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The T-Shaped Curious and Knowledgeable Strength and Conditioning Professional

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True Performance Realization

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Abstract

The world of strength and conditioning (S&C) is always evolving. Accordingly, S&C professionals must be and remain curious. The purpose of this article is to provide a unique concept, specifically the "T-Shaped Curiosity" concept on how the S&C professional should be curious, with six recommendations on how to implement the T-Shaped Curiosity concept.

Introduction

In the book *Curious: The Desire to Know and Why Your Future Depends on It*,[1] Ian Leslie discusses the importance of individuals being curious, with one of his proposed concepts for individuals to possess a "T- Shaped Curiosity." A "T-Shaped Curiosity and Knowledge" framework provides strength and conditioning (S&C) professionals a concept of how to cultivate and sustain curiosity; therefore, facilitating optimal access and application of knowledge within the human performance field. This article highlights the concept of the T-Shaped Curious and Knowledgeable S&C Professional and provides recommendations to the readers for how to implement the framework within an organization for continued growth.

Why We Should Be Curious

There are several reasons why S&C professionals should be curious, especially via a "T-Shaped Curiosity." Leslie states that "knowledge builds on knowledge, ideas on ideas."[2] As S&C professionals, the more we learn, both inside and outside of our profession, to include fiction, correlates to our ability to generate ideas, take calculated risks, explore new concepts, avoid preventable mistakes, exploit opportunities, generate innovation, have greater emotional intelligence, and have realizations (i.e., epiphanies), all of which ultimately facilitate human performance. Furthermore, when we are curious as S&C professionals, our clientele are more likely to be curious about human performance. As our clientele have greater curiosity about human performance, we are likely to see greater adherence, commitment, and discretionary effort. Additionally, being a teacher is ingrained into our S&C profession, and a good teacher sparks curiosity in others.

As S&C professionals, we should not only be curious about the disciplines in human performance (e.g., motor learning, sports psychology, nutrition), but, more importantly, we should be curious about our clientele. Dr. Duckworth believes that for a person to possess a high level of grit (resilience), they need to have/be provided with hope, interest, purpose, and practice.[3] Daniel Pink believes that for a person to have high level of drive, they must have purpose, autonomy, and the ability to achieve mastery.[4] Simon Sinek believes that great leaders inspire others by providing a sense of purpose, which starts with establishing and providing others with a strong why (purpose).[5] Leadership has been defined as "the ability to inspire and influence those around you to perform at a higher level and become better versions of

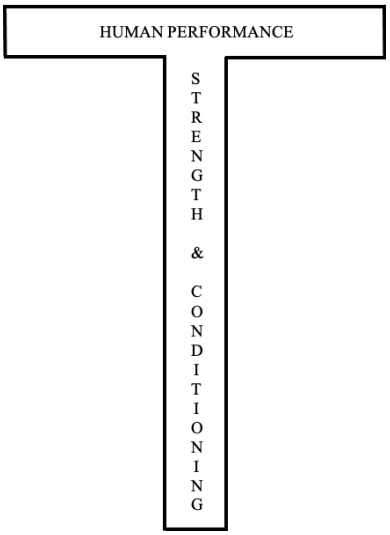


Figure 1: Optimal Curiosity and Knowledge for the Human Performance Professional.

themselves,"[6] which requires us knowing our clientele.

As S&C professionals, while it is easy for us to emphasize and focus on what we are *doing*, such as the frequency, intensity, type, and time of our training (i.e., the science of S&C), we should never forget about those we are *preparing* (i.e., the art of S&C). "Good leaders ask great questions,"[7] and accordingly, we as S&C professionals must know our clientele to understand their purposes, interests, and goals, to stimulate their interests, enhance their resiliency, and develop their overall preparation strategy. By understanding a person's purpose (why) for joining an organization, you can better understand them and facilitate growth, commitment, challenges, goals, and resiliency.[8]

Finally, with the proliferation, strength, and capability of artificial intelligence, a T-Shaped Curious and Knowledgeable S&C Coach is needed more than ever. To be a successful S&C professional, one must blend the art and science of S&C. However, AI, especially the AI of the future, is going to know the science greater than a human, thus S&C Coaches must not only know the science, but also must progress the art of S&C. Markedly, progressing the art of S&C will require a T-Shaped Curiosity.

