

Periodization: A Strategic Influence in Athletics and Academics

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Received: 2024-02-03

Reviewed: 2024-02-20

Revised: 2024-02-22

Accepted: 2024-02-25

Published: 2024-02-29

Abstract

Background: Periodization, often synonymous with the systematic organization of athletic training, holds immense value for academics as well.

Objective: This opinion paper aimed at emphasizing the relevance of periodisation not only for athletes but also academics.

Methods: There was no systematic literature search conducted. However, selective publications in relation to the topic were considered.

Results: By implementing the fundamental principles of periodization, sports scientists can optimize their performance, cultivate essential skills, effectively manage their workload, and cope with emerging challenges. Therefore, periodization seems to hold significant value for academics.

Conclusions: Just as athletes meticulously plan their training cycles to reach top performance, academics can leverage the power of periodization to excel in their intellectual pursuits. By embracing this structured approach, academics can unlock their full potential while maintaining healthy and sustainable work practice.

Keywords: *Periodization, academia, athletics, needs analysis, workload.*

How to cite this article:

Bouguezzi R, Negra Y, Chaabane H. Periodization: A Strategic Influence in Athletics and Academics. *Tun J Sport Sci Med.* 2024;2(1):21-24.

1. Introduction

Few dimensions of sports performance rival the significance of periodisation (1). Indeed, periodization isn't just crucial for athletics; its influence extends to various other domains, including academia. While it may seem unusual at first glance, the concept of periodization, traditionally associated with sports training (2-5), holds remarkable significance for academics including sport and exercise scientists, as well (6). In this sense, achieving success in both academia and athletics requires dedication, strict discipline, resilience, and a well-structured approach. Just as athletes meticulously plan their training cycles with the help of coaches to optimize performance, sport and exercise scientists can hugely benefit from adopting a similar approach to their intellectual pursuits and research endeavors. Through periodization, individuals in both

sectors can achieve their full potential and navigate their journey to excellence while maintaining an optimal work-life balance. The intention of this short opinion paper is to shed the light on the relevance of periodization not only for athletes (2-5) but also academics to improve their research efficacy and performance. We have also briefly outlined how the concept of needs analysis, which is crucial for appropriate periodization (7, 8), could be extended to the Academic sector.

2. The benefits of periodization

2.1. Maximizing performance

Periodization serves as a framework for athletes to logically organize their training into separate phases, each with specific goals and loads of work (2, 3). Similarly, sport



scientists can/should strategically structure their work and research efforts to improve their performance. By splitting academic pursuits into reasonable and manageable segments, such as semesters or quarters, sports scientists can set specific, applicable, and reachable objectives, allocate time efficiently, and avoid burnout. The deliberate allocation of resources allows sport scientists to focus on core subjects while leaving room for exploration and personal growth.

2.2. *Improving quality*

Training quality results in better sporting performance (9). The best way to achieve high training quality is via a vigorous and systematic periodization plan (9). Training quality was recently defined as the degree of excellence related to how the training process or training sessions are executed to optimize adaptations and, thereby, improve overall sport performance (9). The same authors raised two main dimensions of training quality: the holistic (entire training process) and the narrow (single training session). Likewise, periodization can help sport scientists achieve and/or maintain good quality research practice. In fact, by making a clear periodization plan both from a long and short-term perspectives, the quality of academic research and productivity will develop while maintaining a sustainable and healthy work practice. To the best of the authors' knowledge, studies addressing the relevance of periodization in the context of academic productivity and research outcomes are lacking. As such, empirical research is still needed to confirm these claims.

2.3. *Optimal development*

Athletes utilize periodization to systematically develop key physical abilities, associated with competitive success in the respective sport (10, 11). Likewise, sport scientists can focus on developing cognitive skills, such as critical thinking, leadership competence, team communication and teamwork as well as creativity, by employing periodization. By dedicating specific periods to mastering these skills, sport scientists can build a strong and resilient foundation while cultivating expertise in their chosen field. Moreover, this approach helps sport scientists achieve an optimal and sustainable work-life balance and avoid any risk of burnout and overload.

2.4. *Managing workload and preventing overload*

For athletes (12-14) as well as academics, excessive workload without any proper recovery can lead to exhaustion and attenuated performance. Athletes and coaches understand the crucial importance of appropriate recovery periods in their training plans, allowing their bodies to repair and adapt. Similarly, academics must recognize the significance and the need for appropriate rest to maintain mental well-being and prevent burnout (6). Of note, burnout is a major threat for academics due the challenging working environment in which they live. In fact, academics are expected to deal with a variety of roles such as providing high-quality teaching and supervision, publishing innovative research in highly reputable journals, striving research grants, and sustaining administrative tasks (15-17). Coping with such a complex working environment is a real challenge for every academic as it is associated with a lot of stress, depletion of mental resources, and could even lead to a state of burnout (18-20). In this sense, planning periods of rest within busy and highly stressful moments is a necessity for academics to avoid negative mental consequences (6). By incorporating breaks, relaxation, and self-care into their academic routines, individuals can sustain motivation, enhance productivity, and foster long-term career success.

2.5. *Adaptability and flexibility*

One of the key aspects of periodization is its flexibility and adaptability to changing circumstances (21, 22). Athletes adjust their training plans to accommodate injuries, competitions, and other unexpected events. Similarly, sport scientists must be flexible and adaptable in the face of unforeseen challenges, such as project revisions, time constraints, or unexpected research findings. In other words, sport scientists must be coping-ready with changing conditions and unexpected developments. By embracing flexibility, and effectively and timely adjusting their plans accordingly, individuals can successfully and efficiently navigate obstacles and continue progressing toward their academic goals.

3. **Why not conduct a needs analysis?**

Coaches and fitness trainers usually conduct a need analysis to understand the particular requirements of the sport (7). Before undertaking any academic path, early career researchers should run a needs analysis of the job. This would help in understanding the special requirements

of the job in terms of the overall workload, working environment, required skills, risk of burnout, etc. The insights obtained from the needs analysis will play a crucial role in determining whether to pursue a research career or not. Furthermore, this information will help in establishing an effective work periodization for those individuals who chose to go down this path. While one obvious, albeit not purely scientific, approach for early career academics to understand the needs of their job in academia is to seek guidance and tips from senior researchers regarding the main requirements and duties, it's important to recognize that the working environment in academia is constantly evolving, driven by rapid technological advancements. This implies that the needs of the job are also changing, thus making periodic needs analysis a necessity.

Overall, a needs analysis would be required to explore the features of the job and identify if it fits the individual's expectations and motivations. However, the concept of needs analysis is not as well established in academia as it is in sports. In fact, it is a relatively new concept for academia, which we believe should be embraced and investigated further in future studies to provide clear insights for early career scientists.

4. Conclusion

Periodization, often associated with athletic training, holds immense value for academics as well. By applying the key principles of periodization, academics from a broader perspective and sport scientists more particularly can optimize their performance, develop essential skills, manage their workload effectively, and remain adaptable in the face of arising challenges. Just as athletes carefully plan their training cycles to achieve peak performance, academics can

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benefit from the power of periodization to excel in their intellectual pursuits. Future studies should underscore the importance of periodization in academia as an effective strategy for mitigating negative health consequences, including persistent stress, depression, and burnout.

Acknowledgments

Not applicable.

Ethical Approval and Consent to Participate

Not applicable.

Consent for Publication

Not applicable.

Competing Interests

The authors declare that they have no conflict of interest to disclose.

Funding

This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors.

Authors' Contributions

RB defined the idea and drafted the manuscript. YN and HC critically reviewed the manuscript.

Declaration

Not applicable.

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