

Pinky-Links and Eye Contact: How the Use of Pre-Competitive Routines Changed My Coaching Practices

SUZANNE LANDERS

University of Alberta

As a volleyball coach, my training approach has often relied on reproducing what I saw others do. Consequently, in this study, my purpose was to transform my own coaching practices with a U16 volleyball team. Through my learning during a post-graduate course-based Master's degree, I became fascinated with pre-competitive (PC) routines and the potential they have to improve athletes' positive psychological states during training and competition. I employed an iterative Action Research (AR) process to facilitate my learning and application of different PC routine approaches. Specifically, I aimed to challenge myself to examine critically not only my planning and implementation of PC routines (what I did), but also how this process helped me learn to become a more conscientious coach.

Keywords: pre-competitive routines, Action Research, self-talk, visualization, music

How many times have we, as coaches, told athletes to: maintain a positive attitude when the chips are down; go for every ball; or to communicate and work together? It rarely crosses our minds that our athletes may not have the skills or cognitive building blocks to do this. As I reflected on this gap in my own coaching practices, I became interested in pre-competition (PC) routines and how understanding what they are and how they are implemented could enhance my own coaching practices. In this study, my aim was to: 1) enhance my learning and understanding of different types of PC routines and 2) employ these in my coaching practices to develop my awareness in my coaching practices. To explore how I could do this, I employed Action Research (AR) as a rigorous, iterative research methodology. I begin by reviewing the literature on pre-competitive routines in sport: the use of self-talk, visualization, and music in training settings. Next, I outline the AR process and how I

employed it in this study before discussing my findings. I conclude by discussing how the findings challenged me to change my coaching practices.

REVIEW OF LITERATURE

There is tremendous pressure to win in elite level sport. For athletes to perform at their highest level, they need effective coaches. Learning to coach is a lifelong process of acquiring, accumulating, and shaping knowledge, skills, and attitudes to suit a particular context. Experiences as an athlete and as a coach, and specifically interactions with other coaches through mentorship, personal interaction, reading, social media, and video, play vital roles in shaping coach learning (Cushion et al., 2010; Nelson et al., 2006; Walker et al., 2018). In the past, I aimed to mimic and implement the practices of higher-level coaches, who I observed and admired, to develop skills and strategies to enhance the performance outcomes of the athletes I coached. While I knew different types of PC routines existed, I observed that many athletes and coaches did not put much thought into the ‘why’ behind the use of these. Therefore, in this study, I intended to “begin thinking differently not only about how [I] coach, but about the nature and truth of the knowledge that informs [my] coaching” (Denison, 2010, p. 474) to explore how I could use PC routines to enhance my coaching practice. Consequently, in this section, I begin by considering what PC routines are and the rationale behind their implementation. Then, I explore how three different approaches – self-talk, visualization, and music – have been employed to enhance the development of positive psychological states in athletes. I conclude this section by considering how using PC approaches can foster my development as a coach.

For some athletes, PC routines are a very deliberate practice, others employ them subconsciously, and some do not use them at all. A psychological and/or physical ‘routine’ develops as athletes repetitively engage in various PC approaches to improve performance. Moran (1996) defined PC routines as “a sequence of task-relevant thoughts and actions which an athlete engages in systematically prior to his or her performance of a specific sports skill” (p. 177). Specifically, PC routines are seen as repetitive patterns of interdependent, organized actions, where the primary goal is to enhance positive psychological states (Becker, 2004; Howard-Grenville, 2005; Parmigiani & Howard-Grenville, 2011). Based on this definition, researchers typically examined the purpose and motivation for using PC routines and how these affect sports performance (e.g., Beauchamp et al., 2002; Bonk & Tamminen, 2022). For my research, I considered how my use of these routines could enhance the athletes’ positive psychological states.

