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ABSTRACT

The International Canoe Federation includes 10 forms of kayaking and canoeing and recognizes 4 additional disciplines. One of the most popular is canoe polo. Canoe polo is a team sport that belongs to the family of sports games. Two teams of five players each fight to score more goals, with a water polo ball, in a pool of specific dimensions. Canoe polo developed in parallel in three similar variants of the rules, as an alternative to paddling during windy and cold winter days. Canoe polo contains the largest number of different techniques in relation to all paddling sports, while ball handling is done with a mixture of water polo, handball, basketball, and volleyball techniques. Simultaneous handling of the ball, with an overview of the game and interfering with the opponent is a very demanding coordination activity that does not exist in paddling in nature with different obstacles, both in terms of content and dynamics. Today, canoe polo is played in about 40 countries. Wild and flat water kayak and canoe disciplines have existed in the countries of the Western Balkans outside the European Union for many years, while canoe polo activities, clubs and competitions do not exist at all. The introduction of canoe polo in the sports systems of the West Balkan countries outside of European Union can be used as a means to popularize canoeing, as well as to raise the quality of canoeists by applying situational and super-situational training methods. Very demanding activities during more diverting trainings, with a greater opportunity to compete, as well as with a longer and more meaningful competition calendar, can significantly improve the skills needed for kayaking and canoeing in all its manifestations. In addition, the economic effect of development through sports facilities, infrastructure and boats with protective equipment should not be neglected, which at some point may become the basis for the organization of domestic and international competitions.

Key words: *sports strategy, transfer, means, wildwaters.*

INTRODUCTION

Kayaking and canoeing belong to the group of paddling sports, ie sports whose competitions are held on water. The term kayak or canoe means all boats in which one sits (or kneels) with the face facing the direction of movement when paddling, while the paddles are not attached to the boat, but are held freely in the hands (Mitrović, 2003). Although this activity is used today as a sports and recreational activity, it used to have completely different functions in hunting and fishing, transport of people and goods, war and research (Weber, 1950).

With the improvement of living and working conditions, the modernization of industry, man was less and less engaged in hard physical work and devoted more and more time to leisure, tourism, and later sports. Thus began the first kayak and canoe competitions. There are a large number of kayaking and canoeing sports and disciplines that have many similarities and differences. The ten sports organized by the International Canoe Federation (ICF) are: Canoe Sprint, Wildwater Canoeing, Canoe Slalom and extreme, Paracanoe, Canoe Marathon, Canoe Polo, Dragon Boat, Canoe Freestyle, Canoe Ocean Racing, Standup Paddling with sports recognized by the ICF, namely: Canoe Sailing, Rafting, Waveski Surfing and Vaa (<https://www.canoeicf.com/>).

For a long period of time in the Balkans, the term kayak prevailed in the name of the manifestations of kayaking and canoeing, until the change by the ICF, which took place several decades ago. There are still terminological misunderstandings about kayaking and canoeing in these areas, which have not been resolved

satisfactorily. Today, the ICF retains the name of canoe for all disciplines, although in most cases it is paddled in both kayaks and canoes, while in some cases only kayaks are paddled (Canoe Polo, Ocean Racing, Waveski surfing) and are called canoe disciplines. The explanation is in an English custom dating back to the late 19th century when it was usual to call a canoe any vessel in which the paddler sits low and looks in the direction of the boat, as opposed to the then widespread rowing in the sweep and sculling, where the rower moves backwards (<https://www.canoeicf.com/disciplines/canoe-polo/history>).

One of the very interesting manifestations of this sport is canoe polo. Canoe polo is a team sport that belongs to the family of sports games. Two teams of five players each fight to score more goals, with a water polo ball, in a pool of specific dimensions (Basley, 2008). Today, canoe polo is played in about 40 countries, while in the Western Balkans, canoe polo activities, clubs and competitions do not exist at all (<http://www.canoeipoarchives.org/polo-playing-countries.html>).

