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# The Journey 123 program

Rowing Canada Aviron is pleased to launch a new program and I hope that you, as an instructor, will be as excited about it as we are. For a number of years, it has been recognized that RCA needs a "skills" program similar to swimming, skating and Scouts. Rowing Canada Aviron has now developed that program and included an instructors handbook that will help you teach participants how to row.

This Instructor's Guidebook provides information on motor-skill training, effective communication, giving feedback and much more. You will also find suggested lesson and workout plans for each of the Journey levels. However, these lesson plans are adaptable. The program manual offers games, drills and various workouts that are appropriate to the different skill levels.

As an introduction to the program, let me explain the different levels. The Journey 1 is intended for the "learn to row" person. After approximately eight sessions, the participant should achieve the skills identified for that level. At that time, the participant may decide to join the rowing club and participate in the Journey 2. This program is still focused on skill development, but more attention is paid to fitness, varied workouts and drills. The club can decide whether or not there is any time limit at this level - one person may acquire the identified skills in three weeks while another may take three months. In Journey 3, the focus is on getting ready to participate in local or club regattas; therefore, the skill emphasis incorporates racing starts and rigging/de-rigging a boat.

As an instructor, you have an incredibly important role to provide a safe learning environment for all participants in which to learn rowing. I hope that this manual will help you in your endeavors as a rowing instructor.

CAROLYN TRONO

**Rowing Canada Aviron**

Instructors should have Journey Passport,  
Journey 123 Participant Handbooks.

For more information on coaching and rowing, instructors are encouraged to participate in the **3M National Coaching Certification Program**. Rowing Canada Aviron and the Provincial Rowing Associations offer Level 1 to Level 5 courses.

## Contact Rowing Canada Aviron

### Provincial Rowing Associations - 2000

#### Rowing BC

1367 W. Broadway #314  
Vancouver BC V6H 4A9  
(604) 737-3064 (w)  
(604) 738-7175 (f)  
rowbc@ibm.net

#### Alberta Rowing Association

Percy Page Centre  
11759 Groat Road  
Edmonton, AB T5M 3K6  
Phone (780) 427-8154 or 427-8134  
Fax: (780) 422-2663  
rowingab@sprint.ca

#### Saskatchewan Rowing Association

2205 Victoria Avenue  
Regina SK S4P 0S4  
(306)780-9295 (w)  
(306)525-4009 (f)  
saskrowing@sk.sympatico.ca

#### Manitoba Rowing Association

200 Main Street  
Winnipeg, MB R3C 4M2  
(204) 925-5653 (w)  
(204) 925-5937 (f)  
mra@pangea.ca

#### Ontario Rowing Association

1185 Eglinton Ave. E. Suite 405  
N. York, ON M3C 3C6  
(416) 426-7002 (w)  
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dir@ontariorowing.org

#### Association Quebecoise d'Aviron

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# Safety

## Introduction

All instructors undertake a big responsibility when coaching. In any sport, the coach has a responsibility to ensure that the conditions in which his/her participants practice are safe. Rowing is a relatively safe sport. There have been very few injuries in comparison to sports such as hockey, alpine skiing, and football. However, due to the nature of our sport, there is the potential for accidents to take place. Rowing shells can be unstable, weather conditions can be adverse, and water temperatures can be cold. There have been many close calls and numerous serious rowing accidents - some have been fatal.

Education in safety is a fundamental part of the instructor's ongoing development and its importance should not be underestimated.

"As a coach, you are legally bound to create a safe and controlled environment for participants in your program. You must know what steps to take to provide a safe environment for your participants." (Level I Theory, 1988)

Most accidents occur as a result of inadequate safety precautions and lack of preparation for emergency situations. Therefore, it is important that the rowing coach be aware of the hazards and the appropriate actions to take in the event of an emergency situation.

The instructor and his/her rowing club have a responsibility to minimize the risks and provide a safe training facility. Legal actions against clubs and coaches are based on acts of negligence.

Have you and your club taken every reasonable precaution to prevent accidents/injury? In the event of an accident, would you know what emergency procedures to implement? The purpose of this chapter is to provide the instructor with the necessary information in order to assist him/her in providing a safe program at the rowing club.

By the time the instructor has completed this chapter, he/she will:

1. understand the responsibility issue
2. develop a basic safety strategy that can be implemented at the rowing club
3. be able to identify the potential dangerous situations
4. know what to do in an emergency
5. recognize the symptoms of heat injuries and hypothermia

## The Instructor's Responsibility

As a coach, you are required to act as a reasonable and prudent person would have. There are many ways the coach can play a leadership role within his/her rowing club and minimize a potential accident and/or lawsuit.

### COAST GUARD REGULATIONS:

A rowing shell is not required to carry the standard boat safety and navigational equipment if it is involved in training or competition as long as it is attended by a safety craft carrying personal floatation devices for each member in the rowing shell, a sound signalling device and flashlight is operated before or after daylight hours. Rowing shells, if accompanied by a safety craft, may carry the safety equipment that is required under the rules of the applicable governing body.

Canadian Coast Guard  
Safe Boating Guide, 1999

Prior to going on the water, the instructor and/or club should:

1. Encourage all participants to undergo a medical examination. The instructor should be aware of any medical problem which could jeopardize the safety of that athlete and/or crew members (diabetes, epilepsy, etc.). All crew members should provide a medical certificate which states their medical fitness to participate in rowing.
2. Keep on record (in a handy location) the rower's name, address, phone number, age, height, weight, and medical insurance number. The rower's family doctor should be identified on the form as well as the name and phone number of the individual to contact in the event of an emergency.
3. Require all rowers to sign a waiver of liability which is a written contract signed by the participant voluntarily releasing you and the rowing club from all responsibility for injury or harm suffered while participating in a rowing club activity. However, whether this releases the instructor and/or club when negligence has occurred is a legal matter. If the rower is under the age of 18, his/her parents must sign the waiver. The waiver brings the athlete's (and parents) attention to the potential hazards, and risks inherent to the sport. It may also help to make members more aware and sensitive to safety measures.
4. Require an annual swimming test for any club member who will be on the water. The swimming test should include swimming with training clothes on and placing a life jacket on while in the water.
5. Review with the rowers, especially coxswains and individuals rowing bow seat, the traffic patterns, and areas for safe haven during unexpected bad weather, and procedures to use in the event of emergency.
6. Outline all procedures when taking a shell out on the water: using a log in and out book, the requirements for a safety launch, and rules about being in prior to sunset.
7. Charge someone with the responsibility to ensure that all crews have returned from practice.
8. Review with all members where safety equipment is located in the boathouse including telephone, emergency numbers, first aid kits, thermal blankets, and lifejackets.
9. Post all rules and procedures where all members can see them.
10. Establish procedures for reporting damaged equipment and getting the equipment repaired. A log book is used in some rowing clubs.
11. Ensure that motor boats are in good working condition. Are there enough motor boats for the number of crews that, will be on the water?
12. Purchase enough bailers, paddles, life jackets, and space blankets for the motor boat.
13. Check all rowing shells to ensure that there are no cracks, and that all shells are equipped with bow balls and have easy release footsteps.
14. Identify safety spots as various locations on the rowing course where athletes can beach a boat safely if strong winds and bad weather should occur.

## Potential Hazards

In every sport, there are hazards and risks that participants take when they engage in the activity. The instructor should be able to recognize potential hazards and take appropriate action to avoid unnecessary risks thereby preventing accidents.

## The Weather

If it is hot, cold, windy or stormy, the rowing instructor must be aware of the weather conditions and the hazards associated with these conditions. Accidents can take place as a result of bad weather and not paying attention to warning signs.

### a) WEATHER CHANGES

In some locations, the weather can change very quickly. Prior to going on the water, coaches in those areas should contact Environment Canada for an update on the weather.

### b) INDICATIONS THAT THE WEATHER/WATER CONDITIONS COULD CHANGE

- Changes in the cloud formation and cloud color
- Wind speed and its effect on the water: Has the height of the waves changed?  
Are there whitecaps?
- Sudden change in temperature
- If foggy, is there visibility of at least 500 metres? Is the fog getting thicker or is it dissipating?
- Is there any indication that there could be a thunder and lightning storm?

Weather conditions listed above are indicative of potentially dangerous water conditions and the instructor must react to the signs prior to getting into a difficult situation.

### c) FOG

Rowing in the fog is dangerous. It is easy to get lost on the water and lose all sense of direction. Accidentally rowing on the wrong side of the course can cause serious accidents and damage to equipment. The instructor should not take his/her crew out in the fog unless there is visibility of at least 500 metres and land reference points can be seen at all times. If fog sets in while a crew is on the water, the instructor should instruct his/her crew to proceed slowly to the nearest shore and be prepared to stop quickly. Follow the shoreline back to the boathouse.

### d) THUNDER AND LIGHTNING STORMS

Do not row during an electrical storm. If your crew is on the water when the storm occurs, or your hair stands on end with static electricity, instruct the crew to head to the nearest safe haven. If the storm has not struck, follow the shoreline and head back to the boathouse. If the storm has started, get the crews to shore quickly anywhere and wait until it subsides.

## Hazards on the Water

### a) LOGS AND DEAD HEADS

It is not unusual on rivers, lakes, or other bodies of water that there are floating logs and/or dead heads. Hitting a deadhead can rip a hole in the shell from bow to stern. This can be an expensive accident.

These hazards must be marked on the course map indicating where deadheads are. These areas should be out of bounds for the crews. Further precautions can be taken. All deadheads should be marked with a visible marker.

### b) SWELLS FROM A PASSING CABIN CRUISER OR HIGH WAVES

It is possible to split a rowing shell if parts of the shell are unsupported by water. If the wake or waves are higher than the gunwale, the instructor should instruct the coxswain and/or rowers to turn the rowing shell parallel to the wake and to stop rowing. The rowers should lean away from the approaching wake with oars on the wake side lifted slightly.

### c) OTHER ROWING SHELLS

Following the traffic pattern on the rowing course is imperative in order to avoid collisions. Coxswains and bowmen must be aware of the flow pattern. Coaches must strictly enforce these rules. Anyone being hit by an oar or shell can be severely injured.

### d) ON-WATER EXERCISE

Prior to getting into this situation, the instructor should review the procedures in a potential "swamping" with novice athletes, giving them an opportunity to practice in a controlled situation.

## Cold Weather Rowing

Many crews and coaches attempt to use all available water time. In Canada, however, it is crucial that coaches and athletes understand that the water can be cold and dangerous. When the ice breaks, it is sometimes a race to see whose crew will be on the water first and in the fall, it is a contest to determine who will get the last practice in. Sometimes this enthusiasm for rowing puts safety second on the priority list. All necessary precautions must be taken to ensure that athletes remain *on the water and not in the water*.

At cold times of the year, there is another risk that requires more precautions on the part of the club, instructor, and athletes. Cold weather in combination with cold water and rain and wind can be a disastrous situation.

### a) COLD WATER IMMERSION

Whereas a person immersed in 20° C water may be capable of surviving for an indefinite period, the same individual may last only few minutes in water 5° C or less. Upon hitting the cold water, the rapid drop in body temperature quickly restricts breathing and paralyzes the arms and legs making swimming impossible.

b) HYPOTHERMIA - WHAT IS IT? It is the lowering of the core body temperature below 35°

Symptoms:

- Early symptoms of hypothermia include slurred speech, clumsiness, numbness, loss of strength, rapid shivering, and semi-consciousness.

Action:

- Maintain an airway - artificial respiration 1/2 normal breathing.
- Transfer to a warm environment as soon as possible. Use blankets until able to reach an alternate method of keeping the athlete warm (warm showers). Remove wet clothing and begin to warm neck, head, and trunk (avoiding the extremities). Fluid intake should be avoided.
- As soon as possible the athlete should be given medical attention.

c) PROFOUND HYPOTHERMIA

### IMMEDIATE MEDICAL ASSISTANCE IS REQUIRED!

Symptoms:

- Appears death-like, little or no cardio-respiratory function, unconscious.

Action:

- Do not attempt to rewarm.
- Do not apply external cardiac compression.
- Maintain an airway artificial respiration to be applied.
- Avoid physical manipulation of victim. Carotid pulse monitoring must be gentle to avoid triggering reflexes that may cause ventricular fibrillation.

Cold water rules should be in effect when the water temperatures are below 15° Celcius.

- (i) Individuals or crews that are at risk of capsizing should not be permitted to row under these cold water conditions.
- (ii) All crews should be supervised (ie. in sight and able to be reached within minutes) by a coach boat at all times.
- (iii) Athletes should be educated as to the dangers of cold water immersion (see Boating Mishaps - Emergency Procedures - Page 10).
- (iv) Be alert to weather forecasts. Do not row if there is a storm warning or high winds and white caps which present a risk of swamping or capsizing.
- (v) Be sure to note the time of sunset and ensure that your crew is at the boathouse 30 minutes prior.

d) CLOTHING

It is the coach's responsibility to ensure that the athletes are dressed properly for the weather conditions. Participants in the Journey 1 Program must be told what they should wear during the cold weather.

Rowing can cause the body to produce heat as much as 10 to 15 times more than the normal rate. This heat production keeps the rower warm even in very cold temperatures typical of early spring or late fall rowing.

If crews stop rowing, the decrease in heat output combined with the wetness from sweating

can cause the rower to feel cold.

Therefore, the instructor should consider the comfort of the rowers when doing drills that involve only a few of the rowers, and when stopping to explain things to the crew. The instructor should try to keep the athletes rowing in order to minimize the chilling process.

Crew members must be dressed appropriately for the weather and water temperature.

#### e) CLOTHING FOR COLD WEATHER ROWING FOR ROWERS

- wool hats
- polypropylene long underwear
- turtle necks
- windbreakers
- sweatshirts
- wool sweater

The rowers should be encouraged to bring a dry change of clothes with them to use after practice.

#### f) CLOTHING FOR COLD WEATHER ROWING FOR INSTRUCTORS

Sitting in the motorboat can be uncomfortable unless you are dressed properly.

- waterproof mittens
- survival suit
- layers of sweaters
- long johns
- wind pants
- waterproof jacket

*DO NOT WEAR HIGH RUBBER BOOTS!* If the boots fill up with water you will have a hard time staying afloat in the water.

## Hot Weather Rowing and the Risks

As the season progresses from spring to summer, the athletes are no longer at risk for hypothermia. However, they are vulnerable to hyperthermia.

The instructor can determine the severity of a hot day and take the necessary action to prevent athletes from heat injuries.

#### a) TEMPERATURE - HUMIDITY INDEX

Three factors in particular determine the severity of a hot day: temperature, humidity, and wind velocity. As temperatures rise into the mid-30° C the body dissipates heat primarily through the vaporization of sweat. During prolonged and/or repeated exercise, extensive and potentially dangerous fluid loss can occur. High air humidity compounds the problems by impeding vaporization. A lack of breeze will also inhibit this cooling process. Sweat drips off the body with little cooling effect.

A measurement of the degree of risk posed by rowing on a hot day can be obtained from a wet bulb reading of humidity, which is usually available from the local airport or weather office.

