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On the Cover

The Brazilian concept of *pelada* plays a huge role in the freewheeling and improvisational nature of soccer in South America; where some of the most heralded players in the world are cutting their teeth. Carlos Moreno of Arizona State shares his thoughts on why that sort of unconstrained approach could be just the right approach for volleyball development.

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Keep It Loose:

Bringing Pelada to Volleyball

Can informal unstructured practice help in the development of sports skills?

By Carlos Moreno,
Associate Head Coach – Arizona State University

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Usually when we think about the achievements that some countries have had in certain sports, we'll think about Canada prevailing in hockey, cricket dominating in Australia, the U.S. taking over in basketball, and Brazil excelling in soccer (Uehara et al., 2018). It's not uncommon for Canadian kids to play hockey at a homemade ice rink, children to take to backyard cricket in Australia, for Americans to play pick-up basketball in driveways and parking lots, or Brazilians to play soccer in the streets (Phillips et al., 2010).

I myself grew up playing two sports back in Brazil – soccer and volleyball – and to dive into my Brazilian heritage a little bit, I would like to expound on a concept that we hold dear: our practice of *Pelada*.

The term *pelada* in Brazilian Portuguese is most commonly used to refer to the idea of pick-up soccer games where the players themselves organize things. According to the Brazilian dictionary, a more literal translation of pelada to the English language means "naked" – we like to call it barefoot soccer swag. These activities are games that resemble a real game of soccer, where in-game tasks are practiced under changing ecological constraints. The game of soccer, in essence, is played on all sorts of different surfaces, on variable field dimensions, with hardly consistent ball and goal sizes and numbers of players, and there are only a few established rules, which can vary and exist for one sole purpose – to play the game and compete: whenever, however and as much as possible (Uehara, A. 2015).


Pelada in Brazil

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According to Rinus Michels, designated by FIFA as the Coach of the Twentieth Century, it was mentioned in an article written by Duarte A. et al. (Duarte A. et al., 2010), that unstructured soccer played on the streets is a most natural learning environment. He happily argued that this kind of activity is played daily in a competitive form, under all sorts of conditions and it is rare to see young players practicing isolated drills in an explicit way. On the contrary, real and permanent learning almost always occurs implicitly within the competitive form of the street game, where children can learn from their mistakes, developing technical, tactical and physiological skills through this less-formalized activity. Indeed, many generations of world-class Brazilian soccer players have mentioned the value of their early specialization in football through exposure to enjoyable, uncoached and unconventional practices (Duarte A. et al., 2010).

In a recent study by Uehara (Uehara, Button, Falcous and Davids, 2014), published in the *Journal of Expertise*, it was found that the practice of pelada – an informal unstructured practice type - contains many elements to be essential for effective practice design and skill development.

As coaches, I like to think that we are always thinking outside the box, looking for better ways to outthink and outgrow ourselves to advance and develop the game. Could we use some of the elements of an unstructured activity such as pelada to create more effective practices?

The pursuit of a truly effective practice design is a common theme inside the volleyball community, where usually the range of the topic lingers around two dimensions of practice strategies for optimal learning conditions: blocked vs. random practice – which refers to how the practicing of different skills or sub-skills are organized in practice.

In an article published in the magazine *Movement Science and Sport Psychology*, it was mentioned that blocked practice is a type of practice where low variability is produced when subjects complete all the tasks corresponding to the variations of a movement before performing another, which means practicing the same skill over and over for several attempts before switching to a different skill, without many variables (Tim et al. 2017). In a study titled "Quantifying Contextual Interference and Its Effects," random practice refers to when high variability is produced with variations presented and switched between different skills in an unpredictable order (Tim et al., 2017).

According to Fazeli, in random practices the athlete gets a better opportunity to learn about the relationship between changes in their movement patterns which lead to the development of more elaborate motor programs instead of just subtle ones for specific

skills. (Fazelli et al., 2017).

To my point, despite all the seemingly clear evidence of the benefits of random practice, in general it has been shown in observational studies that coaches typically design practices that are highly blocked and have low levels of contextual interference (when several tasks must be learned and are practiced together) perhaps because it may lead to more immediate and frequent visible changes in performance – which means that they make coaches look really good right off the bat.

So, should we just randomize everything, throwing away any systematic coaching and make practices that comprise a multitude of unstructured experiences? That is where the randomness of pelada comes in handy. In pelada, essentially no skill is ever repeated because the kinetic dynamic movement is almost always directly connected to the particular situation at hand, where it provides the players with an environment that creates variability (Araújo et al., 2010). The idea here is that random practice makes an athlete more capable of building and rebuilding action plans, and where athletes can better learn the relationship between movement and performance outcomes.