"I have no special talents. I am only passionately curious."
—Albert Einstein

T-Shaped Curiosity

T-Shaped Curiosity is a concept where an individual has a great depth of knowledge in their profession (Y-axis), with a wide range of knowledge outside of their profession (X-axis). As stated by Leslie, "the most valuable twenty-first-century workers combine deep skills in a specialty (the vertical axis of the T), with a broad understanding of other disciplines (the horizontal axis). The former allows them to execute projects that require particular expertise; the latter enables them to see contextual links to other disciplines."[9] Having a great depth of knowledge (Y-axis) allows one to become a subject matter expert in their field, while having a great breadth of knowledge (X-axis) provides one with increased adaptability, problem solving, and perception.

The T-Shaped Curious and Knowledgeable S&C Professional

Figure 1 demonstrates what a "T-Shaped Curious and Knowledgeable S&C Professional" looks like. On the Y-axis, the S&C professional has a great depth of knowledge in S&C (e.g., Olympic lifting, periodization, running mechanics, restoration tactics). On the X-axis, the S&C professional possesses a great breadth (while not as deep) of curiosity and knowledge in human performance. Human performance is a wide range of disciplines, much larger than many truly appreciate. Accordingly, S&C professionals should have a wide range of curiosity, learning, understanding, and realization.

To the reader, a principal reason for the existence of this article is because the author has seen that many S&C professionals focus only on the Y-axis (i.e., S&C itself) and lack the curiosity and knowledge on the X-axis (i.e., areas beyond S&C). As leaders, we must have greater curiosity and knowledge for our clientele, those whom we serve. Thus, the following are six recommendations for becoming the T-Shaped Curious and Knowledgeable S&C Professional to facilitate growth and change in your organization.

Recommendation One—Encircle Yourself with Wisdom

Figures 2–5 modify previous concepts,[10] with one concept being that we should encircle ourselves with wisdom; those of

valued experience, outstanding minds, exceptional work, or other forms of genius. Figure 2 displays a concept on how we as S&C professionals should encircle ourselves with wisdom in domains that are critical to human performance (e.g., statistics, motor learning). While Figure 2 displays some disciplines critical to human performance, it is not a comprehensive representation of everything that influences human performance, as human performance is complex and relative to individual, team, and situation. Figure 2 also demonstrates the T-Shaped Curiosity and Knowledgeable S&C Professional, as it shows a great depth of knowledge in S&C paired with a breadth of knowledge in other disciplines.

Figure 2 displays areas that an S&C professional's organization and self-education typically emphasize, spanning from most emphasized (green) to least emphasized (red). Specifically, Figure 2 demonstrates the traditional, and even stereotypical, areas of knowledge for an S&C professional that are outside of S&C; depicted in green (nutrition, sports psychology, motor learning, rehabilitation), orange (statistics, sports/event knowledge), and red (leadership, culture, financial management, and spiritual wellness). This concept will be expounded upon in Recommendation 2 and Figure 3.

