Pedagogical resources
AQUATIC ACTIVITIES

HOW TO PLAN AN AQUATIC EDUCATION SESSION

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HOW TO PLAN AN AQUATIC EDUCATION SESSION

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Planning a water-based education session begins with careful consideration of what you wish to focus on in the pupils' learning. Defining a clear educational objective gives meaning to the activity and guides the instructor's decisions during the session. This resource offers a simple way to organise this process, helping the water-based instructor to structure their session with greater clarity and consistency.

Introduction

Why planning is essential in aquatic education

Teaching in the aquatic environment requires more than simply leading exercises or suggesting games in the water. Each session represents a learning opportunity that can have a direct influence on the relationship pupils establish with the aquatic environment, on their personal safety, and on the progressive development of their aquatic competence. For this reason, planning the session in advance is one of the fundamental tasks of the aquatic instructor. However, in professional practice, it is not always given the importance it deserves. In many teaching contexts, the session is organised around a repertoire of familiar exercises or activities, without there necessarily being a clear pedagogical intention to structure the learning. When this happens, the session's progression can be left to improvisation, which makes it difficult to build a coherent and progressive learning process.

This approach is rooted in a way of understanding aquatic education in which practice is not organised solely around isolated exercises or activities, or those aimed at specific swimming techniques, but rather based on prior pedagogical reflection on what the learning process is intended to foster in the learner. From this perspective, the aquatic educator acts as a facilitator of learning, designing situations that allow the learner to interact with the aquatic environment, explore possibilities for action and progressively develop their aquatic competence, which consequently also benefits their swimming techniques. This approach aligns with the pedagogical approaches that have given rise to the Comprehensive Aquatic Method (Moreno-Murcia, 2026a), where the organisation of teaching is based on play, exploration, varied situations and the active participation of learners as means of building meaningful learning in the water. Within this framework, the educator not only sets tasks but also mediates through questions, instructions and pedagogical adjustments that help pupils interpret what is happening in the aquatic environment and find increasingly appropriate responses.

Planning a session involves taking the time to reflect before the activity begins, in order to

define what you aim to achieve, which learning outcomes are considered priorities, and how you will help the pupils develop these during the aquatic experience. This process of prior reflection provides the session with a central theme that guides both the teacher's approach and the participants' learning experience, both on a day-to-day basis and throughout the process.

From the perspective of the Comprehensive Aquatic Method (MAC), this prior reflection is not based solely on selecting exercises or content, but on identifying which aquatic problem one wishes to help the pupils understand and resolve. Designing a session, therefore, involves asking what situation in the aquatic environment the pupil will face, what difficulty they will have to interpret, and what adaptive response one aims to encourage. In this way, the session is organised around meaningful challenges, and not just around isolated skills.

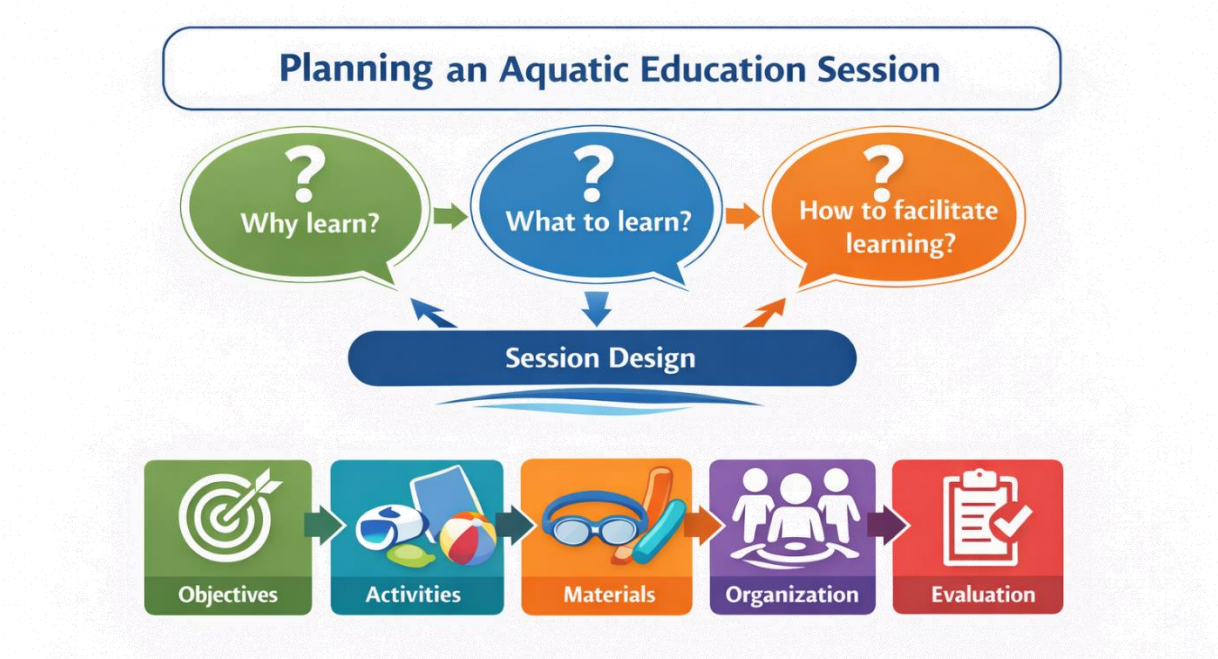
Learning to interact with water involves developing skills, understanding the environment and making appropriate decisions in diverse situations. Each of these situations is specific to the moment and demands constant motor, cognitive and emotional adaptation. In this sense, the educational experience in the water contributes to the progressive development of human aquatic competence, understood as the ability to interact with the aquatic environment in a safer, more effective and autonomous manner.