#### b) HEAT INJURIES: PREVENTION IS THE KEY

- Avoid rowing in mid-day heat. This applies particularly to older people who have reduced circulation and therefore a lesser capacity to cool. They are consequently more prone to heat injuries.
- Permit sufficient acclimatization time. A disproportionate number of heat injuries occur on the first hot day of the season. This is because the body has not adapted to hot conditions.
- Drink water before, during, and after training. Cold water (5°C) is absorbed fastest by the body, at a maximum rate of 1/2 litre per hour. Thus, during heavy exercise, moderate doses of water (1-2 cups) should be consumed at regular intervals of 15-20 minutes.
- Wear loose fitting clothes and a hat. Clothes should provide protection from the sun but be porous enough to permit evaporation.
- Avoid salt tablets or high concentrations of sodium found in some sports beverages. They can increase dehydration and associated symptoms.
- Avoid sugar solutions. Drinks that contain more 2.5% sugar are absorbed poorly by the intestinal tract and cause bloating, cramping, and discomfort. Sport beverages or juices should be diluted with water to decrease the sugar concentration.
- Fruits (especially bananas), fruit juices, and vegetables can help replenish potassium stores after an extensive loss of fluid.
- Address any symptoms of heat stress immediately, no matter how slight. Many athletes are driven to perform by self-imposed or crew pressures and will continue to push in the face of heat exhaustion. It is the responsibility of the instructor to be alert to the telling sign and intervene for the sake of the athletes.

#### c) HEAT CRAMPS

Symptoms:

- extreme amounts of sweating in the worked muscles (in rowers - the legs)

Action:

- massage can provide immediate relief.

#### D) HEAT EXHAUSTION

Early symptoms:

- cramps, tiredness, weakness, malaise, mild decreases in performance.

Action:

- rest and fluid replenishment

Advanced symptoms:

- muscle uncoordination, impaired judgement, emotional changes.

Action:

- If there is mild temperature elevation, an ice pack may be used to help cool the body to normal temperatures. Several days rest may be necessary and hydration must be a priority.

#### e) HEAT STROKE

Heat stroke results from a sudden uncontrolled rise in body temperature brought on by the body's inability to further dissipate heat.

Symptoms:

- confusion, nausea, vomiting, seizures. The victim loses consciousness. Body temperatures may rise to 44° Celsius even though the skin feels dry and clammy.

Action:

- GET MEDICAL HELP IMMEDIATELY!
- Lower the victim's body temperature by immersing the individual in water, maintaining a horizontal position of the victim. Stop treatment when the victim is conscious and alert. Continuing the treatment could be fatal if the body temperature drops sharply.

## Boat Mishaps - Emergency Procedures

Have safety boats ready. Should the rowers end up in the water, the instructor must be ready with the safety boat to "rescue" the participants within minutes.

## The Instructor's Tasks

The instructor must keep a clear mind and focus on the following:

- Approach any accident by driving the motorboat into the wind to prevent the rescue boat from being pushed into the accident and causing more damage.
- Distribute life jackets to all rowers in the water.
- Rescue rowers in pairs and rescue those in the greatest risk of distress first. Do a head count to ensure that everyone is accounted for.
- Assess the condition of the athletes who were in the water. Do they have any of the symptoms of hypothermia?

## The Rower's Tasks

Think clearly and calmly. The athletes must keep a clear mind and focus on the following:

- Stay with the rowing shell: both the boats and oars float and will support the crew's weight.

## The Oars and Shells Become the Safety Equipment!

- If shell is sinking deeper into the water, is submerged, or has capsized, roll the shell over to increase buoyancy by trapping as much air as possible. If the wind is a factor roll with the wind. The oars should remain in the oarlocks to increase the buoyancy.
- If the shell is swamped but still floating upright and in their seats and await rescue. The athletes should assume the fetal-like position at the top of the slide to conserve body heat.
- REMAIN CALM.
- Conserve energy by avoiding kicking unnecessarily or swimming.
- Buddy up across the boat with even distribution on either side of the shell (2&3/4&5) and huddle toward the middle or high point of the shell.
- Constantly check on crew mates. Pair up to give added life support. One-on-one communication gives added positive support.
- In cold water, get as much of the body as possible out of the water.

## Safety Equipment

The motorboat should be equipped with paddles, bailers and life jackets.

- The motor should be reliable and in good working order.
- If rescuing a crew, the driver should not exceed the maximum carrying capacity of the rescue boat.
- The rescue boat should contain by two people (if possible) to counterbalance and assist each other where necessary.

A motor that is unreliable can leave a crew unsupervised. This is a potentially dangerous situation.

COACHES SHOULD ALWAYS HAVE THE MOTOR BOAT STARTED BEFORE THE CREW LEAVES THE DOCK FOR THE WORKOUT.

Are there enough motorboats to supervise all of the crews?

Life Jackets:

- There should be enough life jackets for all persons on the water including the instructor and anyone riding in the motorboat.

Blankets:

- Blankets can be carried in the motor boat.
- The blankets are inexpensive and are useful for someone who has just capsized and is wet and cold.

## Emergency Action Plans

Every rowing club should have an Emergency Action Plan which can be implemented if necessary. The purpose of an Emergency Action Plan is to “get help” in order minimize injury, and damage, and to prevent turning an accident into a catastrophe.

- PUT ON YOUR PFD. Your boat should be equipped with PFDs unless a motor boat is within hailing distance.

# Reading Weather Patterns

The weather plays a vital role in the sport of rowing. Rowers determine what to wear, coaches watch to make sure it is safe to go on the water and instructors discuss the best place to row for the best water. In any case, the weather has a strong impact on all of our rowing decisions.

Each region of Canada has Environment Canada Weather offices to provide up to date weather conditions. It is important to have that number and to get up to date forecasts before going on the water.

- Are the winds going to increase or diminish?
- What type of clouds are in the sky?
- Is there a chance of a thunderstorm?

It is impossible to discuss all aspects of weather in this manual. We must consider the various regions of the country. Some weather conditions are more prevalent in the different areas. For example, fog is certainly a condition that is common in the coastal areas.

Weather plays an important role in the day-to-day activities of the rowing club. Wind, rain, storms and sun all have an impact on what you will do for your workout. Will you go on the water? Will you wear different rowing gear? Will you row in a certain area due to rough water?

It is not expected that you will be able to forecast the weather. However, it is important for you to recognize some of the indicators of bad weather approaching.

Canada is a huge country and each area has particular signs that inclement weather is approaching. This may include shapes and kinds of clouds, wind, and air temperature. In most areas, Environment Canada (Atmospheric Environment Service) provides information about marine weather and specific to the region. It is important to contact the appropriate weather forecasting agency. Please contact your local Environment Canada office for details about your area.

BELOW ARE SOME BASIC GUIDELINES:

**WIND:** A strong wind can make the water rough. At some rowing clubs, you might be able to row to a sheltered bay and row in calm water. However, you and your instructor must determine whether the wind will get stronger. Will you be able to row back to the dock safely?

Sometimes gusty winds or winds changing direction are an indication of a thunderstorm approaching.

As a general guideline, if there are white caps, it is advised that crews do not go on the water.

**FOG:** This is primarily a concern for those situated in the coastal regions. Do not row in fog. Not only can you not see where you are going, but it is extremely easy to lose your sense of

direction in the fog.

**CLOUDS:** Clouds provide one of the keys to understanding weather. At this stage, it is important to know the "cumulonimbus" cloud. This is an indication that there could be a thunderstorm approaching.

#### SIGNS OF THUNDERSTORMS

- darkening sky
- cool wind increasing
- thunder

PLAY IT SAFE - HEAD FOR SHORE EARLY!

To better understand and identify weather patterns check out these books:

- Great Lakes Marine Weather Guide, ENVIRONMENT CANADA, 1992
- Marine Guide to Local Conditions and Forecasts, ENVIRONMENT CANADA, 1991

## Understanding Your Clientele

"Treat all participants as a customer. You don't get a second chance to make a first impression"

DAVE DICKISON - **Foundation 2000 Plus**

## Teaching Adults & Youth

This Journey 123 Skills program is intended for all age groups and all populations. Rowing Canada Aviron would like everyone to participate and get maximum benefit from their rowing experience.

As an instructor, part of your responsibility is to provide an appropriate learning environment for the various groups to enjoy the sport.

There are some differences in the various age groups that you should be aware of:

#### ADULT

##### Setting the Stage

- In general, adults like to participate in a safe environment and like to know what to expect;
- Therefore, a pre-education or briefing session is appropriate to outline what to expect, what to wear and to set realistic goals;
- Adults like to focus on skill acquisition. Therefore, the feedback that you provide should focus on the technical parts of the stroke.

#### Physical Characteristics

- Remember that adults may not have ability to perform the "model" rowing stroke.
- Adults who have been sedentary may need more recovery time between sessions.
- Adults may have accumulated injuries that may not be able achieve the ideal body positions.

#### YOUTH

##### Setting the Stage

- In general, participants at this age are "explorers". They like to play and explore. Therefore, games and fun drills make it exciting for this age group.
- This group likes to be active immediately. Therefore a short briefing session is more appropriate (10-15 minutes)
- They learn by trial and error - what works, did they flip or go off balance?
- This age group will quickly adapt technical errors if given an opportunity to figure it out.

#### Physical Characteristics

- This group may not have the core strength to handle the load on the oar. Therefore, it may be necessary to modify the equipment to better suit the strength differences.
- There is a very significant decrease in flexibility when individuals in the youth category go through their growth spurt.

## Motor Skill Learning

As an instructor, it is important to understand the processes involved when a participant learns a new skill. By understanding the process you will be able to structure sessions and provide appropriate feedback to the participant about their skill development.

Researchers have demonstrated that there are three stages in motor skill learning. While these stages have been identified and characterized in order to assist the instructor, it is important to recognize that learning is a continuous process. Perhaps, these phases of skill learning should be thought of as a continuum with overlap occurring between the early stage and the grooving stage and between the grooving stage and the automatic stage.

The three stages in motor skill learning are:

1. The Early Stage (cognitive)
2. The Grooving Stage (associative)
3. The Automatic Stage (autonomous)

#### 1. The Early Stage - COGNITIVE (Journey 1)

In this phase, the participant is attempting to gain an understanding how the skill is to be performed. As the instructor describes and demonstrates the skill, the participant uses mental processes to gain an understanding of the skill.

The participant uses thinking processes as he/she begins to develop an "internal motor program" on how to perform the skill. Initially, as the participant tries the skill, the movements are slow, inefficient and uncoordinated.

As the participant continues to practice and receive feedback, the movement becomes more refined.

Initially, the dominant sensory modality is visual. It is helpful for the participant to see a demonstration and to be able to watch his/her limbs or the oar while practicing.

Here are some tips that will help you provide a good learning environment for the participants!

1. Concentrate on the basics
2. Give demonstrations and be specific about the most important part of the demonstration ie. where their eyes should focus;
3. Limit the number of tasks;
4. Limit distractions;
5. Use short and frequent practice periods;
6. Use feedback to help refine movements;
7. Keep the task enjoyable.

The Grooving Stage - ASSOCIATIVE (Journey 2)

During this phase the participant understands the skill objective and is able to practice the skill until it is performed accurately and consistently. This phase can last from several hours for simple skills to several years for complex skills. As the participant practices, he/she moves away from visual cues and begins to develop "feeling" cues to help guide the skill learning.

As an instructor, your role will be to plan and implement effective practice conditions to help the participant refine the motor skill pattern.

Here are some tips that will help you provide a good learning environment for the participants

1. Encourage quality movements. It is better to do fewer correct movements than many incorrect movements;
2. Frequent quality repetitions of the movement should be encouraged;
3. Short concentrated bouts of practice followed by a contrasting activity to relax the system will help in the learning process.
4. Introduce "feeling cues" to assist in the skill development;
5. Improving performance will permit training at a higher load by an increase in pressure on the blade and speed of movement.

The Automatic Stage - AUTONOMOUS (Journey 3)

In this phase, the participant can perform the rowing stroke at a maximal level efficiency. The performance is consistent and the stroke can withstand an increase in the training load. The participant can contend with distractions such as rough water and still be able to perform the skill. In this phase, the motor pattern is relatively permanent. The gains in skill improvement come in smaller increments.

It is challenging for participants in this phase to re-learn a skill because it requires a return to the cognitive phase.

REMEMBER: *Perfect practice makes perfect! Practice makes permanent!*

Here are some tips that will help you provide a good learning environment for the participants!

1. This stage probably takes months but the reward is consistency in performance
2. This stage may be reached at different times for different parts of the stroke;
3. Regular observation, analysis and instruction are necessary to prevent regression;
4. Too much practice provides limiting benefits.

## APPROACHES TO MOTOR SKILL LEARNING

One of the challenges as an instructor will be to provide a practice environment conducive to good skill training. Here are a couple of strategies that you can incorporate into your sessions.

### WHOLE - PART - WHOLE METHOD

"Whole and part methods of practice should be thought of as the extreme ends of a continuum. The whole method requires that the athletes practice the activity or skill in its entirety, as a single unit. At the other end of the continuum, the part method requires that the athletes practice each component of the activity or skill separately and then combine the parts into the whole skill". (Fischman and Oxendine, 1998, p.20)

The instructor will determine when it is most appropriate to demonstrate the whole stroke and when it is best to demonstrate a part of the stroke. In the same way, the participant may be asked initially to do a number of complete strokes and will then be asked to perform a part of the stroke in order to perfect a movement pattern.

For example, as an instructor, you may decide to have the participants work only on the release, practicing the circle around the turn and the feather action. After a number of successful trials, you may decide to incorporate this into the whole stroke.

When is it best to use the whole method or the part method?

The instructor must consider the nature of the skill and its complexity as well as the nature of the learner. Here are some considerations:

1. Is the skill complicated? Can it be understood in a meaningful way?
2. Is the skill dangerous and can it be practiced with a relative degree of success?
3. What is the background of the participants? What is the age and fitness level of the group?

After moving from the part method to the whole method, emphasis must be placed on "flow", and connecting the parts into the whole.

### VARIABLE PRACTICES

Initially, it is best to provide a very stable environment for the participants in the Journey 1 program. Given what has been learned about the Early Stage, distractions can make it difficult for the beginner to concentrate. Therefore, it is best to teach beginners when the boathouse is not busy and when the dock space is not being used by a lot of people.

Another consideration for initial learning is to try to find calm water. If the boat is rocking and is unstable, the participant will have difficulty focusing on the skill that is being taught.

### EXAMPLES OF WHOLE-PART-WHOLE DRILLS:

- using arms only to work on the release action
- Russian catch drill to work on blade-seat timing

The most variable and uncontrollable aspect of our sport are the water conditions. The challenge for rowers is to be able to perform the rowing stroke in calm and rough water. It is important for the instructor to add the water variables to the sessions when the confidence and skill level of the participant is adequate.

Through a variable practice, the participant is learning how to adapt his/her rowing stroke (balance, blade height, confidence) to the changing environment.

