

- increase of the efficiency in the game for weak playing posts (backcourt, center, goalkeeper).
- improvement of attack efficiency by reducing the number of attacks without shot.

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L'ANALYSE DE LA PARTICIPATION DE L'EQUIPE NATIONALE ROUMAINE AU CHAMPIONNAT DU MONDE DE HANDBALL FEMININE

Résumé:

L'objectif de l'étude est d'analyser l'évolution de la femme la plus âgée de l'équipe nationale de handball en Championnat du Monde Brésil 2011 et pour déterminer les causes qui ont conduit au dernier rang. L'efficacité d'attaque faible, les gardiens de but, des coups de 6m et l'aile d'efficacité tirs dans les matchs importants et un grand nombre d'attaques sans coup de feu a conduit à des défaites dans toutes les confrontations décisives pour la qualification.

Un autre facteur décisif a été la faible consommation de zone arrière (35 de 166 buts) et des ailes (18 sur 166 buts), le nombre de buts marqués par l'équipe.

En conséquence des 6 jeux, il ya une statistique: une moyenne de 27,66 a marqué des buts par match et 30,5 buts reçus par match.

Mots clés: handball, féminin, championnat du monde, l'analyse quantitative

INTERPRETING THE CORRELATIONS BETWEEN THE CONTROL TESTS USED IN ASSESSING THE DEVELOPMENT LEVEL OF COMBINED MOTOR SKILLS (8TH GRADE)

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Abstract:

The education of motor skills, based on the different dosing of the physical effort, involves a thorough knowledge of the various factors that determine the success of this approach. In this approach, the selection and the programming of the operational models must be realized according to their primary and secondary influences, insisting on accessible and acceptable means that according to the chosen dosing facilitate the registration of some clearly defined or complex effects depending on the theme and objectives.

Keywords: Transfer and interference of motor skills, reciprocal conditioning, relevant tests, motor capacity, physical training, conditional and coordinative motor skills, effort parameters.

INTRODUCTION

The implementation of the special syllabus designed for the experimental lot and the interpretation of the results obtained in all control trials led to the conclusion that the motor performance recorded a significant increase. However we ask ourselves how the control trials influence each other.

According to the relation between trials that can measure the same parameter or different parameters, we can anticipate the chances so that

the methodology and the system action used in order to educate an aptitude (force, for example) may have an influence and especially how much they can affect the results in other force trials or tests designed for different other aptitudes (speed or resistance for example).

Determining the degree of physical training of students involved testing with different various trials (SNSE trials and Eurofit tests), demonstrating the links between these trials requiring the calculation of the correlation coefficients. The

correlation coefficient (r) establishes the intensity of the connection between two variables, when this connection is a linear one. When the result tends towards extremes ± 1 , the link between the variables x and y is stronger, and, as the result approaches 0, the connection intensity decreases.

The correlation coefficient (Pearson) for parametric phenomena has the following formula:

$$r = \frac{\sum_{i=1}^n (x_i - \bar{x}) \cdot (y_i - \bar{y})}{n \cdot \sigma_x \cdot \sigma_y}$$

where:

x_i, y_i = values of the two variables;-

\bar{x}, \bar{y} = averages of the two variables ;

n = number of cases;

σ_x, σ_y = standard deviations of the two distributions.

WORKING HYPOTHESIS AND RESEARCH STRUCTURE

We I have considered that by studying the correlations between all the control tests that are part of the employed test set (19 tests), one could obtain useful information regarding the favorable or negative transfer of the approached motor skills. The results would allow for a correct planning of the means required for the development of motor abilities in order to accelerate the favorable mutual influence phenomenon displayed by various motor skills and their adjacent combinations. The work carried out on value groups took place at School no. 33 in Galati, on a 58-student lot. The results obtained have consequently been statistically processed, interpreted and displayed in graphs.

RESULT ANALYSIS AND INTERPRETATION

All the correlations between trials are represented in the graph below, the links of lower-intensity, medium or strong being detailed as follows.

A high correlation (high connection intensity) may be obtained between the following events, where $r > 0.618$:

- the 5x10m bi-directional running and the resistance running;
- the resistance running requiring getting the trunk up from a dorsal-down position and a facial-down one;
- the coxo-femoral mobility and getting the legs up from a dorsal-down position;
- the square test and jumps from the gym bench;
- push ups and getting the pelvis up from the sitting position;
- the hanging position and dynamometry.