The problem of this research is the fact that the countries of the Western Balkans outside the European Union do not record the once large mass membership as well as great results in wildwater kayak and canoe and slalom, while a significant number of kayakers and canoeists on flat waters engage in training and competitive activities only seasonally in the time of spring, summer and autumn, while the once important centers of water sports throughout the Western Balkans outside the European Union are falling

apart, remaining true to the previous time and the tradition of failed investments. The introduction of canoe polo in the sports system of the Western Balkan countries outside of European Union can be used as a means of popularizing kayaking and canoeing, strengthening national canoe federations, increasing the number of kayakers and canoeist who train all season, as a means of raising the quality of kayakers and canoeist on flat

and wild waters with applying situational and the super-situational method of exercise, as well as a means of economic profit by the potential organization of national and international canoe competitions, which is the subject of this paper.

The Western Balkans outside of European Union here includes the countries of Serbia, Bosnia and Herzegovina, Montenegro, Northern Macedonia and Albania.

METHODS

The paper used the method of theoretical analysis of the content of scientific and professional literature and the causal method with systematization based on the professional experience of the authors in the field of physical education, sports and recreation, with an emphasis on paddling sports, with the application of logical inductive and deductive reasoning.

Canoe Polo

Canoe polo is a team sport that belongs to the family of sports games. Unlike other kayak and canoe sports in which the goal is to cross a certain distance in the shortest possible time, in canoe polo there are two teams of five players each who try to score as many goals as possible with a water polo ball, ie receive as few goals as possible. The match lasts ten minutes in two halves. In this game, players must know how to paddle and at the same time manipulate the ball with paddle and hands, it often happens that players capsize, after which they return to the

surface of the water as fast as possible to continue the game with eskimo roll (turning the boat to its starting position after capsizing) or with the help of a rival or teammate.

Canoe polo can be played on all water surfaces that do not move, even in swimming pools, which provides the opportunity to practice this sport throughout the year. Despite all its interesting and dynamic characteristics, a relatively small number of people and countries still practice canoe polo is played exclusively in kayaks, there are no canoe disciplines (ICF, 2013).

Brief History of Canoe Polo

The first records of people on vessels playing with a ball on the water were recorded in British journals and date from the second half of the nineteenth century. In 1875, the English magazine Punch or the London Charivarl first

described players standing in boats paddling with long wooden paddles with two blades, then in 1880, in London Scottish players sitting on horse-shaped wooden barrels (with head and tail of a horse) were painted and since 1884 t here have

been paintings in which kayakers sit in „Rob-Roys“ boats and play something that most resembled today's canoe polo (British Canoe Union, 2006). Then the game was not as much contact as today and the goals were at water level (they were not raised), other, accompanying equipment - helmets, vests, protective tires on the bow and stern of the boat did not exist, and contacts could lead to more serious player injury (Beasley, 2008).

In 1926, the German kayak-canoe federation included canoe polo (with slightly different rules of the game than today) in its federation as a new, attractive sport in order to develop team spirit and cooperation between paddlers through team play, to contribute to the federation's finances and to enrich the application of paddling skills on another way (Beasley, 2008).

France follows Germany after three years with the first forms of canoe polo, with the aim of making changes in paddling training and testing the skills of kayakers. The French version of the rules also changed during later periods (Beasley, 2008).

Canoe polo was played in Australia from 1952 to 1970, with some differences in rules. They mainly played canoe polo in two-seater kayaks, so that the player sitting in front caught, threw, shot and maneuvered with the ball with his

hands, and the player sitting in the back controlled the movement and position of the boat (<http://www.canoe.org.au/>). In Britain, this sport began to be played in 1950, but without clear regulations and direction of development (British Canoe Union, 2006). Independently of this sport, since 1966, kayaks have been built en masse to train beginners in swimming pools. The school pools of that time were smaller (10m x 25m), so it was necessary to make a kayak of smaller dimensions that would be functional in such a space. The first kayak of smaller dimensions was made of wood with a rounded bow and stern, thus providing protection for pools, kayaks and beginners in the event of a collision (Beasley, 2008). Enthusiasm for the spread of canoe polo culminated in the presentation of this sport at the International Boat Show at the Crystal Palace in London in 1970. Then the first rules for the game were accepted. In 1986, the ICF favored the Anglo-French-Australian version of the sport with raised goals and pitch dimensions, while allowing ball and paddle contact corresponding to the German, Italian and Dutch versions of the rules (ICF, 2013).

