Pedagogical resources
AQUATIC ACTIVITIES

AQUAENTURE AQUATIC MOTOR STORYTELLING

José Vidal Vidal

September 29, 2025

asociacionaidea.com

AQUAENTURE. AQUATIC MOTOR STORYTELLING

José Vidal Vidal

Aquatic motor storytelling is a powerful tool to enhance learning and to make it enjoyable. Its utility is transversal to different educational contexts, as well as those related to prevention and health, and adaptable to diverse age groups and levels. In this document, we will present a substantiated practical proposal.

Introduction

In the fields of physical education and health promotion, the search for methodologies that transcend the strictly technical aspects to embrace cognitive, emotional and social dimensions has become a priority objective (Tortella, 2020; Vargas-Vitoria et al., 2023).

Nevertheless, beyond the land support emerges the question of what would happen if this resource were transposed to the aquatic medium. This is precisely where **AQUAENTURE** finds its purpose as a methodological proposal: a model that integrates motor storytelling with the physical and symbolic singularities of the water to form a unique experiential space, which is highly motivating and pedagogically productive. It must be highlighted that water by itself is already an environment that evokes enjoyment, games and exploration. This idea, that could be considered intuitive, finds support in several empirical and theoretical observations (Moreno-Murcia & Ruiz, 2019), which reinforces the synergic potential of combining storytelling with this environment.

This article aims to articulate critical substantiation that justifies the creation of **AQUAENTURE** as an original model, exploring the evidence that sustains its validity and describing the methodological elements that make it applicable and replicable in different contexts.

Theoretical foundations and critical revision

Narrative and motor learning

The inclusion of stories in the design of motor sessions has been studied in various educational programmes. Vargas-Vitoria et al. (2023), for example, in a randomised controlled trial with children aged 3 to 6, demonstrated that a protocol combining storytelling and physical tasks increased coordination, balance and language skills, as well as raising the overall level of physical activity. Moreover, Tortella (2020) documented that the use of a background story in motor sessions contributed to improving spatial orientation and shortening execution times, while simultaneously reinforcing motivation.

These findings are not isolated. Eyre et al. (2020) found that motor storytelling particularly benefits those with lower initial skills, reducing gaps and acting as a compensatory tool. This inclusive perspective is relevant when considering the role of movement as a vehicle for equity in child development.

Self-determined motivation and enjoyment

There is no doubt that the adherence to motor practice highly depends on motivational factors. Moreno-Murcia y Barrachina (2022) highlight that perception of competence, enjoyment and autonomy are key predictors of the intention to continue with physical activity. This vision is complemented by the OPTIMAL theory (Lewthwaite & Wulf, 2017), which draws attention to the external attention focus and the agency feeling as facilitators of both motor performance and intrinsic motivation.

External focus refers to directing the participant's attention towards the effect of their action on the environment (for instance, “make the ball fly far” instead of “stretch your arm out”). This strategy not only improves learning but **also increases enjoyment by connecting the task to a meaningful purpose**. Agency, on the other hand, implies that the person perceives themselves as having control over their decisions and movements, which **reinforces autonomy and active engagement**.

Both elements are especially relevant in playful contexts such as aquatic motor storytelling, where the symbolic environment encourages story-oriented attention and places the participant as the main character of their adventure. This is where the narrative takes on a motivational meaning: by giving meaning and emotion to each action, **it fosters an atmosphere of enjoyment, voluntary involvement and emotional connection with the task**, which are essential elements for a satisfying and sustained motor experience over time.

Motor imagination, guided storytelling and vicarious learning

Agosti et al. (2020) demonstrated that mental representation of movements, known as **motor imagination**, activates neural networks like those involved in actual execution, providing a neurophysiological argument for using narratives that stimulate this type of internal visualisation.

From another perspective, studies on digital **storytelling** (Rohayati et al., 2021; Hwang et al., 2023) show that the use of stories in educational contexts not only increases emotional involvement but also enhances self-efficacy and facilitates critical thinking.

Moreover, Myers (2021) addressed **vicarious learning**, that is, the ability to learn by observing the experiences of others. In his study on storytelling in healthcare settings, he showed how storytelling allows the listener to integrate the experiences of others as if they were their own, thus promoting anticipation, empathy, and decision-making.

Water as a playful, physical and emotional environment

The aquatic environment is a unique setting that combines physical, emotional and symbolic benefits. Its playful nature encourages exploration, enjoyment and creativity, while its physical properties, such as buoyancy, hydrostatic pressure and hydrodynamic resistance, make it an ideal space for motor learning, rehabilitation and psychophysical work.

From a biomechanical perspective, water radically alters the perception of the body. Floating reduces body weight by up to 90%, minimising joint impact and allowing for wide movements with less effort. Hydrostatic pressure facilitates venous return and improves balance, while water resistance introduces a constant challenge that stimulates postural coordination.

