

25 - PROTOCOL DEVELOPMENT, APPLICATION AND STATISTICAL TREATMENT OF SPECIFIC TESTS FOR FUTSAL TECHNICAL FOUNDATIONS

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1. INTRODUCTION

Futsal is a sporting modality that has had a great increase in physical and technical items in recent years, highlighting in this case the state of Paraná, placing this federative unit among the first in Brazil in terms of its quality of practice. It would be unnecessary to relate the high technique of futsal paranaense, with its urgent need to associate itself, such as physical preparation and physical-technical evaluations, inherent to the modality.

This work will present a battery of specific tests for the technical fundamentals of futsal, proposing from it to deepen the discussion and the consequent contribution to the improvement of futsal training.

According to SANTANA (2015), futsal is a very popular sport in Brazil and will not fail to be. Proof of this is that the futsal federations have been running official competitions for children for many years. Therefore, it will be increasingly necessary to investigate themes that better explain different factors about the initiation of children in this modality, in order to contribute to a greater understanding in general of this phase and to set up a framework of references capable of subsidizing in particular the performance teachers, parents and leaders.

Despite the tactical evolution and improvement in the physical part, it is the technical foundations that continue to decide futsal matches. For ANDRADE (2012), "the technical improvements of the fundamentals form the basis of all tactical work of a team, so we need to organize our work plans emphasizing the fundamentals improvement (pass, reception, finishing, driving, etc.)". It can be said that nothing advances the athlete to be well prepared physically, to be well oriented tactically if, at the time of executing the technical gestures, he does not have a good use.

According to Mutti (2013), learning the movement ends with a new execution of the total movement, one or more control executions are carried out to verify the progress obtained. The more perfect the execution of the whole, the more perfect the execution of the component parts.

It is true that the technical fundamentals are worked by coaches of the futsal teams, however, most often in an empirical way. Since the initiation, whether in the futsal schools or in physical education classes, the fundamentals are part of the training programs, but without concrete data to know if there is evolution of the athletes / students or not. It is important to emphasize that, as a rule, this evaluation process does not occur in a generalized way, due to the lack of specific tests for the technical fundamentals.

2. THEORETICAL FOUNDATION

According to Ricardo Lucena (2006) are technical elements of game: the pass, the reception, the conduction, the dribble, the kick and the marking.

For Rogério Silva Melo (2011) the fundamentals are the technical elements used during soccer practice, and the most used are: pass, dominance, driving, control, dribbling, kicking and disarming.

These fundamentals are already part of the student or athlete, who even playing ball in the street or in the floodplain field, will be using kicks, passes, driving, dribbling and other situations created by himself that are part of the game and even without the purpose of training sessions end up being worked on in every ball game.

For Santana (2015), the technical profile of the modern futsal player stands out in the skills that facilitate the game of attack and the game of defense, being: feint, reception, pass, dribble, protection and kick for attack and marking, anticipation and blocking as defense skills.

The technical fundamentals are already somehow incorporated into the futsal practitioner, who needs to perfect them in search of a better performance during the games. For this the technical training sessions will serve to improve these technical skills.

However, for this improvement to take place, it is necessary to verify in which state each athlete is located within each foundation. The test battery will evaluate 7 fundamentals of the futsal game and will enable a data interpretation by checking the level of the athlete on each foundation.

According to Alexandre Apolo (2014), the most useful sequence of grounds is one that takes into account that the pass, as well as the reception along with it, are the main foundations of the game.

The next ball is extremely important to take possession of. Dribbling is a sequence and consequence of ball driving. The kick for any child who is small, without even understanding anything of futsal, executes (in his own way), can, must be very well worked along with all other grounds to get to the goal and finally, the marking, foundation inherent in futsal, as it is an extremely competitive sport.

3. METHODOLOGY DEVELOPED

To develop the methodology of this work we start from the premise of creating a battery of specific tests, for the technical fundamentals of futsal and from them, we evaluate the main technical fundamentals of futsal. This situation is due to the fact that it is the ability to execute these fundamentals with the greatest possible perfection that distinguishes practitioners of futsal from those who will become professionals of this sport.

The formulation of the test protocol will be done through exercises used in futsal training, to improve technical fundamentals, associated with real situations of play and always respecting the official rules of futsal.

After the preparation of the tests, the respective application will be carried out in a futsal team aged between 12 and 13 years, from the city of Ponta Grossa, Paraná, which will contest official competitions and present the results, commenting as a coach of futsal or a school teacher may evaluate their athletes or students and plan their work based on quantitative data and the respective statistical treatment developed.

