

PLAYER SELECTION PROCEDURES IN TEAM SPORTS GAMES

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Summary

Attention is focused on the fact that talent identification, players' potential determination, selection of players for certain teams, as well as a design and application of developmental training programmes, aimed at the improvement of actual play quality, are the most important coach's duties which simultaneously determine the development of a particular sport game on a global level. Since players are the carriers of play concepts and the producers of competition achievements, their selection is a fundamental goal of professional work in sports clubs. The assumed future development of sports games will probably erase the strict differences among the basic play positions, but roles and tasks will remain crucial components of technical-tactical activities players are bound to perform when playing a particular post. Due to their obligation to take over the responsibility to play various roles in different phases of the game, the players must adopt and perfect universal technical-tactical skills and knowledge (polyvalence). Play roles are dynamic, probably growing even ever more dynamic. They depend on the momentary position of the ball, on the position of the team-mates and the opponents on the court, and on the play phase and concepts of play. In the selection of players the application of objective, scientifically founded methods is indispensable. Unfortunately, contemporary developmental level of kinesiology does not allow entirely objective exploration of players as biological, psychological and sociological entities. Therefore, it is necessary to analytically dissolve the sport potential of a player (the basic and specific anthropological characteristics) and his/her actual play quality into a series of measurable and non-measurable components.

Key words: procedures, selection, forming, team games

Introduction

Modern team sports games impose ever greater requirements on players' potential, sport selection and sports preparation is a general conclusion of many scientific research studies and expert knowledge and experience of top level coaches. Evaluation of overall potential and actual quality of players, as well as team and play concept selection is a never-ending, organised process the purpose of which insurance of high performance of players and sport achievements. In top-level, professional sport teams the leader of the process is the principal coach together with his/her team of experts and external associates. They utilize available scientific findings and inferences, expert knowledge, intuition and experience (Dežman, 1988, 1998; Nikolić, 1993; Trninić, 2006) to make the decision about player selection and training programmes based upon the evaluated: relevant motor features (high level of coordination, accuracy, speed, balance, flexibility, power, maximal and elastic-reactive strength, agility, reaction and action speed of arms and legs); optimal body structure and composition (basketball vs. water polo); aerobic, anaerobic and muscular endurance (working capacity of a player); specific structure of cognitive abilities; conative features or personality traits (high

frustration tolerance, self-control, self-discipline, commitment, instrumental aggressiveness, low anxiety and others); structure of technical-tactical knowledge, skills and habits (preferably the one which enables player to perform well on his/her primary play position, but also on other positions, too); structure of player's actual quality (Trninić, 2006). Work with athletes of various sports and of relevant features and abilities developed above average includes four procedures that indispensably require multidisciplinary scientific and high expert approach: **detection** and **recognition** of player's potential, **orientation and selection of players** and the **development of actual player's quality**. **Detection** is a process of spotting, singling out potential young athletes, whereas **recognition** is the identification of players during the process of sport preparation who have the potential for team sports games. The results obtained from the continuous assessing of player's physical condition potential, as well as evaluation of his/her specific and/or favourable psycho-social characteristics and situation-related efficiency are the crucial preconditions for player selection and his/her sports development of player's overall potential and actual quality.

Orientation and selection regards continuous evaluation of players' potential and his/her actual quality across all the development periods. It includes the selection of the most suitable player or the group of players who are able to solve the assigned play tasks and roles. It is extremely important in team sports games. The **development of actual quality** of players evolves during entire sports career of theirs driven by training programmes of gradual acquisition, adoption and mastering of technical-tactical knowledge, skills and habits. The target is to enhance the overall performance of players which is determined by the technical-tactical, physical, psychosocial, theoretical and competition preparedness.

Procedures

(of players' selection for a particular play position or for several of them)

The goal of the coaching expert staff in top-level sports teams is to find out both the position and the role most suitable for a particular player, whereas the goal of the player selection process for a particular team is to choose the most suitable player for a particular play position and role (Gabrijelić, 1977; Dežman, Trninić, & Dizdar, 2001). The model of player selection for a particular play position implies nine steps. These nine steps are building elements of the respective expert system (Figure 1). Step one – the detection and recognition of player's potential (Trninić, 1995, 1996). The aim is to determine relevant abilities and characteristics due to their nature of being the crucial precondition for the orientation of players into team sports games, as well as for training programmes aimed at player's proficiency enhancement for particular tasks and roles in the game. Namely, the classification of play tasks enables the definition of the required profile of players. Step two – the assessment of the differences between players' biological age (retardants and accelerants), training experience and chronol. age.

