# RHYTHMIC GYMNASTICS IN SERBIA - FROM SUCCESS TO SUSTAINABLE DEVELOPMENT<sup>1</sup> STRATEGY

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### Abstract

The topic of the paper is the academic approach to participation and competition in the top rhythmic gymnastics, in Serbia. This cognitive approach is triggered by the need to capture the challenges of sustainable development (professional, organizational, personnel and academic), which are believed to be a solution that could promote competitiveness and the Olympics perspective, further affirm the educational and social significance of this attractive and beneficial sport and implement the knowledge of modern theory and practice in development of rhythmic gymnastics. The sustainability of rhythmic gymnastics in Serbia may be correlated with the basic system principles and its values as a sport and physical activity for a wide range of practicing and competing participants, as well as through academic support of interdisciplinary and multidisciplinary knowledge applied to the significance of the rhythmic gymnastics for both the individual and society.

Key words: RHYTHMIC GYMNASTICS/ ORGANIZATION/ SUSTAINABLE DEVELOPMENT/ SERBIA

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<sup>&</sup>lt;sup>1</sup> Interpretation of the United Nations definition of sustainable development in the subject of this article as: Development that meets the needs of the present, without compromising the needs of future generations in the part of educational, participatory and competitive (to top sports results) in rhythmic gymnastics.

### **INTRODUCTION**

Rhythmic gymnastics (RG) belongs to the group of artistic sports, dominated by aesthetically shaped, expressive, graceful movements and softness of movement (Moskovljević and Dobrijević, 2018) inherent to a female, her intuition, movement lyrics, expression, and creative-artistic side of her being. It is a unique sport among the Olympic sports with female competitors only. In 1962, as Modern Gymnastics it became part of the gymnastics family, under the auspices of the International Gymnastics Federation (FIG). The First World Cup was held in Budapest (1963), and the First European Championship in Madrid (1978). Although the demonstration of group events within sports gymnastics was at the Olympic Games in Melbourne (1956), it only became a full member of the Olympic program from the Los Angeles Olympics (1984) in individual competition disciplines, i.e. in group competitive disciplines at the 1996 Atlanta Olympics. Therefore, "rhythmic gymnasts" compete in two different programs, individually and in a group exercises (5 gymnasts). The competition takes place in a defined space and for a limited period, during which body movements intertwine in the form of gymnastics - semi-acrobatic, dance, ballet elements and manipulative skills with apparatus rope, hoop, ball, clubs, ribbon tape), bound by music (Moskovljevic and Dobrijević, 2018; Leandro, Palmeiro & Arce, 2017; Sierra-Palmeiro, Bobo-Arce, Pérez-Ferreirós, & Fernández-Villarino, 2019). The competition event is evaluated by two panels of judges, namely: panel D, in charge of determining the number and value of difficulty (body difficulty apparatus difficulty and dynamic elements with rotation) and panel E, which evaluates the performance technique (artistry and technical errors).

In the wider social context, RG is recognizable as a sport intended exclusively for girls and young women. However, the fact is that the process of gender equality in all spheres of life, even in sport, is present, and since the beginning of the 21<sup>st</sup> century, sporadically, there have been some male RG competitions, in this, until recently unique sport for women (Moskovljevic and Dobrijević, 2018; Moskovljević, 2013). The International Gymnastics Federation officially recognizes only the female RG.

Everywhere in the world, and also in the Republic of Serbia, the contents of the RG are promoted, developed, and applied as a mass and competitive sport. Its dance and above all highly coordinated body movements and apparatus manipulation are also recognized in educational field, which is why they are integrated into the Physical and Health Education Program in primary and secondary schools, with students of both sexes (Moskovljević and Dobrijević, 2018; Official Gazette of the Republic Serbia 1991, 2004, 2017). In accordance with the stated exercising (motor learning) and educational being (social, health, affective learning...), the sustainability of RG from the title of this article results from: a) basic system settings and values of RG as a sport and physical movement for wide range of participants; b) features of the RG arising from its participation-sports and trainingcompetition side and c) academic support of the interdisciplinary and multidisciplinary framework of knowledge with conclusions about significance of the content of the RG on the individual and society. Accordingly, the topic of the paper is the RG context including participatory, competitive, and top rhythmic gymnastics, in the territory of the Republic of Serbia, observed and analyzed through its academic basis. This cognitive approach is generated by the need to present both the challenges of sustainable development (professional, organizational, personnel and academic), which the author believes to be the solution that could promote competitiveness and the Olympic perspective, to further affirm the educational and social significance of this attractive and beneficial sport, and to complete the development path of RG with the knowledge of modern theory and practice. The aim of this paper is to clarify in an explanatory and prescriptive way: a) identified factors of sustainable development of rhythmic gymnastics in the Republic of Serbia, b) facts important for the integrity of

the perception of both mass participation and training-competitive aspects of rhythmic gymnastics and c) continuous changes through the learning process, both of the RG actors and the academic community. Therefore, **the problem of this paper** are the challenges of RG sustainability in the Republic of Serbia, by specifying the facts and factors of its biomotor, psycho-social, health, artistic, training-competitive, educational and organizational context.

# RHYTHMIC GYMNASTICS IN THE STATE-POLITICAL AND DISCONTINUITY OF THE NATIONAL SPORTS SYSTEM

The development of rhythmic gymnastics in Serbia, firstly as a physical activity, and then as a sports discipline, can be observed in the context of a number of factors and the most relevant for this paper include those regarding the establishing national sports system.

After the Second World War, the Yugoslav Association of Physical Culture (FISAY) took care of sports in Yugoslavia. An umbrella political and sports organization composed of the Committee for Physical Education of the Government of the Federal People's Republic of Yugoslavia and the Physical Education Association of Yugoslavia were established. At the Second FISAY Forum, held in 1948, a new organization for the realization of the versatility of citizens was established - the Gymnastics Federation of Yugoslavia (GSY). The attempt was made to solve the problems faced by the state, political, youth, trade union, as well as the top anti-fascist women's organization, which concerned the limited acceptance of physical culture and exercise among the citizens of the state of that time, by establishing a new organization, to ensure the development of versatility, but not to deal with issues of competitive - gymnastic sports, as we understand and cherish it today. The Sports Gymnastics Association was in charge of the sports matters. The Gymnastics Federation of Yugoslavia was an organization in charge of general physical education (GPE), which in 1952 was renamed the Federation for Physical Education "Partizan".

