CANOE SLALOM
ICF DEVELOPMENT PROGRAM

- **RESOURCES**
- **SLALOM CANOEING**
- **COACHING**
- **BASIC SLALOM STROKES**
- **TO NAVIGATE**
- **SLALOM THROUGH GATES: GOOD DIRECTION WITH NO PENALTY.**
- **COMPETING**
- **TIPS FOR INDOOR TRAINING**
- **YOG FORMAT**

RESOURCES

1. **Technique**

UK Slalom technique: http://www.slalomtechnique.co.uk/
Daniele Molmenti: http://www.youtube.com/watch?v=ygnrKg3IMQs&feature=player_embedded
Respect the project/Evil in upstream: http://www.youtube.com/user/sllalomcoach
FFCK: http://www.ffck.org/renseigner/index2.php3?page=savoir/publications_techniques.html

2. **Rolling**

http://www.youtube.com/watch?v=7oJGraaEbpU&feature=related
http://www.youtube.com/watch?v=OBvX99KP0Do&feature=related

3. **ICF actions**

Indonesia
http://www.youtube.com/watch?v=H7uB6TKl_ac&feature=related
Chinese Taipei
http://www.youtube.com/watch?v=NSQgUep0V_k
http://www.youtube.com/watch?v=QJ3LnSIIEEA&feature=related

4. **Miscellaneous**

http://www.youtube.com/watch?v=pgYrZFaM5fs&feature=player_embedded

SLALOM CANOEING

White-water slalom, which was originally modelled on ski slalom, began in Switzerland in 1932. Slalom canoeing had begun on flat water in order to develop the basic technical moves (efficient forward strokes, turning strokes, rolls) and then improvement of them by using buoys.

It soon switched to white water rapids on natural rivers using marked down-stream and up-stream gates.

Therefore, what we call Slalom canoeing should be divided into 2 parts: “Slalom abilities” and “white water abilities”. These 2 fields are the roots of the classic picture of Slalom as we know it.

In 1992 Canoe Slalom returned to the Olympic Games, in Spain, La Seu d´Urgell. Since then there has been a massive increase in interest outside slalom's traditional areas, and slalom has established itself as a permanent Olympic sport.

Canoe Slalom is one of the most spectacular water sports, demanding skill, stamina and courage. The aim is to run a rapid river course marked by "gates" as quickly as possible , and without touching any gates – fast and clean!

I. WHAT’S THE GAME OF SLALOM COMPETITION?

1. **Slalom course**

- From 18 to 25 gates
- 6 Red gates: go in a upstream direction
- The rest as Green gates: go in a downstream direction

2. **Gate**

A gate is made 2 poles: The paddler has to pass between the 2 poles in the correct direction

3. **Events (Categories)**

K1 Men and Woman, C1 Men and Women, C2 Men

4. **Rules**

The gates must be passed:

- In the order of the numbering
- In the correct direction
- The course should be completed in the in the shortest possible time
- With a minimum of penalties:

5. **2 runs**

The final result is the best of the 2 runs (1 second = 1 point):

- 1st run: 121 + 0 (penalty seconds) = 121
- 2nd run: 115 + 4 (penalty seconds) = 119

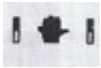
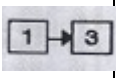
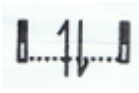
The winner is the one who has fewer points

6. **Penalty 2 seconds**

- The Boat/paddle/paddler/canoeing equipment touches one pole
- If more than one touch or a touch on the other pole on the same gate, the penalty is still 2.
- In team, one adds the penalties made on each gate by the paddlers

7. **Penalty 50 seconds**

- Touch of a gate (either one or two poles) without correct negotiation
- Intentional pushing of a gate to allow negotiation
- The head breaks the gate line upside down
- During any negotiation no part of the head is allowed to break the gate line in the wrong direction
- A gate "left out" is determined to have occurred when negotiation of any subsequent gates begins OR the finish line is crossed (not sequential order)
- A team failing to cross the finish line within 15 seconds
- Part of the head breaks the line between the poles without part of the boat

	Upside down in the gate		Paddlers didn't go through as one unit
	Passed through gate in wrong direction		Intentionally moved gate
	Boat and head(s) not in the gate together		Missed gate in sequential order
	Washed back through gate line		

2. EQUIPMENT

1. **Boats**

All types of K1	All types of C1	All types of C2
Minimum length 3.50m Minimum width 0.60m Minimum weight 9Kg	Minimum length 3.50m Minimum width 0.65m Minimum weight 9Kg	Minimum length 4.10m Minimum width 0.75m Minimum weight 15Kg

- A boat with rocker will turn faster than a boat with little rocker.
- A boat with rocker speed will be slower on a straight line than a boat with flat rocker
- Big volume behind the seat makes it more balance/slow radical turn
- Big volume on feet area makes it easier to keep the boat above the water/more difficult to "drive"

2. **Paddles**

- The length is right?
- Paddle shaft is comfortable size?
- The angle of blade feather is right?
- In case of trouble remember, paddle size is better smaller than larger and paddle length is better shorter than longer.

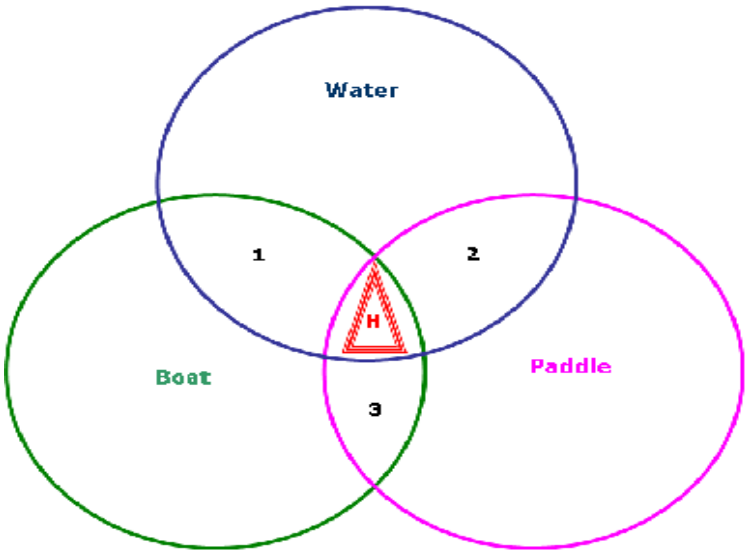
K1M	K1W	C1/C2
From 1,98m to 2,01m	From 1,90m to 1,98m	From 1,40m to 1,49m

3. **Personal Equipment**

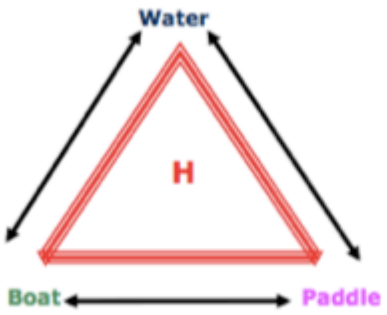
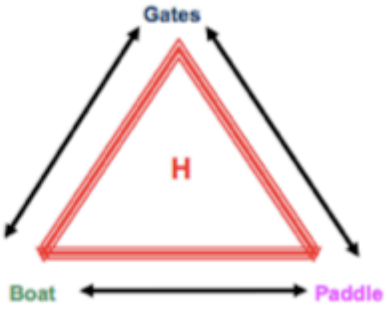
- Buoyancy jacket and helmet: See appendix for new regulations
- Dry-vest, spray-deck
- Personal equipment could be crucial for a good training in countries with a cold season.