Athletes who mature faster (accelerants) and who have longer training experience are more efficient in play (situation-related efficiency or game statistics) than their peers who are slow in maturing (retardants). Therefore, it is important to know that the retardants may have a considerably larger potential than the accelerants. Namely, the athletes who are slow developers may, from the long-term point of view, achieve later far larger situation-related efficiency (better performance) in their sports game. Besides, player's training experience may also mask his/her real potential because perennial training and workload have already improved/developed his/her potential and performance. Step three – The comparison of the player's potential assessment results to the model values for a particular gender, age and quality level of competition.

The selection of to-be-in-future-players is based upon meeting very strict criteria (model characteristics) for a particular type of players (Trninić, Perica, & Dizdar, 1999; Trninić, & Dizdar, 2000; Trninić, Dizdar, & Dežman, 2000). Step four – The orientation of a player to the primary position. It is performed on the basis of player's potential, but not earlier than the age of postpuberty. Until the junior selection, players should be taught to play on several play positions, and only in the age of juniors they should develop their proficiency in tasks and roles of their primary play position. Step five – The assessment of player's actual quality grounded on the system of evaluation criteria of play in defence and offence. A coach should be acquainted with the importance coefficients (ponders) of criteria for a particular play position (Dizdar, 2002). The most important play-position-specific player's qualities in play in offence and defence are assessed.

Step six – The assessment of player's consistency (in every training session and match) with the method of standard deviation (Dizdar, 2002). It embraces the methods of monitoring and verifying the player's actual quality and the evaluation of its stability. When evaluating the achieved level of performance, the following question should be answered to: what should be assessed first in a certain player type, how is it assessed (e.g. by the integration of the objective, measured, and the subjective, judged, actual quality rating), how often is it evaluated (a suggestion: in each situational training session and in every match).

Step seven – includes parallel analyses of overall player's potential and overall actual play quality of his/hers, that is, the capacity for progress is determined. The larger the difference between the potential and the actual quality, the greater the possibility of player's progress in his/her sports career subject to the condition of systematic training and enough competition experience available to him/her (Trninić, 2006). Step eight – The selection interview: to a goal oriented dialog among the coach, the psychologist and an athlete. It is conducted in order to obtain the insight into the player's attitudes, interests, his/her system of values, his/her convictions, inner (intrinsic) and outer (extrinsic) motivation and certain, relevant personality traits and psychosocial attributes ... The factographic structured interview enables the determination of facts about an individual player (e.g. about training experience, education level, family, etc.). The psychodiagnostic interview enables the assessment of player's personality and getting an insight into his/her specific abilities and probable personal issues (Cox, 2005). Step nine – the selection of the player based on the synthetical judgement resulting from the comparison of overall player's potential to his/her momentarily state of actual play quality of his/hers and the interview.

