INFLUENCE OF COACH'S LEADERSHIP BEHAVIOUR AND PROCESS OF TRAINING ON PERFORMANCE AND COMPETITION EFFICACY IN ELITE SPORT

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Abstract
Coach’s leadership behaviour and the training process in a certain type of sports are primarily related to selective decision-making, knowledge transfer, motivational techniques and guidance and preparation of an individual and/or group towards reaching set goals. An expert coach who has an appropriate relationship with an athlete creates a two-way and reciprocal interaction in a sports context. Each athlete has his mode of training and adequate reactions to different models of leadership. There is an empirical support to the claim that performance and competition efficacy are determined by coach’s behaviour and the training process. Parallely, coach’s leadership behaviour must be synchronised with the characteristics of athletes and situational determinants. In order for a leadership model to be successful, it is necessary to apply a system of integrative evaluation of genetic potential and total efficacy in a certain sport, and also to apply methodologies of integral sports preparation. While doing so, it is of high importance for appropriate modelling of the sports preparation process to connect the objective and subjective personality and motivational structure evaluation of the athlete. Therefore, the task of the coach is establishing and recognising athlete’s characteristics and adapting leadership behaviour and training process not only to the state of an individual and a group, but also to the situation, goals and development of the athlete’s career. Also, the role of the coaching team in the growth of talented athletes is to enable a quality cooperation of different profiles of experts, that is, to apply a transdisciplinary approach in which the role of the head-coach and his associates is to find the best way to develop the overall potential of the athlete and the entire team.

Key words: role, coach, selection, development, sports

Introduction
The development of potential elite athletes in individual and team sports is a long-lasting process in which, under the influence of a leadership model and the mode of the training process, the development of motivation, individual and team performance and competition success rate are enforced. On one hand, the personality of the coach and his competition experience and his experience in the sports preparation process, competition success, and ability to transfer knowledge can have an important influence on the accomplishment of an individual athlete in elite sport. Enorme knowledge and skill is needed in managing athlete’s potential development for a successful coach’s leadership behaviour and training. On the other hand, it is assumed that developing athlete’s personality, motivation and motor skills consequently determines his performance and efficacy in elite sport. The responsibility of the coach, the expert and science team is shown in adequate genetic potential evaluation and in the development of integral athlete preparation. For this reason, we can probably accept the claim by Barić (2007) that says that the coach is one of the most important factors that affect athlete’s development and progress. Coach’s ability to create an environment that enforces athlete’s optimal learning and progress has become one of the key factors of athlete’s development (Horton et al, 2005). Coach’s leadership behaviour can be defined as a process of influencing the individual and the group that strive towards set goals (Chelladurai & Reimer, 1998). Additionally, motivation and learning are regulators of the course of development for elite athletes and their behaviour. Earlier research based on modern theories of sports motivation take that the coach is one of the key factors that affect the creation of a motivational climate (Barić, 2007). In other words, coach’s motivation could have a major influence on his/her management behaviours that could take turns in causing differences in overcoming types of athlete motivation, considering their goal selection, and could also affect athlete’s perception of the coach. Further more, all of the above mentioned affects his/her sports performance and competition efficacy.
It is generally assumed that coach's leadership behaviour is connected to athlete's performance and competition efficacy. In the research conducted, it has been shown that average team perception of coach's leadership behaviour is an important predictor of competition success (Weiss & Friderichs, 1986), and also that there is a positive connection between coach's positive feedback and the athlete's perception of his own performance, which can probably be explained by the influence of the informational and motivational strength of the correlation. This is manifested on the athlete's motivation and his tries to invest more effort which improves his actual performance (Horne & Carron, 1985). Barić (2007) in his research concludes that athlete's perception of pressure is mostly a consequence of the coach's goal direction towards result. Accordingly, results of the mentioned research have shown that highly intrinsically motivated coaches with clear goal orientation have the biggest contribution to enforcement of intrinsic motivation of their athletes.

Influence of coach's leadership behaviour on athlete's motivation, performance and competition efficacy

The coach is an important situational factor that with leadership behaviour probably affects motivation, performance and competition efficacy. Barić (2005) states that the task of the coach is to provide support and award the athlete for efficient performance and successful learning or progress. On the other hand, coach's leadership behaviour probably affects the motivation which is a function of dispositional treats of an individual, but also situational characteristics of a sports context (Barić, 2007). It is assumed that athlete's motivation and performance quality develop and change under the influence of many factors. Likewise, it is assumed that the expert coach influences goal orientation towards learning and the task (task orientation), as well as goal orientation towards result and own superiority demonstration (ego orientation).