COACHING

1. WHITE-WATER AND SLALOM CANOEING A GAME SHARED AMONG BOAT, PADDLE, WATER AND PADDLER



- Zone 1: skill and experience (Navigation)
- Zone 2: action, coordination type of stroke/water movement/target (flat-water Slalom technical)
- Zone 3: action, coordination type of stroke and power (flat-water Slalom technical)
- Zone H: the paddler

	Navigation	Slalom paddling
Based on	Trajectories regarding river features	Trajectories regarding gates and design
Needs	o Paddling in white-water o Ability to estimate stench of streams o Ability to adapt the boat position and the paddling regarding the concerned feature o Learning security basics	o Paddling through gates o Learning efficient maneuverings o Ability to change the paddling rhythm o Ability to change the speed of the boat
How to?	o River run o Playing in stoppers, waves o Using different kinds of boats	o Technical trainings o Physical trainings o Different places
		

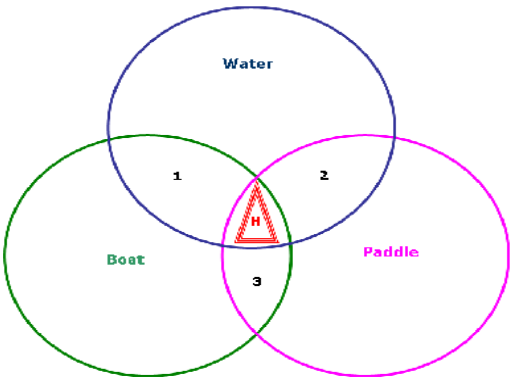
2. EMOTIONAL DIMENSION

1. The coach cares about:

- Different places for practicing (zone 1): Flat water, white water
- Different kind of boats (zone 1 and 3): Plastic boats, Slalom boats, C1 and K1, flat-water boat
- Securing a regular activity (must for improvement)
- Security (the 3 zones): Rolling, capsizing and swimming back to the river shore with and without equipment, survey of each person in the group

2. Coach overviews

- Mentoring and monitoring the Athlete's behavior
- Communication with the paddlers, promote communication between paddlers
- Encourage questions and promote suitable solutions
- Promote responsibility and autonomy
- Security



3. Coach commitments

- Define the needs of the group
- Define the technical target(s)
- Define the criteria of success
- Spot the mistake(s)
- Give a way of solving or a complete solution
- Introduce new knowledge and promote skills
- Introduce physical needs and help in improvement

4. Progress and planning

- Evaluation of the paddlers level
- Define the targets and stages of improvement
- Create adapted drills according to the technical targets of the session and the paddler level
- Assess and endorse abilities regarding the target

Aim to make each session both challenging and achievable.

Foundation phases		**Performance phases**			**Recreation phase**
Fundamentals (5-10)	Paddle-sport Start and development (8-14)	Training to train (11-17)	Training to Perform (14-21)	Training to Excel (over 17)	Personal Choice
Focus on					
• FUN! • Learning to move.	• Fun! • Introducing and developing paddle sport skills.	• Developing physiological and technical abilities.	• Optimizing physiological and technical skills.	• Producing high-level performances.	• Individual needs
This stage is important for					
• Ability, balance and coordination • Movement skills • Speed work • Joint stability • Strength through own body weight • Swimming and water skills • Confidence in movement and in water • At least 3 other sports.	• Motor-skill learning in flat and moving water • Endurance • Flexibility and joint stability • Speed work • Strength using own body weight • 2-3 other sports	• Aerobic conditioning • Speed work • Strength • Flexibility and joint stability • Discipline-specific skills • Other sports as appropriate • Basic mental skills • Specific tactics. • Be aware of growth sport.	• Speed work • Maximum strength and power • Endurance • Flexibility and joint stability • Discipline-specific skills • Consistency of performance • Mental skills • Effective use of tactics.	• Speed work • Strength • Flexibility and joint stability • Endurance • Advanced mental skills	• Injury-free fitness • Injury-free technical skills • Physiological, mental, technical and tactical skills
Volume / intensity of training					
• High volume • Low intensity	• According to growth - likely to be high volume with increasing intensity	• According to growth - likely to be low volume with increasing intensity	• High volume with increasing intensity	• High volume • High intensity	• To suit individual but likely to be low volume with medium intensity
Number and length of sessions per week					
• 4-6 sessions of physical activity • 1 water session every 3 other sport sessions • 30 to 60 min per session	• 3 hours of paddling in total • 3 hours of other sports • 30 to 90 min per session	• 3 to 8 paddling sessions (specific discipline) • 45 to 120 min per session	• 7 to 14 specific training sessions • 45 to 120 min per session	• Individualized • 45 to 120 min per session	• Individualized to suit for life style

BASIC SLALOM STROKES

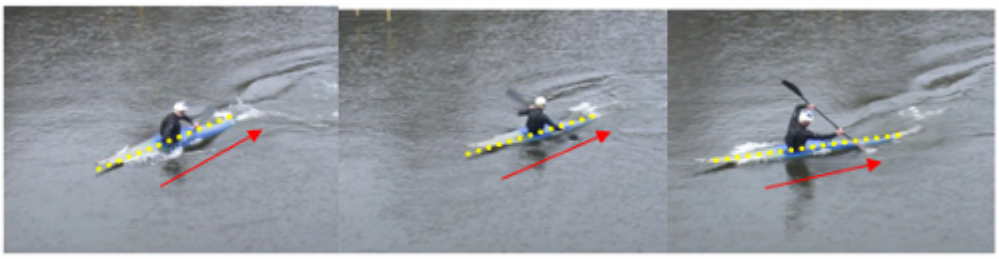
1. CONTROL A STRAIGHT MOVE

1. Forward stroke

Both Kayak and Canoe go in a straight line with the same technique. The paddler has to make strokes by keeping a parallel between the direction of the stroke and the main axis of the boat:

- The top hand extends from shoulder to eye level
- Boat flat: no leaning, minimal rocking (control with knees)
- Vertical blade when entering in the water
- Two arms extended
- Blade exiting before the hip line
- Same strength between right and left strokes.

2. Backward stroke



The movement is the same as a forward stroke but reverse: from back to front.

2. CONTROL A TURNING MOVE

1. The sweep

It's circular movement from front deck to middle rear deck.

