

BALLET MOVEMENTS IN RHYTHMIC GYMNASTICS ROUTINES: AN ANALISYS FROM THE LAST TWO CODE OF POINTS (2013-2016 and 2017-2020)

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Abstract

Ballet is a world-renowned dance and its movements can be seen in athletes' education and training systems from various sports, especially those considered artistic sport, such as rhythmic gymnastics (RG). The competition system of this sport is driven by a Code of Points (CoP) that is established every four years and, although it has some changes during the years, remains in its essence clearly influenced by dance aspects as well as Ballet movements in its performance. Thus, the purpose of this research was to analyze the Ballet movements in RG routines in the 2013-2016 and 2017-2020 Olympic cycles, in order to further understand the relationship between RG and Ballet and compare them in two different RG Code of Points. This was a quantitative research that analyzed 24 RG routines performed at RG World Championship (2013 and 2019) recorded and posted at one of the International Gymnastics Federation's official social media websites. Results show that: a. there was no significant difference between the years ($p \geq 0,05$), but the average of Ballet movements in the four apparatus routines in 2013 was higher than 2019; b. although the difference was not significant, the analysis of the magnitude of the effect size showed a small difference for ball (0.68) and clubs (0.29) and moderate for hoop (0.97) and ribbon (0.74); c. Ballet movements performed during Apparatus Difficulties (AD) and Dynamics Elements of Rotation (R) increased; those performed as connecting elements decreased.

Keywords: *gymnastics, ghoreography, training, ballet movements.*

INTRODUCTION

The relation between Sport and Art are identified in a diversified way, from modern sports to the current most contemporary ones (evidenced by the great spectacularizing of sports activities), situated in its historical and social contexts, in plural possibilities (Melo et al, 2007).

Sports that have this relationship can be considered as "aesthetic sports," precisely

due to their aesthetic appeal, determined by their goals and movements (Best, 1980). In some of these sports we identify the presence of elements of Arts, such as classical Ballet's movements in Code of Points of RG (FIG, 2018; FIG, 2014).

In our society, Ballet is not only performed in theaters, but also in the athletes' education from various sports,

especially those considered aesthetic sport, such as artistic swimming (Gemma, Wells, 1987; Figura et al., 1993), figure skating (Vieira de Jesus, 2013), artistic gymnastics (Nunomura, Pires & Carrara, 2009) and rhythmic gymnastics (RG) (FIG, 2019, Porpino, 2014; Toledo, 2010; Caçola, 2007).

Gymnastics and Ballet have stories that interweave, and this relationship occurs for different reasons, beginning with the historical aspects of RG, before it became a discipline of competitive gymnastics. Following authors from gymnastics, rhythmic gymnastics compiled the dance and art influences citing Jean Georges Noverre (natural movement and the “art of expressing”); François Delsarte (relationship between postures as the essence of expressive movement); Rudolf von Laban, Isadora Duncan and Elizabeth Duncan (expressiveness and choreography); Emile Jacques Dalcroze (musical and rhythmic characteristics); Rudolf Bode and Henrich Medau (manual apparatus) (Langlade & Langlade, 1970; Bodo-Schimid, 1995; Bobo & Sierra, 1998, Toledo and Antualpa, 2014).

The influence of dance, theater, expression, rhythmic, artistic and aesthetic aspects, in Modern Gymnastics (later RG) can be noted through different theorists related to the large field of the Arts. This influence remained even after RG started being a sport in 1975, when it was named Rhythmic Sportive Gymnastics (RSG). Now called Rhythmic Gymnastics (RG), the discipline is still ruled by a Code of Points made by the International Gymnastic Federation (FIG).

The Code of Points (CoP) is established every four years (after the Olympic Games) and, although it has some changes during the years, remains in its essence clearly influenced by dance aspects, as well as classical Ballet movements, in its performance. There is no doubt that Ballet movements have been inserted in the training and routine of RG gymnasts in order to improve the scores of individual

and group exercises (body difficulty - BD and apparatus difficulty - AD), technique and precision of body movements, and artistic components, like expression and rhythm.

