

THE HIGH PERFORMANCE COACHING BLUEPRINT

Insights and Inspiration From Leading Strength Coaches to
Level Up Your Program

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Foreword

Scott Caulfield, MA, CSCS,*D, TSAC-F*D, RSCC*E

In sports, the relentless pursuit of excellence knows no bounds. Athletes continuously push their limitations, striving for every advantage to elevate their performance. Likewise, dedicated coaches unwaveringly hone their craft, always at the forefront of innovation and expertise. At the heart of this quest lies an essential pillar: Strength and Conditioning. This field has undergone a remarkable transformation, evolving from what sports coaches once considered detrimental to development to now being acknowledged as an indispensable component of athletic preparation. As scientific research advances and technology evolves, our understanding of the human body deepens. With this growing knowledge, decision-makers increasingly recognize the crucial role strength and conditioning coaches play in unlocking an athlete's full potential and achieving peak performance.

That's why I am thrilled to introduce *The High-Performance Coaching Blueprint*.

What sets this book apart from others in the field is the quality and experience of its contributors. These experts hail from various levels of sport, backgrounds, and coaching philosophies, but all share a common goal: to provide you with first-class knowledge and practical materials to elevate your athletes' performance and coaching practice. We chose the S&C coaches for this project based on their expertise, excellence in their current roles, exemplary leadership, and ability to inspire other coaches as mentors and role models for athletes and peers alike.

Within these pages, you will find a treasure trove of knowledge curated with care and precision. Each chapter delves into different aspects of strength and conditioning, from developing your coaching philosophy, enhancing speed, agility, and power to fostering leadership, culture, and wellness with your athletes.

As you embark on this journey with us, you will enjoy a contest of ideas, the fusion of perspectives, and the cross-pollination of strength and conditioning strategies. Our goal is to empower you and equip you with the necessary tools to unlock the full potential of your athletes. Whether you're a seasoned coach seeking new perspectives or a novice aiming to establish a strong foundation, we invite you to immerse yourself in The High-Performance Coaching Blueprint.

Chapter 1

Everyone's Favorite Interview Question: What's Your Coaching Philosophy?

Scott Caulfield, MA, CSCS,*D, TSAC-F*D, RSCC*E
Director of Strength & Conditioning, Norwich University



Everyone's Favorite Interview Question: What's Your Coaching Philosophy?

Everyone seems to know they should have one, and most coaches admit they know they need one, but have you ever been confused when someone brings up coaching philosophy? If you said yes, you're not alone! Coaches and scholars in strength and conditioning (S&C) struggle with this topic. But fear not; I'm here to clarify some things I find helpful. This chapter will discuss the difference between coaching and training philosophies, value and principal identification, and finish with a step-by-step guide to help you create your own coaching philosophy, so you're not blindsided when a prospective employer asks you to outline yours.

Why bother with a coaching philosophy?

First and foremost, experts recommend that strength and conditioning coaches (SCCs) have a background in exercise science or related fields. That makes sense. But when it comes to coaching philosophy, things become murky. While liberal arts universities often require students to take philosophy courses, this is not a mandatory component in many exercise science degree programs. While pursuing a strength and conditioning certification is necessary for employment, it is worth noting that philosophical matters are not covered in the course preparation materials or certification exam but are critically important to your success.

Put simply, a coaching philosophy reflects the core beliefs, knowledge and values of a coach. It's unique, what sets one coach apart from another, and what drives a coach's vocation. Coaching philosophy is not training philosophy. They are two very different things that I'll discuss shortly.

So, if you're an S&C coach, it's time to self-reflect. What are your core values? What motivates you as a coach? What are your ultimate goals for your athletes? Answering these questions will help you to develop your coaching philosophy and set you up for success

Coaching vs. Training Philosophy: What's the Difference?

Let's keep it simple: coaching philosophy refers to an overall approach to coaching, while training philosophy pertains more specifically to a system for designing and implementing training programs.

So, what separates a coaching philosophy from a training philosophy? Philosophy is often defined as a way of thinking about the universe and everything in it. But when it comes to coaching and training, things can get confusing.

In a critical literature review, Cushion et.al found that definitions of coaching philosophy need more explanation and conceptual clarity. Let's break it down.

In NSCA Coach Vol. 5.1, Dr. Gearity and I suggest that coaching philosophy is the 'why,' while training philosophy is the 'how.' Coaches' beliefs and views significantly influence their actions with their athletes, so a coaching philosophy is a set of values, attitudes, and ideas that guide a coach's daily

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practice. A training philosophy, on the other hand, is a system based on scientific principles and structured order.

Training philosophy plays a role in the overarching coaching philosophy as it underpins the methods that intertwine with the values and beliefs that influence decisions made by a coach. While it's essential to understand the difference between coaching and training philosophy, remember that they both play a vital role in guiding a coach's practice.

Philosophy influencing practice

Now you and I know that Strength and Conditioning Coaches (SCCs) are the superheroes of the sports world, but even they need to reflect on what they believe, value, and want their athletes to know about their expectations. A well-organized philosophy can help SCCs deal with dilemmas, make decisions, and handle real-world situations by their values and principles.

Similar to rules clearly stated on a weight room wall, a written coaching philosophy could be a guide to emphasize all that supports a comprehensive S&C program. And along those lines, a philosophy that is not taken seriously or primarily 'lip service' is just as practical as a soup spoon with a hole in it.

SCCs should align their coaching and training philosophies to help reinforce their values. For example, if a SCC believes in empowering athletes, they should allow their athletes to lead early, often, and build those skills with real-world experience. In strength and conditioning, coaches frequently discuss empowering athletes to be leaders. However, I've seen that opportunities that challenge athletes to demonstrate leadership abilities are rarely provided by many coaches.

Also, beware that a misalignment in values and practices demonstrates a divide between coaching and training philosophy. Imagine a coach saying that athletes' safety is a value they stand for but never teaching athletes how to miss Olympic lifts and spot each other. That coach would be showing a significant misalignment between values and practice.

Let's consider self-reflection, a powerful tool enabling personal and professional growth for S&C coaches. Self-reflection should be continual and consider all aspects of coaching, from values and beliefs to types of training. Coaches can strive to develop a holistic S&C program that reflects their core values by connecting research with practice.

Coaching philosophy can be like a mythical creature everyone talks about but no one sees. So, how do you create one?

Step One: To get started, choose a list of values that resonate with you. A few of mine are passion, dedication, truthfulness, and kindness. A good exercise to find your values is to think of the three people you most admire and the things you admire most about them that you believe you could emulate. Write down your values and beliefs for yourself, your athletes, and your program. Make sure to include how you want these principles demonstrated in practice.

Step Two: Reflect on how these values show up in your life. Why do you coach? What is your purpose? What comes most naturally to you each day? Ask yourself questions to evaluate your daily actions and the importance of different values.

Step Three: List the training principles you believe in and see how they fit with your coaching philosophy. Do you use principles such as; specificity, progressive overload, individualization, or ground-based movements? How do these principles fit within your training program and influence your philosophy?

Remember, writing it down is essential in creating a coaching philosophy. Plus, it enables you to evaluate your philosophy as you grow and change. So, let your imagination run wild, get creative, and have fun creating your coaching philosophy.

As a coach, you must constantly analyze your outcomes and methodically work towards making improvements. By evaluating your program consistently, you can better grasp how your philosophy works in daily practice. Remember that your coaching philosophy should be interwoven with your values and training principles, and when you recognize something that doesn't align with your goals, make adjustments to change the behavior. Philosophy and coaching work well for those who regularly evaluate their program and grow as professionals.

Chapter 2

Qualities of a Successful Strength and Conditioning Coach

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Qualities of a Successful Strength and Conditioning Coach

Becoming a successful strength and conditioning coach goes beyond just achieving wins and losses. While winning percentage has its place, it is not the sole indicator of success in strength and conditioning. An effective individual in this role must possess a combination of skills including expertise, interpersonal skills, adaptability, and commitment to holistic athlete development. Given the dynamic and ever-evolving landscape in which Strength and conditioning coaches operate, the path to success takes on a multifaceted approach. So, what qualities separate good from great?

Expertise and Knowledge Base

Expertise and a solid knowledge base are a minimum requirement to be considered a successful strength and conditioning coach. Strength and conditioning coaches are responsible for creating effective programs tailored to specific needs and goals. While planning an effective program is imperative, another huge aspect to consider is injury risk reduction. A comprehensive understanding of biomechanics, exercise physiology and movement patterns helps strength and conditioning coaches design plans to help reduce the risk of injury. Having the ability to identify potential problems and designing programs that promote proper movement and structural integrity is key.

One of the greatest things a strength and conditioning coach can provide for a sport coach is player availability.

From a player's perspective, having a coach who can explain the 'why' behind everything they are asked to do, promotes buy-in and trust from the athletes. Effective coaching involves the ability to convey rationale; being able to articulate this to athletes as well as sport coaches also builds credibility. A knowledgeable coach is respected as an expert in their field which can lead to stronger relationships and greater ability to have autonomy within your program. Expertise and knowledge base enable coaches to make informed decisions, adapt to evolving trends and ultimately contribute to the success and wellbeing of the athletes they work with.

Communication and Relationship Building

Communication and relationship building are two very important qualities a successful strength and conditioning coach must possess. Establishing a solid relationship built on clear communication fosters trust between the coach and athletes. When athletes trust their coach's expertise and intentions, they are more likely to fully commit to the training program, adhere to guidelines and embrace recommendations. Once this relationship is established, it allows the coach a greater ability to cater to the needs of each athlete. It opens the discussion toward understanding athletes' goals,

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motivations, and concerns. By building a strong relationship, coaches gain insight into individual preferences, physical limitations and psychological factors that can influence training. When a coach displays a willingness for open communication, they become more approachable when athletes express concerns or have outside factors affecting training. An approachable coach can alleviate worries, provide clarity, and provide support or guidance. A coach who possesses these traits and has established themselves as part of a support system can significantly impact an athlete's mental and emotional wellbeing during tough times.

Problem Solving and Adaptability

Due to the ever-changing nature of athletics, having the ability to problem solve and adapt quickly is crucial for success. Training doesn't always go as planned. Weather, facility issues, changes to competition schedules, class conflicts and personal circumstances can disrupt training. Being adaptable means being prepared to modify plans and potentially improvise while maintaining the integrity of the program. The ability to do this at a high level is a learned skill and when changes often challenge your planned program, the ability to problem solve and adapt happen almost seamlessly.

Even if outside factors do not contribute to a change in your plan, the field of strength and conditioning itself is always changing. Staying up to date on new research and techniques may influence your program. Being open-minded to advancements in the field may challenge the stigma of 'we've always done it this way' to something a bit more up-to-date and potentially more beneficial for the athletes. Adapting to new coaching methods, research and techniques can enhance the effectiveness of training. Problem solving and adaptability are vital for navigating the constantly changing landscape of athletics. These two qualities empower strength and conditioning professionals to respond effectively to challenges, tailor training and continuously enhance their coaching methodologies based on new information or circumstances.

Emotional Intelligence and Situational Awareness

Having the ability to connect on a personal level with an athlete is often what separates good coaches and great coaches. Anyone can write a training program, but emotional intelligence and situational awareness cater to the intangibles of coaching. A coach's level of emotional intelligence and situational awareness will greatly affect their ability to build relationships and communicate, two qualities previously listed.

A coach with high emotional intelligence can connect with athletes on a deeper level.

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This fosters trust, respect, and a positive coach-athlete relationship which in turn enhances athlete engagement and adherence to training. Coaches who possess these qualities are also able to communicate in a way that resonates with athletes. They can adapt their communication style based on an athlete's emotional state, ensuring that feedback and discussions are well-received. So much of coaching requires service to athletes and expanding your emotional intelligence and situational awareness has endless benefits. A coach with these two qualities can resolve conflict, manage stress, recognize burnout, and continue to promote a positive team culture. Having a pulse on your athletes in this fashion is priceless. Emotional intelligence and social awareness give strength and conditioning professionals the ability to create supportive, motivating, and effective coaching environments. These individuals can connect with others on a deeper level, understand emotional states and provide necessary guidance to promote both athletic and personal development.

Time Management, Collaboration and Attention to Detail

Due to the multifaceted role of a strength and conditioning professional as well as the demands placed on these individuals, time management, collaboration, and attention to detail are essential. Strength and conditioning professionals juggle numerous tasks, ranging from designing programs to athlete monitoring to communication with necessary staff so effective time management capabilities ensure that all responsibilities are addressed. Since a coach can wear so many hats throughout the day, optimizing a schedule is completely necessary. When it comes to collaboration, working well with and accommodating all other individuals who have input in the program is a high priority. Many sports teams employ athletic trainers, sports dietitians and sports psychologists. All these individuals need to work in conjunction with the sports staff and athletes to provide the best possible program for everyone. Collaborating with all other support staff members ensures that athletes receive comprehensive and well-rounded care.

Beyond the immediate support staff, it is essential to be in sync with the sports coaches. Everyone should be on the same page about any situations that may arise and since strength and conditioning professionals are an extension of the sport coaching staff, it is important athletes hear consistent messaging from all parties. Lastly, attention to detail must be heightened. A mistake in planning can be costly, so attention to detail minimizes that risk. When monitoring athletes' progress, attention to detail can help a coach recognize trends, make accurate assessments, and make timely adjustments to a training program. When it comes to technique, attention to detail is essential to safety. Coaches with high attention to detail in this manner can spot and correct subtle flaws in a movement pattern which helps reduce potential risk of injury. Training programs are meant to enhance an athlete's ability to perform their sport, therefore, athletes should never be at risk of injury when under the supervision of a strength and conditioning professional. These three qualities allow coaches to create efficient training plans, collaborate with all necessary parties and ensure precise training that is adaptable to the needs of all athletes.

Qualities of a Successful Strength and Conditioning Coach

Self-Care and Boundaries

Self-care, boundary setting, and adherence are crucial qualities to be a successful strength and conditioning professional due to the demanding and often high-pressure nature of the role. Meeting the demands of this profession can be taxing both physically and emotionally. Whether it is due to physical participation in a training session or an emotionally draining day because your star athlete just got injured, prioritizing self-care practices help coaches stay energized and maintain emotional resilience. The strength and conditioning profession has a high burnout rate and a way to potentially slow down and reduce the risk of burnout is to be mindful of your own care. Coaching often involves irregular hours, travel, and extended workdays. Establishing boundaries and engaging in self-care routines can help reduce burnout rates by creating a sustainable work-life balance. Setting strong boundaries also play into the ability to maintain a work-life balance as well as managing stress. Boundaries ensure coaches have time to recharge outside of their professional responsibilities and contribute to overall wellbeing. In terms of stress management, boundaries prevent work-related stress from spilling over to personal time which, again, allows coaches to decompress and maintain healthy mental and emotional states. Self-care and boundary setting are integral to maintaining the physical, mental, and emotional health of strength and conditioning professionals. These qualities contribute to a coach's effectiveness, decision-making, communication, and overall job satisfaction. Coaches who prioritize their own health are more likely to stay in the profession long term and can provide better support to athletes.