- Boat flat (no leaning), small back rocker (rear deck just under the surface)
- Good extension to front, good rotation to back
- Far from the middle axis of the boat.
- Rotation of the shoulders.
- Head rotates in the direction of the boat movement

2. The back sweep

3. The draw

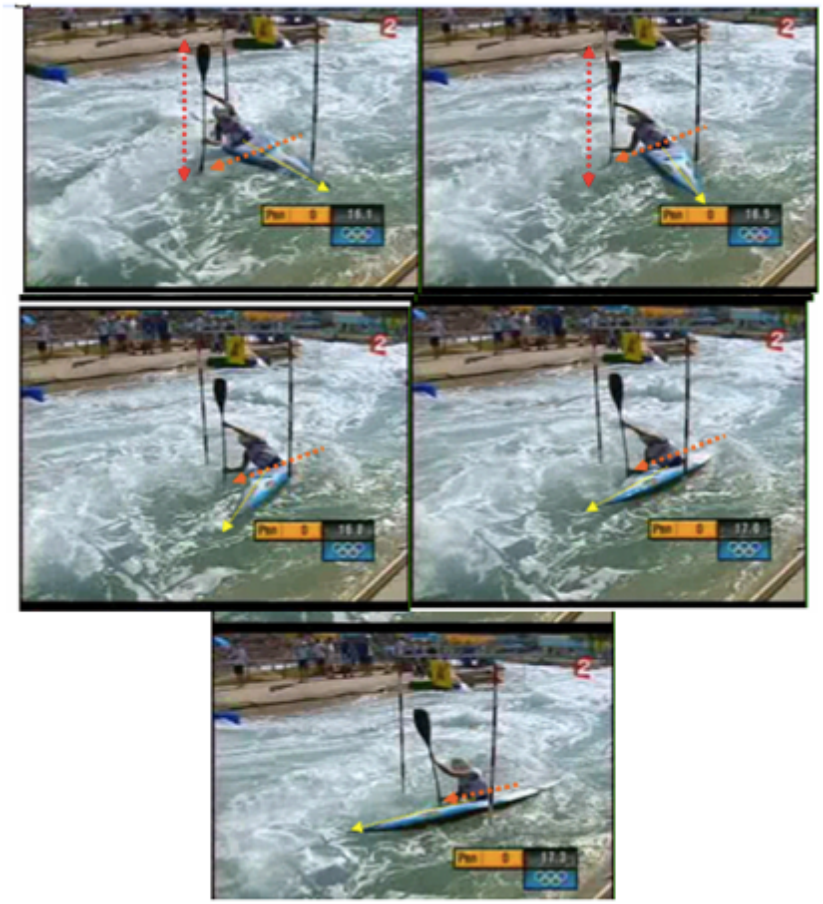
The draw allows the boat to turn, to go forward and to keep some speed.

The paddle acts as a "pole stuck" in the water and the grip of the water through the blade is a key-point.

The paddler will pass as much as possible of the boat "over the blade grip".

The draw is a dynamic move made in several steps by combination of upper arm and bottom arm moves while trunk is turning:

- Turn the body on the inner side of the line
- The blade goes in the water, the shaft is vertical...
- The top hand keeps the shaft straight, the low one is extended from hip to the targeted turning spot in the eddy
- The paddler works **bottom trunk, hips and legs to bring the boat to the blade**. There's big pressure on the water, which is between the side of the boat and the blade.
- When the boat is next to the blade, the boat should have changed direction.
- Ending with a stroke alongside the boat to pull the boat forward.



3. TIPS FOR SLALOM TECHNIQUE D-GATES

1. **D-gates glide**

⌘ Phase 1
- Off-side stroke to off set the turn of the boat

⌘ Phases 2
- Glide rudder to control and finish the turn of the boat

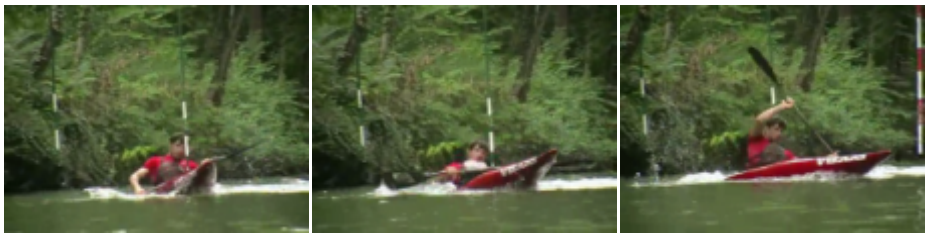
2. **D-gate: onside/offside**

⌘ Phase 1
- Onside stroke/rudder to offset the turn of the boat

⌘ Phase 2
- Off-side stroke/sweep after the gate-line to finish the turn and give speed to the boat

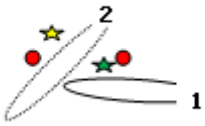
3. **D-gate "shoulder-drop"**

The sequence is the same as "onside/offside" but the trajectory is sharper; therefore the paddler has to drop down his shoulder to pass it under the pole



4. TIPS FOR SLALOM TECHNIQUE D-GATES AND U GATES

1. **Regular U-gate**
   - The boat is parallel to the gate-line (position 1)
   - The rudder/stroke is made when the first pole is passed, almost in the gate-line (green star)
   - The exit stroke is yellow star

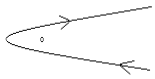
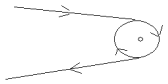
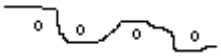
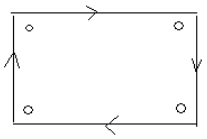
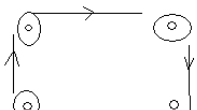
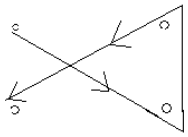
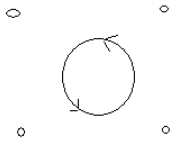


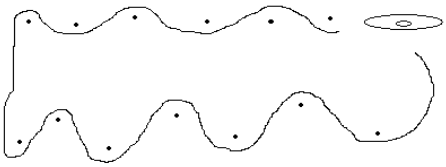
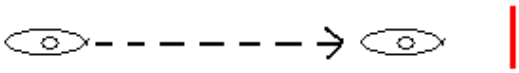
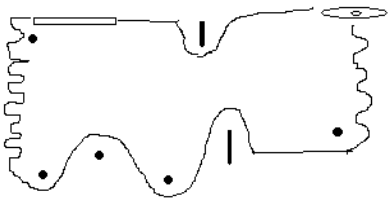
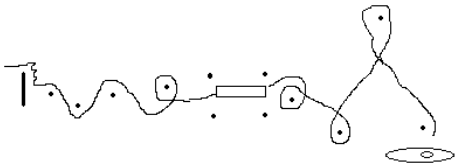
2. **Fix U-gate**
   - The boat is parallel to the gate-line (position 1)
   - The rudder/stroke is made before the first pole (green star)
   - The exit stroke is yellow star

3. **MSPI U-gate**
   - The boat is in position 1
   - The stroke/rudder is made before to control the angle of the boat and bring the boat into position 2
   - When in position 2, both arms pass under the inside pole
   - Powerful sweep off-side

5.FLAT-WATER ABILITIES

Grades	Capacities
1	Going forward/backward with regular paddling Stop the boat in front of obstacle Flip, swim to the river shore
2	Paddling and steering the boat precisely on a designed course with half/full spin and obstacles Help someone to reach the bank, bring back the equipment and empty the boat
3	Paddling and steering the boat precisely with different speeds on a designed course Keep the lean of the boat Full spin with a maximum of strokes Stop with a maximum of strokes Flip, swim to the bank with boat and paddle alone
4	Paddling and steering the boat precisely with appropriate strokes (strokes, sweeps, rudders) on a designed course Full spin with inside strokes only

Level 1	 forward and backward
	 forward and backward
	
	
Level 2	
	
	
Level 3	
	Stop the boat with back strokes in front of an obstacle
	Paddling forward: 2 beats out of the air phase 1 beat in the water phase

Grades	Design example	Criteria of success	Improvement
1		▪ Respect the order ▪ Pass all the obstacles	▪ No back strokes or back sweeps
		▪ Using back strokes to stop ▪ Do not touch the obstacle ▪ Keep the boat direction	▪ Decrease the number of strokes
2		▪ Do not touch the obstacles ▪ Paddling alternatively right/left	▪ Record the time and improve it
3/4		▪ Do not touch the obstacles ▪ Paddling alternatively right/left	▪ Limit the number of dry-runs to succeed ▪ Record the time and improve it.