Currently, in the 2017-2020 Olympic cycle, gymnasts in individual routines are evaluated in terms of difficulty (D) and execution (E). In Panel D, they are judged on body difficulties (BD) - including jumps, balances, rotations, dance step combinations (S), apparatus difficulties (AD), and dynamic elements with rotation (R). In Panel E, the technical execution is evaluated by the mistakes committed by gymnasts during their performance, as well as their artistic execution related to the choreography (FIG, 2018).

It is interesting to point out that many of the body difficulties elements are closely influenced by typical Ballet movements, even using the same nomenclature. In addition, Ballet movements are used in different moments of the composition, such as connecting elements, dance steps, body difficulties, or composing dynamic elements with rotation.

Due to those requirements of the Code of Points, it is common that RG gymnasts’ practice or started practicing Ballet in the early years of their careers (Laffranchi, 2001; Lebre & Araujo, 2006; Ribeiro, 2010). Considered one of the oldest and best organized and systematized training systems (Lebre & Araújo, 2006), Ballet became a guide for training in RG, managing to assist gymnasts in the movements’ execution, since it brings the technical details of posture, parts of the body, body articulation and synchronism, all together aiming at perfection.

The relationship between RG and Ballet through body expression and music and body technique must be experienced so that the gymnast can, at the time of her presentation, dialogue with the public, coaches, referees and those who appreciate the performance (Assis, 2019). Ballet in the gymnast’s daily life has the function of uniting the line of body movements within

the use of apparatus and specific RG body technique, seen in the Body Difficulties (Agostini & Agostini, 2010). However, it is important to emphasize that Ballet can and should be practiced in RG as physical preparation (Laffranchi, 2001), or artistic education, from novice to expert gymnasts' sessions (Ribeiro, 2010). It may include movements using the Ballet bar, as well as center and diagonal exercises (FIG, 2019), varying the complexity.

By observing and analyzing how the highest-level gymnasts are adapting their routines to fit existing the CoP system, coaches can guide gymnasts at all levels to successful outcomes (Ávila-Carvalho, Sousa and Silva & Lebre, 2014).

The hypothesis of this study is that the 2013-2016 cycle, characterized by a limitation in the use of apparatus difficulties (called mastery at this time), allowed greater use of dance step combinations and connections and, consequently, greater frequency of Ballet movements, when compared to the 2017-2020 cycle.

Thus, the purpose of this manuscript is to analyze the Ballet movements in rhythmic gymnastics routines in the last two Code of Points (CoP) cycles (2013-2016, 2017-2020), in order to further understand the relationship between RG and Classical Ballet, and compare them in two different RG Code of Points proposals.

METHODS

This was a quantitative research that used document analysis (Thomas, Nelson & Silverman, 2015), which is restricted to documents, written or not, as a primary source of study. The main documental source was composed by videos of the RG routines performed at the 32nd FIG Rhythmic Gymnastics World Championship (2013/Kiev) and at the 37th FIG Rhythmic Gymnastics World Championship (2019/Baku). The videos were analyzed at the FIG official channel on YouTube®.

Twenty-four routines were considered twelve from each event, three from each apparatus (hoop, ball, ribbon, clubs) from the podium gymnasts. Data collection was carried out in stages.

First, the researchers - one of them being a rhythmic gymnastics referee - identified the Ballet movements in the routines, regardless of the RG components in which they were distributed, i.e., Body Difficulties (BD), dance steps combination (S), Dynamic Elements with Rotation (R), Apparatus Difficulties (AD) or Connections (C).

Then, the identified movements were entered in a Microsoft Excel® spreadsheet, according to the frequency with which they appeared in the compositions. To validate the procedure, two graduated Ballet instructors - with more than ten years of experience teaching Ballet - performed the same process. Both files were compared, and doubts were debated for a final count. It is important to highlight that only the elements with a correct execution were considered.

Later, the names of the elements were revised and standardized according to the Ballet Dictionary (Rosay, 1980). Finally, all those involved in the research held a meeting for discussing its findings, in order to conduct data analysis.