Many studies explore the impact of PC routines on arousal/activation, concentration/attention control, and stress/anxiety to enhance competitive

performance (Hardy et al., 2018). For example, Beauchamp et al. (2002) examined the use of PC imagery routines to enhance performance prior to a round of golf. The success of these routines depended on the athlete's personal attributes (e.g., self-confidence, motivation, ability to cope with adversity) as well as their learned psychological capacities (e.g., relaxation techniques, goal-setting, imagery, mental rehearsal, and self-talk). Others have investigated the effects of instructional PC routines on closed skills such as ground strokes in tennis (Ziegler, 1987) and a basketball shooting task (Theodorakis et al., 2001). However, there is little information on the *sequences of task-relevant thoughts and actions* in which to engage athletes: how, when, and how often can these routines be incorporated in a training session (Cotterill, 2010)? Additionally, most research focuses on the use of one type of PC routine to understand its impact on the athletes' behaviour (e.g., Hall et al., 1998; Hatzigeorgiadis et al., 2004). Because I was interested in how PC routines can help me become a better coach, I wanted to explore how I can use different PC routines multiple times throughout multiple training sessions. To narrow the possible options, I chose to focus on three approaches: self-talk, visualization, and music.

Self-talk has been described as a “multi-dimensional phenomenon concerned with athlete's verbalizations that are addressed to themselves” (Hardy et al., 2005, p. 905) to manage anxiety and stress (Hardy, 1996; Hardy et al., 2018; Maynard et al., 1998). Instructional self-talk refers to technical information, attentional focus, and tactical choices that athletes verbalize to themselves (e.g., ‘Reach high,’ ‘Hands up’) to focus on learning and refining skills or to enhance strategy and performance (Hardy et al., 2001; Hatzigeorgiadis et al., 2007; Hatzigeorgiadis et al., 2009). Motivational self-talk relates to confidence building, effort, and positive moods (e.g., ‘I can’ or ‘Be strong’) enabling athletes to ‘psych themselves up,’ relax, and/or create other variations of arousal control (Hardy et al., 2001). Hatzigeorgiadis et al. (2007) found that motivational self-talk cues were more effective in lowering anxiety than instructional self-talk cues and, in a later paper, suggested that the content of the self-talk affects its function (Hatzigeorgiadis et al., 2009).

Visualization, or motor imagery, is often used to develop concentration and attention control through simulation training (e.g., replicating the presence of a noisy crowd), competition plans (e.g., establishing routine behaviors such as sleep and diet), or automation of skill performance (Hardy et al. 2018). Typically, visualization is used immediately prior to execution of a technical skill such as a volleyball serve (Beauchamp et al., 2002). Understanding how athletes use visualization is challenging due to the hidden nature of the experience (Guillot et al., 2021; Moran et al., 2012). Previous studies have shown a close correlation between imagined and actual movements through activation of brain regions that partially overlap with regions responsible for motor

execution and the improvement of neural efficiency of working memory (Moran & O'Shea, 2020; Munzert et al., 2009).

The use of music in PC routines aims to affect moods and emotions. For example, Karageorghis et al., (2018) studied the use of music to prepare soccer players prior to games. Both individually and as a group, the athletes felt that music was a useful tool in aiding arousal and activation to enhance their performance. Individually, instrumental music with no lyrics was beneficial as it created opportunities for self-talk during performance preparation (Karageorghis et al., 2018; Hatzigeorgiadis et al., 2009), whereas music with lyrics was influential when it contained “task-related affirmation or inspirational references” (Karageorghis et al., 2017). As a team (e.g., music was played in the locker room), music improved overall team cohesion, efficacy, and readiness of effort (Karageorghis et al., 2018). While self-talk, visualization, and music have shown some benefits in enhancing athletes’ psychological states, researchers primarily focused on the process of employing a single type (e.g., visualization) with individuals rather than with a team as a whole. As a volleyball coach, my interest in these approaches lies with how I can use these in a team setting.

