Study on evaluation method of young men football goalkeeper skill level
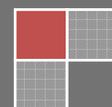
Wei Zhang
Institute of Physical Education, Ningxia University, Yinchuan, 750001, (CHINA)

ABSTRACT

The young men football goalkeeper occupies a more important position in the football, and it also has a certain particularity. But for the evaluation method to its skill level is not very clear in our country. In the process of study, this article mainly conducts the effective analysis at each index of skill level of football goalkeeper, and it is to perform an effective exploration for the consistency of each index. At the meanwhile, it is to pay some relevant visits on experts toward the evaluation index of each skill level. After experts carry out the concrete analysis on the evaluation criterion of each evaluation index and importance, the index consistency can be fully guaranteed. Afterward, it performs an effective exploration on average score, variation coefficient of each index. In this process, combined with average score and variation coefficient criteria, it performs an effective elimination. It is for sure that evaluation index can reflect the importance of football goalkeeper skill. This second is to pursue an effective verification on validity and reliability. Through the related calculation formula, it conducts the scientific computing on the primary and secondary indexes weight. By doing so, it illustrates the reliability and validity of evaluation method in this article that can satisfy the specific requirements of the evaluation method. At last, it is to conduct the scientific construction on the evaluation system according to the point of view mentioned above, in order to make the evaluation method possible with the higher integrity. This is the main body of thought in the process of study and exploration for this article. From them, it also sufficiently display the main purpose of study for this article.

KEYWORDS

Football goalkeeper; Skill level; Evaluation method; Construction of evaluation system.

INTRODUCTION

In terms of football goalkeeper own position, it is evident to know the importance of goalkeeper's own, as the last defense line in the process of the football match. The skill level plays a corresponding impact and function for the development trend of main body match. Therefore, it appears particularly important to young men football goalkeeper skill level evaluation method, and it is relatively huge for function whether the skill and motion can meet the needs of match. In the process of study for this article, it performs the relevant study and exploration to the analysis process of each evaluation index of goalkeeper skill level, the verification process of validity and reliability, and the goalkeeper skill level evaluation system construction, in order to make this paper study process full of more scientific and practical.

THE ANALYSIS OF EACH INDEX

The consistency of the index

In the evaluation process of goalkeeper skill level, the consistency of its index analysis are proposed with the higher requirements, furthermore, it is pursue an effective understanding to the consistency of each index in the process of study and discussion of this article, and perform the relevant the investigation as the degree and differentiation. The specific method is to take the gymnastics scoring as the primary. It is first to exclude the highest and lowest score, afterward; all scores are performed with an effective ordering from low score to high score. The front seven persons are low scores, and rear seven persons are high scores. In the process, the median number would not involve in the process of calculation, therefore its calculation formula is $D = 1 - 2(X_H - X_L)/7$. In it, X_H, X_L respectively mean the average value of the lower score of front person and the higher score of rear person. The D represents the concrete efficiency of consistency, its coefficient is smaller than 0.65. In this case, it means the relevant experts hold a negative viewpoint on this consistency of index, but the opposite means the relevant experts hold a strong viewpoint of consistency on these indexes.

From the data of TABLE 1, it is not hard to clearly embody that for the aspect of single hand up-shoulder accuracy of throwing the ball the average score is 3.57 for the front seven persons, and the rear seven persons are scored with 6.29. Therefore its consistency coefficient is 0.6122. From this set of number, it is clearly seen that some of experts hold a more importance to single hand up-shoulder accuracy index of throwing the ball, and hold a viewpoint that it is one of importance evaluation indexes to goalkeeper skill, but other experts hold the reverse viewpoints. From this point, it is possible to recognize the big existing difference. To this in the process of consistency study, it performs an effective communication with the relevant experts on the one hand, and communication is only for that these experts keep an consistency of opinions. Thus, this index should not be carried out with the evaluation through quantitative measures in the routine exercise and assessment of goalkeeper[2]. In the process of goalkeeper throwing ball, there is another index needed for combination to hold its accuracy. It is the goalkeeper's own hand feel, the high accuracy means the good hand feel of goalkeeper, the opposite explains the goalkeeper hand feel is not very good. It is over one-side to take the accuracy of hand shoulder up-throwing ball as skill level to evaluate the goalkeeper, less-strong adaptability. In addition, combined with the factors above, it is naturally to exclude the index of B4102.