The programs of the GSY at that time included numerous skills and disciplines (running, swimming, throwing, skiing) taken over from various sports. The goal of this organization was to create a special and unique model of Yugoslav exercising. The previous models of organizing physical activity, for the purpose of versatility, had failed (Physical culture badge), and had been abandoned, due to lack of personnel, space, programs, but, above all, absence of civil interest in the prescribed forms of physical activity. It was not possible to accomplish the 1950s GSY mission without personnel, and the first support was provided by the members of the "Sokol" system of organization and exercising, abandoned by the state, political, educational and physical culture authorities, conceptually, organizationally and politically of that time. The remnants of "Sokol", along with other "reactionary" (from the point of view of the new government) physical culture organizations, were dissolved, and all property was handed over to new sports clubs or the Yugoslav People's Army, signed by Aleksandar Ranković (Mijatov, 2019). However, under the auspices of GSY, PE teachers, educated at European schools for artistic movements, dance and aesthetic gymnastics, members of 'Sokol' gymnastics societies, implemented the idea of gymnastics, as well as those forms of exercise that today we call sports gymnastics and rhythmic gymnastics.

## The Gymnastics Federation of Yugoslavia and the Hidden Ideology of "Sokol' Staff

With the "Sokol" movement of pre-war Yugoslavia, the discontinuity was officially complete. A large number of "Sokol" personnel were excluded from the new exercising, and they were mostly replaced by youth and party leaders, whose "knowledge of the problems was minimal". The personnel of "Sokol" persevered and thanks to weaker party control of over sports clubs, they managed to continue to preserve their "Sokol" views on sports (Mijatov, 2019).

"Sokol" trainees worked in "Sokol" societies as gymnastics teachers (foremen), and at the same time they were appointed as PE teachers in schools. Thus, the appointment of Angelina Petrović, a 'Sokol' trainer and instructor, to the position of sports gymnastics teacher at the State Institute of Physical Education (*DIF*) is also recorded. The connection between the training and teaching side of the "Sokol" members can be recognized in the goals of the Belgrade Society for Gymnastics and Fighting, which was formed back in 1882 with an aim to "prepare gymnastics teachers, future PE teachers" (Juhas, 2018). Post-war authorities and the sports organization define a new mission of sports and focus on mass participation and versatility. Thus, fully governed by party ideology mass performances were organized by political elites in the form of rallies. The basis of exercises at these events were gymnastic, rhythmic and dance exercises that included a large number of children and youth across the country. However, once the poor physical condition of the participants was established at the 1947 rally, a decision was made to establish the Gymnastics Federation of Yugoslavia with a previously stated mission.

In order to overcome staff problems, secondary physical education schools and the State Institute of Physical Education were established. They were part of the first Five-Year Plan, and a part of the personnel policy in sports. It was necessary to train 2,870 personnel with high school and 580 of them with college. At the end of the Plan, the idea was to meet 20% of the needs in sports clubs and 30% of the needs in schools (Mijatov, 2019). Those institutions, from the very beginning, included dance gymnastics activities (Folklore and Music Education in secondary physical education schools), as well as Folk Dance and Rhythmic at the State Institute. The first forms of dance, aesthetics and rhythm in gymnastics at the State Institute, appeared primarily, thanks to Professor Milica Šepa. She advocated strongly this type of gymnastics and implemented it in the courses she organized and applied as early as 1936 through her work in 'Sokol' organization, then in the School of Physical Education, and later at the State Institute. She considered this type of exercise a very important part of women's physical education, with multiple impact not only on female physical, but also mental development. She respected the principle of aesthetic / rhythmic gymnastics - the focus on healthy, beneficial and beautiful, and passed it on in her teaching work and education, not only to teachers and professionals, but also to students of the State Institute and later the Faculty of Physical Education, encouraging them to bring the beauty of RG closer to children and youth (Koturović, 1990). She was also the head of the Gymnastics Federation of Yugoslavia. From today's academic point of view, it can be said, that Milica Sepa was a visionary, because her ideas have survived to this day, and provide guidelines to RG teachers at the Faculty of Sports and Physical Education, University of Belgrade. Historically, another woman, Magdalena Maga Magazinović, originally from Belgrade, is important for laying the theoretical and practical foundations of Serbian RG as an independent sports branch and as a course the State Institute (Mandarić and Moskovljević, 2019). She observed a woman as a complex person, believing that practicing RG can make a woman a responsible, educated and self-conscious person, as part of the "harmonious comprehensive human upbringing " (Santić, 2000). Taking into account the sports side of rhythmic, gymnastic and dance exercises, which for the first time transformed into a sport at the First World Championship in Modern Gymnastics in Budapest (1963), in which Yugoslav rhythmic gymnasts from Belgrade (Serbia) also participated.

### From modern through rhythmic-sports to rhythmic gymnastics

Between 1948 and 1992 Rhythmic-sports gymnastics (RSG), with its results contributed to the overall affirmation of gymnastics in the then state. From 1997 to the present day, the name RSG has changed to Rhythmic Gymnastics (Moskovljević and Dobrijević, 2018). Although those were very turbulent decades in the development of a country, it could be said that, as far as the development of RG is concerned, they were the decades of progress, the "golden" 80s and 90s of the 20<sup>th</sup> century, which resulted in the greatest competitive success of this sports discipline in Serbia. The fact that the largest number of members of the Yugoslav national team were from Serbia, and only one or two gymnasts were from Slovenia and Croatia, and that the national champions by category were also predominantly Serbian rhythmic gymnasts, reflects the "methodological strength" of the Serbian clubs at the time.