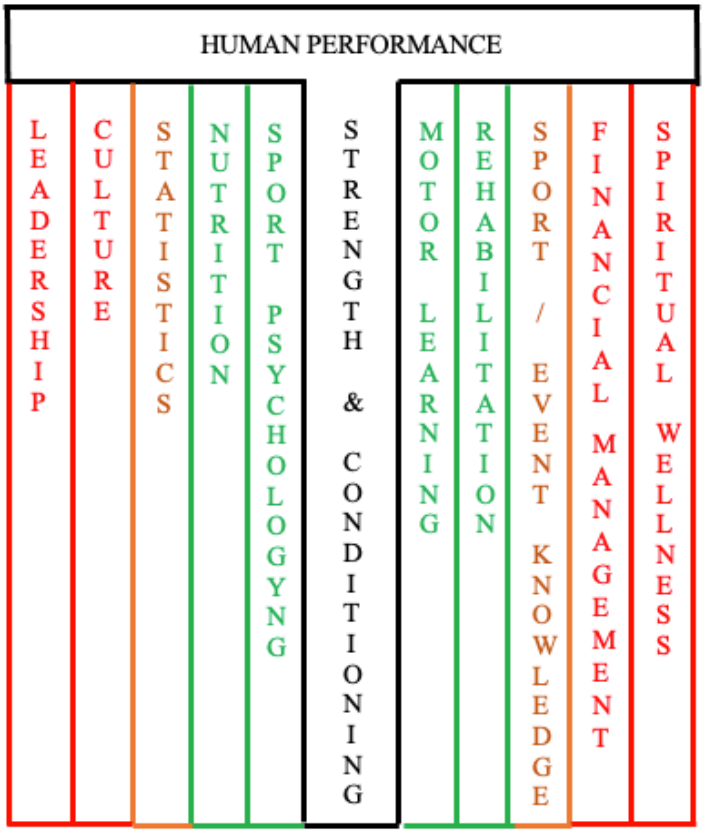


Figure 2: Encircle Yourself with Wisdom.

While we can easily see the benefit of connecting ourselves to subject matter experts, S&C professionals are not always surrounded, interdependent, or integrated by other disciplines of human performance for various reasons. While this ideal state will be expounded upon in Recommendation 4 and Figure 4, a bottom-line reality is that we must deliberately seek interdependence and integration (I&I) with other human performance disciplines. Through deliberate I&I with other human performance professionals, we can elicit greater human performance for our clientele. By combining the expertise of other performance disciplines into a preparation strategy, we will see greater amounts of enduring, holistic, and resilient adaptations and outcomes for our clientele.

"So the real genius in each was an ability to see things differently than others and to put things together in a different way."
—Dr. Alan Gregerman

Recommendation Two—Be Balanced

Figure 3 provides us with a cautionary example of a stereotypical S&C professional,

