

THE CHOICE OF MUSIC AS A FACTOR OF INFLUENCE ON SPORT PERFORMANCE

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ABSTRACT

Technical - combinatorial sports are often linked to the use of music. The methodology concerning the construction of an exercise makes reference to two different approaches. If the first is based on the absolute freedom of composition, the second is based on the music choice where the fundamental idea of the choreography springs from. The aim of this work is to strengthen the statement that the personal choice of the music as far as one's exercise is concerned can lead to an improvement of the results. The sample, made up of 50 athletes practicing rhythmic and artistic gymnastics at a competitive level, has been subdivided into two groups according to the age; group 1 aged between 6 and 11 years old, group 2 aged between 12 and 18 years old. A multiple choice questionnaire, made up of four sections, has been used. The results confirmed the initial hypothesis. The description of the data has been carried out through the univariate analysis of the single variables; the differences between the two groups of athletes have been obtained through Wilcoxon test (variance analysis). The results have pointed out, in particular for the most experienced group of gymnasts that, besides the awareness that the music choice may, in some ways, have a leading role for the interpretation of the music, the *music culture* represents the linking factor between the gymnasts and their trainer in the construction of the choreography.

Keywords: performance, music, rhythmic gymnastics, artistic gymnastics

INTRODUCTION

For technical-combinatorial sports using music, the choice of the piece represents one of the fundamental steps in the construction of the choreography. It is mainly determined by an emotional factor, which is generally conveyed by the athlete in the sports field, by the dancer, the ballet dancer or the performer in similar spheres implying performances and/or presentations.

The Scoring system and the technical regulations of the various sports disciplines emphasise the musical aspect highlighting, in some cases, its purely rhythmic aspect, as in the *sound karate*, whilst elsewhere, incorporating it into the *artistic characteristics*, as in the Rhythmic Gymnastics. In particular, the Rhythmic Gymnastics scoring system, changed in the course of this Olympic four-year period, gives some directions about the technical characteristics of the music: it must be harmonious and complete in its structure, it must not be a simple sequence of musical fragments. The trainer generally takes care of this aspect and, in any case, it is up to the technicians of the sector. In spite of it, in the trainers' technical training tables, an adequate rhythmic-musical training is very rarely provided. It also happens to the athletes: the rhythmic-musical training is not taken into consideration at all times. The decades-long experience in the training field and in the technical training of professional gymnasts of various ages and different technical level allows us to confirm the soundness of a principle immutable in the course of the time: the choice of the music highly determines the success of a piece of choreography. The choice can be made through different ways: it can arise from a planned listening to music belonging to different genres, it can be made by technicians, gymnasts, choreographer, it can arise from a teamwork, sometimes it can be found in a short time, sometimes it requires a longer period of time. In the training of a team, the active participation of the gymnasts in the construction of the exercise, through personal ideas and contribution, makes them proud with positive effects on the learning of the techniques and on the results of the competition. Similarly, when the gymnasts take part in the musical choice, there can be some advantages on the sports performance in particular as far as the memorization of the exercise and its interpretation are concerned. The study makes reference to a group of athletes who practise Rhythmic and Artistic Gymnastics in the same sports club. The aim of this research is to strengthen the statement that the personal choice of the music for the exercise can improve the results.

METHODS

To carry out this research, a Questionnaire made up of 33 questions (already used in different studies and research), subdivided into four sections and modified by technicians and experts of the sector according to the specificity of the study has been used. The questionnaire has been put to a group of 50 athletes belonging to the professional sector of the same sports club and practising rhythmic and artistic Gymnastics. The sample has been subdivided into two groups according to the age and the technical level of the gymnasts (group 1, from 6 to 11 years old; group 2, from 12 to 18 years old).

The initial part of the questionnaire points out the personal data of the athletes, the school attended, the sport practised, the length of the practice, the favourite tool. The first part (7 questions) is based on the *musical* training of the gymnasts. In particular, the study of an instrument at school and / or outside it, the listening to music and the favourite kind of music have been investigated. The second part (9 questions) concerns the level of satisfaction in the use of music during the different phases of the training and the preference of the choreography (slow and expressive or rapid and rhythmic).

