Beyond the Workouts: Take-a-ways from Research on Successful Coaching

Marshall J. Milbrath, ABD, M.Ed.
Director of Exercise and Sport Studies
Assistant Professor
1. Why is a college professor speaking at Convention?
2. How do successful coaches have developed expertise?
3. What do successful coaches use to guide their coaching?
4. How can we implement this in the Indoor Season?
1. Find someone who you have not spoken with this week who is at least 4 spots away from you
2. Move your stuff over to them and sit next to them
3. Introduce yourself with the following information:
   • Where you are currently (e.g., Job, City/State, Years Into Your Career)
   • Where you were 6 years ago
4. You have 4:00...
Raise your hand if six years **the person next to you** was:

A Coach
Raise your hand if six years the person next to you was:

An Athlete
Raise *your* hand if in the last six years:
You had some experience that altered how you approached coaching.
Brief Background

• NCAA Division III
• Education
  • Ph.D. Sport and Exercise Science (in progress)
  • M.Ed. Exercise Physiology
  • M.Ed. Curriculum & Instruction
• High School Coach – 6 years total
• Volunteer Assistant Coach
  • Longwood University
  • University of Northern Colorado
Current Position

Benedictine University
  • Director of Exercise and Sport Studies
  • Assistant Professor

Research Topics
  • Characteristics of Expert Coaching
  • Knowledge used in Coaching
  • Decision-Making in Coaching
  • Social Justice Promotion through Coaching
  • Various T&F Topics in history and performance
Studies on Coaching Knowledge have identified three main categories:

- **Scientific Knowledge** or “Why we do what we do”
  (e.g., Physiology, Psychology, Biomechanics)

- **Sport-Specific Knowledge** or “What we do”
  (e.g., Technical knowledge, Tactical knowledge, Specific drills)

- **Coaching Knowledge** or “How we do what we do”
  (e.g., Communication, Teaching Skills, Planning, Analysis/Assessment)

Let’s see our preferences!

Survey Link: j.mp/USTFCCCA_SAT_CR (case-sensitive)
How do you get a PhD in coaching???

### How we get answers

<table>
<thead>
<tr>
<th>What can we know the reality of something?</th>
<th>Traditional Science</th>
<th>Science through Others’ Experiences</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reality is:</td>
<td>Reality is:</td>
</tr>
<tr>
<td></td>
<td>✓ External</td>
<td>✓ constructed through interaction</td>
</tr>
<tr>
<td></td>
<td>✓ Independent</td>
<td>✓ dependent on the setting</td>
</tr>
<tr>
<td></td>
<td>✓ Waiting to be</td>
<td>✓ dependent on the person in the</td>
</tr>
<tr>
<td></td>
<td>discovered</td>
<td>setting</td>
</tr>
</tbody>
</table>

Survey Link: j.mp/USTFCCCA_SAT_CR (case-sensitive)
What we don’t do...

• Look for a universal way to coach
• Look for "secrets"
• Believe that someone becomes an expert coach by going to school and reading books

Survey Link: j.mp/USTFCCCA_SAT_CR (case-sensitive)
What we do...
• Try to understand team environments
• Search for coaching behaviors that consistently work
• Investigate how the things that coaches know are in coaching relate to each other
• Share coaching settings alongside research findings so readers can decide how it applies to them

I will not say this is the “truth,” but I will say it is a likely story

Survey Link: j.mp/USTFCCCA_SAT_CR (case-sensitive)
Survey Results

Last Useful Thing Learned

- Coaching: 75%
- Sport-Specific: 25%
- Scientific: 0%

Stockowski & Collins (2017)

What Coaches Would like to Learn

- Coaching: 75%
- Sport-Specific: 25%
- Scientific: 0%

Stockowski & Collins (2017)
Research on a Track Coach

**Participant**
- Single-case, case study
- 10+ years, Regular Nat Champs, Peer-Recognized

**Data Collection**
- Four-day onsite visit
- Interviews
  - Head Coach: 5 interviews (3 hours, 45 minutes)
  - Two assistant coaches: 1 joint interview (45 minutes)
  - 2 pairs of athletes, 2 male, 2 female (45 minutes each)
- Training Session Observations: 5 training sessions, 9 ½ hours
## What we found