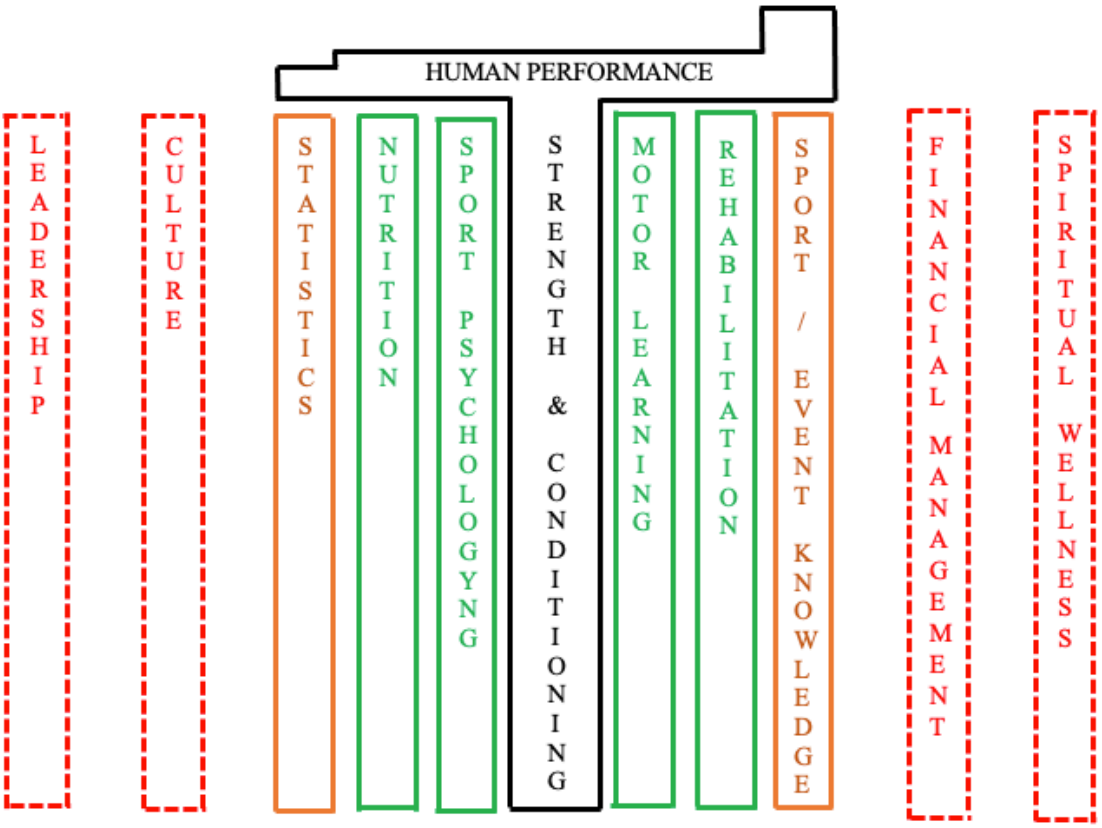


Figure 3: Unbalanced T-Shaped Curiosity and Knowledge.

meaning that they are unbalanced in their T-Shaped Curiosity and Knowledge to optimally elicit human performance. Figure 3 hypothetically demonstrates that a notional S&C professional may have a great depth of curiosity and knowledge in S&C, with a width of curiosity and knowledge in nutrition, sport psychology, motor learning, rehabilitation, and the sport/event knowledge, but has limited curiosity and knowledge in statistics, with no curiosity or knowledge in leadership, culture, financial management, and spiritual wellness. We should view this S&C professional as unbalanced, especially today where athletics have more money associated with their program than ever before in history (e.g. Name Image and Likeness [NIL]).

In the book *The Price: What It Takes to Win in College Football's Era of Chaos*, the authors Armen Keteyian and John Talty recall a high school quarterback being offered 8–10 million dollars in 2023 to play football at a major university.[11] ESPN's 2012 documentary,[12] inspired by a 2009 *Sports Illustrated* article,[13] demonstrated that many professional athletes leave professional sports bankrupt. In 2023, the Netflix documentary on Johnny Manziel showed how even before NIL, star collegiate athletes could make mini-fortunes through college athletics; however, when not combined with needed levels of maturity, accountability, and financial management, this seeming road of success can instead lead to bankruptcy and self-destruction.[14]

We have an enormous opportunity with our athletes and clientele that others (e.g., nutritionists, head coach,