The test battery created will evaluate 7 fundamentals of futsal, 6 of them placed by the authors cited above as essential fundamentals for the practice of futsal and 1 that will bring together the association of 4 offensive situations.

The test protocol was developed to evaluate the pass, goal kick, ball driving, dribbling, receiving or controlling ball, defense and attack.

It will be possible, from these results obtained through the application of the tests to collaborate with the planning of the work, since the coach detecting the real needs of his athletes, could have a greater income of the same ones, since a series of systematized exercises contributes to the evolution athletes / students.

4. ELABORATION OF TESTING, DATA COLLECTION AND RESULTS

The test protocol was developed with the objective of evaluating the fundamentals of the futsal game with the following variables:

- 1) Accuracy in passing after ball;
- 2) Accuracy in goal kicking at various distances;
- 3) Speed in ball driving;
- 4) Ability to execute the dribble;
- 5) Ability to receive, control and control ball;
- 6) Agility to perform defensive actions;
- 7) Agility to perform offensive actions.

For all fundamentals were awarded points, marked the shortest run time and ranked the athletes according to their performance. It was evaluated 16 athletes, who represent the city of Ponta Grossa in competitions promoted by the Federação Paranaense de Futebol de Salão. Data collection took place at Oscar Pereira Gymnasium, starting at 8:45 p.m. and closing at 12:05 p.m. results were as follows:

In the evaluation of the base pass the score is between 0 and 62 points, and the athlete must execute short, medium and long distance passes (from 5 to 25 meters) and the results presented 2 athletes with an excellent pass level, scoring 60 points, being the lowest score of the athlete who scored 8 points. The team average was 28.9 points.

In the ground kick to goal the cross was divided into 9 sectors, each with a score. The athlete executed 5 kicks to 6 meters of distance, 5 kicks to 10 meters of distance and 5 kicks to 15 meters of distance. The best result was 86 points and the worst 26 points. The team average was 56.6 points.

The third test verified the level of athletes in relation to the baseline and was to record the time in which the athlete would travel the predetermined course, keeping the ball close to his body, maintaining control over it. The team average was 9.77 seconds and the best mark was 8.59 seconds and the worst was 12.16 seconds.

The test to check the level of the team regarding the dribble ground was to pass dribbling several obstacles in the shortest time possible. The team average was 27.6 seconds, with the best dribbler getting the mark of 22.3 seconds and the worst dribbler with 33.17 seconds.

The fifth test applied verified the athlete's ability to dominate the ball and maintain control over it. For 30 seconds, the athlete must keep the ball in his control, bouncing it as many times as possible against the wall. The team average was 17.8 points being the best and worst mark 23 and 14 respectively.

The sixth and seventh tests were applied with the purpose of verifying the agility of the athlete to carry out defensive and offensive actions. The defensive test consists of executing predetermined offsets in the defensive court by placing the pre-arranged balls off the court in the shortest possible time. The team's average time was 13.4 seconds and the best and worst mark was 11.25 and 15 seconds respectively. Offensive actions - dribbling, passing, driving and kicking - should be carried out correctly and in the shortest possible time. The results of this test showed the average of the team the mark of 19.5 seconds, being the best attacker with the time of 15.84 seconds and the worst mark of 22.75 seconds.

The tests presented results so that the team is divided in the trainings, with the objective of perfecting the fundamentals according to the need of each athlete.

It was possible, after the tests were applied, to divide the work group with respect to the basis of the Pass, in the following way:

- GROUP 1: athletes who need work to improve short, medium and long distance passes;
- GROUP 2: athletes who need work to improve medium and long distance passes;
- GROUP 3: athletes who need specific work to improve the long distance pass;
- GROUP 4: Athletes needing maintenance work from the foundation pass.

For the foundation of the Goal Chute the group will be divided into:

- GROUP 1: Athletes who need to improve the short, medium and long distance kick;
- GROUP 2: Athletes who need better the short and medium distance kick;
- GROUP 3: Athletes who need to improve long distance kicking;
- GROUP 4: Athlete who need to improve the short and long distance kick;
- GROUP 5: Athletes who need to improve the medium and long distance kick.

A practical example of a futsal match situation will be used, showing how the results of the kick and pass tests can collaborate with the futsal coach as described below: an indirect foul (2 touches) appears next to the team's offensive court area. The coach who applied the tests has scientific data to put his best passer on the ball and his best finisher in conditions to carry out a goal kick. The difference to what is done in most cases today is that these best passers and finalizers are known in the visual analysis of the trainer only, and through the test results are now based on numbers.