Goal orientation is a relatively stable dispositional tendency, but it can change in a concrete situation. What determines such a change, are situational factors – demands which are put before the athlete by the social surroundings, that is, the motivational climate (Barić, 2005). Accordingly, the connection between goal orientation and motivational climate is reciprocal (Barić, 2007). One of the factors that influences athlete's motivation, performance and competition efficacy is the expected self-efficiency and setting goals (Tušak et al, 2003). Also, sports motivation may affect four factors: activity selection, activity persistence, effort investment during exercise and competition, and quality of sports performance (Singer and Orbach, 1999).

Designing a successful and far-reaching plan of sports preparation, it is necessary to incorporate all the relevant aspects of sports performance. Setting up highly demanding, challenging, and realistically achievable goals can represent an advantage in accomplishing performance quality and competition excellence in sports.

![Figure 1. Connection between expected self-efficiency, goal setting and performance presented as closed loop and scheme (modified according to Tušak et al, 2003)](image)

Locke, Motowidlo and Bobko (1986) according to Tušak et al (2003) assume that a higher level of noticed self-efficiency leads individuals towards setting higher goals because the person is more motivated and improves his/her performance (Fig. 1). Lee (1988) according to Tušak et al (2003) uses empirical data to support the hypothesis that goal-setting directly affects performance. The hypothesis on the role of setting goals as a mediating process between self-efficiency and performance is confirmed. In figure 1, we can see a closed loop and a scheme with feedback, where the level of athlete's performance affects his expected self-efficiency.

In the process, it is necessary to divide the self-efficiency of an individual in a team from collective self-efficiency that represents athlete's perception of the level of efficiency of the team as a whole. Setting team goals, a low level of goal conflict and stress, as well as coach's support are the main attributes that positively affect individual and team performance (Tušak et al, 2003). Athlete's potential and situational determinants are in interaction and are manifested indirectly onto the individual and team performance (Trninić, 2008a). Tušak et al. (2003) say that the coach, together with the other mentioned roles, also plays the role of a manager.
I.e. organization, financial inspection, schedule planning, acquiring new members, public relations, and that his personality is an important factor in establishing authority. Also, one of the crucial factors in guiding athletes is his ability to cooperate (Paranosić, 1975). Coach's leadership is also evident in formation of optimal transformational processes and in encouraging development of the athlete's emotional stability and instrumental aggression, because these psychological variables are connected to performance and competition efficacy (Trninić et al, 2008b).

What must be in the function of an adequate development of athlete's personality, is his comprehension of tasks within sports roles, but also establishment of a biological and a psychological balance that is often disturbed in elite sport (Tušak and Faganel, 2004). It is obvious from all this that the coach is the person who leads, guides and transforms the athlete. It is not rare, however, that elite coaches are incompatible with a certain team, athlete or sports club, which can manifest on athlete's performance and competition success rate (Kajtna and Tušak, 2007). Athlete's motivation is upgraded, developed and changed on long-term, under different influences of the environment during participation in sports activities (Barić, 2007).

Situational factors interactively affect athlete's dispositions; variations in sports behaviour which are functions of personal characteristics (goals, skills, knowledge, personality traits, etc.) and environmental influences (physical and social). Orientation on dispositional goals and situational determinants of athletes, like coach's authoritative behaviour and team motivation climate, interactively affect behaviour, efficiency and comprehension of athletes. Barić (2007) has investigated the relations between motivational structure of the coach and his/her behaviour in the role of a leader, and motivational structures of athletes combining variables and anticipated relations from modern motivational theories and models of leadership in sports. Canonical discrimination analysis has shown that highly motivated coaches with clear goals had the highest contribution to intrinsic motivation of athletes.

Results of group analysis have shown two different types of coaches. The first type is mostly directed towards the athlete and less on the ego, and the second type is less oriented on the athlete and more on the ego. The first type feels less pressure and is more supportive, gives more guidance, and gives more positive feedback to his athletes. Testing differences between motivational inclinations of athletes considering different types of coaches, has proposed that athletes who were trained by coaches of the first type enjoyed it more, and got greater pleasure from their sports, and also invested more effort into training and competition; they were highly task-motivated, and moderately ego-motivated, they perceived the motivational climate of the team as an atmosphere of self-improvement, and that their motivational structure is more matching to the coach's, compared to other athletes.

