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## Recovery and Rehabilitation in Football

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### Abstract

The main purpose of game analysis is to provide the coach with information about the team or the individual performances. This way, the coach as well as the players, noticing the former performances, obtain detailed information about the aspects of the game that could be improved. Nine games have been analysed, on three different age groups (under 12, under 14, under 15). Three games of each age group have been analysed. The specific instructions given to the goalkeepers about the team's tactic or the weather conditions are not available in this study. For the analysis of every game, a specific system of manual notes has been developed. Concisely, the short throws, like passes and throws (under the arm, as well as over the arm) are more successful than the long throws, in the matter of keeping possession as well as producing passes. Accordingly, the short throws that lead to longer successions of passes, tend to lead to improvements in the players' technical abilities. Although, the implications for coaches have been underlined as follows, they have to be aware of the specific value of this type of throws and encourage their use when it is required.

**Key words:** *goalkeeper, practice, football, jump, reaction speed*

### Rezumat

Rolul principal al analizei meciului este de a furniza antrenorului informații despre echipă sau despre performanțele individuale. Astfel, atât antrenorul cât și jucătorii, observând performanțele anterioare, obțin informații detaliate asupra aspectelor jocului, care ar putea fi îmbunătățite. Au fost analizate nouă meciuri, pe trei grupe de vârstă (Sub-12, Sub-14 și Sub-15 ani). S-au analizat câte trei meciuri ale fiecărei grupe de vârstă. În acest studiu nu au fost puse la dispoziție instrucțiuni specifice date portarilor în ceea ce privește tactica echipei sau starea vremii. Pentru analizarea fiecărui joc, a fost conceput un sistem specific de notare manuală. Pe scurt, aruncările scurte, cum ar fi pasele și aruncările (atât pe sub braț, cât și peste braț), sunt mai reușite decât aruncările lungi, atât pentru menținerea posesiei, cât și pentru producerea de pase. Prin urmare, aruncările scurte, care duc la succesiuni mai îndelungate de pase, tind mai mult să ducă la îmbunătățiri ale abilității tehnice a jucătorilor. Deși mai jos sunt subliniate implicațiile pentru antrenori, aceștia trebuie să fie conștienți de valoarea specifică a unor asemenea aruncări și să încurajeze utilizarea lor acolo unde e cazul.

**Cuvinte cheie:** *portar, antrenament, fotbal, salturi, viteza de reacție*

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## Introduction

The main purpose of game analysis is to provide the coach with information about the team or the individual performances. This way, the coach as well as the players, noticing the former performances, obtain detailed information about the aspects of the game that could be improved.

Nine games have been analysed, on three different age groups: under 12, under 14, under 15. [1]

Three games of each age group have been analysed. The specific instructions given to the goalkeepers about the team's tactic or the weather conditions are not available in this study.

For the analysis of every game, a specific system of manual notes has been developed.

Concisely, the short throws, like passes and throws (under the arm, as well as over the arm) are more successful than the long throws, in the matter of keeping possession as well as producing passes.

Accordingly, the short throws that lead to longer successions of passes, tend to lead to improvements in the players' technical abilities. Although, the implications for coaches have been underlined as follows, they have to be aware of the specific value of this type of throws and encourage their use when it is required. [2]

There have been many researches on field players, but analysis referring to goalkeepers have generally been limited. It was concluded that the kick was the most used way of throwing and that, usually, the goalkeepers hold the ball for less than two seconds.

In the young football league, the technical development of each player should be the most important thing, not the result of the game. For the players to evolve technically, it is essential that field players be in contact with the ball as often as possible, so the total number of ball touches per game increases. Only this way the key technical aspects of the game, like the first touch, the ball,

control and the passing could improve. Besides the fact that in the modern game, the ball throwing by the goalkeeper could be one of the most effective instruments in producing goal opportunities, this can also be the start of a succession of passes that enables players to be technical. These are the reasons why, the ball throwing by the goalkeeper is an important factor in the general evolution and development of the field players.

This study aims to:

- a) Determine which types of the ball throws done by goalkeepers are successful and unsuccessful as regards the maintaining of ball possession.
- b) Determine what type of ball throws leads to the biggest succession of passes.

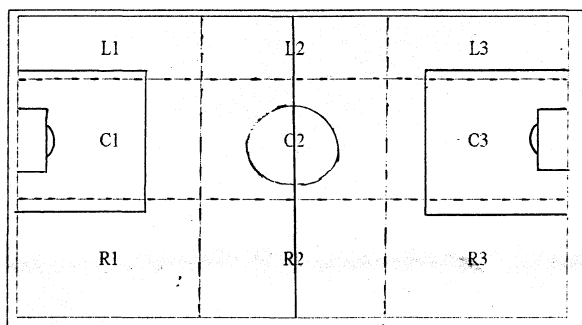
The results have to reveal detailed information about what type of throws leads the most to an opportunity for the field players to obtain and keep the ball. These pieces of information can afterwards be used to expand the list of technical abilities that players need in the games.