Regarding these closely related events, the test results have a great influence on each other.

A moderate correlation (medium connection intensity) is obtained between the events where the value ranges from 0.500 to 0.617:

➤ the speed run (50m) with the following elements: resistance running, the "touch the plates" test, the 5x10m bi-directional running and the gym bench jump;

➤ the 5x10m bi-directional running, the "touch the plates" test, the Matorin test, getting the legs up from the down-dorsal position;

➤ the resistance running with the following elements: the Flamingo test, the hanging position and jumps from the gym bench, the coxofemoral mobility and the Matorin test, as well as getting the trunk up from the down-dorsal position and getting the pelvis up from the sitting position;

➤ the scapulo-humeral mobility with the following elements: push ups, the hanging position, A.M.O., getting the trunk up from the down-facial position and getting the pelvis up from the sitting position;

➤ the "touch the plates" test and: the Flamingo test, the square test, getting the pelvis up from the sitting position and jumps from the gymnastics bench;

➤ the Matorin test with: the Flamingo test, the square test, the length jump from a fixed position and jumps from the gymnastics bench;

➤ the Flamingo test and: the square test, getting the legs up from the down-dorsal position, jumps from the gymnastics bench;

➤ the square test with: the length jump from a fixed position;

➤ push ups with: the hanging position, A.M.O., dynamometry, getting the trunk up from the down-dorsal position, getting the legs up from the down-dorsal position;

➤ A.M.O. and getting the trunk up from the down-facial position;

➤ getting the trunk and the legs up from the down-dorsal position, getting the trunk up from the down-facial position;

➤ getting the trunk up from the down-facial position and jumps from the gymnastics bench.

The other event correlations not having been mentioned display more reduced link intensity values and can be considered to have a **weak correlation**: $361 < r < 499$.

CONCLUSIONS

Taking into consideration the positive correlation found in all the test combinations used so far, some of them measuring apparently unrelated skills or even opposed skills (speed and endurance for example), the aspect may be explained by the initial low physical training level which made accumulations possible in all the motor skills, the solicitations prescribed for a skill (strength, for example) displaying a positive influence on the other skills (speed, local muscular

endurance, mobility, movement control and precision etc.).

All in all, it can be stated that the unilateral approach regarding the improvement of motor skills in lower secondary education is not sustained by solid arguments, the entire physical training process requiring a **systemic planning and approach**, where the mutual influences based on the transfer phenomena are favored, augmented and stressed upon by the results of the formative experiment.

Even if there are countless situations where the good and very good correlations may be justified by the resemblance of the events, through the same energetic mechanisms and solicited muscle groups or coordination processes involved (see the good connection between all the coordinative capacity events, the force ones of the superior limbs, abdominal and of the back or between those soliciting the speed or the speed-coordination combination), there are numerous examples where these considerations are no longer logical, thus new explanations are needed. For

example, the good correlation between the resistance running and certain force events might be based on the importance of the abdominal muscles in the respiration process which favors a high performance in the endurance tests. The strong connection between the two mobility events with many force tests (static, dynamic, endurance-like explosive) must not be forgotten, for it may reconsider the importance of this skill for the physical education lesson.

At a closer glance, the study concerning the correlation between the assessment tracks used so far will lead to the understanding of the mutual connection between the different manifestation forms and combinations of the motor skills. This aspect favors the selection or planning of means with a varied influence (operational models), which, depending on the goals and themes from the approached motor skills and based on a rational dosage and programming of the effort, should be able to sustain the multilateral influences rapidly leading to the optimization of the education level regarding the motor skills