**Analysis of coach's leadership behaviour and training process**

Coach's leadership behaviour is a behavioural process through which an individual or a group can be influenced with the purpose of realization of set goals (Barić, 2005). This demands indirect interaction coach-athlete and/or coach-group. The role of an expert coach is to help the athlete in reaching adequate individual and team performance and competition efficacy. In the process of sports preparation and competition, the expert coach has the job to lead the athlete to accomplishing set goals. Chelladurai (1978, 1980) created a pioneer paper on leadership in sports which lead to establishing a multidimensional model of leadership as an interaction process. In the mentioned model there are three explicit forms of coach's behaviour that affect performance and satisfaction: required behaviour, athlete's preferred behaviour, and actual behaviour. These three variables are affected by the situation, the coach and the athletes (Fig. 2). Therefore, the performance and the satisfaction of athletes is a function of mutual agreement of the three levels of coach's leadership behaviour: expected, preferred and actual (Barić, 2005). The connection between the mentioned variables can positively or negatively affect performance, athlete's efficacy and satisfaction (Tušak, 2007). Therefore, the multidimensional model of leadership suggests that leadership is a reciprocal process, and that coach's success is the result of interaction between the coach and an individual athlete or a group of athletes. The model is based exclusively on what the coach as a leader contributes to the team, because the efficacy of coach's leadership behaviour in sports is dependent on athlete's characteristics and the characteristics of the situation. Tušak (2007) states that the multidimensional model of leadership is appropriate because it shows the complexity of coach's leadership behaviour in sports and on what he should focus his attention if we want leadership to encourage the development of athlete's motivation, performance, satisfaction and competition efficacy. The research on characteristics of coaches of individual and team sports identifies three prime categories of coach's knowledge: organization, training and competition (Bloom, 2002b).
Côté and Salmela (1996) define organization as the knowledge used by coaches when establishing conditions for optimal training and competition by structuring and coordinating various coaching tasks. The most important sub-component of organization for team sports is vision. Coaches in all team sports must clearly point out their tasks and the procedure for reaching success (Bloom, 2002b). Likewise, a quality sports training (e.g. Conditional, technical, tactical and mental) is a precondition for perfecting the athlete and the whole team. Notably, practice doesn't make perfect, perfect practice makes perfect. An appropriate interaction of the coach and the athlete in team sports before, during and after competition is an important factor of competition efficacy (Bloom, 1997; Bloom et al, 1997; Salmela, 1996). Kajtna and Tušak (2007) point to certain coach's characteristics which are important for selecting and leading athletes and teams in competitions. Those are systematic, persistence, innovation, leadership capabilities, leadership style and compatibility of relations with the athlete and other sports participants, his expert knowledge, pedagog-psychologic abilities and intuition. Coach's expert knowledge and experience show that in elite sport it isn't always the athlete with the highest technical and tactics knowledge who wins, but the athlete who applies technical and tactical skills on the level of reflex response. It is expected from teachers and coaches that, besides the selection of methods, they always insist on what and why learn and practice and by the criterion of gradualism to lead the process of adopting technical and tactical knowledge in certain sports (Trninić, 1995). Further more, in any coaching model; the most important method of integral preparation is a precondition of total re-modelling and reaching athlete's total potential. The only objective criterion for efficiency evaluation for integral sports preparation is the level of consistency of performance quality and competition efficacy. Trninić (2006) was the first to suggest different types of technical-tactical preparation and explain their usage in encouraging the development of athlete's potential and his integral preparation. Accordingly, the managed teaching and learning process encompasses: acquiring technical and tactical knowledge – accumulatory type, and preparation for a particular opponent – preparatory type; while the managed process of training consists of technique repetition of competitive intensity – repetitory type, and of higher than competitive intensity – supraintensive type (fig. 3). The last two mentioned types of technical-tactical preparation demand that the athlete automatically performs technical and tactical skills which releases cognitive processes of selective decision-making and reactions in particular sports, and for expressing athlete’s total potential (Trninić, 2006).
