

## 20 - TRAINING (PRACTICE) PERIODIZATION APPLIED TO MUSIC PERFORMANCE: BUILDING PREVENTIVE STRATEGIES

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### INTRODUCTION

In the area of sports performance, the planning of preparation is something that is being developed since the 1910s, when the systematization of training began (DANTAS et al, 2005). Despite the immense advances in this area, there are other fields that still present great difficulties for not applying, or even not knowing these principles that are basic for sports training.

Music practice is one of these areas. Even to this day, the idea that in order to become a good musician, one must practice daily as much as possible is very common. This practice can be seen as imprudent and has been causing a significant number of musicians to present injuries, often disabling ones.

The appropriation of other kinds of knowledge has been proven very healthy in many situations. In this sense, the preparation routines of a musician can be considered as equal to the activity of a very specific athlete, which allows for the adoption of principles which may optimize training, improve distribution of time, reduce the incidence of injuries caused by effort overload and, consequently, stimulate new discussions about the educational practices of musicians and musician/educators.

Therefore, this paper aims to discuss possible relations between the training methodology (periodization more specifically) used in sports and the practice of music students in undergraduate university programs. Besides that, it seeks to elaborate strategies to minimize somatic and psychic problems, contributing for a better planning in the music performance routines.

### Sports training and periodization

In this section, the basic concepts of sports training will be described, allowing for a similar approach of these concepts in music performance.

Sports training has undergone a great evolution, along the last century. The rupture with the idea of "the more, the better" happened in the systematization period, around 1912, in the occasion of the 5th Olympic games in Stockholm (TUBINO, 2003). Since then, the principles of sports training were developed: biological individuality, adaptation, overload, continuity, volume-intensity interdependency, trainability and specificity, all interdependent.

In the organization of sports training, it is known that periodization is the division of the training in stages, whose main objective is to reach maximum gains in the desired occasion of performance. There are basically four periods in a training season: pre-preparation, preparation, competition and transition. Inserted in these periods are the cycles of training: macro, mid, and microcycles. The macrocycle represents all the training of the season. The microcycles are the weekly plannings. Between the macro and the microcycles, there are the midcycles, which are units of parameters that are emphasized in determinate stages of the season.

### Music Performance

It is important to frame the different dimensions of the concept of performance, both in the artistic and in the sports competition fields. Generally the meaning of the word performance is linked to effectiveness, which may create the false idea that, in music, when one talks about performance, there is always an idea of competition, which is definitely not true.

In music, the word performance refers to the preparation as much as it refers to the act of playing in public (MIRANDA, 2013). On the other hand, and more recently, sports performance has been addressed with more connotations of a spectacle, specially for the large competitions (MARQUES et al, 2009).

Music Performance is a complex activity that requires the integration of several motor coordination and cognitive functions. In relation to the motor aspect, it is important to consider that there are several instruments whose techniques imply motor asymmetries. Therefore, there is a need to develop body awareness, as well as the training strategies. Besides, music performance involves several regions of the brain, fine motor coordination, time perception and evocation of memory (THOMPSON, et al, 2006).

Facing this intricate network of information for adequately accomplishing a musical performance, it is predictable that musicians are particularly vulnerable to physical injuries and psychic disorders, anxiety most of all (KENNY, 2006).

### Excessive training in music performance

The routine of preparation of musicians is structured basically through the study of works by the composers and the often repetitive practice of the musical text. Problems in managing this training may relate to the incidence of the so-called repetitive stress injury (RSI) or more recently, work related musculoskeletal disorders (WMSDs).

Studies have shown a high incidence of neuromuscular discomforts in professional musicians, specially pain and postural problems (90%) (ANDRADE e FONSECA, 2000).

On the other hand, Foxman e Burgel (2006) pointed out the three most common occupational problems in musicians as the musculoskeletal overload (50%), the thoracic outlet syndrome (20%), whose symptom is the gradual discomfort, which may compromise the inferior region of the neck and superior limb, and is caused by nerve and vascular compressions due to common postural alterations in music performance, and, finally, focal dystonia (10%), which is the compromising of voluntary muscle tonicity, making the realization of movements necessary to music performance unviable.

In relation to the psychic problems, performance anxiety can be cited as the most common, affecting around 50% of the professional orchestra musicians.

Nowadays, the Brunel scale, which seeks the early detection of the excessive training syndrome, is undergoing a process of validation (ROHLFS, 2008). It is important that such instrument may somehow be adapted to the conditions of music performance. The question now is how to structure a training that prevents problems caused by overload, as effectively as possible.

**Planning of training (practice) in music performance**

In the scope of this study, the university's school year will be considered, that is, two independent semesters or terms. The last 15 days of the school terms, will be considered as the competition period, since that is when the practical exams (instrumental juries) take place.