Conclusion

Nurturing professional expertise and the soft-skills mentioned above will hold any aspiring strength coaches to reach their potential. For coaches already established in the industry, doing a self-assessment of these skills and being open to building on them will ensure you maintain your output and effectiveness.

Chapter 3

Bridges, Barriers, and Breakthroughs: Setting Up Your Performance Team

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Bridges, Barriers, and Breakthroughs Setting Up Your Performance Team

On a site visit years ago, while doing some consultant work, I leaned in and listened intently to some of the pain points and problems the administrators were currently dealing with in their performance team units. They were frustrated and knew something was holding them back. They had great facilities, equipment, and resources to serve their coaches and athletes. They had a winning tradition and long history of championships in multiple sports, but recently were starting to slip. As I met with them that day, they had one goal in mind: to enhance and upgrade the services they were providing for all the teams they were overseeing and managing. They wanted to get their edge back. After listening, taking notes, and getting clarity on what their vision for the future was, I asked to start meeting with the performance team personnel individually. Within minutes of my first meeting, I had found the problem. It didn't take long to see after I asked how often the performance team gets together to collaborate, share ideas, and work through any challenges they were facing. I will never forget what I heard that day. "We don't meet." Thinking I misheard them, I asked the question again, and they confirmed, "We don't ever meet to talk and go over things". I paused in silence. I couldn't believe what I was hearing. I then realized a simple principle when it comes to winning performance teams: In high performing cultures, people work together, in weak performing cultures people work against each other. When a group of professionals lack trust, mutual respect, and cohesion they will always struggle to perform consistently at a high level. Not only will they struggle but ultimately the athletes pay the biggest price.

In this chapter, I will discuss three pillars you will need to address to operate at a high level of excellence within your performance team cultures (Sports medicine, strength and conditioning, sports science, nutrition, mental health, and administration).

The Three Pillars

Silos

A silo according to Meriam-Webster dictionary is defined as 'an isolated grouping or department that functions apart from others especially in a way seen as hindering communication and cooperation'. If you look at the Greek origin of the word, it is even stronger. 'Siros' literally means 'corn pit'. It is like one of those tall cylinder-like towers out in the middle of nowhere storing grain in the country. It is full of potential and has a lot of produce to help people but it's isolated and isn't being used. How many performance teams today have you witnessed or been a part of that feel like you are on an island and all alone? You are lacking connection, collaboration, and chemistry. You may have some very knowledgeable staff, great facilities, and well-paid administrators but if you are siloed and isolated, you will not reach the level of success and have the impact you desire. The more siloed you are, and the longer you have been like that the longer it may take to remove it and the more resistance you may encounter to break it down. One concept that is proven to help with this is what is referred to as 'flattening'. This process entails some key elements: Opening lines of communication, collaboration and removing one or more levels of hierarchy from the organizational structure. With the performance landscape continually changing and becoming more complex, the tendency is to add more layers of

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structure to manage people and processes. Your goal should be to remove layers and complexity, not add to it.

Don't complicate, create more bureaucracy, and bog down performance teams by adding more layers of reporting lines. In the book 'Team of Teams' General McChrystal unpacks how the US military had become so heavily layered in their org chart that it was slowing them down in making decisions to win the war in Iraq. They were losing because of how long it took for them to make decisions, move and adapt. He stresses the importance of this in today's world when he states, "efficiency remains important, but the ability to adapt to complexity, and continual change has become imperative" (McChrystal et al. 2015). To put this simply in the sports world, future success within performance teams relies on their ability to work together and adapt. The most successful organizations will find creative ways to flatten out their org chart and work to create more collisions. A collision happens when you create more opportunities for staff to work alongside each other, interact, communicate, collaborate, and spend time together in their workspace. The more intentional collisions your staff can have daily, the more creativity, problem solving, and knowledge sharing can take place. As you look at your current situation, evaluate how you are set up. Where are the big silos at? Who is currently isolated? How can you change scheduling or office spaces to allow for more staff collisions? Who is your direct report? Are there multiple direct reports? Are they supportive, available, and easy to access? What is your facility layout like? Are they in a totally different building or area? Proximity is powerful but if you are in totally different buildings, it will take diligent planning to tear down silos and create greater collaboration.

Structure

In Sam Chands book 'Bigger and Faster Leadership,' he unpacks lessons learned from the building of the Panama Canal. He states, "the size and speed of the ships entering the canal are completely controlled by the systems and structures created by the engineers and workman" (Chand, 2017). He goes on to say that the bigger the ship is, the better the structures and systems are needed to run the ship. Metaphorically speaking if you want your performance team to operate and function at a higher level, evaluate your current structures and systems. Let's look at structure first. In performance team settings this may include, but is not limited to budget planning, scheduling, facilities, layout, and design. Think of structure like the hull of a ship. It needs to be strong, sturdy, and solid if it is to last and perform consistently over time. One of the more telling signs of a support structure for a performance team is the budget. Do you have administrative and head coach support? How is money allocated for the different areas and needs? Is there a vision and strategic planning process? How do you prioritize what gets purchased? What protocols are in place to get requests approved or denied? Does it take months and years? How much money is set aside for staff professional development? What about scheduling to care for and serve athletes? Is it a well-oiled machine or does it have some inefficiencies in it? Are certain teams provided resources others aren't? There is no perfect structure but if you want to improve your performance team you must

look at your current structure and how you operate. Strive to streamline not just reporting lines, but also the processes and protocols to get things done.

To grow you must change, and change isn't change until something is better and improved.

As you think through changing your structure here are two different lenses to look through:

Revolutionary

This type of change is big. It can be a complete restructure of a department or moving to a different training model. It can be moving into a new space, so everyone is closer together. The bigger the change however, the more support and communication you will need with the key stakeholders to get buy-in (Head Coaches, Department Heads, Administrators, etc.). Revolutionary change can pay off if it works but it's also riskier. Be prepared with this type of change, you will have some headaches especially if the change is impacting multiple areas.

Evolutionary

This type of change is incremental. It's not always noticeable. It is thought out, calculated, and implemented at a slower pace. Smaller changes allow for open dialogue, adjustments, and course corrections as you go. Payoffs will take longer but the risks are much lower. You may not need as much buy in from the key stakeholders at first because change happens so slowly it is almost invisible. Evolutionary change can be as simple as reorganizing your spaces to allow for more efficient servicing of athletes. Or it can be more causal where you take one day a week and walk slowly through the halls to connect and catch up with other members on your performance team. It could also be setting up a time and place each week for your team to meet, discuss relevant topics, pain points, and catch up on current happenings. On an administrative level it can be as simple as setting up a bi-annual review with your supervisor to connect with them and bring them up to speed on any projects you are working on and future needs. You would be surprised how building these little touch points intentionally over time will strengthen bonds amongst staff and improve your structure.

Systems

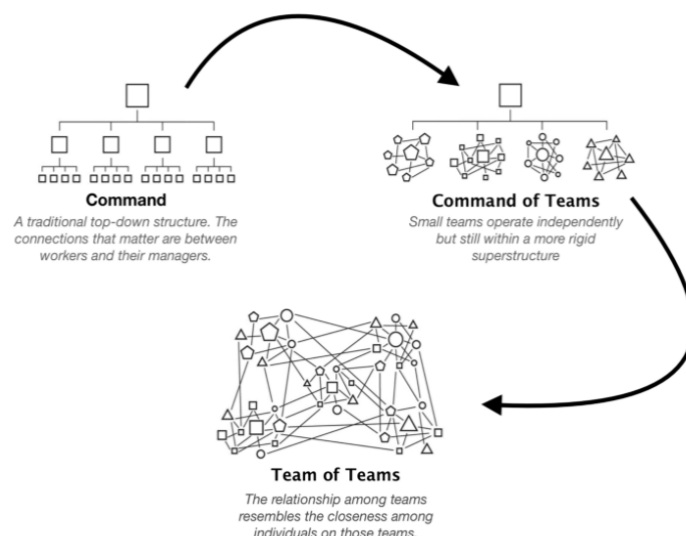
Sam Chand goes on to say in 'Bigger and Faster Leadership', "systems aren't just buildings, programs, products, and budgets. They are processes that create and use buildings, programs, and

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products, to facilitate growth and change” (Chand, 2017). Simply put, take a close look at the different systems you have in place to operate as a performance team. How do you communicate? What styles and strategies are you using? Is there a rhyme and reason or is it more on the fly? Are people left in the dark on key issues and concerns? How is information disseminated and shared? Are only certain people privy to certain information? How are problems addressed and worked through? Are there any bottlenecks that are slowing you down? How do you breakdown communication barriers? What devices and platforms do you use to share information? Are the methods you are currently using ineffective and slow? Do you have someone who is very difficult to work with? Sometimes one person can log jam the entire system because everyone must work around that one person, and it takes longer. Do your people feel cared for? Sometimes the systems and processes you use can make people feel underappreciated. Your team should feel valued, respected, and cared for whatever role or area they work in. If the current systems you are using make people’s job harder, it won’t only be hard to win but job satisfaction and engagement will be low.

The world of performance teams within sports is ever changing and evolving. With technology on the rise, increasing service lines provided for athletes, and not always having a big budget to pull from a fresh approach must be considered. The old ‘top down’ approach does still work, but if you really want to get better, start to think differently on how you function.

The best picture to illustrate this point is what General Stanley McChrystal refers to as a “Team of Teams” model (see figure 1.1 below) (McChrystal et al, 2015). Within this model, you can clearly see how there is an emphasis on the closeness of relationships to allow for high level collaboration, connection, and chemistry. Reporting lines, big titles, and turf wars are not the priority. Tearing down silos, upgrading structures, and improving systems of operation are the key objectives. You don’t have to have a big staff or budget to be great. You do however need to work well together and have alignment on how you operate.

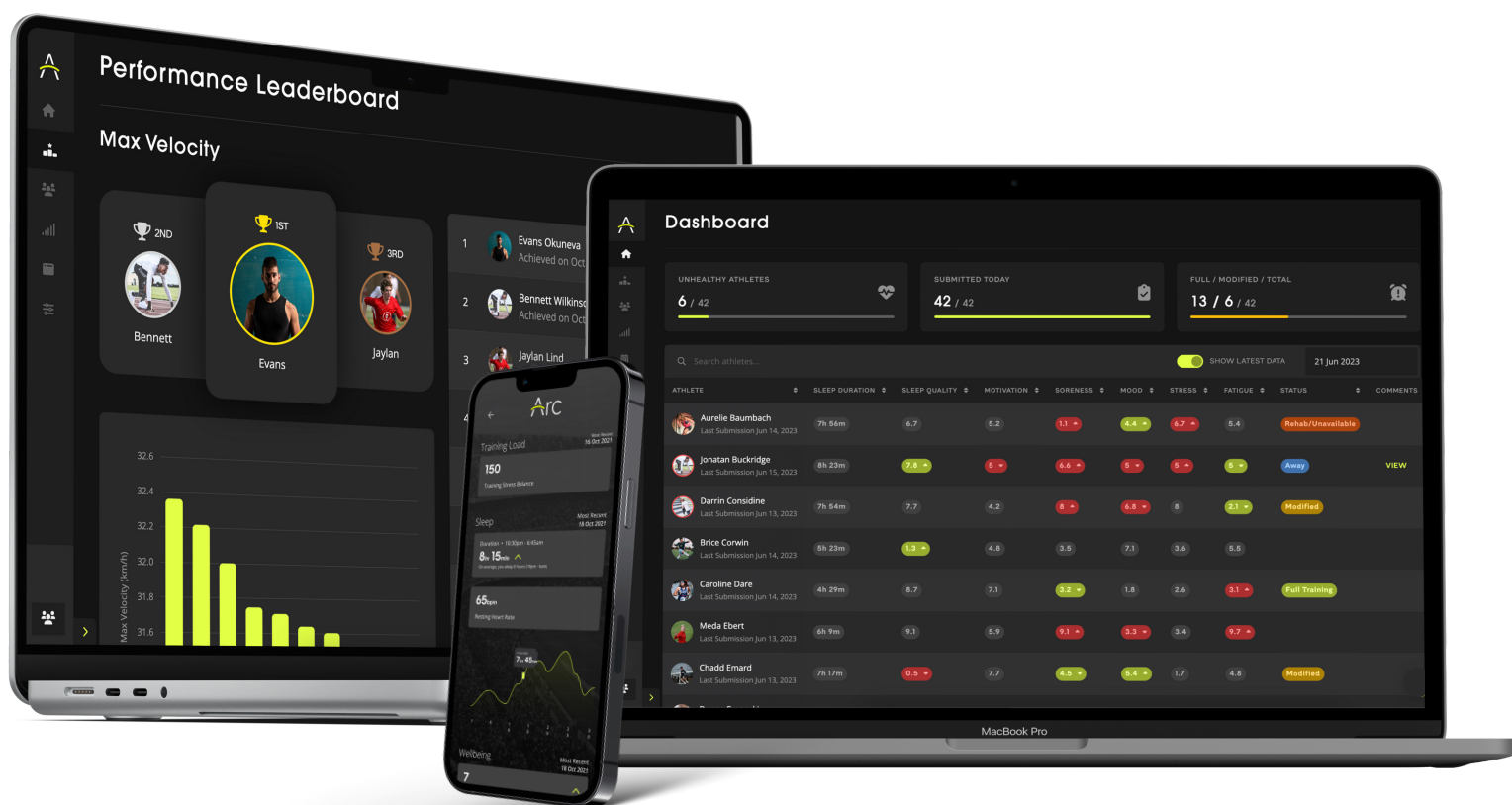


(Figure 1.1)

Bridges, Barriers, and Breakthroughs Setting Up Your Performance Team

Though this model isn't perfect and will still have its own unique set of challenges, it will allow you to be flexible and move quicker as a performance team. It will intentionally create more collisions, build rapport, trust, and minimize the reporting lines and bureaucracy that can slow you down and hinder you. The future of high functioning performance teams will be a model that allow for individuals to operate in their area of expertise while working cohesively alongside other experts not always worried about who gets the credit or stepping on their toes. Leadership expert John C. Maxwell says it best when describing high performing teams, "When people share a common goal, they have the mindset of completing each goal instead of competing against one another. That is, they look for ways to make the other person better instead of trying to outshine one another (Maxwell, 2013). If you can make this your goal, you will set your performance team up for success by building bridges, tearing down barriers, and achieving new breakthroughs.

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Chapter 4

Three Tips for Creating a High-Performance Culture

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Creating a High-performance Culture in Any Sports Environment.