For this reason, session planning should not be viewed as an administrative task, a formal requirement or something unnecessary, but rather as an essential teaching tool that enables the teacher to guide the learning process. Through planning, the objectives of the session are defined, key content is selected, and learning situations are designed to facilitate the active participation of the pupils.

By treating planning as a fundamental pedagogical responsibility, this teaching resource proposes a simple and practical way of approaching the planning of aquatic education sessions with greater pedagogical intent. To this end, the process is structured around three fundamental pedagogical questions that guide the teacher's intervention: why learn (identification of the aquatic problem), what to learn (identification of the content), and how to facilitate that learning (identification of the strategy).

Figure 1 provides an overview of the pedagogical rationale behind the teacher's prior reflection on the educational intent of the activity. This reflection subsequently informs the design of the session and guides decisions regarding objectives, activities, materials, group organisation and the observation of learning. This approach facilitates coherent learning experiences within the aquatic environment, thereby contributing to the progressive development of pupils' aquatic competence.

Figure 1. Model for designing a water safety session.



Water competence as a reference

The planning of a water education session must be based on a clear understanding of what it really means to learn in an aquatic environment. Before deciding which activities to carry out or how to organise the session, it is necessary to bear in mind what kind of learning one aims to promote among the pupils and what the pedagogical framework is that guides this process. In this resource, session planning is approached primarily from the perspective of functional aquatic competence, understood as part of the broader development of aquatic literacy (Moreno-Murcia, 2026b).

This teaching resource draws on the multidimensional **aquatic competence approach proposed by Fonseca-Pinto and Moreno-Murcia (2023)**, which argues that aquatic education should be understood as an educational process aimed at developing people's ability to interact appropriately, safely and independently with different aquatic environments. This conceptual framework forms the starting point for the approach to the sessions presented in this guide.

From this perspective, aquatic competence can be understood as the **ability to observe, interpret and act in relation to the aquatic environment, taking into account the characteristics of the setting, one's own personal capabilities and the demands of the situation.** This implies that learning in the water is not limited to mastering technical swimming skills, but also includes understanding the environment, decision-making and managing one's own emotions whilst interacting with the aquatic environment. Interaction with the aquatic environment always occurs in relation to three mutually influential elements:

- **The individual**, with their characteristics, skills, knowledge, emotions and prior experiences.
- **The aquatic environment**, which can have very different characteristics depending on whether it is a swimming pool, the sea, a river or another setting.
- **The task or activity** being carried out at that moment.

Aquatic competence stems precisely from the ability to adapt one's own behaviour to the dynamic relationship between the individual, the environment and the task. For this reason, it is not a fixed or permanent ability, but rather something that can vary depending on the contextual conditions and the situation in which the aquatic experience takes place. In line with the approach proposed by Fonseca-Pinto and Moreno-Murcia (2023), the development of this competence can be understood through three complementary dimensions that guide the educational process in the aquatic environment.