Figure 3 shows the first theoretical framework that represents the connection between different types of technique-tactics preparation, and determines the continuum of the shift from one type of technique-tactics preparation to another. That is how clear, for example, we can see the shift from the accumulatory (the lower level of technique-tactics preparation) to the repetitive type (the higher level of preparation in the technique-tactics knowledge that enables the performance technique level of competition intensity), without which there are no shifts to the suprainensive type of technique-tactics preparation (performing techniques of higher than the competition intensity). All three mentioned types of preparation in a situational training are a prerequisite for successful conduction of the preparatory type of technique-tactics preparation, the effects of which are seen in preparation of counter-tactics in relation to the opponent. It is important to know that efficient teaching in particular sports demands the coach to have good communication skills and skills for evaluation of athlete’s profile, an ability to motivate athletes and an ability to understand and deal with their problems. Also, the coach must have conceptual skills (spotting problems in resolving situations in particular sports, guiding players to reaction selection and qualifying players for certain tasks and roles in particular sports) since they determine the impact of technical-tactical preparation. So, the guided, managed process of teaching/learning includes the accumulative and preparatory type of technical-tactical training, whereas the guided, managed process of practise includes the repetitive and suprainensive type of technical-tactical preparation. All the types of technical-tactical preparation implicitly include numerous repetitions which enable the formation and maintenance of proper habits and quick reactions in play, provided that each error is perceived, the reasons for the error are recognised, the error is corrected and forgotten. Explicitness and comprehensibility of the coach’s explanations and demonstrations regarding the solutions of game situations (HOW) help players to develop their abilities of perception, anticipation, selective decision-making and reacting. Automated performance of technical-tactical skills liberates the cognitive processes for selective decision-making and reactions in a game, consequently for the expression of players’ overall potential. The models of relations between certain types of technical-tactical preparation, as well as between the volume and intensity of training weight, are crucial for athlete’s performance and competition efficacy development. The selection of technical-tactical knowledge, skills and activities, selective compensations of weaknesses, selective optimization of development of athlete's potential and role in particular sports, and selective corrections of noticed technical-tactical mistakes are the four procedures that enable constant perfectioning of athlete's performance. The procedure of selective correction of noticed technical-tactical mistakes is based on the knowledge of performance and on the knowledge of results. Consequently, knowledge of performance is enabled by video feedback, kinematics feedback, biofeedback and kinetic feedback while knowledge of results relies on precision of knowledge of results, qualitative versus quantitative KR and bandwidth KR (Schmidt & Lee, 2005). Based on this data we can ensure rational managing of the process of sports preparation. So, for example, determining kinematics and kinetic parameters of motion is extremely important in a technical speed training (Maršić et al, 2008). A successful teacher gradually and systematically transfers knowledge and guides the athlete by showing him how to correctly and using which technical-tactical skills in particular sports he can perform certain action unit, and follows athlete's progress. Additionally, the knowledge of performance encompasses the augmented exterior information on the nature of movement usually provided by a coach or a teacher, which is crucial for perfection technical and tactical skills. In the process of sports preparation, the knowledge of results provides the coach with augmented feedback that relates to the outcomes regarding situational goals. Taking into account that the motor development is a result of experience (received and processed information), growth and maturing, the importance of continual feedback in the process of sports preparation is quite high for efficient structuring of motor memory, as well as for permanent shift of the possibility of application of motor (technique-tactics) skills. In individual and team sports, managing the process of integral sports preparation for which the coach and his coaching team are held responsible is what determines the state of the whole preparation of athletes. This is primarily seen in stimulating the development of consistency of the situational effectiveness at competition, as well as in the high level of total efficacy of an individual athlete or the whole team. Coach's role in the integral approach to sports preparation is an optimal combination of various training systems in particular periods of annual and multiannual cycles, and surveillance and correction of programs of sports preparation, in order to create successful development and competition efficacy of athletes. Progress of athlete's readiness is the result of positive adjustment to stress. In order for the adjustment to stress to be positive, it is important to reach the optimal relation between the competition and the
training weight on one hand, and recovery and regeneration of athlete's organism, on the other. Evidently, the efficacy of the team mostly depends on the coaching model (Côté et al., 1995). The expert team organises expert work and manages athletes' development, which is determined by genetic potential and the model of teaching and coaching (Fig. 4). Côté et al. (1995) have formed the coaching model as the first theoretical framework that lists the most important factors of training and their relations. In figure 4 we can detect five basic interacting modules. These are coach's personal characteristics and level of development, the system of sports preparation (coach's mental model of athletes' potential, competition, training and organization) and contextual factors.