Data were organized into tables and arranged by gymnast information (G); ranking (n°); first letter of the apparatus (in English) and year (2013 or 2019).

The table columns were organized to include the gymnasts, their countries, Ballet movements detected, quantity of Ballet movements during each routine of each gymnast, and the variety of movements found. The variety of elements was established by the number of different movements performed, without considering repetitions, while the quantity indicated the total number of movements in the routine, considering the repetitions.

Moreover, the Ballet movements were combined with the RG components of a routine: Body Difficulties (BD), dance steps

combination (S), Dynamic Elements with Rotation (R), Apparatus Difficulties (AD) or Connections (C).

For data analysis, the descriptive statistics used were measure of central tendency (mean), measure of dispersion (maximum and minimum values) and frequency. The normality and homoscedasticity tests were used in order to detect the distribution and homogeneity of data. The Wilcoxon test was performed to compare the variables in the years 2013 and 2019. The level of significance was set at 5% ($p < 0.05$). The tests were performed using SPSS 22.0 statistical package.

Further, to complement the interpretation of the magnitude of the effect of changes in the Ballet movements, the effect size (ES) and confident limit (CL; 90%) were reported according the procedures proposed in the literature (Batterham & Hopkins, 2006). The ES (corrected by the Hedges formula) was calculated to compare the presence of the elements in the years 2013 and 2019, in the different apparatus. The magnitude of the CL was classified as trivial (< 0.2), small ($\geq 0,2-0,6$), moderate ($> 0,6-1,2$) and large ($> 1,2$) (Batterham & Hopkins, 2006). Data were analyzed using Microsoft Excel (Microsoft™; EUA).

RESULTS

Table 1 shows the total number of Ballet movements, identified by gymnast and their routine in each apparatus, in 2013 and 2019.

Regarding the amount of Ballet movements, we present in Table 2, the maximum, minimum and average of Ballet movements identified and the difference in the magnitude of the effect size in the years analyzed.

Despite the variation shown in Table 2, concerning Ballet movements in the routines, it was not possible to identify a significant difference between the apparatus - hoop (H2013/H2019; $p = 0,478$), ball (B2013/B2019; $p = 0,732$), clubs (C2013/C2019; $p = 0,821$) and ribbon (R2013/R2019; $p = 0,888$). However, when discussing the magnitude of the effect size, it was notable but small difference for ball (0.68) and clubs (0.29), and a moderate difference for hoop (0.97) and ribbon (0.74).

Table 3 shows the comparison of the frequency of Ballet movements in 2013 and 2019 and in which components of the routine they were present - Body Difficulty (BD), Apparatus Difficulty (AD), dance step combinations (S), Dynamic Elements with Rotation (DER), Connections (C). Only the movements that showed a quantitative difference \geq to 6 were selected and systematized in descending order.

Table 1
Ballet's movement performed during the RG routines – hoop, ball, clubs, ribbon - 2013 and 2019.

GYMNAST	COUNTRY	BALLET'S MOVEMENT	TOTAL	VAR.
G1-H2013	UKR	<i>pas de bourrée couru, pirouette attitude, galop, soutenu, grand jeté en tournant</i>	12	5
G2-H2013	RUS	<i>Pirouette passé en dehors, skip, chaînés, arabesque penché, passé, retiré, grand battement, grand jeté en tournant, pirouette cou de pied en dehors, pas de chat en tournant, développé, temps levé, galop, pirouette attitude, tour en l'air</i>	32	15