Creating a high-performance culture in a sports environment is crucial for motivating athletes, improving performance, and, ultimately, achieving outstanding results. A High-Performance Culture (HPC) is a system, set of standards and environment that engages, develops, and inspires a group who share a common goal.

In the athletic world, an HPC would encourage athletes to take ownership of their development and performance while building and maintaining relationships with their peers and coaches. For support staff and coaches, cultivating an HPC would see them create an atmosphere conducive to peak physical & mental performance while upholding a commitment to develop the whole athlete.

The powerful thing about an HPC is that it can't be bought or sold. It's why an HPC can be cultivated in not only Olympic organizations and Power 5 schools, but within any organization or team who demonstrates a consistent commitment to strive for peak performance.

Now we know what an HPC looks and feels like, here are three tips I've found invaluable while creating them in any sports environment I've worked in.

Communication

Communication is key to creating an HPC. Without it, you have no way of creating and maintaining relationships. Coaches should create an environment where athletes and staff feel comfortable sharing their thoughts, ideas, and concerns. By doing so, coaches can better understand people's perspectives and tailor their approach to support them more effectively.

Communicating openly and effectively is crucial in an HP athletics culture, primarily when athletes and coaches work towards a common goal. Everyone has team meetings, but a way to leverage communication is by holding regular meetings where coaches and athletes can openly discuss any concerns, issues, or feedback they may have. Athletes can provide a platform to exchange ideas, ask questions, and address conflicts in a safe and supportive environment.

Another tool many college and professional HP programs use is technology that provides real-time updates and feedback. Coaches and athletes can use video analyses to review performance as a team, but coaches can also use apps to send instructions and feedback. These technological tools, such as sports analytics and instant messaging platforms can streamline communications and make it faster and easier to address issues on the spot.

Additionally, using an AMS or athlete management system such as the Lumin Sports platform allows sports coaches, medical staff, and performance coaches to share data and communicate easily and quickly. Coaches should be transparent and open in their habits and decision-making and be willing to listen to athletes' concerns, ideas, and feedback.

When athletes trust their coaches, they are more likely to communicate openly and transparently with their coaches and teammates.

Encourage Experimentation and Risk-Taking

An HPC should embrace experimentation, innovation, and risk-taking. Coaches should focus on creating an environment where athletes feel safe to test new approaches and techniques without fearing failure. Athletes can build their skills, learn from their mistakes, and improve their performance. One example is implementing a 'controlled chaos' approach to training.

In this method, coaches and athletes intentionally create high-pressure situations in training, such as pressure game scenarios, varied start and end points for a drill, or high-intensity workouts, where athletes must react, persist, and adapt. Especially in S&C, these methods may resemble sport in distinct ways and can keep training fresh and fun while developing key fitness areas. By utilizing these tactics, athletes learn to embrace change instead of feeling overwhelmed, thus preparing them better for events on the field.

Encouraging staff, such as assistant coaches and interns, to fail is just as important. Giving them tasks and duties that force them outside of their comfort zone in a controlled setting, such as S&C training, is the perfect opportunity for growth. It also allows you to improve your coaching other coaches' toolbox.

Lead by Example

If you've followed me long enough, you know my mantra, 'Never trust a skinny chef.' That saying isn't merely about being jacked as a strength coach, it's about leading by example and being a role model for others by setting a high standard and demonstrating your commitment to excellence. Creating an HPC starts with the coaches themselves. Coaches should lead by example, demonstrate the behaviors they want to see in their athletes, including punctuality, self-discipline, and commitment to the team's goals.

Leading by example is a crucial part of an athletics HPC because athletes often look up to their coaches and team leaders. A coach's behavior sets the standard for the rest of the team. Ways to lead by example include consistently demonstrating a strong work ethic, resilience, and a positive attitude. Consider if you'd be someone that your younger self looked up to and want to learn from.

Creating a High-performance Culture in Any Sports Environment.

Remember that everyone can be our teacher; some teach us how to act and others how not to; every interaction is a learning opportunity.

Athletes and coaches who lead by example are always dedicated and willing to put in extra work, even outside of regular training and practice times. Implementing a different workout or training session, taking spare time to work on individual performance, or doing additional research and planning to find new strategies may have great dividends in optimizing performance. And on the flip side of that, knowing when to put the brakes on or giving athletes and staff time off when you as a leader can see them wearing thin, breaking down, or simply having a bad day is also recommended.

Leaders who demonstrate resilience in the face of failure or setbacks can influence the team's mentality.

Instead of getting down on themselves or others and giving up, they take it as a lesson and come back better and stronger. They assess their mistakes and work to improve them next time. This behavior helps cultivate a culture of resilience and grit, which can help the team overcome challenging moments. Like Michael Scott (and Wayne Gretzky) said, 'You miss 100% of the shots you don't take.'

Finally, having a positive attitude and mindset is very important when leading by example. I'm fortunate to work in a university setting that cultivates transformational coaches. Coaches and athletes who show positivity, kindness, and respect toward others can help create a supportive and empowering team culture. By consistently demonstrating these values, they inspire others to do the same and build a culture of mutual trust and respect.

While there's no doubt it's a significant challenge to create and sustain an HPC in any sports organization, investing time and effort into the crucial foundations discussed above can make a tremendous difference. Though daunting, taking that first step towards developing such a culture is the catalyst that sets the wheels in motion toward achieving unprecedented success. So why wait? Start now and direct your unwavering passion towards creating meaningful team experiences and forging unbreakable bonds among your athletes and fellow staff members. Together, you can conquer new frontiers and reach unparalleled heights of greatness.

Chapter 5

Deciding What Sport Tech Is Right For Your Program

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Deciding What Sports Tech Is Right for Your Program

In the world of sports, technology plays an ever-increasing role in improving performance, monitoring athlete wellbeing, and enhancing communication. However, not all teams and clubs have access to the same resources, and budget constraints can be a significant barrier to adopting the latest technology. This chapter aims to provide a comprehensive overview of how low-budget teams and clubs can strategically implement technology to achieve ultimate performance.

What to consider

Some of the first questions to ask yourself when considering adopting any sports technology or new process should include:

- a. What problem are you or the team facing, and will this piece of technology solve it?
- b. What do you want to achieve with this technology? I.e. Profiling/testing, monitoring workload, performance
- c. Do you have the budget for it?
- d. Do you have the personnel, knowledge, and time to collect, analyze and make decisions with the information?
- e. Are the other stakeholders on board and interested in this information? Will it help them, and will they use it? Will it affect decision making?

To find out more about different sports technologies, I'd recommend looking to colleagues, peers and mentors in the performance and sport science field. Look for websites and blogs such as [Simplifaster](#) for [buyers guides](#) to various technologies. Carle Valle has published some excellent guides for coaches looking to compare products and better choose the right solution for them.

Budget

Your organizations budget will drastically affect what options you have for adopting new technology. Some of the 'big rocks' for me are technology that will help you train more effectively/efficiently (S&C software, force platform, heart rate monitors) and tools that allow you to quantify and monitor workload (GPS, sRPE). Some of my 'little rocks' would include technology that will only be used infrequently, help only certain athletes or sports, or evaluate only a few things. Ultimately, every situation and sport is different. You must look at your context to determine the right choices for you.

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Hardware or software? Or both?

Sports technology may fall into a software or hardware category. Software could include subscription to electronic S&C software, an Athlete Management System (AMS) or other communication or administrative tools. Hardware is more varied and may include velocity-based training (VBT) products, force platforms, Nord board, Dynamo, Force frame, BFR, timing systems, IMU's, hydration monitoring, GPS/LPS devices, wearables, heart rate monitors and more.

Organization buy-in

When implementing new technology and selling it to your coaching staff you need to consider their point of view as someone that doesn't have an innate understanding or passion for sport science. Some questions I make sure to address include:

- a. Why should they care and the inevitable follow up question, so what?
- b. How will this help them meet their goals?
- c. What is needed of them and their staff?
- d. How and when will this information be communicated?
- e. What is this data for and what is it not for?

Talking to other professionals in the field that have adopted similar technology can help save time and headaches. Blogs and websites can also help with this integration. For example, Coach Stephanie Mock published a great [resource](#) on a roadmap for successful sports science collaboration in the university setting. If the coaching staff isn't requesting or talking about the data you're collecting then it might not be as impactful as you planned, so getting the other stakeholders on board early and educating them will be key in maximizing your effectiveness.

Athlete buy-in

Of equal importance is getting athlete buy-in. They are getting poked, prodded, and pulled in so many directions from their coaches, academics, sports performance/S&C, sport scientist, and more. If you are asking them for even more out of their day in the way of a test or questionnaire, then you need to make sure they understand how and why you are collecting this information and how it will affect their training and performance positively. The athletes need to see the data being used frequently to maintain ongoing compliance.

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Technology may be bucketed into different categories;

1. Profiling and assessment

Force platforms, 3D motion capture, timing equipment, Forceframe, Nordboard etc

2. Monitoring and communication

Internal/external load, subjective questionnaires, athlete management systems, wearables, Google Sheets etc.

3. Training

Electronic S&C software, VBT, resisted sprint devices, Blood flow restriction (BFR) devices, contact mats, treadmills, flywheels etc.

4. Recovery

Pneumatic compression, Electromyography systems (EMS),

The Tech Pillars for Ultimate Performance

Global Positioning System (GPS) / Linear Positioning System (LPS)

GPS and LPS systems can provide information on the duration, speed, frequency, and volume of an athlete's movements throughout a session or match. A more accurate understanding of these demands affords the practitioner the ability to better understand athlete loads and how to better prepare for them, provides information on the loads for each type of session to better periodize their training weeks and plan future sessions, determines which athletes need a 'top up' of various qualities and which athletes we may need to 'back off' based on the loads they are experiencing relative to their baselines. These external loads that an athlete is undergoing can be described through both capacity (overall) as well as rate (per minute) metrics depending on the intended usage. Some common variables for monitoring may include but aren't limited to;

1.High-speed running distance

2.Player load or total distance

3.Maximum velocity

4.Sprint distance and sprint number

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Low vs High-Cost providers

Low-cost GPS providers may forgo annual subscriptions or have options for personal use that is more budget friendly than their organizational offerings. However, I have found that you get what you pay for in this regard with lower cost options sometimes providing more headaches with broken units, poor customer service, difficult repairs and software bugs – all of which create friction and make it more difficult to get the answers you seek.

High-cost providers are often validated multiple times and because of their clientele, often have more reliable software and hardware, albeit at a higher entry and ongoing cost. Higher cost alternatives often are paired with embedded heart rate monitors making it easy to also quantify the internal loads the athlete is experiencing, potentially removing some friction with data collection by minimizing the amount of tasks an athlete is asked to do daily (sRPE)

Force platforms

Force platforms provide information on the force producing qualities of an athlete in various movements and if asymmetries exist. Some of the most common assessments with force platforms include vertical tasks such as jumps (countermovement, drop, squat) and isometric exercises (squat or mid-thigh pull). However, with in-ground installations (such as those found within a batter's box or pitcher's mound in baseball) and tri-axial hardware, almost any task's kinetic performance can be quantified and you are only limited by your creativity, time and space. Other sensors (Forceframe, Nordboard, Dynamo etc) allow a greater breadth of assessments across different joints and muscles, affording additional insight into an athlete's strengths and weaknesses related to force production.

Things to consider when adopting a system are;

- Accuracy
- Ease of use
- Software and hardware
- Coach and user
- Workflow
- Ability to handle large volumes of athletes in a short time.
- Ease of analysis
- Reporting options

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Commercial products such as those offered by Vald and Hawkin Dynamics are built for practitioners who may not have a research background and address many of the considerations mentioned above. Affordable options such as PASCO Scientific exist for small budgets although validity, reliability and durability might suffer. More established companies such as Kistler, Bertec and AMTI have been offering hardware solutions for decades but new users may find the analysis and operation difficult in addition to the more prohibitive price points.

Velocity-Based Training (VBT) devices

VBT is the act of quantifying the velocity of a movement in order to

- Provide feedback of performance
- Velocity, power, range-of-motion etc
- Guide loading for the training of specific qualities
- Maximal strength, speed-strength, strength-speed etc.
- Estimate 1RM

System types may include linear position transducers (LPT), camera-based technology and accelerometers.

While all have their own advantages and disadvantages, if high validity and reliability is desired then LPT systems have generally shown to be more accurate although are more vulnerable to breakages. Accelerometers and camera-based technology allows a more friendly footprint but at the cost of accuracy.

For team/organization use, most systems will require an annual subscription in addition to the upfront cost for the hardware. See what warranty/replacement policies exists for any LPT devices you are considering as they will eventually get something dropped on them or the tether will fray.

At my organization, we use 16 Vitruve LPT units connected to the same number of iPads. These units sit magnetically on each rack and the company provides unlimited returns if the devices are broken through normal use.

Strength Monitoring

While Excel and Google Sheets provide a robust starting platform for strength training prescription, large athlete volumes and growing file sizes can make long term tracking and analysis difficult. Electronic S&C software can act as a digital warehouse for all strength training data whilst making

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the implementation of various prescription methods (% 1RM, VBT, RPE etc.) across high athlete volumes easily and simply, without the need for hours spent formatting and creating formulas. Aside from price point, some things to consider are the athlete and coach user interfaces, the workflow for multiple athletes training off the same tablet/iPad, the ability to track other data (sRPE, Bodyweight, wellness etc.), report building or other analysis features and others

Athlete Management Systems (AMS)

An AMS can be thought of as the one-stop shop or digital warehouse for all information on an athlete. With the amount of technology available growing by the day it's essential that the right information can get in the right hands in time to make the right decision. An AMS should provide a centralized space for all stakeholders of the athlete to find any information easily and quickly on the performance, loading, anthropometrics, wellness or injury status of the athletes under their care to make more informed decisions.

A good AMS provider should integrate (or plan to integrate) with the technology that your organisation plans to use. Either directly through an API or via manually exporting a csv file or similar to the cloud. The former being of preference to get real-time updates to the rest of the organization.

Some free options exist but these options typically will have minimal inputs. However, they do provide a great starting point, especially if in a position where technology acquisition is limited due to budgetary constraints.

Wellbeing and Rate of Perceived Exertion (RPE)

One of the easiest and cheapest ways to start monitoring your athlete's internal training load and wellness include session-RPE and subjective questionnaires. sRPE has been shown to have high levels of agreement with heart rate and blood lactate (Neto et al., 2020) and is very simple and cheap to collect. Wellness questionnaires may provide athletes an avenue to comment on more subjective aspects of their wellbeing and health such as fatigue, soreness, sleep quality and quantity, stress and more. Practitioners are advised to find and use questionnaires that have been validated in the scientific literature and should ensure to implement them as close to the original guidelines in order to obtain valid and reliable information that is actionable.