In summary, the use of PC routines, as psychological tools, are central to improve sport performance. While causal relationships remain elusive, these studies illustrate the strong relationship between the strategies used and the psychological states they influence (and vice versa). Self-talk, visualization, and music can all affect arousal and activation by reducing stress and anxiety (Beauchamp et al., 2002; Guillot et al., 2021; Jiang et al., 2013; Karageorghis et al., 2017; Karageorghis et al., 2018; Moran et al., 2012; Moran & O'Shea, 2020; Munzert et al., 2009). However, my intention as a coach-researcher is to explore how *all three* approaches, as a group of strategies, can complement each other. Because coaches’ personal development is dependent on their ability to challenge assumptions that frame their coaching practices (Cushion, 2016), my aim in this study is to explore: 1) how I can effectively incorporate multiple PC routines with a 16U volleyball team and 2) how an action research (AR) process can help me become a more conscientious coach who is able to recognize my own strengths and weaknesses, and ultimately change my coaching practices.

METHODS

I employed AR as a methodology to help me change my coaching practices. During my study, I developed and implemented all three PC routine approaches in different ways. In this section, I outline the process of AR, followed by details of my coaching and practice contexts, practice details, and how I collected, analyzed and interpreted my data.

Action Research

AR comprises a series of successive research cycles that, when connected, create a spiral of planning, action, and reflection cycles (Dick, 2002; McNiff & Whitehead, 2016; Nogeste, 2008; Waterman et al., 2001). The learning process was context-specific, and enabled me, as a scholar-coach, to create knowledge that informed the development of new and improved practices (McNiff & Whitehead, 2016). In short, AR “is a period of inquiry that describes, interprets and explains social situations while executing a change intervention aimed at improvement and involvement. It is problem focused, context-specific and future-oriented” (Munten et al., 2010 p. 137). Researchers employ this process using two or more action cycles (Chapron & Morgan, 2019). These cycles are separated by a brief period (in my study, roughly one month) where collected data are analyzed and the process of reflection, planning, and action is repeated. In each action cycle, the researcher becomes more reflexive, informed, and active in bringing about change, new knowledge, and personal enrichment (McNiff & Whitehead, 2016). In my study, I employed two action cycles; each cycle contained three training sessions. A significant part of this process, for me, was the use of deep and critical personal reflection.

Reflection is a way to raise one’s self-awareness and identify opportunities for professional development to become a better practitioner (Hall & Gray, 2016). I reflected on each session in each cycle by asking: How did I deliver the information? How did the athletes react to what was being asked of them? Did they understand? Was what I was asking reasonable? I also considered my interactions with the other coaches and my observations of athletes’ ‘body language.’ As the researcher and research subject, I was in control, deciding what was important and what actions I could or should take. AR afforded me an opportunity to reflect critically on how I could use multiple PC approaches to improve my abilities as a coach.

This study involved a 16U competitive stream women’s club volleyball team comprising 13 new athletes, one head coach (myself), and two female assistant coaches. My role as head coach consisted of maintaining the overall development goals of the club, creating seasonal development programming, planning and implementing practices, and mentoring the assistant coaches. Each action cycle lasted one week and included three training sessions. Each training session was two hours in length and was held in a large gym facility on one of the courts. Both cycles occurred in the first half of the season: January 21, 22, and 24 and February 17, 19, and 23. At the end of each cycle, the team competed in a tournament. In each cycle, I used three complementary PC approaches that focused on enhancing athletes’ cognitive, emotional, and motivational states.

Pre-Competitive Routines

First, I introduced self-talk at three points in each session as a tool to enhance the athletes' focus, mental toughness, and performance in that session (Hardy et al., 2001). I guided the players through phrases and words to use when they made errors or had lapses in effort and concentration. Prior to warm up, as a group, I asked them to state their intention for the session using positive action words such as "I will be fast and dig everything on defence today" or "My voice is powerful, everyone will hear me when I call for the ball." During the sessions, I asked athletes to repeat phrases like "I can pass that ball" or "I have fast feet" while working on skills and drills. At the end of each session, instead of discussing behaviours we wanted to stop, I brought the group together to focus on using positive language to *describe* actions and behaviours we wanted to implement in the following training session.