G3-H2013	RUS	<i>skip, chaînés, pas de bourrée couru, pirouette passé en dehors, galop, pirouette attitude en dedans, pirouette passé en dedans, pirouette cou de pied en dehors, passé, grand jeté en tournant, soutenu, pas de chat entournat, arabesque, temps levé</i>	24	15
G1-H2019	RUS	<i>galop, grand jeté en tournant, skip, arabesque, pas de bourré couru, assemblé battu derrière, fouetté italiano, développé, grand jeté, arabesque penché, chaînés, saut de basque, pas de chat en tournant</i>	17	13
G2-H2019	ISR	<i>grand jeté en tournant, arabesque penché, grand jeté, skip, pas de chat en tournant, assemblé battu derrière, chaînés</i>	15	7
G3-H2019	RUS	<i>chaînés, grand jeté en tournant, skip, soutenu, arabesque penché, pas de chat en tournant, assemblé battu derrière, galop</i>	13	8
G1-B2013	RUS	<i>arabesque penché, pirouette attitude en dedans, pirouette passé en dedans, grand jeté en tournant, chaînés, pas de bourrée couru, piqué arabesque, galop, pas de chat en tournant</i>	13	9
G2-B2013	RUS	<i>pas de bourrée couru, enveloppé, temps levé, pirouette passé en dehors, fouetté, galop, passé, soutenu, skip, arabesque penché, pirouette attitude en dedans, tour en l'air, pas de chat en tournant, arabesque</i>	23	14
G3-B2013	BLR	<i>soutenu, passé, skip, pas de bourrée couru, piqué arabesque, pirouette en dehors, galop, grand jeté en tournant, chaînés, pirouette attitude en dedans, pas de chat en tournant, pirouette passé en dedans</i>	21	12
G1-B2019	RUS	<i>passé, grand jeté en tournant, pas de chat en tournant, arabesque penché, enveloppé, skip, galop, saut de basque, assemblé battu derrière, développé, chaînés, attitude</i>	17	12
G2-B2019	RUS	<i>grand jeté en tournant, galop, chaînés, pas de chat en tournant, arabesque penché, fouetté italiano, enveloppé, pirouette passé en dedans, assemblé battu derrière, saut de basque</i>	16	10
G3-B2019	ISR	<i>arabesque penché, passé, galop, grand jeté en tournant, chaînés, saut de basque, assemblé battu derrière, grand jeté</i>	16	8
G1-C2013	RUS	<i>grand battement, passé, pirouette sur le cou-de-pied en dehors, grand jeté en tournant, chaînés, pirouette attitude, arabesque penché, enveloppé, skip, ciseaux, assemblé, grand sissone</i>	16	12
G2-C2013	RUS	<i>passé, pas de chat, pirouette passé en dehors, fouetté, skip, tour en l'air, grand jeté, pirouette sur le cou-de-pied en dehors, pirouette en dedans, galop, retiré, battement frappé, pas de bourrée couru, développé, pirouette attitude en dedans, chaînés, arabesque penchée</i>	31	17
G3-C2013	UKR	<i>chaînés, relevé, galop, grand jeté en tournant, fouetté en second, passé, pas de chat en tournant, développé, enveloppé</i>	15	9

G1-C2019	RUS	<i>skip, grand jeté en tournant, soutenu, passé, développé, grand écarté, assemblé battu derrière, arabesque penché, saut de basque, pirouette passé en dehors, tour en l'air, pas de chat en tournant</i>	20	12
G2-C2019	ISR	<i>passé, chainés, grand jeté en tournant, soutenu, skip, tour en l'air, fouetté italiano, arabesque penché, galop, pirouette passé, grand jeté, pas de chat en tournant</i>	20	12
G3-C2019	UKR	<i>grand jeté en tournant, cloche, attitude derrière, pas de bourré couru, attitude devant, pas de chat en tournant, galop, arabesque penché, chainés, pirouette en dedans</i>	16	10
G1-R2013	RUS	<i>pas de chat en tournant, arabesque, pas de bourrée couru, passé, failli, galop, chainés, pirouette attitude en dedans, pas de valse entourant, skip, tour en l'air, arabesque penché, saut de basque, grand jeté</i>	25	15
G2-R2013	UKR	<i>pirouette en dedans, galop, grand jeté en tournant, passé, pirouette attitude, pirouette arabesque en dehors, chainés</i>	11	8
G3-R2013	BLR	<i>cambré derrière, pas de chat en tournant, pirouette en dehors, passé, arabesque, pirouette en dedans, skip, galop, grand jeté en tournant, saut de basque, soutenu, pirouette en attitude, assemblé battu derrière, pas de bourrée couru</i>	33	14
G1-R2019	RUS	<i>arabesque penché, soutenu, passé, grand jeté en tournant, pirouette passé en dedans, chainés, assemblé battu derrière, saut de basque, tour en l'air</i>	18	9
G2-R2019	ISR	<i>chainés, grand jeté en tournant, assemblé battu derrière, tour en l'air, arabesque penché, fouetté italiano, grand jeté</i>	11	7
G3-R2019	RUS	<i>attitude derrière, grand jeté en tournant, soutenu, grand jeté, skip, saut de basque, arabesque penché, grand fouetté en tournant, galop, chainés, passé, pas de chat en tournant, pirouette passé en dedans, temps levé</i>	20	14

