

## Increase in efficiency of game by feet in modern rugby

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**Purpose:** to define the importance of successful carrying out kicks of realization in rugby for the end result of the match.

**Material & Methods:** the analysis of scientifically-methodical literature and the analysis of the developed results of matches in the rugby World Cups.

**Results:** the reasons of the developed structure of effectiveness in rugby are described; the developed analysis of results of the final part of the World Cups in rugby of 2011 and 2015 is submitted.

**Conclusions:** the significant place is taken not only by the brought attempts, and both their successful realization and other game elements by feet because of the high density of the final results and high level of preparedness of teams. The detailed analysis of results of the research demonstrates what not only realization is of great importance in points taking for the final result, but also all kicks by feet what their big percent at points taking testifies to.

**Keywords:** rugby, attempt, attempt realization, penalty kick, drop-goal.

### Introduction

In rugby the team consists of 15 players who make three lines of game roles: attack, half-back and defense. The game lasts two halves on 40 minutes; the referee has to continue the game on the termination of playing time so far the ball will not become "dead". Also the team which gathered most of all points will be considered as the winner. Points in rugby are given for the executed attempts – ball landings to the valid field of the rival, at the same time the team gathers 5 points, the team receives 2 points for realization – successful shoot for goal, which is carried out directly after attempt. Also the team can receive two points for goal kick during the game [1].

Until recently the analysis of effectiveness of rugby teams was carried out by the analysis of number of the won and lost matches, thus progress of teams both in domestic, and in foreign scientifically-methodical literature was analyzed. So, it is noted in the scientific works in Elisabeth Ranson and Paul Somers (2003) that the game came down to active actions only in respect of kicks to ball to change of assignment of points for attempts as two successful goals could block themselves all attempts to break through defense from 15 players. There were continuous kicks and a little contact fight at the game as it was not awarded adequately. Accents in game exchanged for the benefit of carrying out successful attempts, having pushed aside kicks on the second plan after change of rules of assignment of points in 1991 [8]. Other British scientist Kenneth Quair connects unseemly attention in the analysis of competitive activity in rugby to kicks, in connection with the above-mentioned fact. The competitive activity in 582 rugby matches at the international level is analyzed in his works (2002–2011). Conclusion of his work was the fact that goal kicks were successful in 72% of cases, and more attention of the analysis of competitive activity, proceeding from carrying out kicks has to be paid in sports statistics on rugby [11; 12].

In general, analytical activity becomes more diversified at this stage of development of rugby, that is, needs big criteria for the comprehensive analysis. The special relevance in such conditions is acquired by studying of kicks of realization which lit not enough in scientifically-methodical literature, in spite of the fact that their importance for the end result grows in match.

### The purpose of the research

To define the importance of successful carrying out kicks of realization in rugby for the end result of match.

### Material and Methods of the research

The following *methods of the research* were used for achievement of the purpose of the research: the analysis of scientifically-methodical literature and the analysis of the developed results of matches in Rugby World Cups.

### Results of the research and their discussion

Game by feet in rugby takes the important place and is highly appreciated very much. The oval form of the ball predetermines complexity of performance of these or those kicks. Kicks are divided on: volley kick; drop kick; kick from the earth; kick from support.

The kick from support is used for formation of skill of realization. The technique of this kick is following – the ball is put on counter by sharp part towards flight from top to bottom. The forward part of the ball rises above the ground. The tilt angle of the ball is selected the player who carries out the kick, proceeding from his individual skills. The kick is carried out from running start in two-three steps, instep, also kicks are allowed by boot sock.

The difficult technique of the kick from support predetermines low percent of its successful performance. Especially it is shown at kicks from acute angles concerning gate [1; 7].

However the developed analysis of dynamics of effectiveness of teams in the final part of Rugby World Cups in 2011 and 2015 shows that effectiveness of kicks of realization grows (tab. 1, 2).

Analyzing results of 2011, we can see that the team, which won, could not make any realization. Also the analysis of performances showed that levels of preparedness of teams differ very much, and their results are separated even in those which reached the final [9].

It is possible to see from table 2 that results of the World Cup considerably differ from previous, unlike them they dense and have no big separation [9].

Also from the above-stated tables we can see that the percent of successful realization of attempts during the period from 2011 to 2015 increased from 61% to 78%. It is connected with increase in density of results, the general level of preparedness of all teams, the high level of all teams and the absence of pronounced favorites. The exchange of experience by signing by teams of the contract with foreign coaches promoted it. So, English national team for the whole history of the existence signed the contract for 2016 with the foreign coach Eddie Jones. It is proved that density of results of the brought attempts, solving in the final result, there are other factors: such as number of successful realization, penalty areas and drop-goals [10].

All these technical elements which influence recently effectiveness and result of matches to a large extent have in basis kicks [2–6, 14].

Therefore the more detailed analysis of set of points by teams

in final parts of the World Cups of 2011 and 2015 submitted in figures 1 and 2. It is established that kicks have more powerful contribution in comparison with the brought attempts, even in 2011 [13].