Milena Reljin is the most successful Yugoslav and Serbian rhythmic gymnast ever. She was a member of the Yugoslav national team between 1979 and 1989. She was at the top of world rhythmic gymnastics for 10 years (1981-1989). She participated in the finals of the RG tournament at the Olympics in Los Angeles (5<sup>th</sup> place in all-around and participant in the apparatus finals) and in 1988 in Seoul (9<sup>th</sup> place in all-around and participant in the apparatus finals). She competed in five World and four European Championships, Two World Cups and one European Cup, where she was always among the top 20 best competitors. Milena Reliin's performance in the finals of the most important competitions speaks not only about her unambiguous top talent, but also about the efficiency of the organization that managed to recognize, develop and support talent to a top result, i.e. to change itself by working with top athletes. These changes were also recognized by the FIG, which entrusted the organization of the First World Cup to Belgrade (1983) and the XIV World Cup to Sarajevo (1989). These competitions are FIG's homage to the Yugoslav RG, development, organization and accomplished sports results. The competition in Sarajevo was followed by a period of change of generations and it was necessary to confirm the value and competitiveness of RG in the new sociopolitical circumstances. Due to sports sanctions against FR Yugoslavia, in the team of "Independent Athletes", at the Olympics in Barcelona (1992), our country was represented by Kristina Radonjić and Majda Milak, rhythmic gymnasts from Belgrade (Serbia). The judge at these Games was Lepa Radisavljević, professor of Rhythmic Gymnastics, at the then Faculty of Physical Education, University of Belgrade. This was the last participation of Serbian rhythmic gymnasts at the Olympic Games.

The period between the Olympics in Barcelona and the time of social and political changes in Serbia (October 2000), in terms of following trends, and thus the competitiveness of Serbian rhythmic gymnasts, was accompanied by a number of factors that made the work of the organization and the progress of results more complex. Consequently, RG did not assume sustainable development (of the Serbian competitors until the Olympics in Barcelona), despite the "chronic struggle" of experts to prevent the "extinction" and disappearance of this sport branch.

### **Organizational and Leadership Adjustment of Rhythmic Gymnastics**

The first decades of the 21<sup>st</sup> century have seen a number of reasons that contributed to experts' consideration of strategies for revitalizing and raising the RG competitiveness. The Republic of Serbia became independent in 2006. In the same year, the FIG affirmed the Gymnastics Federation of Serbia (GFS) as the national sports organization in charge of the affirmation and development of gymnastics disciplines in the Republic of Serbia. Within the GFS, rhythmic gymnastics functions as a sports-pro-Olympic discipline. From that moment, Serbian sports, after years spent within three countries (SFRY, FRY, SCG), began to function and develop according to the system of national sports. Since 2002, in addition to the existing gymnastics clubs that existed in the former Yugoslavia (Palilula, Radnički, Partizan-Senjak, etc.), new ones have started to open in Serbia, from the position of understanding new relations in Serbian sport. RG clubs generate their income through membership fees, donations or sponsorships, which in our society is financially insufficient for the development of sports in its participatory and competitive challenges. Although we could talk about

greater participation and mass response of girls, still, from year to year, a larger number of clubs, athletes, coaches, judges, did not automatically lead to greater RG competitiveness in the international arena. As a response to these facts, it is important to analyze the factors of development of this sport in the 21st century.

# RHYTHMIC GYMNASTICS - FROM GENERAL SETTING TO A SPECIAL COGNITIVE CONTEXT

# Rhythmic Gymnastics in the Context of 21st Century Sports

General principles significant for understanding and affirmation of sport in the 21<sup>st</sup> century are found in the documents of national, regional and international institutions and political organizations. Underlying ideas for understanding the place, role and significance of sports, relevant for the development of individuals and society in general, are found in the documents of the sports movement. The vision of the development of the sports movement and Olympism is contained in the agenda of the umbrella sports organization, the International Olympic Committee (IOC) (www.ioc.com). The analysis of the content of the IOC documents demonstrates the general aspiration of constantly overcoming the role and mission of the sports movement and Olympism, at the time of intensive and rapid changes of the mankind. The documents are an upgrade of the attitudes about the role of sports and Olympism carved in the founding starting points (Radojević, Grbović and Jevtić, 2019). They reflect the development during the last century, i.e. they contain constant challenges of the sports movement and Olympism, as well as the search for answers to all-time topics, such as:

1. challenges of the IOC and the entire sports movement and Olympism about the place and role of sports in cultural (civilization) development, promotion of sports in society, as well as in preserving its legacy;

2. issues important for the influence of sports in creating an "active society", such as the participation of women, children and the elderly in sport ...;

3. tendencies in expanding the capacity of sports in the education of young people and acquiring business skills for the  $21^{st}$  century, as well as in the importance of sports for the development of the local community;

4. doubts regarding the sports and professional-working career of an athlete.

According to the last reference of Radojević et al. (2019), having in mind the aim of this paper, it should include the FIG development decisive for the development of this sport and focused on a number of areas that include also (www.fig-gymnastics.com):

the issue of the sports profession and the profession of coach, aimed at improving knowledge, skills and capacity of coaches, judges, officials, leaders and administrators as well. To be able to respond to educational, social, health, training-competitive and innovation challenges, which are the foundation for the achievements in Olympic RG it is particularly important to redefine the path of development for coaches;

providing support to developing national gymnastics federations and their efforts to establish RG as a significant sport in their countries;

- increasing the number of girls involved in RG.

## Rhythmic Gymnastics in Serbia - Draft of a Development Path

The analysis of the development and significance of sports and / or individual sports branches, RG included, within the national system of sports and society, is most often done through the international relevance of the competitive result. Accordingly, the document "National categorization of sports disciplines" has classified gymnastics (all forms of gymnastic sport) in the

second category (Official Gazette, 2017). However, to understand the place, role and value of sport and individual sports branches in the 21<sup>st</sup> century, the analysis in relation to the stated generalization of the sports movement and Olympism is more favourable. Therefore, the cognitive path about the RG place, role, and significance should result in answers to the doubts and challenges of the context, which contribute to the sustainability of this sport in Serbia, and among which, for the purposes of this paper, we have selected:

- cultural-value context seen through the educational, social and artistic significance of RG;
- competitive context or development of the national result and its international competitiveness;
- the context of the national organization and its efficiency;
- the context of human and material resources used to set goals and deliver plans (includes professional staff, talented athletes, judges, sports officials, researchers ...);
- business context leading to economic sustainability.

