



Erasmus Sport+ 2025

Project Coaching Reimagined (CR)

Revolutionizing Coaching with Digital Tools

Learning Theories and Coaching Practices: A Guide for Coaches

Traditionally, coaching in sports has relied on conventional methods such as paper-based documentation and instruction-heavy models. While mainstream sports benefit from abundant online resources, many team sports in non-mainstream disciplines face limited access to modern, inclusive, and digital tools.

This guide introduces new learning theories and coaching practices that emphasize **athlete participation**, **intrinsic motivation**, **remote accessibility**, and **digital integration** to enhance learning, create inclusive training environments, and promote long-term athlete development with **water polo specific content**.

1. New Learning Theories

1. **Constructivist Learning:** Encourages athletes to build their own understanding of skills through active practice, reflection, and experimentation rather than passive listening.
 - Athletes build their own understanding through practice, reflection, and experimentation rather than passive listening.
 - *Water polo example:* Instead of simply instructing passing technique, players experiment with different passing angles under pressure and reflect on which works best in game-like situations.
2. **Experiential Learning:** Focuses on learning through doing, where drills and exercises are followed by debriefs to reflect on successes and mistakes, promoting deeper understanding.
 - Emphasizes learning through doing, followed by reflection.

- *Water polo example:* Small-sided scrimmages are followed by debriefs where athletes discuss positioning mistakes or successful plays.
- 3. Self-Directed Learning:** Provides athletes with resources, such as digital skill cards, so they can take ownership of their progress and train independently while receiving guided feedback from coaches.
 - Athletes take ownership of their progress using resources like skill cards.
 - *Water polo example:* Digital or printed skill and drill cards are assigned to athletes to improve upon the first 5 keynotes. That would help athletes practice skills independently during extra pool time, with feedback logged for the coach.
- 4. Collaborative Learning:** Promotes teamwork and peer-to-peer feedback, where athletes can learn from one another's strengths and perspectives in addition to coach input.
 - Peer-to-peer feedback and shared problem-solving.
 - *Water polo example:* Attackers and defenders (or centers and center defenders or goalie and shooters) work in pairs to critique each other's positioning, fostering both perspectives.
- 5. Growth Mindset Approach:** Reinforces the idea that effort and persistence are key to improvement, helping athletes overcome challenges and develop resilience.
 - Effort and persistence drive improvement.
 - *Water polo example:* Coaches emphasize improvement in endurance sets (e.g., eggbeater kick intervals), praising effort and consistency, not just outcome.
- 6. Intrinsic Motivation**
 - Athletes' inner drive for enjoyment, mastery, and growth.
 - *Water polo example:* Instead of focusing only on winning, coaches highlight personal skill mastery (e.g., backhand shot accuracy) and creativity in offensive plays.

2. Innovative Coaching Models

- 1. Athlete-Centered Coaching:** Shifts the focus from purely following coach instructions to involving athletes in decision-making and goal-setting, increasing motivation and engagement.
 - Athletes set goals and take part in decision-making.
 - *Water polo example:* Team captains lead warm-ups and help design tactical plays, encouraging leadership and accountability. Or Group Work and Peer Presentations: Athletes are divided into groups to work on specific skill cards and then present what they have learned or practiced to the rest of the team. Groups are also encouraged to identify mistakes, discuss ways to improve, and help their peers refine their technique.
- 2. Remote & Blended Coaching:** Combines traditional in-person training with digital resources, online tracking, and remote communication tools to make coaching accessible from anywhere.
 - Combines in-person training with digital resources.
 - *Water polo example:* Players use video analysis apps to review matches or skill executions and log progress outside of pool sessions.



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3. **Inclusive Coaching:** Ensures equal opportunities for athletes of all backgrounds, including individuals with disabilities, financial constraints, or geographical limitations, by adapting drills and using flexible approaches.
 - Adapts methods to all athletes regardless of ability or background.
 - *Water polo example:* Modified small-area games for beginners or athletes with different fitness levels ensure everyone participates meaningfully.
4. **Data-Driven Coaching:** Uses assessment tests, performance metrics, and digital logs to track progress and adapt plans based on evidence rather than guesswork.
 - Uses performance metrics to guide training.
 - *Water polo example:* Tracking sprint times (swim-offs), shot accuracy, or heart-rate recovery to adjust conditioning drills.

3. Practical Coaching Techniques

1. **Use of Skill & Drill Cards:** Provide athletes with printed or digital cards summarizing techniques and corrections that they can reference during practice.
 - *Example:* A “center forward drill card” showing positioning cues and quick-reference corrections during scrimmages.
2. **Video Feedback:** Encourage athletes to record their performance, review it individually or with the coach, and track improvements over time.
 - *Example:* Recording goalie saves or fast breaks, then reviewing the footage in short team sessions.
3. **Micro-Goals & Challenges:** Break down training into smaller, achievable objectives such as weekly challenges that build toward long-term performance improvement.
 - *Example:* Weekly challenge — “Improve your 5-meter shot accuracy by 10%” or “Complete 40” eggbeater kick intervals without dropping intensity and maintaining height level out of the water.”
4. **Interactive Assessments:** Use initial and final tests to evaluate progress and motivate athletes with measurable results.
 - *Example:* Pre- and post-season swim tests, shooting accuracy tests, or tactical awareness quizzes.
5. **Athlete Reflection Logs**
 - *Example:* Players record thoughts after games: “What worked in defense when guarding the 2-meter player?”
6. **Motivation Boosters**
 - *Example:* Recognizing creative offensive plays in practice scrimmages, not just goals scored, to celebrate problem-solving.

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