Remember - when you have learners with no prior experience, it is advantageous to have a stable and constant practice environment. They must master the basic skill before introducing variables. The participant must pass through the cognitive phase of learning and then variable practice can be introduced.

## Learning Styles

Part of coaching is communication to participants (the learner) in an effective manner. What needs to be done to acquire a new skill or make changes to improve the skill? How do we communicate to the participants? Do we use of favored learning style? Do we coach the way we were coached? Or do we actively try to determine how the participants learn?

Everyone has a favored cognitive style that is unique to them. Research indicates that some factors influence the way people learn - noise level, lighting conditions, motivation, persistence, structure and variety of the learning material. However, perceptual preference is listed as an extremely important factor and is often overlooked. How does the learner input the information that we are teaching? In sport, these styles are often simplified into three categories - auditory, visual or kinesthetic learners

This is very important because if the instructor can identify the individual preferred cognitive style of the participant, the instruction can be tailored according to that style. Hopefully, this will shorten the learning time for the skill!

It is suggested by researchers that people think or represent experiences differently. References suggest that these differences correspond to the three principle senses (seeing, hearing, feeling). For an individual who has a visual preference, they will benefit most when observing demonstrations, looking at videotapes and even looking at stick diagrams. A participant with an auditory sensory preference will learn best when presented with verbal explanations, cues and feedback and even paying attention to sounds associated with the sport. For example, listening for the correct "plop" sound when the blade drops into the water properly. An individual that is kinesthetically oriented would benefit from "hands on" and feeling the right movement pattern. The instructor would do well to position the rower's body in the correct place so the individual can feel it.

Identifying a person's preferred cognitive is complex. Until an instructor knows the rower's learning style, using all three modalities will allow the participant to use the feedback that works for him/her. Researchers have developed a learning style inventory which may be useful in coaching situations.

### Coaching Tips

When organizing your rowing sessions, identify the skill that you will work on with the group. Then determine at least one coaching cue for each of the different senses. Use all three, at different times during the session and see which rowers adapt based on the cues.

## Communication

An important aspect of communication is to understand that it is two way. A common misconception in many areas is to deliver a message and assume that it has been received in the way it was intended. As an instructor, it is critical to make sure participants understand what you are saying. In the same way, it is important to watch for the non verbal cues that are indicative of confusion.

### INSTRUCTOR'S GUIDE TO EFFECTIVE COMMUNICATION

Communication is a vast topic and well beyond the scope of this material but there are several key points that may improve your communication skills. These are:

- a) Reduce any "status awareness" between you and the group. That is, develop the appropriate level of language and other communication techniques in accordance with your situation. For instructors with limited experience, this can be very difficult to achieve and some may like to hide behind status anyway!
- b) Use as many channels of communication as possible. The hallmark of a good instructor, whether in the classroom or on the water, is presenting the same information by using different methods - verbal and nonverbal.
- c) Try to eliminate any sources of interference, disruption or distraction such as noise if you are trying to speak.
- d) As the originator of the message, the instructor must accept the responsibility for the effectiveness of the communication.
- f) Simple, uncomplicated language, which avoids the use of jargon until it is fully understood is often the most effective. Remember that many of the participants will not be familiar with many of the rowing terms. Using these terms excessively will create confusion and frustration. Try to gradually introduce "jargon" as the participants build up their knowledge of the sport.
- g) Learn to listen to the responses of the receiver of your information since this will often enable you to adjust your technique for the introduction and development of the next piece of information.
- h) Try to be aware of the subliminal or body language messages. You might be hindering the group; some instructors, for example, often look bored if they have presented the material on several occasions previously.

- i) Watch and listen to what the group is communicating. The communication may not always come in words - watch the body language.
- j) Feedback and guidance: the observation made and comments received by the instructor will allow the instructor to provide effective feedback to the group on their efforts.

*Remember, improving your communication skills will enhance the experience for all of the participants.*

## Feedback

As the participant practices the rowing skills, he/she will receive feedback about the performance of the skill. Participants need to know how they are doing and if there is no feedback, there will be arbitrary change or no change at all. Therefore, it is critical when learning a motor skill that participants receive feedback.

There are two types of feedback - intrinsic and extrinsic. The intrinsic feedback comes from within the participant. Intrinsic feedback comes from the various sensory systems - hearing, feeling, seeing. Extrinsic feedback is the information that the participant receives from outside such as a coach, videotape, spectator or stop watch.

As the participant becomes more experienced, he/she becomes more reliant on intrinsic feedback. However, one cannot stress the importance of feedback to supply very specific information to the participant when he/she is beginning to learn a skill. Feedback can be used to reinforce a correct movement or to provide corrections to errors in performance.

*Here are some tips on the effective use of feedback:*

1. Use positive reinforcement when possible. If a participant has been performing a skill incorrectly and you have been trying to change it, it is important to use positive reinforcement when the movement pattern has been performed correctly.
2. In the early stages of learning, the frequency of extrinsic feedback is important in order to get the performance closer to the goal. As the participant becomes more skilled, he/she will begin to use intrinsic feedback to determine whether or not the performance is correct.
3. Here is a three-step process for skill analysis and for giving feedback

STEP 1 - compare the participant's technique with the RCA model technique.

- focus on the basic movement pattern.
- take your time before offering feedback

STEP 2 - identify which error to work on.

- consider the error that is most fundamental and give feedback only on that error.
- if the errors are unrelated, select the error that is the easiest to learn and leads to the greatest improvement.

On Pages 29, 30,44  
You will find illustrations  
explaining common rowing  
errors

STEP 3 - determine the cause of the error and what the participant must do to correct it;  
· one error may be the cause of other errors. If the critical error is corrected, then the other errors may be corrected.

4. When giving feedback to correct errors, KISS - *Keep it Short and Simple*. Fischman and Oxendine advocate the "sandwich" approach - compliment the effort, and any of the correct movements, then give simple precise error correction information and finally provide encouragement that will lead to an improved performance.(Fischman & Oxendine pp 24-25)

You may wish to brainstorm with other instructors or coaches in your club. By sharing information and different ways to instruct a specific skill, you are more likely to get cues for all of the sensory preferences.

## Planning and Organization

It is hoped that the Journey 123 Program will assist the instructor in various components of planning. In Journey 123, the objectives and the skills to be demonstrated are very clear. As an instructor, you may choose variations to the lesson plans based on the following:

- water conditions
- skill level of participants
- age
- size of the group
- number and types of boats available
- ratio of athletes to coaches.

These factors can have a greater or lesser influence at any given moment and can alter the character of an individual or a series of training sessions. Therefore, the instructor must learn to be adaptable and flexible.

Once you have assessed your situation, it may be helpful to use the form (Journey 123 Workout Plan) located on the next page to complete your plan for each workout.

As general tips, the instructor should:

1. Plan to be at the rowing site well ahead of the participants to ensure that everything is ready to go - motor boats, rowing shells, gas tanks. Good utilization of time is critical. Crews get frustrated if they only have 90 minutes for rowing and 30 minutes is spent waiting while the instructor gets organized.
2. Check weather conditions and adapt (if necessary) lesson plan and/or workout accordingly.
3. Always have a number of ways to teach technique from verbal to non- verbal methods. Sometimes just simply letting the participants try it is the best method of all.

## COACHING CHECKLIST FOR PRESENTING NEW INFORMATION

### 1. ACTIVITY SELECTION

- a) Was the activity challenging to the crew?
- b) Was it possible for the crew to be successful?
- c) Are the athletes making progress?

### 2. INSTRUCTION

- a) Are the athletes aware of the objectives of the session?
- b) Did you present a good model of the skill?
- c) Did you provide effective feedback with verbal, visual and kinesthetic cues?
- d) Did you provide the athletes with time to apply the skill in a typical situation?
- e) Did you allow for individual differences?

### 3. PARTICIPATION

- a) Did you reduce talking time to a minimum?
- b) Were your instructions clear?
- c) Did you organize the group effectively?
- d) Did the practice situations allow for maximum participation by the group?

### 4. EQUAL OPPORTUNITY

- a) Did you provide for less able rowers?
- b) Did you provide for those who were experiencing difficulty in following your coaching methods?
- c) Were the presentation techniques suitable for all participants?

### 5. SAFETY

- a) Did you present the information in the context of safety?
- b) Did you follow the correct procedures when working with equipment which can cause injury?
- c) Was the equipment checked before the practice?

### 6. MOTIVATION

- a) Were the participants successful (i.e. did you present material in such a way as to allow them to achieve your objective)?
- b) Did the group enjoy the session?

## Conclusion

Instructors provide an invaluable service to the delivery of the Journey 123 Program. The best method to improve your coaching skills is to instruct and learn how coaching theory actually works in practice. This booklet has been written to provide information to assist in the evaluation of your coaching and, above all else, to encourage you to instruct and develop the sport of rowing.

To keep better track of your participants progress it is recommended that you photocopy the following sheets directly from this manual and use them in your sessions.

# Journey 123 Workout Plan

ROWING CLUB: \_\_\_\_\_ JOURNEY:  DATE: \_\_\_\_\_

INSTRUCTOR: \_\_\_\_\_ LESSON#: \_\_\_\_\_

NUMBER OF PARTICIPANTS: \_\_\_\_\_

BOATS USED & BY WHOM

BOAT #1 /OARS \_\_\_\_\_

BOAT #2/ OARS \_\_\_\_\_

BOAT #3/OARS \_\_\_\_\_

Workout Focus & Goals:

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Incorporated Drills:

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Games:

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Instructor comments:

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# Medical Evaluation of Rowers

Kent Ferrari, MD

*Dr. Ferrari rows at the Winnipeg Rowing Club and is a member of Manitoba's Provincial Team. Presently, he works at the Pan Am Sport Medicine Clinic in Winnipeg.*

Rowing is a strenuous aerobic and anaerobic activity that can place very high demands on the body - both the cardiovascular and musculoskeletal systems. Therefore, participants can be at an increased risk of health problems, especially those with pre-existing conditions. Many athletic injuries and sudden deaths are preventable. The first step in prevention is the pre-participation medical evaluation. There are also signs and symptoms to look for during participation that can alert us to a participant at risk.

There are usually different causes of health concerns in young and older rowers. The overall rate of sudden death in male athletes younger than 35 years is quite low, approximately 0.75 per 100,000 participants per year. Congenital (present at birth) cardiac abnormalities account for most sudden deaths in these patients. The most common causes are cardiomyopathy, atherosclerosis, ruptured aorta and rhythm disorders. In older participants, the cause of death is most commonly coronary artery disease (atherosclerosis, heart attack). There are many other causes of illness that may affect athletes at any age, including neurologic and respiratory problems.

There are some symptoms that might alert a coach or instructor to problems, but many harmful events are without any obvious warning signs. Watch for excessive fatigue, dizziness, fainting, signs of discomfort in chest or with breathing, wheezing, flushed face, cold and clammy skin, bluish color to lips or skin. Disorientation, slurred speech, confusion, muscle cramps, headache and heart racing or irregular beating could all be indicators of a potential problem.

Tell the rower to be alert to unusual discomfort during exercise. Not just pain and not just in the chest, it could be experienced in the jaw, arms or wrist. This includes "heart burn" which may be a sign of a heart attack.

## PREPARTICIPATION EXAMINATION

The pre-participation examination includes a history and a physical examination performed by a physician.

The personal and family history can reveal up to 78 per cent of conditions that could prohibit or alter sport participation. The history more reliably predicts heart disease in older participants than in younger participants.

A few critical questions include:

- Exertional chest pain or discomfort or shortness of breath?
- Exertional fainting or dizziness or unexpected fatigue?
- Previous detection of heart murmur or high blood pressure?
- Family history of premature death or known heart condition?
- Family history of premature death or known heart condition, especially at a young age?

Have you participated in vigorous exercise before?

Physical examination can identify people with existing problems and those that appear at risk. For example, a very tall thin youth may have Marfan Syndrome, predisposing them to aortic rupture. Examination looks at blood pressure, listens for heart murmurs and performs a general physical. Electrocardiogram and echocardiography may be required as well as blood tests if indicated.

## SUMMARY

Many sport-induced illnesses or deaths can be preventable. Prevention starts with the rower being aware of any symptoms they may have, their personal and family history and an evaluation by a physician. Coaches should also be alert to problems that the rower is having and perhaps, have some basic first aid training such as CPR.

ALL PARTICIPANTS SHOULD COMPLETE THE PAR-Q QUESTIONNAIRE THAT IS INCLUDED IN THIS INSTRUCTOR'S GUIDE ON THE FOLLOWING PAGE.

REFERENCE: Cardiovascular screening: Tailoring the Participation Exam. PD. Thompson, The Physician & Sport Medicine Volume 24, No. 06 1996

AHA Panel Outlines Sudden Death Screening Standards, The Physician and Sports Medicine, Volume 06, 1996

# PAR - Q & YOU

(A Questionnaire for People Aged 15 to 69)

Regular physical activity is fun and healthy, and increasingly more people are starting to become more active every day. Being more active is very safe for most people. However, some people should check with their doctor before they start becoming much more physically active.

If you are planning to become much more physically active than you are now, start by answering the seven questions in the box below. If you are between the ages of 15 and 69, the PAR-Q will tell you if you should check with your doctor before you start. If you are over 69 years of age, and you are not used to being very active, check with your doctor.

Common sense is your best guide when you answer these questions. Please read the questions carefully and answer each one honestly: check YES or NO.

YES	NO	
<input type="checkbox"/>	<input type="checkbox"/>	1. Has your doctor ever said that you have a heart condition and that you should only do physical activity recommended by a doctor?
<input type="checkbox"/>	<input type="checkbox"/>	2. Do you feel pain in your chest when you do physical activity?
<input type="checkbox"/>	<input type="checkbox"/>	3. In the past month, have you had chest pain when you were not doing physical activity?
<input type="checkbox"/>	<input type="checkbox"/>	4. Do you lose your balance because of dizziness or do you ever lose consciousness?
<input type="checkbox"/>	<input type="checkbox"/>	5. Do you have a bone or joint problem that could be made worse by a change in your physical activity?
<input type="checkbox"/>	<input type="checkbox"/>	6. Is your doctor currently prescribing drugs (for example, water pills) for your blood pressure or heart condition?
<input type="checkbox"/>	<input type="checkbox"/>	7. Do you know of <u>any other reason</u> why you should not do physical activity?

## YES to one or more questions

If  
you  
answered

Talk with your doctor by phone or in person BEFORE you start becoming much more physically active or BEFORE you have a fitness appraisal. Tell your doctor about the PAR-Q and which questions you answered YES.

- You may be able to do any activity you want — as long as you start slowly and build up gradually. Or, you may need to restrict your activities to those which are safe for you. Talk with your doctor about the kinds of activities you wish to participate in and follow his/her advice.
- Find out which community programs are safe and helpful for you.

## NO to all questions

If you answered NO honestly to all PAR-Q questions, you can be reasonably sure that you can:

- start becoming much more physically active — begin slowly and build up gradually. This is the safest and easiest way to go.
- take part in a fitness appraisal — this is an excellent way to determine your basic fitness so that you can plan the best way for you to live actively.

