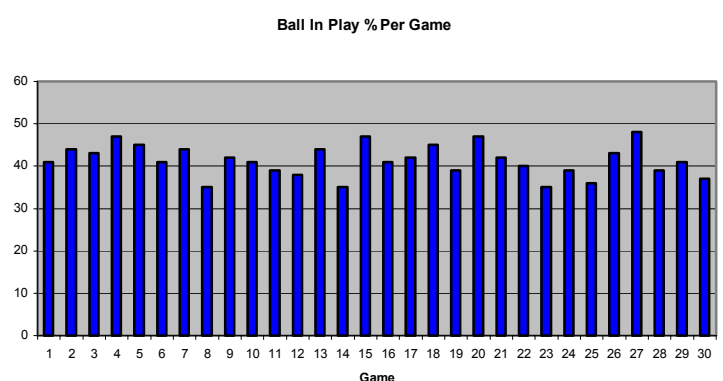
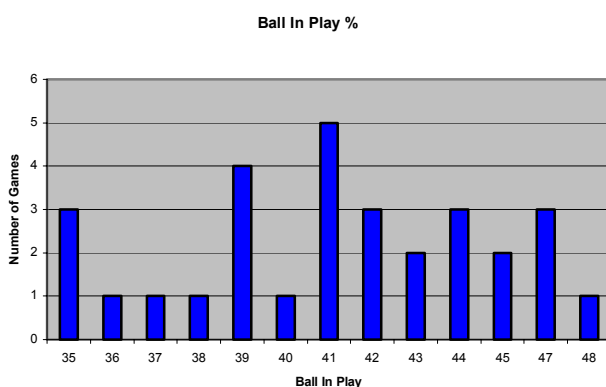
- 69% or almost two thirds of all penalty goals were kicked in the first half
- but only 46% of tries were scored in the first half

There were over 40% more penalties awarded in the first quarter of the game than in the third quarter. Conversely, 40% more were awarded in the last 10 mins of the second half than in the last 10 minutes of the first half.

3 MODE OF PLAY

i Ball in play time

The 30 matches produced the ball-in-play times shown below in



the following charts and table.

%	no.of matches
35	3
36	1
37	1
38	1
39	4
40	1
41	5
42	3
43	2
44	3
45	2
47	3
48	1

overall average 41%

Ball-in-play time is, of course, not shared equally between each team. England, for example, had almost 60% more than Tonga as shown in the following table:

Average ball in play time possession per match

England	19m 59s
Ireland	18m 21s
Scotland	17m 53s
Australia	17m 38s
New Zealand	17m 08s
France	16m 25s
Italy	16m 19s
Russia	15m 35s
Wales	15m 34s
South Africa	15m 19s
Argentina	14m 12s
Tonga	12m 40s

ii Activity cycles

Activity cycles reflect what happens when the ball is in play – it is either passed, kicked or a ruck/maul is formed out of which ball is recycled.

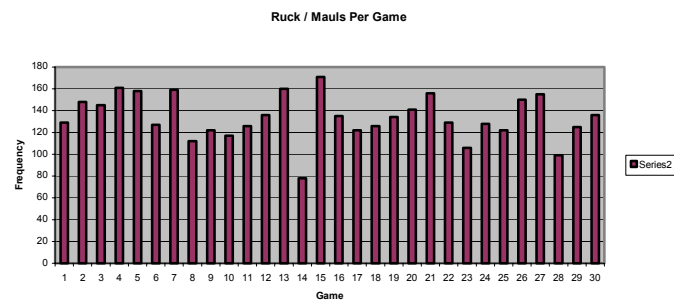
Average no of cycles in a game	<u>95</u>
rucks/mauls (2nd phase)	134
passes	225
open play kicks	48
kick:pass ratio	1 to 4.7

a **Rucks/Mauls**

- i the average number per game was **134**
- ii the highest total in any one game was 171:the lowest 78
- iii the most in any one game by one team was

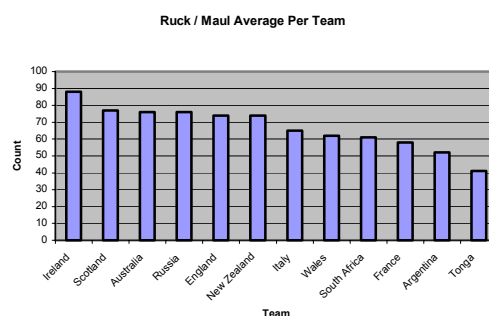
Ireland	113
Scotland	106
Australia	101
- iv the least in any one game by one team was

Tonga	31
Tonga	35
Tonga	35
- v the following chart illustrates the entire range seen in the matches reviewed.