TO NAVIGATE

Turning a boat and keeping the speed is the most difficult part of the job. It's easy to go fast with a flat water boat but hard to turn, on the other hand it's easy to turn a play-boat but hard to go fast… To play with a river, you need to turn (in a stream, in an eddy, to avoid a boulder) and keep or lose speed (entry in a stream or in an eddy, to get out of a hole….).

1. MOVING IN THE SAME STREAM

On flat water, the bow is like the forward wheel of a bike; the boat will go where the bow is pointing.

On white water, the paddler has to asses the stream effects. Anyway, if he wants to go on the right side, he must have the forward deck to the right.

According to this, he's got two main tools: sweeps and back sweeps.

He might choose his tool according to two things:

- The time to reach his aim
- The strength of the stream

The paddler must keep in mind that his action needs time to act on the boat…he must foresee a distance between his stroke and the effect of his stroke.

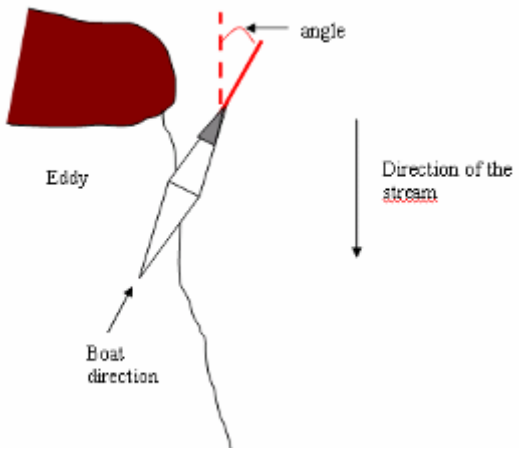
Remark: each stroke made downstream (sweep or back sweep), makes the boat go faster.

2. MOVING IN DIFFERENT STREAMS

1. Moving from an eddy to a stream

Eddy and stream are two currents which are opposite in direction. The border is the eddy-line.

It is an unstable area. Crossing the eddy-line is keeping a flat boat.



Four components for changing streams effects:

- The exit angle
- The strength of the stream
- The boat speed
- The edging of the boat

- The strength of the stream influences the edging of the boat. The goal of the edging is to keep safe, when the stream hits the boat it's really difficult to stay flat.
- Edging to the stream is the likely cause of capsizing. Edging away from the steam makes the stream passing under the hull so, under the boat.
- The speed out of the eddy helps to go further into the stream.

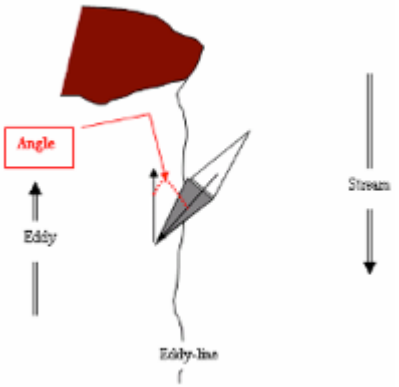
The angle is the most important component to control. It depends on two parameters: what is the strength of the stream and where the paddler wants to go.

The paddler wants to make a quick u-turn to reach the gate 8 so the angle is wide.

The paddler wants to cross the stopper and reach the left bank so the angle is very narrow

An open angle means a "bigger part of the boat" is against the direction of the stream. So, the effect of the stream is stronger and quicker.

2. Moving from a stream to an eddy

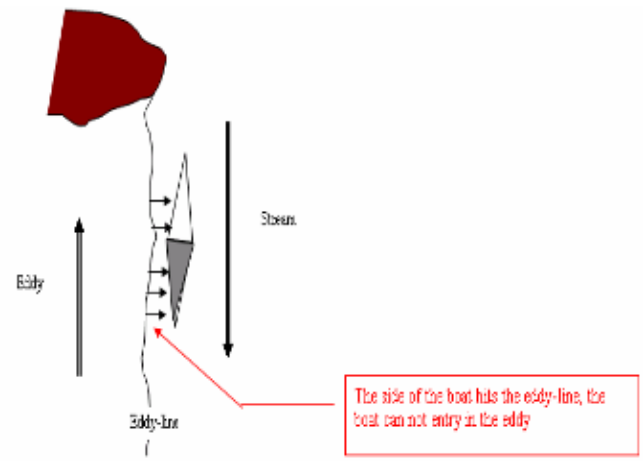


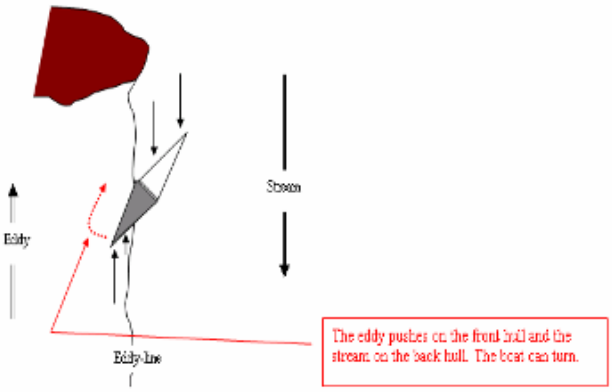
The problem is mostly the same as exit from an eddy. The paddler must care about four components:

- The strength of the eddy
- The entry angle
- The boat speed
- Edging and rocker

The more powerful the eddy is, then the effects are quicker and stronger.

To go through the eddy-line, one needs an appropriate angle depending on the kind of eddy





As in the previous case, entry in the eddy with a leaned boat could be risky. When the body is behind the eddy-line, it could be necessary to lean, with the same rule as for exit: show the hull to the eddy direction.