## DELAY BECOMING MUCH MORE ACTIVE:

- if you are not feeling well because of a temporary illness such as a cold or a fever — wait until you feel better; or
- if you are or may be pregnant — talk to your doctor before you start becoming more active.

**Please note: If your health changes so that you then answer YES to any of the above questions, tell your fitness or health professional. Ask whether you should change your physical activity plan.**

**Informed Use of the PAR-Q:** The Canadian Society for Exercise Physiology, Health Canada, and their agents assume no liability for persons who undertake physical activity, and if in doubt after completing this questionnaire, consult your doctor prior to physical activity.

**You are encouraged to copy the PAR-Q but only if you use the entire form**

*NOTE: If the PAR-Q is being given to a person before he or she participates in a physical activity program or a fitness appraisal, this section may be used for legal or administrative purposes.*

I have read, understood and completed this questionnaire. Any questions I had were answered to my full satisfaction.

NAME \_\_\_\_\_

SIGNATURE \_\_\_\_\_

DATE \_\_\_\_\_

SIGNATURE OF PARENT \_\_\_\_\_  
or GUARDIAN (for participants under the age of majority)

WITNESS \_\_\_\_\_

continued on other side...



# PAR - Q & YOU

We know that being physically active provides benefits for all of us. Not being physically active is recognized by the Heart and Stroke Foundation of Canada as one of the four modifiable primary risk factors for coronary heart disease (along with high blood pressure, high blood cholesterol, and smoking). People are physically active for many reasons — play, work, competition, health, creativity, enjoying the outdoors, being with friends. There are also as many ways of being active as there are reasons. What we choose to do depends on our own abilities and desires. No matter what the reason or type of activity, physical activity can improve our well-being and quality of life. Well-being can also be enhanced by integrating physical activity with enjoyable healthy eating and positive self and body image. Together, all three equal VITALITY. So take a fresh approach to living. Check out the VITALITY tips below!

#### Active Living:

- accumulate 30 minutes or more of moderate physical activity most days of the week
- take the stairs instead of an elevator
- get off the bus early and walk home
- join friends in a sport activity
- take the dog for a walk with the family
- follow a fitness program

#### Healthy Eating:

- follow Canada's Food Guide to Healthy Eating
- enjoy a variety of foods
- emphasize cereals, breads, other grain products, vegetables and fruit
- choose lower-fat dairy products, leaner meats and foods prepared with little or no fat
- achieve and maintain a healthy body weight by enjoying regular physical activity and healthy eating
- limit salt, alcohol and caffeine
- don't give up foods you enjoy — aim for moderation and variety

#### Positive Self and Body Image:

- accept who you are and how you look
- remember, a healthy weight range is one that is realistic for your own body make-up (body fat levels should neither be too high nor too low)
- try a new challenge
- compliment yourself
- reflect positively on your abilities
- laugh a lot



Enjoy eating well, being active and feeling good about yourself. That's VITALITY.

#### FITNESS AND HEALTH PROFESSIONALS MAY BE INTERESTED IN THE INFORMATION BELOW.

The following companion forms are available for doctors' use by contacting the Canadian Society for Exercise Physiology (address below):

**The Physical Activity Readiness Medical Examination (PARmed-X)** - to be used by doctors with people who answer YES to one or more questions on the PAR-Q.

**The Physical Activity Readiness Medical Examination for Pregnancy (PARmed-X for PREGNANCY)** - to be used by doctors with pregnant patients who wish to become more active.

#### References:

- Arraix, G.A., Wigle, D.T., Mao, Y. (1992). Risk Assessment of Physical Activity and Physical Fitness in the Canada Health Survey Follow-Up Study. *J. Clin. Epidemiol.* 45:4 419-428.
- Mottola, M., Wolfe, L.A. (1994). Active Living and Pregnancy. In: A. Quinney, L. Gauvin, T. Wall (eds.), *Toward Active Living: Proceedings of the International Conference on Physical Activity, Fitness and Health*. Champaign, IL: Human Kinetics.
- PAR-Q Validation Report, British Columbia Ministry of Health, 1978.
- Thomas, S., Reading, J., Shephard, R.J. (1992). Revision of the Physical Activity Readiness Questionnaire (PAR-Q). *Can. J. Spt. Sci.* 17:4 338-345.

To order multiple printed copies of the PAR-Q, please contact the

Canadian Society for Exercise Physiology  
1600 James Naismith Dr., Suite 311  
Gloucester, Ontario CANADA K1B 5N4  
Tel. (613) 748-5768 FAX: (613) 748-5763

The original PAR-Q was developed by the British Columbia Ministry of Health. It has been revised by an Expert Advisory Committee assembled by the Canadian Society for Exercise Physiology and Fitness Canada (1994).

Disponible en français sous le titre «Questionnaire sur l'aptitude à l'activité physique - Q-AAP (révisé 1994)».



# Journey 1

## Journey 1 Lesson Plan

This activity or lesson plan is intended to provide suggestions to the instructor. It is important for the instructor to adapt these suggestions to suit the environment in which he/she works. Taking into consideration the group you are working with, the equipment that is available, the water conditions and the weather will have an impact on how you structure the sessions.

Remember these sessions focus on the "skills" in the Passport and in the Journey 1 Participant handbook.

# Journey 1 Passport Checklist

The following items correspond directly to the Participants Passports. Use this list to make sure that you are covering each topic thoroughly to prepare each participant.

## Safety

- follows traffic patterns.....
- demonstrates safety position.....
- wears appropriate clothing.....

## Equipment

- carry blades/boat properly.....
- ability to move the footstretches.....
- knows parts of the boat.....
- equipment check.....

## Terminology

- knows commands.....
- knows parts of the boat (port, starboard, bow, stern).....

## Grip

- sculling .....
- sweep.....

## Technique

- Body Positioning.....
  - release.....
  - recovery.....
  - entry.....
  - drive.....
- Sequencing on Drive & Recovery.....
- Slow Recovery.....
  - power:recovery ratio 1:2.....
- Basic Balance.....
  - raise and lower the handle(s) to rock the boat.....
  - bring the boat back in balance...

**Journey 1** was completed in a...

- sweep boat
- sculling boat
- single

# Instructor Tips for Journey 1

## INSTRUCTOR EQUIPMENT

1. It is important for you, as the instructor, to be comfortable when working with participants. Therefore, wear appropriate clothing especially when you are in the motor boat. It may feel warm on the shore but once you are out in the motor boat, it can get quite chilly. Hat, windbreaker, wind pants are all appropriate to wear when coaching. You should also wear sunscreen, sunglasses, and a hat to protect yourself from ultra-violet rays.

2. Use a megaphone. Trying to communicate with the crew while they are rowing and while the motor boat is running can be challenging.

3. It will also be handy for you to have a tool kit. Loosening and tightening thumb screws will be much easier if you have a wrench.

Suggested items for your tool kit include:

- an adjustable wrench;
- screwdriver;
- black electrical tape.

## Using a Tether Rope

There are limitations to dockside rowing or practicing the rowing stroke only on the ergometer. There are also limitations to sending a beginner crew on the water without having an opportunity to teach them some of the basics about the rowing shell and rowing stroke.

In the side column, we have illustrated an instructor using a tether rope with a novice crew. This allows the instructor to control the shell while giving instruction. The rowing shell is not being carried away by the current and the crew is not having to worry about steering. Both port and starboard can practice at the same time.

Use of a tether rope allows the crew to focus on the basics of the skill. Normally, it is possible to practice balance exercises, squaring, feathering and the movement of the body on the recovery. Even some very light rowing strokes can be taken.

The tether rope should be 15 - 20 metres long. The instructor can tie it to the stroke seat footstretchers. The rope needs to be long enough to attach to the shell so it can clear the dock without interference and give a little room for rowing.

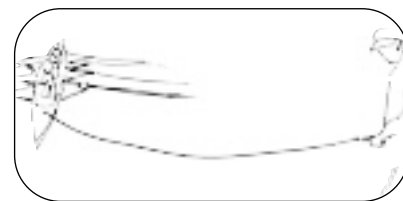
### PRECAUTIONS:

1) The instructor must find an appropriate place use the tether: eg. Position on the dock or shoreline. The shell should be sheltered from strong crosswinds or strong currents.

2) The instructor should limit the number of participants who are actually taking rowing strokes. If too many are rowing, the instructor may end up in the water:

### Safety Position:

Page 2 of the Journey 1 booklet shows the safety position in sculling boat. It is the same position in a sweep boat.



USING A TETHER

## RIGGING

In any situation, whether for learn to row participants or competitive rowers, the rowing shells must be rigged correctly if the participant is going to learn how to row with correct technique. If you don't know how to rig the boat, get a senior instructor in the club to help you. Rigging is covered in the Level 1-3 Technical Courses. In Level 1 Technical, you are taught how to measure in rigging and in Level 2, you are taught how to adjust rigging.

Proper rigging is a comfort issue as well as a learning issue.

Here are some basic considerations for rigging for the Journey 123 Program

### HEIGHT



CORRECT HEIGHT



TOO HIGH



TOO LOW

**1. LOAD** - When the participant takes a stroke, the load is how heavy or light the oar feels going through the water. Without getting too technical, by moving the pin and/or the collar on the oar will effect the load. This is called the "span" or "spread" and on the oar, it is called the inboard.

Here are some measurements that would be appropriate for beginners in this program.

	Span/Spread	Inboard
8+	83-85cm	114-117cm
4+	85- 86cm	115-117cm
4-	85-86cm	115-117cm
4X	156-160cm	86-89cm
2X	158-160cm	86-89cm
1X	160-162cm	86-89cm

**2. PITCH** - When the oar goes into the water, the blade should stay at a uniform depth. The angle of the spoon of the blade can cause the blade to be under or over-pitched. If the blade is over-pitched (too much forward angle on the blade), the blade will wash out of the water. If the blade is under-pitched (too little angle on the blade) the blade will knife into the water and go too deep.

An appropriate forward pitch would be 6-8 degrees.

**3. HEIGHT** - Rowing at the proper height allows the participants to get a clean extraction of the blades at the release. Rowing with the proper height also allows the participants to be comfortable on the recovery, having enough room to carry the blade well off the water without hitting their thighs. (See illustration at side)

height: 14-17cm

## PLACEMENT OF FOOTSTRETCHERS SCULLING

### 4. Proper placement of the footstretchers

The rower must have the footstretchers in the correct position to assist in a good release as well as having an effective drive phase. By watching the participants at the release, you will be able to determine if the footstretchers are in the right position. (See illustrations at side)

## Common Technique Errors for Beginners (see illustrations on page 30)

### GRIP

#### Thumbs UP!

a) Some participants will place their thumbs on top of the oar handle in sweeping. If the thumbs are on top of the oar handle, the participant cannot use the correct finger/thumb action to feather and square the blade. As well, the oar is easily lost in rough choppy water. Continue to remind the participant to keep their thumb underneath.

#### Thumbs Down!

b) In sculling, some participants hold the scull improperly by allowing the thumbs to slip from the butts of the handles and hold the sculls like a sweep oar with the thumb underneath the handle.

The thumbs must stay on the butts of the handles in sculling. The hands should stay very close to the thumbs ie. not allowing the thumb to extend on the butt of the handle.

#### Outside Hand Off!

c) Sometimes participants allow their outside hand to come off the end of the oar handle when reaching for the entry. They are usually trying to get a little more length but they don't usually get more length because they end up missing water. The outside hand must remain on the oar at the entry because it has the greatest mechanical efficiency and lack of control is a great disadvantage.

In Journey 1, simply remind the rower to keep that outside hand on the oar. In Journey 2, you could have them row with the outside arm only keeping with the oar on the square. This drill is called "outside arm only".

#### Bent Wrists at the Entry

d) Sometimes, the participant is not using the feathering/squaring action correctly and uses his/her wrists to square the blade(s). It is important to review the wrist and hand action to square and feather the blade. It may be that the rower is not holding the oar correctly as described on pages 35 and 36.

#### Moving Hands

e) It is not uncommon to see the outside hand slip down toward the inside hand on the oar in sweep rowing. This could be a rigging problem where the inboard is too long in relation to the span. But it also could be that the participant does not understand that the outside hand is his/her leverage hand.

You could remind the participant to keep the outside hand on the end of the oar. Sometimes, rowers slip the baby finger over the butt of the oar handle as a reminder or you could place some tape on the handle so there is a visual reference.



Footstretchers too far in stern - short finish, long entry position



Footstretchers too far in bow - long finish, short entry position



Correct Model

## SWEEP



Footstretchers too far in stern - short finish, long entry position



Footstretchers too far in bow - long finish, short entry position



Correct Model

## Common Technique Errors for Beginners



THUMBS UP!



OUTSIDE HAND OFF!



BENT WRISTS!



MOVING HANDS!

# Journey 1 - Lesson Plans

CONTENT	EQUIPMENT NEEDED	ACTIVITY
REGISTRATION & Welcome Optional: have rowing promotional videotape playing	Tables, pens, receipt book, club membership forms.	
INTRODUCTIONS Explanation of the Skills Program & Passport Stamps.	Handout of Passport and Journey 1 Booklet	Any questions?
TOUR of the Boathouse · show location of washrooms/showers, telephone, boat bays etc		Any questions?
Intro to the EQUIPMENT BOATS · sweep/sculling; · different size of boat PARTS OF THE EQUIPMENT · port/starboard; · riggers, oarlocks; · seat, footstretchers; · bow/stern · rudder	Equipment should be on stretchers and oars out of the boathouse Refer to Journey 1 pages 4- 5	Have participants look at equipment . Ask questions.  What parts move/what parts don't move. Why?
OARS · sweep oar/sculling oar; · emphasize the different size of SPOON/GRIP · talk about the material the oar is made of	Oars	Demonstrate how to carry an oar Demonstrate how to put the oar in the oarlock. Have participants put oars in oarlocks.
How to CARRY the boat · step by step - go through the commands; · review no talking on boat, listening, fragility of equipment and expense.	Shells on stretchers	Have participants on the boat. Lifting over heads, rolling it etc. Have participants carry shells to dock if doing dockside *
SAFETY · discuss the importance of safety; · distribute club traffic pattern and safety rules	TV & VCR Club traffic pattern map and safety rules handout	Watch USRA safety video; questions and discussion on safety
DEMONSTRATION of the rowing stroke · entry, drive, release, recovery; · sit at catch, finish · chop drill (if in the boat) · show the safety position	Ergometer or dockside	Instructor to demonstrate. Each participant should have a turn See use of tether and chop drill Option: Watch RCA video on model rowing.
Appropriate CLOTHING		Remind participants to wear appropriate clothing for onwater sessions on the next day. Answer any questions.