The third part (7 questions) makes specifically reference to the participation of the gymnast in the choice of the music: what kind of music, genre, which source was used, what kind of people have, in case, supported the choice. The fourth part (10 questions) regards the influence of music on the interpretation of the exercises, the musical references within the piece used by the gymnasts, the preference for individual or team competition and, in case of team competition, which reference is mainly used by the gymnasts (the piece or the partners).

RESULTS

The data, collected in proper database, have been analyzed and compared. As far as the characteristics of the two groups are concerned, we can notice (Figure 1 and 2) that all the gymnasts attend liceo with different curricula, from classical to educational psychology, with a quite good homogeneity in the percentages. 13% of the younger and 48% of the elder study music also outside school and are able to play an instrument (Figure 3 and 4) with a prevalence of flute, piano and violin for both groups.

A deeper analysis makes it clear that the gymnasts who attend musical liceo are usually they who perceive better the rhythm at the gym and who become a point of reference for the partners. As far as the preferences for the musical field are concerned, a partiality for the commercial music (64% group 1) and for the commercial and techno genres (74% group 2) have come out.

Total agreement has been reached on the proposal to use the music also during the phases of warming-up and physical and muscular training. For 93% of the athletes of the two groups, the musical accompaniment makes the performance easier. Most of the athletes would like to participate, and a lot of them actually do it, in the choice of their music which is generally taken from a CD following the suggestion of the trainer. The percentage of athletes who think to be able to participate in the construction of their exercise is slightly lower; when the elder gymnasts have been asked "*And if you do not like the exercise proposed...*", the 74% of them have answered "*I discuss it with my trainer*" (Figure 5-6). 90% of the athletes prefer fast and quite rhythmic pieces, whilst group 2 of the younger has a predilection for slower and tuneful ones. The analysis of the last part of the answers makes it clear that there is a substantial difference between the two

groups about the value given to the piece: 73% of the gymnasts of group 1 mainly focus on the technique (in comparison with 52% of group 2) while 48% of the gymnasts of group 2 pay attention to the music trying to interpret it (Figure 7 and 8).