Second, I employed visualization tasks in each training session prior to executing a particular drill. In these tasks, I read a slightly different scenario to the group and asked athletes to picture it in their minds. The scripts focused on motivation and described a scenario that could potentially occur in the upcoming tournament, and varied with each training session and drill (Appendix A). In each scenario, the athletes were described as confident, focused, and in control of the situation, which are the cornerstones of motivational imagery (Beauchamp et al., 2002; Munroe-Chandler et al., 2014).

Finally, prior to the first action cycle, I asked the players to create an individual 20-minute music playlist to enhance their focus, enthusiasm, and confidence. The athletes used wireless earbuds to listen to their own music during warm up for each session. I then paid attention to their interactions with each other, their postures and facial expressions, as well as their movements on the court.

Based on my data collection and reflection following the first action cycle, I made some slight changes in the second cycle. I removed the mid-drill positive self-talk activity as it disrupted the flow of the practice and seemed to confuse the athletes. While my original intent was to use self-talk to enhance their motivation during drills, the athletes were more interested in *instructional* self-talk and feedback. I kept the self-talk exercises that occurred prior to and at the end of practice, which allowed me to create a more reflexive environment where they could consider their performance and mindset. With the visualization activities, I noticed that our actions (coming together as a group in the middle of play) mimicked a time out in a game. For example, in the second cycle, I set up a drill where everyone completed 10 game-like serves. Once they completed the task, I called them back as a group, gathered them into a tight circle and read the serving scenario (see Appendix A). I used the scenario to re-activate a sense of motivation, confidence, control, and enthusiasm in the drill. I then sent them back to the drill to

put into practise the scenario I had read. I chose to not to change how the athletes used music during the warm-ups because the athletes appeared positive, confident, and engaged.

Data Collection and Analysis

To examine my own actions and behaviours more critically, I used field notes to collect data after each session in both cycles. To record my observations and thoughts, I sought to be an observer with no predetermined ideas (Mulhall, 2003). To aid my data collection process, I categorized my observations as follows: structure and organization of practice, description of activities, observation of athletes (e.g., body language, facial expressions, interactions), individual successes and setbacks (mine and the athletes'), and personal observations, surprises, or comments. To analyze my data, I combined my session notes from the first cycle and immersed myself in my data to become intimately familiar with it and reflect on it (Braun et al., 2016). I noticed different words and phrases emerged from the data and I grouped these into themes. After analyzing my second data set in the same manner, I combined the themes from both cycles to identify and refine these into three larger themes that captured more than one idea (Braun et al., 2016). In the following section, I outline my findings to discuss my transformative process as a coach-researcher.

RESULTS AND DISCUSSION

As a coach-researcher, using an AR framework enhanced my understanding of PC routines and deepened my reflections. I employed three types of interventions over two action cycles: self-talk, visualization, and music. The cyclical process of learning, action, and reflection challenged me to question the assumptions and biases that shaped how I had structured and ran my training sessions. In this section, I detail the three main themes that emerged from my study: 'physical proximities and making connections,' 'challenging my assumptions,' and 'efficiency isn't always best.'

Physical Proximity and Making Connections

Our training environment was always noisy. For both the self-talk and visualization activities, I immediately realized that I would need to bring the team together in close physical proximity. I did not plan this and in turn, the act of coming closer together during practice connected us in unexpected ways. Initially, I found gathering the team

together to be an annoyance where “we were in yet another extremely loud environment this evening. I found it very frustrating and it dampened my mood for practice” (Field Notes, 2023/01/24). As the sessions progressed, I noted some benefits. For example, standing shoulder to shoulder allowed athletes and coaches to draw on each other’s energy. While Hatzigeorgiadis et al. (2007) noted that researcher-led self-talk sessions improved individual performance in golfers compared to self-led self-talk, the act of coming together and ‘leaning in’ to share our intentions appeared to enhance my self-talk interventions. This experience led me to consider the potential for other ‘intrinsic’ opportunities during training.