Aquatic literacy. This refers to the development of motor skills and ways of interacting with water that enable movement, floating, breathing or handling objects in the aquatic environment, at the surface or at depth, with and without clothing. It also includes familiarisation with different aquatic activities that broaden the possibilities for interaction with the environment.

Drowning prevention. This refers to the knowledge and behaviours that help reduce the risks associated with the aquatic environment. It includes the ability to recognise potentially dangerous situations, identify safety conditions and make appropriate decisions in different aquatic contexts.

Environmental education. This relates to knowledge of different aquatic environments and the development of responsible attitudes towards aquatic environments and their conservation. This dimension allows the educational experience to extend beyond the swimming pool and fosters a respectful relationship with aquatic ecosystems.

These three dimensions are developed through different areas of learning that are integrated into the educational experience. In aquatic education, it is common to consider three interrelated areas of learning:

- **Doing**, related to the development of motor skills.
- **Knowing**, linked to knowledge and understanding of the aquatic environment.
- **Being**, associated with emotional management, interaction with others and attitudes towards the aquatic environment.

Using water competence as a benchmark allows the educational process to be directed towards a broader understanding of learning in the water. From this perspective, the aim of teaching is not merely to learn to swim, but to help people function with greater autonomy, awareness and confidence in managing different aquatic situations.

In line with the MAC, this focus on aquatic competence translates methodologically into the

design of learning situations in which learners must explore, interpret and solve aquatic problems by adapting their actions to the demands of the task, the environment and their own capabilities.

Questions for planning a session

Once aquatic competence is adopted as a framework to guide the educational process, the next step is to translate that conceptual framework into a concrete approach for the sessions. For many aquatic educators, this transition from the theoretical model to daily practice can be challenging if there is no clear way to organise the planning.

To facilitate this process, the session plan can be structured around four fundamental questions that act as a guiding thread for the teaching intervention. These questions help the educator maintain consistency between the educational purpose, the content being covered, and the strategies used during the session. The four questions are (Table 1): what is the aquatic problem, why learn, what to learn, and how to facilitate that learning. In the MAC, these questions do not translate into a fixed sequence of exercises, but rather into a methodological process in which pupils explore an aquatic situation, understand the challenge presented, experiment with different responses, consolidate those that prove most effective, and transfer what they have learnt to new conditions. Therefore, designing a session is not merely a matter of arranging activities, but of constructing a progression of experiences with pedagogical meaning.

Table 1. Pedagogical questions for designing a water safety session based on the CAM.

Teaching question	What it focuses on	Example in the session
Why learn?	The educational purpose of aquatic education.	To promote safety and confidence when interacting with water.
What is the aquatic problem that the pupils need to understand and solve?	The practical challenge that gives meaning to the session.	Entering the water, controlling breathing and regaining stability.
What to learn?	The priority content or skills.	Breath control, floating and buoyancy.
How to facilitate this learning?	The teaching strategies that organise the learning experience.	Games, challenges, guided exploration and varied tasks.

Answering these questions does not require a complex or overly formal approach. On the contrary, it is a **practical tool that enables the educator to reflect on their teaching approach with intentionality before entering the water**, defining more clearly what they aim to achieve with the session and how they will guide the pupils' learning experience.

Why learn?

The first question concerns the **educational purpose** of aquatic education, specifically tailored to this session. Before selecting activities or designing tasks, the educator must be clear about what they aim to foster in the pupils through this aquatic experience. From the perspective of aquatic competence, learning in the aquatic environment can serve different purposes. These include, for example:

- Interact with greater confidence in different aquatic environments.
- Learn to recognise and manage risky situations.
- Enjoy the aquatic environment through a variety of activities.
- Develop healthy physical activity habits.
- Build personal confidence in the water.
- Lay the foundations for aquatic sports.

Being aware of this objective, which is often determined by the aquatic facility's technical and educational programme, helps to guide the process and give the session educational meaning. In this way, the activities proposed during the session are not selected simply because they are fun or familiar, but because they contribute to developing specific aspects of aquatic competence.

What should be learned?

Once the objective has been defined, the next step is to identify **which content or skills are considered priorities at that stage of the learning process.**

Developing aquatic competence involves working on a range of content related to motor skills, knowledge of the aquatic environment and decision-making in different situations. However, in a single session, it is not possible to address all these aspects. Therefore, the instructor must select and prioritise the learning outcomes that are most relevant to the group and the stage they are at. This selection may be based on the facility's technical and pedagogical programmes or on the aquatic skills considered essential for interacting safely with the aquatic environment. Based on this general framework, the instructor can set **learning objectives appropriate to the age, level and characteristics of the group**.