The first demonstration of this game was organized in 1987 in Duisburg (Germany) as part of the World Kayak and Canoe Championships on flat waters (Beasley, 2008).

Canoe Polo Sports Equipment

To play canoe polo you need to have the appropriate equipment – kayak, paddle, spraydeck, protective helmet, personal floatation device (PFD) and water polo ball. Only the ball is of standard dimensions, everything else varies (Mattos, Evans, 2016).

There is a specially adapted kayak boat for this sport, which is designed so that the paddler with it can quickly change direction, be stable enough, throw and catch the ball from it, shoot at goal and defend against opponents. Besides mentioned boat mast provide non-existence of injuries and equipment damage (Beasley, 2008). The kayak is of low volume, which gives the player the opportunity to easily stern and quickly change the direction of movement even if he does not have a stern. In recent years, with the progress in the production and construction of boats, carbon-kevlar and only carbon have been used.

In canoe polo, as well as in wild waters, neoprene spray deck are most often used, which are firmly attached with an elastic strap to the boat (Rajković, Rajković, 2016). In the event of lining or capesizing, the player can return to the surface of the boat with the eskimoroll without water entering the boat, thanks to the spray deck (Mattos and Evans, 2016).

Players use a kayak paddle to play canoe polo (<https://canoe polo.shop/en/en-Canoepolo-Paddles>). Similar with paddling kayaks on flat and wild waters, care must be taken in determining the optimal length of the paddle, the size and shape of the blades, as well as the angle between the blades. The length of the paddle does not depend only on the morphological, motor and functional abilities of the player, as is the case in

other paddling sports (Gullion, 1987). The position in the team also has a great influence. Goalkeepers more often choose longer paddles, sprinters shorter, which contributes to improving their abilities in those positions.

When it comes to the shape of the paddle blades, the position in the team also has the biggest impact, so goalkeepers and players who move less often choose symmetrical paddles (Beasley, 2008). The choice of blade size, ie their volume, in all kayak disciplines is influenced by individual strength abilities that are most correlated with age and gender (Rounds, Dicket, Brown, Sabas. 2005), while in canoe polo the maximum allowable area is determined to prevent abuse by the goalkeeper.

The role of the helmet is to protect the player's head and face from possible injuries during the match. Without it, players cannot play in the game. A face protection is attached to the helmet, which is actually a steel mesh (Mattos, Evans, 2016).

The protection for the paddlers body is a protective – PFD, as in the case of kayaks and canoes on wild waters, it must meet certain conditions in accordance with the rules of the ICF. The role of this vest is to protect the player from possible traumatic injuries, while the secondary role in the canoe polo is to keep it on the surface of the water in case it capsizing remains unconscious and e.t.c. (ICF, 2013).

Canoe Polo Technique

A high level of mastery of the technique in canoe polo implies effective and efficient use of muscles to control the boat and the ball (Cochrane, 2010). The difference in relation to all other canoe sports is that in addition to the

requirements for dominant balance, explosive power (when starting and changing the direction of the boat) and endurance in strength, there are certain accentuated requirements for coordination (predominantly precision) in handling, gripping,

passing and kicking the ball. The dominant musculature in the stroke (leg extensors, back muscles, torso rotators) is driven by large motor units (one neuron, powers a large number of muscle fibers), so it takes more time to learn kayak and canoe techniques to build precise paddle movements. (Mitrović, Rajković, 2020).

In canoe polo kayakers use a large number of different techniques: plat, forward stroke, braking, back stroke, sweep stroke, revers sweep, draw stroke, pry stroke... (Harrison, 1998; Ford, 1995; Rounds, Dicket, Brown, Sabas, 2005). In addition, a small boat and the requirements of the game enable and dictate changes of direction by changing the center of gravity of the body and immersing the left or right side of the bow or stern in the water.