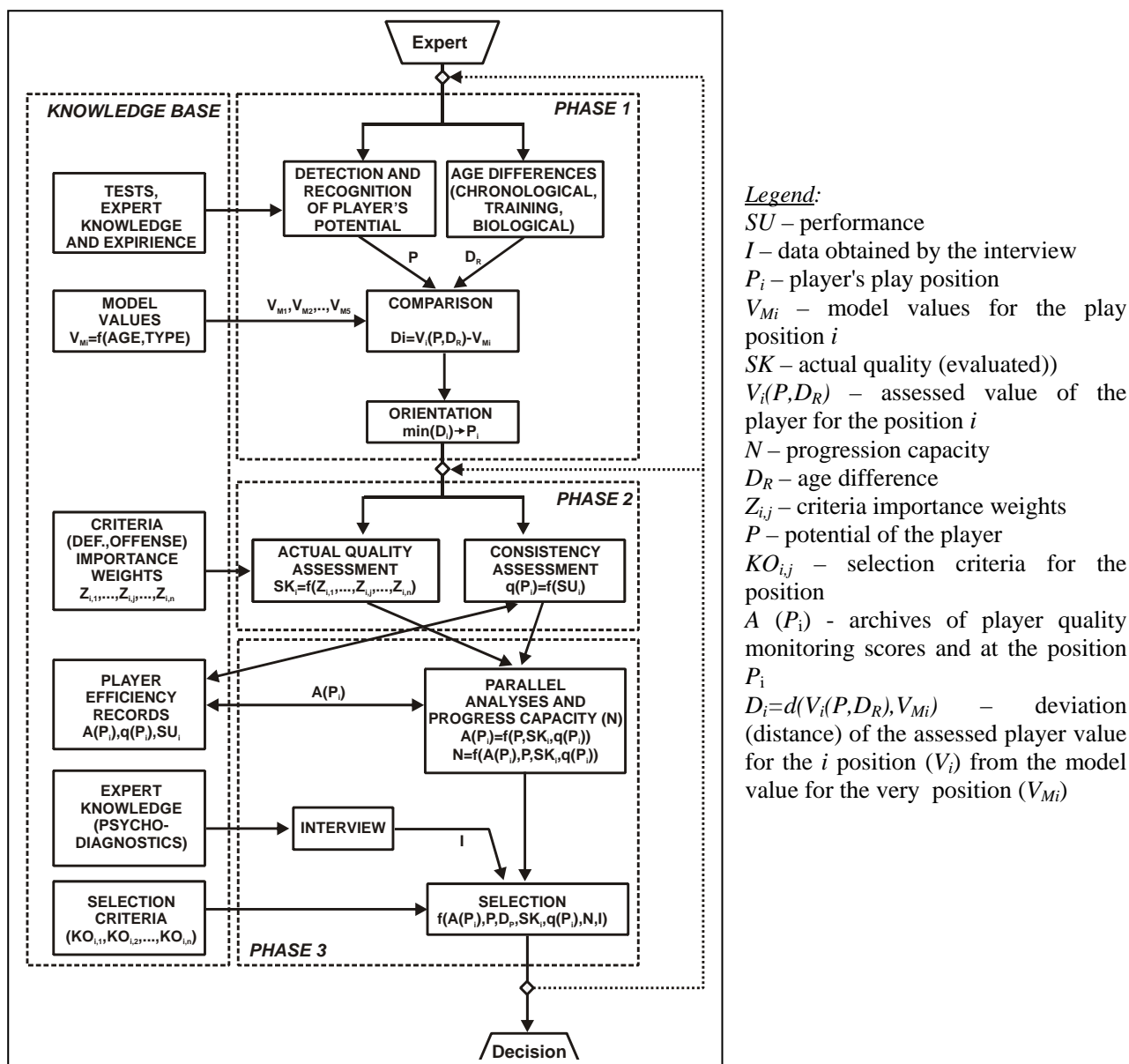


Figure 1. Player selection model for a particular play position

Pseudocode of the player selection model

1. Assess the potential P (abilities, features, knowledge, skills and habits in play)
2. Assess the difference between player's chronological, training and biological age
3. Compare the player's potential with the model values for a particular age and player type
4. Direct the player to the primary play position P_i using the data obtained in steps one to three
5. Assess actual play quality of players respecting importance weights (ponders) Z_{i,j}
6. Assess performance consistency in a training session and a match game by observing situation-related efficiency and using the method of standard deviation value q (P_i)
7. Compare the player's potential to his/her overall actual quality (compare P and q (P_i)); archive the results in order to continuously monitor performance / situation-related efficiency (with A (P_i) denote the archive of monitoring the player's quality on the position P_i; based on the computed data A (P_i), P (P_i), q (P_i) assess his/her progression capacity
8. By the interview collect the data I
9. Based on the total data obtained make a synthetic judgement about the player's potential and current actual play quality level; in accordance with all that, perform the selection of a player.

Modules

(of expert player selection system in sport games)

The expert system, represented in Figure 1, can be divided into four basic modules:

1. *Knowledge base* which includes various kinds of knowledge and data related to the diagnostics of overall potential (test batteries, systems of criteria and their importance weights/ponders, and model values respective to age and/or a player type).
2. Module (*Phase 1*) for an early selection of a play position based upon the detection and recognition of the player's potential (P) and for corrections regarding age (chronological age, training experience, biological age). Regarding the recognised potential P and age difference D_R , the momentary actual play quality level is being assessed and compared to the model values for a particular play position. The play position with the smallest deviation D_i is suggested to be the player's primary play position (P_i).
3. Module (*Phase 2*) is related to performance, that is, to the assessment of actual play quality (SK_i) and the consistency of player's situation-related efficiency when playing the particular play position ($q(P_i)$). To evaluate actual quality of the player, it is indispensable to know importance weights of each and every criterion for play in defence and offence. Situation-related efficiency consistency assessment is based upon the data obtained from any situational training session and match game.

4. Module (*Phase 3*) integrates the subjective and objective evaluation results of player's actual quality on which the decision is made the selection. Data storage is performed constantly for the continuous monitoring of player's performance. The file consists of the data on the player's potential, his/her actual quality and the assessed player's consistency, obtained by the monitoring situation-related efficiency with the method of standard deviation value $q(P_i)$. Based on this information, the player's capacity for progress N is also computed. To make the decision, we need also the data obtained by the interview, for which the stored psychodiagnostic expert knowledge and experience are needed. The selection function depends, apart from the player's capacity for progress, on his/her training and biological age difference as well.