Note: G (gymnast); n° (ranking), first apparatus initial letter (H – hoop); year (2013 or 2019); VAR (variety).

Table 2
Quantity of Ballet Movements per routine

APPARATUS	MAXIMUM		MINIMUM		AVERAGE		MEDIUM AVERAGE		EFFECT SIZE	
	2013	2019	2013	2019	2013	2019	2013	2019	SCORE	CLASS
HOOP	32	17	12	13	22,6	15	11,6	9,3	0,97	Mod.
BALL	23	17	13	16	19	16	11,6	10	0,68	Small
CLUBS	31	20	15	16	20,6	18	12,6	11,3	0,29	Small
RIBBON	33	20	11	11	23	16	12,3	10	0,74	Mod.

Table 3
Comparison of the Ballet's elements frequency between 2013-2019 and its relation to the routine component.

Ballet Movement	Gymnastic elements	Frequency 2013	Routine components 2013	Frequency 2019	Routine components 2019	Quantitative difference
<i>grand jeté en tournant</i>	jump	21	BD	32	BD, AD	11
<i>saut de basque</i>	skip/hop	2	R	12	R	10
<i>assemblé battu</i>	jump	1	C	10	AD, C	9
<i>derrière chainés</i>	rotation	22	R	28	R	6
<i>arabesque penchée</i>	balance	6	BD	12	BD	6
<i>galop pas de bourée</i>	skip/hop	23	C, S	16	C, S	-7
<i>couru</i>	step	13	C, S	4	C, S	-9
<i>arabesque skip</i>	balance	10	C, S	0	---	-10
<i>pirouette</i>	skip/hop	24	C,S	13	C, S	-11
<i>passé en dehors</i>	pivot	14	BD, C, S	2	BD	-12
<i>pirouette attitude</i>	pivot	13	BD	0	---	-13
<i>passé</i>	balance	30	C, S	10	AD, C, S	-20

DISCUSSION

The purpose of this research was to analyze the presence of Ballet movements in Rhythmic Gymnastics routines in the last two CoP Cycles (2013-2016 and 2017-2020). The main finding shows that the year 2013 had a higher number of Ballet movements in the routines than the year 2019.

Although there is no significant difference between the years ($p \geq 0,05$), the average of Ballet movements in the four apparatus routines in 2013 was higher than in 2019 (21,3 against 16,5).

The 2013-2016 CoP cycle was memorable for using masteries, in which the gymnast should perform unusual exercises with the apparatus (FIG, 2014). This rule may have favored more dance compositions and, consequently, was closer

to dance origins and to Classical Ballet (and its movements).

There was no significant variation concerning Ballet movements between the years studied (2013;12.0 and 2019;10.1). This result may be related to the style of the gymnast or the choreography itself, which can be created using different music, which leads the gymnasts to execute other types of dance steps to create the artistic aspect of their routines.

It is important to note that even though the results did not show statistical differences in the amount of Ballet movements in 2013 and 2019, it was possible to observe that the largest amount of Ballet movements were performed by Russian and Belarusian gymnasts, while those gymnasts who utilized fewer Ballet movements were Ukrainian and Israeli gymnasts. In addition, it was noticed that

although Russian gymnasts did not use classical music, the presence of Ballet movements seemed essential to their routines.