The specific training for music performance must take in consideration the sports training principles adapted to this situation, as well as foresee situations that may generate psychic and physical overload. Posture is just one of the variables of technique. Good results can't be accomplished by emphasizing just one aspect of technique. Besides, it is important to have orientation on extrinsic variables to the musicians, such as the spaces for practicing, with the proper acoustics, so that the possible risks of auditory lesions caused by long exposition to sound may be reduced.

The periodization of the training in music performance must be structured, starting by establishing the target dates and following all the principles of training. Thus, two semesters, or two macrocycles per year were established. Between each semester, we have the vacation period, when the transitions periods will take place. Each preparatory period will then have the duration of three months, containing the basic and specific periods. And, finally, the competition period, which, in the case of music performance, will be the term auditions or juries. The table below are based on the guidelines for periodization of training according to TUBINO (2003) and adapted to music performance.

Table 1 – Division of training periods in music performance – pre-preparatory and preparatory

Training Periods in Music Performance I		
Pre-preparatory	Preparatory	
	Basic Stage	Specific Stage
<ul style="list-style-type: none"> <li>✓ Diagnostic of the technical condition of the student (rhythm, sonority, articulation, phrasing, etc);</li> <li>✓ Choice of materials (methods, pieces, audio and other media);</li> <li>✓ Sistematization of the durations of the cycles (micro, mid and macrociclo).</li> </ul>	<ul style="list-style-type: none"> <li>✓ Emphasis on the volume of training (duration)</li> <li>✓ General technical and musical preparation;</li> <li>✓ Preparation and psychological training.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Emphasis on the intensity of training (tempos, articulations, intervals, density, etc.);</li> <li>✓ Ear training;</li> <li>✓ Active imagination training;</li> <li>✓ Auditory memory;</li> <li>✓ Automatization of the sequences of actions in the performance.</li> </ul>

Table 2 - Division of training periods in music performance – performance and transition

Training Periods in Music Performance II	
Performance	Transtion
<ul style="list-style-type: none"> <li>✓ Perfecting of the technical and artistic qualities (management of the results achieved);</li> <li>✓ Focus on the key points of the performance (more elaborate passages with higher technical difficulty);</li> <li>✓ Emphasis on the psychological preparation (anxiety control strategies);</li> <li>✓ Visual and Auditory memory of the music performance itself;;</li> <li>✓ Positive reinforcement.</li> </ul>	<ul style="list-style-type: none"> <li>✓ Active rest;</li> <li>✓ No performances;</li> <li>✓ Significant reduction of the volume and intensity of the activities;</li> <li>✓ Practice materials chosen by the student/musician himself;</li> <li>✓ Recuperation from eventual injuries caused by overload;</li> <li>✓ Listening to various audio-visual materials.</li> </ul>

**DISCUSSION**

This article aims to construct analogies between the sports training methodology and apply them to music performance. Obviously, the theme requires a deeper investigation for the healthiest partnership between the areas. The merit of raising these questions relies, most of all, on the impact and changes in behaviour of the teachers that act in music performance instruction.

The practical development practices are a set of activities in the curricula of the various music programs. These activities may happen as individual instrumental lessons, ensemble classes, performance classes (performance labs), practical training (observation and action of students in pedagogical practice), scientific initiation, among others.

The knowledge of concepts related to sports training methodology may favor a more prudent organization of the student's activities, which enables, in a way, a more adequate condition to prevent and precociously detect injuries caused by training overload.

Besides that, through training methodology, the objectives are clearer and the results maximized.

**CONCLUSION**

The appropriation of sports training methodology may come in very usefully in the area of music performance. In this context, it may contribute to the construction of new pedagogical practices that, besides being preventive in relation to the problems caused by training overload, may also maximize the effectiveness in the process of preparation, culminating with better results in concerts, recitals and auditions.

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### **TRAINING (PRACTICE) PERIODIZATION APPLIED TO MUSIC PERFORMANCE: BUILDING PREVENTIVE STRATEGIES**

#### **ABSTRACT**

In the area of sports performance, the planning of preparation is something that is being developed since the 1910s, when the systematization of training began. Despite the immense advances in this area, there are other fields that still present great difficulties for not applying, or even not knowing these principles that are basic for sports training. In Music Performance, even to this day, the idea that in order to become a good musician, one must practice daily as much as possible is very common. This practice can be seen as imprudent and has been causing a significant number of musicians to present injuries, often disabling ones. This article aims to construct analogies between the sports training methodology and apply them to music performance. The theme requires a deeper investigation for the healthiest partnership between the areas. The merit of raising these questions relies, most of all, on the impact and changes in behaviour of the teachers that act in music performance instruction. In this context, it may contribute to the construction of new pedagogical practices that, besides being preventive in relation to the problems caused by training overload, may also maximize the effectiveness in the process of preparation, culminating with better results in concerts, recitals and auditions.