For example, in a beginner's group, it may be a priority to work on aspects such as breath control, floating or basic movements. At other stages of the learning process, the focus may shift to orientation in the water, changing direction whilst moving, or the ability to rest by pausing in a floating position amidst simulated waves. The key is for the instructor to clearly identify **which learning outcomes they wish to prioritise in the session**, so that the proposed activities are aligned with those objectives.

How can we facilitate this learning?

The third question concerns the **teaching strategies the educator will use to facilitate the pupils' learning**. Once the purpose and key content have been defined, the teacher must decide how to organise the aquatic experience so that pupils have real opportunities to develop these skills. In aquatic education, these strategies can take many forms. Some of the most common include:

- The use of games as a teaching tool.
- Presenting challenges or problem situations that encourage pupils to explore different solutions.
- Varied tasks to promote adaptation to the aquatic environment.
- The active involvement of pupils in decision-making during practice

Within the MAC, facilitating learning also involves organising these strategies according to certain basic principles: starting with an aquatic problem that is recognisable to the pupils, encouraging the exploration of various solutions, introducing variations in the task, the space, the equipment or the assistance provided, and guiding the process through questions that help pupils understand what is happening in the water and why some responses are more appropriate than others. In this way, teaching focuses not merely on repeating movement patterns, but on learning to act with greater understanding, confidence and autonomy in the aquatic environment.

Taken together, these questions constitute a simple tool that helps the aquatic educator to structure the approach to their sessions. The following section outlines how to apply this approach to the **step-by-step design of an aquatic education session**.

How to build a session step by step

Once the instructor has answered these questions, the next step is to **translate those teaching decisions into the specific design of the session**. At this stage, the aim is to provide a simple framework for organising the teaching practice. It is not a question of following a rigid structure, but rather of having a guide to help the aquatic instructor turn the teaching intention into a coherent learning experience.

Step 1. Define the aquatic problem and the session's priority objective

The first step is to specify which aquatic problem the pupils are expected to understand and resolve during the session, and what the main learning outcome will be that guides the teaching practice. Although different content may arise during a lesson, it is advisable to identify a central aquatic challenge and one or two priority objectives that give coherence to the session as a whole. In this way, learning is organised not solely around a skill, but around a situation that requires interpreting the environment and adjusting one's actions. For example, in an early stage of learning, some priority objectives might be:

- Moving through the water by combining different movement patterns.
- Identifying a point of support following a varied entry into the water.
- Maintaining a back float as a way of resting.
- Controlling breathing during short movements.
- Changing direction whilst moving underwater.

Let us suppose that the aquatic challenge of the session is learning to regain control after entering the water; the priority objectives could focus on controlling breathing, re-adjusting body posture, orienting oneself towards a point of support or reference, and managing to get out of the water. This approach to structuring the session ensures that the learning process is both functional and comprehensive. Defining these objectives helps to guide the activities that will be proposed later and prevents the session from becoming a series of tasks without a clear direction.

Step 2. Selecting learning tasks

Once the objectives have been defined, the next step is to design **the tasks or activities that will enable pupils to work on these learning outcomes**.

The tasks should provide real opportunities for pupils to interact with the aquatic environment and experiment with different solutions. To this end, the teacher can use various teaching resources, such as play, guided exploration or setting small challenges.
In line with the MAC, these tasks must be designed with sufficient variability so that learners do not simply repeat the same response but learn to adapt and are able to transfer this learning to other contexts. This involves progressively modifying elements such as depth, distance, speed of execution, type of equipment, spatial orientation or the level of assistance provided by the instructor, so that aquatic competence is developed in diverse contexts rather than in rigid situations. When designing tasks, it is advisable to bear in mind some basic aspects:

- The activities should be related to the defined objectives.
- They should encourage active participation from the pupils.
- They should offer different levels of difficulty to suit the characteristics of the group.
- They should create positive experiences in the water.
- They should provide knowledge that can be applied to other settings and situations.

In this way, the tasks become learning opportunities that encourage gradual adaptation to the aquatic environment.

