



National
Coaching
Certification
Program

Ready to Race!

Introduction to competition

Training Basics

Reference Material





Cycling**CANADA**Cyclisme

Canada's Cycling Associations





PARTNERS IN COACH EDUCATION

The National Coaching Certification Program is a collaborative program of the Government of Canada, provincial/territorial governments, national/provincial/territorial sport organizations, and the Coaching Association of Canada.



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How to be a better coach



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Learn to listen, especially to the athletes –
they are excellent teachers.

Help each athlete develop all of their capacities:
physical, mental/emotional, and social.

Take a stand against doping and cheating in sport.

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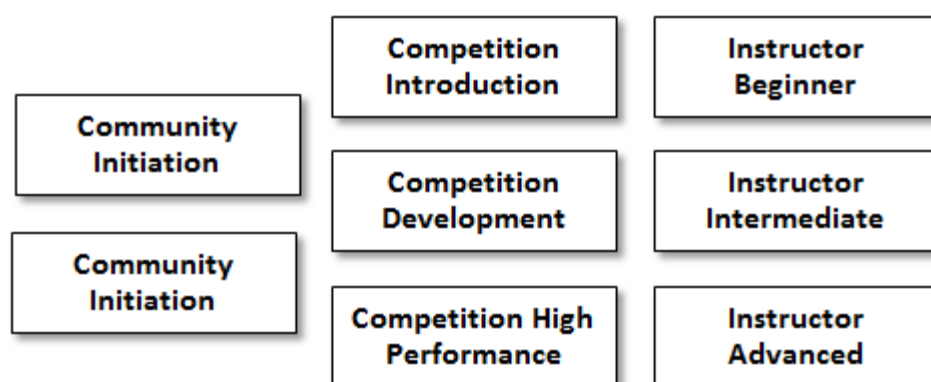
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Ready to Race! Cycling Introduction to Competition

Background Information

The NCCP Structure

The NCCP model distinguishes between training and certification. Coaches can participate in training opportunities to acquire or refine the skills and knowledge required for a particular coaching context (i.e. Competition-Introduction) as defined by the sport and be considered “*trained*”. To become “*certified*” in a coaching context, coaches must be evaluated on their demonstrated ability to perform within that context in areas such as program design, practice planning, performance analysis, program management, ethical coaching, support to participants during training, and support to participants in competition.



For more information on the changes to the NCCP, visit the Coaching Association of Canada website at www.coach.ca.

The Introduction to Competition Context

Introduction to Competition is the context for coaches who will primarily work with new competitive cyclists at the community and club level. These athletes will likely be in the Learn to Train to Train to Train stages of LTAD, although the context could apply to any new racer of any age. We expect these athletes to have basic but developed cycling skills and the desire to begin competing within a structured training and competition program. They should have passed through an entry-level Community Initiation or non-competitive Instruction program to help them develop the basic skills.

The key objectives for an Introduction to Competition Cycling Coach are therefore:

- Ensure participants have fun, safe, stage-appropriate experiences that make them want to continue in competitive cycling;
- Introduce participants to regular training 3 to 6 times per week;
- Introduce participants to competition in multiple cycling disciplines, within club, school or basic provincial-level competition programs;

- Assist the development of cyclists passing through their growth spurt, and be ready to modify training and competition accordingly, consistent with the LTAD Model;
- Create a foundation to prepare participants to advance to a more specialized development level of training and competition as they develop.