TABLE 1 : The list of each index consistency coefficients from the small to the large

Number	X_L	X_H	D	Number	X_L	X_H	D
B4102	3.57	6.29	0.6122	B4402	5.57	7.00	0.7959
B32	3.43	6.00	0.6327	B4201	5.57	7.00	0.7959
B31	4.57	6.57	0.7143	B4302	5.71	7.00	0.8163
B22	3.86	5.86	0.7153	B13	5.29	6.57	0.8163
B1102	4.57	6.43	0.7347	B21	5.43	6.07	0.8164
B4101	3.86	5.71	0.7347	B4502	5.41	6.05	0.8166
B4401	5.29	7.00	0.7551	B4202	5.86	7.00	0.8367
B16	5.00	6.71	0.7551	B15	5.86	6.86	0.8571
B12	5.29	7.00	0.7551	B4301	6.43	7.00	0.9184
B14	5.29	7.00	0.7551	B4501	6.43	7.00	0.9184
B1101	5.00	6.57	0.7755				

The index of B32 represents the pouching ball with double hands, the front seven persons average score is 3.43, and the rear seven persons average score is 6.00. The index of consistency is 0.6327. After it conducts the searching on the online reference, some relevant experts hold viewpoints that during China football super league games from 2008 to 2010, after the concrete analysis and statistics to this skill and tactics of goalkeeper, in terms of the features of time and space for goalkeeper skill and tactics, the goalkeeper's single hand striking ball and double hands striking ball in the process of skill application

are totally used with sixteen times for forty games, but in the match all skill of goalkeeper application is totally up to 3193 times, this skill index is only accounted for 0.5% of all skills application summary. From that, it can fully prove this skill is less used by the goalkeepers in the process of match. Therefore this index should not be the main factor to perform the skill evaluation on the goalkeepers. In this case, the index of B32 skill should be effectively excluded[3].

The average score; variation coefficient of each index

In the process of study of this article, it is apparently the goalkeeper skill application index is above the 5.5 scores, which explains this kind of index plays a higher importance of evaluation to goalkeeper skill. Therefore it can be recommended index. But the variable efficiency index that score is below 0.3 represents the experts have a strong consistency on this index of recognition degree. As a result, this index also can be the specific recommendation index. For specific score of each index and variable coefficient can be clearly embodied by Figure 1 and Figure 2.
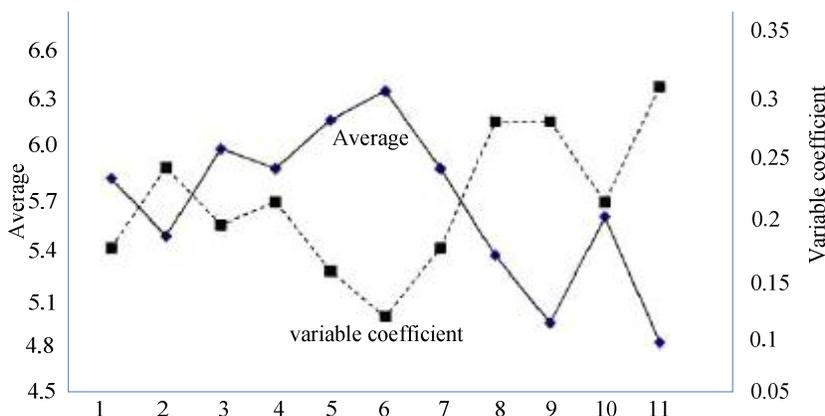