Things to monitor may include week-to-week increases in load as well as acute to chronic ratios. For those on a budget, if you are savvy in excel you can start collecting this information through freely available products such as Excel and Google Sheets. For those trying to scale to hundreds of athletes and across multiple sports and staff members then a commercial option such as an AMS might be a better option.

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Wearables

Wearables can offer friction-less capture of temperature, heart rate, sleep quality and quantity, breath rate, caloric expenditure and more. This convenience of capture on a wrist or finger is typically contrasted with lower levels of reliability and validity than criterion methods. Many of today's athletes have grown up with phones in their hands and spend hours each day on them. The use of wearables and their associated apps can be helpful in getting an athlete to get more engaged and accountable to their recovery and performance while providing real-time feedback of the results of their actions. This can help create the '24 hour athlete mindset' where the focus is on holistic and comprehensive recovery and training the entire day, not just the 3-5 hours spent at the club or university with the team.

Conclusion

Implementing technology on a limited budget is not only possible but can also be a game-changer for low-resourced teams and clubs. By focusing on the key pillars of technology, adopting smart implementation strategies, and creating a culture of buy-in, these teams can maximize their performance and athlete wellbeing without breaking the bank.

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Chapter 6

Make Your Team Warm Up a Masterpiece

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Make Your Team Warm Up A Masterpiece

What if you flipped the script on your team strength and conditioning sessions by making the first 10 minutes the priority rather than the outcome of the prime movements? We spend exorbitant amounts of time expertly manipulating our training variables, sets, repetitions, load percentages, rest intervals, exercise selection and modalities. We know what we desire for an outcome from every session we coach in the weight room, yet we rarely pay equal attention to the beginning of that pursuit...the warm up.

All too often, our warm ups are a formality. Something to get through so that we can get to the 'good stuff' planned in our session and our athletes usually corroborate that sentiment. We are missing out with that mindset, and most importantly, so are they!

A championship team mentality is grown in an environment that cultivates and covets special attention to small details.

The warm up is the perfect place to do just that and everything that follows hinges on the quality of your planning and coaching and of your athletes' execution in that first 10 minutes.

Let us hit the rewind button for a moment and revisit the base science and purpose behind a warm up...

The warm up is a critical component of proper preparation for athletic development. The purpose is multi-factorial; to prepare the body's major physiologic systems for activity, thus reducing the risk of injury and enhancing performance and to prepare the brain, psychologically speaking. Any warm up worth its salt should check the following scientifically-backed boxes:

- 1) Increase the core temperature and blood flow to the periphery, shuttling vital energy substrates to the muscles for immediate use.
- 2) Challenge the neuromuscular system by firing up those synapses and motor neurons for the type of movement to follow.
- 3) Prepare the body's tissues for the loading they will shortly undergo; muscle, tendon, ligament, fascia, bone, via the practice of biomechanically similar movements to be experienced in the upcoming session.
- 4) Include all 3 planes throughout to guarantee practice occurs in each vector.

Make Your Team Warm Up A Masterpiece

5) Consider the predominant energy system or aspect of periodization of the following session.

Ensuring that those 5 major checkpoints are included in your warm ups will certainly suffice.

However, our job is not just to merely ensure our athletes suffice, our job is to ensure they supersede their abilities. Applying the available science is a skill and an absolute necessary one to possess as a strength and conditioning coach. We have more tools and research available to help us craft our athletes than ever before, yet we should never underestimate the power of something innately human; artistic expression. The ordinary becomes extraordinary when we look and work beyond the obvious.

The argument can be made that what separates a great strength coach from the pack is their ability to effectively blend the available science with their personal approach...they make their work an artform. The warm up is an excellent place for a strength and conditioning coach to be playfully serious with their athletes. No great work of admirable art was ever created without trial and error, without effort, without respect to science nor without a desire to improve the current perspective of the work. Our work with athletes is very similar. We take the available science, blend it and bend it to benefit our particular athletic development needs and weave in some specialized, personalized flair to create great works of human art.

Precursor – Soft Tissue Exploration & Preparation

This step is completed autonomously by the athletes prior to the start of the actual warm up. They are asked to scan their body via foam rolling and then to target 3 areas that feel the most problematic.

Step 1 – Greet Your Team

We always have an opener - a story to tell your athletes, a question to ask them, or perform one vs. one check-ins as you say hello to them all. This allows you to build rapport with them, to understand where they are mentally and physically and to gather information critical to their performance.

Step 2 – Refocus & Connect

We play with the 'R' in the R.A.M.P. by switching it up each semester. This fall, we are working on refocusing via breathing drills that help the athletes connect to the weight room and to bringing awareness to their own bodies.

Step 3 – Activation

We provide the opportunity to activate the neuromuscular system in various fundamental and rudimentary movement patterns from the very beginning of the warm up. We select 3 drills from the following list of anatomical positions; prone, supine, quadruped, laterally braced, and kneeling to fire up the core musculature and lumbopelvic stabilizers.

Make Your Team Warm Up A Masterpiece

Step 4 – Mobilization

We then progress to working through the full range of motion of the thoracic spine, hips and/or ankles by selecting 3 or more drills that transition the athletes from the ground to standing and dynamically moving. These provide an opportunity to practice gross motor skills that may appear in the weight room session.

Step 5 – Potentiate

In this final step, we have chosen to deploy all manner of snap downs. The possibilities are endless in terms of selecting, coaching and periodizing variations for our athlete to practice. We cue them into triple extension and then their job is to react by rapidly decelerating their mass. On the common cue, every single one of our 19 teams perform a clapping pattern to release the snap down. This is a common connector between our entire athletics family at University of New England.

Ending – Breakdown/Competition

As we wrap up the warm up, we bring up the team to provide any pertinent information they need to execute their session. We will provide opportunity for joyful competition from time to time as well, when it is earned with consistency in effort and approach.

This process works well for us at UNE. It took time to tinker with and to arrive at this destination. The most exciting part for us is that it is an ever-evolving project. While the framework of the Nor'easter Warm Up remains the same each semester and school year, the components shift based on what our teams most need and to allow our incredible strength staff to shine.

We audit our warm up process often. We make the time to ensure that we are planning effective, efficient, scientifically-focused warm ups and that we are coaching said warm ups in an artful manner consistent with our KPIs, our Leave It Better philosophy and our athletes' needs. The warm up is precious. It is precious because it encapsulates the opportunity to pay special attention to small details. How you do one small, seemingly insignificant thing is how you do anything. Why not choose to do it ridiculously well? Starting with the first 10 minutes you have with your athletes every day.

Chapter 7

Speed Development & Agility Foundations

Mike Sullivan

Assistant Athletic Performance Coach, Illinois State University



Speed Development & Agility Foundations

To me, speed is the single greatest physical differentiator in all team sports. There's a quote that speed coaches throw around sometimes, "Win the 1-yard race in 360 degrees of motion". If Athlete A can beat Athlete B in that 1-yard race, in any direction, then Athlete A has an obvious advantage. Speed is important. Speed is also a trainable skill, and one of the best parts about training speed is that the only thing you need to improve is space. There is no paywall to improving your speed. If you have an open field, you can get faster. The foundation of speed development can be aided by fancy equipment, but fancy equipment does not make up the foundation of speed. Of course, linear speed development is not the 'end all be all' when it comes to team sports. Multi-directional speed is hugely important. Unsurprisingly, there are positive relationships between linear speed and multi-directional speed (Loturco et.al, 2020). To put it simply, if you're fast going forward, chances are, you're going to be fast going in other directions as well.

Tony Holler (Track Coach at Plainfield North High School) has said that there are three requirements if you want to get faster. You must run as fast as you can (obvious, right? More on this in a second), you must do technical work to improve the skill of running, and you have to do some type of complementary training (i.e., plyometrics and strength development). This, to me, is really the foundation of speed development. I view speed as a system of three buckets (all of which must be filled). The output bucket – are you sprinting as fast as possible? The technical bucket – what mechanics work are you doing to improve the output? And the isolation bucket – once you fill the output and technical bucket, what else can we do to help develop speed?

So, let's dive into these foundational pillars, and these buckets, a little more:

Run as fast as you can – The Output Bucket

Here's the obvious one. If you want to get faster, you must sprint as fast as you can. If we want to raise the ceiling of how fast we are, then we must test the limits of that ceiling. Unfortunately, telling an athlete to run as fast as they can is not very effective. How do I know if they are actually running as fast as possible? How do they know? Are we pushing against that ceiling? In a perfect world, we use a timing system that can accurately track sprint times. Want to run fast? Time it and see what you get. Okay, now go beat that time. Timing systems drive intent. However, not everyone has a reliable timing system. The next best way to drive intention within sprinting: compete and race. As Coach Matt Tometz has written and researched in the past, athletes are faster when they race (Tometz, 2023). According to his study, 2.5% faster.

That's no small percentage – especially when it comes to speed development. Athletes are competitive. Or else, they probably wouldn't be athletes. So, when they are put in environments of competition, their intention is high, which is a requirement for sprinting. Of course, there is a limit to the output bucket. Sprinting as fast as you can as often as you can is not the answer. Sprinting is one of the most taxing activities for the central nervous system (CNS), and the CNS requires time to

recover before it is ready for high-level output. Typically, after a sprint session, the CNS needs about 48 hours before another high-output day (Brownstein, 2018). So, no – more is not always better. However, taxing the CNS is essential and a foundational piece to speed development to raise that ceiling of output.

Work on the skill of sprinting – The Technical Bucket

While it is critical to challenge the output bucket by sprinting as hard as you can, it's also critically important to challenge the technique of sprinting. If we can learn to sprint properly, then we can raise the ceiling of our output bucket. Sprinting, like so many other things, is a skill. If you wanted to become a great hitter in baseball, you would need to spend countless hours swinging at a ball. However, it would also help if you made sure that the way you were swinging the bat was technically sound as you continued to put this time and effort in at the batting cages.

Skills done poorly at a high volume will improve. Skills done at a high level and a high volume will skyrocket.

This is where the technical bucket comes into play. Let's take a quick look at some of the intricacies of sprint technique without diving too far into the weeds:

Speed training is a physics problem. Understanding shapes, angles, and force vectors plays a critical role in understanding the necessary technique within all phases of sprinting (acceleration, transition, and max velocity). The posture of sprinting is universal. There should always be a straight line from heel to shoulder. However, the angle of the posture changes throughout the phases of sprinting. Acceleration is known for its horizontal emphasis. For an athlete to sprint forward, they must hit the ground back (negative foot strike). To hit the ground back – they must be angled horizontally (ideally about 45 degrees at the start). Imagine you are standing on top of a globe. To get the globe spinning, and you running, how would you have to hit the globe with your foot? Down and back. For every action (hitting the ground backward), there is an equal and opposite reaction (moving forward). Within each step of a sprint, the athlete will rise toward a vertical posture. Max velocity sprinting is known for its vertical emphasis. Once speed has been achieved (through acceleration), foot strike becomes vertical as opposed to horizontal. To hold max velocity, a vertical foot strike is necessary. Strike backward and they'll stumble, strike too far in front and they'll brake themselves. Many sprint coaches use the analogy of an airplane taking off to cue the rise from horizontal to vertical for sprinting. It is similar. The plane doesn't 'hunch' over. The plane holds the same 'posture' the whole time. Gradually rising from horizontal on the runaway to more and more vertical as it begins to take off. This can

account for the postures and angles that are necessary to run well. One of the other vital parts of great sprinting is the shapes that are created. Watch any of the best sprinters in the world come out of blocks. One of the first things that you notice is the size of their 'shapes'. These athletes come out of blocks and have a huge arm swing in both directions, the split of their legs as they start is massive. These are big shapes. Big shapes allow athletes to attack the ground well. An athlete can have a great launch angle and a great posture, but if they have small shapes they will not be running fast. As this athlete rises to vertical to top speed, they will maintain these big shapes, but the orientation will, again, now be more vertical. Keeping the knees and toes up in front of the body is a constant cue that can be heard in almost every speed facility in the country. Some of the go-to drills that are used to train acceleration mechanics are the A-Series (marches, skips, runs), bounding variations, resisted sprints, etc. Conversely, some of the drills used to train max velocity mechanics are dribbles, straight leg shuffles/bounds, wicket runs, and assisted runs among others.

Plyometric & Strength – The Isolation Bucket

The CNS governs everything. Sprinting depletes the CNS.

Although sprinting is the best way to improve sprinting, there is a point at which it is no longer beneficial to continue to sprint

(CNS fatigue, increased chance of injury, etc.). However, that does not mean that we cannot continue to train and isolate certain qualities of sprinting. Doing strength training and plyometrics are great ways to isolate the qualities of sprinting without further depleting the CNS or putting athletes in a position to get injured. Rob Assise, track and field coach at Homewood Flossmoor High School, succinctly wrote about the qualities that sprinting trains that are unique to sprinting. In the article, Rob argues that the ground forces, the contact times, and the coordination required by sprinting, in sync, make sprinting unique (Assise, 2021). I completely agree. Luckily, we can use our plyometric and strength work to isolate forces, contact times (ankle stiffness playing a large part in those times), and coordination without having to sprint. Isolating force is typically the most well-understood and basic principle in the weight room. Athletes are constantly pushing their 1RM in the clean, squat, deadlift, etc. All these exercises are examples of isolating force without the need for high contact times, coordination, and velocities.

Using plyometrics is another way to isolate force. Double-leg jumps, single-leg hops, depth drops, etc. These are all high-force activities that do not require the same velocities and coordination as sprinting. Similarly, there are some plyometrics that can also be used to train some of the contact

Speed Development & Agility Foundations

times that sprinting does. Variations of depth jumps (falling from a certain height and quickly redirecting off the ground) are a great way to challenge that stiffness and contact time. Within max velocity sprinting, athletes spend about .1s on the ground. Some athletes, even less. This is a trainable quality without having to actually be at max velocity. Isolating coordination, again, comes in many modalities. Some speed coaches, like Boo Schexnayder (LSU Track and Field Coach), utilize the Olympic lifts as ways to improve whole-body coordination. Other coaches like Chris Korfist (Sprints Coach at Homewood Flossmoor) implement different variations of standing leg swings for speed and time to improve that coordination. There are multiple right answers to the same problem. However, all the answers still fall under the umbrella of emphasizing the distinct quality of sprinting without having to compete with the other qualities at a high level.

To recap, sprint hard, train the skill, and when those two things become too taxing, isolate the qualities, and continue to train the qualities. The trinity of speed development.

Agility training, interestingly, can be broken down into similar components as speed development. Again, multi-directional speed is, in part, a byproduct of linear speed development. The fastest athletes are typically the fastest athletes. But let's back up to our trinity of speed development and apply it to agility. Agility is largely a cognitive process. Athletes need to perceive and react to a given stimulus. Therefore, it's essential that they are constantly exposed to such an environment. Gameplay and competition are some of the best ways to constantly drive the 'output bucket' of agility. The ability to perceive and react to a stimulus is largely dependent on how much time and volume are spent perceiving and reacting to certain stimuli.