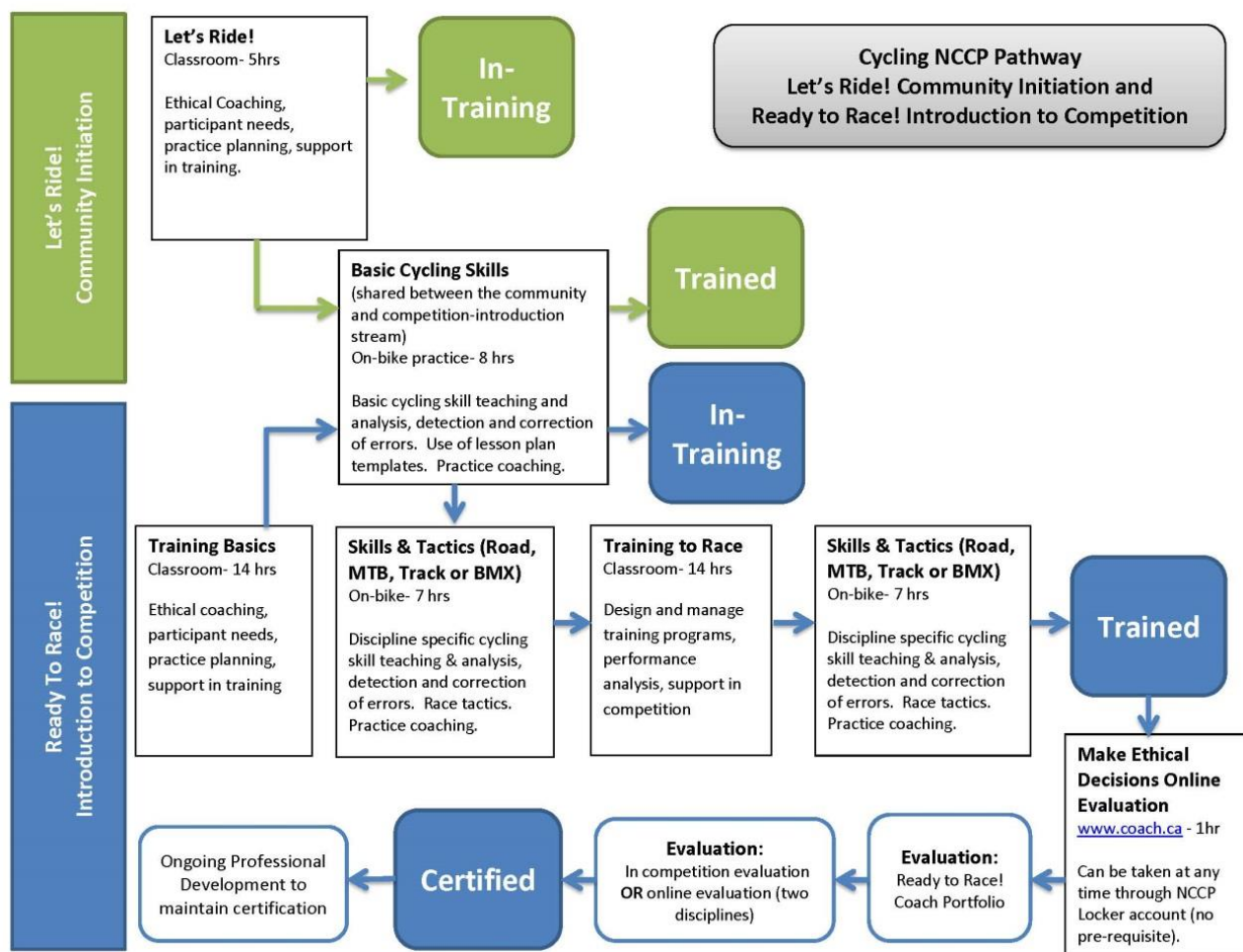
Introduction to Competition cyclists will usually participate 3 to 6 times per week for an entire season. The focus of the program will be on having participants develop skills and abilities needed for successful club-level competition. The theme of the course is “Ready to Race: Preparing for Competitive Success”.

Coaches will typically be volunteers who are operating within a club program as specialist youth/introduction coaches. Some coaches may be professional, paid coaches operating in a club or providing coaching from their business.

The Introduction to Competition coach development program emphasizes multi-sport and multi-discipline development of cyclists. Consequently, coaches in this program will participate in a Basic Cycling Skills Workshop which will focus on teaching, analyzing and correcting performance skills, and then take two discipline-specific skills Workshops, which will introduce discipline-specific skills as well as basics of race tactics. Coaches may select any two of MTB, BMX or Road skills Workshops. In addition, coaches will take two “classroom” learning sessions to develop their skills in areas including ethical decision-making, practice planning, sport program design, and supporting athletes in training and competition. (There is the possibility of delivering parts of these learning sessions through alternate means such as mentorship, on-line education, etc so the term “classroom” is used only to differentiate them from the Skills Workshops.) The learning sessions may be taken before or after the skills Workshops, adding flexibility to the program. After each block of learning, coaches will complete evaluation activities to attain certification.

After certification, there will be opportunities to extend coach knowledge and competence through participation in advanced gradations of the program. Options will include coach participation in the third skills Workshop (Road, MTB or BMX) with Track, Downhill and Cyclo-cross skills Workshops planned for the future. Participation in professional development and learning activities, including but not limited to the advanced gradations, will be required for the coach to maintain certification.

This pathway shows the requirements for both Cycling’s Community Initiation and Introduction to Competition contexts. Note that the Basic Cycling Skills module is shared between the two contexts.



Outcomes for the Cycling Introduction to Competition Program

The Introduction to Competition program consists of five independent sessions. The following are the learning outcomes and criteria for each Workshop session.

Ready to Race! (Cycling Introduction to Competition) Training Basics – 14 hours

Ethical coaching:

- Reflect on the importance of behaving respectfully toward participants, officials, parents, and spectators;
- Identify key ethical issues in common situations that can be encountered in the context of competitive cycling, including doping;
- Describe a course of action for dealing with the situation that is consistent with the values and philosophy of the NCCP;
- Clearly describe doping control procedures, rules, consequences and risks associated with doping.

Practice planning:

- Set an appropriate structure for the practice, including warm-up, skill development, physical preparation, cool-down, etc;

- *Be able to modify training sessions appropriately based on developmental, physical and environmental factors;*
- *Identify risk factors that may be encountered in training and competition;*
- *Develop an Emergency Action Plan (EAP).*

Providing support to athletes in training:

- *Know the basic equipment needed for cycling and how to use it safely;*
- *Verify that facilities and equipment pose no safety risks;*
- *Coach an appropriately structured and organized training session using a practice plan listing clear goals, activities, and elements (eg cool-down, hydration);*
- *Explain activities, and provide feedback, in a way that is consistent with the guidelines set for the age group within the cycling LTAD model;*
- *Select activities and deliver feedback in a way that promotes self-esteem;*
- *Understand and demonstrate basics of working with cyclists with a disability (AWAD).*

Providing support to athletes in competition:

- *Explain the fundamental rules that govern the activity;*
- *Provide advice on eating and drinking before, in and after competition and training;*
- *Prepare athletes for competition by assisting them to follow a pre-race plan including preparation of equipment, nutrition, tactical and mental preparation and warm-up activities;*
- *Provide advice and feedback at the competition venue in a way that is consistent with the guidelines set for the age group within the cycling LTAD model and in a way that promotes self-esteem;*
- *Behave respectfully toward the participants, officials, parents, and spectators.*

Manage a Sport Program

- *Manage club/team logistics including basic finances, competition selection and athlete selection;*
- *Communicate effectively with participants, parents, and organizations;*
- *Use metrics and assessments to report on athlete progress.*

Ready to Race! (Cycling Introduction to Competition) Training to Race – 14 hours

Design a Sport Program/Practice Planning:

- *Understand and apply key concepts in physical training for cyclists, including physical performance factors (i.e. flexibility, energy systems), training principles, etc;*
- *Understand and apply key concepts in mental training for cyclists, including ideal performance state, and basic techniques, such as relaxation, self-talk, etc;*
- *Design a training session that demonstrates understanding of cycling LTAD stage-appropriate activities and balances physical, mental, tactical and other needs;*
- *Design effective microcycles (weekly programs) that promote cyclist development, consistent with the cycling LTAD model;*
- *Modify daily and microcycle plans based on athlete ability and environmental factors (weather, etc);*
- *Design and deliver a periodized seasonal training and competition program based on the cycling LTAD model;*

- *Use a multi-discipline and multi-sport approach consistent with the cycling LTAD model in design of the program;*
- *Use basic metrics (eg training:competition ratio, indices of training intensity, etc) to monitor and promote athlete development and modify program as needed;*
- *Use basic physical performance tests including use of heart rate monitor to obtain data;*
- *Use Awareness and First Contact stages in design of programs for AWAD.*

Basic Cycling Skills Workshop – 8 hours

Analyze Performance

- *Analyze stages in performance of basic cycling skills, using a template;*
- *Use an observation plan and appropriate observation strategies to detect skill performance;*
- *Explain activities, and provide feedback, in a way that is consistent with the guidelines set for the age group within the cycling LTAD model;*
- *Teach basic riding skills and know how to identify and correct errors in skill performance.*

Skills and Tactics Modules: BMX, MTB or Road – 7 hours each

Providing support to athletes in competition:

- *Explain the fundamental rules that govern racing;*
- *Provide advice on eating and drinking before, in and after competition and training;*
- *Provide advice on basic racing tactics;*
- *Prepare athletes for competition by assisting them to follow pre-race and post-race plans including preparation of equipment, nutrition, tactical and mental preparation, warm-up and cool-down and evaluation activities;*

Analyze Performance

- *Identify and correct errors in positioning if they exist;*
- *Analyze stages in performance of cycling skills, using a template;*
- *Use an observation plan and appropriate observation strategies to detect skill performance;*
- *Explain activities, and provide feedback, in a way that is consistent with the guidelines set for the age group within the cycling LTAD model;*
- *Teach riding skills and know how to identify and correct errors in skill performance;*
- *Identify and correct errors in tactical performance.*

Coaches are required to take 2 of the 3 discipline-specific Skills and Tactics module Workshops to complete training as a “Race Coach”. Coaches must successfully complete an evaluation after training to be eligible for certification.

Evaluation of the Cycling Introduction to Competition Program

Evaluation of coach competence against a set of pre-determined standards is a key component of the new NCCP. All coaches must successfully complete evaluation in order to become Certified. Generally, workshops and modules are delivered by a Learning Facilitator while evaluation is conducted by a trained Evaluator, who is a different person. However, in the case of the Skills Modules the Learning Facilitator will deliver assessment and feedback (see below).

The evaluation criteria, standards and methods are outlined in the “Outcomes, Criteria and Standards” document. In general, to achieve a learning Outcome, coaches must meet specific Criteria. Standards are used in the evaluation to determine the level to which the coach met displays competence in meeting the Criteria.

There are several types of evaluation activities in the Cycling Introduction to Competition program. These are:

Make Ethical Decisions On-line Evaluation: This component is managed by the Coaching Association of Canada as an on-line evaluation. It is required. The coach should complete this evaluation after the Ready to Race! Training Basics workshop.

Formative Assessment: Before, during and after completing the Ready to Race! Training Basics workshop, the coach will complete a variety of tasks including preparation of a portfolio of work. This will primarily include written work, such as preparation of plans or answers to scenario questions. After the Training Basics workshop an Evaluator will assess this work and provide constructive feedback. This is an assessment, not an evaluation, and is intended to support the coaches’ learning.

Basic Cycling Skills and Skills and Tactics Modules: The performance of the coach in observing, analyzing and teaching skills and detecting and correcting errors in skills and tactics will be assessed by the Learning Facilitators of these modules, and the coach will receive constructive feedback at or following the Module.

Summative Evaluation: Upon completion of all five Ready to Race! workshop modules the coach participates in evaluation. Successful evaluation is required for NCCP certification as an Introduction to Competition Race Coach. The final evaluation of the coach will involve seeing the coach “in action” and measuring his/her performance against the standards. This will occur at an event scheduled by the Provincial/Territorial Cycling Association.

For more information on evaluation of the program, contact your Provincial/Territorial Cycling Association.