When it comes to RG and understanding of the present and future state of its development, it is important that each of the above contexts is found in the analysis that should result in an assessment of participation and importance for its sustainability. However, as the development of RG in the international context has shown, the umbrella context, or one that has the capacity to connect the all the above, is the context of innovation or the capacity of RG for initiative and innovation in all areas of its existence.

# Cultural-value Context of Rhythmic Gymnastics throughout the Educational System of the Republic of Serbia

The cultural-value context of RG can be observed through the significance and role of application of program contents of this physical activity in general and physical culture itself, with effects on cultural anthropology which studies, among other things, exercising together with cultural and own national heritage. This assumption relies on the rise of the culture of physicality, but also due to the increase in the social significance of sport, success in sport has become social success (Koprivica, 2018).

Rhythmic gymnastics, as a type of physical exercise, provides great opportunities for the formation of a wide range of movement skills and a range of skills with body and apparatus, linked by music (Moskovljević and Dobrijević, 2018). For that reason, the contents of rhythmic gymnastics were included in the PE syllabi in primary schools of the Republic of Serbia. The fact is that the mentioned contents, applied in an appropriate way, could be applied with preschool children as well, because it was shown that rhythmic structures of movement, accompanied by appropriate music, could play a significant role in encouraging participation and development of motor skills in children of that age. (Zachopoulou, Tsapakidou & Derri, 2004). Professor Milica Šepa pointed out: "that nurturing the musical-rhythmic, related to movement, should be carried out from the earliest childhood, but in an appropriate way towards a child, and that it should be done as part of preschool physical education" (Koturović, 1990).

In order to emphasize the affirmative side of rhythmic gymnastics, both in the system of sport and in physical education and recreation, it is primarily necessary to support the claim that it can be considered a basic sport, together with gymnastics, athletics and swimming (Jevtic, Radojevic, Juhas. and Ropret, 2011) and program content that can be applied from the earliest childhood, as a physical activity, with children of both sexes.

Rhythmic gymnastics is based on various forms of movement in different kinematic and biodynamic conditions with a large amount of resources for the execution of these forms of movement

(Moskovljevic and Dobrijevic, 2018), which allows to improve the adaptive and creative abilities of children, with a wide range of transferred skills learned in another sport (Palmer, 2003).

The program contents of RG can be performed at the age when children have a desire for this type of movement and when such composition and coordination of movement is stimulating and enables timely changes at the level of anthropomotor abilities in children (Moskovljevic and Dobrijevic, 2018; Jevtic, Radojevic, Juhas and Ropret, 2011).

The analysis of physical and health education programs of the Republic of Serbia (Andjelic, 2020) shows that the contents of RG, in addition to the planned / determined application, could be used in physical education classes to transmit cultural values and to develop anthropomotor skills, primarily coordination, establishing proper posture, learning the technique of natural forms of movement (gymnastic walking and running, postures on the ground, swings, learning balance positions, turns, orientation in space, etc.). All RG movement structures, require fundamentally positioning and guiding the body through biomechanically and physiologically correct movement act, and the continuous application of rhythmic exercises can lead to the creation of a permanent habit of good posture, which also contributes to better quality of life in general (Moskovljevic and Dobrijević, 2018).

With children of preschool and school age, music while exercising is one of the benefits of RG, because PE classes can become fun, inspiring, creative (Moskovljević and Dobrijević, 2018). In girls, adequate contents of RG would influence the grace, elegance and softness of movement, which are generally associated with females (Moskovljević and Dobrijević, 2018). The introduction of mandatory RG programs contents primarily for girls, through PE, from grade 1 to 8 of primary school, and for girls from grade 1 to 4 of high school, would create a basis for the transfer of the RG values to the quality of life of women for the future, as a value category of society. Also, the importance of developing aesthetic competence in students is emphasized, both for art and for other contents within the society (www.razvionica.gov.rs). Through the process of applying RG activities, students can develop the ability to recognize and strive for the beauty of their own movements, to creatively solve motor tasks and express emotions through movements with music, as well as to recognize aesthetic elements of sports achievements (Andjelic, 2020; Moskovljevic and Dobrijevic, 2018; Official Gazette of the Republic of Serbia, 2017). The application of adequate rhythmic exercises with music in children of both sexes through physical and health education classes would positively affect the development of general anthropomotor status of children, the establishment and creation of positive attitudes towards lifelong physical activity as value categories of a society.

### Competitive context of rhythmic gymnastics in the sports system of Serbia

Although the largest number of children in Serbia are participating in competitive sports, this level of sports participation is extremely important, because it gathers a large number of girls. Participation has been very popular among girls and young women in Serbia since 2002, which is why a large number of parents have decided to include children in RG, because they recognize its values in general education (Dobrijevic, Moskovljevic and Milanovic, 2015). From the competitive RG, clubs can redirect girls to categorized competitions through early identification of talent. This is certainly not a large number of girls, considering that the clubs are facing insufficient and inadequate financial and technical conditions for conducting training. Of course, other factors must not be neglected, above all, in the part of the staff structure and the defined vision, i.e. the determined mission of the club. As important as it is to look for talented coaches among participants, it is, equally, if not even more important, to look for talented coaches among a limited number of stakeholders (Radojević et al., 2019).