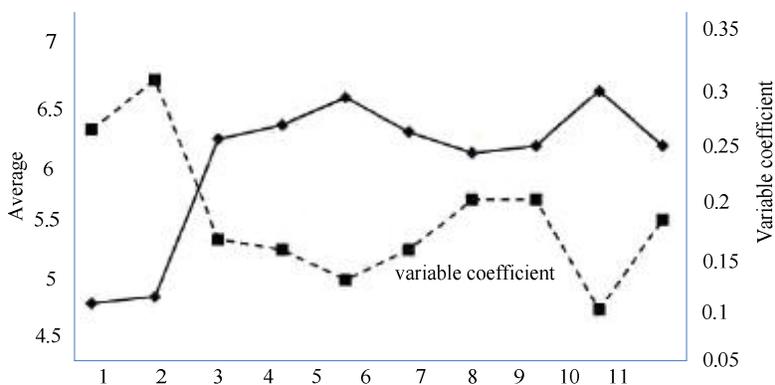**Figure 1 : Index score; variable coefficient figure (B1101-B32)**

Figure 2 : Index score; variable coefficient figure (B1401-B4502)

Through the above figure one and figure two the specific scores of two goalkeepers for each index and variable coefficients, the total items that index score reaches up to 5.5 by the experts are totally 16 items. The indexes from 2 to 16 are respectively the index of picking-up ground ball, and the index of picking-up the ball in mid-air with straight legs, the index of rushing to picking-up the ground ball at the side, the index of picking-up the ball from the high air, the index of rushing and picking-up the ball in mid-air, the index of rushing and picking-up the single attack ball, the index of single hand lifting the coming ball, the index of single hand touching ball, the index of throwing the ball at side, index of double hand holding and kicking ball, the index of holding and kicking ground rebounding ball, the index of holding and kicking ground rebounding ball at side, and the index of kicking the placed ball. In these sixteen indexes of evaluation four indexes are treated as long distance evaluation indexes, and other four items are indexes of accuracy evaluation[4]. From the evaluation of 16 indexes, they all exceed 5.5 scores. Therefore these indexes should be effectively reserved. The two indexes variable coefficient of double hands pouching ball ad single hand shoulder up-throwing ball is very large, and exceed the standard limit of 0.3, therefore they should be effectively excluded. From the process of index analysis, it should perform the relevant exclusion of the five indexes, and these five indexes are respectively B1102, B32, B22, B4102, and B4101. The remaining 16 items are needed to reserve for total. From the 16 indexes mention above, all these are the important evaluation indexes of goalkeeper skill level, and the exclusive five indexes options can't be factors to evaluate the goalkeeper skill evaluation, because they exist a certain inadaptability or corresponding one-sidedness.

THE VERIFICATION OF VALIDITY AND RELIABILITY

The verification of validity

In the process of this study and exploration, it conducts a relevant exploration of evaluation index determination of goalkeeper skill by the main way of questionnaire. In the process, according to the experts scoring condition on the validity of the questionnaire, the validity average value is used as the validity basic calculation formula. And through the relevant calculation process can summarize 0.88 as the average validity value of questionnaire. From this score value, it can explain this questionnaire structure design and release is characterized with the higher validity, and to the effective collection of data in the process of study of this article can be provided with powerful basis.

The verification of reliability

In the process of study and discussion of this article, through clone Bach a reliability coefficient is chosen to conduct the effective test to inner consistency of each level index itself, the testing results can be clearly embodied from table three.

TABLE 2 : The breakdown table of clone bach a reliability coefficient of each level index

	Picking up ball	Kicking off ball
Clone Bach α Reliability Coefficient	0.837	0.851

Note : Because the punching ball and touching ball are only second level indexes, it would not conduct the calculation of reliability coefficient.

From this perspective of the reliability values of each level index in TABLE 2, its internal reliability value can reach above 0.75. From this reliability value, it can fully prove the reliability is better, and in it the index of touching ball is characterized of smaller model. Therefore Clone Bach a reliability coefficient is naturally and relatively smaller only can reach to 0.787. Although this reliability value is not large, it can also embody the reliability of this index, and it can be accepted.