In the past, I had purposefully created situations and activities that encouraged team building and bonding to develop a positive training environment. As I began to create multiple (at least three) opportunities to bring the team together during each session, I unintentionally enabled athletes to feel a shared connection. They felt that both the coaches and the other athletes listened and valued them. For example, after one session, we came together to review our intentions and talk about our successes (self-talk), one of the athletes forgot the intention she stated prior to practice, but another athlete chimed in to remind her. This was a key moment for me. I began to recognize that there was more going on in this process than simply self-talk. I noticed that “the athletes were active in listening to each other talk; nodding their heads, making eye contact, and smiling” (Field Notes, 2023/02/23). The action of coming together to voice our intentions enabled both the speakers and listeners to be involved. While self-talk research focuses on reduction of cognitive anxiety and enhancement of positive psychological states (Hatzigeorgiadis et al., 2009; Maynard et al., 1998), the positive and more engaged actions I observed when voicing our intentions as a group allowed me to create a positive training environment in new and different ways in a team sport.

Bringing the athletes together to listen to and visualize scenarios enabled me to plan and implement practical ways to increase team motivation. Although I could not ‘see’ what the athletes imagined, I noticed “they were mimicking the behaviors that I was reading to them; making eye contact with their teammates, arms around each other, smiles, nods, hand squeezes and ‘pinky links’ [connecting in a circle via interlocked pinky fingers]” (Field Notes, 2023/01/24). Recently, Guillot et al., (2021) suggested that a dynamic approach to visualization might be more beneficial than simply picturing a scenario in one’s head. Athletes would be encouraged to adopt “a congruent body position...embodying spatial and/or temporal features of the movement without entirely performing it” (Guillot et al., p. 4). My athletes naturally did this as part of being brought closer together. I could see from the athletes’ body language that they were engaged in feeling the experience and excitement of the challenge they were facing. This shared sensation of physical and emotional connection was a new approach for me as a coach.

Coming together to experience these scenarios allowed me to notice these new connections that were developing among the athletes. Connecting as a group provided unique feedback where eye contact and physical touch reinforced feelings of support through psychologically supportive gestures, such as putting arms around each other's shoulders, smiling, and nodding (Guillot et al., 2021). My experiences ran counter to most visualization research where the emphasis is on visualizing individually rather than as a team (e.g., Beauchamp et al., 2002; Guillot et al., 2021; Hall et al., 1998). Therefore, considering the social aspect of visualizing as a group enhanced my athletes' motivation and performance.

Unlike self-talk and visualization, the use of music during the warm-up focused more on individual work rather than team play and communication. Most research on the use of music in team settings focuses on listening as a team. Karageorghis et al. (2018) found that listening to music as a group during a locker room pre-match routine among soccer players enhanced a sense of camaraderie and community, boosting group cohesion where music allowed the development of "shared meanings and contribute[d] to a sense of group identity" (p. 2). However, I considered that not every athlete might be motivated by the same music, hence, I chose to let the athletes wear earbuds to listen to individually created playlists. Initially, I noted some "were dancing and mouthing words a little bit. It appeared as though they were a little distracted and late to notice changes in the drills, however, there was no question that they were more activated due to the music" (Field Notes, 2023/01/22). However, as the sessions progressed, fewer and fewer athletes used their music, despite being reminded that this was an option. Karageorghis et al. (2017) noted that when using music, consideration should be given to the physical and social environment in which the exercise and/or sporting endeavour takes place. Given the noise in the gym, athletes may not have been able to hear their music. Or maybe the solitary nature of listening to music and the absence of 'coming together' made this team of athletes gravitate away from using music as their interest in using self-talk and visualization grew. Interestingly, watching the athletes gradually move away from using music during warm-up allowed me to notice the positive effect of coming together in self-talk and visualization. The rigorous process of action and reflection in AR research allowed me to see how I was beginning to become more open to noticing others' responses. This new awareness of others' actions made me more conscientious as a coach and allowed me to question my assumption that, as a coach, I always knew what was best.