## LESSON 2: Safety and Getting Ready To Row....ROW!

CONTENT	EQUIPMENT NEEDED	ACTIVITY
<p>GETTING READY TO ROW</p> <ul style="list-style-type: none"> <li>· review equipment, handling procedures.</li> <li>· toeing the edge, fin</li> </ul>	Boats and oars	Participants carry the oars to the dock; Under close supervision from instructor, have participants carry the boat to the dock.
<p>Putting the Oar in the OARLOCK</p> <ul style="list-style-type: none"> <li>· review how the oarlock works;</li> <li>· show where to stand when putting in the waterside oar.</li> </ul>	Boats and oars	Instructor to demonstrate on the dockside oar first. Then show waterside. Each participant should put in an oar.
<p>GETTING INTO THE SHELL</p> <ul style="list-style-type: none"> <li>· review the importance of where the participant puts feet;</li> <li>· how to hold the oar</li> <li>· how to move the footstretches.</li> </ul>	Boat and oars	Instructor to demonstrate Each participant has a try.
<p>THE BASICS</p> <ul style="list-style-type: none"> <li>· balance</li> <li>· the grip;</li> <li>· parts of the stroke;</li> <li>· square/feather;</li> <li>· stroke cycle;</li> <li>· bladework - chop drill</li> <li>· safety position</li> </ul> <p>TETHER ROWING</p>	Tether Rope	Allow each participant to have an opportunity to be in the boat and try rowing and to do the drills. This is dockside or preferably on a tether. <b>Unless the safety video has been shown, crews should not go on the water.</b>

## Lesson 3: Safety ....Are You Ready? Row

CONTENT	EQUIPMENT NEEDED	ACTIVITY
<p>SAFETY (on the dock)</p> <p>Discuss the hazards of being on the water and in a rowing shell. Remind the crews about the traffic pattern rules.</p>		Have participants ask questions/clarifications. Show participants landmarks and flow pattern.
<p>GOING ON THE WATER</p> <ul style="list-style-type: none"> <li>· review getting in the boat.</li> <li>· Balance drills on the tether</li> <li>· Chop drill;</li> <li>· arms and back only;</li> <li>· touching and backing</li> </ul>	Check motor boat and all safety equipment. Boat and oars	Close supervision is needed when getting the boat to the water. Tether rowing
<p>ON THE WATER</p> <ul style="list-style-type: none"> <li>· emphasis on proper grip;</li> <li>· balance;</li> <li>· row in combinations where the shell can be balanced;</li> </ul>		Eyes closed balance drill Rock the boat Chop drill. Pair/four rowing

## Lesson 4: Release.....Recovery.....Entry.....Drive

Remember: These skills are difficult to do if the boat is not balanced!

CONTENT	EQUIPMENT NEEDED	ACTIVITY
<ul style="list-style-type: none"> <li>· REVIEW main parts of the stroke;</li> <li>· main point of Journey 1 for each part of the stroke;</li> <li>· review the stroke sequence;</li> </ul>	Ergometer or dockside	Have each participant sit at release position; Demonstrate correct sequence out of the bow;
ROWING <ul style="list-style-type: none"> <li>· Focus on correct grip</li> <li>· Introduce pause drill to help with correct sequencing</li> </ul>	See participant handbook for Journey 1 pages 8-10	Row in pairs and fours. Grip: play the piano drill, pressure down on palms. PAUSE DRILL

## LESSON #5: Steering

CONTENT	EQUIPMENT NEEDED	ACTIVITY
Instructor explains the importance of steering. <ul style="list-style-type: none"> <li>· TOUCHING</li> <li>· BACKING</li> </ul>		Instructor demonstrates backing and touching. Arms only strokes. ½ strokes Crew tries it.
A rowing workout <ul style="list-style-type: none"> <li>· balance is a must</li> </ul>		Crew to row for 25 minutes Boat must stay reasonable balanced. Row with as many as possible with boat balanced for 30 minutes.
Steering maneuvers and commands	500 metres where crews can perform maneuvers without interfering with other boat traffic.	See Games for Activities

## Lesson #6: Perfect Practice Makes Perfect!

CONTENT	EQUIPMENT NEEDED	ACTIVITY
The focus of this session is on PRACTICING THE TECHNIQUE learned already in an attempt to groove in the correct movement patterns.		Stop /Start rowing with drills introduced in Journey 1 to emphasize technique points Tether rowing may be necessary to assist with some of the points.
Drills · tap drill · feather square in · break it up If necessary the instructor can review certain points on the ergometer with participants	Refer to pages 12-13 in the Journey 1 handbook	
Fun & Games		See Games section in this manual

## Lesson 7: Endurance Row

CONTENT	EQUIPMENT NEEDED	ACTIVITY
The purpose is to see how far the crew can get in 20 minutes.		General rowing with some drills

## Lesson # 8: Final Session of Journey 1

CONTENT	EQUIPMENT NEEDED	ACTIVITY
The final session should be FUN. It is an opportunity for participants to get stamps for their passports.	Stickers. Participants should bring their passports	Ask participants what they would like to do in the final session.
DRILLS-tap drill, feather-square-in drill, and break it up drill Fun & Games Long endurance		
EQUIPMENT Show participants how to clean the runners, oarlocks and wash down equipment		Have all participants assist in cleaning the equipment.
EXPLAIN JOURNEY 2 and registration and content Provide passports update for all participants		

# The Grip

Learning how to hold the oar correctly from the beginning can prove to be the most important lessons of the sport. The rower should be able to square and feather the oar easily without excessive strain on the hands, wrists and arms. The grip should always be relaxed and loose. Special attention is given to this in Journey 1. It is important that participants learn it correctly from the beginning.

See picture in Journey 1 pages 8-10

*All these skills should be learned correctly from the start. If the instructor ensures that the movements are performed correctly at the beginning it becomes easy to reinforce the correct movement pattern.*

Consider the advantages of SLO-MO-ROW: an approach to teaching sport skills whereby the learner moves in slow motion during the very early stages of skill acquisition until the correct movement pattern can be repeated.

This method is easy to use. It is rewarding to both the instructor and the athlete because the details of the skill are mastered immediately. The speed of the movement can be accelerated or the pressure increased ever so slowly.

This is not a laborious process, as the gains are rapid once the initial SLO-MO-ROW approach has implanted the correct motor pattern. The rower has been positively reinforced, and the learner knows that he or she is on the right track. A couple of days spent in this way will save months of correction later on.

Instructors and coaches should not ignore the influence that oversized handles can have on technique. This is applicable for sculling as well as for sweep.

Oar manufacturers will deliver oars with a reasonably large handle diameter unless asked to do otherwise. Instructors/coaches often take whatever equipment that is assigned to them without considering whether the handle size is appropriate for the participants. Youngsters and many women have hand sizes that are too small for the large diameter oars that most men use.

Even some men have smaller hands that make the correct manipulation of the oar extremely difficult. The simple way to test whether the handle is too large to do the finger test:

The middle finger and thumb of the inside hand should be able to just overlap.

This diameter should be carried right down to the butt end of the handle.

Most handles are too big.

Special problems arise from having sweep handles that are too big such as:

1. leaning away at the finish
2. raising the inside shoulder at the release
3. excessive use of the inside wrist to feather
4. using both wrists to feather
5. feathering under the water

\*The size of the oar handle will effect the rower's ability to hold to oar correctly

With a little bit of analysis, an instructor/coach can see that most problems like these are caused by the fact that the handle is just too big for the rower to exert proper control at all stages of the movement, especially at the turns where fingertip control is imperative. The instructor should check that the oars are not too big for his or her crew in handle size, overall length and blade width, as the oars are handed down from crew to crew. Here is how the oar handle should sit in the hands.



## Journey 1 Drills

### USING DRILLS IN JOURNEY 1

There are number of reasons why you might use drills in rowing:

1. to teach a basic movement pattern;
2. to re-learn a motor pattern;
3. to isolate and practice a complicated skill;
4. to break monotony.

As an instructor, it is important for you to know why you are asking the participants to do a drill. What skill/movement are you emphasizing? Do the participants know what you would like them to focus on? Have you demonstrated the drill and explained exactly what to look for?

At the beginning stage, it is important that any drills used are appropriate for the skill level of the participant. In Journey 1, there are certain skills where drills can help:

#### 1. TAP DRILL

This can be used to emphasize the grip and how to position the hand(s) correctly on the oar. It can also be used to teach how to square and feather the blade correctly. This can also be used to emphasize the path that the oar handle follows during the release sequence. (see page 37)

Normally, this is done with the boat sitting still and balanced. The stroke is isolated such that it is an "arms only" exercise. Each participant (or two at a time) has an opportunity to practice taking the blade in and out of the water and squaring and feathering with the proper technique.

**INSTRUCTOR TIP:** Check the participant's wrists and knuckles. Wrists should be flat and knuckles or grip should be relaxed.

Remember in the "Teaching Motor Skills" section that beginners rely very heavily on visual cues. Therefore, encourage them to look at their wrists, their oar(s) and their knuckles.

## 2. FEATHER, SQUARE IN DRILL

This is a variation of the tap drill. Again, the boat must be balanced. Using the complete stroke cycle, the participant feathers and squares the blade and puts it in the water. The emphasis can be placed on grip, blade height off the water and squaring. Remember the ideal trajectory of the oar handle. This is what we are looking for to make the stroke smooth and fluid.

## 3. BREAK IT UP DRILL

This drill will help the participant put it all together. The participants start at the entry position. Make sure everyone is together. Take a stroke - pop the blade out of the water and then feather. Check to make sure everyone is together. Repeat.

Give the participants one basic technical cue to focus on such as:

1. hands over the knees before coming up the slide
2. check your grip - flat wrists on the feathering or squaring action

## Other Drills to Help Develop Skills

### BALANCE

#### ROCK THE BOAT:

Have all participants on one side lower hands and the opposite side raise hands. Switch. Rock the boat then bring it back to a balanced position.

#### SQUARE BLADE:

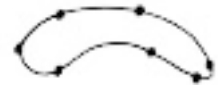
With the boat balanced, row in pairs with the blades on the square. Have participants focus on where their oar is relative to the water and where their hands are carried.

## THE TRAJECTORY OF THE OAR HANDLE

### Beginners



### Better



### Ideal



# Journey 1 Games

The great things about using games in skill development is the participants usually relax and have fun. When determining whether or not to use a game, consider the participants ages and personalities.

Here are a few suggestions of easy games for this group. Remember the weather and water conditions must be appropriate. Use your imagination to make up new games to keep things fun and interesting for your participants. For example, youth participants are more likely to enjoy games, however, some adult groups like to participate in these as well.

## PICK UP THE FLOATING STICK

For Journey 1, this is best done if there is little or no wind. Have a baton or a stick and drop it in the water. The challenge is for the crew to maneuver the shell in order to pick up the stick.

Skills - balance, steering, commands.

## SCAVENGER HUNT

For Journey 1, identify some easy locations along the river or around the lake where the crews can get close to the scavenger items. Compile a map and mark a number of areas where you have left an item or a clue. The crew must get to the spot and identify that particular clue. Here are some examples - identify the number of swimmers at the beach, place something on a dock that has to be identified, identify the color of a flag on a tree. This is a little like orienteering but the idea is for the crews to proceed relatively slowly, while steering, giving appropriate commands to get to the desired destination.

## ROWING DRESSAGE

Identify an area to work or play. Provide a routine to be done in that space in a given time. The routine should include all of the skills that the participants have learned in Journey 1. For example, if you have a 2000 metre course, you may confine this to the top 500 keeping in mind the traffic regulation or you may designate an area for this.

0 - 50m mark - demonstrate the safety position

50 - 100m mark - demonstrate power: recovery ratio 1:2

100 - 150m mark - row ten strokes, stop, rock the boat row 10 strokes

150 - 200m mark - demonstrate the Tap drill

200 - 250m mark - demonstrate power: recovery ratio: 1:2

250 - 300m mark - demonstrate the safety position

300m mark - feather, square in drill

350 - 400m mark - demonstrate break it up drill

400 - 500m mark - good rowing with proper grip and body positions throughout the stroke.

As the instructor, you will provide feedback on various aspects of the rowing.





# Journey 2

## Journey 2 Instructor Tips

In Journey 2, the focus shifts from teaching the beginner to a rower who is beginning to develop the rowing skills. While Journey 1 was designed for the "learn to row" participant, the Journey 2 emphasis is placed on fitness, drills and skills.

Each club may have a unique way of integrating the Journey 2 crowd into club activities. Some Journey 2 rowers may row twice a week, others may row three times a week and some may row five times a week. Therefore, it is important for the instructor to adapt the suggested skill training, fitness workouts and drills according to the club set up and to the needs of the participant.

In this section, you will read about fitness training, drills and rowing technique. There will be suggestions about how to use the material. However, as the instructor, you will have to mix, match and adapt based on what you know about the situation.

REMEMBER SAFETY FIRST and KEEP IT FUN!



# Journey 2 Passport Checklist

## SAFETY

- continued demo of J1 Safety.....
- emergency stop after 5 strokes.....
- ability to read weather patterns.....

## EQUIPMENT

- able to remove seat from runners.....
- able to put seat back.....
- ability to identify basic problems.....
- carry small boats (1X or 2X).....
- able to clean runners & oarlocks.....

## SWEEP

### GRIP

- proper grip (port & starboard).....

### TECHNIQUE

- Bladework....
  - clean release.....
  - keep blade off of water on Recovery.....
  - blade rolled to square for entry.....
- Balance.....
  - 8 strokes with square blade.....
  - balance in hands away position for 5 seconds w/ot touching water.....
  - 10 of 20 s w/o touching water.....
  - stand up in boat.....
- Boat maneuvers....
  - turn boat 360° port only.....
  - turn boat 360° starboard only.....
  - turn boat using back & touching strokes.....
  - launch and dock unaided.....
- Efficiency....
  - row \_\_ metres in \_\_ strokes.....
  - row 750 metres in X time.....
  - at rate of 22 s/min
  - row 1000m in \_\_ time.....
- Fitness....
  - in 60 minute workout,
  - rows 8 km.....
  - do an RCA Category 4 workout.....
  - rowed 50 km in 10 sessions.....

**Journey 2** Sweeping was completed in \_\_\_\_ workouts.

## SCULLING

### GRIP

- proper grip in sculling.....
- crossover.....

### TECHNIQUE

- Bladework
  - clean release.....
  - keep blade off water on Recovery.....
  - blade rolled to square for entry..
- Balance
  - 8 strokes with square blade.....
  - balance in the hands away position for 5 sec w/o touching water.....
  - 10 of 20 s w/o touching water.....
  - lift all hands and remove top hand to behind the back .....
- Boat maneuvers....
  - turn boat 360° using port .....
  - turn boat 360° using starboard .....
  - turn boat using back & touching strokes.....
  - launch and dock unaided.....
- Efficiency....
  - row \_\_ metres in \_\_ strokes.....
  - row 750 metres in X time.....
  - at a rate of 22 strokes/minute row 1000m in \_\_\_\_\_ time.....
- Fitness....
  - in 60 min workout,
  - rows 8 km.....
  - do a RCA category 4 workout.....
  - rowed 50km in 10 sessions.....