Step 1 – Setting the Scene

Reasons Children Participate in their Favourite Sport

The ten most important reasons I play my best sport are:

1. To have fun
2. To improve my skills
3. To stay in shape
4. To do something I am good at
5. For the excitement of competition
6. To get exercise
7. To play as part of a team
8. For the challenge of competition
9. To learn new skills
10. To win

The 11 most important reasons I stopped playing a sport are:

1. I lost interest
2. I was not having fun
3. It took too much time
4. Coach was a poor teacher
5. Too much pressure (worry)
6. I wanted a non-sport activity
7. I was tired of it
8. I needed more study time
9. Coach played favourites
10. Sport was boring
11. Overemphasis on winning

I would get reinvolved in a sport I dropped if:

Boys

1. Practice was more fun
2. I could play more
3. Coach understood players better
4. There was no conflict with studies
5. Coaches were better teachers
6. There was no conflict with social life

Girls

1. Practice was more fun
2. There was no conflict with studies
3. Coach understood players better
4. There was no conflict with social life
5. I could play more
6. Coaches were better teachers

Ewing, M.E. & Seefeldt, V., *Participation and attrition patterns in American agency-sponsored and interscholastic sports: An executive summary*. Preliminary report to the Athletic Footwear Council. North Palm Beach, FLA.: Sporting Goods Manufacturers Association, 1988.

The NCCP Philosophy

In the National Coaching Certification Program, coaching is about helping other people improve and achieve their goals in and through sport, and creating a safe environment in which this can take place.

The aim of the NCCP is to:

- provide every participant in a sport program with a positive experience
- provide an opportunity for participants to achieve their full potential through sport
- use sport as a personal development tool.



1- Provide every participant in a sport program with a positive experience

Every individual who chooses to participate in a sport program must have the opportunity to have a positive experience. The benefits and satisfaction must be such that they will be motivated to continue participating.

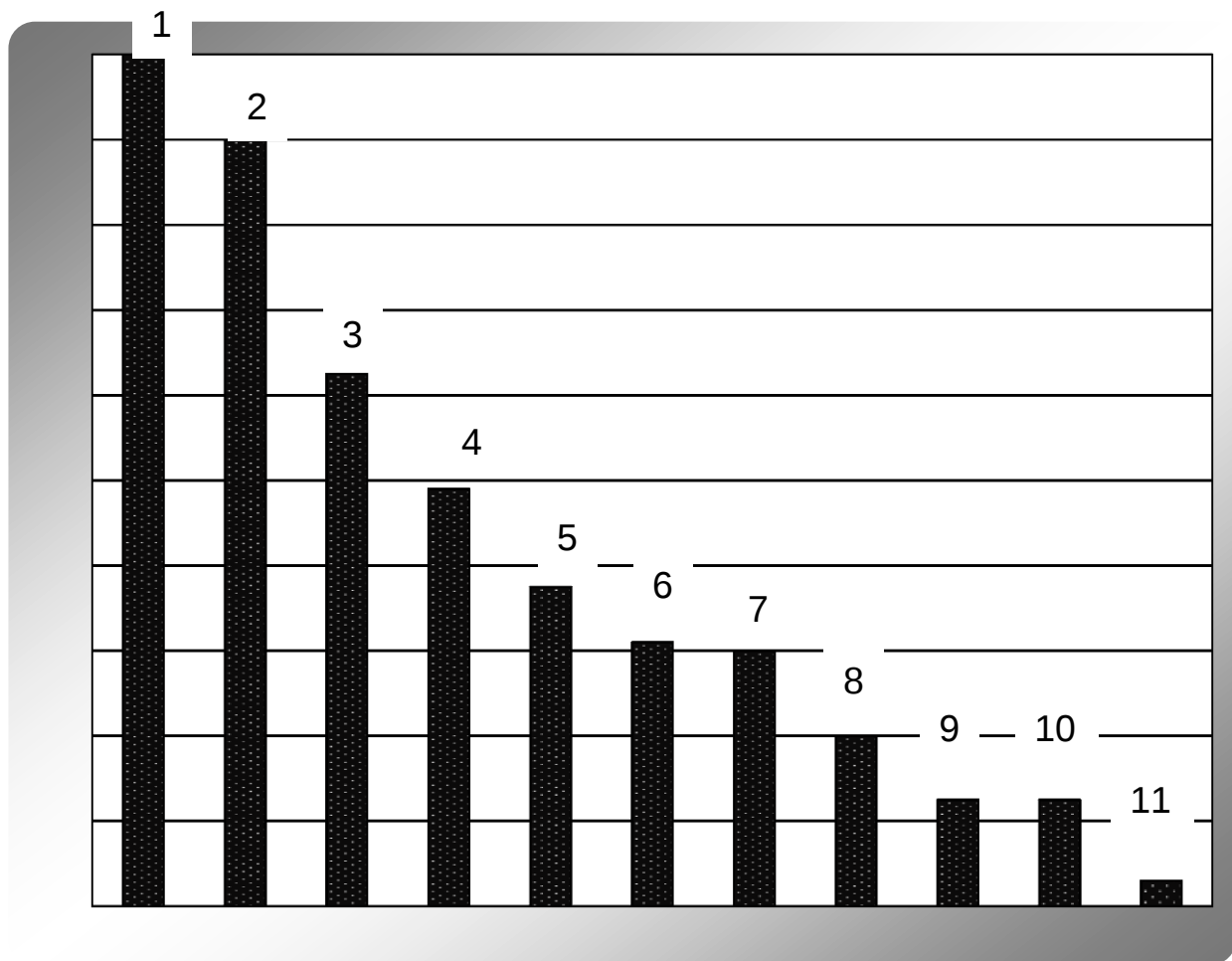
2- Provide an opportunity for participants to achieve their full potential through sport

Each individual has unique interests, abilities, and talents. All participants must be provided equal opportunity to explore their interests and to develop their skills and abilities. Sport programs must aim to challenge participants relative to their goals and capabilities.