On a psychological level, water is an emotionally fertile space. The feeling of weightlessness generates a perception of freedom and security, facilitating self-regulation and reducing the emotional burden associated with physical effort. Studies such as those by Becker (2009) and Vitorino et al. (2021) indicate that the aquatic environment can reduce levels of anxiety and depression, especially in people with chronic pain or special needs. In addition, the playful experience and respectful contact promote self-esteem, emotional expression and interpersonal trust.

From an early age, children's swimming programmes have shown that water stimulates autonomous exploration, laying the foundations for lifelong active habits (Moreno-Murcia & Ruiz, 2019). Its natural connection with games makes water an ideal motivational catalyst for experience-centred educational proposals.

In this sense, enjoyment is not a side effect, but an essential component in consolidating lasting motor habits (Lewthwaite & Wulf, 2017). If water already invites play on its own, combining it with storytelling, as proposed by AQUAENTURE, multiplies the potential for engagement. Thus, the aquatic motor story is inserted into a highly stimulating setting that enhances not only motor skills, but also emotional bonding, imagination and comprehensive development.

AQUAENTURE: an original methodological proposal

The model's differential bases

Unlike previous approaches that simply adapt terrestrial activities to water without major adjustments, AQUAENTURE is built on a deep understanding of the aquatic environment and how it modifies sensory, biomechanical, and psychological stimuli. The proposal combines elements derived from self-determined motivation (Moreno-Murcia & Barrachina, 2022), the benefits of external focus (Lewthwaite & Wulf, 2017), motor imagination (Agosti et al., 2020) and hydrodynamic advantages to create a structured, applicable and replicable model.

It is a design that not only considers technical progression but also organises the session around the story, using narrative as the backbone that connects the different phases of work.

Comparison with land motor storytelling

Before presenting the specific strategies of the AQUAENTURE model, it is pertinent to make a general comparison between motor storytelling on land and its adaptation to the aquatic environment. Although both share the use of narrative as a structuring axis, the aquatic context introduces sensory, biomechanical and emotional changes that affect the experience of motor storytelling.

As shown in Table 1, the aquatic environment not only transforms the sensory and symbolic experience of the motor story but also significantly reduces the impact on the joints, while requiring the management of initial fears or insecurities. This last aspect is taken into account by the AQUAENTURE model, which proposes a gradual entry into the water to promote adaptation and emotional security.

Table 1. Comparison between aquatic and land motor storytelling.

Aspect	Land	Water
Proprioception	Dominated by gravity	Modified by flotation and weightlessness
Joint impact	It can be raised according to the intensity and characteristics of storytelling	Generally reduced by flotation
Imaginary	Limited by reference to the ground	Enhanced by the feeling of weightlessness and playful environment
Initial confidence	It tends to require less adaptation	It can require getting over the fear of water

Narrative strategies in the water

Before presenting the specific strategies of the AQUAENTURE model, it is worth making a general comparison between the motor story on land and its adaptation to the aquatic environment. Although both share the use of narrative as a structuring element, the aquatic context introduces sensory, biomechanical and emotional changes that affect the experience of the motor story.

The strategies shown in Table 2 are not mutually exclusive, but can be combined depending on the story, the group and the moment. AQUAENTURE articulates them in a flexible sequence that preserves the narrative logic and emotional coherence of the story.

Table 2. Narrative strategies in aquatic storytelling.

Strategy	Practical application
Modulated and expressive voice	Varying tone and rhythm to maintain interest.
Aquatic metaphors	Example: "we are floating jellyfish"; "dolphins jumping waves."
Narrative feedback	Reinforcing achievements with the story: "you escaped the kraken thanks to your wit."

AQUAENTURE structure: practice proposal.

Hereunder, we present a typical structure (Table 3) that can be adapted to different ages and levels. The sequence comprises three distinct phases (beginning, development, and conclusion) and enables a progression of motor tasks that is consistent with the narrative. A story about "underwater explorers" searching for a lost magic pearl is shown as a basic example.

Table 3. Narrative example: "The Coral Pearl: a Submarine Adventure with a Happy Ending".