Additional elements of the technique are contact situations of two boats when one can be placed above or below the other, with frequent collisions below 90° and less often direct collisions.

One of the components of the game is the capsizeing with the eskimoroll (a paddle and body maneuver that returns the kayaker from the capsized boat position to the starting position on the water) which enables a quick return of the overturned player to the game.

It is also necessary to practice the maneuver of removing the spraydeck and going to the surface (in case of failed eskimoroll, for which 5 seconds is enough) (Monk, Knap, 1976). Hazards of capsizeing are partially eliminated by group exercise, especially on „risky“ water surfaces (Dillon, Oyen, 2009). Eskimo roll with all its variants with and without paddles is certainly one of the crucial skills (Harrison, 1998) that kayak players have to learn. The specificity of

this kayak skill in relation to all the others is that the kayaker does not rely on the sense of sight through which a person receives most (80%) information (Keros, Pećina, Ivančić-Košuta, 1999), so the maneuver is based on the other senses. An additional difficulty is the possible situation of capsizeing and eskimoroll with the ball, where it is necessary to think about the position of the opponent and teammates.

Maneuvering the ball in addition to controlling the kayak is one of the key abilities for a quality game of canoe polo. Handling the ball in canoe polo has the most similarities to handling the ball in water polo and includes the following elements: lifting-catching the ball from the water surface, throwing, throwing and shooting at the goal, catching throwed balls, cutting path of the ball, with different ways of defending the goal. By passing or throwing, the player passes the ball to a teammate, throws it into an empty space or throws it into the game after the out, and when shooting, directs it to the opponent's goal. As in most other sports games, these balls can be sent in an arc path as a lob or a straight line, such as throwing in handball, in addition, can be performed with one or both hands. Elements of the basketball technique are also used less often, and more often when throwing in or lob passing. The highest level of feeling for the ball and water is the application of volleyball handling techniques when two or one hand or even a paddle makes short contact with the ball and it quickly steers in the desired direction (Beasley, 2008).

There are a large number of different variants of basic shots and passes that are applicable and suitable in different situations in the game. Shots with a change of angle in the

wrist are often used to deceive the goalkeeper. With them, all body segments successively move with their flow, only the final change of the angle in the wrist partially changes the direction of movement of the ball, which makes the job of the goalkeeper more difficult. Changing the height, changing the angle at the elbow joint when dropping the ball and balls that get a spin (rotation around its axis) when dropping from the palm can also cause difficulties for the opponent's defense (Beasley, 2008).

Following the example of other sports games, feints – false movements are also used in canoe polo. With them, body language gives a signal to the opponent to move in defense in the wrong direction, after which the attacker changes his movement and tries to realize his idea without disturbing the opponent. There are also so-called „false“ throwing and shooting movements in which players swing their hand as if to kick, but the ball remains in their hand, to which the defense reacts, after which the player sends the ball in the other direction or starts to penetrate. Also, players can deceive the opponent's defense with a „false“ look, by focusing the gaze on one point as if directing the ball to which the defense responds adequately, but the player directs the ball to a point from peripheral vision or to a player whose position he previously noticed (Beasley, 2008).

Catching is learned along with throwing the ball, and is one of the key skills in playing the canoe polo. Player can catch the ball with one hand, with both hands or control it with an paddle.

The path of the ball can be „cut“, caught and stopped with the help of a water surface, by matching the ball with a hand or a paddle from

above. Dribbling in the canoe polo or guiding the ball is performed by constant throwing, so that the player lifts the ball out of the water, throws it in front of him and brings it to him to take it again, paddling while the ball is on the spraydek is not allowed.

To control the ball, players also use a paddle as an extension of their hands to block the pass between opponents, block a shot on goal, draw the ball within arm's reach, lift the ball from the water or throw it to a teammate.

The paddle is useful in such situations because the range with which players can influence the movement of the ball is greater, but the coordination abilities are weaker compared to manipulating the hands with the ball (Beasley, 2008).