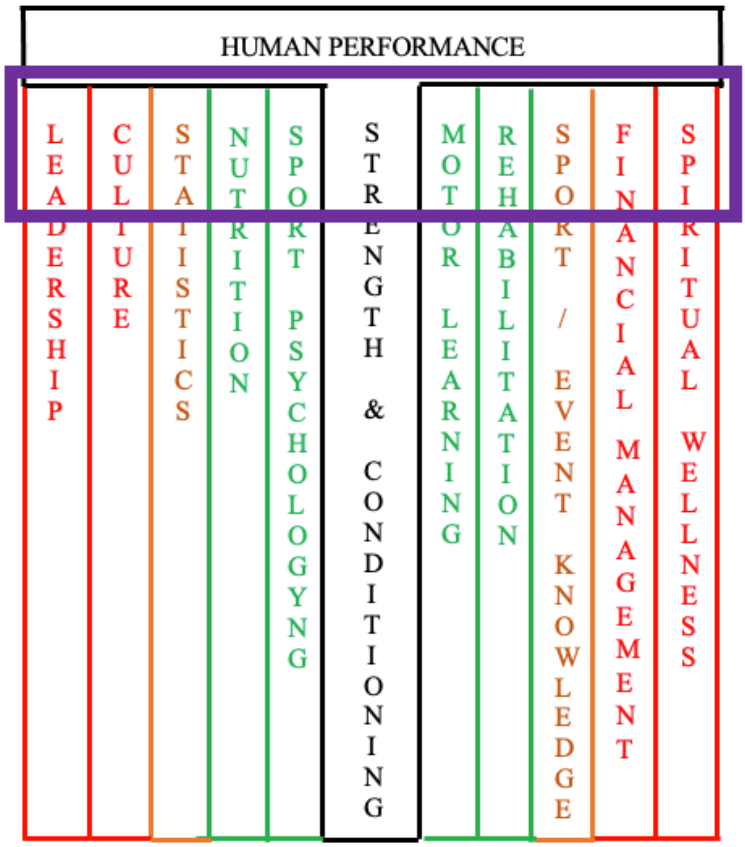


Figure 4: Actively Bridge.

position coaches) do not have, specifically the frequency with which we meet with them. Therefore, we must not only be knowledgeable in different-yet-relative domains, such as financial wellness, but we must also be leaders to our athletes and clientele, even when they do not want to be led. As stated by General Stanley McChrystal (United States Army, retired), "An organization must be constantly led or, if necessary, pushed uphill toward what it must be."[15]

For S&C professionals to truly lead our organizations, we must be greater than S&C in isolation. Accordingly, we must learn disciplines outside of S&C, which will ideally lead to an increase in curiosity. As stated by Leslie, "The more we know about something, the more intense our curiosity is about what we don't know."[16]

Recommendation Three—Have a Ratio

Arguably, an S&C professional can never be completely balanced; however, one should strive to have a balanced X-axis in their T-Shaped Curiosity and Knowledge. One method to create a balance is to have a purposeful ratio. Similar to how we might prescribe two upper body pulls for every upper body push for an overhead athlete, we can have a ratio for how we self-educate as professionals. For instance, for every two articles that we read on S&C, we can read one article related to human performance outside of S&C. Or, for each book that we read on S&C, we can read two books outside of S&C that relate to human performance.

The concept of a ratio is descriptive, not prescriptive, as each S&C professional will need to determine their ratio based on their self-perceived T-Shaped Curiosity and Knowledge. If uncertain on what one's ratio should be, they could and should seek the advice from a mentor to help remedy any gaps in knowledge. By having a ratio of curiosity and learning outside of S&C, we will spark greater curiosity in areas that we currently lack knowledge, as "people tend not to be curious about things of which they are completely ignorant."[17]

Recommendation Four—Actively Bridge

While possessing a T-Shaped Curiosity and Knowledge is beneficial for the S&C professional, it is not enough for our clientele to truly elicit their optimal performance. Thus, we

must actively bridge and connect with those who study other disciplines of human performance to combine our collective knowledge for the benefit of the athlete. Figure 4 represents the concept of the S&C professional being the one to connect, harmonize, and create I&I relationships with other professionals. Two concepts that the S&C professional can apply to be the bridge for human performance are "Strategic Preparation" and "I&I Periodization."

The author defines *Strategic Preparation* as the deliberate stacking and sequencing of the influencers of performance, with frequent, meaningful, and encompassing measurements, where the athlete fully appreciates the complete picture of preparation to elicit long term progression, mental models, and true performance realization. Within Strategic Preparation, there is balanced learning, failing, and performing. Strategic Preparation, however, is specific to the True Performance Realization (TPR) Model, where the seven influencers of performance (i.e., fitness, cognition, skills, abilities, leadership, will, and culture) are stacked (vertical integration) and sequenced (horizontal integration) for "Performance Realization" (explained shortly). Without going into specifics of Strategic Preparation, it must be noted that one can apply the overarching premise of combining other influencers of performance other than fitness in isolation using a long-term strategy to elicit human performance without adhering to TPR's seven influencers of performance. This concept is referred to by the author as I&I periodization.