This strong presence of classical Ballet movements, regardless of musical style, can be explained by a cultural reason. Rhythmic Gymnastics training models in Eastern Europe spend a long training period teaching and practicing Ballet movements, as they guarantee basic motor skills, improvement of combinations, and perfect body postural alignment (Róbeva & Rankelova, 1991). Classical Ballet is an intrinsic component of Russian identity. The Russians founded a classical Ballet model that is named “Vaganova,” which gained worldwide acclaim and popularity in the 1920s and is intricately connected to the national culture (Amaral, 2011).

Nevertheless, Vieira de Jesus (2013) confirms that Russian athletes’ hegemony in artistic sports, such as figure skating and artistic swimming, is related to the social-historical characteristics of their society, which consider Ballet movements the foundation for the high level technical exercises in those kinds of sports and fosters precision and perfect performance of body and body parts, as well as, the relationship between music and expression. Thus, as referenced in the RG athlete development models, the Eastern Europe countries, especially Russia, dictated the composition and style of RG choreographies.

When analyzing the differences between the maximum and minimum amount of Ballet movements performed in 2013 and 2019, we realized that there was a difference between the maximums identified in 2013 and 2019, being the biggest difference in the ribbon routines (33 against 20). Besides no significant statistics difference, the magnitude of the effect size showed a small difference for ball and clubs and a moderate difference for hoop and ribbon.

Such results may demonstrate the influence of the apparatus on the

composition: even when the style of the gymnast’s routine is not directly related to Classical Ballet, a certain number of Ballet movements are still present, demonstrating how the characteristics of the apparatus can be decisive. On the other hand, if we consider the differences between maximum values, we realize that what may have happened is a decrease in the connections (C) and even in the dance step combinations (S), for the introduction of the most valued exercises.

This decrease, also found in the average quantities, may be related to the changes in the scores from 2013-2016 to 2017-2020 Code of Points (CoP). From 2018, when the Difficulty score became unlimited, there was an increase in the Apparatus Difficulty (AD) exercises, as well as the Dynamic Elements with Rotation (R), leaving less time for the Connections (C) and dance step combinations (S), moments in which Ballet movements appeared quite frequently.

Table 3 acknowledge this aspect. There was an increase in Ballet movements performed during ADs (*assemble battu derrière*) and Rs (*chainés, pas de chat en tournant, saut de basque*) and a decrease in the Cs and Ss (*skip, galop, pas de bourré couru, passé, arabesque*). Exercises such as skip and galop, often used in RG for jumps preparation, decreased from 2013 to 2019 routines from 24 to 13 and 23 to 16, respectively.

The gymnasts may be not be performing them in order to reduce the time of the jumps’ preparation. This allows, for example, more time to include other exercises, such as AD’s. The AD’s had an expressive increase, since in the 2013-2016 Olympic cycle, the mastery (unusual movements with apparatus that in 2017 became Apparatus Difficulty) could only appear five times in the routine. Nowadays, AD’s are unlimited, and some gymnasts even do more than 20 of them in a routine. Such a condition is verified by Leandro (2018) when analyzing the evolution of the Apparatus Difficulty in 288 RG routines

performed in the World Championship 2013 and 200 RG routines in the World Championship 2017. And the author still states that AD elements were significantly higher from one Olympic cycle to another, due to the increase of the mastery value (22% in 2013 to 46% in 2017).

Regarding Body Difficulties (BD), it was noticed that Ballet movements, such as *pirouettes* (or pivots in the RG CoP), were less frequently performed in 2019 than in 2013. An example of the discrepancy was in the *pirouette attitude*, which appeared 13 times in 2013 and did not appear in 2019. Gymnasts may be choosing pivots in non-classical Ballet movements, such as pivots in the *penché*, *boucle* or in split with trunk backward, as these add up higher scores than the pivots in the *arabesque*, *attitude* or *passé* positions. Another aspect to be considered is that in the 2013-2016 Olympic cycle, for every additional rotation in *relevé* the gymnast could double the base value of the pivot. In the 2017-2020 cycle, the additional rotation increases only 0,20, regardless of the pivot's value, which may have discouraged gymnasts from adding it.