When moving to the competitive RG the path of knowledge and conclusions on the topic of this paper we must start from the general (RG in the Olympic program and documents of the FIG Technical Committee for Rhythmic Gymnastics - TCRG), and gradually move to a special area of knowledge, such as rhythmic gymnastics in the Republic of Serbia. The International Gymnastics Federation (FIG), as the supreme governing body for gymnastics, advocates a model of basic management standards for the development of all forms of gymnastics around the world (gymnastics for all, men's and women's gymnastics, rhythmic gymnastics, trampoline, aerobics, acrobatics and parkour). Through the example of its structure and processes of development and progress, positive guidelines are given to the national gymnastics federations, including the Gymnastics Federation of Serbia (GFS), as one of the 148 FIG members. It is constantly striving to strengthen or improve its rules and regulations, in order to adapt to the current challenges we live in (www.fig-gymnastics.com). The mentioned vision should be found in the mission and value framework of the GFS, thus in the Expert Committee of Rhythmic Gymnastics (ECRG).

The International Gymnastics Federation (founded in 1882) is the oldest international sports organization and a partner of the Olympic movement since the First Games of the Modern Age (1896). At the Olympic Games in Moscow (1980), the hosts presented the leaders of the IOC Executive Board a sport that originated in their country and in which they had the best world gymnasts. This was followed by the decision to introduce RG to the Olympic program and make it the Olympic sport.

The FIG Technical Committee for Rhythmic Gymnastics (TCRG), continuously, according to the Olympic cycles, has been working on updating the Judges' Regulations, based on which the complexity of body and apparatus skills, artistic impression, and precision of individual and group exercises competitions are assessed (Sierra - Palmeiro et al., 2019). Accordingly, the analysis performed by TCRG after the Olympic Games, as the starting point of the four-year development and aspirations of the mentioned commission, can be considered expedient in the direction of understanding the dynamics and tendencies of development in the global RG (Leandro et al., 2017). The Technical Commission is open to the opinions of RG experts from around the world, who can present their positive and negative observations from the previous cycle to the TC and propose certain changes or additions. The FIG Rulebook is a "dictionary", "primer", the leading document that directs the development of the top RG (refers to the categories of juniors and seniors "A" level). In this basic document, the TCRG, as the highest professional body, addresses the professional public and directs the development of RG, prescribes the rules that must be followed by the global gymnastics family. Regulations for younger categories (younger pioneers, pioneers and cadets), for different levels of competition, according to the quality of gymnasts, are left to the jurisdiction of national federations. In Serbia, for the mentioned categories, there are three levels of competition ("C", "B" and "A"), with adjusted rules, according to the established programs of body element techniques and apparatus, which girls of a certain age must master and which must be adhered to by all RG clubs. However, in relation to the practice of the TCRG, continuous core analysis and the establishment of program documents, important for the development of competitors and coaches of different age categories and levels, are not a reality in Serbia. In other words, there is no in-depth reflection on the assumptions of future development, as there is a lack of leadership in this process from the national level to the clubs.

Obviously, the TCRG determines the rules of development of RG through the scoring scale of body and apparatus difficulty, artistic and performing components of the composition, which are prepared for each Olympic cycle, but can be changed during it (Palmeiro et al., 2019; Agopyan & Örs , (2019); Batista, Garganta, & Ávila - Carvalho, 2019; Trifunov and Dobrijević, 2013). There is an agreement that this direction of action through the Olympic cycle and the Olympics led to RG, from its first or melioration period of development (search for being and self-determination in all areas of

training-competition, cognitive and organizational substructure), to the phase in which it exists as a functional unit - "algorithm", used to build a competitive result and attractive sports, which is classified in the "Prime Event" at the Olympics, which means that they are highly rated by relevant sports structures, but also by the audience and spectators ("Prime Events" are also the finals in athletics, swimming, basketball, Opening and Closing ceremonies of the OG ...). Like any other, the RG "algorithm" unites the factors that generate a result, including the spectacular innovations in the virtuosity of body and apparatus, both in individual skills and in overall sports performance, but also the aesthetic, artistic side of the competitive routines, as well as the objectivity of the judging.

Rhythmic gymnastics is a complex sport, which requires a high level of spatial-temporal coordination, balance, symmetry and differentiation of movements, coordination in rhythm and tempo, which together make a specific coordination, which is an indicator of talent in selection in RG (Di Cagno, Battalia, Fiorilli, et al., 2014), and a vital part of training, necessary in preparation for competitions. According to the difficulty criteria for the Olympic period from 2013 to 2016, a group of Chinese authors conducted a detailed analysis of the difficulty of the competition exercise and found that constant adjustment of the rules leads athletes and their environment to difficulties in responding to RG development postulates met requirements such as "super high, super nice, super exciting, super agile, super stable"... The composition must have an optimized choice of difficulty, artistic value, likable expression, which leads to a unique aesthetic excitement. The choreography of the routine must complete the entire competition space, be filled with the dynamics of movement with various manipulation of apparatus. At the same time, it must meet the requirement for precise performance of mandatory body difficulty (Wang, Lu, & Sun, 2013). In other words, the characteristics of RG and the achievement of top results take place through innovations that lead to the perfection of competitive events.

In order for a national RG system to move towards international competition, the competitive composition must be in line with the current requirements of the Rulebook, with an understanding of its trends in the area of development of specific motor support. In order for the gymnasts to perform the maximum amplitudes of certain difficulty in the form of jumps, balances, turns and semi-acrobatic elements with their bodies, what is of special merit is the level of development of coordination abilities, strength and speed that are specific to RG (Donti, Bogdanis, Kritikou, Donti, & Theodorakou, 2016; Douda, Avloniti, Kasabalis, & Tokmakidis, 2007; Jastrembskaia & Titov, 1999). Thus, research shows that in the training process of rhythmic gymnasts, one must develop technique, but also work on physical preparation and development of specific motor abilities (Moskovljević, Radisavljević, & Dabović, 2009). The analysis of top competitive events showed that a large number of rhythmic gymnasts, of different levels of performance, around the world, generally tend to perform the same body difficulty in their competitive routines, which indicates a small lack of diversity in the choice of body elements which are used to increase difficulty in jumps, balances and rotations (Agopyan & Ors, 2019; Batista et al., 2019). What provides an internationally respectable result in modern RG are competitive routines that stand out for their innovative, diverse apparatus difficulty and their connection to body difficultyes risk elements (DER) that are presented through imaginative high throws and apparatus grips, as well as a unique artistic expression and precision of execution, without, or with as few errors as possible (Leandro et al., 2017; FIG - Code of points, 2017). These are the factors in the "algorithm" of success that make the difference between the equal technical difficulty of gymnasts. By understanding these trends, strategic preconditions are created for the training context and competitive sustainability of RG, and that is learning a large number of various technical elements - difficityes in terms of body movement and handling apparatus (Dobrijević, Moskovljević and Purenović-Ivanović, 2019) and work on choreography, and physical preparation (Karpenko, 2003; Jastrjembskaia and Titov, 1999).