THE ESTABLISHING OF EVALUATION SYSTEM

In the process of its reliability test, the selected test method is a comprehensive evaluation method. In this process, it will conduct the effective measure and evaluation on the value of each evaluation index in the whole evaluation system. And among them, it can fully embody its importance. However, through the statistical principle, the requested one certain index evaluation weight summary is behold as one, usually it also can be embodied as 100%. In the process of each item testing index weight, it can use the decimal as reflection, and this is the weight coefficient[5]. In the calculation process of weight coefficient, it can use one item and the average number of quality guarantee divided by the second level index average summary contained in level one index, in this way the weight coefficient can be obtained. Finally its own weight coefficient existed in its second level index can be effectively calculated, and the specific calculation formula is shown as below:

$$W_{ij} = \frac{\overline{x_{ij}}}{\sum \overline{x_{ij}}}$$

From the formula mentioned above, it can be seen that the calculation process of second level index coefficient is not complicated, but the second level index number is usually used with " i " as reflection, but the first level index own number is usually used with " i " as reflection. In the formula, the W_{ij} represents the number i as well as the number i second index of indexes weight size[6]. But the $\overline{x_{ij}}$ represents number i index and score average value of number i . The $\sum \overline{x_{ij}}$ reflects the exact meaning that is number j as well as the summary of average value of second index contained in all indexes. Through the represented meaning of different signs in the different formula in the discussion process mentioned above, the headphone index weight calculation formula can be embodied as below:

$$W_1 = (0.1612, 0.1661, 0.1628, 0.1711, 0.1760, 0.1628)^T$$
$$W_2 = (1)^T$$
$$W_3 = (1)^T$$
$$W_4 = (0.1232, 0.1255.0.1302, 0.1244, 0.1209, 0.1221, 0.1314, 0.1221)^T$$

With the formula mentioned above, it performs the relevant calculation on the first level index weight. Its main method is to effectively add the average score of second level index contained in each index, After this process, the summary

is divided by the summary of scores of second level index, and then it comes to the approximate value and index weight can be effectively calculated, it exact formula is as below:

$$W_j = \frac{\sum \overline{x_i}}{\sum \overline{\overline{x_{ij}}}}$$

From the calculation process mentioned above, each index weight can be effectively arranged and set with number, and then it makes each index weight can conduct an effective evaluation on the goalkeeper skill level, the system structure of evaluation index should be based on the calculated process above, its evaluation system can be displayed from Figure 3.
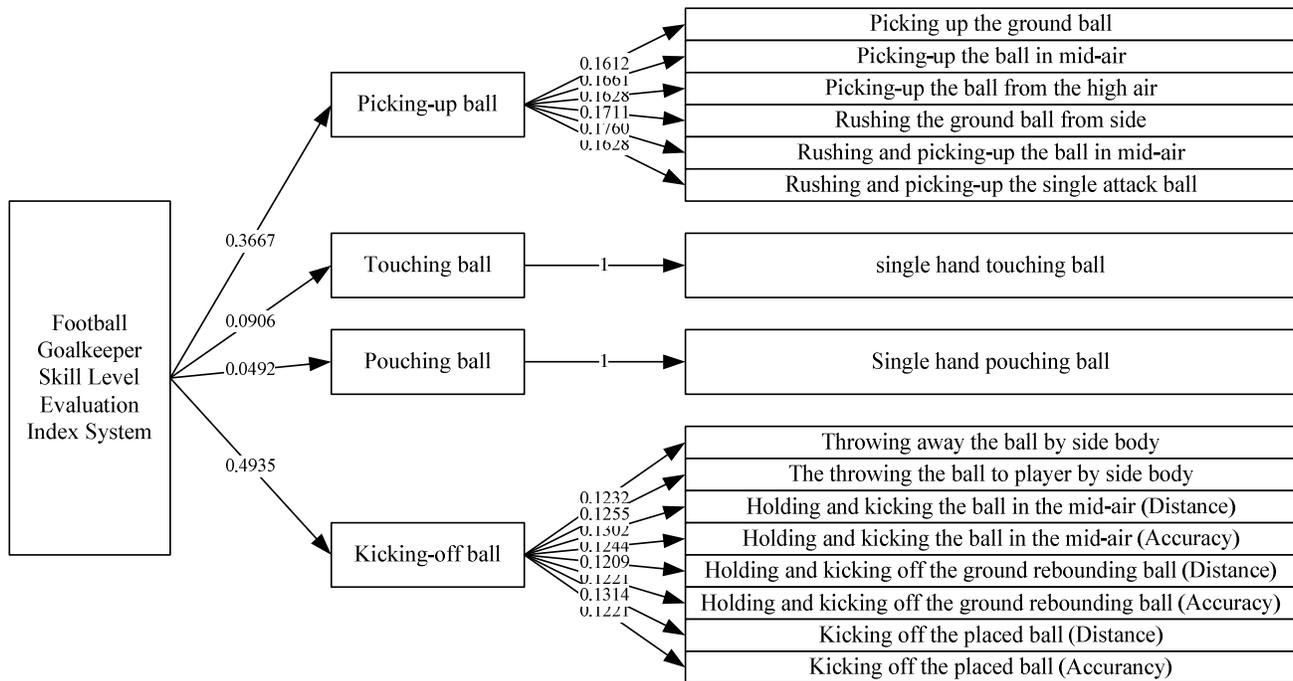