We highlight the *grand jeté en tournant*, a jump with a high value movement, which increased its frequency from 21 to 32 times from 2013 to 2019 and was the most frequently performed Ballet movement in the routines. This result agrees with Lebre (2007), who studied the difficulties of the exercises performed by gymnasts in individual routines in the 2007 Portimão World Cup Rhythmic Gymnastics. The author identified a higher number of *grand jeté en tournant*, followed by balance with the horizontal trunk.

Ávila-Carvalho et al (2008) also detected *grand jetés en tournant* as the largest number of executions in the team routines in the same event, most likely related to the value that is given to this exercise in the CoP.

There is a chance that the increase which occurred from one cycle to another is related to the use of jump series. In 2013, it was composed of a maximum of three

jumps and now has no limits, being characterized by two or more successive identical jumps/leaps. Many gymnasts have performed a sequence of four *grand jetés en tournant*, in addition to their variation *à boucle* or with back bend of the trunk, that increase the exercise value.

This information suggests the need for further studies to understand the complexity of RG routines and, as addressed by Leandro et al (2015), the factors related to the sport's particularity and the evaluation criteria defined by the authorities, which have an influence (positive and/or negative) on the gymnasts' final scores and on their relationship with the artistic aspects of RG. These aspects have been brought to the scientific field. Toledo & Antualpa (2016) analyzed RG artistic components in the last thirty years of the CoP, identifying that the 2013-2016 cycle was notable for appreciation of the artistic aspects of the routines.

Regardless of being considered Body Difficulties or not, Body Elements are versatile in the CoP, due to their characteristics. Body Elements can appear in different components of the choreography, according to the strategies of composition that tend to value the best movements performed by the gymnast, consequently, achieving the highest score. The diversification of Body Elements is encouraged by CoP, when examples are suggested where pre-acrobatic and rotations (BD's) with 0,10 as base value can be used as components of Rs, BD's and can also be an AD's criteria.

Table 3 demonstrates the versatility of the use of the elements *saut de basque*, *galop*, *pas de bourée couru*, *skip*, *pirouette passé en dehors* and *passé*. For example, the *saut de basque* is a skip with rotation, characterized as a connecting element, but it can also be used to compose an S or, commonly, to compose elements of rotation of the R's. The *galop*, *pas de bourée couru* and/or *skip* can be presented in different aspects of the routines, such as C and S; the *pirouette passé en dehors* and the *passé* are

BD's that value 0,10 in the CoP, but are also in the composition criteria of AD, R, C or S.

CONCLUSIONS

By analyzing the Ballet movements in the RG routines in the Olympic cycles of 2013-2016 and 2017-2020, we concluded that these elements, being the basis of the body technique of RG, remained present in the routines, but in less frequency. We identified that there was an increase in the use of Ballet elements in the Dynamic Elements with Rotation (*saut de basque, chainés, pas de chat en tournant*), in Apparatus Difficulties (*assemble battu derrière*) and in some Body Difficulties (*grand jeté en tournant, arabesque penché*). In addition, we noticed a decrease in the use of Ballet elements previously used as connection elements (*galop, skip, pas de bourée couru*) and lower value rotation and balance's BDs (*pirouette passé en dehors, pirouette attitude, passé, arabesque*).

Regardless of changes in the Code of Points over the years, Ballet's movements are timeless and must be worked on in RG, within the specificity of the modality. In addition to providing elements for the correct technical execution of body movements in rhythmic gymnastics, they are components of the difficulties requirements (BDs, Ads, S and Rs) and contribute to the artistic variety of the routine. At this moment, special attention should be paid to movements with body rotation, which can be included as criteria for validating the Ads and Rs, as well to the higher value BDs, originating in Ballet movements.

The results of this study can help the RG community to understand the real effect in high level routines caused by the changes in the Code of Points, especially, how Ballet movements impacted the routines from one Olympic cycle to another. Additional researches are necessary, expanding the samples, events and levels of RG routines analysis.

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