- vi The average no of rucks/mauls for each participating team was as follows:

Ireland	88
Scotland	77
Australia	76
Russia	76
England	74
New Zealand	74
Italy	65
Wales	62
South Africa	61
France	58
Argentina	52
Tonga	41



The above data reflects the actual number of rucks/mauls number created - so Ireland created the most while Tonga created the least. This changes however, when ball in play is considered. If a team's rucks/mauls are related to the time they were in possession of the ball then the order changes. What the following table shows therefore is the rate at which countries rucked and mauled. In other words, in relation to the time that they had the ball, how much activity took place. The order changes with Russia having the highest rucking/mauling rate;

RATE OF R/M – no. per minute's possession

		Av.no. per game
Russia	4.9	76
Ireland	4.8	88
New Zealand	4.3	74
Australia	4.3	76
Scotland	4.3	77
Wales	4.0	62
South Africa	4.0	61
Italy	4.0	65
England	3.7	74
Argentina	3.7	52
France	3.5	52
Tonga	3.2	41

b Passes

i the average number per game was **225**

ii one game produced 310 – another produced only 138

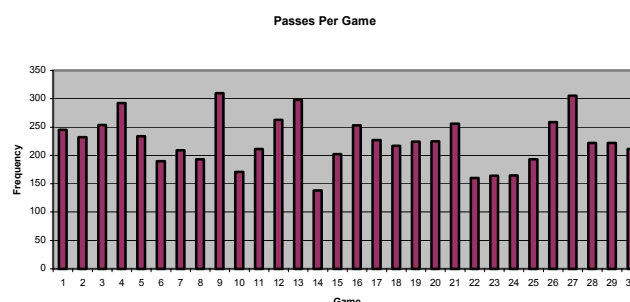
iii the most in any game by one team was

New Zealand	212
Australia	209
Scotland	184

iv the least in any game by one team was

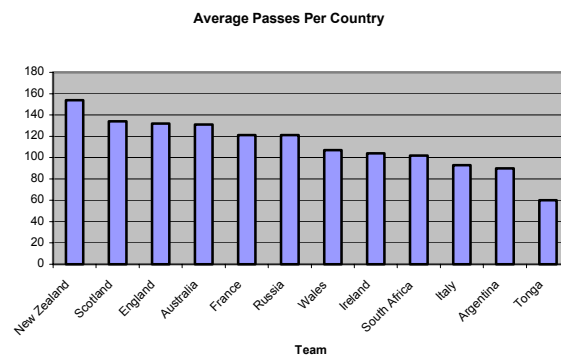
Tonga	53
Tonga	54
Tonga	55

v the following chart shows the number of passes per game



vi the average number of passes per team per game were

New Zealand	154
Scotland	134
England	132
Australia	131
France	121
Russia	121
Wales	107
Ireland	104
South Africa	102
Italy	93
Argentina	90
Tonga	60



There was a noticeable difference between the teams. New Zealand again stood out making almost one hundred more passes per game than Tonga.

However, the above data reflects the actual number of passes number created and the following table shows, therefore, just as in the case of rucks/mauls, the rate at which countries passed. In other words, in relation to the time that they had the ball, how much activity took place.

RATE of Passes – no. per minute's possession

		Av.no. per game
New Zealand	9.0	154
Russia	7.8	121
Scotland	7.5	134
Australia	7.4	131
France	7.4	121
Wales	6.9	107
South Africa	6.7	102
England	6.6	132
Argentina	6.3	90
Italy	5.7	93
Ireland	5.6	104
Tonga	4.7	60

This table shows that there was little change to the order – the highest passing teams also tended to have the highest rate of passing. What the rate table shows – not surprisingly - is that the differences between the countries are less in relative terms when activity is related to possession.

Tonga clearly faced problems. They achieved noticeably less possession than the other teams and therefore passed and rucked less. Even after adjusting for their limited ball-in-play time, their rate of passing and ruck/mauling was also less than any other team. One explanation for this is the fact that they frequently kicked the ball away – their rate of kicking was more than any other team.

c Passing movements

Passes are grouped into passing movements – i.e. one pass movement, two pass movements and so on.

The data shows that some 82% of all passing movements contained two passes or less.