**Journey 2 Sculling** was completed in \_\_ workouts.



## Instructor Tips for Journey 2

All of the skills identified in the Passport are detailed and explained in the Participant Handbook and require little explanation here. However, some aspects will require the instructor to demonstrate and explain to the rowers. Below you will find many lesson ideas and different ways to present information and skills:

### 1. UNDERSTANDING THE FORCE TIME CURVE FOR THE ROWING SHELL AND ITS CREW.

At some point during the Journey 2 (perhaps when you are beginning to discuss technique), it will be important to focus the group's attention to page 7 of the Journey 2 Participant booklet. Please note there is an error in the illustration of positive and negative forces. The positive force should be on the bow side of the shell and the negative force should go on the stern side of the shell.

E = ENTRY Just after the entry the boat is moving its slowest

R = RELEASE Just after the release, the boat is moving its fastest.

This has to do with Newton's Third Law - for every action, there is an equal and opposite reaction. The rower actually feeds momentum into the hull just after the release with the hands and body moving toward the stern.

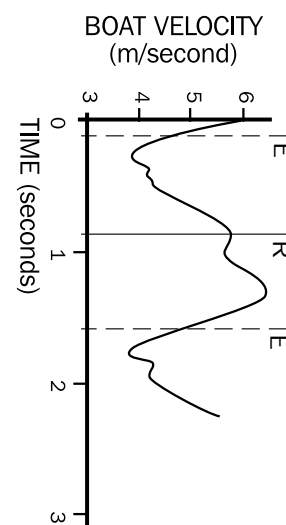
The main point is the boat does not travel at a consistent velocity throughout the stroke cycle. Just after the entry, the boat is at its slowest and just after the release, the boat is moving its fastest. The goal is to try to minimize the speed changes in the boat and by using good technique the rower can do this.

- Ask group what might be some examples of positive forces
- What would be negative forces?
- All of the points made on pages 7-13 are intended to minimize the negative forces.

### 2. ROWING AND FITNESS - USING RCA'S CATEGORIES OF INTENSITY IN JOURNEY 2

Rowing is an aerobic sport. This means that the majority of the energy that the muscles use during rowing are produced by the aerobic energy system. About 80% of the energy to row is produced by this system. There is a wide range of intensities that can be considered aerobic anything from a casual stroll down the street to an all out 1000 metre rowing race are all aerobic activities. As a means of breaking this range down into practical units, RCA has developed categories of intensity. The RCA categories consist of five aerobic categories and one anaerobic category. For the Journey 2 rower, the two most commonly used categories will be CAT VI and CAT IV.

CAT VI is the most important training category for a rower. CAT VI forms the foundation upon which all other training is built. Most of the physiological changes in the muscle that improve aerobic fitness occur in CAT VI. Blood flow to the muscle, energy production, oxygen use, and waste removal are all improved as a result of category VI training. Training in CAT VI is done at an intensity where a normal conversation can be held. Breathing should be normal



Heart rate is an indicator of being in the right intensity category. For recreational rowers, participants should monitor how they feel. This is the best gauge. Refer to Journey 2, page 14.

Intensity category	Approximate Heart Rate Change	Duration One Piece (min)	Ratio Work:Recovery	Goals of the Training Intensity	Practical Examples(SR=Stroke Rate)
IV	165-175	10-45	4:1	Anaerobic Threshold Development of Aerobic Capacity Efficiency Strength Endurance	2x20 min with SR-Change 3x5km Time Control 10km Head Race 3x12 min Strength Endurance on Water SR: 3-6 less than Race SR
VI	135-150	>45	-	Utilization of Aerobic Capacity Regeneration Maintenance Coordination of Movements Technique	45-120 min Steady State at Low Intensity SR: 18-24/min

and there should no discomfort in the arms or legs. Training session should last at least 45 minutes and, for the recreational rower, should not be more than 75 minutes. Training beyond 75 minutes can cause depletion of carbohydrates and possibly lead to overtraining. An example of a CAT VI workout would be 45 minutes at a rate of 22.

CAT IV is more of a performance oriented category (see chart at side). CAT IV training sessions are tough. There is an accumulation of lactic acid that leads to fatigue and pain during the training session. CAT IV sessions shouldn't be done until the rower has done at least 6-8 weeks of CAT VI work. When CAT IV is introduced into a program it should only be done once a week. CAT IV training helps improve race pace and trains the body to deal with higher levels of lactic acid. It can be done as either steady state i.e. 4 x 10 min @ 26 spm with 3 min rest between pieces or it can be done as intervals i.e. 5 min @ 26 followed by 5 min @ 22 for a total training time of 30 - 45 minutes.

#### Fitness & Guidelines for Workouts

Remember some participants may be relatively unfit. It is important that they complete the Par Q questionnaire. As the instructor, the duration and intensity of the workouts should be appropriate for the participants. The old adage "no pain, no gain" is not one that applies here. Rowers may feel fatigued after a category VI workout and they may feel a little discomfort during a category IV workout, but they should not feel pain.

The Journey 123 program is intended for people to improve their rowing skills and fitness. It is not unusual for rowing technique to deteriorate when participants are tired due to a hard workout. If you notice a break down in technique, you may choose to ease off the intensity or simply end the workout. "Grooving in" bad habits may make the errors difficult to change later.

#### 3. WARM UP AND STRETCHING

Before going on the water, stretching is a good way to get the muscles warmed up. Static stretching is considered the most effective and safest way to stretch. Static stretching is a sustained stretch where one gently in a slow controlled motion, reaches and then holds the position for a designated time. Static stretching is recommended for all stretching programs as it provides for a slow, gentle stretch aiding in tension reduction of the muscles. Muscles should be in a relaxed state while stretching. Ballistic or bounce-type stretching produces a contraction or tension within the muscles.

When using the static stretch, the exercise should be done slowly and gently until a tightness is felt within the muscle. At no time should there be pain involved. This "tightness" position is then held for at least 30 seconds. The exercise is repeated three times. The correct body positions are very important. If you find the stretch very easy, it is likely that the body may be compensating by using another body part (setting it up for injury). It is just as important, or more important, to do the exercises after rowing.

# Rowing Performance Enhancers - Hints by Karen Orlando



**LYING ON YOUR BACK WITH ONE LEG BENT**  
Bring your knee over the other leg and push your knee against the floor with the opposite hand. Then reach with the other arm to the opposite side looking in the same direction. You will feel the stretch in your lower back and bottom. Hold approx. 30 seconds



**CRAWLING POSITION**  
Let your arms slide along the floor as far as possible. Push your bottom back and down and the chest towards the floor. Breathe out while doing the exercise. Hold for 30 seconds.

**ALTERNATE FOR PECS**  
Stand sideways against a wall with arm closest to the wall straight out with palm facing the wall. Feet should be turned slightly in the opposite direction. Arm should start out at about a 30° from the floor. Move the arm up only as tolerated. Now turn the entire body in the direction of the feet with sternum leading so the body is turning away from the wall.



**HIP FLEXORS**  
Get into a half-kneeling position and tighten your stomach muscles so your back doesn't arch. Push your hips forward.



**PIRIFORMIS**  
Sit with one leg bent towards your chest and crossed over the other leg. Pull your bent knee with your arms towards your chest. The stretch should be felt behind the thigh and in your buttock



**STAND STRAIGHT WITH FEET APART**  
Support your back with your hands while bending your back as far backwards as possible. Keep your knees straight during the exercise



**HAMSTRING**  
Sit on a table with one leg straight in front of you and your other leg on the floor. Bend your body forward keeping your back straight



Lying on your back, bend one knee into your chest and wrap a towel around the ball of your foot and try to straighten your leg



**BUTTOCK**  
On all fours, cross your right leg over your left. Keep abdominals tight so the pelvis stays level - don't twist your spine. Extend your right leg back and keep your weight on the left leg. Stretch should be felt along outer edge of your right leg.



**CALF**  
Stand in a walking position supported with your leg to be stretched directly behind you with the knee straight and then repeat with the knee bent. Lean forward until you feel the calf being stretched.

"When doing these stretches, the body position is important. The body will naturally want to take the path of least resistance which in most cases will not be stretching the correct group of muscles. It will compromise another body part. Do not try to stretch beyond the "pulling feeling". Hold the position for at least 30 seconds. Rowers need guidance to ensure the correct body position is being held."

Karen Orlando, BScPT, Dip in Sport Physiotherapy,

Physiotherapist for Canada's National Rowing Team.

#### 4. ASSESSING EFFICIENCY IN AT YOUR CLUB

Assessing efficiency and rhythm can be a very subjective exercise. In the Journey 2 handbook (page 13), you will find some guidelines to assist you. In the Passport (pages 6 & 9), you will find underscores:

- row \_\_\_ metres in \_\_\_ strokes
- row 750 metres in \_\_\_ time
- at a rate of 22 strokes/minute row 1000 metres in \_\_\_\_ time.

Here it is up to each club to find appropriate numbers depending on your water conditions. Is there a current? Is it dead water? It is suggested that you get good club rower(s) and ask them to row these distances and each club can come up with the numbers. Depending on what size of boat the participants row in, you will need to get the experienced rowers to row the "course" in a similar boat size. Of course, you will have to adapt the numbers given the skill level and fitness level of the Journey 2 participant. Not too easy - not too hard!

You might even get the participants to try this on their first day in Journey 2. Keep a record. Then every week or two, do this exercise again. Certainly, this would be a good way of monitoring improvement in fitness and skill level.

In Journey 3, participants are asked to do the same exercise. You can make the standard slightly more difficult for the next level.

### Common Errors In Rowers

These errors, as well as the errors discussed on pages 29-30, will all impact the Velocity Curve.

#### 1. SHOOTING THE SLIDE

If the legs drive before the blade is securely locked in the water, the legs will immediately go straight into the bow because there is no resistance. This will cause the boat to slow down considerably because more pressure has been placed on the footstretcher and the blade has not locked into the water.

To correct this fault, have the rower work on the Catch Drill as described in Journey 2 on page 11.



SHOOTING THE SLIDE

#### 2. LEANING AWAY FROM THE OAR HANDLE

This fault is sometimes caused because the rigging is too low. However, in most cases, it is because the participant is not using the outside arm correctly to get the oar out of the water.



LEANING AWAY FROM  
THE OAR HANDLE

# Idea For Lesson Plans

## Safety - emergency stop

- have an experienced rower row by and demonstrate an emergency stop.
- have that rower explain to the group what he/she does and how it feels;
- then get the group to practice it.

## Reading weather patterns

- if you see rough water, discuss the direction of the wind and what the implications are for the rowing course;
- where will water be the best;
- discuss white caps as an indicator not to go on the water;
- if you see a storm cloud (cumulonimbus), point out the surrounding features such as the colour of the sky, cooling breeze etc. (See Journey 2, page 2)

## Equipment

- you may find that a windy day might be a good time to demonstrate and have the group learn some of the skills in this section;
- cleaning the oarlocks and the runner;
- learning and practicing how to remove/replace the seat from the runners;

Learning how to carry a small boat could be learned on a different day. It may be tricky to carry a small boat if it is windy. When a crew is carrying a small boat for the first time, have an experienced person with them at all times to ensure their safety and the safety of the boat.

## Drill Ideas for Journey 2

Rowing Canada Aviron has produced a video (Level 2 Technical video) that provides good information on drills for various errors and parts of the stroke. To order your own copy of the video call 1-877-RCA-GROW or email us at [rca@rowingcanada.org](mailto:rca@rowingcanada.org).



### FLAT HANDS

To encourage a relaxed grip, have rowers open their hands on the recovery so that only the metacarpal part of the hand is in contact with the oar handle. Rowers can do this on the square or on the feather.

When squaring or feathering is required, the entire hand will have to go back on the oar handle.

### DRILL

1. Have crew sit at release position. Check to make sure the rower is using the correct grip.

2. With boat balanced and blades buried, instructor says "ONE" and the rower(s) push the oar handle down to remove the blade from the water.
3. The instructor says, "Two" and the rower, without moving their hands toward the stern, rolls the blade onto the feather. Remember the wrist should not bend.
4. Repeat a number of times giving appropriate feedback for correction (if necessary)



#### BLADEWORK

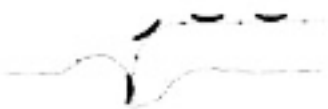
The blade should be carried at a consistent height off the water on the recovery. The rower should have enough blade height off the water to allow squaring to occur without having to push the oar handle down to square the blade. The blade should travel at a consistent and smooth speed. Any pauses or jerks will slow the boat down.



#### CLEAN RELEASE

Here we are looking for a clean exit from the water with no ripping or excess water coming off of the end of the blade. The blade should come out of the water completely and squared before it is rolled onto the feather.

If you look carefully at the blade at the finish, you will notice a pocket opening behind the blade. This is an indication of a good finish. (See illustration at side)



CORRECT ACTION AT THE RELEASE



INCORRECT ACTION AT THE RELEASE

#### DRILLS

1. Square Blade Rowing - this drill places emphasis on the correct "push down" with the arms at the release. Watch for the pocket behind the blade.

Drill progression: Delayed feather - the rower holds the oar on the square and then feathers it just as their hands are going over their thighs.

2. The Tap Drill - to focus on the release, have the rower(s) sit at the release position with the blade squared and buried. The rower will push the handle down and take the oar from the water and feather it. Using "legs flat", the rower will establish a body angle and take the next stroke. It is important here to check for that pocket behind the spoon of the blade. Check for a relaxed grip and no bent wrists!



#### ATTEMPTS TO KEEP BLADE OFF OF THE WATER ON THE RECOVERY

Here we are looking for the blade to be one full blade width off of the water from the time of the release until just before the entry. This will give the rower room to square the oar just before the entry without having to dip his/her hands.

#### DRILLS

1. Square Blade - This drill is one of those multipurpose drills. It is important for the boat to be balanced and the rower's know what they should concentrate on. The progression could be used "delayed feather". If the rowers are getting quite accomplished, try delayed feather and then an early square. This will indicate if the rower's hands are at the correct level. They shouldn't have to adjust their hand levels much in order to get the oar squared.

2. Pause Drill - You can ask them to pause a certain parts of the stroke. At this level, the most common is to pause with the legs flat and a body angle established. When they pause, the rowers should check their blade height off of the water and make the appropriate adjustment.

The rower should begin to roll the blade as the oar handle(s) pass over the feet.

#### DRILL

1. Alternate Square Blade - Again this is a variation of the square blade drill. The purpose in doing this every second stroke is to focus the attention on having the blade squared at the right time on the "normal" stroke. You can make different variations on this to make it more challenging.

## Journey 2 Games

The Journey 2 Games are intended to provide a little more challenge than the games in Journey 1. These games are selected based on the skills that are emphasized in the Journey 123 Passport. .balance, bladework, boat maneuvers, efficiency, and fitness. You can make up variations of the games to suit your club, the water conditions and the participants. Keep it safe and fun!

#### ROWING TAG

There are all kinds of ways and variations you can use for this game. You can use partial strokes ie. only ½ slide or arms and back only. You can determine how the "tagging" works. It can be that when the bow of one boat overlaps the stern of another boat...that boat becomes "it". You can use water guns. Each boat is given a loaded water pistol and the boat that is "it" pursues the other crews and squirts them with the water pistol.