The philosophy of development and the manner of implementing the TCRG policy could be applied, tailored to our region, with coaches, judges and other experts, who, would send their expert observations to ECRG GFS at the end of each year, based on this knowledge and the general FIG instructions, to prepare a strategy for the next competition year. It is noticeable that in the Serbian RG there is no permanent professional communication between EC, i.e. there is a lack of public invitations to coaches, judges, clubs, choreographers..., to openly express their opinion on the quality, results, work effects and progress of Serbian rhythmic gymnastics at all levels, from participatory to professional. Furthermore, the wider professional public should be acquainted with the criteria for the selection of competitors, coaches and judges who will represent Serbia on the international scene. In the abovementioned context, it is possible to assess the internal efficiency of the ECRG GSS, which would lead to a conclusion about the degree of organizational inertia and competitiveness in the process of sustainability of RG in the Republic of Serbia.

Despite the insufficient financial and technical conditions for the implementation of the training and competition process in Serbia, the coaches with the highest "red" coaching license (9 coaches in 2020), work very professionally with the best rhythm gymnasts on their path to development to a top result. The question of margin is raised, the point score after which the competitive event will be qualified for the top result. The latter, is determined by the announcement or criteria for a given top competition (World Championship, OG, European championship). Apparently, there is no strategy of the mentioned evaluation process at the national level, but that processes of sports mission, national organization, towards top sports achievement takes place only within clubs.

Coaches, through forms/ types of formal, non-formal and informal education, follow the global trends of RG development. Although the statement that Serbia has talented girls is often mentioned, an expert issue arises: Why are not better results achieved, both in the participatory and in the competitive RG? The answer could be found in the paradigms of result development: (1) the timeliness of starting exercising, (2) physical literacy, (3) the complementary effects of other forms of physical activity, (4) the number of training hours in gyms, (5) coaches and other professions. These are just some, but not exhaustive reasons of why Serbian gymnasts in individual performances (and group performances) do not accomplish better results and have a discontinuity of the performance of the entire national team internationally. Other conditions that our gymnasts do not fulfill, and required when they plan to achieve top results include equipment for quick recovery after training, special medical care, the presence of a team of experts in the athletes vicinity (psychologist, nutritionist, physiotherapist, choreographer, ballet pedagogue , fitness trainer-specialist for RG), adapted education and training program (continuation of education after interruption due to sports commitment) and/or professional orientation after the end of a sports career.

### **Coaches organization**

The International Gymnastics Federation, within the strategy "Education & Development", promotes the sub-program "FIG Academy Programme", aimed at educating coaches and judges. It includes three levels of training for coaches of national federations. The seminars last for seven days and 1/3 of the classes are theoretical and 2/3 are the practical lectures. The lecturers are experts in a particular methodological or training chains. The FIG entrusted the national federations to determine the level of coaching license for trainees that completed the programme (www.fig-gymnastics.com), based on the results achieved at the academy. In 2019, 81 rhythmic gymnastics coaches were registered in Serbia: 11 with a red license (of which 3 are recognized coaches), 16 with a blue one, 24 with a yellow one and 30 with a white license. The fact is that the Expert Board of RG GFS organizes annually at least two seminars for coaches and judges to reconfirm the licenses, and that these seminars, as well as the number of listeners, are not sensitive enough to special issues of age

categories of competitors. There is a lack of technical seminars of an interpretive character of gymnasts, transfer of motor skills into routine and competitively effective skill.... It should be enabled for the allowed number of coaches from Serbia to take part in the FIG coaching academies and seminars every year. There has never been a national coaching organization. It should be formed within the EC RG GFS, with the tasks of affirming the profession of a RG coach in the 21<sup>st</sup> century. Rhythmic gymnastics does not seem to recognize the essence of its development, nor the environment that leads to success. In that sense, there is not enough cooperation with academic institutions and their teachers who research rhythmic gymnastics and educate professionals in sports and physical education (Belgrade, Nis, Leposavic, Novi Sad). It can be noticed that few girls opt for professions oriented towards RG (undergraduate vocational or academic studies), most likely due to the status of this sport in our society and the existential uncertainty that comes with the occupation in sport. A large number of girls, after a long sports career, opt for the coaching profession with the lowest level of training for an operational coach. Also, based on the complexity of RG as a sport and previous experience, there is a need for specialist orientation in the education of RG coaches, to train coachesspecialists for individual events - group events, or to work with girls of preschool and younger school age, i.e. for physical preparation, choreographic and ballet preparation. It is the head coach who is predominantly responsible for top results in Serbia. Consequently, coaching is an extremely hard and stressful job and an impossible mission in the context of achieving internationally recognized results in the long run. Based on all the above, it can be concluded that academic study programs of sports should be directed towards the education of young professionals to, through their profession, occupations, innovations and new jobs, sustainably affirm personal and social values of sports (Radojevic et al., 2019).