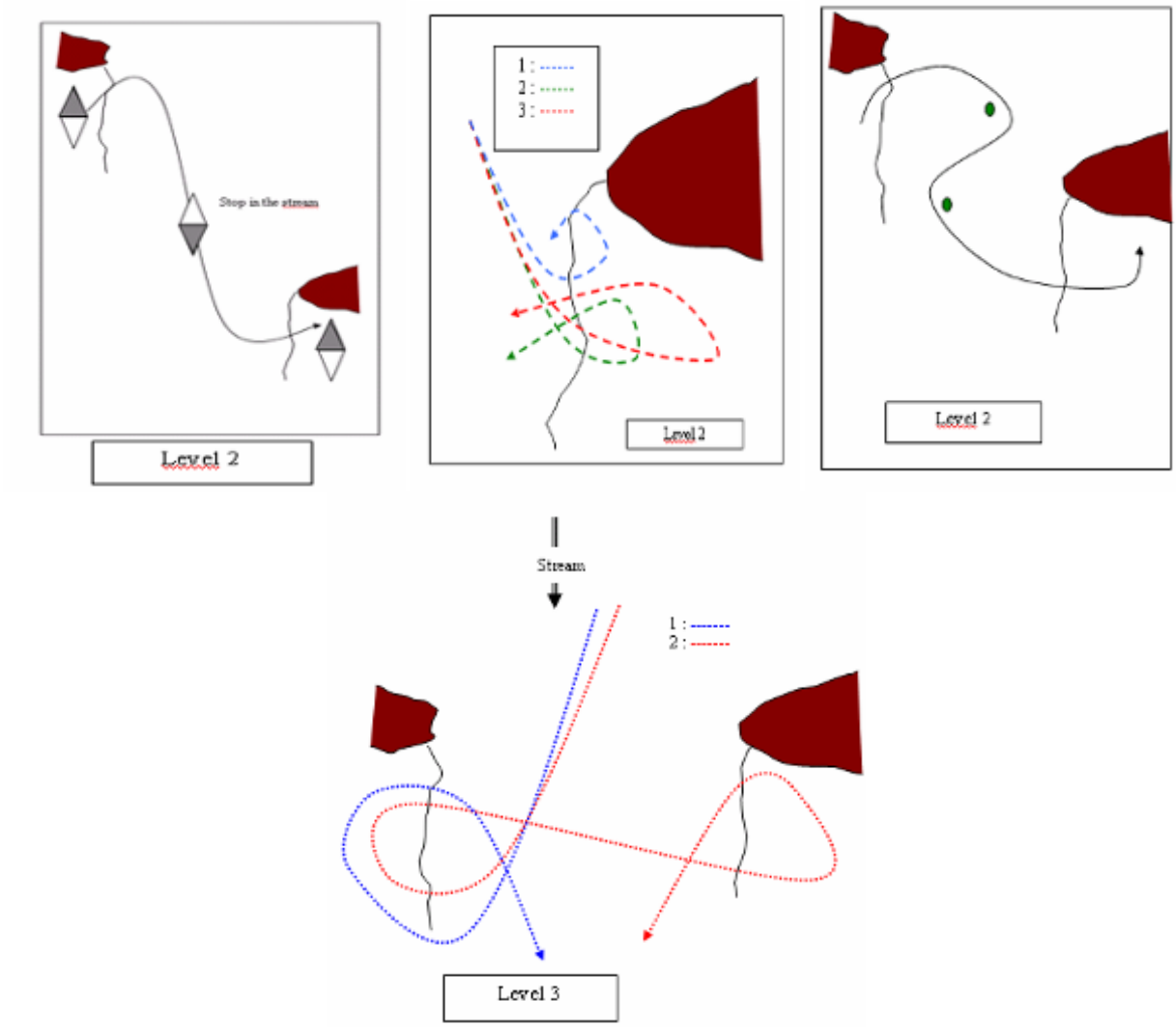

Entry in the powerful eddy Exit of the same eddy

3. SOME DRILLS

1. **Level 1 (in a flat stream)**

- Identify stream, eddy, right/left bank
- Start from an eddy, break into the stream, go down and stop in an eddy.

This entire course might be completed with a regular right/left paddling.



These drills must be done in many various ways. You can play with many components:

- The strength of the eddy
- The strength and the feature of the stream (flat stream, wave, stopper….)
- Regular left/right paddling

The paddler should always work on the both sides: a course made on the right side has to be developed on the left side also.

SLALOM THROUGH GATES: GOOD DIRECTION WITH NO PENALTY.

1. DOWNSTREAM GATES IN SAME STREAM

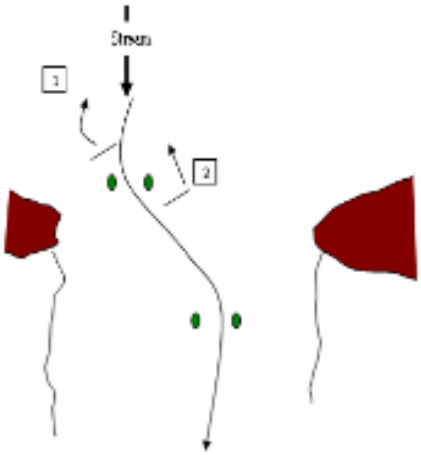
As an extension of the skills to paddle down a rocky river, D-gates are usually the easiest to negotiate. The skill of the paddler, the kind of stream and the distance towards the next gate will give the most accurate line to follow.

There's no universal solution, the most important is "in a gate, the boat might be in the direction of the next gate"

There are several ways to make a boat turn; some are just slower than others.

1. **Example 1**

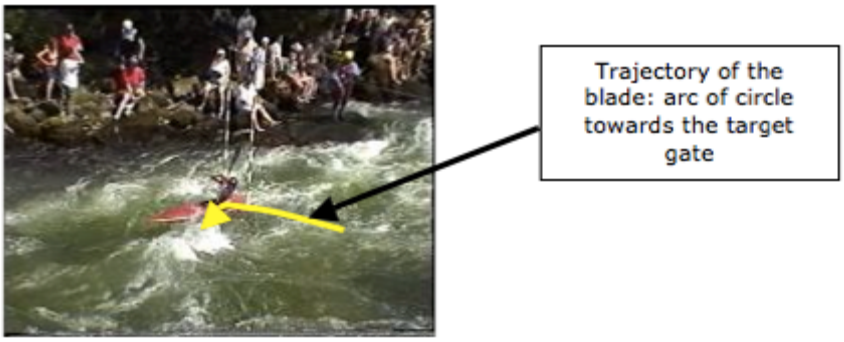
- 1: Sweep before the gate, opposite to the location of the target gate
- 2: Stroke or draw after the gate, same side as the target gate



2. **Example 2**

- Draw before the gate
- The blade slides under the pole

This move allows the paddler to keep the control of the boat



3. **Example 3**

1: Sweep before the gate
2: Slide draw in the gate, under the onside pole
3: Sweep after the gate
In C1, the paddler keeps the on-side paddling

4. **Example 4**

The same idea as example 2, but back-sweep instead of the draw

5. **Example 5: Back ferry**

The main idea is to reverse the speed. If the main speed is right to left, reverse it on a left to right.

1: Reduce the boat speed: from right to left and above all from up to down
2: Use back stroke to reach the next gate

The key is in reversing the speed and in a quick and efficient back paddling
Eyes fix the next gate before starting the back move

2. DOWNSTREAM GATES IN DIFFERENT STREAMS

- **Down in an eddy, trail reverse**

1: The boat crosses the eddy-line in a straight way (parallel to the eddy direction)
2: Control the boat with a trail reverse, far on the back
3: Reverse pivot
4: The boat turns above the flow
5: Power stroke to reach the main stream

- **Reverse gate with back sweep**

1: The boat is parallel to the gate line
2: When the foredeck is in the eddy, back sweep on the onside
3: Onside and offside arms under the pole
4: Powerful stroke on the offside to reach the stream
The success is in the forecast:

- The stare fixes the onside pole
- A good shoulder rotation in advance of the boat moving

- **Reverse gate with draw**

The principle is similar to the previous example. Instead of a back sweep, the paddler uses a draw
The boat speed should be less than with a back sweep.

