

LEARNING PREFERENCES

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In 2004, I met my research cohorts in Christchurch, New Zealand, for the first time in person. We had been collaborating via e-mail on learning-preference research since the late 1990s. It is a collaboration of strange bedfellows in a sense: an American professor, a Kiwi rugby coach and a Kiwi educational consultant brought together by a shared passion for lessening the gap between how educators teach and how students learn.

“Aha” Moments And Hallway Conversations

My involvement in this group happened by accident. As the professor of an introductory sports medicine course, I found myself constantly perplexed by one student’s inability to grasp elementary concepts. Because this student also was a varsity soccer athlete, I enjoyed interactions with her outside of the classroom in the other realm of my job as the college’s certified athletic trainer. Our exchanges always seemed fluid and easy, but in the classroom, her interactions, abilities and skills seemed disjointed and unpredictable. In search of a tool to help understand why we were so far apart in the classroom, I stumbled upon educational consultant Neil Fleming’s VARK inventory.

In the fleeting moments before a 9 a.m. class, the inventory’s ease, use and self-scoring nature appealed to me. I administered it in the first five minutes of class. The results shaped the “aha” moment that has precipitated my research interests for the past decade. Because of my strong visual preferences, my teaching methods catered to a similarly preferred learner. The young woman who started me down this road of inquiry seemed now a polar opposite.

With a strong read/write preference, it was as if we were speaking different languages — mine the language of colors, shapes, symbols, charts and 2-D images; hers the language of text, black marks on a white page.

In a passing hallway conversation with her coach, I shared my newfound knowledge that was reshaping my pedagogy on the fly. When I explained her learning- preference results, his response fueled my interest in exploring the differences in coaching methods and student-athlete learning preferences: “Makes total sense,” he said. “She never gets a word of what I say to her.”

In the 10 years since the “aha” moment and the hallway conversation that followed, my revised inventory has been used internationally by coaches and athletes in more than 20 sports at varying performance levels (high school to Olympic-caliber athletes).

The data I have collected supports the idea that what happens in the classroom (or in some cases doesn’t happen in the classroom) between teacher and student is not all that different from what happens (or doesn’t happen) between coach and athlete on the field, court, slopes or in the pool. The main difference is the role that time plays in physical-performance tasks versus knowledge-acquisition tasks.

While students in the classroom have time to process information presented in a modality outside their primary preference(s), student-athletes must often make snap adjustments in the stress of a performance setting constrained by time. Any delay in response between coach and student-athlete could equal a missed opportunity or ill-timed motor response. The time-sensitive nature of sport necessitates that coaches and athletes speak a common language of instructions, verbal cues and appropriate motor responses.

Reshaping The Coach/Athlete Dynamic

Results from the VARK inventory for athletes have power-punching potential. The power of knowledge of one's learning preferences and the preferences of other athletes and coaches can enhance coaches' and athletes' motivation and skill acquisition. Coaches who are able to use a variety of methodologies to reach a range of preferences within an athletic group have the potential to enhance athletes' performances. They recognize that by matching coaching methods to athletes' learning preferences they lessen the potential for miscommunication.

Richard Smith, coaching manager of the New Zealand Academy for Sport, began using the VARK inventory for athletes with Olympic-caliber competitors prior to the 2004 Olympic Games. Our paths converged when my data from the States supported his data from New Zealand and Australia. Similar to the classroom data, we discovered that coaches seem to be at odds with the athletes they coach. The most noticeable difference occurs in two bi-modal variables: read/write-kinesthetic and auditory-kinesthetic.

Coaches are far more likely to have read/write preferences than the athletes they coach. Similarly, athletes are more likely to have auditory modalities. In data collected thus far (n=1800), coaches with read/write preferences outnumber athletes 2-to-1. The converse also is true: Athletes outnumber coaches 2-to-1 in auditory modalities. By developing strategies that coaches can employ with the athletes who have particular VARK profiles, we are revolutionizing coaching strategies in a range of settings: pre-performance, performance and post-performance.

Coaches internationally (New Zealand, Australia and Canada) and nationally (U.S. Men's Volleyball, NCAA Division I/II/III colleges and high schools) are using their own VARK inventory results in concert with the results of their athletes to transform the impact that their coaching methods have on their athletes.

For Better Or Worse?

For high school football coaches in North Dakota, VARK inventory data explained why college and high school athletes leave playbooks in locker rooms across the nation. With less than 1 percent of the athletic population demonstrating a visual preference, the tried-and-true playbooks are becoming obsolete. The binders filled with "X"s and "O"s that have been a staple of athletic culture are giving way to small-group coaching in which members of a coaching staff are paired with groups of athletes with similar learning preferences. The result? Student athletes with strong visual preferences still receive playbooks, but students with strong kinesthetic or auditory preferences are not subjected to what they see as time-wasting methods.

Coaches prime student-athletes with a strong auditory preference prior to practice with a short lecture about the day's practice objectives. These student-athletes' cohorts with kinesthetic and read/write preferences are exposed to walk-throughs, video analyses, tactical write-ups and written coaching theory, respectively.

When these small groups of athletes and coaches reconvene as a full team, individual coaches have equipped groups of student-athletes with timely and appropriately presented information that puts all the student-athletes on the same page despite a wide variety of learning preferences. This coaching plan and ensuing methodology sets the stage for productive, efficient and difference-valuing practices and competitions.

When the New Zealand Academy of Sport administered the VARK inventory to their elite coaches, they anticipated it would serve as a coaching advantage, but they might have underestimated the extent to which the coaches used the knowledge they acquired.

A national-level coach, who also coached professionally, had knowledge about how her national-team athletes preferred to receive input. When she found herself coaching professionally against one of her national athletes, the information became the key to victory. As a strong visual learner, the athlete required spatial input to position her on the field of play and thus was in constant contact with opposing players. Armed with this knowledge, the coach instructed her players to keep a considerable, and perhaps unorthodox, distance from this marquee player.

The result: The visually dependent athlete grappled around the field of play, appearing for the first time in her professional career to be unaware of the objective of the game.

While learning-preference knowledge is not the silver bullet to enhanced coaching methods and athletic performance, it can begin to lessen the gap between how coaches present information and how athletes receive it. Such knowledge is perhaps most important in the high school and developmental arena where many athletes stop playing because the gap between instruction, learning and performance becomes too great, and the differences between coaches' learning preferences and student-athletes' learning preferences are at the greatest odds.

As athletes rise in the ranks of elite performance, the differences between athlete learning preferences and the learning preferences of the coaches diminish, leading us to wonder: Do certain learning preferences advantage athletes and coaches in the elite ranks? Are certain athletes disadvantaged because of their learning preference and not necessarily their athletic performance? Can diverse coaching methods aid in developing a group of diverse learners that persist into the elite athletic ranks?

We hope future research can help to answer these questions.

Juli Dunn is associate professor of sport studies and head athletic trainer at Whitman College, where she has worked since 1993. To see the athlete VARK inventory, visit www.vark-learn.com/english/page.asp?p=athletes