![Coaching Model Diagram](image)

Figure 4. Coaching model (Côté et al., 1995)

Although every athlete and/or team are unique, the coaching model provides with a general structure which increases the possibility of the coach being successful, including his ability of organisation, coaching and guidance of athletes through all these phases of competition (Bloom, 2002b).

**Conclusion**

The leadership behaviour and training process in sports model encompasses bilateral and reciprocal interaction. The relationship between the coach and the individual and/or group can be multi-positive and/or negative, and accordingly influence motivation, performance and competition efficacy of athletes. The expert coach is probably one of the most important factors that affect athlete's development and progress, as well as the direction of the athlete's career. The efficacy of expert coaches in individual and team sports depends on many interrelated factors. One of the factors that influence success is coach's leadership behaviour and training process, ability to transfer knowledge, and operative leading of an individual and/or group.

The coach and the expert team organize expert work and manage the development of athlete's potential. This includes all the areas of coaching activity. In addition, mutual communication coach-athlete must be directed at the appropriate relations and reaching the set goals. The success of a sports institution, and thereby the success in managing the development of gifted athletes is based on three grounds: the coach and his team of experts, the athlete and social determinants.

The organisation of expert work, coach's leadership behaviour develops solely through practice and self-evaluation of self-efficiency in the training and competition system. Coach's expert and scientific cognitions in the area of leading individuals and groups, training and competition experience, personality and sports success greatly determine his way of thinking when it comes to organization of expert work, and his mode of managing the development of gifted athletes. On the other side, there are athletes. In order for an athlete to become superior in performance and results, what is needed is to rationally manage the development and the sports career of the athlete. In the process of sports preparation, primarily, the coach and the athlete need to focus on the development of the overall potential of the athlete.

Then, there is the team of experts. Its role is in the development of gifted athletes, to enable a quality cooperation of various profiles of experts, that is, to apply a transdisciplinary approach in which the role of the head coach and his associates is to find the best way to develop the overall potential of the athlete and the entire team. In order for this player and team potential to be fully reached, the head coach, as leader and teacher, as well as his associates encourage the development of motivation, individual and team performance and competition efficacy. All this is accomplished only through persistent, adequate coach's leadership behaviour, adequate work on player assessment, sports preparation and guiding athletes and/or team at competitions, and deep understanding of these interrelated processes. The most important categories in the system of overall sports preparation are balance and synergy of different training systems. Combination of various training technologies has a stronger influence on the quantitative and qualitative changes in the total potential of players and their actual quality than has the pure total sum of all the training effects induced by separate training systems. From the aspect of situation-specific training, balance and synergy of different types of technical-tactical preparation enables the optimal integral preparedness of players.
References


UTJECAJ TRENEROVOG RUKOVOĐEĆEG PONAŠANJA I PROCESA TRENIRANJA NA IZVEDBU I NATJEČATELJSKU USPJEŠNOST U VRHUNSKOM SPORTU

Sažetak
Trenerovo rukovodeće ponašanje i proces treniranja u pojedinom tipu sporta se u prvom redu odnosi na selektivno odlučivanje, prenošenje znanja, tehnike motiviranja te na usmjeravanje i pripremu pojedinca i/ili grupe prema dosezanju postavljenih ciljeva. Eksportni trener koji ima primjeren odnos sa sportašem ostvaruje dvosmjernu i recipročnu interakciju u sportskom kontekstu. Svaki sportaš ima svoj način treniranja i odgovarajuće reakcije na različite modele vodstva. Postoji empirijska podrška tvrdnji da su izvedba i natjecateljska uspješnost određene trenerovim ponašanjem i procesom treniranja. Pritom, trenerovo rukovodeće ponašanje mora biti usklađeno sa karakteristikama sportaša i situacijskim odrednicama. Da bi model vodstva i treniranja bio uspješan nužno je primjenjivati sustav integrativne procijene genskog potencijala i cjelokupne uspješnosti u pojedinom sportu te primijenjivati metodiku integralne sportske pripreme. Pritom je povezivanje objektivne i subjektivne procijene ličnosti i motivacijske strukture sportaša od posebne važnosti za primjereno oblikovanje procesa sportske pripreme. Dakle, zadaća trenera je utvrđivanje i prepoznavanje sportaševih obilježja i prilagođavanje rukovodećeg ponašanja i procesa treniranja ne samo stanju pojedinca i grupe, već situaciji, ciljevima te razvoju sportaševe karijere. Isto tako, uloga stručnog stožera u razvoju nadarenih sportaša je da omogući kvalitetnu suradnju različitih profila stručnjaka tj. primjenu transdisciplinarnog pristupa u kojem je uloga glavnog trenera i njegovih suradnika pronalaženje najboljeg način razvoja cjelokupnog potencijala sportaša i cijele momčadi.

Ključne riječi: uloga, trener, selekcija, razvoj, sport

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