#### SCAVENGER HUNT

Hide clues and prizes in locations that are accessible by rowing shell. Design a map to guide the crews to the locations and have them pick up the clues and prizes. The idea is to get them to use the rowing commands, dock and launch unaided and have them doing various boat maneuvers in order to pick up the items in the scavenger hunt.

#### RELAY - SWITCH SEATS

This is a good one for balance. In doubles, fours or eights, all members of the crew have to change seats. While one or two people are changing seats, the rest of their crew must hold the boat balanced. Remember - no feet on the bottom of the shell.

#### SLALOM MANEUVERS

This type of racing is done in skiing. It is also used in soccer for drills. The Fort Nelson Rowing Club uses this exercise in its skills program.

Set up an area on the water where you can safely place buoys. Determine what the course will be. Set up the buoys so that the various boat sizes can use it.

Design a map showing how the crews should go through the course.

Get an experienced rower or crew to set the time for the course.

It can be varied in terms of the objective for the slalom - time, different stroke types at different points on the slalom course.

#### FRISBEE TOSS

On a calm water day, take out a frisbee and crews can toss it back and forth. There will be the occasion that a crew will have to retrieve the frisbee from the water. You could have two people rowing and one or two people catching the frisbee.





# Journey 3

## JOURNEY 3 INSTRUCTORS

Journey 3 is intended to help participants race in local regattas. However, the main focus remains on rowing skills such as good technique.

Therefore, the role of the instructor in Journey 3 is to aim to get the rowers to be very independent. The emphasis is still on safety and good technique. There is a slight shift in focus to more intensity in the training and being able to identify rigging problems with their own equipment. Essentially, the rowers are able to function without an instructor being with them.

Most participants in Journey 3 will be rowing four to five times per week to get ready for a race. During this time, the instructor can give them a workout and they should be able to function independently.

They will need technique checks and drills to help remind them of correct skill execution. It is important in the Category VI workouts involve drills and technique reminders to reinforce good movement patterns.

Racing can provide a fun way to focus the training. At this level, it is not meant to be overly competitive. It is for fun. As explained in the Journey 3 Participant Booklet, there are many types of races that rowers can participate in - head races, 1000 metre and 2000 metre races. In this portion of the Instructors manual, there are a series of training programs that have been written by successful coaches across Canada.

Select the training plan that suits your participants. Alternatively, you could pull ideas from different workout plans keeping in mind the guidelines given by strength trainer, Ed McNeely and some of the contributing coaches. Before selecting a plan or a workout, consider the ages of the participants, the length of the race and the skill level. You can even make adaptations to add drills or games.

By Journey 3, the participant will have completed Journey 1 and Journey 2. They are likely in the "automatic" stage of skill learning. It is still important to refine, adapt and make corrections to technique if necessary. Drills and feedback on technique is a critical part of the instructor's role. The rower can continue to progress and improve their technique, rhythm and efficiency.

# Journey 3 Passport Checklist

## SAFETY

- ability to do a buddy rescue.....
- demonstrate all safety skills in  
Journey 1 & 2.....
- knows coast guard regulations.....
- carries approved PFD when rowing....

**Journey 3** was completed in a...

- sweep boat
- sculling boat
- single

## EQUIPMENT

- knows proper placement of  
footstretches.....
- ability to remove rigger.....
- ability to put rigger on.....
- able to identify basic rigging errors  
(height and pitch problems).....

## GRIP

- relaxed grip.....
- flat wrists.....

## TECHNIQUE

- clean extraction.....
- blade off the water on recovery..
- blade constant height off the  
water on recovery.....
- blade rolled to square  
over toes.....
- no skying at entry.....
- adequate and uniform blade  
depth on drive.....
- demonstrates a racing start  
(1/2, 3/4, full).....
- Boat Manuevers....
  - back the boat to an  
identified location.....
  - hold water on one side only.....
- Efficiency and Rhythm....
  - row \_\_ metres in \_\_ strokes.....
  - row 750 metres in \_\_\_\_ time...
  - at a rate of 22 strokes/minute
  - row 1000m in \_\_\_\_ time.....
- Fitness....
  - able to row 10km in 60 minutes
  - has rowed 250 km (minimum) in  
15 sessions.....
  - in preparation for a race,  
has done short interval work....
  - ability to complete a RCA  
Category 4 workout.....

# Technique

Here are some hints to help Journey 3 participants perfect the technique:

## Clean extraction

- blade should come out of the water square
- watch to make sure that the wrists aren't bending at the release
- the butt of the handle should be pushed down before feathering.

Drill: square blade rowing

## Blade off the water on the recovery

- blade should be carried a full blade width of the water
- rowers should carry hands lower on the recovery to achieve the correct height

Drill: square blade rowing, square-feather-square on the recovery.

## Blade rolled to square over toes

- by preparing the blade early enough the rower will avoid a "flip" catch;
- the rower should concentrate on dropping the lower edge of the blade down to the water.

## No skying at entry

- as the oar handle passes over the toes, the rower should unweight the hands as he/she continues into the stern;
- keeping the shoulders at the same height throughout the recovery will help keep the hands from dropping into the bottom of the boat.

If skying is occurring, it is important to determine why. Is it because the body angle has not been established early enough?

Then, use the pause drill with hands over the knees and a body angle set.

*Is it because the oar is too close to the water on the recovery?*

Then rowing on the square is very good to help the rower realize where he/she must carry the hands to leave enough room to square the blade.

## Adequate and uniform blade depth

- the blade should maintain a constant depth all the way through the drive.
- you can put white tape on the shaft of the oars to help the rower coach him/herself.
- The distances are measured from the blade tip
- sweep - 30 cm; sculling 20 cm from the blade

## The Pocket

As the blade starts working against the water, a "wall" or "hump" of water develops on the stern face (or working face) of the blade and offers effective resistance. On the bow side of the blade, a hole opens up in the water due to the displacement of water. This hole is called the pocket.

The pocket is one of the classic signs of the effectiveness of bladework. By the end of the drive phase, a full pocket should have been pushed into the water; the bow side of the blade should be completely dry. When the pocket has been fully opened, the blade should be released from the water because there is nothing more that can be done to increase the propulsion on that stroke.

During the early stages, you can teach rowers to open the pocket fully by the time that the drive is finished. Gradually, the pocket should start opening closer and closer to the entry. If the rower pulls back too far at the finish, the pocket will initially open correctly and then start filling up again as the blade moves too far towards the stern and the rower is unable to maintain effective pressure.

Opening the pocket continuously depends on a steady acceleration of the tip of the blade.

## Bladework tips

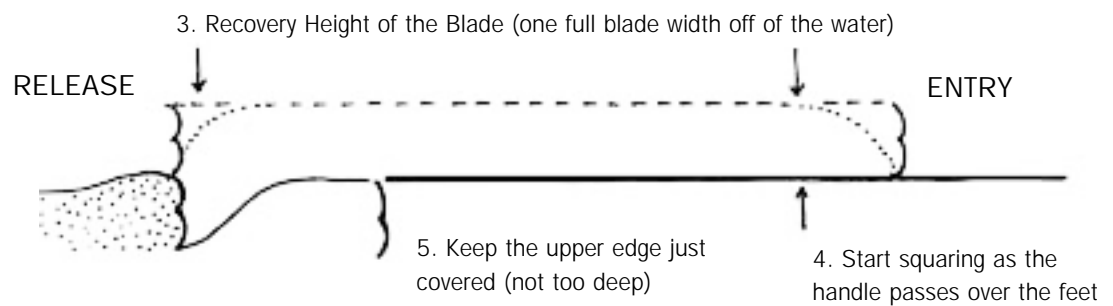
1. Catch and release square
2. Feather and square the blade only as the handle is moving towards the stern of the boat.
3. Maintain the upper and lower edge control.
4. Keep the white ring at the water surface all the time that the blades are in the water.
5. Push a pocket into the water starting from the entry.
6. Do not let the white ring rise up until the pocket has fully opened.

Here is a diagram that might help the rowers visualize what they are trying to achieve:

### BASIC BLADEWORK: MASTERING "EDGE CONTROL" BY ALAN ROAF

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2. Feather as the handle moves towards the stern



1. Correct Sequence at the finish:  
release and then push/feather  
together

THE UPPER EDGE FOLLOWS A SQUARER PATH: bring the upper edge up to the recovery height and then feather the blade as the handle moves away from the body.

## GOING TO A REGATTA

The fun of going to a regatta comes from rowing in a different place, traveling with club members, meeting new people and racing. Along with this comes some responsibility on the part of the instructor especially when you are working with youth rowers.

Consider the following in your preparations for the regatta:

1. Make sure everyone knows when they need to be at the regatta and what time they should be home;
2. Provide a map on how to get to the regatta site.
3. Be clear about transportation arrangements.
4. Designate a meeting time and place at the regatta site.
5. Show crew members around and review traffic flow patterns for the racing course.
6. Remind rowers what they should or should not eat prior to racing.
7. Let rowers know about the race schedule and when they will be going on the water.
8. Review the rules of racing.
9. Give crews an opportunity to practice backing into starting gates and setting a straight course if possible. Teach them how to spike and explain when this technique would be used.
10. Crew should meet again at least one hour prior to race time to go over equipment and review race strategy.
11. Crew should go on the water approximately 30 minutes before the race to get an adequate warm up.
12. Remember if this is the crew's first race, they will be excited and perhaps nervous. Reminders about focusing in the boat will be important.

## Fitness Training Programs for Racing

Included in this section are workout plans suitable for juniors and masters rowers who are preparing to race. It is expected that participants have a completed Journey 2. This is an important element to ensure that there is a good level of aerobic fitness prior to undertaking more intense work.

Safety is always a primary concern. Participants should be reminded to follow course traffic patterns whether on club course or away at a regatta.

### CONSIDERATIONS WHEN DEVELOPING A TRAINING PROGRAM

1. How many times a week can participants row?
2. At what kind of intensity does the technique start to deteriorate?
3. How long does the crew or rower have to prepare for the regatta?

Some advice from successful coaches when designing a training program.

1. Gradual introduction of intensity
2. As intensity increases, volume decreases.
3. Simulate racing by doing pieces with other crews including starts.
4. When technique breaks down, decrease the pace to ensure only the correct movement patterns are being reinforced.
5. The majority of work should still be in CAT V and VI.
6. Try to add variety into the workout by using drills, varying rates, measuring distances or efficiency.

# categories of intensity

Intensity category	Approximate Heart Rate Change	Duration One Piece (min)	RATIO Work:Recovery	GOALS of the Training Intensity	Practical Examples(SR=Stroke Rate)
I	MAX 1 HR ei 180 - 200	0.5 - 1.5	1:4 1:5	Anaerobic Capacity Transportation = Development of Cardiopulmonary System Ability + Feeling of Start/Spurt Aggression	1 - 6 x 500M (with start) Interval Training (Short Pieces) Series of 30 - 60 Strokes Or: Series of 1 -2 min. SR: > Race - SR
III	MAX HR ei 180 - 200	2 - 7	1:2 1:3	Race Endurance Transportation = Development of Cardiopulmonary System Race Speed Feeling Race Attitude/Plan	Race over 1500 - 2000M 6 x 2 min. 3 x 1000M 5 x 750M SR: Race - SR
IV	165-175	10-45	4:1	Anaerobic Threshold Development of Aerobic Capacity Efficiency Strength Endurance	2x20min with SR-Change 3x5km Time Control 10km Head Race 3x12min Strength Endurance on Water SR: 3-6 less than Race SR
V	150-165	30-90	-	Basic Endurance Utilization of Anaerobic Capacity Maintenance Coordination of Movements Technique	30-90min Steady State SR: 10-12 less than Race SR
VI	135-150	> 45	-	Utilization of Anaerobic Capacity Regeneration Maintenance Coordination of Movements Technique	45-120min Steady State at Low Intensity SR: 18-24/min

NOTE: Use this chart as a reference to the RCA Categories of Intensity. This chart will help you develop suitable training programs for your participants.

# MASTERS 4 WEEK TRAINING PROGRAM

By Janey Charlton

Janey is a coach at the Victoria City Rowing Club. She is BC's Provincial Rowing Coach and coaches Masters rowers on a regular basis. Janey is a graduate of the National Coaching Institute.

Masters rowers are older than 27 years of age. Normally, the Masters events are 1000 metres in length. Occasionally, Masters races are 2000 metres at such regattas as the North Western International Association Championships.

This program is suitable for Masters rowers training for a 1000metre race.

WEEK #1	WEEK #2	WEEK #3	WEEK #4
<b>MONDAY</b> 70 minutes 3'on/3'off x 3 (x2) @ 26 SR 5 minutes rest	<b>MONDAY</b> 70 minutes- Power Strokes 40 strokes x 3 (x2) @ 22 SR - 10 minutes rest	<b>MONDAY</b> 70 minutes -6min- utes x3 (2'2'2'@ stroke rate 24,26,28) 5 mins rest	<b>MONDAY</b> 60 minutes - 5minutes x4 (2'2'1'@26,28,30 stroke rate) 5 minutes rest
<b>TUESDAY</b> 70 minutes Steady State	<b>TUESDAY</b> 70 minutes Steady State + starts	<b>TUESDAY</b> 60 minutes Steady State	<b>TUESDAY</b> 60 minutes Steady State + starts
<b>WEDNESDAY</b> OFF	<b>WEDNESDAY</b> OFF	<b>WEDNESDAY</b> OFF	<b>WEDNESDAY</b> 60 minutes 20 on/10 off x 6 (x2) @ Race pace+ 10 minutes rest
<b>THURSDAY</b> 70 minutes - 5 mins x 3 (2'2'1'@ rates of 22,24,26) 10 minutes rest between each 5 minute pieces	<b>THURSDAY</b> 70 minutes - 1000m x 3 @ 24- 26 10 mins rest	<b>THURSDAY</b> 70 minutes - 1'on/1' off x 5 (x2) @ 28-30 stroke rate 7 minutes rest	<b>THURSDAY</b> 60 minutes - 500m x 3@ 30 stroke rate 5 minutes rest Load Boats
<b>FRIDAY</b> 70 mins Steady State	<b>FRIDAY</b> 70 minutes Steady State	<b>FRIDAY</b> 60 minutes Steady State + starts	<b>FRIDAY</b> off Travel to Regatta
<b>SATURDAY</b> 1000m x 3 @ 26 rate 10 mins rest	<b>SATURDAY</b> 80 minutes - 1000m x 3 @ 28 -10 minutes rest	<b>SATURDAY</b> 80 minutes - 1000m x 3 @ Race pace 10 mins rest	<b>SATURDAY</b> Races
<b>SUNDAY</b> OFF	<b>SUNDAY</b> OFF	<b>SUNDAY</b> OFF	

# Training Program

by John Armitage

John is a coach at the Kingston Rowing Club and Queens University. He has coached many successful crews including juniors, seniors and masters athletes.