3- Use sport as a personal development tool

Sport can provide a forum in which participants can challenge themselves and others.

What Parents Expect of Coaches¹

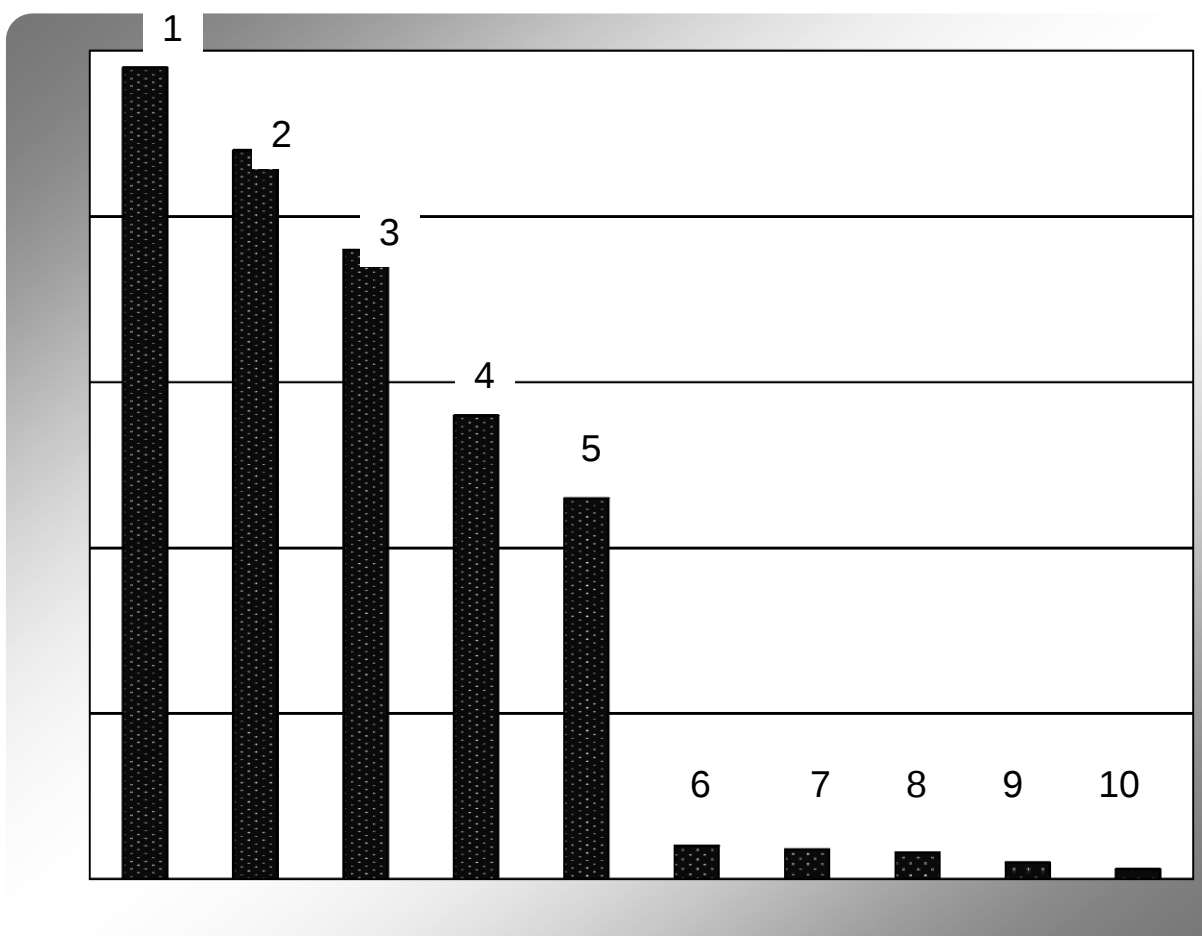


Legend

- | | |
|-------------------------------------|--|
| 1. Make sport enjoyable | 7. Respect rules and officials |
| 2. Respect children as individuals | 8. Give equal opportunity for playing time |
| 3. Be a knowledgeable leader | 9. Plan activities effectively |
| 4. Be safety conscious | 10. Be approachable |
| 5. Act in a mature and adult manner | 11. Strive to win |
| 6. Be fair | |

¹ Sport Parent Survey. Ministry of Government Services, Sports and Commonwealth Games Division, Government of B.C. (1994)

What Parents Expect of Sport²



Legend

- | | |
|-------------------------|----------------------------------|
| 1. To build self-esteem | 6. Other |
| 2. To have fun | 7. To have a professional career |
| 3. To develop skills | 8. To play on a winning team |
| 4. To increase fitness | 9. To win awards |
| 5. To make new friends | 10. To go to the Olympics |

² Sport Parent Survey. Ministry of Government Services, Sports and Commonwealth Games Division, Government of B.C. (1994)

Step 3 – Ethical Coaching

1- An Introduction to Solving Ethical Situations

1.1- General Considerations

As a coach, you will deal with a wide range of issues. Depending on the type of issue with which you are faced, you may experience a variety of emotions/feelings and thoughts.