The 'technical bucket' of agility can be broken down as well. There is a technical framework for creating space from a defender. Athletes need to be able to change their pace and level. Watch a point guard dribbling a ball up the court. Watch as that player changes the speed of the run, and how his level will rise and fall. The same concepts apply to defenders. To take space away from an offensive player, sprinting straight at them is probably not the best idea. Working on the technical side of agility can teach us tactics to take space away and, conversely, create space. Typically, this is done using constrained gameplay or organized cutting (more standard change of direction work – no perception-reaction stimulus). Finally, the isolation bucket. The strain that is put on the body from constantly cutting, jumping, and overall agility is tough to handle. Similar to isolating the qualities of speed, we can do the same thing for change of direction and agility. Using multi-directional plyometrics eliminates the cognitive load but allows us to train the shin angles and certain forces required within agility. Training strength within certain positions in the weight room (overcoming isometrics, yielding isometrics) eliminates cognition but amplifies force. Again, there are many right answers to the same problem as long as the formula used stays consistent.

Speed Development & Agility Foundations

Speed development is not as complicated as a lot of people make it seem. It is a skill that needs to be watered and cared for to grow. It won't grow immediately, and it won't grow rapidly but it will grow. Unfortunately, many people believe it to be a faster process (no pun intended) than it is and therefore give up before the process has time to flourish. Train it, follow the trinity of speed development, and be patient. The same goes for agility. Challenge the brain with inputs and gameplay, work on the technical side of things, and have the patience to allow these trees of development to take root.

Chapter 8

Strength and Power in High-Performance

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Strength and Power in High-Performance

No talk of high-performance would suffice without discussion regarding strength and power. Both serve as athletic qualities that co-exist and work synergistically. They are also highly correlated with other qualities such as speed and agility, as well as contribute to injury prevention. Both strength and power are two fundamentals of high-performance.

Strength is often termed the mother of all qualities. That is because almost every segment of athleticism is a derivative of strength. In terms of potential, it is also the most trainable component of athleticism. For instance, the potential to improve strength is in the hundreds of percent: it is not uncommon for an athlete of low training age to double or triple their strength in a matter of years. On the other hand, the trainability of different athletic components, such as speed, is much lower, in the tens of percent.

Power is the expression of strength over time. Although an athlete may be strong, he/she may not be powerful if strength cannot be displayed quickly. On the other hand, an individual is inherently strong if he/she is powerful. Due to the element of time, power is often discussed as it relates to velocity or acceleration. Understanding kinetics and kinematics will further enhance the practitioners knowledge of power, as well as its place in high-performance.

In this chapter, we will further define strength and power. We will also look at various types of each, as well as provide a general framework for the development of both. Lastly, we will end the chapter discussing how strength and power relate via the force-velocity curve, and discuss force-velocity profiling in the greater context of high performance.

Strength

Strength is the ability to withstand or generate force. Given this definition, strength can take on many forms. When it comes to training, we most often think of force production. However, sport often requires both production and the ability to withstand external forces. It is essential for strength training programs to be comprehensive, including exercises in both domains.

To master strength, we must understand force. Quite simply, $force = mass \times acceleration$ ($f=ma$). Given this definition, it should be clear that a lot of acceleration, moving a lot of mass, or both, will result in high levels of force. There are many examples of this in sport: gymnasts and sprinters produce an immense amount of force by accelerating their bodies, powerlifters generate great force by moving significant mass, while shot putters and discus throwers cause force through both.

Along with producing force, to be strong we must also be able to withstand it. When the musculoskeletal system is unable to do so, we significantly expose ourselves to injury risk. The most common external force that athletes need to withstand is gravity. Although constant, any sport requiring athletes to leave and return to the ground will demand that they withstand gravitational forces.

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In contact sports, external forces are obvious. Most commonly, the greatest external force is other people. It is imperative that athletes be able to absorb and displace the force of others. Additionally, swinging and throwing sports, such as volleyball, tennis, golf, and baseball, require the body to both withstand and generate torque forces. Failure to do so can predispose athletes to both acute and chronic injury.

As previously mentioned, the trainability of strength is quite large. This is due to many factors, such as the fact that strength expression can be a matter of both muscular hypertrophy and neuromuscular efficiency. It is well known that beginning strength is largely due to the latter. Meaning that the neuromuscular system is the primary driver of early strength gains. However, over time, it is important for individuals to create a greater capacity of strength, which requires more muscle tissue and contractile elements to be built.

Overall, strength, or the ability to produce or withstand force, is critical to athletics. Not only is it important for athletes to acquire it, but also be able to use it appropriately. Strength is highly trainable-requiring both mechanical and neuromuscular mechanisms to be displayed. We will now look at various types of strength, as well as provide basic theory on how to build it.

Maximal

When most people consider strength, they think of maximal strength. This is the maximum amount of force output an individual can produce. In terms of training, this type of strength correlates to 1-repetition maximums. The amount of weight loaded onto the bar is the barometer for maximal strength.

Developing strength maximally is important for many reasons. Most importantly, maximal strength will provide the foundation for all other strength qualities. The more force you have the capability of producing, the more power and speed potential you have. Maximal force is also important in terms of developing the muscular and neuromuscular systems. In order to continually build maximal strength, an individual must build more contractile units and muscle fibers to handle greater intensities. Additionally, maximal force output requires great neuromuscular efficiency, as well as intra and intermuscular coordination.

In general, a larger human has a greater potential for maximal strength. This is because they inherently carry more muscle mass. Although an easy measure of strength comparison, maximal strength in athletics is not often the best indicator of strength.

Relative

Relative strength is an individual's strength compared to his or her bodyweight. If Person A weighs 200 lbs., while Person B weighs 250 lbs., and both have the same maximal strength, Person A is relatively stronger than B. Bodyweight exercises are also a good measurement of this type of strength.

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Relative strength is often used when considering sport, position or weight class. Comparing the strength of an athlete from one category to the next, is like comparing apples to oranges. On the contrary, relative strength serves to mediate categories by taking into account the bodyweight of an individual. For this reason, there are weight classes in powerlifting and weightlifting, as well as other sports such as combat sports.

Explosive Strength

Explosive strength is a broad category and umbrella term for reactive and elastic strength. Similar to power, explosive strength is the ability to express strength in a short amount of time. This derivative takes into account the stretch shortening cycle of muscle mechanics. Muscles and the tendons that attach them to bone act like a rubber band, storing energy potential upon being stretched. Thus, explosive strength is a measure of how the body utilizes the stretch shortening cycle to display strength.

One of the most common measures of explosive strength is the Reactive Strength Index (RSI). This test captures an individual's ability to change from a rapid eccentric movement, to a concentric one. The time in between these movements is known as the stretch-shortening cycle, as noted above. Jump height, as well as ground contact time, are considered when calculating RSI.

Strength Endurance

When thinking of strength, most people think of singular or fast metrics to determine its capabilities. In contrast, strength endurance is measured as repeated strength outputs, usually in the form of reps over time. More specifically, repeated strength efforts using loads between 40 and 60% 1RM without a significant reduction in production equates to strength endurance (Schoenfeld, et. al. 2021). It should be clear that this form of strength opposes maximal strength. Instead of the highest intensities possible, strength endurance utilizes low to moderate intensities and a high number of reps.

Not only will strength endurance contribute to overall athletic development, but it is specifically beneficial for sports of cyclic nature. Endurance sports such as running, cycling, and the like, will greatly benefit from increased levels of strength endurance.

General Adaptation Syndrome

General Adaptation Syndrome (GAS) is a theory used to describe the body's physiological response to stress. It is important to understand this concept as a foundation of high-performance. Strength, power, and other athletic qualities impose stress on the body. In response, the body undergoes an inflammatory response, and hardens itself over time to adapt to external factors.

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GAS was first introduced by medical doctor Hans Selye in the mid 1900's (Selye, 1951). He stated that the body undergoes three distinct phases in response to stress: alarm, resistance, and exhaustion. Understanding these phases will allow for a better understanding of strength adaptation.

The alarm stage commences once stress has been recognized by the body. The physiological response occurs when the nervous system triggers a hormonal cascade. Mainly, cortisol and adrenaline are released (Harvard Health Publishing, 2020). If acute, the autonomic nervous system will issue a 'fight or flight' response, giving the body resource to defend itself.

The resistance stage follows next, with the goal of counteracting the changes imposed by the alarm stage. During this response, the parasympathetic nervous system (opposite to the fight or flight response) is in primary control, with the goal of lowering the body's cortisol and returning it to baseline.

Lastly, if the body cannot return to normal following the resistance stage, it will enter exhaustion. This can be seen symptomatically as fatigue, poor mood, and slow reaction times. Chronic exhaustion is detrimental to health, and greatly inhibits athletic performance.

Strength efforts and resistance training are highly stressful to the body. Without question, training sessions are met with an alarm response including heightened heart rate and elevated cortisol levels. This allows athletes to display strength and withstand training demands. However, as seen above, recovery from training, as well as proper programming, are absolutely critical to allow the body to navigate the resistance stage. Lastly, a goal of any high-performance practitioner should be to protect athletes from exhaustion states.

Progressive Overload

While GAS is a theory of response, progressive overload is a theory of adaptation. Perhaps the most fundamental theory in strength and conditioning, progressive overload is defined as the systematic increase in training stress over time. At its most fundamental level, progressive overload is thought of as the gradual increase of weight (training intensity) over time. However, practitioners also inherently know the Law of Diminishing Returns. That is to say, at some point, an athlete will no longer benefit from increasing load (also known as plateauing).

Overload is important because it forces the body to adapt to external stress. As the body fights for constant homeostasis, it needs to be challenged. There are various ways to overload, but the most common way is to change one of three major training variables: intensity, volume, or time under tension.

Intensity is the most common training variable to alter. Simply, intensity is the amount of weight lifted. Progressive overload would state that this should gradually increase over time. Intensity is highly

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correlated to the nervous system. Because of this, it is hard to progress in a linear fashion. This is also the reason that many training programs vary intensity daily or weekly.

Volume is another training variable that is changed often. Mostly in the form of manipulating the number of repetitions per set. If you are used to performing 10 repetitions per set, performing 12 repetitions per set would adhere to the idea of progressive overload. However, total volume should also be considered. Increasing the total volume in a training session also adheres to the principle of overload.

Lastly, a lesser understood training variable is time under tension. Time under tension (TUT) is the amount of time, in seconds, that a muscle is under stress during a set. For example, while performing a set of bicep curls, the TUT could fall between 20-30 seconds. Increasing the TUT to 40-60 seconds will greatly change the training effect and provide overload to the exercise. Like intensity or repetitions, TUT can be changed and utilized in a progressive manner to overload the training stimulus.

Power

Power is an expression of strength. Although given its own category as an athletic quality, it is a close relative of explosive strength. For this reason, it is commonly discussed in the context of sport. It is critical to athletes in terms of gaining advantages over opponents, beating them to balls or pucks, and accelerating on the track or in the pool. Power is strength over time.

Power is often used to broadly discuss any display of athleticism, and thus is often miscategorized. Two components of power are velocity and acceleration. Velocity is speed over time. When an athlete runs the 100-meter sprint, we are seeing velocity in its purest form. Relatedly, acceleration is the change in velocity over time. When the athlete explodes out of the blocks, changes direction, or their speed slows down over the course of a distance, we are discussing acceleration.

In terms of high-performance, power is often expressed in athletic feats and testing, or specific exercises. For example, jump tests are used to determine an athletes' power, as they most often are looking at the amount of force an athlete can produce in minimal amount of time. Common tests include the vertical or broad jumps, and closely associated jumps of this kind. In recent years, force plates have become a staple in high-performance programs, as they offer a more descriptive view of power.

In strength training, the most common exercises for power include the snatch and clean and jerk. Also known as the Olympic lifts, these two exercises have been proven to produce the most amount of force in the least amount of time (Storey and Smith 2012). Therefore, they are displays of power. In recent years, velocity-based training (VBT), has become popular to yield power out of more traditional lifts - such as the bench press and squat. Tracking the velocity at which a bar or implement is moved introduces a time component, and thus is a measure of power.

Force-Velocity

Power and strength interplay on what is commonly known as the force-velocity curve. This convex curve displays the trade-off between velocity and strength. Essentially, as the amount of force increases, there is less velocity that can be applied to that force. Contrarily, as velocity increases, there is less force that can be applied.

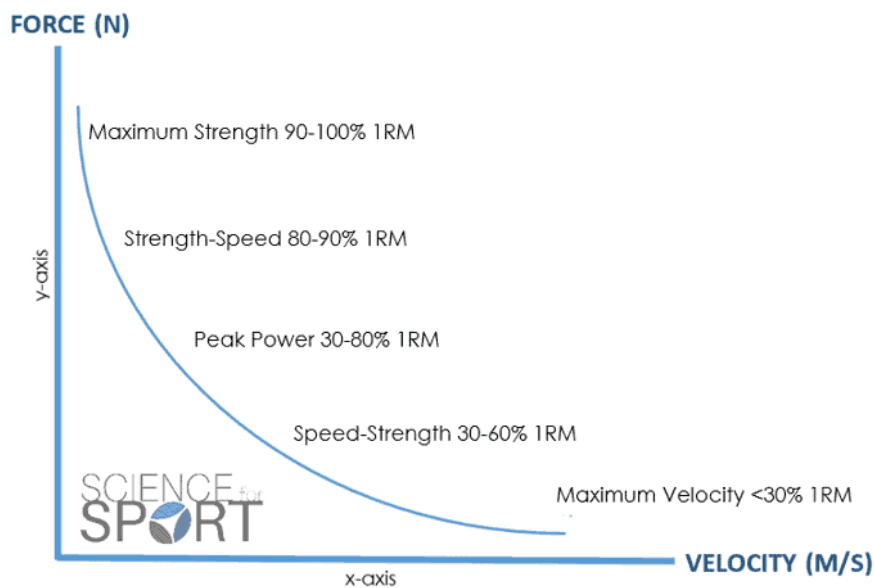


Figure 1. The Force-Velocity Curve

The graph (Walker, 2023) displays the inverse relationship between strength and velocity. As you can see, power sits squarely in the middle, and is a mix of both strength and velocity. For this reason, we can see that power is a derivative of strength, and although closely related, they are not equal. Additionally, specific exercises and sport skills require very different demands in terms of force or velocity.

Bodyweight sports require a great deal of velocity, whereas traditional strongman or strength style sports require immense amounts of force. Some sports that fall in the middle of this continuum include projecting objects such as hammer, discus, and shotput, as well as Olympic weightlifting. Lastly, sports that require great deals of velocity are sprinting, hitting a baseball, and golf.