No.	1 Speed run 50m	2 Back forth 5x10 m	3 Al.re z	4 Hip mob- ility	5 Scap hum. mob- ility	6 Touc h plate s	7 Mato rin test	8 Flam ingo test	9 Squa re test	10 Push -ups	11 Hang upside down	12 AM O	13 Dyna mo	14 Tors o up dorsa l down	15 Legs up dorsa l down	16 Trun k up down face	17 Basin up from sittin g down	18 S.lg. loc	19 Jum p b.gim .
1		0,591	0,548	0,462	0,420	0,541	0,407	0,426	0,439	0,371	0,402	0,448	0,403	0,368	0,396	0,411	0,376	0,362	0,523
2			0,633	0,418	0,407	0,560	0,554	0,401	0,392	0,487	0,413	0,401	0,370	0,409	0,521	0,412	0,387	0,370	0,435
3				0,414	0,437	0,417	0,453	0,610	0,431	0,585	0,540	0,422	0,403	0,624	0,471	0,621	0,449	0,409	0,581
4					0,465	0,478	0,512	0,470	0,432	0,376	0,397	0,450	0,392	0,516	0,630	0,416	0,531	0,490	0,417
5						0,486	0,439	0,447	0,422	0,519	0,606	0,552	0,399	0,373	0,428	0,580	0,503	0,426	0,424
6							0,466	0,510	0,563	0,458	0,442	0,405	0,500	0,451	0,440	0,423	0,505	0,469	0,572
7								0,576	0,562	0,410	0,477	0,366	0,429	0,405	0,438	0,483	0,410	0,545	0,589
8									0,566	0,451	0,429	0,407	0,384	0,427	0,592	0,498	0,414	0,457	0,600
9										0,396	0,389	0,461	0,419	0,425	0,452	0,446	0,479	0,594	0,630
10											0,514	0,587	0,513	0,599	0,534	0,433	0,624	0,420	0,463
11												0,424	0,637	0,418	0,432	0,428	0,434	0,441	0,460
12													0,405	0,467	0,406	0,615	0,378	0,459	0,423
13														0,445	0,478	0,491	0,459	0,464	0,427
14															0,558	0,596	0,443	0,474	0,419
15																0,455	0,388	0,421	0,427
16																	0,396	0,495	0,579
17																		0,442	0,424
18																			0,375
19																			

Graphic - Representation of the correlation intensity between tests

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**INTERPRÉTATION DES CORRELATIONS
ENTRE LES TESTS DE CONTROLE UTILISES
POUR EVALUER AU NIVEAU MOTEUR LE**

**DÉVELOPPEMENT DES COMPETENCES
COMBINES (8e ANNEE)**

Résumé: L'enseignement des aptitudes motrices conformément au dosage différencié de l'effort physique implique une connaissance approfondie des facteurs qui conditionnent la réussite de cette démarche. Dans ce sens, la sélection et la programmation des modèles opérationnels doit se réaliser en concordance avec leurs influences principales et secondaires ; il faut insister sur les moyens accessibles et attrayantes qui, en fonction du dosage choisi, facilitent l'enregistrement d'effets complexes ou clairement délimités en fonction de la thématique et des objectifs.

Mots-clés: transfère et interférence des aptitudes motrices, conditionnement réciproque, tests pertinents, capacité motrice, préparation physique, qualités motrices conditionnelles et coordinatrices, paramètres de l'effort.

**FORECASTING THE RANKING OF IRAN'S NATIONAL FOOTBALL
TEAM BY FIFA. TWO PREDICTING MODELS: ARTIFICIAL
NEURAL NETWORKS AND AUTOREGRESSIVE-INTEGRATED
MOVING AVERAGE**

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Abstract:

Prediction of the ranking of the athletes in sports is a complicated task just like other subjects in politics and economics. But nowadays there are some models utilization which, we can predict, to some extent, future results and rankings. The aim of the present study is to provide a predicting model based on ARTIFICIAL NEURAL NETWORKS and Autoregressive-Integrated Moving Average, so that one can anticipate the ranking of Iran's National Football Team [NFT] by FIFA.

Keywords: Modeling, predicting, artificial neural networks, FIFA ranking, autoregressive-integrated moving average

INTRODUCTION

It is manifest that all branches of science such as physical education need the prediction of results and analysis of their performances in their way to progress, in order to achieve further success, and for such anticipations, the utilization of other mathematical sciences has drastically increased. After almost more than half of a century of football activities in our country, nowadays this sport has attracted many followers from the various parts of Iran and Iran's National Football Team has attempted to become the winner of the Asian Olympic Games, the Asian Nations' Cup and the Asian Champions League many times, and has qualified two times in the Olympic Games and three times in the World Cup

Series. The previous decade was the period of introducing Iran's Football to the world, to the extent that just in that decade Iran's national football team scored a hundred standing in FIFA ranking and introduced outstanding players to the greatest teams of the European leagues.

At the end of each month the International Football Federation ranks the teams which are members of this federation, based on their performances [1]. The ranking position of many teams changes frequently, which is the result of their performance during that month. According to the available statistics of the last 120 months of the rankings of the Federation, South American and European teams have always taken the first ranks, and