The ball is often taken away from the opposing players by the defense by blocking the throw between the attackers and suddenly cutting off the path of the ball, suddenly, reflexively raising or placing the paddle as far into the field as possible. The success of these abilities depends on the ability to anticipate in which direction the ball will be directed, on the speed of reflex reactions and on the coordination abilities of the eyes (senses of sight) and hands (Cochrane, 2010).

Ball control can also be performed with an paddle. When leading the ball with the paddle, the advantage is that the paddle is in the hands and players who dribble well in this way, can move without losing rhythm and major delays. Players also use a paddle to catch the ball after a pass, which is less safe than catching the ball with their hands, but provides the ability to dribble faster and control the boat better (Beasley, 2008). In addition to all the above, kayakers should move on the water surface in a coordinated

manner so that individual efforts make a synergistic effect of the team.

Thus, transitions from attack to defense and vice versa are very common, with frequent sprints,

changes of direction, with specific roles and individual, group and team tactics, where positions and movements of each position in the team are defined individually (Cochrane, 2010).

Kayaking and Canoeing in the Western Balkans Countries Out of the European Union

The countries of the Western Balkans out of the European Union have not developed kayaking and canoeing to their full potential. Through the efforts of the „Narodna Tehnika“ movement, kayaking strengthened the system of economy and sports of Yugoslavia after the Second World War, where it trained a large number of young people who only got the opportunity to train this sport after acquiring basic work skills. Kayaking reached its peak in the Balkans in the 1960s and 1970s, where later development was based on professionalism and a focus on top results. The unprincipled deviation from mass sports is certainly, among other factors, responsible for the slowdown in the momentum of development and the current state of stagnation and in some cases extinction of this sport in the Western Balkans outside European Union.

Canoe polo activities do not exist in this area (<http://www.canoe poloarchives.org/polo-playing-countries.html>). Based on that, it is possible to ask the question whether Balkan should allow a delay 100 years for developed European Countries here as well in other activities or well the backlog be kept in double digits (currently 96 years behind in introducing competition systems)?

Serbia has a relatively well-developed kayak and a significantly less developed canoe on flat waters with large oscillations in membership and results at the international level, while a small number of athletes practice kayaking and canoeing on wild waters with poorer results in international competitions.

Bosnia and Herzegovina is characterized by significantly more developed rafting than kayaking and canoeing. The potential for development is great, given the large number of possible courses for training and competition on flat and wild waters. After the disintegration of Yugoslavia, Bosnia and Herzegovina never reached the number of members it had thirty years ago, while today there are significant individual results with numerous organized international competitions (World and European Championships and World Cups).

Montenegro has been developing kayaks only recently. In addition to the significant area of the sea coast, several lakes and significant fast rivers, there are only a few clubs with a very small number of athletes.

Northern Macedonia in both flat and wild waters used to be very popular with a small number of clubs, but today it operates with a dozen, mostly wild water clubs, with significant results of several individuals, with the continuation of the organization of competitions at the international level.

No data are available for Albania, but their absence from international competitions is noticeable. The long-term unfavorable economic situation in the region, past wars and conflicts are certainly affecting the state of kayaking in the Western Balkans. However, it should be noted that the lack of a strategic approach to development also allows the situation to maintain the “status quo”. One of the features of the mentioned possible strategy can be the introduction of canoe polo in the sports systems of the mentioned

countries. There are also ICF development programs where it is possible to apply for boats and some protective equipment (<https://www.canoeicf.com/development/equipment-donations>). There are several untapped resources to re-launch the sport in the region, such as co-ordinated co-operation between the Western Balkans countries, in terms of a joint development strategy, sharing infrastructure costs, staff development, sharing specific sports facilities and equipment and organising mutual training.