Understanding the physical demands of sport, as well as the type of athlete you are training, will greatly alter not only exercise selection, but also which part of the force-velocity curve you spend your time training. It is critical to understand that a high-performance program should be holistic in developing all athletic qualities, and specific where needed to meet the physiological demands of sport.

Profiling Athletes

With a basic understanding of strength and power, many practitioners have begun to profile athletes using force and velocity, also known as Force-Velocity Profiling. Generally speaking, a coach can categorize an athlete as having a great ability to produce force, display velocity, or both.

Most typically performed in a quadrant style matrix, identifying athletes' capabilities can lead to greater training insights. Depending on the exercise, a strength and conditioning or performance coach can measure where an athlete is falling on the force velocity curve. Tools such as tendo units or VBT trackers can aid in this profiling. Further, force plates and various tests performed on them, can also assist in profiling athletes in this way.

From such categorizations, coaches can choose to focus training on a specific location of the force-velocity curve. Most typically, this is either as a result of the athletes' testing or the demands of sport. For example, an athlete that displays great amounts of force but plays a sport that requires significant power or velocity, would benefit from exercises that fall in the middle or toward the velocity end of the curve. Force-Velocity profiling is just one of many popular ways to compare athletes against sporting demands.

Conclusion

Understanding strength and power leads to greater performance decisions. Strength is a building block to all athletic qualities. Although often thought of generally, different types of strength can be trained to yield different physiological results. A comprehensive training program will take into account the demands of sport and develop the necessary types of strength to match them. Power is closely related to strength and includes a time component. Power and strength are related on the force-velocity curve, which shows the inverse relationship between force and velocity. Understanding this dynamic can help to profile athletes, understand sport and exercise demands, and lead to a better high-performance program.

Chapter 9

Leadership Excellence in the College Weight Room

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Leadership Excellence in the College Weight Room

Leadership in a college weight room is not just about barking orders or demonstrating physical prowess, it's about creating an environment that fosters growth, discipline, and community. The significance of effective leadership in this setting cannot be overstated, as it plays a pivotal role in shaping the physical and mental development of young athletes. College weight rooms are hubs of potential, where aspiring athletes transform themselves into champions, and strong leadership is the catalyst for this transformation.

One of the most crucial benefits of leadership in a college weight room is the guidance it provides to athletes on their fitness journey. An effective leader understands the nuances of strength training, conditioning, and recovery, and they can tailor workouts to suit individual needs and goals. This personalized approach not only maximizes the effectiveness of training but also minimizes the risk of injury. A leader who is knowledgeable about the science behind exercise can teach athletes proper form and technique, helping them build a solid foundation for long-term success. In this way, leadership fosters skill development and ensures that athletes are on the right track to achieve their fitness goals.

Moreover, leadership in a college weight room instils discipline and work ethic in athletes.

The weight room is a place where athletes face adversity and push their limits, and it's the leader's responsibility to set the tone. By demonstrating dedication, punctuality, and a strong work ethic, a leader becomes a role model for their teammates. Athletes are more likely to rise to the occasion when they see their leader leading by example, which creates a culture of accountability and commitment. These qualities extend beyond the weight room and into other aspects of student-athletes lives, shaping them into responsible and disciplined individuals.

Leadership also plays a crucial role in fostering a sense of camaraderie and teamwork. Athletes often train together, and a leader can create an inclusive and supportive atmosphere that encourages everyone to work together towards a common goal. Effective leaders emphasize the importance of teamwork, as it not only enhances motivation but also helps athletes push their boundaries. In a collaborative environment, athletes share their successes and struggles, creating a support system that transcends the weight room. This sense of unity can have a positive impact on team dynamics, translating into improved performance on the field or court.

Furthermore, leadership in the college weight room encourages mental toughness. Physical fitness is closely linked to mental resilience, and an effective leader helps athletes develop the mental fortitude to overcome obstacles. Through challenging workouts and motivational speeches, a leader pushes athletes to confront their fears and doubts, teaching them how to stay focused and composed

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under pressure. These mental skills are not only valuable in sports but also in life, helping individuals face adversity with confidence and determination.

Leadership also contributes to the overall wellbeing of student-athletes. In college, student-athletes often face demanding schedules that require time management and stress management skills. A leader who understands the demands of both academics and athletics can provide guidance and support, helping athletes strike a balance and avoid burnout. They can also promote healthy lifestyle choices, including proper nutrition and rest, which are essential for peak performance and overall wellbeing.

Another essential benefit of leadership in the college weight room is the cultivation of leadership skills among athletes themselves. As athletes observe and learn from their leader, they have the opportunity to develop leadership qualities such as communication, empathy, and decision-making. These skills can be invaluable not only in their athletic careers but also in their future professions and personal lives. Leadership in the weight room serves as a training ground for future leaders, fostering a legacy of strong leadership within the college community.

In conclusion, leadership in a college weight room is of paramount importance for the holistic development of student-athletes. Effective leadership provides guidance, discipline, and a sense of community, helping athletes achieve their fitness goals while also building character and mental resilience. It sets the foundation for a culture of teamwork, accountability, and personal growth, ultimately shaping athletes into well-rounded individuals who are prepared to excel both in sports and in life. The benefits of leadership in the college weight room extend far beyond the gym, making it a cornerstone of athletic and personal development in the collegiate setting.

Improving Leadership In The Weight Room

Improving leadership in a college weight room is crucial for creating a positive and effective training environment. Firstly, fostering clear communication is paramount. Leaders, whether they are coaches, trainers, or experienced athletes, should openly communicate expectations, goals, and workout plans to all participants. This ensures that everyone understands their role and the purpose behind their actions, promoting a sense of unity and motivation.

Furthermore, setting a strong example is essential. Leaders should demonstrate dedication, discipline, and proper technique in their own workouts, inspiring others to follow suit. A disciplined leader not only gains respect but also instils a culture of hard work and consistency among participants.

Inclusivity is another key aspect of effective leadership in a weight room. Leaders should try to create an inclusive and welcoming atmosphere, where individuals of all fitness levels and backgrounds feel

valued and supported. Offering modifications for exercises and providing constructive feedback can help all participants progress at their own pace, ensuring that no one feels left behind.

Additionally, leaders should encourage feedback and actively listen to the concerns and suggestions of those they are leading. This promotes a sense of ownership and involvement, as participants feel that their input is valued and can contribute to the improvement of the training program.

Lastly, continuous learning and staying updated on the latest fitness trends and techniques is crucial for effective leadership.

Leaders should invest in their own education to provide the best guidance possible to those they lead, helping everyone reach their fitness goals safely and efficiently.

In conclusion, improving leadership in a college weight room requires effective communication, setting a strong example, inclusivity, feedback, and ongoing education. By embodying these principles, leaders can create a supportive and motivating environment that fosters growth, teamwork, and individual success.

Chapter 10

Culture and the Weight Room

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Culture and the Weight Room

Culture, whether in the context of society or an athletic setting, is a complex and multifaceted concept that shapes behaviors, beliefs, and interactions. Within athletics, culture refers to the shared values, attitudes, and beliefs that guide a team's approach to sports and competition. It serves as the foundation for the team's identity and behavior, influencing how athletes and staff members interact, work together, and pursue success.

While every team possesses a culture, not everyone may be aware of its existence or influence. Team culture is not something that can be established overnight, nor is it effectively conveyed through mere words or slogans. It's a set of expectations and behaviors that are upheld without question or hesitation; the result of consistent, intentional actions carried out daily by individuals who collectively contribute to the team's identity.

In this context, the role of a strength and conditioning professional becomes pivotal. Despite the stereotype of being a meathead, workout junkie, these professionals are highly educated and possess a diverse skillset that extends beyond simply counting reps. They play a crucial role in shaping and nurturing the team's culture due to the substantial amount of time they spend with athletes, sometimes even more than the athletes' sport coaches during certain periods of the year. This consistent interaction provides opportunities to instill values, work ethic and attitudes that align with the teams desired culture. The weight room remains impartial, a space where objectivity reigns. 100lbs will always feel like 100lbs no matter who moves the weight.

The weight room doesn't dictate playing time and it rewards those who consistently work hard.

It is the perfect vehicle to harness growth. Regardless of an individual team's cultural values, the weight room often promotes the same values.

Performance Focus

Having a performance-focused mindset in the weight room yields some extraordinary results toward culture. The weight room is objective which allows athletes to set performance goals, track progress, and highlight achievements. This mindset instills discipline, accountability, and commitment toward pushing the limits to see improvement. This mindset also allows the athletes to tap into intrinsic motivation while building self-confidence. As athletes begin to recognize their own growth, increased self-confidence begins to emerge. Promoting a performance-focused culture also translates to a multitude of life skills that will be useful beyond an athletic career. Potentially one of the most useful life skills developed with this focus is building resiliency. While we love to constantly highlight success, setbacks and challenges occur. Learning how to cope with setbacks and adapting to challenges is a

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useful tool and understanding that growth often comes from overcoming obstacles is a lesson that will stay with athletes beyond the weight room.

Work Ethic

Work ethic plays a pivotal role in shaping culture within the weight room among athletes due to the large impact it has on individual and team development. Fostering a culture of hard work and dedication encourages individuals to push themselves and strive for improvement. Athletes with a strong work ethic set a powerful example for their teammates and can often influence others to follow suit. Setting the standard for impeccable work ethic promotes mutual respect among the team. When everyone consistently puts in effort, there's a shared understanding of the value each person brings to the team. This level of respect fosters a collaborative environment that can extend beyond the weight room. Strong work ethic is a major driving force to propel a team's culture forward. A collective commitment to hard work creates an environment where each athlete thrives, the team flourishes and lasting success results.

Accountability

Accountability is a cornerstone of culture in the weight room. Much like the previous two points, accountability reinforces discipline, teamwork, and growth but accountability cultivates a few other useful traits when looking to mold team culture. A culture of accountability empowers athletes to take ownership of their actions, behaviors, and commitments. Each athlete recognizes their role in contributing to the team's success and holds themselves accountable for their contributions. Accountability paired with open communication creates a space for conflict resolution as well. When mistakes happen, athletes are more likely to address issues directly and collaboratively which helps to resolve conflicts in a constructive manner. Accountability is yet another trait that will have carry over far beyond the weight room. Athletes who consistently fulfill their obligations in the weight room often begin to demonstrate their ability to be accountable in other areas of life.

Communication

Effective communication in the weight room is essential for success of the team as well as reinforcing a culture that promotes open dialogue. Communication impacts so many relevant areas that translates directly to an athlete's sport of choice. With encouragement of proper communication, we can positively affect team cohesion by fostering a sense of unity and working toward shared goals. Communication is also a skill that needs to be developed and encouraging this in the weight room allows athletes the ability to train that skill. Exchanging information correctly can lead to changes in technique and proper feedback to either reinforce a success or learn from a mistake. Potentially, one of the biggest benefits of encouraging communication amongst teammates is the ability to develop leadership. An athlete that can effectively communicate and lead by example contributes to the

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development of strong team culture. Essentially, communication is a foundational staple in weight room culture. It promotes teamwork, safety, skill development and leadership; all of which contribute to the success of both an individual and a cohesive unit.

Grit

Grit refers to the combination of passion, perseverance, resilience, and determination displayed while in pursuit of long-term goals and excellence. Athletes with grit possess an unwavering commitment to goals, a willingness to endure challenges and setbacks to overcome obstacles. Gritty athletes demonstrate a consistent work ethic, show resilience, and inspire others to continue pushing forward with determination and a focused positive attitude, regardless of the circumstance. Grit leaves a legacy, and the presence of grit can shape culture for years to come.

Conclusion

In the world of athletics these traits are not isolated but rather interconnected to create a successful and thriving athletic environment. A culture promoting these traits creates an atmosphere where individuals work together toward the collective goals of a team. Diligence and determination pave the way for success. Culture doesn't merely lead to victory on the field but extends beyond to promote personal growth and character development. As athletes embrace these connected qualities, they not only enhance their expertise, but also contribute to the legacy of excellence that defines their team identity.

Chapter 11

Navigating the Complexities of Working with College Athletes

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Navigating the Complexities of Working with College Athletes

College athletics represent a significant part of the American cultural landscape, with thousands of student-athletes vying for greatness on and off the field. Success in collegiate sports requires a delicate balance of academic rigor and athletic performance, placing tremendous responsibility on the shoulders of strength and conditioning coaches working with these young people. Understanding the complexities and nuances of coaching college athletes is crucial, as designing specific training programs helps maximize their potential and pave the way for a successful future in sports and beyond.

The Unique Challenges of College Athletics

Working with college athletes presents unique and multifaceted challenges often encountered in professional sports but with additional considerations. Student-athletes face the demanding task of keeping on top of academics while striving to improve physical performance on the field or court. Amidst this juggling act, they must also navigate the complexities of social dynamics, rules, and traditions specific to one's university. They operate within the regulatory framework of NCAA rules and often overcome the limitations imposed by existing medical conditions or injuries that can occur during competition and training.

To effectively cater to these specific and complex needs, strength and conditioning professionals should dedicate themselves to comprehensively understanding each athlete's individual goals, background, and limitations. By thoroughly grasping these factors, coaches can design specific training programs that align with each athlete's unique needs and aspirations. Careful consideration of these complexities is paramount as it creates a training environment that nurtures growth and prioritizes physical and mental wellbeing for student-athletes.

The challenges encountered in college athletics are distinct and demand holistic approaches that go beyond mere physical training. Acknowledging and addressing these intricacies, S&C professionals can provide the support and guidance necessary to empower student-athletes to excel in their academic and athletic endeavors.

Coaching Through Education: Empowering College Athletes for Success

A critical and holistic approach to working with college athletes involves placing a strong emphasis on education. It is pivotal for student-athletes to acquire skills in performing various complex movements proficiently and assimilate the training techniques they learn in the weight room and on the field or court. By doing so, they can effectively maximize the benefits of their S&C training.

To fulfill this sufficiently, coaches should make it their mission to create ample educational opportunities for student-athletes. S&C Coaches stress the importance of perfect practice and

exercise technique and help them learn and implement the significance of proper rest and nutrition. Additionally, staying up-to-date with best practices, relevant research and trends allows S&C coaches to provide cutting-edge knowledge and insights to their athletes, empowering them to achieve their full potential.

By nurturing student-athletes through a comprehensive educational approach, S&C coaches play a pivotal role in shaping their athletic performance and overall personal and academic growth.

Ultimately, this holistic approach sets the foundation for long-term success on and off the field, court, or ice.

The Importance of Communication

Effective and consistent communication is critical in any team working with college student-athletes. S&C Coaches should prioritize keeping all team members informed and engaged in the program. One method includes setting clear expectations and goals that align with each athlete's specific needs and aspirations and providing constructive feedback on performance to facilitate growth and improvement. This can be done in a variety of ways, from one-on-one meetings to formal evaluations and even video analysis.