For the basics Conducting the ball, it is observed through the results that 7 (seven) athletes are over time of the team average, and must perform specific exercises to improve this foundation. You can divide the team into 2 (two) working groups:

- GROUP 1: Need improvement in basing ball conduction;
- GROUP 2: Maintaining and improving driving fundamentals.

Through the result of the dribble foundation test the best dribbler of the team is detected. An example of practical application would be the following situation: the trainer, losing a match that is coming to an end, with his opponent with the 5th foul, being the next direct free kick, could put his two best dribblers or the two fastest dribblers by the wings trying to dribble or even suffer a lack of his opponent. Based on data, from the technical evaluation the trainer would be sure to put in those functions the athletes who obtained the best results in the test. The best dribbler of the team evaluated also obtained the best result of the team in the fundament ball conduction which corroborates the quote of Alexandre Apolo (2014):

"The basis of dribbling in futsal is a sequence and consequence of ball driving"

According to the result of the test for reception and ball dominance it is verified that 8 (eight) athletes are below the average of the team and the coach must give special attention to this ground for these athletes.

The defensive actions proposed in this protocol aims to verify the speed of execution to move 5 balls away from the half defense block in the shortest possible time, with each ball being placed to a predetermined location. With the execution of this test, it is possible to perceive which players execute with more speed the withdrawal of the ball already thinking about the next ball to be withdrawn, detecting in the athlete the sense of coverage, the defensive voluntariness and the probable efficiency in closing the spaces in the defense. It is detected that 50% of the athletes obtained above average result and putting the test in a practical situation of game we will analyze the following situation: the team is winning and the match is in its final minutes, and the coach chooses to score in his half to maintain the result.

According to the results the trained one can put in block the quartet that obtained better results in the test.

With the data collected for the offensive actions can detect the best attackers of the team. Situating the result in a match situation similar to the one described in the defense, but with the team now needing to attack the opponent, as he is losing and the match is drawing to a close, the coach based on his results would scale the quartet that obtained the best results for joint offensive actions.

5. FINAL CONSIDERATIONS

From the obtained results it is possible to conclude that even the athletes with excellent use in the test need to continue performing exercises that provide the maintenance of the evaluated foundation, but based on these results the coach or teacher of futsal would pay more attention to the real need of each group of players, seeking greater homogeneity among the team.

It was also possible to define the best passer of the team, the best short, medium and long distance finisher, the best dribbler, the best defender, among other characteristics that will contribute to the work of the coach in the team assembly, in the planning of tactical actions and in varied game situations.

In view of the natural way of developing and perfecting this test protocol, we hope to be contributing to the modality that will have more material for quantitative scientific data, to present the virtues and the individual needs of the futsal practicing athletes.

REFERENCES

- ABURACHID, Layla Maria Campos et al. The Level of Motor Coordination after a Futsal Training Program. *RBFF- Brazilian Journal of Futsal and Soccer*, v. 7, n. 23, p. 25-34, 2015.
- ANDRADE JUNIOR, JOSÉ ROULIEN DE. *Futsal - Acquisition, Initiation and Specialization*. Curitiba: Editora Juruá, 2012.
- APOLO, ALEXANDRE. *Futsal: methodology and didactics in learning*. São Paulo: Publisher: Phorte, 2014.
- FERREIRA, RICARDO LUCENA. *Futsal and the Initiation*. São Paulo: Sprint Publishing House, 2006.
- MELO, ROGÉRIO SILVA DE. *Futsal 1000 exercises*. Sprint Publishing, 2011.
- MUTTI, DANIEL. *Futsal: from initiation to high level*. Publisher: Phorte, 2013.
- SANTANA, WILTON CARLOS DE SANTANA. *Tactical analysis in high competition futsal*. São Paulo: Pedagogy of the Futsal, 2015.
- SANTANA, WILTON CARLOS DE SANTANA, REIS, HELOÍSA HELENA BALDY DOS. Female Futsal: profile and pedagogical implications. *Brazilian Journal of the Sciences of the Movement*. 2003; 11 (4): 45-50.

