

International Alliance of Health, Physical Education, Dance, and Sport

Jumping Hurdles to Create a Winning Team Between Academic Researchers and Collegiate Coaches

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1

Introduction

- Connect with us!
 - Pollev.com/lockard
- Case Study Experience
 - Lessons Learned
- RoundTable Discussion
 - Types of Study Designs
 - Jumping through IRB and NCAA hoops
 - Getting coaches buy-in
 - Effectively communicating the results

2

A Case Study

- **VO_{2max} Profiles in Collegiate Cross-Country Runners Before and After VDOT-Specific In-Season Training**
 - **Purpose:** Describe and Explore relative VO_{2max} values pre-post a VDOT (time-trial predicted) tailored in-season training regimen.

3

A Case Study

- **Research Questions:**
 - Are there significant differences in cohort CRF over the season?
 - Are their sex-related athlete differences over a season.
 - Does the amount of collegiate experience significantly impact baseline scores and post-training VO_{2max} scores?
 - How effective are field test/time-trial based training regimens for collegiate XC athletes?
- **Methods:**
 - Retrospective analysis of data (15 profiles)
 - Collected by exercise physiologist on treadmill in lab
 - Collected by coaches during field tests in the context of Daniel's Running Formula.

4

Lessons Learned / Limitations

- Retrospective - rigor
- Missing data
- Sample size - power
- Organizational roles in communication
 - Scheduling, points of contact, ownership
- Research questions not clearly defined at start of project
- Operational Definitions
 - How training VDOT calculated/determined
- Controls
 - Thermal strain, lack of standardization on distances

5

Types of Study Designs

- Qualitative vs. Quantitative Data
- Surveys and Questionnaires
- Observational (no treatment)
- Experimental (treatment / intervention)
- Planned vs. Retrospective
- Sampling: Random versus Non-Random

6

Jumping Through IRB and NCAA Hoops

- **IRB: Institutional Review Board**
 - Human Subjects Research
 - Level of risk / harm / discomfort
 - Level of invasiveness (materials collected)
- **NCAA: National Collegiate Athletic Association**
 - Intervention proven safe/effective in general pop
 - Incentivizing participation
 - Practice standards and limitations
 - Athletic Director approval
 - Athlete consent
 - Accommodating freshmen / future athletes

7

Getting Coaches Buy-In

- **Building Initial Relationship**
 - Attending regular practices
 - Demonstrating an understanding for the sport
- **Understanding Coach and Athlete Needs**
 - Occasional meetings about the needs of the program
 - One on one meetings with athletes
 - One on one meetings with coaches
- **Presenting the Problems and Solutions**
 - Problem-solution focused approach
 - There may be many problems that can be tied into the research you are hoping to conduct

8

Getting Coaches Buy-In

- **Do what you can**
 - Providing any kind of help to the program is better than providing nothing at all.
 - Coaches are looking for assistance and expertise, not more management work.
 - Provide the information, and then counsel or advise only if it is asked for.

9

Effectively Communicating the Results

- **Translational Sports Medicine Science**
 - Bringing/applying research to the field, court, or track
- **EBP in Sports Medicine**
 - Practitioner Expertise
 - Athletes Values
 - Research-Evidence

1. Fullagar HKH, McCall A, Impellizzeri FM, Favero T, Coats AJ. The Translation of Sport Science Research to the Field: A Current Opinion and Overview on the Perceptions of Practitioners, Researchers and Coaches. Sports Med. 2019;49(12):1817-1824.

10

Translational Sport Science Current Perceptions (from the literature)

- **What do coaches value?**
 - Research aimed at...
 - Technical & Tactical Expertise
 - Mental Training
 - Skill Acquisition
- **How do coaches prefer to learn?**
 - Personal Interactions (other coaches)
 - Observation (players)

1. Fullagar HKH, McCall A, Impellizzeri FM, Favero T, Coats AJ. The Translation of Sport Science Research to the Field: A Current Opinion and Overview on the Perceptions of Practitioners, Researchers and Coaches. Sports Med. 2019;49(12):1817-1824.

11

Translational Sport Science Current Perceptions (from the literature)

- **What do practitioners & researchers value?**
 - Research aimed at...
 - Physical Fitness
 - Recovery
- **How do practitioners & researchers prefer to source information?**
 - Journals
 - Networking
 - Attending conferences

1. Fullagar HKH, McCall A, Impellizzeri FM, Favero T, Coats AJ. The Translation of Sport Science Research to the Field: A Current Opinion and Overview on the Perceptions of Practitioners, Researchers and Coaches. Sports Med. 2019;49(12):1817-1824.

12

Effectively Communicating the Results

- **Limitations**
 - Research questions don't align with coaches' needs
 - Funding
 - Time
 - Organizational politics
 - Conservatism to change
 - Usability of outcomes

1. Fullagar HHK, McCall A, Impellizzeri FM, Favero T, Coats AJ. The Translation of Sport Science Research to the Field: A Current Opinion and Overview on the Perceptions of Practitioners, Researchers and Coaches. Sports Med. 2019;49(12):1817-1824.

13

Effectively Communicating the Results

- **Best Practices**
 - Attend team meetings
 - Relationship/trust building activities
 - Find a common language
 - avoid jargon/lingo
 - use preferred communication method
 - Keep it simple
 - Have expert coaches present at coach's courses

1. Fullagar HHK, McCall A, Impellizzeri FM, Favero T, Coats AJ. The Translation of Sport Science Research to the Field: A Current Opinion and Overview on the Perceptions of Practitioners, Researchers and Coaches. Sports Med. 2019;49(12):1817-1824.

14

Final Remarks

- Additional Discussion and Questions?
- Thank you for your participation!
- Stay in Touch:
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15