#### International competitive results

In the performances of individual competitors on the international scene, Serbia has a continuity of performances with a minimum of 1 gymnast (unfavorable situation), or a maximum of 3 athletes who make up the team (favorable situation). Our competitors, considering the quality, results and scored points, as an expression of the value of Serbian competitors internationally, are currently in lower quality groups at world and European championships. This fact about participation in world and continental competitions can be named as a guaranteed participation according to the principle of universality - availability of the competition to all FIG members. However, it is important to maintain the continuity of competitive performances from Serbia at European and World Championships, but it is also necessary to think long term about the progress in the placement of our competitors in the mentioned competitions and the return of Serbian gymnasts to the first third of places (ranking from 30 to 40<sup>th</sup> position). Successful positioning of the national organization in the world of RG, requires participation in large international competitions in individual and group exercises events for a longer period. As for the group exercises of "A" levels and performances internationally, Serbia has no continuity. Back in 1991, at the World Championships in Athens, Yugoslavia had an extremely notable exercises performance (13<sup>th</sup> position out of 18), of Serbian gymnasts from Belgrade. That concluded a period of competitions until 2012, when, for the first time, in independent Serbia, junior group was formed and participated in the European Championship in Vienna (18<sup>th</sup> position out of 24 teams). The sole appearance of rhythmic gymnasts from Serbia, at the competition in group routines, after two decades and a placement, can be considered a success. In 2017, Serbia participated again with the junior team at the European Championship in Budapest (Hungary). At the World Cup in Sofia (Bulgaria), 2018, Serbia appeared for the first time with in a full routine, which means with the performance of the senior group event (for the first time in the history of the Serbian RG) and the appearance of juniors in the individual competition. In the RG community, the performances of compete national teams at major international competitions, contribute to the competitive affirmation of a FIG member and its successful positioning on the world map. There must be continuity and trend in this process, which the GFS can hardly plan, given the unfavorable conditions for innovative RG methodology and the optimal training process. All Serbia's clubs maintain the work on group events of "C" and "B" levels. This affirms the fact from the first part of this article, which concerns the effects of noticeable commercialization of this sport, which over time has led to the possibility of accepting the absence of leadership by the GFS management (top-down principle) and try to implement the bottom-up principle, starting from the particular interests of individual members and informal groups to the whole organization. Consequently, not only adequate financial and technical conditions, and professional staff are essential success factors, as it can be heard in public discourse. These are also issues of the culture of organization and management, as well as the principles of directing commercial clubs to develop personnel and programs for the training process and continuous detection-identification-selection of the most talented girls.

In addition to the abovementioned, limiting factors for the development and sustainability of RG, which are rarely considered, include: organizational inertia, lack of leadership, lack of program documents that are innovative and inventive. Rhythmic gymnastics, which is dominated by women, does not seem to recognize the intuitive, essential side of this gender. Success in sports, which is the Prime Event at the Olympic Games, is not achieved by partial action!

### The Judges Organization

Rhythmic gymnastics is a sport in which victory, i.e. competitive result is achieved with perfection, precision and accuracy of movement, i.e. sports-technical mastery. In order for a gymnast to be successful, her body and apparatus technique, harmonized with music, must be at an extremely high level. The competitive result is expressed by the judge's assessment, and the performance of technical skills must be in accordance with the FIG Rules. Judges must be well acquainted with the rules, which is an objective component of evaluation. But, there is also a subjective component, because judges are living beings, who in a short time interval, during performances, must show good perception and concentration and apply the rules and assessment, such as RG are of great importance for the meritorious evaluation of progress and the comparison of competitive events with planned outcomes. The role of judges is a priority, both for the quality of the national and international program, and in the part of fulfilling the expectations of sustainable development. Therefore, their responsibility is even greater within the entire system.

Sometimes it is difficult for ordinary spectators to understand the way of judging and evaluating in RG, due to the seemingly complicated Rulebook. However, when it is analyzed more closely, it is noticed that this gymnastic discipline relies on clear and simple principles and rules, which are composed with the aim of improving the creativity of gymnasts and preserving the objectivity of the evaluation.

There were 63 licensed female judges registered in Serbia in 2020 (7 with the FIG "Brevet" title, while the rest are national judges of the 1<sup>st</sup> and 2<sup>nd</sup> level). There are problems in this segment of functioning as well: the judges' organization has not existed since 2012, and therefore there are no criteria for the selection of judges for international and important national competitions; there is no analysis of evaluation after national competitions, on the basis of which judges, according to established rules, could advance; judges with the highest international rank must also be taken into account, who would need to have a certain number of international competitions during a year in order to be able to confirm their license or advance.

### The context of the Particularity of Program Organization

Rhythmic gymnastics is an early-specialization sport. The girls start training as early as 5 or 6 vears of age and the training process, in long-term planning, can last from 10 to 15 years (Karpenko, 2003). As such, RG requires a systematized and specific training process towards building a competitive result in the younger age category of girls. Therefore, a great responsibility lies with coaches, experts and parents, who manage the system of implementation of the training process, in terms of proper physical, social, mental and academic development. According to the FIG Rulebook, female rhythmic gymnasts enter the senior category at the age of 16 and achieve top sports results in adolescence, which are achieved in most sports only at a more mature age. In the last stage in the long-term preparation of rhythmic gymnasts, which in theory is called the "phase of sports longevity" (Karpenko, 2003), it is envisaged that gymnasts, after many years of training, focus on RG through other forms of activity (coach, judge, choreographer, journalist, federation official, club, etc.). The expert board of the RG GFS, among other things, should manage the career development plan for girls who would like, after many years of practicing RG, to get involved in the work of rhythmic gymnastics bodies and clubs. Development planning, according to the principles of many years of practice, could be viewed in the context of sustainable development of RG, given that the participation of former competitors is an added value and a postulate of the development of the sports organization.

In the Serbian RG, the national team also featured competitors "imported" from other sports systems, who competed (2014/15; 2019/20) at major international competitions. These are girls with Serbian citizenship, who live and train in Russia because of family reasons, thus having an advantage over "domestic" gymnasts. It turned out that it had an "immediate" positive effect on improving the results of Serbian rhythmic gymnasts internationally, but at the same time, the general progress of the RG in Serbia was not achieved.