Periodization has been defined as "the logical, integrative, sequential manipulation of training factors (i.e., volume, intensity, training density, training frequency, training focus, and exercise selection) in order to optimize training outcomes at predetermined time points."[18] Within the literature, several types of periodization strategies exist, with some more applicable than others depending on various factors (e.g., training age, training goals, training status, or training season). Benjamin Rosenblatt categorizes training strategies into two categories, which are strategies that manipulate volume and intensity (e.g., classical, wave, incremental, varying volume, varying intensity, and reactive) and strategies that manipulate training units (e.g., linear, concurrent, conjugate, concentrated, block, taper, and competition).[19]

However, periodization is often limited to the fluctuation and manipulation of training variables to enable greater fitness to achieve physical realization (i.e., supercompensation; heightened elevation of physical readiness). However, the goal for S&C professionals should be greater than realization in the physical domain alone. Instead, the goal should be Performance Realization. The author is defining *Performance Realization* as the heightened holistic, integrated, and harmonized readiness and preparedness of the influencers of performance.

Using a military Service member as an example, what is the purpose for an S&C professional eliciting realization in the physical domain alone (i.e., running, pull-ups, rucking), when that military member cannot effectively engage their weapon systems, apply tactical combat casualty care to themselves or a fellow Service member, call in close air support, make tactical decisions, perceive and adapt to the situation, or lead those around them? Therefore, the S&C professional's comprehensive role in eliciting true performance is bigger than fitness. Accordingly, the S&C professional must create a preparation strategy that facilitates the I&I of whatever variables they believe facilitate true performance.

In addition to Strategic Preparation, another method that an S&C professional can apply to elicit Performance Realization is the concept of I&I periodization. The author is defining *I&I periodization* as the logical, integrative, sequential manipulation of all performance influencers—not just those that contribute to physical readiness—to optimize adaptations for predetermined, fleeting moments. Thus, how we combine other influencers of performance, whether that is cognition, skills, or other attributes that the S&C

professional, coaching staff, or athlete(s) values, into a harmonized, deliberate, and dependent fashion that will result in greater Performance Realization. This end can be accomplished when the S&C professional purposefully connects with other human performance professionals. Therefore, we must deliberately bridge to other professionals for our efforts to elicit Performance Realization.

"The pursuit of "efficiency"—getting the most with the least investment of energy, time, or money—was once a laudable goal, but . . . Adaptability, not efficiency, must become our central competency."
—General Stanley McChrystal

Recommendation Five—Lead Up

Few, if any S&C professionals' purpose is to elicit fitness for fitness in isolation, with perhaps track or CrossFit athletes seeking fitness alone (e.g., speed, power, endurance). Nevertheless, our view as S&C professionals should be that we can lead all our athletes in areas beyond fitness (e.g., seven dimensions of wellness). Regarding leading up, the typical S&C professional is trying to elicit fitness adaptations, while working under a coaching staff (Figure 5). Therefore, S&C professionals, as well as the other disciplines in human performance, need the ability to lead up the organization, as depicted in Figure 5.

Michael Useem in his book, *Leading Up: How to Lead Your Boss So You Both Win*,[20] provides us with lessons on how to lead up an organization. Useem urges that our superiors want us to have a bias for action, show initiative, and take ownership in the organization.[21] Furthermore, throughout his book, Useem shows us that those who are unable to lead up are ineffective, are removed, and—in the most extreme cases—can cause loss of life.

One way in which we should lead up is by ensuring that our coaching staff has a vision for the organization. John Kotter, author of *Leading Change*[22] and chairman of the organization that bears his name,[23] believes that only when most of an organization possesses a common understanding of the organization's goal and direction (vision) can there be change. Simply put, if your organization does not have a vision, then, at best, you have status quo, and—more likely—you will have atrophy. If our organization lacks a vision statement, then we as S&C professionals can and should encourage the creation of a vision by asking our leadership questions on where they want to be in the future, thus ideally prompting curiosity in the upward direction.