Step 3. Organising the session into learning stages

To facilitate the progression of the session, it can be organised into learning stages that follow the logic of comprehensive aquatic learning. A simple approach consistent with the MAC can be structured into five stages:

- **Warm-up and initial preparation**. First contact with the learning situation, aimed at building confidence, physical readiness and focus on the challenge at hand.
- **Presenting the aquatic problem.** The teacher presents a situation that makes sense to the pupils, so that they can understand what challenge they will be trying to solve in the water.
- **Exploration and experimentation.** The pupils try out different responses, compare sensations, adjust their actions and discover possible solutions.
- **Consolidation and variation.** Certain learning outcomes are consolidated, and small changes are introduced to the conditions to broaden adaptation.
- **Closure and reflection.** The session ends with lower-intensity tasks and a brief review of what has been learnt, felt or discovered during the activity.

This structure should not be understood as a rigid sequence, but rather as a pedagogical guide that helps to organise the progression of learning within the session.

Step 4. Preparing the space and organising the group. Before starting the session, the instructor needs to consider how the pool area and the group of pupils will be organised. The layout of the space has a direct impact on safety, pupil participation and the quality of the learning experiences. Some aspects to consider are:

- The distribution of the group within the pool area.
- Adapting the space to the group's characteristics.
- The teacher's positioning to maintain adequate visual control.
- The use of auxiliary materials that facilitate practice and encourage the challenge of learning.

Good organisation of the space ensures that tasks run smoothly and that pupils can concentrate on the learning experience with minimal waiting times.

Step 5. Plan for observing learning. The final step in this approach involves planning which aspects the teacher will observe during the session to identify the pupils' progress. Observing learning does not simply mean checking whether a pupil performs a motor skill correctly, but also paying attention to other elements of the educational process, such as:

- The way in which pupils adapt to the water.
- Their ability to complete the tasks set.
- The confidence they show in the aquatic environment.
- Their interaction with peers and the environment.
- The emotional responses that emerge during the task, such as confidence, doubt, fear or a willingness to explore

This observation enables the instructor to adapt their approach during the session and to reflect on the session's progress afterwards.

Taken together, these steps provide a simple guide for transforming pedagogical intent into a structured session. Based on this approach, the aquatic educator can organise learning

experiences that promote the progressive development of pupils' aquatic competence. Below is a simple example illustrating how to apply the planning logic described above to the design of an aquatic education session (Table 2).

Table 2. Planning an aquatic education session.

1. GENERAL INFORMATION

Date	16/05/2025
Session Duration	45 minutes
Number of Students	12
Level	Initiation (6–8 years)
Teachers	2
Class Space	Small pool (1.20 m depth)

2. DIMENSIONS OF AQUATIC COMPETENCE (prioritized in this session)

Motor · Cognitive · Social · Emotional · Safety · Environmental

3. KEY COMPETENCIES TO DEVELOP

- Adapt breathing to different situations in the aquatic environment.
- Move independently by combining different motor actions.
- Make simple decisions to solve challenges in the water.
- Demonstrate self-care attitudes towards oneself, others and the aquatic environment.

4. SESSION OBJECTIVES

- Adjust breathing to movement and immersion.
- Explore different ways of moving to overcome a challenge.
- Make simple decisions to solve aquatic situations.
- Cooperate and respect turns and safety rules.

5. MATERIALS

- Floating kickboards
- Dive rings
- Floating balls
- Small boards
- Floating ropes
- Noodles

6. FUNDAMENTAL MOTOR SKILLS

- Balance
- Propulsion
- Breathing
- Immersion
- Buoyancy
- Eye–hand coordination