As cited by Araújo et al. in the article "The Role of Ecological Constraints on Expertise Development" (Araújo et al., 2010), the beauty of the pelada approach is that the constraints of these type of games clearly demand a learner-centered rather than an instruction-centered coaching approach. We can combine the possibilities for exploration with creativity and goal achievement under unpredictably variable performance conditions. By alternating between skills in a random practice design, you get a better opportunity to compare and contrast outcomes leading to the development of more elaborate motor programs instead of just ones for specific skills (Araújo et al., 2010).

In the *Physical Education and Sports Pedagogy Journal*, Uehara and colleagues stated that while the complete absence of any formal coaching can definitely be an issue, by creating learning environments full of the variability that pelada instills, we encourage search and discovery, which leads to exploration in movements (Uehara et al. 2014). When we enhance adaptive behaviors by creating opportunities for learning to satisfy different constraints, we can practice a skill embracing repetition without actual repetition (Uehara et al., 2014).

In Brazil, pelada is used as an entry door to the sport of soccer, developing within the player a strong emotional bond to the game through their experiences playing in an informal setting, which eventually could support their participation in a more structured playing environment as showed by Araújo et al. Also, it can be a starting point when it comes to developing perceptual, decisional, tactical and motor skills in soccer (Araújo et al., 2010).

However, nowadays, talented children have reduced opportunities to play the game in this informal environment and instead are mostly experiencing the game

through their participation in organized settings such as in youth clubs and academies.

A recent study on an introduction to the constraints-led approach to learning in outdoor education by Renshaw and Chappell (Renshaw and Chappell, 2010), showed that in the absence of well-meaning adults who want to tell young players what to do and how to do all the time, children will try things and make mistakes without having to face the discouragement of disappointed coaches and parents. Such structured and formal environments afford the children a more rigid and less representative learning environment, which could potentially inhibit the development of creativity and adaptability among these young players (Renshaw and Chappell, 2010).

The sole purpose of adapting a pelada approach is to have players develop a framework to support the design of a player-centered and game-based approach that can contribute to enhanced learning and adaptive behaviors in sports. A key advantage of this methodology is that it maximizes the time actually spent doing as well as allowing the learner to make decisions about what to do and how to do it (Renshaw, I. et al., 2010).

I strongly believe that we can use this example to enhance learning and design a more exploratory environment in volleyball with the goal of reducing overwhelming controlling feedback in practice that may lead to restricted learning and controlled movement tasks. To cite Renshaw and Chappell again, players could develop the intrinsic motivation needed to support the significant amounts of play and practice necessary to develop high level performance skills (Renshaw and Chappell, 2010).

What if we, as coaches, could blend the essence of pelada with semi-structured practice activities and take this approach to skill development, without relying so much on controlled games and training drills at all times?

A pelada-like practice would have considerable potential to develop skill acquisition as the studies suggests, by adding variability to our practices instead of worrying about blocking and randomizing things. A good way to measure this approach would be to attempt to quantify the amount of variability that is currently present in our practices to see how it relates to performance outcomes.

By adding variability in practice – by enhancing variables and alternating blocked to random practice – the increase of function task difficulty and the amount of information presented exponentially increases and is available for learning situations (Merbah, Sarah and Meulemans, T. 2011). According to Merbah, by manipulating variability in practice, coaches can focus on particular aspects of movement they want the athlete to explore and expand while holding other things at low variability levels (Merbah, Sarah and Meulemans, T. 2011).

There are two important elements to be taken under consideration: variability of practice conditions and frequency of feedback. Not everything has to be changed at once, but consider progressive changes and increasing variability within skill level in practice.

As showed by Guadagnoli, in the *Journal of Motor Behavior*, learning cannot occur in the absence of information – if an athlete is always successful in the execution so much so that the anticipated sensory feedback is always the same, there can be no learning. Performing well in practice is not a good indicator of what has been learned. Good performance in practice could mean that very little is being learned, impeding the learner transitioning to a more effective movement solution next time (Guadagnoli et al., 2004).

To conclude, I remember something that my former coach in college used to say: "Sometimes we fall in love with drills and collecting drills. We feel that need to have all these different drills to keep things fresh. Our job as coaches is not to run drills; our job as coaches is to teach. Really, what keeps things fresh is learning, and progressing, and becoming a better volleyball player, and as coaches, becoming better teachers. If we can create that type of environment where we're not relying on a drill to make our practice great and we're relying on getting better and learning, that's where the magic happens. I think that's a really important point, and a nice reminder for everyone." – Carl McGown, BYU.

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