## Material and methods

Nine games have been analysed, on three different age groups (under 12, under 14, under 15), groups belonging to *Pandurii Targu Jiu Football Club*. Three games of each age group have been analysed. The football games had the same duration. The matches have been recorded with a video camera placed near the center line and above the field. At an ulterior time, the football matches have been viewed on a TV monitor, for analysis. The specific instructions given to the goalkeepers about the team's tactic or the weather conditions are not available in this preliminary study.

For the analysis of every game, a specific system of manual notes has been developed. In analysing ball throws done by the goalkeeper, there were two things noted: the area from where the ball was

thrown and the area where the ball landed. To properly note this, the field has been coded as seen in Figure 1.



**Figure 1.** The field coding for analysis

The throws have been analysed to determine whether they were successful or unsuccessful. A throw was considered successful if the ball was received by a teammate, and unsuccessful if the ball has not been received by a teammate. Even if, the teammate did not manage to control the ball and lost possession of it, the throw has still been considered successful because the ball control was done wrongfully but not the throw. The number of passes that resulted from each successful throw has been noted, as well as the areas where the ball possession was lost. The following types of ball throws done by the goalkeeper have been analysed:

- The over the arm long throw;
- The over the arm short throw;
- The under the arm throw;
- The hand punted throw;
- The long kick from the penalty area;
- The short kick from the penalty area;
- The long pass;
- The short pass;
- The 6m long kick;
- The 6m short kick;
- The kick

It was considered to be a long throw if it reached the middle of the football field or the third of the other

team's court. It was considered to be a short throw if it reached the third of the own team's court, in the defence area. It is important to distinct a pass and a kick. A kick refers to a goalkeeper who hits the ball pressured by the opponent. A pass means the goalkeeper hits the ball not being pressured by the opponent and even looks for a teammate with the intention of passing the ball. [3]

## Results

The average number of successful and unsuccessful ball throws done by the goalkeepers are noted in Table I, differentiated according to games and each age group studied.

**Table I.** Age groups analysis

Age group	Under 12	Under 14	Under 15
No. of successful throws	11.3 (58,5%)	13.6 (50,6%)	9.6 (50%)
No. of unsuccessful throws	8 (41.5%)	13.3 (49.4%)	9.6 (50%)
Total	19.3 (100%)	27 (100%)	19.3 (100%)

## Discussions

Although the average number of long and short successful throws per game is similar, the short throws had a bigger success rate than the long throws. In all, 95.5% of the short throws have been considered successful, compared with only 39.1% of the long throws. As regards the specific types of throws, it has been noticed that the most unsuccessful was the long kick from the penalty area. In total, 75% of the 44 long kicks from the penalty area registered have been unsuccessful. The most successful ball throw was the short pass. All 19 short passes registered have successfully been received by a field player (Figure 2).