Lastly, Useem states that "the fates of our superiors often depend on our actions, just as our own fates depend on the actions of those below us."[24] Therefore, we must ensure that our efforts enable the success of our coaches. This need is highly evident in the ultra-demanding, high-stakes athletic conferences and leagues, where the fan base, owner(s), and organization(s) expect consistent winning, with a zero-default mentality. The most notable example of an organization's high expectations and zero tolerance for not winning is when Texas A&M University fired their then–head football coach, Jimbo Fisher, while paying him the remainder of his contract (an estimated $76,000,000) to bring in a new head coach.[25] Put another way, Texas A&M University paid Jimbo Fisher $76,000,000 not to coach.

"Instead of just motivating those below, we must now also muster those above; instead of just learning from those above, we must listen to those below."
—Michael Useem

Recommendation Six—Create Learning Organizations

As we improve our T-Shaped Curiosity and Knowledge, and as we lead up in our organizations, we must facilitate learning organizations. To have a learning organization, we must create a learning culture, not merely a learning philosophy, as ". . . there is a difference between a philosophy and a culture. A philosophy is merely words, but a culture is what truly matters since the culture is the unwritten norms and rules of an organization."[26]

It has been proposed in the military setting that units can be

categorized into four tiers of learning, with Tier 1 being the highest, and, accordingly, the most survivable and lethal.[27] Tier 4 learning units were akin to the cooking proficiency of most people in the kitchen (i.e., know how to cook a few things, while never trying to improve, experiment, or branch out of their customary menu), with Tier 3 learning units being classified as cooks in the kitchen (i.e., know the basic science of cooking, but lack the art on how to manipulate the ingredients).[28] To hold ourselves accountable, how many of us in the S&C field are simply doing the same things over repeatedly in the "kitchen" (Tier 4), or simply maintaining our basic understanding of the science of S&C, while not trying to advance our art in S&C (Tier 3)?

Tier 2 learning units were classified as chefs. As stated, "While a cook replicates what they are told to perform, the chef makes the menu, knows how to manipulate the ingredients, and supervises the cooks. Notably, those who become chefs are passionate about cooking."[29] Although Tier 2 sounds like success, it was proposed that military units should strive to become Tier 1 learning units of actions, as such learning organizations are akin to master chefs, representing those who "change the game" and where "other chefs will seek out master chefs in efforts to master their profession; to further learn the art and science. Notably, master chefs often look outside their profession for inspiration."[30] To create learning units, it was stated that four basic principles should be applied, specifically, "set the example, set the standard, set the culture, and ask the right questions."[31]

