

## Technical

Technical abilities or the individual ability to handle their craft consists of efficient stroke work enabling the paddler to put their craft where they want it efficiently. Without a solid Technical foundation, paddlers are limited in the Tactical realm of the sport.

## Tactical

Our paddlers must learn when to apply the appropriate technique based on the demands placed upon them by their opponents in competition or the conditions (Wind, current etc).

Tactical awareness is a paddlers understanding of a strategy. Older and female paddlers spend more of their time with this component of the game, provided they have the Technical skills needed. This is most noticeable when a paddler looks as though they are putting in no or little effort, but obviously achieving their objective. Reading the water is a tactical skill as is adjusting the trim for the wind. A tactical skill applied correctly reduces the effort.

## Physiological

The Physical component breaks down into speed, endurance, agility, and strength. Canoeing and Kayaking are demanding physical sports, and each paddler will need to obtain a certain level of fitness. This will vary, fit to paddle to the pub is enough for some paddlers, whilst other will want to be fit enough to take Olympic gold.

With competition paddlers the majority of this fitness training takes place in the actual training exercises, whilst with touring paddlers the majority of fitness training probably happens during participation.

When paddlers become physically tired, they become mentally tired. When they become mentally tired they can no longer perform the technical skills needed. When technical ability is lost, tactics disappears.

## Psychological

How a paddler reacts to certain situations can either help or hurt

When faced with a large weir some will see this as a challenge, others will wonder what they are doing on the river. It is our task as coaches to constructively and safely assist our students through their feelings of anxiety, this might be by coaching them to shoot the weir, it might be supporting them in applying a tactic (Portaging).

As coaches it is important here that we don't allow the portage or the 'chicken shoot' to belittle our student but build them up for using a tactic that suits them on the day. And when our students make a mistake, this should be treated as a positive learning experience.

# PADDLING PERFORMANCE

The relationship between the technical, tactical, physiological and psychological elements for anyone of us must be viewed as dynamic. At anyone time an individual paddler can be limited by physiological, psychological or skill-based (technical or tactical) constraints, The relative size of the four components will change over time, between disciplines and individuals, For example, the importance of the mental, physical and skill components may differ for playboaters, slalom canoeists and marathon paddlers.

The trick for us as paddlers, seeking to improve our performance, is to identify which of the components is our rate-limiter at any particular stage in our development. For example a kayaker or canoeist could have difficulties crossing a strong eddy fence, This could be due to skill errors (technical), such as not having all the blade pulling in the water, not being physically powerful enough to punch through the eddy line (physiological), a lack of understanding of the attack angle required (tactical), or anxiety created by the thought of capsize (psychological). A coach will need to be able to analyse performance and decide the underlying problem for a paddler. This chapter concerns the physiological aspects of paddlesport. Table 1 provides some examples of problems that might appear to technical, tactical or psychological but in fact have physiological root cause. Coaches and paddlers will need to be able to identify when a paddling rate-limiter has a physiological cause.

Symptom of Problem	Misleading Causal Component	Root Cause of Problem (Physiological Component)	Possible Solution
Poor forward paddling action during a sea paddling expedition.	Technical	Lack of local muscular endurance, aerobic fitness or poor nutrition during paddling could undermine physical ability during a day of paddling.	Aerobic Training – in-boat, Circuit Training, review of food and fluid intake during expeditions to highlight any useful changes.
Paddler appears anxious during the paddle out when taking part in surf sessions.	Psychological	Lack of power to build up speed quickly and punch through waves.	Mixture of strength training and in-boat drills to develop power for use during paddle out in surfing.
Paddler capsizes on eddy turns due to incorrect application of edge.	Tactical	Lack of core strength development to hold high degree of edge required in faster eddy turns.	Work on general strength and specific core stability – possible alternatives: in-boat exercises, weight training, circuit training, pilates, cross-training - cycling.

*Table 1 Examples of misleading problem identification where the actual root cause is physiological.*