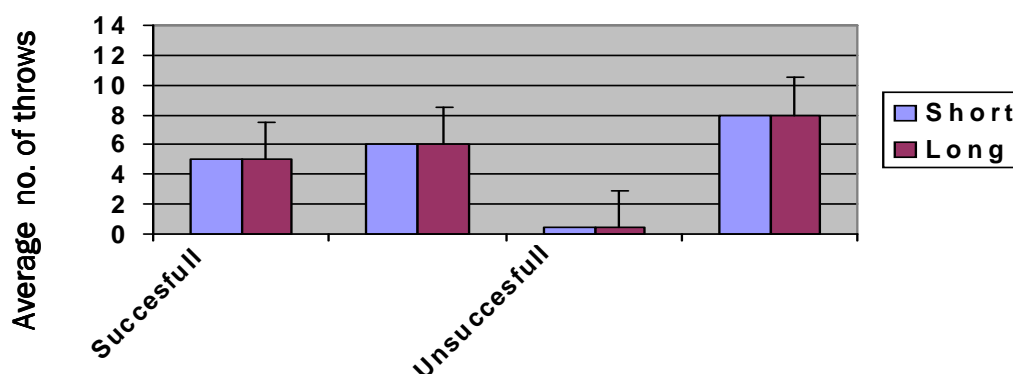


Figure 2. The throwing effect

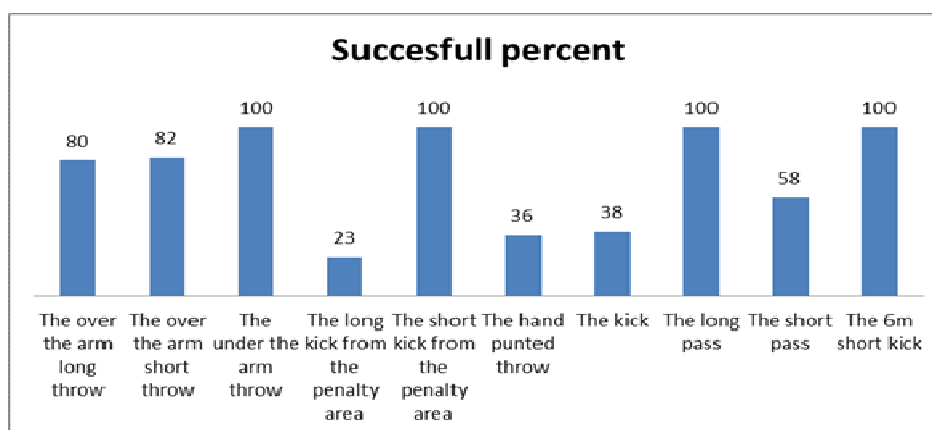


Figure 3. The throwing effect

The success rate of 100% of the under arm throw suggested that this is the best type of ball throw when it is mandatory to maintain ball possession. It has also been determined that the over the arm long and short throws are efficient methods of throwing the ball, with success rate of 81.25% and 83.3% (Figure 3).

As regards the average number of passes produced per game as a result of the different types of throws, the most successful was that of the short pass – it produced an average of 4.33 passes for the under 14 year old group, and more impressive, an average of 8.33 passes for the under 12 years old group. However, for the under 15 years old group, the long throws, for example the kicks from the penalty area

and the hand punted throws were the ones that produced the biggest number of passes. These results may reflect the advanced technical and physical development of the players in the U15 group that allows them to handle these types of throws better than the players in the U12 and U14 groups. In the U12 and U14 cases, these long throws have been the most ineffective in producing the succession of passes. It is important to notice that the goalkeepers from the U15 group have presented a smaller range of types of throws than those from the U12 and U14 groups. For example, it has been noticed that the U15 goalkeepers have not done any over the arm long throws, short kicks from the penalty area, long passes or long kicks from 6m. The throws in C1 have always

been successfully received by a teammate. It is worth mentioning that, during the nine football games analysed, only six throws have reached this specific area. Furthermore, the success rates in the one third of the opponent's court does not correctly reflect the types of throws, because L3, C3 and R3 have received just 1, 6 and 3 throws. It is more suggestive to concentrate on the big success rates in areas like L1 and R1 as these have received more throws and, thus, are a better and realistic example. For instance, out of the 12, respectively 36 throws sent to the L1 and R1, 75%, and 100% have been a success.

Concisely, the short throws, like passes and under and over the arm throws, are more successful than the long throws for maintaining ball possession as well as for producing passes. Therefore, the short throws that lead to longer successions of passes, tend to lead to improvements in the players' technical abilities. Although, the implications for coaches have been underlined as follows, they must be aware of the specific value of these types of throws and encourage their use when it is required.

Finally, it is important to underline that, although the long throws have not contributed to maintaining ball possession in groups U12 and U14 analysed in this study, it is obvious that the goalkeepers must continue practicing them, considering the success noticed in the other groups of age.

## Conclusions

Implications for coaches:

- Considering keeping the ball possession and the developing of technical abilities of players in age groups U12 and U13, goalkeepers must be encouraged to throw the ball at short distances, in areas where a 95.5% success rate has been detected.
- The short throws that must be encouraged include all types of throw and the short pass as it has been

noticed that 80% of this types of throws are a success.

- Throws and the short pass tend to produce the biggest successions of passes and prove themselves to be useful for the technical development of the field players.
- Longer throws will move the ball fast in the opponent's court but, in general they will not produce too many passes and the ball possession will often be lost.
- For maintaining possession and development of the technical abilities in group ages U12 and U14, goalkeepers must be discouraged to throw the ball long distances, in the areas where the success rate was only 39.1%.
- The most unsuccessful type of throw was the long kick from the penalty area. Only one out of four tries has succeeded. When the purpose of the team is to maintain the ball possession and develop the technical abilities, this type of throw must be avoided.
- For maintaining possession, the ball must be thrown especially in the side areas from the third of the teams own court (L1 and R1, see Fig.1), as over 75% of the throws in these areas has been a success. Throws to the central area of the fields must be avoided as it has been noticed that only 35% of throws that reached this area has been successful.

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