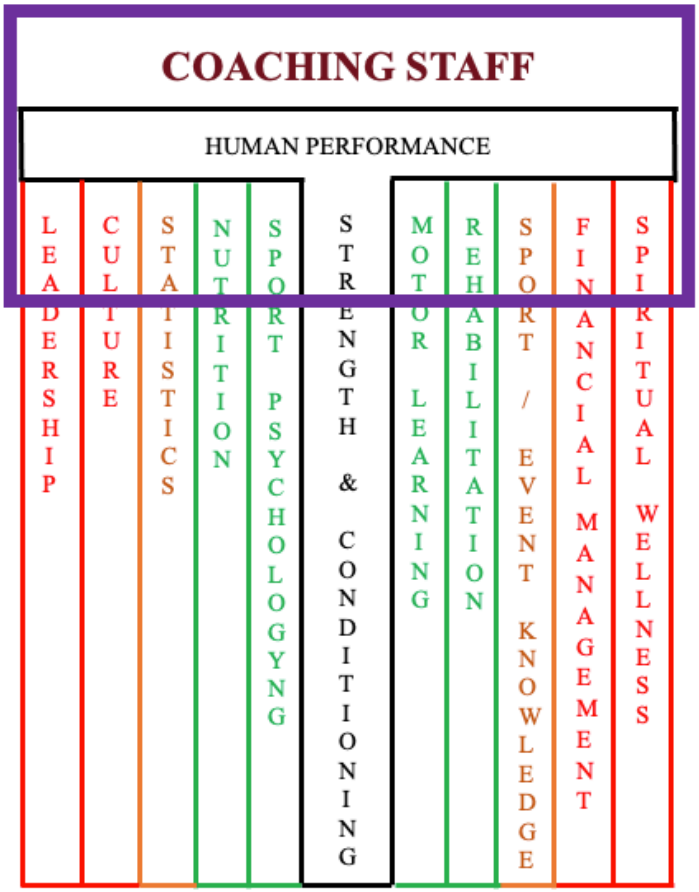


Figure 5: Lead Up.

In his book, *The Performance Paradox: Turning the Power of Mindset into Action*, Eduardo Briceño provides us guidance on how to install learning into an organization that must constantly perform.[32] Briceño cautions us against what he calls chronic performance (i.e., "constant attempt to get every task done as flawlessly as possible, and then some"), while enlightening us on what he calls the performance paradox (i.e., "the counterintuitive phenomenon that if we want to improve our performance, we have do something other than just perform").[33] Accordingly, as S&C professionals with a T-Shaped Curiosity and Knowledge while leading up, combined with our ability to perform and learn simultaneously, we will improve the short-term and long-term progress of our athletes and organizations.

"While it might seem counterintuitive, constantly performing does not improve performance. The route to success is often not a straight line."
—Eduardo Briceno

Practical Application

Leslie provides seven ways to stay curious by: staying foolish (i.e., focus on what you do not know), build your database (i.e., know your profession), forage like a "foxhog" (i.e., T-Shaped Curiosity) ask the big why (i.e., ask why over what, where, etc.), be a "thinkerer" (i.e., "sweat the small stuff while thinking big, to get interested in processes and outcomes, tiny details and grand visions"), question your teaspoons (i.e., be curious about routine matters), and turn puzzles into mysteries (i.e., never be done learning).[34] In the current age where our phones can provide us, our athletes, and our coaching staffs all the surface level answers, we must remain curious. We as S&C professionals must recognize that we are bigger than the weight room, and our efforts impact the human, not just the athlete.

As S&C professionals, we are leaders; leaders with influence that span beyond the weight room, and we must educate ourselves accordingly. We are deeply integral in our clientele's human performance. Thus, while applying the T-Shaped Curiosity and Knowledge framework, we should encircle ourselves with wisdom, be balanced, have a ratio for learning, actively bridge to other human performance professionals, lead up within our unit, and create a learning culture in our organization.

Conclusion

Leslie believes that "curiosity is vulnerable to benign neglect," especially as we become older, gain more experience, and have increased access to various forms of technology.[35] Furthermore, he believes that being curious and incurious are both equally infectious.[36] To better serve our clientele, we must be curious, which can be accomplished by implementing the T-Shaped Curious and Knowledgeable S&C Professional as a framework for how to be and remain curious.

Author Biography

Jeremy Carter (featured right) is the Founder, Owner, and President of True Performance Realization (TPR), and serves as the Editor-in-Chief for the *TPR Applied Journal*. With over eighteen years of experience in human performance, Jeremy has earned numerous certifications, including the National Strength and Conditioning Association (NSCA) Strength and Conditioning Specialist with Distinction and the American College of Sports Medicine (ACSM) Certified Exercise Physiologist. He is a current reviewer for the NSCA's *Strength and Conditioning Journal* (*SCJ*), a founding member and editor for the *Journal of Sport and Human Performance*, and a recipient of the NSCA's *SCJ*'s 2023 Editorial Excellence Award.



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