## The size of the organization as a framework for a new sports and business context

One Serbian gymnast (Snezana Paunic) competed in the 2009 Universiade in Belgrade, which was truly affirmative for this sport. Being the host, the national organization was donated equipment and apparatuses (mats, carriers and ballet barre, CD players and speakers) and distributed to clubs which certainly contributed, at least a little, to the improvement of training and competition conditions. During 2009/10, 16 clubs with 114 gymnasts were registered in Serbia, as follows: 41 in the individual "A" program, and 79 in the "B" program. In group "B" program, 53 teams from 12 clubs competed, and in group "C" program, 54 teams from 16 clubs with a total of 762 girls. "C" level is the level of the participatory RG, which is the base of each club. So it is understandable that such a large number of girls participated in competitions. It would be important for all clubs to have continuously a large pool of girls, because it is necessary for the recognition and development of top athletes. The fact is that the Serbian RG made progress in the past ten years (2010-2020) in terms of popularizing this sport, not only in Belgrade, but also in other cities throughout Serbia, both in terms of the number of girls involved in RG, and in terms of coaches and judges.

From the 2019 Report of the EC RG GFS, it can be seen that there were 31 clubs in Serbia, of which 28 actively participated in the competition system. A total of 336 rhythmic gymnasts were registered, of which 189 for individual "A" and "B" programs. Of those registered, 27 gymnasts took part in the "A" program in the Serbian championships, and 109 in the "B" program. In the group events of the "B" program, 23 clubs with 88 teams and over 400 gymnasts participated, and in the "C" program, 22 clubs with 147 gymnasts. It can be noticed that a larger number of girls has competed in group events at "B" and "C" levels, which is understandable, because at that level the success criteria is lower than at "A" level, both in technical and motor terms. It is evident and affirmative that, in a

decade, there has been an increase in the number of cities in Serbia with RG clubs (from 8 to 14), as well as the total number of registered competitors. Belgrade is still the center of the highest quality RG with the largest number of clubs (8), followed by Novi Sad (5) and Nis (3), Pirot (2), while other cities have 1 club each (Uzice, Svilajnac, Trstenik, Krusevac, Mladenovac, Paracin, Kragujevac, Pancevo, Sremska Mitrovica and Subotica).

# SUSTAINABILITY FRAMEWORK OF RHYTHMIC GYMNASTICS IN THE REPUBLIC OF SERBIA

The position of rhythmic gymnastics in the Republic of Serbia requires further essential, causal, functional analysis etc. of the existing participatory, training, competitive, organizational and managerial status and practice, with the aim of the New Context of sustainable development, which, aside from the aforementioned, includes:

- I In-depth activities in the prospective user base, through the affirmation of the quality of rhythmic gymnastics and dance program contents in the educational system and with the aim of mastering physical literacy programs. The mentioned contents would be mandatory in PE classes, with children of both sexes from grades 1 to 8, with special emphasis on the younger school age, from grades 1 to 4. Although children in Serbia, very early, at the age between 7 and 8, get involved in organized sports, the benefit would be that through regular classes of physical and health education, children encounter a variety of rhythmic structures of body movement and apparatus, performed with music. In that way, the essence of rhythmic movements in the physical literacy of students would be affirmed, while in the next step, naturally, at school, a number of girls interested in further participation would be directed to clubs. The organizational continuum presupposes the RG development, at which beginning are coordination exercise activities, as a postulate of physical literacy and the basis of integration with national and cultural contents.
- II Work in a national sports organization through profiling the efficiency of its organizational, managerial and professional structures. Planning documents and strategy of territorial representation of all forms of gymnastics, with the contents of rhythmic gymnastics, would require occupations specialized in school rhythmic gymnastics. Physical and health education teachers as the organization leaders, and in some cases as coaches in gymnastics clubs, would be most suitable for these challenges. The Gymnastics Association of Serbia together with the academic departments of RG would be accountable for the clear criteria and methods of work, clear criteria of achievement, as well as a model of intrinsic motivation. Thus, new and modern study programs and corporate education (interconnection of academic, profession and occupation) are a prerequisite for sustainability for the implementation of quality rhythmic gymnastics programs.
- III Establishment of a national gymnastics training center, elaboration of training methodology, training coaches, international cooperation, control competitions... The fact is, without specialized gyms for rhythmic gymnastics, with a larger number of fixed mats with a podium, ballet barre and mirrors, which would be available 24/7 to clubs and national teams, there will be no progress in the methodology of training, consequently no international success.
- IV Introducing the activities of the coaching and judging organization within the Expert Committee of Rhythmic Gymnastics of the Gymnastics Federation of Serbia, as well as the establishment of the Committee with the FIG as a model, which would, together with commissions and bodies, elaborate national plans and programs of development for all levels of rhythmic gymnastics, from participatory, educational, competitive to the top level.

- V The determination of the scientific system, which supports the development of rhythmic gymnastics, is a precondition for delegating responsibility to and from the space of sports sciences. This way we could avoid a partial view of the connection between science and a sport and that is within the reasoning of both researchers and coaches. The cooperation of the Expert Board of Rhythmic Gymnastics of the Gymnastics Association of Serbia with academic institutions in the field of sports and physical education, but also with those from the field of artistic professions and highly specialized occupations, is imposed as an opportunity. Accreditation of scientific institutions is a big challenge, which is why they would have to determine clear criteria for developmental and top sports results, as well as factors of efficient sports organization and social values that are provided through sports. In other words, the Theory of Rhythmic Gymnastics, as the umbrella research philosophy, cannot be matched by insufficiently differentiated theory (science), research methods and research teams.
- VI The context of human and financial resources is an extremely important item of national organization and efficiency in creating the popularity of rhythmic gymnastics, setting goals, achieving plans and results at the international level. The media, both written and digital, as well as all other forms of public advertising, propaganda and promotion, based on the bio-psycho-social effects of rhythmic gymnastics on girls, young women and women, must be on the agenda of the national organization.
- VII Elaboration of the plan and program of mobility and international cooperation of all occupations and professions, included in the plan of sustainable development of rhythmic gymnastics in the Republic of Serbia.

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