**Potential Benefits of Introducing Canoe Polo in the Sports System
of the Western Balkan Countries Out of the European Union**

Although the ICF covers 9 or more special but very related sports, very few countries in the world are developing in parallel in all its manifestations. Countries that develop their strategy in this direction have a large number of athletes, while their competitors show high levels of knowledge and skills that they display on a wide scale. A significant number of countries long ago have included kayaking and canoeing (Canada, Hungary, Germany, Australia, the Czech Republic, Slovakia, Russia, Belarus...), and especially canoe polo in the school sports system. This was not done in the way it was done, for example, in Serbia, where school sports are considered only a system of inter-school competitions from the municipal to the federal level. In mentioned countries sports schools are specially developed, where young people complete training courses, while they are included in the system of long-term regular trainings, where only then competitions from junior school to university level follow.

Unfortunately, the sports systems in the Western Balkans countries out of the European Union have experienced a significant changes, so for example, University sports have a very weak real connection with the sports system.

Problematic funding and lack of regular physical exercise for students is neglected at the expense of recruiting already active athletes who study and who without systemic changes can sometimes win a medal at international competitions. Thus delaying significant changes in their countries because instead of winning medals through functioning of some established system, the opposite is happening, and that is that the results are happening despite the existing system. In reality, occasional success is brought about by the work of an individual and a small group of experts around that individual.

Canoe polo as a sport that contains the characteristics of several branches of sport (Sheykhlovand, Gharaat, Bishop, Khalili, Karami, & Fereshtian, 2015) and some seemingly incompatible skills is an excellent tool for developing the abilities and skills of young people, who should become the mainstay of development their country in the very near future.

Kayaking and canoeing on wild waters with its disciplines of classic and sprint downhill, as well as slalom and extreme slalom are very demanding forms of movement where the necessary strength, speed and endurance are dominated by skills and abilities of balance in

dynamic conditions, „reading water“ recognizing the shape of a skills watercourses with the choice of direction with knowledge of its causes and consequences (Ford, 1995; Absolon, 2018), as well as coordination in terms of overcoming various natural and artificial obstacles (Harrison, 1998). Direct and rapid progress of kayakers and canoeists on wild but also flat waters can be achieved by using canoe polo as a means of training through a situational and super-situational approach. Complex and dynamic everyday situations in canoe polo training with more parallel actions happening at the same time, can significantly improve the performance of competitors in their home sport.

In the whole process, training is more important than the competition itself, because it is known the athletes spend more than 90% of their time on training, while a very small part of the time they compete.

The changes that occur in training are often ignored in terms of breaking barriers in duration, intensity and scope of effort, overcoming various situations outside the comfort zone and acquiring skills that represent more significant achievements than placement and comparison of several athletes.

At the same time, the influence of canoe polo can be reflected in a smaller outflow of newly trained beginners, because there is a further possibility of their training with additional space for a competitive career. At the same time, already active athletes can enrich their competition calendar by competing in several branches of canoeing, thus increasing the scope and intensity of their training while continuing to

expand by expanding the field of skills and abilities, as opposed to their stagnation and intensive conditioning and narrow specialization.

Indirectly, with a larger number of members, national kayak federations can strengthen with more developed sports.

National kayak federations are currently the biggest limiting factor and obstacle to their own development in the Western Balkans out of the European Union, due to inefficiency and lack or non-implementation of strategy, and then clumsy and wrong attempts, as well as dominating the development of administration with great success in choking their own sport.

Using kayaks in training and coaching (Rajković, Mitrović, Milivojević, 2013) canoe polo, especially in winter, would increase the number of specific trainings on the water of active competitors who usually do not meet the number of kilometers traveled or time spent on water that enable international results.

It will take some time for the new system to produce economic effects as well. Thus, after investing in specific equipment, renting a swimming pools or arranging free water surfaces, one can expect a profit from the organization of canoe competitions at the level of primary and secondary schools, universities, clubs, as well as national competitions of different ages and categories.

An equipped canoe polo center could be sustainable only on the basis of international competitions organized for European universities, club European and world level as well as for European and world championships of national teams of both genders and more age categories.