Challenging My Assumptions

In the early stages of my career, I often failed to consider other people, my actions, or ideas that were not obvious to me. My beliefs were often reinforced by incorrect

interpretations of information. I rarely validated anything that I heard or learned; if it sounded reasonable in my head, I assumed it was correct. The less I verified or explored, the more certain I was that I was right. However, the systematic way in which I completed my action cycle work, particularly analyzing and reflecting on my data, highlighted my taken-for-granted assumptions and biases that shaped my practices and the training environment I created. To develop as a coach, thus, required an ability to recognize and challenge these assumptions (Cushion, 2016).

First, critically reading the literature on PC routines helped me understand not only the potential benefits, but also recognize the limitations of the types of studies done to date. Most studies focused on the athletes' perceptions of the implementation of one PC routine, whereas I was interested in the mechanics of implementing PC routines. I did not know how to decide what approach to use or how a particular PC approach could work in my coaching context. Instead of repeating what I had watched other coaches do, I had to use the literature to develop my own practices and create a new path.

Second, collecting, analyzing, and reflecting on my field notes helped me notice a 'weakness' in my coaching practices. My over reliance on doing as many drill and skill repetitions as possible to run the most efficient training session limited opportunities for connection and reflection by athletes and coaches. Coming together inherently slowed my training sessions. Unexpectedly, this allowed for new and wonderful ways for the team to connect and develop in addition to focusing on skill and drill repetitions. This presented opportunities for athletes to contribute to training and gave the session a less authoritarian feel. I no longer felt the need to be the 'dictatorial' coach always giving out directions and instructions to the athletes.

Third, although listening to music was optional, I had assumed that all athletes would want to listen to music. While 11 of the 13 athletes chose to listen to their own music in the first session, gradually fewer athletes donned their earbuds over the two cycles: more athletes were choosing to warm up without music. By the final session in the second cycle, only three athletes continued to listen to their music. My assumption of what the athletes would prefer did not match what they chose to do.

Fourth, I assumed that motivational self-talk was what athletes needed before, during, and at the end of practice. Hence, I created three self-talk opportunities in the first cycle. However, upon analyzing and reflecting on my findings, I chose to eliminate the second self-talk session (during practices) as it disrupted the flow of the training session. While I emphasized the importance of motivational self-talk to inspire the athletes to push and challenge themselves during a drill, I noticed that this approach had the opposite effect of what I intended. The athletes preferred to focus on instructional

self-talk and coach feedback at this point. Therefore, in the second cycle, I focused solely on pre- and post-session self-talk opportunities.

Finally, as I gathered the team to hear the visualization scenarios, I noted that “as I was talking it didn’t feel as authentic because I was reading from a script. I felt as though I was being a little contrived and ‘hokey’ reading a prepared scenario” (Field Notes, 2023/01/21). However, as I progressed through the training sessions and cycles, I noticed the team became more and more engaged. For example, during the second session of the first cycle, one of the athletes asked if I could read a second scenario to the team. This request gave me pause: Did what I felt as a coach (hokey and contrived) reflect what I was observing? I noticed the athletes’ increasing engagement with and anticipation of the scenarios as they wanted to know the ‘stakes’ involved (e.g., tie game in the provincial final or game serve after a team injury). Again, the systematic AR process of action and reflection drew these observations to my attention. As my team listened to the scenarios, they mimicked the actions I read: when I spoke of eye contact, they made eye contact with each other; when I talked about putting our arms around each other during a time out in the scenario, they put their arms around each other. After returning to training, I noticed a palpable air of excitement and energy. This was not something I had previously observed in my training sessions. Physically supporting each other during the visualization (e.g., arms around each other) seemed to convey a message of unity among the team. This aspect of PC routines was absent from the current literature and was highlighted by Beauchamp et al. (2002) where “the complex interplay of cognitive, affective and behavioral factors” in team training contexts should be examined in future research (p. 704).