The percent of the reckoned points by means of attempts in 2011 made 44%, and realization – 7%. The general percent of the gathered points for the account different kicks made 56% [9].

We can see by results of the analysis of 2015 that the percent of the points, which are gathered due to attempts, decreased by 1% that is not essential change, effectiveness of realization grew by that in twice and as a result we have 14% [9].

It is visible from the submitted data that successfully punched realization has rather powerful value on decisive result recently. Besides, also it became clear that not only successful realization has great influence on result as a result, but also other kicks which earn winning points for teams. And, above all that their percent in comparison with attempts rather considerable and it though slowly, but grows. Therefore it is necessary to pay attention to it and to pay more attention by preparation to these game elements.

## Conclusions

It is established by results of the carried-out analysis:

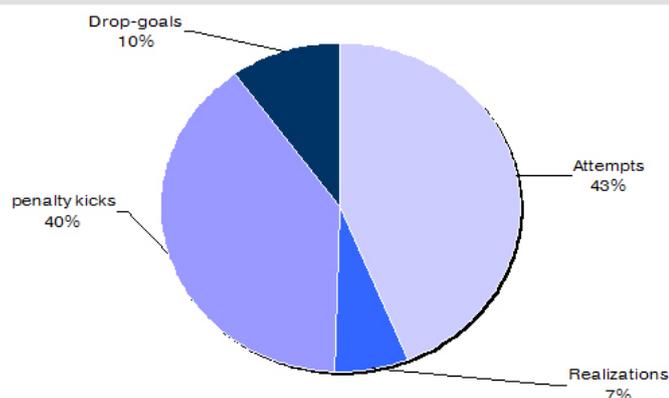
1. It was necessary to find other effective methods of set of points through density of results and level of preparedness of teams; therefore the number of the successfully realized attempts grew in twice from 7% in 2011 to 14% in 2015.
2. The detailed analysis of results of the research demonstrates what not only realization is of great importance in set of points for the final result, but also all kicks about what their big percent testifies to at set of points, both in 2011, and in 2015.

**Table 1**  
The developed analysis of results of the final part of Rugby World Cup of 2011

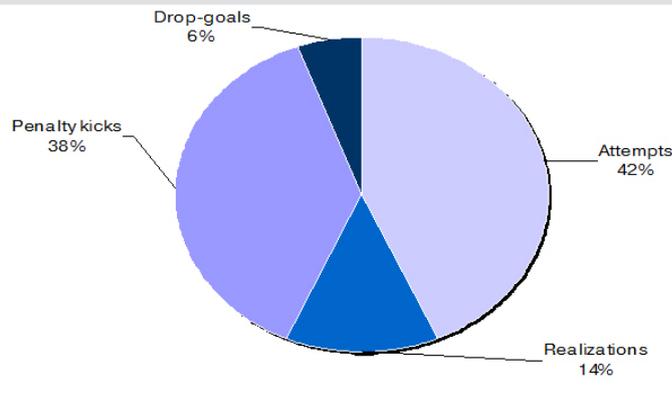
Place	Teams-finalists	Attempts				Realizations				%
		N. Z.	France	Austr.	Wales	N.Z.	France	Austr.	Wales	
1	New Zealand	–	1	1	–	0	0	–	0	
2	France	1	–	–	0	1	–	–	100	
3	Australia	0	–	–	2	0	–	1	50	
4	Wales	–	1	2	–	0	1	–	33	

**Table 2**  
The developed analysis of results of the final part Rugby World Cup of 2015

Place	Teams-finalists	Attempts				Realizations				%
		N. Z.	Austr.	S. A.	Argen.	N. Z.	Austr.	S. A.	Argen.	
1	New Zealand	–	3	2	–	2	2	–	80	
2	Australia	2	–	–	4	2	–	3	83	
3	South Africa	0	–	–	2	0	–	1	50	
4	Argentina	–	0	1	–	0	1	–	100	



**Fig. 1.** The analysis of destiny of contribution of different components of set of points by all teams rugby-union in the final part of the World Cup of 2011



**Fig. 2.** The analysis of destiny of contribution of different components of set of points by all teams rugby-union in the final part of the World Cup of 2015

3. It is established that need of improvement of method of execution of realization of attempts became still significant, through similarity of all game elements by foot which have powerful influence on set of points in the final result.

### Prospects of the subsequent researches

The subsequent researches will be directed to the expansion of selection for more fundamental statistical processing, will be more in details dynamics of changes of structure of sports

results in rugby is analyzed. Also the structure of effectiveness of the Ukrainian teams, with display of changes of its dynamics will be considered.

Studying of quality of technical component of performance of kicks in rugby, examining of the advanced techniques of improvement of method of execution of shock actions, and also development of own technique, on the basis of the analysis of the best practices of foreign and domestic scientists, perhaps, with loan of methods and techniques in adjacent sports will be separate point of researches.

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