Figure 3 : The young men's football goalkeeper skill level evaluation index system structure figure

OUR COUNTRY YOUNG MEN'S FOOTBALL GOALKEEPER SKILL LEVEL EVALUATION OVERALL DEVELOPMENT CONDITIONS

The football exercise acts as a kind of sports of skill-against-type, its skill level can lead to give a full play to the competitive condition, and finally it leads a decisive effect on the development trend of match. In the process, the skill level can pose an important function on the competitive ability, at the same time, it is also the force source driving the rapid development of modern football. However in the continuous acceleration of modern sports development, the body confrontational characteristic and high-speed and high-strength features propose the requirements of skill features gradually and increasingly to the today's football players, its skill connotation is also extended accordingly. However, in the development history of recent years, it conducts much in-depth explorations for the player themselves skill movement and movement methods application extent used in the game and it is proposed with higher requirement to players skill movement assessment means and assessment ways[7]. But, in recent years, our country competitive football development doesn't reach excessive level. Be compared with other countries, it obviously lags behind at some areas. Be compared to the countries of quicker football development, its theory basis development has a certain gap, and this would lead to the practical training can't be better strengthened. On the other hand, in the process of young and teenager football training, the football skill theory is disconnected with the actuality. It would obviously have an extremely negative impact on the overall development of our country competitive football. In this case, it also should perform the continuous in-depth study and exploration on its layer of theory, makes our country football skill and tactical theory to gradually achieve rich requirements and makes the theory basis to be positive era significance for actual match training. However, the role of goalkeeper is extremely important for the application of skill and tactical of whole team, and is also the extremely special position among the team. His skill level can fully reflect the specific application level of skill and tactics for the whole team. However, our country skill and

tactical trainings to the goalkeeper still lag behind a large gap from the other football powerful countries, and there is still a large corresponding gap of skill level evaluation method.

The study by the domestic scholars on young men's football goalkeeper skill level is still in the infancy, for the young men's football goalkeeper training "assessment" selection have not established a detailed evaluation system. The scope of football match completion training and assessment is large, and the actual operation is complicated. Without a reasonable and clear assessment as guideline, it causes the practical training and assessment is not scientific and practical. This study is aimed to explore the young men's football goalkeeper skill index system, and the weight of each index, in order to establish a more reasonable goalkeeper skill level evaluation system according to the comprehensive evaluation method, and provide macroscopic theory support for the implementation of goalkeeper scientific training and assessment.

CONCLUSION

The above is this article conducts the exploration and study process to the young men's football goalkeeper skill level evaluation method. The analysis of each index, reliability and reliability verification are the key points among them, in order to make the skill level evaluation system constructed in science. In this case, it would make its summarized process of evaluation methods more scientific and reasonable. Hereby it is hoped that this article study and exploration can lay a firm foundation of theory and practice for further effective implementation of study work in future.

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