Initial stage: narrative warming up (5-8 min)	
Objective	Creating an emotional connection, sparking the imagination and preparing the body. *"Today, we are becoming divers exploring a mysterious reef. Before diving in, we must prepare ourselves: put on our wetsuits, try on our flippers and torches... and check that everything is working properly. Someone has lost a magical pearl in the depths, and our mission is to find it."*
Practical tasks	• Walking in the water (shallow area) simulating putting on the suit, adjusting the goggles and the snorkel (symbolic gestures). • Breathing with bubbles: taking a breath outside and exhaling in the water ("trying out the snorkel"). • Floating with flotation tubes in the prone and supine positions ("let ourselves be carried by the sea current"). • Symbolic interactions between partners: aquatic greetings, underwater clapping, gestures with fins ("recognise our exploration team").
Expected result	Progressive respiratory activation, attention focused on the playful environment, and construction of a narrative climate of cooperative play.
Central stage: motor storytelling development (25-30 min)	
Objective	Incorporate motor tasks adapted to the aquatic environment that are integrated into the story, developing skills such as coordination, balance, postural control, decision-making and cooperation. *"A strong current carries us to a forest of giant seaweed. We must swim carefully. Further ahead, luminous jellyfish cross our path... and behind them, a mysterious cave awaits us. The magic pearl could be very close, so let's keep our eyes peeled!"*
Setting and practical tasks:	1. **Giant seaweed forest**: passing through rings and tubular floats without touching them. → *Orientation work, control of the corporal axis and spatial perception.* 2. **Jellyfish zone**: avoiding floating balls moved by other partners or by the educator. → *Development of anticipation, reaction and agility in the water.* 3. **Submarine cave**: submerging and passing below floating structures (tunnels, platforms, mats). → *Training of soft immersions, fear management and breath control.* 4. **Searching for the pearl**: finding shiny balls at the bottom of the pool or suspended by a rope. → *Active exploration, playful diving and motivation for the mission.* 5. **Blind guide under the sea**: a child with their eyes closed is guided by another one through physical contact or verbal indicators. → Interpersonal trust, listening and active cooperation.
Expected result	Functional execution of motor tasks adapted to the aquatic environment within a stimulating symbolic setting that reinforces both physical development and emotional and social skills.
Ending stage: narrative closure and relaxation (5-8 min)	
Objetive	Consolidate the experience, gradually return to calm and close the narrative cycle with a meaningful symbolic experience.

	"We have found the pearl. The sea is calm and the corals shine around us. We float, listening to them thank us for completing the mission."
Practical tasks	• Free or assisted flotation with tubular floats and eyes closed while soft music or ocean sounds play. • Slow stretching accompanied by symbolic verbal guidance: "we hug a puffer fish," "we stroke a giant turtle". • Presentation of a shell, stone, or symbolic item as an "explorer's trophy" representing the achievement.
Expected result	Positive emotional response, symbolic integration of the experience and creation of a motor-affective memory that encourages loyalty to aquatic activities.

Conclusion

AQUAENTURE is a methodological approach based on the existing literature but developed as an original model that takes advantage of the physical and psychological properties of water to maximise the benefits of motor storytelling. Water, due to its playful nature, enhances the narrative, providing a setting where motivation, enjoyment and motor learning come together.

This approach is applicable in educational, preventive and health contexts, and can be adapted to different ages and levels. The door is open to future research to determine optimal parameters of intensity and frequency, and to explore its longitudinal impact on active habits and socio-emotional skills. AQUAENTURE is thus positioned as an innovative resource for consolidating comprehensive development throughout the life cycle.

References

Agosti, V. & Sirico, M. (2020). Motor imagery as a tool for motor learning. *Sport Science*, *6*(1), 78–83.

Bidonde, J., Busch, A. J., Webber, S. C., Schachter, C. L., Danyliw, A., Overend, T. J., & Richards, R. S. (2014). Aquatic exercise for fibromyalgia. *Cochrane Database of Systematic Reviews*, *(10)*. https://doi.org/10.1002/14651858.CD011336

Eyre, E., Clark, C., Tallis, J., Hodson, D., Lowton-Smith, S., Nelson, C., Noon, M., & Duncan, M. (2020). The effects of combined movement and storytelling on motor skills. *International Journal of Environmental Research and Public Health*, *17*(2), 524. https://doi.org/10.3390/ijerph17020524

Hwang, G.-J., Zou, D., & Wu, Y.-X. (2023). Peer assessment-enhanced digital storytelling. *Educational Technology Research and Development*, *71*(1), 315–331.

Lewthwaite, R., & Wulf, G. (2017). Optimizing motivation and attention for motor performance and learning. *Current Opinion in Psychology*, *16*, 38–42. https://doi.org/10.1016/j.copsyc.2017.03.003

Moreno-Murcia, J. A. y Barrachina, J. (2022). *Motivar en Educación Física. No lo duces, aplica la ciencia*. Inde.

Moreno-Murcia, J. A., y Ruiz, L. M (2019). *Cómo lograr la competencia acuática*. Sb Editorial.

Myers, C. G. (2021). Storytelling as a tool for vicarious learning. *Administrative Science Quarterly*, *66*(3), 637–676.

Rohayati, S., Drajati, N. A., & Nurkamto, J. (2021). Digital storytelling as a meaningful learning strategy in online learning. *Al-Ishlah: Jurnal Pendidikan*, *13*(3), 2256–2265. https://doi.org/10.35445/alishlah.v13i3.537

Tortella, P. (2020). Una storia di sfondo all'educazione motoria. *Italian Journal of Sport Science*, *5*(3), 112–119.

Vargas-Vitoria, R., et al. (2023). Effects of combined movement and storytelling on motor skills. *Children*, *10*(5), 760. https://doi.org/10.3390/children10050760

Vancampfort, D., et al. (2024). Aquatic vs land-based therapy for fibromyalgia. *Physiotherapy*, *115*, 1–9. https://doi.org/10.1016/j.physio.2024.01.004