3. UPSTREAM GATES

The outer-line for the entry should be a wide one to leave time for the boat to turn

- **Example 1**

1: Forward sweep to put the bow into the gate
2: A draw allows turning the front deck into the gate line (possibility of a slight offside edge)
3: Sweep to exit

- **Example 2**

1: Sweep/stroke to push and turn the boat
2: Draw just after the eddy-line
3: Shoulders are turned before the boat
4: End of the draw, stroke to exit
5: Sweep to turn

- **Example 3**

⌘ Under the pole

1: Control the boat with a blade rudder, reduce speed and make the boat turn upstream
2: Powerful sweep to set the exit, arms and boat under the inside pole
3: Draw to exit

- **Example 4**

⌘ The S-upstream with rudder

1: Cross the eddy-line with a boat angled towards downstream
2: Early rudder on approach with the onside blade
3: Same blade across the gate line
4: Same blade converting in a sweep to exit
5: With the other blade, rudder to guide to the stream

⌘ The S-upstream with sweep

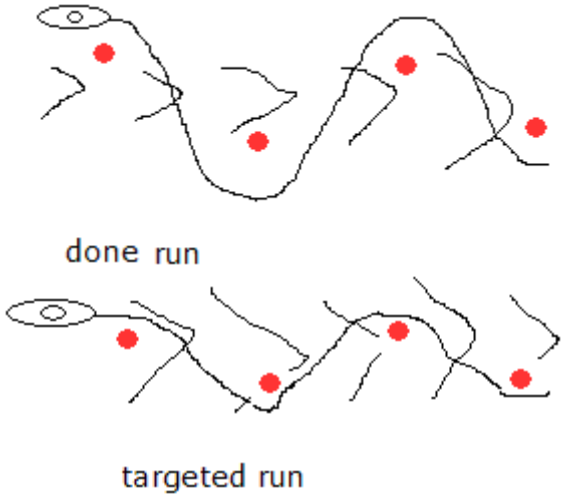
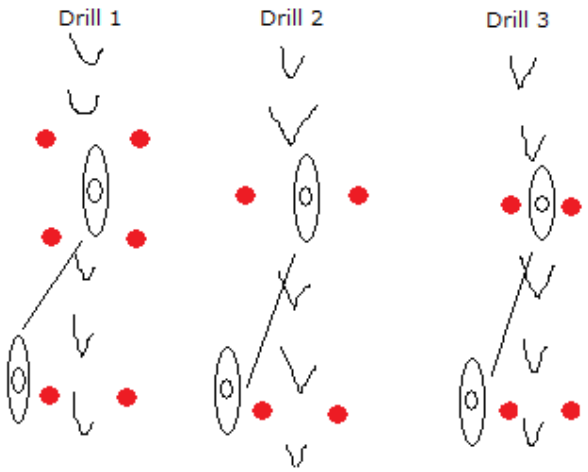
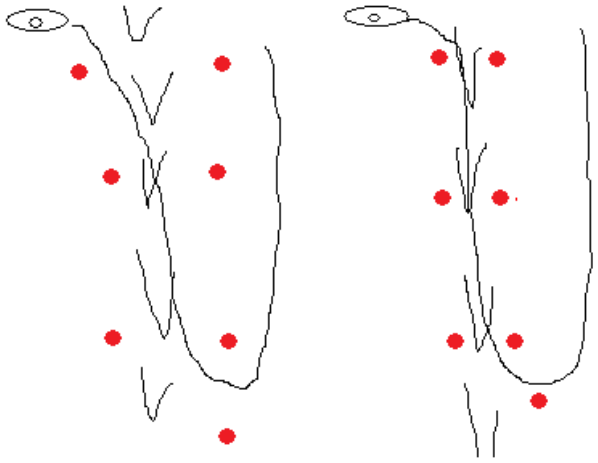
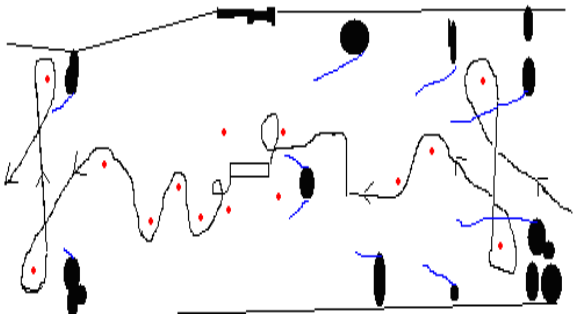
1: Cross the eddy-line with a boat angled towards the onside pole
2: Control the boat direction with an early slide rudder
3: Sweep with the offside blade to get onto the gate line
4: Quick sweep on the other side, the body passes thru the gate line
5: The sweep is converted to a stroke to exit
6: Stroke in the main stream to reach the stream

Remember

A boat can turn easily and quickly when it's flat…… Offside edge may help to turn quickly but, every time, the edging usually prevents a fast turn ! ! !

4. WHITE-WATER ABILITIES

Grades	Capacities
1	○ Full spin in stream ○ Break-in and break-out ○ Flip, swim to the river shore
2	○ Forward ferry ○ Stop the boat in front of obstacle in the stream ○ Stop the boat in an eddy ○ Drive the boat through obstacles (buoyancies, gates) on a comfortable design ○ Half spin and paddling backward in stream ○ Help someone to reach the bank, bring back the equipment and empty the boat
3	○ Break-in and break-out in a restricted area ○ Drive the boat through obstacles (buoyancies, gates) on a sharp design ○ Be faster than the speed of the stream ○ 3 kinds of break-out (short-medium-long) ○ 3 kinds of break-in (short-medium-long) ○ Flip, swim to the bank with boat and paddle alone
4	○ Stop in the stream ○ Backward ferry ○ 3 kinds of break-out (close-medium-long) with good control of body balance, edging and rocking ○ 3 kinds of break-in (close-medium-long) with good control of body balance, edging and rocking ○ Rolling

Design example	Criteria of success	Improvement
	▪ Respect the number order ▪ Pass all the obstacles	▪ No back strokes or back sweeps
	▪ Respect start line and finish line ▪ Keep the edging ▪ Keep the bow upstream	▪ Decrease the number of strokes ▪ No back sweep
	▪ Do not touch the obstacles ▪ Reliable edging ▪ Appropriated angle and speed	▪ Recording the time to do the design and improve it
	▪ Do not touch the obstacles ▪ Paddling alternatively right/left ▪ Using strokes, sweeps and rudder with efficiency	▪ Limit the number of dry-runs to succeed ▪ Recording the time

COMPETING

To perform on a special date the paddler needs to prepare for it. Canoe Slalom uses different patterns:

- Improve the physical potential: to perform, a slalom paddler must be powerful and resistant
- Improve the technical potential: to be able to run in succession many different moves, to be able to adapt oneself during the race.

1. DEFINITIONS AND ABBREVIATIONS

- Aerobic System (P1): The muscle energy system that requires oxygen.
- Anaerobic Lactic System (P2): The system which does not require oxygen but produces lactic acid
- Anaerobic Alactic System (P3): The stored, start up system which does not require oxygen and does not produce lactic acid

Duration	*Classification*	*Energy Supplied By*
1 to 10 seconds	Anaerobic	ATP (in muscles)
10 to 45 seconds	Anaerobic	ATP + Muscle glycogen
45 to 120 seconds	Anaerobic, Lactic	Muscle glycogen
120 to 240 seconds	Aerobic + Anaerobic	Muscle glycogen + lactic acid
240 to 600 seconds	Aerobic	Muscle glycogen + fatty acids

Slalom uses the anaerobic and the aerobic system of the body. Usually, after half run, the paddler starts to produce lactic acid but still has 40 to 50s to go under the combination of the 3 energy systems.