Sometimes, you may feel that an action/behaviour is wrong. At other times, you may suspect or even know that a behaviour is illegal. In other instances, you may feel unsure about a situation and a decision, since there seems to be a number of alternatives that could be acceptable. If you ask yourself this type of question, the issue most likely has ethical implications.

Often, a conversation with the person(s) involved is all that is necessary to adequately deal with the situation. However, at other times this will not be sufficient, and you may have to make a more formal intervention or refer the matter to some other level of authority.

1.2- Values and Ethics: What Are They?

Our values represent a set of deeply held beliefs upon which our thoughts and actions are based; we refer to our values in evaluating our own actions as well as the actions and decisions of others. In coaching, our core values are expressed as a series of principles defined by the **NCCP Code of Ethics**. A code of ethics defines what is considered good and right behaviour.

Ethical issues arise when our values and the corresponding ethical principles are compromised in some way. When this happens, the decisions are often sensitive and difficult to make. In these situations, the quality of the decisions made by the coach depends on a number of factors including:

- an understanding of the facts of the situation
- an awareness of his/her own values, and of the various factors that can influence his/her decision
- the use of appropriate benchmarks to analyze the situation and understand what is involved
- the ability to apply a rigorous decision-making framework to the situation at hand

This module deals with each of these factors as part of an ethical decision-making process.

1.3- Ethical Decision-Making Process

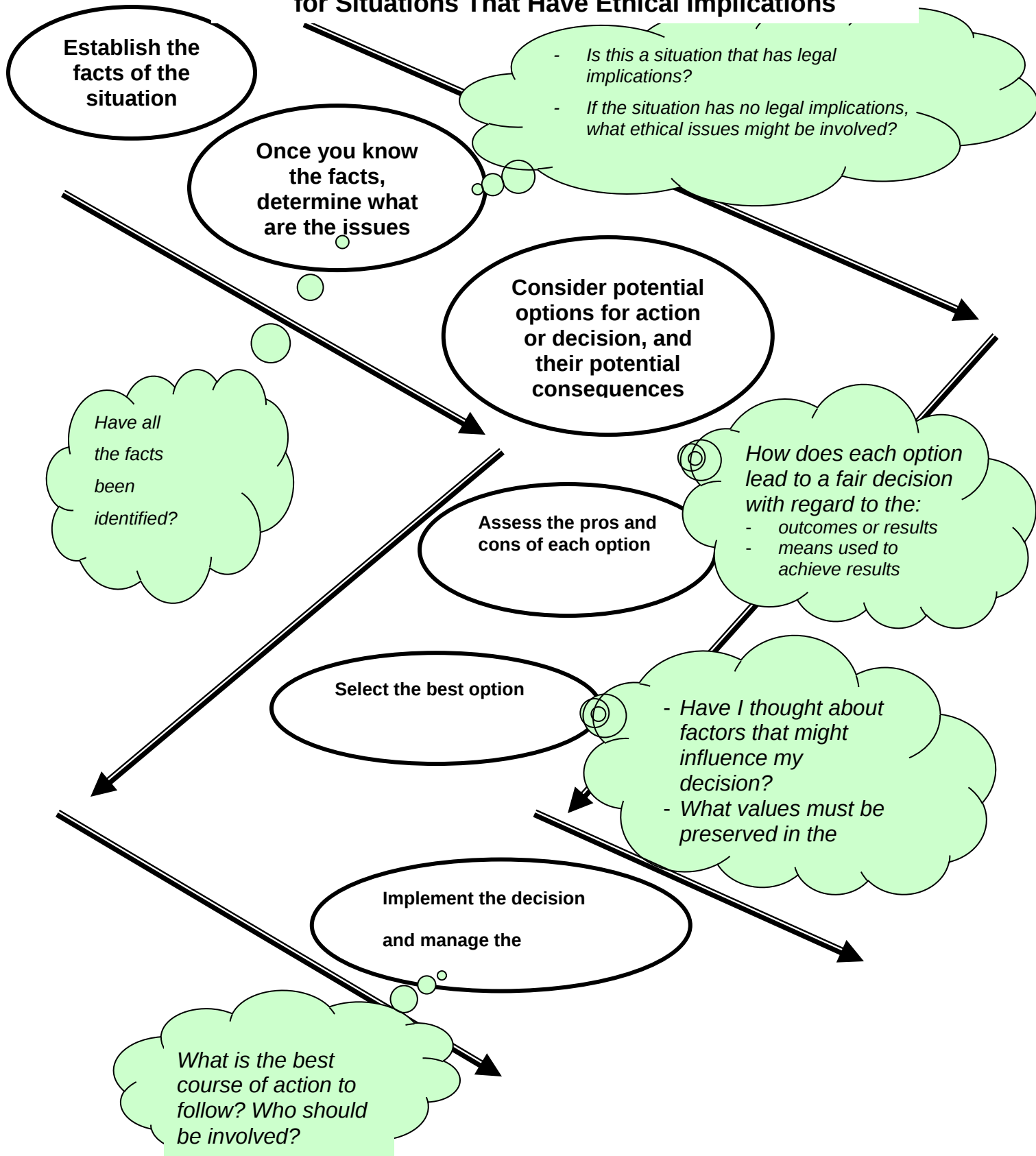
This document outlines a process that will enable you to make thoughtful and responsible decisions in situations presenting ethical or moral dilemmas. To this end, a series of steps will be proposed, each emphasizing certain questions. These steps are summarized in the diagram on the following page.