7. SESSION DESIGN

Moments of the session	Situations / Activities *(what shall we propose?)*	Organization *(how and with whom?)*	Pedagogical Intention *(for what purpose?)*	Observables / Indicators *(what shall we observe?)*	Adaptations *(what adjustments might we make?)*	Estimated Time
1. WELCOME & MOTIVATION	Game "Aquatic traffic light". At the signal color, students perform different actions: green: move; yellow: float; red: immerse.	Whole group. In open space.	Activate and motivate. Recall rules and create a positive climate.	• Active participation • Understands the signals • Shows attention	More time to respond. Clearer visual signals.	5 min
2. EXPLORATION & DISCOVERY	"How can I move?" Explore different ways of moving with and without equipment (kickboards, noodles, without equipment). Students are invited to try and compare.	Groups of 3–4 students. Stations with different options.	Explore action possibilities and sensations to expand the motor repertoire.	• Tries different ways of moving • Describes sensations • Shows curiosity	Reduce initial options. More teacher support.	10 min
3. CHALLENGE / MAIN CHALLENGE	Challenge "Cross the river". They must cross from one side of the pool to the other overcoming obstacles (rings, boards), choosing how to do it.	Small groups (4–5 students). Several exit lanes.	Make decisions to solve the challenge combining motor actions and breathing.	• Chooses strategies • Adjusts breathing • Overcomes the challenge	Fewer obstacles. Obstacles more spaced. Closer teacher support.	15 min
4. TRANSFER & APPLICATION	"Team mission". In teams, transport balls from one side to the other combining movements and breathing without letting them fall.	Teams of 4–5 students. Cooperative task.	Apply what was learned in a new situation with a shared goal.	• Cooperates with the team • Adjusts actions • Manages breathing	More time. Reduce distance. Smaller teams.	10 min
5. COOL DOWN & REFLECTION	We float in silence, listening to our breathing and thinking: What did I learn today? What helped me?	Whole group. In a circle with support material (kickboards).	Recover calm and foster awareness of learning.	• Expresses learning • Shows calm • Listens to others	Guided simple questions. Verbal support.	5 min

8. TEACHER EVALUATION & REFLECTION

What worked well?
- Students were motivated and participated.
- The main challenge promoted decision making and different strategies.
- Good use of time in activities.

What can we improve?
- Allow more time for exploration in some stations.
- Improve transitions between activities.
- Provide more individual feedback during the challenge.

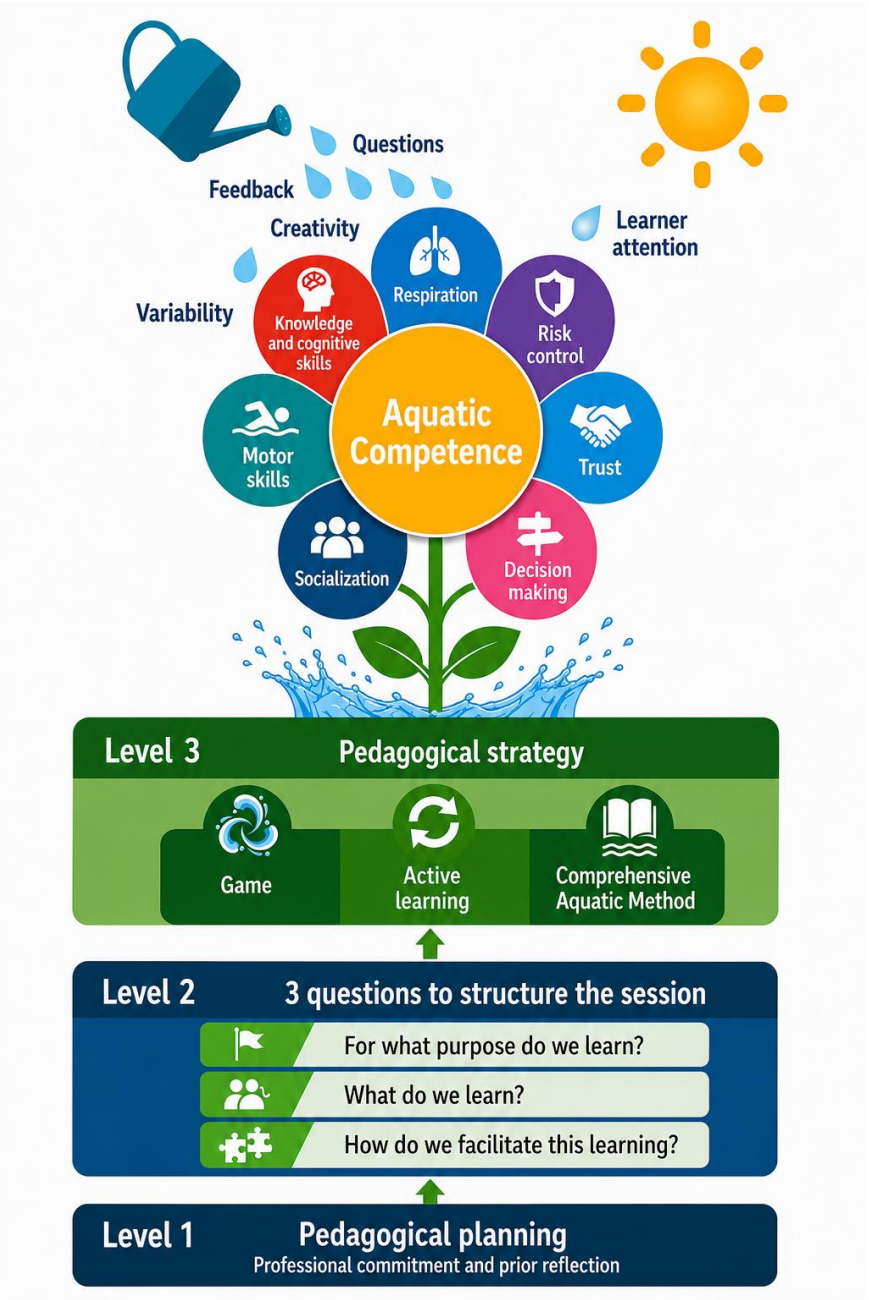
What learning did students show?
- They adjusted breathing to move better.
- They explored and chose different ways of moving.
- They cooperated and helped their teammates.