2. RUNNING A TRAINING SESSION

1. **A session could be based on:**

- New technical move
- Performance in terms of speed
- Performance in terms of penalties
- Performance in matching fast and clean

2. **Before the session**

- Define the requirements of the group
- Define the technical target(s)
- Define the criteria of success
- Where the start line is
- Where the finish line is
- How many sets have do be done
- How many runs for one run have to be done
- How long the rest is and what sort of rest is

3. **During the session**

- Spot the mistake(s)
- Give hints for an accurate solution
- Introduce new knowledge and promote skills

4. **Structure of the session**

- A session is made of sets, sum of runs (several runs give a set)
- A run is made to expose a technical problem to the paddler:
- 2 to 3 runs of a set: the problem is exposed
- 3 to 4 runs of a set: a solution is found for the problem
- 4 to 6 runs of a set: the solution is improved

5. **Sequence of a session**

A training session is divided in 3 parts:

- Warm-up: 10 to 20 minutes
- Body: 30 to 50 minutes
- Cooling down: 10 to 20 minutes

Therefore, a session is from 50 minutes to 1h30.

6. **To prepare a training session means:**

- To define a technical target (U-Gate, D-gate, approach, re-start, quality of paddling/efficiency of strokes, body movements)
- To define a physical sequence (P1, P2, P3)
- To define a mental behaviour: technical learning (achievement is the must), achievement of 0 penalty (0 is the must), risky navigation (target 0 penalty)

7. **Review of the session**

- By talking with partners/coach
- By video session

3. TRAINING SESSION WITH A STOPWATCH

3 sets, the design should be modified for the 2nd set, then once again for the 3rd set

4. TRAINING SESSION WITHOUT A STOPWATCH

One can design a full-run course (from 20 to 25 gates) and on case by case:

- Split in 5= one fifth ≈ 20s
- Split it in 4= quarter≈30s
- Split it in 3=third≈40s
- Split in 2=half≈1min
- Full- course≈2min

5. TECHNICAL POINT

Slalom is based on the following items: the ferry, break-in, break-out, edging, management of different streams. One can find all these items in the following figures:

- Upstream gates (U-gate)
- Downstream gates (D-gate)
- From D-gate to U-gate: break-in. Quality of approach.
- From U-gate to D-gate: break-out. Quality of re-start.

6. P1-P2-P3-TECH

The sessions should care about the following points:

- **P1**: aerobic divided in two parts P1-long and P1-short
- **P2**: anaerobic
- **P3**: technical and speed
- **T**: technical session

- **HI**: High Intensity, the paddler can keep it no more than 15 seconds
- **RI**: Race Intensity, the paddler is as in a competition
- **LI**: Low Intensity, the intensity during a long effort

- **PR**: Passive rest, no paddling
- **LR**: Low rest, light paddling
- **MR**: Medium rest, sustained pace

1. About P1-long

	What to do?	Intensity
P1-long	Paddling on flat water, running down river more than 40 minutes	LI
	[3min× 8 ; LR : 1min30]×2	
	[2min× 3 ; LR : 1min]×3	
	Running, cycling, squash, badminton, etc……	

2. About P1-short and Tech

	What to do?		Intensity
P1-short	[30s×4 ; MR:1min]× 4	[Quarter ×4 ; MR:1min]× 4	RI
	[30s×4 ; MR:30s]× 6	[Quarter×4 ; MR:30s]× 6	
	[45s × 6 ; MR : 45s]× 4	[Third × 3 ; MR : 45s]× 8	
	[1min × 8; MR: 1min]×2	[Half × 2; MR: 1min]×8	
	[1min 30s × 4 ; MR:1min]× 3	[Half × 2 ; MR:1min]× 6	
	Pyramid NO GATES [30s – 1min - 1min30 - 2min - 1min30 - 1min - 30s]×2 Working time = Rest time (LR)		
Tech	[20 sec × 5 ; PR : 1 min]× 5 (with gates)	[One fifth× 5 ; PR : 1 min]× 5 (with gates)	

3. About P2

	What to do?		Intensity
P2	[2 min 30 × 6 ; PR : 7 min]	[Full-run × 6 ; PR : 7 min]	RI
	[2 min× 6 ; PR : 5 min]	[Full-run × 6 ; PR : 5 min]	
	[1 min× 2 ; PR : 3 min]× 4	[Half× 2 ; PR : 3 min]× 4	
	[45s × 3 ; PR : 2 min]× 5	[Third × 3 ; PR : 2 min]× 5	
	[30s×4 ; PR : 45 sec]× 5	[Quarter×4 ; PR : 45 sec]× 5	

4. About P3

This part allows working on the frequency of the paddling (re-start or break-out)

	What to do?	Intensity
P3	[10 sec × 8 ; PR : 1min30] × 3 (no gate)	HI
	[15 sec × 6 ; PR : 1min30] × 2 (no gate)	

7. PLANNING

There are 2 main parts in the preparation of Slalom events

- Off-season (no competition targeted)
- Competition season

Any kind of new learning and reinforcement in technique should be done during the off-season.
The comp-season is the time to use the new knowledge, to give a try it and to get fitted for the competitions.

A training program is based on:

- The high time of the season = main competition
- The venue for practicing
- The availability and the age of the paddler

The structure of the planning is based on:

- Technical moves = from strokes to lines
- Physical side = be fit to support the trainings AND the competition runs
- Mental skills = ability to make clear run and achievement of the project

	OFF-SEASON		**Link**	**SEASON**		
	Unit 1	**Unit 2**	**Unit 3**	**Unit 4**	**Unit 5**	**Unit 6**
	6 weeks	6 weeks	6 weeks	5 weeks	5 weeks	3 weeks
Item	Training for training	Technical 1	Preparation for race effort	Technical 2	Final preparation	Competition time
P1-Long	50	40	30	20	10	10
P1-Short	10	20	20	30	25	25
P2	0	0	10	10	25	25
P3	10	10	20	20	20	20
Technic	30	30	20	20	20	20
Technical item	Strokes Body moves	Technical skills Diversity in the difficulty of course designs	Achievement of safe strategy	Technical skills Diversity in the difficult of course designs	Achievement of a project	Polishing

Log book = Planning + Diary

Training means improvement, reaching a point B from a point A…. Then, the paddler/competitor MUST have a logbook.

1. Contents of the log book

- Name, age, kind of boat, kind of paddle with the length, school situation, usual weather conditions in your country
- Availability for training
- Description of the training place
- Height, weight
- Heart rate when you wake up
- How many kilometres you can run in 12 minutes, what is your heart rate when you finish?
- How many push-ups could you do?
- How many pull-ups (chin-ups) could you do?
- Plan for the competitions
- Plan of training for the season (units, blocks….)
- Feedback after every competition: rank, penalty, who competed, percentage behind the winner, personal feelings (stress, confidence...), achievement of the project or not….
- Your feelings and feed-back every week (satisfying negotiation, tired or not, seek or not, injury…)

Planning of week

Week n°							
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Kind of session							
Protocol of the session							
Feedback							

TIPS FOR INDOOR TRAINING

1. SEQUENCE OF THE TRAINING SESSION

1. 4/4

The training session is shared in 4 parts:

- WU= Warm-Up about 10 minutes
- Dyn= Dynamic part about 15 minutes
- Iso= Isometric part about 15 minutes
- CD= Cooling-Down about 10 minutes

1 session ≈ 1 hour

2. Required equipment

Swiss-ball

Sleeve-tube

2. CONTENTS OF WARM-UP

Basically, a usual warm-up:

- Stretch upper and lower part of your body
- Warm them as you do before Slalom training session

3. CONTENTS OF DYNAMIC PART

1. Process

There are 3 different training sessions: Dyn 1, Dyn 2 and Dyn 3. One training session is made of 3 exercises.