CONCLUSIONS

Some (or many) sports, especially in situations of reaching plateaus in learning and progress, can also serve as a means of advancing athletes in another similar or diametrically different parent sport, and not just as an ultimate goal in terms of results. Sometimes a longer and longer lasting journey leads to the goal earlier, so a trip to a new sport can serve as a springboard for results in the home sport, where you can literally draw a parallel with the famous sayings „one step back two steps forward“ and „hurry slowly“...

In this way, canoe polo can be used by whitewater kayakers to significantly improve their skills and abilities. Simultaneous handling of the ball, with an overview of the game and interfering with the opponent is a very demanding coordination activity that overcomes paddling in nature with various obstacles, both in terms of content and dynamics. At the same time, kayakers solve a large number of tasks at the same time, which mostly improves their stability and sense of water.

The combination of water polo, handball, basketball and volleyball technical elements implies high automation in maintaining balance, as well as the situational manifestation of different types of strokes.

Efforts aimed at the presentation and popularization of canoe polo could be used to massification the canoeing, as well as to raise the quality of results by applying situational and super-situational training methods.

Very demanding activities in different trainings, with a greater opportunity to compete, as well as with a longer and more meaningful competition calendar, can significantly improve the skills needed for kayaking and canoeing in all its forms. In addition, the economic effect of development through sports facilities, infrastructure and boats with protective equipment should not be neglected, which at some point may become the basis for the organization of domestic and international competitions.

In addition to the above, there are numerous examples of unused and insufficiently explored possible transfers between paddling disciplines in both directions, such as kayaking and canoeing, flat and wild kayak, rafting and kayaking, academic rowing and kayaking and canoeing with specific benefits or emphasis on certain technical, tactical or fitness entiretyes.

In that sense, it is disappointing that there are no universal rowing and paddling clubs in the Balkans where all rowing and paddling sports are taught in parallel, while similar examples exist in the world. This statement becomes especially interesting when considering the order in the adoption of certain technical units in training, where it is possible to completely avoid delays and plateaus in progress, where each paddling discipline (more broadly, some other sports) has its significant and irreplaceable place.

The assumption is that in this area lies a great untapped resource for improving results in all rowing and paddling sports.

For quantitative and qualitative leaps in their work, it is sometimes necessary for coaches and sports managers to step out of their professional phenomenological comfort zone and seek solutions somewhat wider than usual, which again implies a multidisciplinary approach with constant self-improvement.

REFERENCES

1. Absolon, M. (2018). *The Ultimate Guide to Whitewater Rafting and River Camping*. Falcon, Guilford; Roman & Littlefield Publishing group, inc. Lanham.
2. Basley, L. (2008). *Canoe Polo – Basic Skills and Tactics*. Victoria : National library of Australia.
3. British Canoe Union (2006). *Canoe and Kayak Handbook*. Pesda Press : Wales.
4. Cochrane, D. (2010). *Canoe Polo, Level 1, Coaching Course*. Australian canoeing : Australia.
5. Int. Canoe Federation (2013). *Canoe Polo Competition Rules*. International Canoe Federation: Lausanne.
6. Dillon, P.S., and Oyen, J. (2009). *Kayaking*. American Canoe Association, Fredericksburg : Human Kinetics, Champaign.
7. Ford, K. (1995). *Whitewater and Sea Kayaking*. Human Kinetics:Champaign.
8. Gullion, L. (1987). *The Canoeing and Kayaking Instruction Manual*. American Canoe Association, Fredericsburg; Adventurekeen, Birmingham.
9. Harrison, (1998). *Whitewater Kayaking*. Stackpol Books : Mechanicsburg.
10. Keros, P., Pečina, M., Ivaničić-Košuta, M. (1999). *Temelji anatomije čoveka*. Medicinska biblioteka : Zagreb.
11. Mattos, B., Evans, J. (2016). *The Illustrated Handbook of Kayaking. Canoeing & Sailing: A Practical Guide To The Techniques*. Anness Publishing : London.
12. Mitrović, D. (2003). *Veslanje (skripta)*, Univerzitet u Beogradu, Fakultet sporta i fizičkog vaspitanja:Beograd.
13. Mitrović, D., Rajković, Ž. (2020). *Tehnika i metodika akademskog veslanja*. Univerzitet u Beogradu, Fakultet sporta i fizičkog vaspitanja:Beograd.
14. Monk, C., Knap, J. (1976). *A Complete Guide to Canoeing*. Toronto:Pagurian press limited.
15. Rajković, Ž., Mitrović, D., Milivojević, I. (2013). Obučavanje veslanja u kajaku na zatvorenom bazenu. *Metodička praksa*, Pedagoški fakultet, Beograd, Vol. 13, 4: str 591-608.
16. Rajković, J., Rajković, Ž. (2016). Špric deka, hauba kokpita plovila. *Povratak prirodi*, br. 4, 20-21.
17. Rounds, J., Dicket, W., Brown, S., Sabas, R. (2005). *Basic Kayaking: All the Skills and Gear You Need to Get Started*. Mechanicsburg, Stackpole books.
18. Sheykhlovand, M., Gharaat, M., Bishop, P., Khalili, E., Karami, E., & Fereshtian, S. (2015). Anthropometric, Physiological, and Performance Characteristics of Elite Canoe Polo Players. *Psychology & Neuroscience*, 8(2), 257–266. <https://doi.org/10.1037/pne0000013>.
19. Tomić, D., Šoš, H. (1983). *Situacioni trening u sportu*. Univerzitet „Džemal Bijedić“ u Mostaru:Mostar.
20. Weber, V. (1950). *Kajak i kajakaštvo*. Tehnička knjiga:Beograd.