**KEYWORDS:** Sports training. Periodization. Music Performance.

### **PÉRIODISATION DE L'ENTRAÎNEMENT APPLIQUÉ AUX PERFORMANCES DE LA MUSIQUE: DÉVELOPPEMENT DE STRATÉGIES DE PRÉVENTION.**

#### **RÉSUMÉ**

Dans le domaine de la performance sportive, la planification de la préparation est quelque chose qui se développe depuis les années 1910, lorsque la systématisation de l'entraînement a commencé. Malgré les immenses progrès dans ce domaine, il ya d'autres domaines qui présentent encore de grandes difficultés pour ne pas appliquer, ou même ne pas connaître ces principes qui sont à la base pour l'entraînement sportif. En performance musicale, même à ce jour, l'idée que, pour devenir un bon musicien, il faut pratiquer tous les jours autant que possible est très commun. Cette pratique peut être considéré comme imprudent et a été à l'origine d'un nombre important de musiciens aux présenter blessures, souvent invalidantes. Cet article vise à construire des analogies entre la méthodologie de l'entraînement sportif et de les appliquer à la performance de la musique. Le thème nécessite une enquête plus approfondie pour le partenariat sain entre les domaines. Le mérite de soulever ces questions dépend, avant tout, sur l'impact et les changements de comportement des enseignants qui agissent dans l'instruction de la performance de la musique. Dans ce contexte, il peut contribuer à la construction de nouvelles pratiques pédagogiques qui, en plus d'être préventive en ce qui concerne les problèmes causés par une surcharge d'entraînement, peut également maximiser l'efficacité dans le processus de préparation, culminant avec de meilleurs résultats dans des concerts, des récitals et des auditions.

**MOTS-CLÉS:** Entraînement sportif. Périodisation. Performance de la Musique.

### **PERIODIZACIÓN DEL ENTRENAMIENTO APLICADA A LA PERFORMANCE MUSICAL: CONSTRUCCIÓN DE ESTRATEGIAS PREVENTIVAS**

#### **RESUMEN**

En el área de la performance deportiva, la planificación de la preparación es algo que se está desarrollando desde la década de 1910, cuando se inició la sistematización del entrenamiento. A pesar de los enormes avances en esta área, hay otros ámbitos que aún presentan grandes dificultades por no aplicar, o incluso no saber de estos principios que son básicos para el entrenamiento deportivo. En performance musical, aún hoy en día, la idea de que para llegar a ser un buen músico, uno debe practicar todos los días tanto como sea posible es muy común. Esta práctica puede ser vista como imprudente y ha sido la causa de un número significativo de músicos a presentar lesiones, por veces incapacitantes. Este artículo tiene como objetivo la construcción de analogías entre la metodología de entrenamiento deportivo y aplicarlas a la performance musical. El tema requiere una investigación más profunda para la asociación saludable entre las áreas. El mérito de plantear estas preguntas se basa, sobre todo, sobre el impacto y los cambios en el comportamiento de los profesores que actúan en la enseñanza de la performance musical. En este contexto, puede contribuir a la construcción de nuevas prácticas pedagógicas que, además de ser preventivas en relación a los problemas causados por la sobrecarga de entrenamiento, también puede maximizar la eficacia en el proceso de preparación, que culminará con mejores resultados en conciertos, recitales y audiciones.

**PALABRAS CLAVE:** entrenamiento deportivo. periodización. Performance musica

**PERIODIZAÇÃO DO TREINAMENTO APLICADA À PERFORMANCE MUSICAL: CONSTRUINDO ESTRATÉGIAS PREVENTIVAS****RESUMO**

O planejamento da preparação na área da performance desportiva é algo que já vem se desenvolvendo desde a década de 1910, quando se iniciou a sistematização do treinamento. Apesar da imensa evolução nessa área, existem outros campos de atuação que ainda apresentam grandes dificuldades por não aplicarem ou, sequer, conhecerem esses princípios que balizam o treinamento desportivo. Na performance musical, ainda hoje, é muito comum a idéia de que para se tornar um bom músico é necessário treinar o máximo possível. Essa prática tem feito com que um número significativo de músicos apresente lesões, muitas vezes incapacitantes. Esse artigo trata de construir analogias entre a metodologia de treinamento desportivo e aplica-las à performance musical. O tema requer um aprofundamento mais amplo e parcerias saudáveis de ambas as áreas. O mérito de se levantar essas questões se encontra no impacto da informação na mudança de atitude, sobretudo, dos professores que atuam no âmbito das práticas de formação em música. Neste contexto ela pode contribuir na construção de novas atitudes pedagógicas que, além de atuarem de forma preventiva com relação aos problemas decorrentes da sobrecarga de treinamento, podem maximizar a eficiência do processo de preparação, culminando com melhores resultados em concertos, recitais e audições.

**PALAVRAS-CHAVE:** Treinamento desportivo. Periodização. Performance musical.