Conclusion

Modern team sports games impose ever greater requirements on players' potential, sport selection and sports preparation. The proposed selection procedure algorithm integrates all that body of knowledge and facilitates decision making in team sports games. It is assumed that the future developments will need more and more versatile players, that is, the players who can satisfy performance criteria on two or even more play positions. For players' overall quality it is only important what and how many tasks they can perform, not which is their primary positions. Also, their contribution to the team play is of the uttermost importance – team games are played by individuals, but only successful and well-composed teams win.

Literature

- Cox, R.H. (2005). *Psihologija sporta, koncepti i primjene*. (In Croatian). Jastrebarsko: Naklada Slap.
- Dežman, B. (1988). *Določanje homogenih skupin na osnovi nekaterih antropometričnih in motoričnih razsežnosti pri mladih košarkarjih*. [Dissertation]. (In Slovenian). Ljubljana: Fakulteta za telesno kulturo.
- Dežman, B. (1998). *Osnove teorije treniranja v izbranih moštvenih športnih igrah*. (Skripta). (In Slovenian). Ljubljana: Fakulteta za šport Univerze v Ljubljani.
- Dežman, B., Trninić, S., & Dizdar, D. (2001). Expert model of decision-making system for efficient orientation of basketball players to positions and roles in the game – empirical verification. *Collegium Antropologicum*, 25 (1), 141-152.
- Dizdar (2002). *Vrednovanje skupa metoda za procjenu stvarne kvalitete košarkaša*. [Dissertation]. (In Croatian). Zagreb: Kineziološki fakultet.
- Gabrijelić, M. (1977). *Manifestne i latentne dimenzije vrhunskih sportaša nekih momčadskih sportskih igara u motoričkom, kognitivnom i konativnom prostoru*. [Dissertation]. (In Croatian). Zagreb: Fakultet za fizičku kulturu.
- Nikolić, A. (1993). *Per aspera ad astra*. Beograd: Playmaker CO.
- Trninić, S. (1995). *Strukturna analiza znanja u košarkaškoj igri*. [Dissertation]. (In Croatian). Zagreb: Fakultet za fizičku kulturu.
- Trninić, S. (1996). *Analiza i učenje košarkaške igre*. Pula: Vikta.
- Trninić, S., Perica, A. & D. Dizdar (1999). Set of criteria for the actual quality evaluation of the elite basketball players. *Collegium Antropologicum*, 23 (2), 707-721.
- Trninić, S., & Dizdar, D. (2000). System of the performance evaluation criteria weighted per positions in the basketball game. *Collegium Antropologicum*, 24 (1), 217-234.
- Trninić, S., Dizdar, D., & Dežman, B. (2000). Empirical verification of the weighted system of criteria for the elite basketball players quality evaluation. *Collegium Antropologicum*, 24 (2), 431-442.
- Trninić, S. (2006). *Selekcija, priprema i vođenje košarkaša i momčadi*. Zagreb, Vikta-Marko.

POSTUPCI IZBORA IGRAČA U MOMČADSKIM SPORTSKIM IGRAMA

Sažetak

Pozornost i fokus su stavljeni na činjenicu da identifikacija talenata, određivanje potencijala igrača, selekcija za određene ekipe, kao i dizajn i primjena razvojnih trenažnih programa, koji ciljaju na poboljšanje aktualne kvalitete igre, su najvažnije trenerove zadaće koje simultano određuju razvoj pojedine sportske igre na globalnoj razini. Budući su igrači nositelji koncepta igre i procedure natjecateljskog postignuća, njihova selekcija je temeljni cilj profesionalnog rada u sportskim klubovima. Pretpostavljeni budući razvoj sportskih igara vjerojatno će izbrisati stroge razlike između temeljnih igračkih pozicija, ali će uloge i zadaće ostati ključne komponente tehničko-taktičkih djelovanja igrača koje oni izvršavaju kad se nalaze na nekoj poziciji. Zbog njihove obveze preuzimanja odgovornosti i igraju različite uloge u različitim fazama utakmice, trebaju usvojiti i usavršiti univerzalna tehničko-taktička umijeća i znanja (polivalentno). Igračke uloge su dinamičke, i vjerojatno će biti sve više i više dinamičke. One ovise o trenutnom posjedu lopte, poziciji suigrača i protivnika u polju, kao i o fazi i konceptu igre. U selekciji igrača primjena objektivnih, znanstveno utemeljenih metoda je nezaobilazna. Nažalost, današnja razina razvoja kineziologije ne dopušta objektivno utvrđivanje igrača kao biološkog, psihološkog i sociološkog entiteta. Zbog toga je neophodno analitički utvrditi sportski potencijal igrača (temeljna i specifična antropološka svojstva) i njegovu/njenu aktualnu igračku kvalitetu kroz seriju mjerljivih i nemjerljivih komponenata.

Ključne riječi: postupci, odabir, oblikovanje, momčadske sportske igre

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