<https://www.canoeicf.com/disciplines/canoe-polo/history>

<https://www.canoeicf.com/>

<http://www.canoeipoarchives.org/polo-playing-countries.html>

<https://canoeipo.shop/en/en-Canoeipo-Paddles>

<https://www.canoeicf.com/development/equipment-donations>

<http://www.canoe.org.au/>

SAŽETAK

Internacionalna Kanu Federacija obuhvata 10 pojavnih oblika kajaka i kanua i prepoznaje 4 dodatne discipline. Jedan od veoma popularnih je kajak polo. Kajak polo je timski sport koji pripada porodici sportskih igara. Dva tima sa po pet igrača se međusobno bore da postignu veći broj golova sa vaterpolo loptom, u bazenu specifičnih dimenzija. Kajak polo se razvijao paralelno u tri slične varijante pravila i to kao alternativa veslanja za vreme vetrovitih i hladnih zimskih dana. Kajak polo sadrži najveći broj različitih tehnika u odnosu na sve veslačke sportove, dok se baratanje loptom vrši mešavinom vaterpolo, rukometnih, košarkaških i odbojkaških tehnika. Simultano rukovanje loptom, uz pregled igre i ometanje protivnika je veoma zahtevna koordinaciona aktivnost koja ne postoji pri veslanju u prirodi sa različitim preprekama, kako po sadržaju tako i po dinamici. Danas se kajak polo igra u oko 40 država. Divljevodaške i mirnovodaške kajak i kanu discipline u državama zapadnog Balkana van Evropske Unije postoje dugi niz godina, dok kajak polo aktivnosti, klubovi i takmičenja uopšte ne postoje. Uvođenje kajaka poloa u sistem sporta zapadno balkanskih država van Evropske Unije može biti iskorišćeno kao sredstvo za omasovljenje kajakaškog sporta, kao i za podizanje kvaliteta kajakaša primenom situacionog i nadsituacionog metoda vežbanja. Veoma zahtevne aktivnosti na različitim treninzima, sa većom mogućnošću za takmičenje, kao i sa dužim i sadržajnijim takmičarskim kalendarom, mogu značajno unaprediti veštine potrebne za veslanje u kajaku i kanuu u svim njegovim pojavnim oblicima. Pored toga ne treba zanemariti ni ekonomski efekat razvoja kroz sportske objekte, infrastrukturu i čamce sa zaštitnom opremom, koji u jednom trenutku mogu postati osnov za organizaciju domaćih i međunarodnih takmičenja.

Ključne reči: *strategija sporta, transfer, sredstvo, divlje vode.*

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