Additionally, maintaining open lines of communication involves more than just relaying information – it involves actively listening to the concerns and perspectives of team members. S&C coaches should strive to create an environment of mutual respect where all athletes feel empowered to express their opinions, ideas, and concerns without fear of judgment or criticism. This open and inclusive atmosphere fosters trust and collaboration among team members, improving performance and enhancing team cohesion and overall satisfaction.

By enhancing communication strategies, S&C coaches can optimize the athlete-coach relationship, promote individual development, and create a supportive team culture that sets the stage for success on and off the field.

Cultivating Program Buy-In

Program buy-in is an indispensable element for the success of any team. S&C coaches can foster this key ingredient by nurturing and developing strong relationships with athletes and their support networks. A way to do this includes actively engaging and involving family

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members, faculty, and fellow department staff, ensuring everyone feels valued and invested in the program's outcomes. By incorporating each stakeholder in the decision-making process and consistently highlighting the program's value and significance, coaches can establish trust and encourage a shared belief in the importance of their collaborative endeavors.

Building such relationships requires effective communication strategies, such as regular meetings or check-ins with athletes' families and coordinating with other staff members to create an inclusive and supportive environment. S&C coaches should also take the time to understand each team's unique needs and provide more personalized guidance and mentorship.

Furthermore, coaches can encourage open dialogue and collaboration among athletes, staff, and support networks. S&C coaches can increase collaboration through team-building activities, educational workshops, and group discussions where everyone can contribute their insights and ideas. By fostering a sense of ownership and empowerment within the program, coaches can ensure that each team member feels valued and important, strengthening the team dynamic and commitment to achieving shared goals.

Cultivating program buy-in requires coaches to invest in building strong relationships, effective communication, and creating opportunities for collaboration. By doing so, coaches can foster an environment where everyone is actively engaged and shares a deep belief in the significance and success of the program.

Success Stories: The Profound Impact of Tailored Programs on College Athletes' Performance

Across the nation, countless college athletes have witnessed the excellent benefits of diligently following tailored strength and conditioning programs. Here at Norwich University, thanks to technology like the Lumin Sports platform and Volt Athletics' S&C training app, we invest substantial time and effort into addressing each athlete's unique needs and goals with customized programs.

Through this meticulous approach, not only have our athletes experienced a notable reduction in injury rates over the past two years but have witnessed their performance levels soar to new heights, surpassing even the highest expectations. The tailored programs, designed to address our college athletes' strengths and weaknesses, became the catalysts for massive success and record achievements for many of our athletes on the field, court, and ice.

The success stories emerging from Norwich University stand as a testament to the pivotal role played by customized programs supported by the best sports science technology in maximizing the potential of college athletes. By recognizing and embracing athletes' strengths,

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weaknesses, and goals, S&C coaches can develop tailored programs that propel them toward the pinnacle of their athletic prowess. This impact emphasizes the significance of a holistic approach to coaching that considers individuals' diverse needs and facilitates their often-noteworthy transformations.

The profound impact of tailored programs on college athletes' performance is undeniable. Through individual tailoring, coaches can unlock uncharted potential, paving the way for unique achievements and remarkable success stories. These narratives are stark reminders of the importance of recognizing and addressing athletes' individual needs and aspirations, enabling them to excel in the competitive landscape of college athletics.

The Future of Coaching College Athletes: Embracing Promising Developments

As research and technology relentlessly advance and reshape the athletic performance profession, it's wise to prepare for and be open minded to a significant evolution in S&C coaching. Those who proactively adapt to emerging trends, constantly innovate strategies, and leverage cutting-edge technologies are primed to survive and excel in this ever-evolving landscape.

By staying ahead of the curve, continuously acquiring new knowledge and skills, and embracing holistic development approaches, we in the athletic performance field can unlock new opportunities for athletic achievement and create an environment that fosters personal growth and success for talented athletes. Together, they forge a path toward a bright and exhilarating future in collegiate S&C coaching, where the pursuit of excellence is motivated by a deep understanding of individual player dynamics, optimized training methodologies, and effective leadership strategies.

Chapter 12

Wellness: The Bedrock of Leadership and High-Performance

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“Sports teach life lessons” is a regular suggestion in the athletics realm. That is simply not true. Sports do not teach life lessons... you do, coach. Sports, complemented by unique and powerful opportunities in the weight room, have incredible potential as a learning environment, but the learning does not happen automatically.

Character can be taught through athletics. So can leadership, performance psychology, and communication skills. Picking up a barbell does not accomplish these outcomes, but educators routinely use a barbell to teach them. It must be done intentionally.

All who are inspired to teach life lessons should consider that these skills are heavily influenced by physical wellness. This understanding can be put into the category of ‘Bedrock Education’; that is, concepts so essential, so foundational, that they are not niceties, but necessities in our lives. Educators are tasked to bring that essential understanding to those in their charge. To empower people through health. To change and improve lives. That’s no small task.

High performers from high school athletes to Olympians to C-suite executives responsible for multi-million-dollar portfolios share one thing in common: they are embodied. They move through their experience in human vessels, subject to any biological truths of which we are aware.

What an obvious thing to say. That our experience begins in the body.

What should also be obvious is that many systems have been normalized counter to that understanding. We have an opportunity to correct that. We must prioritize the bedrock elements of health. Wellness – both physical and mental – is the foundation of high performance.

The High Order Performance Framework

The High Order Performance Framework can be an effective guide for this work (Davis, 2023). It can serve as a compass, a reliable tool to navigate the complexities of self-improvement and goal attainment. In the spirit of iconic models like Maslow’s hierarchy of needs, our framework is presented in layers—each one building upon the other in a state of continuous, indistinguishable interaction.

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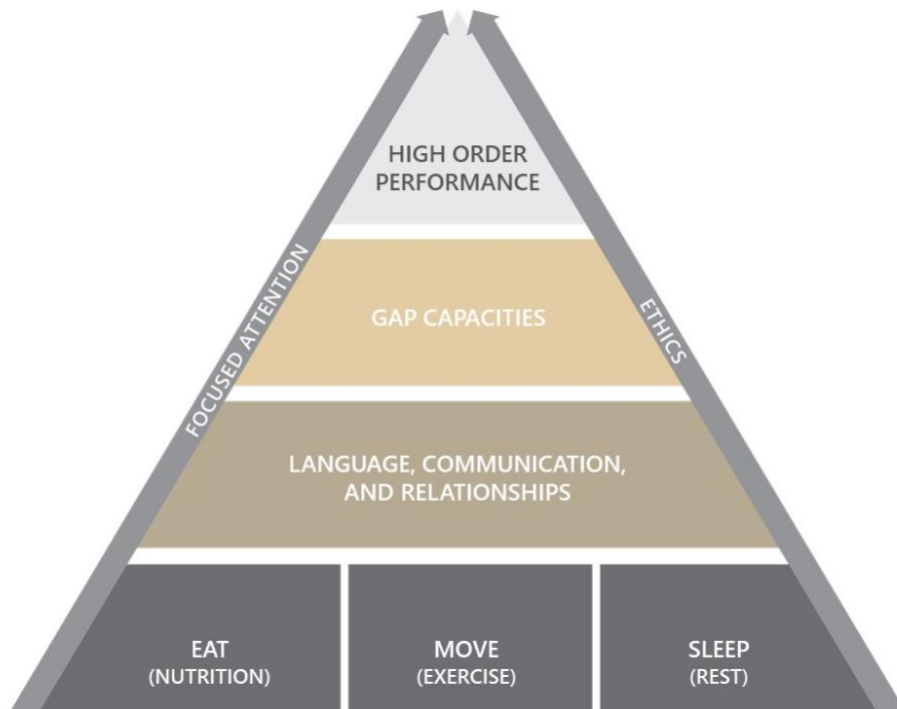


Figure One: High Order Performance (HOP) Framework

Understanding should precede problem-solving. Effective leadership requires an understanding of one's team as a system. Leadership expert Lex Sisney defines human systems as "a series of interacting, interrelated, or interdependent elements forming a complex whole," (Sisney, 2012, p. 26). He goes on to note that this applies to individual physical systems as well, which are comprised of biological processes, emotions, relationships, and other factors. Understanding how the individual system operates can provide leaders with greater insight into that individual's impact on the group. If one member of a team is being rude and impatient, rubbing others the wrong way and unnecessarily barking at subordinates, then the group might falter. That behavior must go. But understanding that the person is running on two hours of sleep, or that the person has just lost a loved one back home, gives the leader insight into effective and sustainable behavioral management. After all, that sleep-deprived person "is a system with a fixed amount of available energy," (Sisney, p.29). When energy is depleted, skills falter. A full understanding of HOP Framework components provides leaders with a powerful tool for effective problem-solving.

The levels of the HOP Framework are divided for ease of use, but they are not static. The framework aligns with the concept of dynamic psychology, which acknowledges that "human acts are understandable and predictable only through an analysis of the previous experiences and motivational states of the organism," which exists to counter a lower-level understanding of human behavior "through a simple description of the objective stimuli temporally preceding human acts," (Merriam-Webster, 1999).

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Humans are complex. Leaders should work toward a full understanding of what drives their team's behavior.

HOP Level

High Order Performance takes its name from, among other concepts, Bloom's Taxonomy. Bloom created a system of classification beginning with 'lower-order' skills like knowledge retention, comprehension, and application. The skills increased in complexity toward 'higher-order' skills like analysis, synthesis, evaluation and eventually, creation (Adams, 2015; Bloom, 1956). Arthur Lewis and David Smith suggest that higher order thinking occurs "when a person takes new information and information stored in memory and interrelates and/or rearranges and extends this information to achieve a purpose or find possible answers in perplexing situations," (Lewis & Smith, 1993, p. 136). To engage in complex problem solving, creativity, and innovation, higher-order thinking is necessary.

The name also alludes to ambition and top tier performance standards. While lower-order skills for an artist might include the basic techniques of mark-making and the properties of tools like paint or chalk, a fully-realized artist might set out to create the Mona Lisa or the murals of the Sistine Chapel. Herman Melville needed the lower-order skills of grammar and spelling to achieve the higher-level innovation that is *Moby Dick*.

Often, the first step in utilizing the framework includes the identification of a goal – a championship, a promotion, a relationship outcome, or any of the countless tasks required of an Olympian. Once that high order performance outcome has been identified, one can evaluate whether or not systems and behaviors align with it.

GAP Level

The gap level highlights skills that help bridge the gap between lower-order processes (remembering, understanding, and certain degrees of application) to successful high order processes like analysis, synthesis, and creation. The advancement does not happen automatically. In order to bridge the gap, utilizing skills such as resilience, toughness, and grit can prove advantageous. The entire field of social emotional learning (SEL) fits into this level, as we continually emphasize skills like emotion regulation (DeNeve et al, 2023), deliberate practice (Ericsson, 2007), and practical empathy (Davis, 2022). Certain skills are almost universally beneficial, while others can be specifically identified to align with the desired HOP outcome. For relationship outcomes, empathy might be prioritized; to finish an important project on a deadline, grit and resilience might be necessary.

LCR Level

Skills across the framework depend on skills at the LCR level, which refers to Language, Communication, and Relationships. Growth Mindset, for example, made famous by Stanford professor Carol Dweck, is an effective tool for long term success (Dweck, 1988). Growth mindset depends on the way one names an obstacle and frames their approach to navigating challenge. This requires a deliberate cultivation of self-talk and, often, effective communication with other stakeholders. When a leader tells her team that the mission they face is impossible, and that they are frustrated that a commanding officer is putting them in such a disadvantageous position, that will impact mindsets and subsequent behavior. The power of behavioral priming is real (Weingarten et al, 2016). Even the act of motivation, a task of all leaders, requires a leader to align with the motives of their people... without curiosity, relationships, and effective communication, a shared motive is difficult to establish. The way one uses languages, communicates, and relates to people and environment plays a powerful role in performance.

EMS Level (Bedrock)

The nuances of human experience are irrelevant if the body's fundamental needs are not met. Consider that the evolved outer cortex of the brain, capable of designing and constructing spacecrafts, evolved *after* the limbic system, which is responsible for our deeper and more essential needs (Rakic, 2009). On a biological level, emotion, hunger, and sleep-drive come first. Higher-level outcomes evolved over time to ease the procurement of those basic needs. When needs are not met, the body might deprioritize high level cognition, empathy, and creativity to respond to the physiological alarm bells (Holding et al, 2019; Steinberg, 1997). After all, there is no need to contemplate string theory and muse on the nature of the universe when one is on all fours in the desert, desperate for a drop of water.

For this reason, we can most effectively shift resources to higher levels if the limbic foundation is settled. This is most true over time. We can push through sleep deprivation temporarily. We can fast temporarily. But to standardize these physiologically degrading behaviors pre-determines the limited and stunted pursuit of our higher capacities (much like the impact of the wrestling coaching having early practices).

While the research behind this concept is vast, an aware leader can easily understand that a malnourished, sedentary, sleep-deprived human does not stand its best chance to fulfill its potential. As leadership expert Dr. Alan Watkins explains it, "internal physiological awareness... facilitates emotional coherence," and notes that the "body is always playing a tune... problems occur when we're deaf to the tune we are playing," (Watkins, 2013, pg. 12).

Once we are aware of this wholistic approach to performance, we can begin to evaluate it. In a driven population, the Sleep component of the Bedrock foundation might be the first to go.

Sleep Deprivation and Accountability

Think back to the last time you had a poor night's sleep. Maybe the dog was barking, a baby was crying, or you drank one too many cups of coffee in the late afternoon. How did you feel the next day? Recent science suggests that you likely had trouble concentrating (Andrillon et al., 2017), had greater emotional reactivity (Rosales-Lagarde et al., 2012) , and made more errors at work (Maija-Riikka et al., 2010). All of this degrades performance.

Even more important than student performance is student safety. The Centers for Disease Control and Prevention claims that sleep deprivation leads to depression, heart disease, obesity, and type 2 diabetes (Centers for Disease Control, 2022). And if that is not alarming enough, consider that sleep deprivation is linked to the top two leading causes of death in adolescents: accidents (namely, car crashes) and suicide (Oxford University Press, 2018; Jin Lee et al., 2012).

No amount of coffee, exercise, or self-talk can replace the benefits of a healthy night of sleep.

In a recent survey, we found an alarming write-in from a high school student: "I can't read/write/think straight, I haven't had more than five hours of sleep this week." It is a line that all educators should be asked to confront, since the terrible paradox of modern education, especially within highly motivated students, is sadly obvious. This young student, 14-years-old at the time, was doing everything in her power to succeed, not recognizing that those extra hours of study were inhibiting her ability to perform, all while setting the table for the unfortunate health outcomes mentioned above. In the name of self-enhancement, students are sacrificing self-preservation.

And it's not their fault.