Most teams played to this formula, as seen below, but there were exceptions. Of Tonga's passing movements, 92% were 2 passes or less. The next highest was Italy with 88%. Conversely, New Zealand's percentage was 72% suggesting that pressure on the weaker sides constrains their ability to pass the ball. Tonga, for example, put together 207 passing sequences – but not a single one contained more than 4 consecutive passes. Similarly, Russia managed only 14 in 363 passing movements and Italy 10 in 294. New Zealand on the other hand had 57 passing movements of 4 or more consecutive passes in their total of 381.

Passing Sequences	1 pass %	2 Pass %	Total %
Russia	56	29	85
Italy	59	29	88
France	53	24	77
Wales	55	27	82
Tonga	65	27	92
Australia	59	29	88
Scotland	41	35	76
Argentina	52	31	83
South Africa	56	23	78
England	52	28	80
New Zealand	50	23	72
Ireland	53	34	87

d Open play kicks

- i the average number per game was **48**
- ii one game produced 79 – another produced 28
- iii the most in any game by one team was
- | | |
|-----------|----|
| Ireland | 46 |
| Australia | 36 |
| Tonga | 36 |
- iv the least in any game by one team was
- | | |
|-------------|----|
| New Zealand | 11 |
| New Zealand | 13 |
| France | 13 |
- v the average number of kicks per team per game was

Ireland	31
Australia	28
South Africa	27
Italy	26
Tonga	25
France	24
Argentina	23
Russia	22
England	22
Scotland	21
Wales	19
New Zealand	18

- vi The above data reflects the actual number of kicks made. What the following table shows therefore, just as in the case of rucks/mauls and passes, is the rate at which countries kicked. In other words, in relation to the time that they had the ball, how much kicking activity took place.

RATE OF Kicks – no. per minute's possession

		Av.no. per game
Tonga	2.0	25
South Africa	1.8	27
Ireland	1.7	31
Italy	1.6	26
Argentina	1.6	23
Australia	1.6	28
France	1.5	24
Russia	1.4	22
Wales	1.2	19
Scotland	1.2	21
England	1.1	22
New Zealand	1.0	18

This table shows that there was little change to the order – the highest kicking teams also tended to have the highest rate of kicking.

4 LINEOUTS

average number of lineouts per game	32
percentage competed	71%
possession retained by throwing in team	78%
most lineouts in a game	43
fewest in a game	18

5 SCRUMS

average number of scrums per game	22
possession retained by team putting in	87%
most scrums in a game	42
fewest in a game	15

1 in 4 scrums were reformed
1 in 6 scrums collapsed

6 RESTARTS

Of all restarts, 29% were kicked sufficiently short that they were contested. The remaining kicks – or 71% - were not – they were a straight transfer of possession to the defending team.

Of all restarts, possession retained by the kicking team was 10% or 1 in 10.

Of contestable restarts, possession retained by the kicking team was 34% or 1 in 3.

7 PENALTIES

i Number and incidence

average number of penalties in a game	25
Most penalties in a game	50
Least penalties in a game	14

There was a noticeable difference between the referees. The average number of penalties awarded per match by each of the referees was as follows:

Bowden	(A)	5 matches	20
Changleng	(S)	1 match	22
Watkins	(W)	5 matches	23
McKay	(I)	5 matches	23
Lawrence	(NZ)	5 matches	23
Iwashita	(J)	5 matches	29
Pilara	(Arg)	4 matches	32

ii Categories of offences penalised

	%
Ruck/tackle – on ground offences	40%
Offside – backs/forwards/open play	22
Scrum	15
Lineout	7
Obstruction	3
Tackle – early/late/dangerous	5
Plus 10 metres	3
Foul play	2
Miscellaneous	1
Maul – pulling down	2

Overall, 35% of the penalties at the tackle area went against the team in possession.

Crooked feed free kicks totalled 10 in 30 games – or 1 in every 66 scrums.

8 RED AND YELLOW CARDS

i Red cards

Number issued **2** foul play.

ii Yellow cards

Number issued **30**

Yellow cards were issued in 16 of the 30 matches. In one game 6 were issued (Scotland v England) and in another, 4 (Argentina v Italy).

Offences:	Foul play	3
	Illegal Tackle	<u>8</u>
		11
	Obstruction	1
	Ruck/tackle on ground offences	15
	Pulling down maul	1
	Plus 10m	1
	Other	<u>1</u>
		<u>30</u>

This indicates that 37% were awarded for foul play offences and 63% for technical offences.