## ASSUMPTIONS

1. The skill level of the crew is moderate ie. they are not novices nor are they previous Henley champions.
2. The race is in the fall and the crew has been on the water 3-5 times per week for the previous 3 months.
3. The fitness level of the crew is medium to high with an average age in the 40's.
4. The race will take about 20 minutes.
5. The athletes are familiar with the RCA Categories of training intensity. Beware of the target heart rates which do not apply to the aging athlete.

WEEK #1	WEEK #2	WEEK #3	WEEK #4
MONDAY 70'-C6 LDR  SR 16-18  Work on the finish	MONDAY 75'-C6  SR 18-20 LDR  Put finish, recovery, catch and drive into continuous stroke	MONDAY 80'-C6  SR 20-22 LDR  Work on technique points from video review	MONDAY 70'-C6  SR 18-20 LDR
TUESDAY 60'-C6  SR 18-20 Work on Recovery	TUESDAY 70'-C5  SR 20-22 2x35 min  Review technique points from Monday	TUESDAY 75'-C5  SR 22-24 3x25 min  Work on technique points from video review	TUESDAY 65'-C5  SR 20-22  Focus on Lead
WEDNESDAY OFF	WEDNESDAY OFF	WEDNESDAY OFF	WEDNESDAY OFF
THURSDAY 65'-C5 LDR  SR 18-20  Work on Catch	THURSDAY 50'-C4  SR 20-22 2x25 min  Work on blade accuracy	THURSDAY 55'-C4  SR 24-26 3x15 min  Focus on the drive	THURSDAY 50'-C4  SR 24-26 2x10 min at race pace
FRIDAY 75'-C6 LDR  SR 16-18  Work on drive	FRIDAY 80'-C6  SR 18-20 LDR  Quick accurate catches	FRIDAY 85'-C6  SR 20-22 LDR  Focus on a controlled side	FRIDAY 60'-C6  LDR  Technique Review
SATURDAY 50'-C4 2x20 min SR change @ 2'  SR 20-22  Work on body flow Video if possible	SATURDAY 20' Test Piece SR at race pace less 2  Mark how far you go Video	SATURDAY 20' Test Piece  SR race pace  Video	SATURDAY Travel Light C6 paddle over race course
SUNDAY OFF	SUNDAY OFF	SUNDAY OFF	SUNDAY Race Well!

# Training Program

by Sandy Corey

Sandy is presently at the Kenora Rowing Club coaching both Junior and Masters rowers. She has coached at the Winnipeg Rowing Club and has developed a number of successful junior rowers.

## Getting ready for a first regatta.

### ASSUMPTIONS:

1. The athletes are late in their first summer of rowing or early in their second.
2. Each row lasts between 90 and 120 minutes and they will be doing all, or most of these workouts in the boat and crew of the regatta.
3. Each workout includes a 15-minute warm up and a 15-minute warm down that is not specified in this writing. The order of the workouts in a given week should suit the weather conditions, the athletes' mental and physical states, and the two more intense workouts should not be on subsequent days.
4. The fourth workout each week, if there is one should be cat VI, a 60-75 minutes of steady state with drills mixed in.

### 4 WEEKS BEFORE REGATTA:

1. CAT IV "race" - choose a distance of about 7 or 8 km and set the crews off head race style ( 10 sec. - 1 min. intervals). The rate is a maximum of 22 and it should take 35-45 minutes.
2. CAT VI, 60 - 75 min. steady state with drills - I often have different crews doing different drills - what is the one skill this crew needs to work on the most.
3. 4 x 1000m with 10 min. rest. If this is their first time racing I just let them go for the first piece. I time every crew, every piece. I also check rates. During the rest we discuss times, rates, what was good, what needs work. I insist that crews be self-analytical - how did I do, how did the boat feel. No one is permitted to make comments about anyone but themselves or the crew as a whole. They need to begin to grasp how the boat feels and what to do to make it better.
4. CAT VI, a 60-75 minutes of steady state with drills mixed in.

### 3 WEEKS BEFORE REGATTA:

1. CAT IV race, same as before. If this has been a regular part of your weekly schedule, up the maximum rate to 24.
2. 3 x 2000m, rate 20, 10 min rest. This is my "sting like a bee" workout. Every stroke is 100% leg drive
3. CAT VI, 60 - 75 min steady state and/or drills. One of my favourite drills is a series of 50 strokes - 10 arms, 10 arms and back, 10 quarter slide, 10 half slide, 10 full slide, let it run, and as soon as the boat stops running on the water, begin again. This really helps with timing of the hands and the blades and body swing.
4. CAT VI, a 60-75 minutes of steady state with drills mixed in.

### 2 WEEKS BEFORE REGATTA:

1. CAT IV race.
2. CAT VI, 60 - 75 min steady state and/or drills
3. 4 x 1000m with 10 min. rests. Make sure you have the times from 2 weeks ago. Give feedback on rates during the pieces.
4. CAT VI, a 60-75 minutes of steady state with drills mixed in.

### Week of the regatta

1. CAT IV race, rate 24, as long as it is at least 3 days before regatta day.
  2. CAT VI, 60 - 75 min. steady state with 10 - 15 stroke bursts every 500m or so.
- STARTS - for new crews I will spend almost an entire workout on starts (they are fun!!!). I begin with the goals of the start and then we do the first 4 strokes and let it run. We

do 4 or more. Between each I talk to them about the rules of racing - aligner, starter, lanes, anything I can think of. I tell funny stories of being at the start and not being ready - trying to calm them down. Once the first four strokes are doing okay, we add five more. We practice the first nine at least 3 times. If there is time, and if the crew seems ready we practice the first 15 strokes. Many crews are not ready for more than the first four strokes, go as fast as they can for the rest of the race. I do not give complicated plans until the crew is ready. The main thing I emphasize is that they are a novice crew and their second goal is to be the best novice crew at the regatta, and if they do not have fun they have not met their first goal.

3. CAT VI, a 40-60 minutes of steady state with drills mixed in with a race simulation for 2000m at steady pressure.

## Training Program

by Mike Thompson

Mike has coached junior rowers for many years at the St. Catharines Rowing Club. He has been successful at the national and international level.

Juniors rowing 5 times per week getting ready for a race in 4 weeks

WEEK #1 - remember the heart rate on the Cat VI

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MONDAY CAT VI 60' 20 X 3' (1 min technical focus + 2' 18-22 SR)

· Tech focus might include" release, constant slide speed on recovery, body swing, entry, power application sequence, glide to recovery.

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TUESDAY CAT VI 30'-60' 4X 12' :PYRAMID of 2or 3 or 4 minutes.

2minutes@18 + 2'@20+ 2' @ 22 + 2' @24 + 2'@20 + 2'@18.

Or 3 minutes@20 + 3'@24 + 3'@28 + 3'@22

Or 4 minutes@20 + 4'@24 + 4'@20

WORK/REST RATIO: 4:1

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WEDNESDAY CAT IV 15- 20minutes warmup in Cat vi + 4-8 sets of progressions of 15-30 stroke pieces. Vary the length for variety. Then: 2-4 X 30 strokes 10 strokes @32 + 10 strokes@30 + 10strokes@28; Then 2-4 X30 strokes - 10 strokes@28, 10strokes@30, 10 strokes@32.

WORK/REST RATIO: 1:5

NOTE:In this case, you would multiply the hard strokes by 5 and this is the number of light strokes before doing the next set)

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THURSDAY OFF

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FRIDAY CAT VI 40'-60' stroke play - changing every two minutes

2'@20+2'@18 + 2'@16 +2'@18+ 2'@20 + 2'@22

---

SATURDAY CAT III Race or Competitive Workout

3X4X1500 @2000pace

WORK/REST RATIO: 3:4

NOTE:2000m pace should be held throughout the entire distance; crew should feel they could continue at the same pace for 2000m.

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SUNDAY OFF

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WEEK #2

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MONDAY CAT VI 60' - 20 X 3'  
(1' technical focus + 2'@18-22)

NOTE: Tech focus might include" release, constant slide speed on recovery, body swing, entry, power application sequence, glide to entry

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TUESDAY CAT I 6-10 X ST+30 (10 strokes@38+10 strokes @34+10 strokes @ 36)  
WORK/REST RATIO: 1:5

NOTE: This progression allows the crew to practice transitions up and down, but should be altered based on coach's observations and perceived needs.

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WEDNESDAY CAT VI 5X9'/3 minutes rest: 1'@22 + 2'@20 + 3'@18 + 2'@20 + 1'@22.  
WORK/REST RATIO: 3:1

NOTE: This is known as a reverse pyramid, this workout should emphasize slide control at low intensity and stroke rate.

---

THURSDAY OFF

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FRIDAY CAT VI 40'-60': Stroke play: change every 2': 2'@20 + 2'@ 18+ 2'@16  
+ 2'@18 + 2'@20 + 2'@22 + 2'@24 + 2'@22 + 2'@20 (total  
time adding up to 40 - 60 minutes)

NOTE: Emphasize accuracy of transitions and check stroke rate frequently

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SATURDAY CAT III Race or competitive workout: 3-4 X 1500m @2000m pace  
WORK/REST RATIO: 1:3

NOTE: Compare to previous work to measure improvement.

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SUNDAY OFF

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WEEK #3

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MONDAY CAT VI 60' 20 X3' (1' technical focus + 2' @18-22)

NOTE: Tech focus might include" release, constant slide speed on recovery, body swing, entry, power application sequence, glide to entry.

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TUESDAY CAT I 6-10 X ST + 30(10@38+10@34+10@36)

WORK/REST RATIO: 1:5

NOTE:This type of progression allows the crew to practice transitions up and down but should be altered based on instructor's observations and crew's technical needs;

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WEDNESDAY CAT VI 5X9'/3' 1'@22 + 2'@20 + 3'@18 + 2'@20 + 1'@22

WORK/REST RATIO: 3:1

NOTE: This is known as a reverse pyramid. This workout should emphasize slide control at low intensity and stroke rate.

---

THURSDAY CAT IV 6-10 X (1'@ 30 rest 1' + 30seconds@ 34, rest 30 "",  
+ 15"@38 rest 15"

WORK/REST RATIO: 1:1

NOTE: Set the 1' rate at your desired race pace, as the workout continues, the 1' rate becomes a comfortable race pace.

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FRIDAY CAT VI 40'-60' Stroke Play: change every 2':  
2'@20+ 2'@18 + 2'@16 + 2' @20 + 2'@22  
+ 2"@24 + 2'@22 + 2'@22.

NOTE: Emphasize accuracy of transitions; check stroke rate frequently.

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SATURDAY CAT III Race or Competitive Workout  
1-2 X 2000 pace time trial

WORK/REST RATIO: 1:3

NOTE: Compare previous work to measure improvement.

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SUNDAY OFF

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WEEK #4 - taper week for upcoming race. Emphasis on being positive all week long.

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MONDAY CAT VI Steady State rowing 8-12 km

NOTE: Include pre-race warm up (PRWU) in the early part of the workout so that crew becomes familiar with the plan for race day: practice backing into starting gate, spiking etc.

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TUESDAY CAT I PRWU, 4-6 X Starts every second 500 m: all static starts, 2 from starting platform if possible (row 8-12 km)

NOTE: Make at least 1 course row as a race simulation, in which tactical calls are made yet rowed steady state.

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WEDNESDAY CAT IV PRWU + 6 X 250 m - 3 with starts (row 8-12 km)

NOTE: At least one course row should be as a race simulation. It is best to do this on the 1st course row through.

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THURSDAY OFF

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FRIDAY CAT V PRWU + 2 X 250m 1 with start (row 4-8 km)

NOTE: Use 2nd 250m piece strategically for emphasis in race strategy.

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SATURDAY CAT III RACE DAY

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## Racing starts

by Roger Meager

Roger Meager coached in Manitoba for a number of years. He attended the National Coaching Institute and was assistant coach with Canada's National Rowing Team.

For the beginning rower, the start holds most mystique. They often want to attempt it first of all and are often prevented from trying until they are more able, only adding to its enigma. The camp is divided between those who would rather never learn starts as it is the prelude to the race and those for whom the start represents graduation to true rowing. For the coach of novice rowers, juggling the needs and fears of these two camps is a challenge but if racing is to be done then starts must be developed.

Why do starts?

Starts do serve a number of purposes:

1. To get the boat up to race pace as quickly as possible
2. To bring the athletes physiological systems up to their most efficient
3. To release nervous energy needs to be controlled
4. To establish a cohesive rhythm for the rest of the race

- Mistakes made during the start can have a disastrous effect on the crew
- Safe and simple.
- Judging your crews ability to grade the start effort.

## Learning strategies

Teaching the start could use 2 learning strategies:

1. Breaking the stroke down to constituent parts one stroke at a time
2. Working the pattern continuously but increasing the intensity and rate.

It will be necessary to assess the crew to determine the best approach. There may be an opportunity to begin with 2 move to method 1 and then return to 2 to hone the skill.

Method 2 will bring excitement and respect for the skills needed and method 2 will bring clarity!

- It is important to establish points of reference such as slide positions and blade length.
- Always work at lower power levels in learning the start
- Always agree on the objectives of the start for the crew.
- Of all the aspects of rowing starts will always fail due to individuality.

## The 1st 10 strokes

1. Make sure all the blades are at the same length. Bodies in a strong position but relaxed. Emphasize the squeeze of the 1st stroke otherwise the boat will go backwards. No need to feather between 1 and 2.
2. Try and keep the power level manageable. With mixed crews or mixed ability crews strong athletes tend to want to "get going" and can break up the crew and cause others to crab. Impress upon skill over power
3. Work on the hand speed rather than a quick slide to create the quick strokes. Now add the feather. Watch that the slide does not get out of control at this point.
4. Now at full slide work on timing and slowly adding the body length to the stroke cycle. As the crew gets more confident challenge them by increasing target rates.
5. Increase the use of the body but don't let the tall athletes over reach shorter crew numbers.
6. This a good reference point. The call of "together" will remind them that they have to be at full slide rowing as they want to be all the way down the course and be looking at being in time.
7. Now with everybody still on board more power can be applied and in better crews a little aggression to attack the race. The rate can also be increased here just to lift the boat a little.
8. Encourage the athletes to use the legs rather than the arms which they probably have been relying on to do the start.
9. Just 2 more strokes at this power level and then they can get the boat into race pace.
10. There is no need to call a stride. Work on long well timed strokes and the rate will come down over the next 10 or so into the pattern which they want to carry on for the rest of the race, it is often more evolutionary than contrived.



# Rowing Canada Materials

The following materials are available from Rowing Canada Aviron:

- Level II Technical:
- Strength Training:
- Ready all Row:
- Rowing Video Database:
- Passport and Journey 1 Participant Handbook
- Journey 2 Participant Handbook
- Journey 3 Participant Handbook
- RCA Stickers for Passport (20stickers/sheet)
- Instructor Guidebook
- RCA Skills Poster
- RCA Skills Poster

Please contact Rowing Canada Aviron for the current prices and shipping and handling costs.

Rowing Canada Aviron

Phone: 250-361-4222

Fax: 250-361-4211

1-877-RCA-GROW

[rca@rowingcanada.org](mailto:rca@rowingcanada.org)

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