One concern is the glamorization of sleep deprivation from self-help gurus on social media. Famous and assumedly well-intended speakers often make heroes of those who are inclined to give up sleep, proudly referring to them as *beasts*, and chiding those who prioritize rest, passing them off as harmless gazelles. It may seem silly, but people are watching.

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Impressionable students are listening. And in one of the Internet's most famous motivational videos, "How Bad Do You Want It? (Success)," narrated by motivational speaker Eric Thomas, nearly 45 million people have tuned in to learn that "If you're going to be successful, you've got to be willing to give up sleep. ... If you really want to be successful, some days you're going to have to stay up three days in a row [sic], because if you go to sleep, you might miss the opportunity to be successful." It is a dangerous message.

Sadly, it does not end in pop culture.

Educational institutions are sending a similar message. Adolescent circadian rhythms make it difficult for teens to fall asleep before 11 p.m., and they stay in a what the National Sleep Foundation refers to as a circadian "dip" until 7 a.m. or later (Sun et al., 2023). The American Academy of Pediatrics and the CDC both recommend school start times begin no earlier than 8:30 a.m. Schools are not listening. The average school start time in the United States is 8:03 a.m. (Wheaton et al., 2015).

Worse still, many institutions offer classes that begin before the regular school day. Oftentimes, it is the motivated students who bear the heaviest burden. If these extra classes begin at 7:15, say, then allowing time for a student to shower, dress, and commute would demand a wakeup in the neighborhood of 6 or 6:30 a.m. Students in more urban areas who take public transportation might find themselves waking up at 5:30 or earlier. This is not a strategy for success, and it has not always been this way.

Sleep deprivation is a recent epidemic. Americans have been sleeping fewer and fewer hours per night over recent years, down one full hour since the 1940s, to a measly 6.8 hours per night. The CDC recommends 8–10 hours for adolescents, 7–9 hours for adults — which makes us, on average, a sleep-deprived nation.

If we expect accountability from athletes, we should hold ourselves accountable as well — for their current and future wellness, if nothing else. Car crashes, disease, potentially increasing the risk of dementia and Alzheimer's disease — there is no counterbalance to the detrimental effects of sleep deprivation (Shokri-Kojori et al., 2018). As we construct systems to educate our young people and usher them down the river of their lives, does our behavior match our goal?

Adults are Feeling it as Well

Brian shut the door to his office and leaned back in his chair. He took a few deep breaths. There was tension behind his eyes and in his jaw — he had been grinding his teeth in his sleep. It had been a long day. A few months of long days. Brian was the leader of a small team within a major organization. Success was an expectation and he found it. He would arrive to work early and stay late. His devotion was

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recognized by those he led but, on this day, reclined and rubbing his temples in a dark office, something was wrong.

He did not have the flu, or at least he didn't think so, but he felt off. Mental and physical tension were high. Interaction with his peers had been suffering. Before taking this moment to himself, he had raised his voice at a coworker, sent an angry message to his wife, and was caught in the fumes of varied frustration. Things seemed to be crumbling around him. By noon he decided to call off for the day. He had not taken a sick day in years.

He says he does not remember the drive home, but he does remember making himself some tea and sitting down on the couch. The tea was too hot, so he set it down for a moment. The next thing he remembers is waking up in the dark, laying down now, after an unintentional five-hour nap. He brushed his teeth, went to bed, and slept through the night.

The next day he was fine.

Simply, Brian was exhausted. Sometimes we use the term 'exhausted' to describe a long day, to add emphasis to our fatigue. Brian was *actually* exhausted – drained of physical and mental capacity. In this state, physical and emotional health fail, as do our relationships and our potential to lead.

Versions of this story play out time and time again. When they are prolonged throughout a career, they can be far more serious, with leaders ending up in the hospital or worse. And of course, the quality of leadership falters.

The Leadership Team

This past year we conducted a workshop (alongside a variety of surveys) to support a leadership team at a successful organization. The group we worked with was high achieving. By any quantifiable measure, they were at the top of their field. In addition to their impressive track record, they scored **very high** in the areas of grit, growth, gratitude, and goal directed behavior. It was clear that the group possessed many essential skills for success.

The leadership team's culture was also commendable. The group scored **very high** in the primary areas of workplace relationships, including three big ones: 1) quality of relationships within the organization, 2) quality of relationships within the leadership team, and 3) feelings of physical and emotional safety.

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A skilled leadership team in a healthy workplace culture should translate to positive outcomes, right? In this case, the quantifiable successes were clear, but something was lurking underneath the surface...

In response to the prompt "I have plenty of time to do what's requested of me during the day," the group highly disagreed, with an average score of 3/10 (where a score of 10 indicated full agreement with the associated statement). In response to the prompt "I have more work than I am capable of completing," the group agreed (7.1/10); and to the prompt "I have more work than I am capable of completing with a high level of quality," the group highly agreed (8.21/10).

Although the leaders were highly skilled, and operating within a quality work environment, they were feeling overwhelmed by their work. Worse still, in response to the prompt "how would you rate your overall mental health?" 60% of the team reported a 6 or below out of 10. Self-reports on physical health were even lower, with 70% of the team reporting low scores.

Low health scores (both mental and physical) and more work than the group can complete with a high level of quality creates an unsustainable situation. While the leadership group appreciated one another, believed that they were doing meaningful work, and seemed to be successful, there was clearly an unidentified variable in the mix.

Sleep data was also collected through our survey. What we found was enlightening, though not surprising. So we kept looking. Degradation at the Bedrock level was limiting the quality of their work and relationships. There were cracks in their HOP foundation.

Rest Well

Sleep quantity (total hours of sleep) continues to be a dependable metric when other biometrics like heart rate and respiration rate are not available. As we analyzed the group's data, sleep quantity responses were broken into two categories, Adequate (8+ hours) and Inadequate (6.5 or fewer hours), before being cross tabulated with other wellness responses. Sleep impacted this leadership group in three important areas: interpretation of workplace stressors, motivation, and optimism in workplace communication.

Interpretation of stressors as "negative" in quality had a convincing alignment with sleep duration. In the inadequate sleep group (6.5 hours or fewer), 100% of respondents acknowledged that the quality of their stress during the week of the survey was negative (the team's average score was 6.7/10, with 10 being most negative). The opposite was true in the well-rested group. **None** of the respondents in the adequate

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sleep group (8 or more hours per night) believed the stress they experienced that week was excessively negative, and the group average was only 2.7/10.

The trend continued. In the group reporting inadequate sleep, motivation was significantly lower than their well-rested peers. In response to the prompt, “I often feel motivated to come to work,” the group who slept 8 or more hours per night averaged 9.2/10 (with 10 being complete agreement with the statement), while the inadequate sleep group averaged 6.4/10.

In questions regarding healthy communication with peers, the adequate sleep group found it easy to maintain optimism in their communication (8.9/10) while the inadequate sleep group reported maintaining optimism to be more difficult (6.4/10). Furthermore, the adequate sleep group seems to be more comfortable clarifying difficult ideas with coworkers (9/10) than the inadequate sleep group (7.1/10). The trend was becoming more and more clear.

These results align with previous studies which indicate sleep duration as a primary variable in the interpretation of one’s environment. They also align with good logic. If two people – one well-rested, the other sleep deprived – encounter the same challenge (say, rush hour traffic or a difficult conversation with a peer), the sleep deprived person would likely interpret the experience in a more negative way. In short, sleep deprivation makes people more negative (Cohut, 2019). Survey results from these sleep deprived leaders appeared to prove this out.

William Shakespeare famously suggested that “Nothing [is] either good or bad, but thinking makes it so.” Author and philosopher Ryan Holiday agrees that “through our perception of events, we are complicit in their creation.” If perception is so essential to the way we experience and manage our lives, then leaders would be wise to acknowledge the variables which impact perception. The way a leader interprets their environment is essential to their decision-making. It is possible that inadequate sleep was impacting the perception of the leaders, degrading their ability to lead well.

Lead Well

So, we beat on, boats against the current, achieving in spite of ourselves. And therein lies the problem. At the Good Athlete Project, we refer to the phenomenon of successfully navigating the world while regularly ignoring one’s degraded state as the “Talent Delusion.” High-achievers find themselves achieving at a high level, obviously enough; that said, they might never reach their full potential, since they exist regularly in a degraded state. It is those high-achievers who preach their methods to the world, insisting that sleep is a convenience, rather than a necessity.

Societal memes arise from these faulty paradigms, and it is not the high-achievers who are most likely to suffer. It's the disenfranchised. It's the under-supported young students who take these words as gospel. These are dangerous messages to spread and they are coming from sources who do not feel the full weight of that danger.

Coaches, sleep deprivation and the denial of basic psychological and physiological needs is not a badge of honor.

It is an indicator that top end performance will ultimately suffer. It might not happen right away, but eventually, biology will win.

Improving sleep will not solve all problems, but in most cases, it will influence the way those problems are perceived. During the 4th century BC, Lao Tzu inked the third verse of the Tao te Ching on a thin sheet of bamboo. "Thus, the Sage rules / by stilling minds and opening hearts / by filling bellies and strengthening bones" – he was talking about leadership (how the Sage rules) beginning with mental and physical health. Health for the leader *and* for those he hopes to lead.

Coaches, educators, and institutions do not have to take all of this into account. They often don't. We prioritize convenience and the unfortunate norms of modern life, wrap them in the generous title of 'efficiency' and unintentionally degrade the experience – the existence – of those we would like to see succeed. Schools with early start times and schedules that run counter to adolescent circadian rhythms, where we teach people to sit and comply for hours on end, snacking from vending machines full of the exact fuel that drives a multibillion-dollar obesity epidemic. We teach social emotional learning skills like emotion regulation, empathy, and resilience in environments which require those skills just to get through. We create well-intentioned mental health initiatives to alleviate the symptoms we have, in many cases, created.

No amount of positive self-talk, not even the cutest support animal, can overcome the deleterious effects of sleep deprivation as it relates to mental health. We should teach people to own and navigate their self-talk. We keep offering support for those struggling with mental health concerns. But layering surface-level interventions on top of a chronically degraded physical state is like icing a cake that is not fully baked.

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If we are truly hoping to teach lessons for life, we should be teaching for wellness – at the Bedrock level and beyond. Our students' ability to thrive within their environments, their health, and perhaps even their lives, may depend on it.

There are many challenges ahead. Step up to them. Prioritizing wellness is not always easy, but it will always be worth it.

Chapter 13

The Challenges Faced by NCAA Coaches Prioritizing Wellbeing and Mental Health

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Prioritizing Wellbeing and the Mental Health of NCAA Coaches

Coaching collegiate athletics is a demanding and high-pressure profession that comes with its own unique set of challenges. While the focus is often on the athletes' physical and mental wellbeing, it is equally important to address the challenges faced by NCAA coaches regarding their wellbeing and mental health. In this article, we will explore the significant causes of stress and mental exhaustion for coaches and propose potential solutions to overcome them.

Understanding the Challenges

Coaches across all NCAA-sponsored sports face numerous challenges that can impact their wellbeing and mental health. A recent study conducted by the NCAA found that coaches reported significant mental health and personal challenges. Over 6,000 coaches admitted facing difficulties related to mental health, indicating the magnitude of the issue (McGuire, 2023)

One significant challenge new coaches face is the pressure to succeed immediately in their first season (especially at Power Five schools). The expectations from fans, administration, and the media can create immense stress and put coaches under intense scrutiny (Jeyarajah, 2023). The constant need to recruit talented athletes while managing their team can also be overwhelming and time-consuming (Felder, 2013). These challenges, long working hours, travel, and administrative responsibilities can affect coaches' mental health and overall wellbeing (Tenzer, 2020)

Improving Coach Wellbeing and Mental Health

Interventions prioritizing wellbeing and mental health is crucial to addressing coaches' challenges. Here are some proposed solutions:

Supportive Work Environments: Institutions must proactively understand and adapt to the evolving nature of coaching jobs. Support includes creating a supportive work environment that acknowledges coaches' unique pressures and provides them with the necessary resources to address their mental health needs. By prioritizing mental wellbeing and promoting a healthy work-life balance, institutions can foster an environment that allows coaches to excel and thrive.

Mental Health Education and Resources: Coaches should receive comprehensive mental health education and access resources such as counseling services, stress management workshops, and professional development programs. It empowers individuals by equipping them with the necessary tools and knowledge to navigate and overcome the unique challenges they may encounter effectively.

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Coaching Education Programs: Incorporating wellbeing and mental health modules into coaching education programs can help aspiring coaches develop resilience and coping strategies that provide a foundation for coaches to handle stressful situations effectively.

Peer Support Networks: Establishing peer support networks or mentorship programs where experienced coaches can guide and support their peers can be beneficial. Sharing experiences and seeking advice from those who have faced similar challenges can help alleviate stress and foster a sense of camaraderie.

Increased Communication and Collaboration: Encouraging open and honest communication between coaches, athletes, and administrators is paramount for fostering a collaborative and supportive environment. Regular check-ins and evaluations are vital in identifying potential issues early, allowing timely intervention, and implementing necessary support mechanisms. By maintaining a constant flow of communication, teams can effectively address challenges, enhance performance, and ensure the overall wellbeing of everyone involved.

Sports psychology strategies can focus on helping coaches foster a growth mindset, build resilience, manage and reduce stress, and improve communication skills. Coaches can learn cognitive behavioral techniques to help reframe negative thoughts and improve self-evaluation and self-talk. They can use mindfulness practices to help identify unhelpful thinking patterns and regulate emotions. Coaches can also learn to use positive reinforcement strategies to encourage motivation and confidence when dealing with athletes.

Finally, coaches must know and demonstrate the importance of sleep, diet, and exercise in managing their wellbeing and not be a leader that says, "Do as I say, not as I do!". Taking time away from coaching duties for stimulating activities such as proper nutrition, physical activity, relaxation exercises, spending time with family or friends, or engaging in hobbies can go a long way in helping you stay healthy and fulfilled mentally and physically.

The Way Forward

Recognizing and addressing the challenges NCAA coaches face is crucial for their wellbeing and the overall success of collegiate athletics programs. Schools, athletic departments, and governing bodies must take proactive measures to ensure coaches are supported and provided with the resources they need to maintain their mental health so they can best support their athletes.

By prioritizing coach wellbeing, we can create an environment that fosters their growth, resilience, and effectiveness. Changes like this will positively impact the athletes they lead and ultimately contribute to the success of collegiate athletics. Finally, consistent recognition and support from administrators and staff can provide college coaches the necessary backing and empowerment to unleash their passion, expertise, and utmost dedication. With this robust foundation, NCAA coaches

Prioritizing Wellbeing and the Mental Health of NCAA Coaches

are propelled to exert their best effort, constantly seek improvement, and relentlessly strive for greatness in the competitive world of college athletics coaching.

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Chapter 12

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Chapter 13

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