PROTOCOL DEVELOPMENT, APPLICATION AND STATISTICAL TREATMENT OF SPECIFIC TESTS FOR FUTSAL TECHNICAL FOUNDATIONS

The present work presents the elaboration of protocol of specific tests to evaluate the technical fundamentals of futsal. This protocol was developed based on definitions of technical fundamentals, exercises used in training and respecting the rules of sport. Pass, kick, drive, domination, dribble, attack and defense fundamentals were evaluated. The application of the tests was performed in 16 athletes aged between 12 and 13 years, who participate in official competitions in the children category. The data collected will serve to divide the work groups, seeking the improvement of the team, and improving the needs of each athlete. In addition, the results present the best athlete in each foundation, which facilitates the planning and the assembly of a team. The development of these tests should contribute to the planning of the teams, helping teachers and coaches to improve the technique of their students / athletes, basing their work on quantitative aspects that present the reality and individual capacity of the commanders.

Keywords: futsal, testing, evaluation.

DEVELOPPEMENT DE PROTOCOLE, APPLICATION ET TRAITEMENT STATISTIQUE DE TESTS SPECIFIQUES DE FONDATIONS TECHNIQUES FUTSALES

Le présent travail présente l'élaboration de protocoles d'essais spécifiques pour évaluer les fondamentaux techniques du futsal. Ce protocole a été développé sur la base des définitions des fondamentaux techniques, des exercices utilisés dans l'entraînement et du respect des règles du sport. Pass, kick, drive, domination, dribble, attaque et les fondamentaux de la défense ont été évalués. L'application des tests a été réalisée chez 16 athlètes âgés entre 12 et 13 ans, qui participent à des

compétitions officielles dans la catégorie mirim. Les données recueillies serviront à diviser les groupes de travail, à rechercher l'amélioration de l'équipe et à améliorer les besoins de chaque athlète. En outre, les résultats présentent le meilleur athlète dans chaque fondation, ce qui facilite la planification et le montage d'une équipe. Le développement de ces tests devrait contribuer à la planification des équipes, en aidant les enseignants et les entraîneurs à améliorer la technique de leurs élèves / athlètes, en basant leur travail sur des aspects quantitatifs qui présentent la réalité et la capacité individuelle des commandants.

Mots-clés: futsal, testing, évaluation.

ELABORACIÓN DE PROTOCOLO, APLICACIÓN Y TRATAMIENTO ESTADÍSTICO DE PRUEBAS ESPECÍFICAS PARA LOS FUNDAMENTOS TÉCNICOS DEL FUTSAL

El presente trabajo presenta la elaboración de un protocolo de pruebas específicas para evaluar los fundamentos técnicos del futsal. Este protocolo fue desarrollado basado en definiciones de los fundamentos técnicos, en ejercicios utilizados en los entrenamientos y respetando las reglas del deporte. Se evaluaron los fundamentos pase, patada, conducción, dominio, drible, ataque y defensa. La aplicación de las pruebas se realizó en 16 atletas con edad entre 12 y 13 años, que participan en competiciones oficiales en la categoría de los miembros. Los datos recolectados servirán para dividir los grupos de trabajo, buscando la mejora del equipo, y perfeccionando las necesidades de cada atleta. Además, los resultados presentan el mejor atleta en cada fundamento, lo que facilita la planificación y el montaje de un equipo. El desarrollo de estas pruebas debe contribuir en la planificación de los equipos, ayudando a los profesores y entrenadores en la mejora de la técnica de sus alumnos / atletas, basando su trabajo en aspectos cuantitativos que presentan la realidad y capacidad individual de los comandados.

Palabras clave: futsal, pruebas, evaluación.

ELABORAÇÃO DE PROTOCOLO, APLICAÇÃO E TRATAMENTO ESTATÍSTICO DE TESTES ESPECÍFICOS PARA OS FUNDAMENTOS TÉCNICOS DO FUTSAL

RESUMO

O presente trabalho apresenta a elaboração de protocolo de testes específicos para avaliar os fundamentos técnicos do futsal. Este protocolo foi desenvolvido baseado em definições dos fundamentos técnicos, em exercícios utilizados nos treinamentos e respeitando as regras do esporte. Foram avaliados os fundamentos passe, chute, condução, domínio, drible, ataque e defesa. A aplicação dos testes foi realizada em 16 atletas com idade entre 12 e 13 anos, que participam de competições oficiais na categoria mirim. Os dados coletados servirão para dividir os grupos de trabalho, buscando a melhora da equipe, e aperfeiçoando as necessidades de cada atleta. Além disso, os resultados apresentam o melhor atleta em cada fundamento, o que facilita o planejamento e a montagem de uma equipe. O desenvolvimento desses testes devem contribuir no planejamento das equipes, auxiliando os professores e treinadores na melhora da técnica de seus alunos/atletas, baseando seu trabalho em aspectos quantitativos que apresentam a realidade e capacidade individual dos comandados.

Palavras Chave: futsal, testes, avaliação.

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