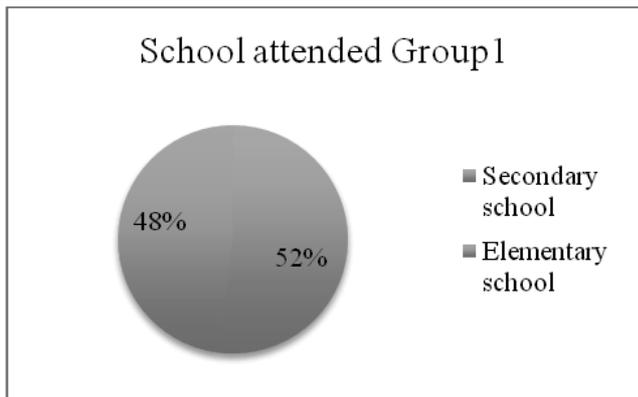


Figure 1 Group 1

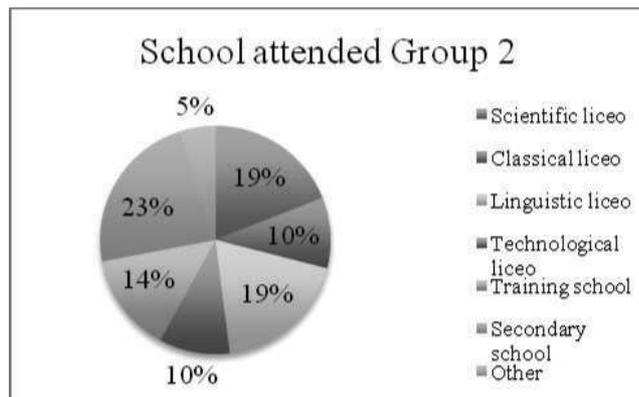


Figure 2 Group 2



Figure 3 Group 1



Figure 4 Group 2

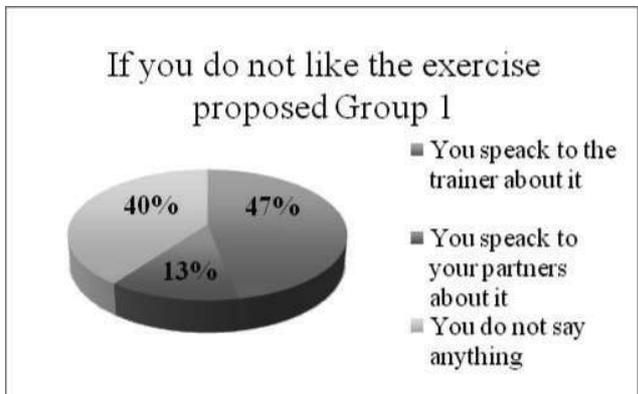


Figure 5 Group 1

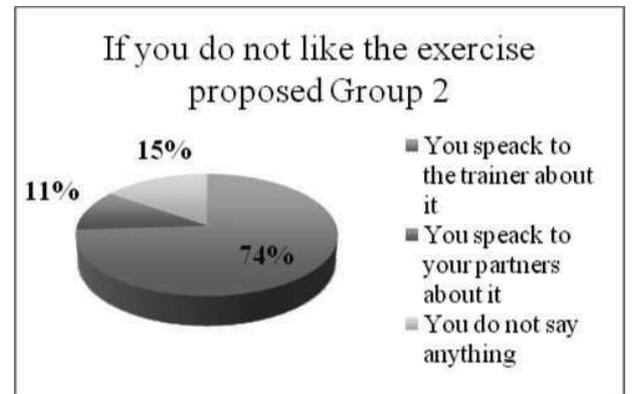


Figure 6 Group 2

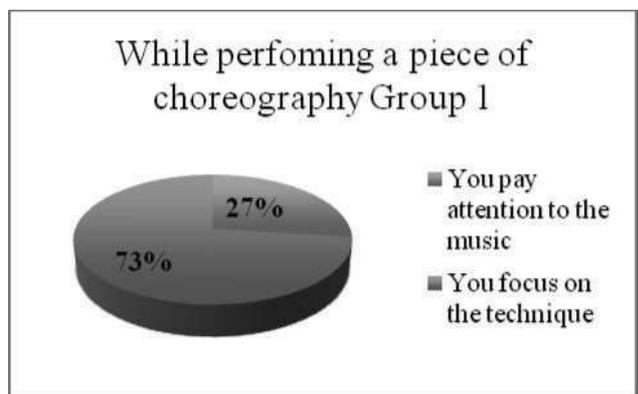


Figure 7 Group 1

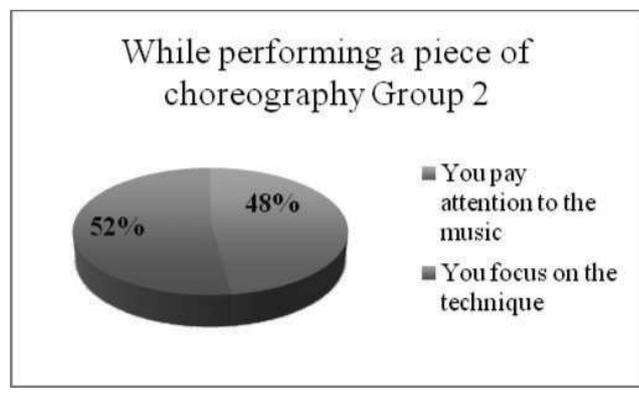


Figure 8 Group 2

DISCUSSION

Even if there are no significant differences at statistic level and even if the sample has not a great numerical value, two important aspects, pointed out in the course of this research, can not be underestimated. The first concerns the inclination of the younger gymnasts to work and compete in team taking one or more partners as point of reference for the synchronism. The second makes reference to a good trainer/ gymnast relationship, confirmed by the decidedly high percentage of gymnasts who think to express their dissatisfaction with the exercise created to their trainer (74% of the more mature gymnasts, 47% of the younger gymnasts).

CONCLUSION

It seems to be advisable to start or at least to support the individual sports training of young athletes through collective activities for the support and the security, transmitted by the teamwork to young subjects who are growing up, and for the various advantages that the team activity offers in particular in the educational sphere of the forming of character and personality.

In the planning of the training of the gymnasts, it would be advantageous to provide a more accurate rhythmic-musical training that, starting from easy musical proposal characterized by clear rhythm and binary subdivision, can be a solid base through which aim at the appropriate use of any kind of musical composition. We must not forget the wide range of positive effects that an adequate and gradual use of music can have on the development and on the achievement of determine formative objects. Just to quote some of them: the improvement of the performance through the lowering of the endurance threshold, the emotional involvement of the subjects, the development of creativity and motor imagination, the establishment of an energetic and quiet atmosphere in the gym.

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