<table>
<thead>
<tr>
<th>First Order Themes</th>
<th>Second Order Themes</th>
<th>Third Order Themes</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physiology</td>
<td></td>
<td>Scientific Knowledge ('ologies)</td>
<td></td>
</tr>
<tr>
<td>Psychology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Periodization</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Endurance Running Requirements</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competitions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adopted Values and Attitudes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal Development Goals</td>
<td>Knowledge of Goals</td>
<td>Knowledge of how to coach endurance runners</td>
<td>Coaching Knowledge</td>
</tr>
<tr>
<td>Performance Goals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competition Goals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual Characteristics</td>
<td></td>
<td>Knowledge of how to coach his athletes</td>
<td></td>
</tr>
<tr>
<td>Individual Circumstances</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual Communication Styles</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explaining and Instructing</td>
<td></td>
<td>Person Focused Actions</td>
<td></td>
</tr>
<tr>
<td>Cultivating Team Environment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assessing Athletes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competition Planning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizing Training Schedules</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Implementing Predetermined Training</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Implementing Responsive Training</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scientific Knowledge ('ologies)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sport-Specific Knowledge</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### How has coaching knowledge been taught?

**IAAF/USATF Introductory Coaching Manuals**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scientific</strong></td>
<td>15.5%</td>
<td>17.8%</td>
<td>0%</td>
<td>38.3%</td>
<td>20.5%</td>
<td>76.1%</td>
<td>75.6%</td>
</tr>
<tr>
<td><strong>Coaching</strong></td>
<td>3.1%</td>
<td>2.7%</td>
<td>5.4%</td>
<td>0%</td>
<td>2.9%</td>
<td>23.9%</td>
<td>24.4%</td>
</tr>
<tr>
<td><strong>Sport Specific</strong></td>
<td>81.5%</td>
<td>79.6%</td>
<td>94.6%</td>
<td>61.7%</td>
<td>76.5%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

*Cursory analysis of pages dedicated to content, unpublished*
Primary functions

- Set vision and strategy
- Shape the environment
- Build relationships
- Conduct practices and prepare for competitions
- Read and react to the ‘field’
- Learn and reflect

Professional knowledge
(sport-specific and related content and how to teach it)

Values, philosophy and goals to guide actions

Interpersonal knowledge
(connecting with people)

Intrapersonal knowledge
(self-awareness and reflection)

(ICCE, 2013)
Principles of Effective Coaching

Doing the following effectively are critical for getting athletes to

• Explanations
• Demonstrations
• Cues
• Feedback

Adapted from:
Principles of Effective Explanations

- Plan what to say in advance
- Gain attention before starting
- Keep it short and simple
- Invite questions
- Check for understanding

Adapted from:
Principles of Effective Demonstrations

• Position so all could see
• Provide correct demonstration in silence
• Provide multiple demonstrations from different angles
• Check for understanding

Adapted from:
Principles of Effective Cuing

• Accurate (Sport-Specific Knowledge)
• Brief and important for the skill being performed
• Appropriate to the learner’s skill level and age
• Sequentially organized with opportunities to rehearse

From Rink (2014)
Principles of Effective Feedback

• Promote self-analysis ("what did you notice...")
• Limit input to 1-2 key points
• Give specific positive feedback
• Give specific informative feedback
• Ask the athlete, “What will you do now?”

Adapted from:
Practicing the "How" with IKCR Principles

**Introduction**
- The coach clearly explains what she/he will be doing

**Key Points**
- The coach explains the key points that she/he will be teaching the athlete

**Coach**
- The coach conducts the practice

Adapted from:
Review

• Reviewer starts by asking the coach what they did well (refer to the key points)
• Reviewer follows up by asking what the coach could have done to make the practice even better
• Next ask the rest of the group which points the coach hit and which if any were missed or not quote right
• Lastly provide your own feedback if required
Take-a-Ways: Point #1

Why is a college professor speaking at Convention?

✓ Coaching research is written to better understand coaching practices that work
✓ Coaching research is largely written to help coaches
How do successful coaches have developed expertise?

✓ Coaches use different types of knowledge
✓ ‘Knowledge of Coaching’ is often a heightened interested, but it is the hardest to accesses learning opportunities
What do successful coaches use to guide their coaching?

✓ Scientific and Sport-Specific Knowledge to create a general approach

✓ Emphasis on ’Coaching Knowledge’
  • ‘Wholesale approach’ for use regardless of the group
  • Understanding the individual circumstances and characteristics of the individual athletes.
How can we implement this in the Indoor Season?

✔ Challenge yourself to use principles of effective
  • Explanations
  • Demonstrations
  • Cues
  • Feedback

✔ Use the IKCR Principles to improve “how” you coach
  • Ask a reviewer to use these with you for your own development
  • Use the principles with assistant coaches to develop them
Enter these doors with an unrelenting sense of urgency.
Questions

Marshall J. Milbrath

marshall@evbasedathletic.com

linkedin.com/in/MarshallJMilbrath