NEXT STEPS
- Deepen voluntary immersion and object retrieval.
- Introduce challenges with more complexity and variable obstacles.

OBSERVATIONS / NOTES

Figure 2 provides an overview of the pedagogical logic that guides the design of a water education session based on the MAC. The process begins with the teaching approach, understood as a preliminary reflection on the aquatic issue to be addressed and the educational aim of the activity. Based on this reflection, the educator answers the key questions by organising a methodological sequence based on exploration, understanding the challenge, experimentation, consolidation and transfer. The pedagogical strategies, supported by play, variety, active participation and teacher guidance, enable the creation of meaningful learning situations aimed at developing aquatic competence.

Figure 2. Pedagogical framework for a session using the Comprehensive Aquatic Method.



Teaching reflection

Planning a session does not end when the practical session in the water concludes. An essential part of the educational process involves reflecting on what took place during the session to adapt and improve the approach for future learning experiences. This reflection allows us to analyse what happened during the session, guide the improvement of future teaching approaches, and transform practical experience into professional knowledge. To facilitate this reflection, the educator can draw on some simple questions (Table 3).

Table 3. Teacher reflection guide following the session.

Reflection question	Educational aim
Were the session's intended objectives achieved?	Assess whether the proposed tasks supported the key learning outcomes.
Which tasks or activities best facilitate student learning?	Identify which proposals proved most effective during the session.
At what points did difficulties arise during the session?	Identify situations requiring adjustments to the organisation or the tasks.
Which aspects should be retained or modified for the next session?	Guide the planning of future sessions based on the experience gained.
Was the water-related problem presented understandable and meaningful to the pupils?	Assess whether the session was based on a meaningful challenge and whether this facilitated the group's exploration, understanding and engagement.

In this way, planning for teaching in the aquatic environment becomes a dynamic process that incorporates three key stages: preliminary reflection, which informs the planning of the session; the practical session in the water; and post-session reflection, which guides the next teaching intervention. This continuous cycle helps to improve the quality of teaching and foster more meaningful learning experiences in the aquatic environment.

Conclusion

Water education involves much more than simply learning technical skills in the water. Every experience in the aquatic environment contributes to the gradual development of individuals' aquatic competence and to the way in which they will interact with different aquatic environments throughout their lives. For this reason, the role of the aquatic educator entails a pedagogical responsibility that goes beyond simply leading activities or exercises during a session.

The approach to practice is a fundamental tool for guiding this educational process. Planning a session allows us to clearly define what we aim to foster in the learners, select priority learning outcomes and design situations that facilitate interaction with the aquatic environment in a safe and meaningful way. When there is a clear pedagogical intention, the session ceases to be a succession of isolated tasks and becomes a coherent learning

experience.

This resource proposes a simple way of approaching this methodology based on three questions that guide teaching practice: why learn by identifying the aquatic problem, what to learn, and how to facilitate that learning. These questions enable the educational intervention to be structured and help the aquatic instructor to ensure consistency between the session's purpose, the content covered, and the activities carried out in the water.

Designing a water education session involves transforming an educational intention into a meaningful learning experience. In this sense, the aim of this guide is not to offer a rigid planning model, but to provide a practical reference that helps the educator reflect on their teaching and structure their sessions with a clearer pedagogical intention. Through this process of reflection, planning and continuous adjustment, teaching in the aquatic environment can contribute more effectively to the development of individuals capable of interacting with the diversity of aquatic environments with greater safety, confidence and autonomy.

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