In summary, while I began this study with strong feelings about how to coach, employing an AR framework allowed me to see how this limited my creativity. I tended to mimic other coaches rather than be myself. I had never seen other coaches design practices to implement PC routines and had little regard for the ‘why’ unless it was a skill-based development issue. I had not considered other ways in which I could influence my athletes’ mental and physical health nor the larger social coaching and volleyball contexts in which my ideas were created. I began to note a shift in my coaching practices. My actions became more deliberate and authentic, unique to me as a coach, not an echo of someone else. This was particularly apparent to me prior to each action cycle as I planned and designed training sessions. As I developed my understanding of PC routines and my awareness as a coach, I became more confident. I wanted to step out of my comfort zone and try new things, recognizing the need to ask myself difficult questions that I had previously glossed over.

Efficiency Isn't Always Best

As a coach, I was preoccupied with running an efficient practice: athletes should be constantly on the move, contacting the ball as many times as possible. A 'lost rep' was a lost opportunity to improve, and the rhythm and flow of my training did not afford time for standing around. However, as I progressed through the research process, I saw the need to change the flow of my practices.

I noted during warm-up that "[a]thletes nodded their heads and moved to the music [at times], they jogged and hustled, and they moved from one drill to another...The athletes smiled often and showed general positivity and a happiness to be participating at practice" (Field Notes 2023/01/22). As with my traditional approach to coaching, this proved to be extremely efficient, but it was now *initiated by the athletes* at the start of practice and ended at the water break.

Originally, I provided minimal instruction during warm up time and created no opportunities to have conversations. I also chose not to give detailed instructions about what types of music to use as "...[music] should be congruent with the participants' personal characteristics, the exercise task, the physical and social environment in which the activity takes place, and desired outcomes" (Karageorghis et al., 2018 p. 11). However, when noting the effects of coming together as a team and my effort to become a more conscientious coach, I began to consider how I could use music differently to complement the new-found flow of training sessions. Seeing athletes become more engaged during drills and learning to use more positive language allowed me to see how slowing down my training sessions, intentionally incorporating discussion by coming together, could further help me develop as a coach. In future sessions, perhaps I would see more athlete and team engagement if I used music to complement the flow of practice.

The benefits of slowing down and being 'less efficient' were more immediately obvious with self-talk and visualization. The noise in the gym inhibited communication during the drills: it was distracting, disruptive, and confusing for the athletes. I wrote in my notes: "I can't be loud enough to get their attention in the drills and when I finally do, the moment has passed and most of them don't know that I am talking about and why I am interrupting" (Field Notes, 2023/01/22). Implementing self-talk required us to slow down and challenged me to spend more time teaching and talking about this technique. For Maynard et al. (1998), slowing down to teach athletes about self-talk may seem like it 'costs more,' because it takes time away from more active practice. However, there is a potential benefit to this over the longer term. For example, we came together and formed a circle prior to the start of each session where I, like Hatzigeorgiadis et al. (2007), guided my athletes through self-talk instructions emphasizing positive language and statements of intention. As every athlete stated their strengths and goals for the

practice, I noted the athletes listening respectfully, considering their teammates' words. This gave me the sense that "the athletes were more anticipatory towards the upcoming practice and eager to work on their intentions" (Field Notes, 2023/02/19). Slowing down allowed them to hear, reflect on, and internalize their own thoughts as well those of their teammates. This, in turn, gave athletes opportunities to re-focus, re-energize, and re-engage. I felt that an air of confidence emerged when they improved their ability to use positive language to state their intentions. Similarly, in the post-session self-talk, athletes acknowledged their successes (or lack thereof) and finished with a positive statement about themselves.