If you follow this path and answer the questions to the best of your knowledge, you will:

- (1) ensure you have a thorough process to enable you to make sensitive decisions;
- (2) have solid arguments to justify your decisions from an ethical point of view; and
- (3) feel confident to fully assume the consequences of your decisions, knowing that *“it was the right thing to do under the circumstances”*.

Note: *The process described in the following sections applies to situations that do not require an emergency response by the coach. In the case of crucial and urgent situations, for instance when a person is injured or if there is an imminent risk for the safety of people, the duty of the coach is to take whatever measures he/she feels are necessary in the short term to manage the situation, and to protect the individuals concerned. These particular aspects are dealt with in the “Planning a practice” module, in sections of the Reference Material that cover risk factors, emergency action plan, and coach liability.*

Analysis and Decision-Making Process for Situations That Have Ethical Implications



2- Ethical Decision-Making Process

Step 1 - Establish the Facts of the Situation

When faced with any situation or problem in coaching, your first task is to establish exactly what has happened (or is happening) and who is involved in the situation before trying to figure out what you will do about it.

At this stage, ask yourself the following questions:

- What has happened or what is happening? When and where did certain events occur? Get the facts from all the parties involved, and look at the situation from both sides if there is disagreement or conflict.
- Who is (or might be) involved in or concerned by the situation?
- What do the parties involved have to say about the situation (i.e. what are all sides of the story)?

Step 2 – Determine What are the Issues in the Situation:

(a) Does the Situation Have Legal Implications?

Once the facts have been clearly established, the next step consists in determining whether or not the situation has legal implications. Two useful questions to ask yourself at this stage are:

1. Has anyone been harmed by the action or decision of another, and if so, in what way?
2. Does the action or the situation contravene an existing law?

Examples of Situations That Have Legal Implications

- **Actions that are criminal or quasi-criminal** - These are wide-ranging and could include theft, assault, sexual assault, other sexual offenses, possession of narcotics, underage drinking, driving without a license or insurance, forgery, fraud, vandalism, etc.
- **Actions that breach a contract** - These could include someone acting outside the scope of their delegated authority, violating agreed-upon rules relating to the use of a facility or equipment, or failing to meet other contractual obligations.
- Actions or information indicating there are **reasonable grounds to believe that a child may be in need of protection**.
- **Actions that are discriminatory** - Actions of a government, organization or individual that are contrary to the *Canadian Charter of Rights and Freedoms*, the *Canadian Human Rights Act*, or any provincial human rights legislation.
- **Actions that constitute harassment** - Harassment is a form of discrimination and is contrary to human rights laws: in its extreme form, harassment may be a criminal offense.
- Actions, even those that are not intentional, that could constitute **negligence**, as legally defined.

Actions to Take in Situations That Have Legal Implications

A coach occupies a position of authority and, accordingly, has important legal responsibilities. When a coach is confronted by a legal situation such as those described on the previous page, he/she has a duty to do something about it.

This would involve:

- **Reporting the situation to the police**, where the coach is aware of or reasonably suspects criminal or quasi-criminal activity.
- **Reporting the situation to child protection authorities**, where a coach suspects that a child has suffered physical or emotional harm, or is in circumstances where a risk of such harm exists.
- **Reporting the matter to the employer or to the organization** having authority over the persons involved in the conduct, for all other legal matters.

Critical Path: Determining if a Situation is Legal

Determine the Facts of the Situation

Based on the facts, determine if the situation is legal. It will automatically be so if it relates to one or more of the elements below:

- **Actions that are criminal or quasi-criminal** - These are wide-ranging and could include theft, assault, sexual assault, other sexual offenses, possession of narcotics, underage drinking, driving without a license or insurance, forgery, fraud, vandalism, etc.
- **Actions that breach a contract** - These could include someone acting outside the scope of their delegated authority, violating agreed-upon rules relating to the use of a facility or equipments, or failing to meet other contractual obligations.
- Actions or information indicating there are **reasonable grounds to believe that a child may be in need of protection**.
- **Actions that are discriminatory** - Actions of a government, organization or individual that are contrary to the *Canadian Charter of Rights and Freedoms*, the *Canadian Human Rights Act*, or any provincial human rights legislation.
- **Actions that constitute harassment** - Harassment is a form of discrimination and is contrary to human rights laws: in its extreme form, harassment may be a criminal offense.
- Actions, even those that are not intentional, that could constitute **negligence**, as legally defined.

YES

Actions to take

Inform appropriate authority:

- Police
- Child protection service
- Employer

NO

Use the ethical decision-making process

Step 2 – Determine What are the Issues in the Situation:

(b) Does the Situation Have Ethical Implications?

Situations That Have Ethical Implications

Law and ethics are related and overlap, but they are not identical. Conduct that is illegal is always unethical. Yet, some forms of conduct may be unethical even though they are legal. The law therefore represents an absolute minimum standard of behaviour, while the standard for ethical behaviour is somewhat higher.