- Step 1: Do the 3 exercises on a row, 15 times for each exercise. No rest between each exercise.
- Step 2: Have a rest for 2 minutes

On the whole, one does step 1 and step 2 from 3 to 5 times

2. Example with Dyn 1

I. (Biceps drill: 15 times + Triceps drill: 15 times + Lumbar area: 15 times)
Rest 2 minutes

II. (Biceps drill: 15 times + Triceps drill: 15 times + Lumbar area: 15 times)
Rest 2 minutes

III. (Biceps drill: 15 times + Triceps drill: 15 times + Lumbar area: 15 times)
Rest 2 minutes

3. Dyn 1: Biceps – Triceps – Lumbar area

Biceps drill


Starting position


Finishing position

Triceps drill


Starting position


Finishing position

Lumbar area


Position of the back


Starting position
Keep straight arms during all the movement


Finishing position

4. Dyn 2: Upper shoulder area – Rotary muscle – Abdominal area

Upper Shoulder area

Starting position

Finishing position

Rotary muscle

Starting position

Keep the elbow stuck to the body

Finishing position

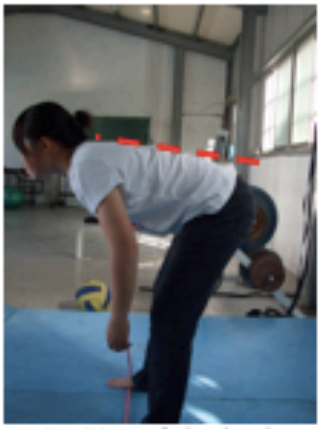
Abdominal area

Starting position

Finishing position

5. Dyn 3: Trapezius – Pectoral - Oblique

Trapezius



Position of the back

Starting position

Finishing position

Pectoral

Starting position

Finishing position

The 2 fists are stuck

Oblique area

4. CONTENTS OF ISOMETRIC PART

1. Process

- Keep the position for at least 30 seconds and maximum 1 minute.
- 4 times for each exercise
- Resting time = Working time

2. Example with Iso 2

I. Shoulder Area and oblique for 45s
Rest for 45s
K1 position for 30s
Rest 2min

II. Shoulder Area and oblique for 45s
Rest for 45s
K1 position for 30s
Rest 2min

III. Shoulder Area and oblique for 45s
Rest for 45s
K1 position for 30s
Rest 2min

IV. Shoulder Area and oblique for 45s
V. Rest for 45s
K1 position for 30s
Rest 2min

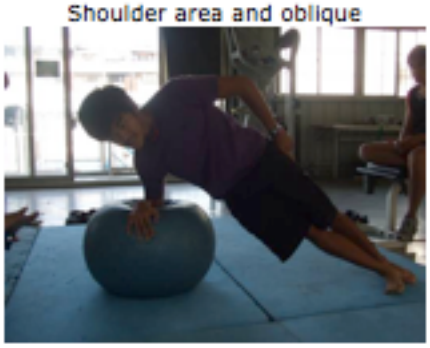
3. Iso 1: Abdominal area – C1 position

Abdominal area

C1 position

4. Iso 2: Shoulder area and oblique – K1 Position

Shoulder area and oblique



K1 position

5. CONTENTS OF COOLING-DOWN

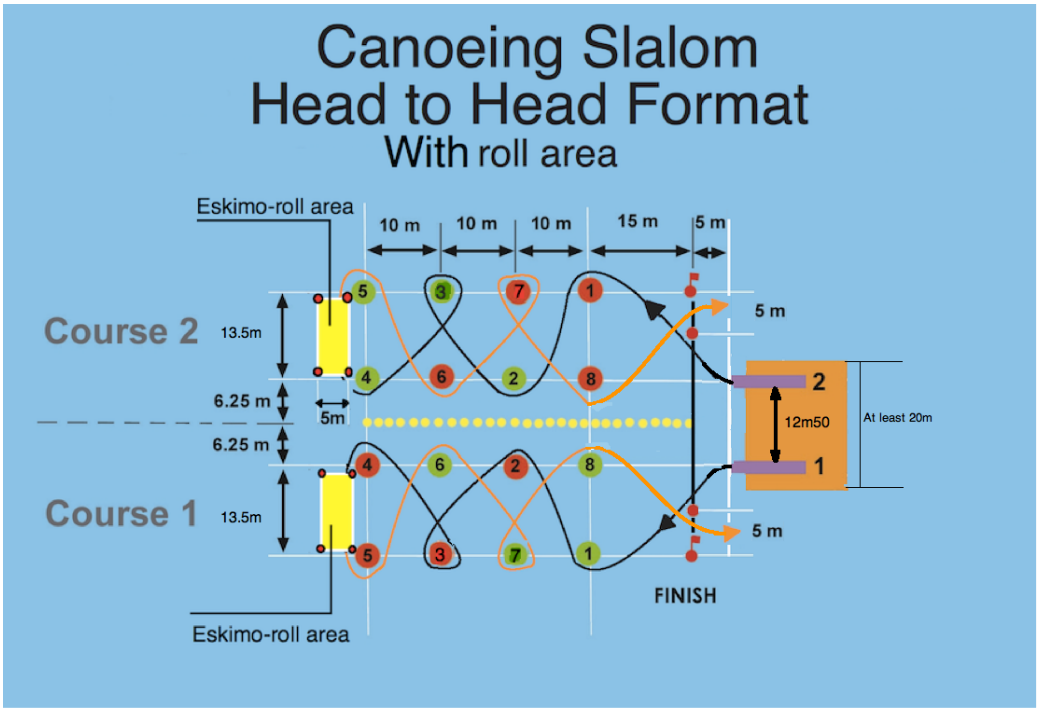
Flying

Balls game

Back/Ball

YOG FORMAT

1. THE DESINGN



2. THE COMPETITION FORMAT

The Head to head Slalom Obstacle Event is an individual event on 2 similar courses, which full distance is approximately 90m long of each. The straight length of the courses is 45m with 8 buoys on each course.

Two athletes will start at the same time at the starting sliding ramps on the 2 courses next to each other but in their respective separated course. The full lap could be divided in 3 different legs (see sketch below):

- LEG 1: Start to buoy 4th
- LEG 2: Buoy 4th to buoy 5th is the rolling area
- LEG 3: Buoy 5th to finish

3. COMPETITION RULES & PROCEDURES

1. General

Two athletes compete against each other at the same time head to head.
From heats:

- Timing will make the ranking. The first 8 athletes will progress to the quarter's phase.
- From quarter's phase to final phase, fastest athlete from each pair advances to the next round.
- The competition continues until the last pair will compete for the gold medal.

2. The Design

Athletes will start the race by sliding off the slide on the platform, into the water.
The Buoys
Two courses will be built with an identical layout. Four pairs of buoys will be placed on the 50m long course.

- First zone: Start to buoy 4th
- The athletes paddle from the start, negotiating the buoys 1 to 4 in the required direction.
- Second zone: rolling area, between buoy 4th and buoy 5th
- Third zone: from buoy 5th to finish line
- The paddlers exit from the rolling area and return to the finish line by clearing buoys 5 to 8.