Bouts of visualization also required me to stop training at specific times, something I never would have considered in the past. I observed: "The athletes were very engaged in the scenarios and eager to 'test' their abilities after hearing the scenario being read" (Field Notes, 2023/02/19). While researchers have noted that visualization is challenging to observe as it is an internal individual process (Guillot et al., 2021), the process of pausing training to come together and share an experience as a group allowed the athletes to show an eagerness to return to drill practice that I did not anticipate. For me, this illustrated how I could become a more effective coach without constantly 'working.' Therefore, I began to see how I could consciously change my practices to embrace new ways of working and training together.

In summary, using an AR framework allowed me to explore how the use of PC routines could help improve my effectiveness as a coach. I had to learn not only the 'what' of PC routines, but also the 'how and why.' In planning and implementing self-talk, visualization, and music routines, I noticed how physically coming together and making connections challenged me to become a more conscientious coach. I also realized that slowing down to discuss and share ideas could be more effective than my traditional approach of uninterrupted training and constant work. As a result, my coaching practices have continued to evolve. I now engage more with the scientific literature, and I am less afraid to go my own way and do my own thing as a coach.

CONCLUSION

In my study, I explored how I could employ a combination of PC routines to improve my own abilities as a coach. Self-talk, visualization, and music have been used separately by previous researchers to enhance athletes' moods, arousal and activation, team cohesiveness, readiness of effort, self-confidence, mental toughness, and focus (Hardy et al., 2001; Hardy et al., 2018; Karageorghis et al., 2018; Karageorghis et al., 2017). As a coach, I previously had left the use of PC routines up to the athletes (if they wanted to

do them, what to do, when and how), and instead focused my energy on skill and strategy development. Using an AR framework challenged me to step outside my comfort zone and explore how I could plan and deliver different PC approaches in regular training sessions.

After I engaged in a cyclical AR process, analyzed my data and reflected on my notes and practices, I improved my understanding of how to employ PC routines. Developing my critical thinking skills helped me become more aware of the gaps in my previous coaching practices and reconsider my own actions. Prior to this study, I had very strong feelings about how to coach. Looking back, I see now how my approach limited my creativity. Through my research, I became more aware of the importance of the social context of coaching sessions. The physical proximity of coming together as a group to do self-talk and visualization activities created opportunities to bond and make connections that I otherwise would have missed. We built on each other's energy as we stood close together: we spoke positively about what we wanted to accomplish and shared looks and gestures that mimicked the motivational scenarios I read. I also learned how I could become a more conscientious coach, unafraid to acknowledge my weaknesses, to recognize my strengths, to examine my successes and failures, and to consider the 'why' behind my actions. I slowed down my traditionally fast paced, efficient practices, exchanging actions with words, scenarios, and reflections. The reflective process inherent in AR allowed me to 'walk through the gate' and experience a new world with new tools to help me navigate my coaching journey.

I saw the value that my new approach brought to the team, and I saw a new and better me as a coach emerge. I have continuously strived to be the best version of myself, as a volleyball player, a mother, a coach, and in the many other roles over my lifetime. As I move on from this chapter of my education, I will take these important lessons with me and continue to apply what I have learned in new settings and in different roles.

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Appendix A

Visualization scenario that depicts a possible situation the athletes might encounter at an upcoming tournament. I read this scenario during a scrimmage game in a training session during the second action cycle (February 23). We started the scrimmage, paused to come together and visualize, then returned to the scrimmage game.

Scenario

We are playing in the gold medal match at Provincials. The gym is so loud that you can barely hear yourself think. When we are in a time out, we have to huddle close together. Above communicating as loud as we possibly can, we need to use our body language to also help us communicate. We make eye contact with each other; you tell your serve receive partners that you are taking the seam with some arm actions. Setters give their hand signals to their hitters and the hitters nod “got it”. Everyone is confident and has their job to do. Everyone can still play together seamlessly even though it's too loud to hear anything. You trust your teammates and know that they will each be doing their job to support each other so that we can win!