When the coach encounters a situation that does not violate any law but nonetheless raises moral questions, he/she must make decisions about how best to respond. Under these circumstances, ethical principles are often called upon.

When Can a Coach Know that a Situation has Ethical Implications?

Ethical conduct can be described as a behaviour that meets accepted standards or principles of moral, professional or just conduct. Unethical behaviour is the contrary, i.e. actions or decisions that are immoral, unprofessional or unjust.

Once you have determined that the situation is *not* of a legal nature, it is important to determine whether it presents an ethical issue. At this stage, ask yourself the following question:

Given the facts that have been identified, is there a reasonable doubt that the situation might impact on, or be related to, one or more of the following?:

- ☐ Safety of one or more individuals
- ☐ Short or long term well-being or health of one or more individuals
- ☐ Respect for established principles, rules (rules of the team, the game, etc.), or policies of an organization
- ☐ Obligations, loyalties, word given, prior commitments made, responsibilities of the person(s) concerned
- ☐ Appropriate use of power by the individuals in a position of authority
- ☐ Objectives and goals sought by the group or by an individual
- ☐ Behaviours or practices that are generally considered acceptable, or that are expected under the circumstances at hand (standard of behaviour)
- ☐ Fairness and equity; using acceptable means; respect of others
- ☐ Confidentiality of information and privacy; appropriate use of information

At this stage, any statement from the above list that you have checked should cause you to believe that there are one or more ethical issues in the situation.

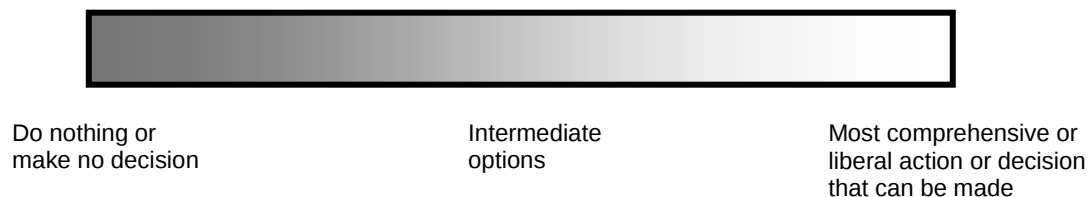
Step 3 - Identify Potential Decisions That Could Be Made or Actions Undertaken, and Consider What Might Result in Each Case

Because they often relate to sensitive issues, ethical situations may generate some degree of emotional reaction. As a result, some individuals may have a tendency to react quickly and spontaneously, and to make quick decisions. Sometimes, this may affect their judgment and the quality of the decisions they make.

Having determined that the situation does have some ethical implications and identified some potential ethical issues (based on the statements listed in the previous step), you should now identify *options for decision or for action*, and assess *potential consequences in each case*. This reflection represents an important step in the ethical decision-making process because it shows that you care about what might happen to others.

Start by asking yourself: ***“What could I do in this situation?”*** In the process of answering this question, think about a variety of options. The first one to consider should be “not making any decision” or “taking no action”. This would be the least demanding option, and it could be thought of as representing one end of a continuum of possibilities. As a second step, consider the other “extreme” of the continuum, and think of the most comprehensive or liberal action you might take in the situation. Then, identify several intermediate options. Do not rule out any option at this stage, even though at the outset it may appear an unlikely choice.

Continuum of Options for Decision or for Action



Once several options for decision have been identified, think about ***“What might happen if ...”***. This will enable you to assess potential consequences that may result from each option. In many ethical situations where a “Yes – No” decision must be made, the following questions are likely to arise:

- What might happen if the coach *chose not to make any decision* or *took no action*?
- What might happen if the coach’s position were *favorable* to the situation, question, or issue at hand?
- What might happen if the coach’s position were *not favorable* to the situation, question, or issue at hand?



NCCCP Code of Ethics

NCCP Code of Ethics

What is a Code of Ethics?

A code of ethics defines what is considered good and right behaviour. It reflects the values held by a group, and outlines the expected conduct of members while they perform their duties. It can also be used as a benchmark to assess whether certain behaviours are acceptable.

Why a Code of Ethics in Coaching?

Core coaching values have been formalized and expressed as a series of principles in the NCCP Code of Ethics. These principles can be thought of as a set of duties and responsibilities regarding participation in sport, coaching athletes or teams, and administering sports.

The NCCP Code of Ethics can help coaches to evaluate issues arising within sport because it represents a reference for what constitutes “the right thing to do”.

Principles of the NCCP Code of Ethics

The NCCP Code of Ethics is a simplified version of the Code of Ethics of the Canadian Professional Coaches Association (CPCA). However, both codes deal with the same fundamental principles and beliefs:

1. Respect for Athletes
2. Coaching Responsibly
3. Maintaining Integrity in Relations with Others
4. Honouring Sport

The following pages provide a description of each principle and outline implications for coaches.

The Fair Play principles, which follow the NCCP Code of Ethics, relate to the principle of “Honouring Sport”.

NCCP Code of Ethics

1. *Respect for Athletes*

The principle of *respect* for athletes challenges coaches to act in a manner respectful of the dignity of those involved in sport. This principle is based on the basic assumption that each person has value and is worthy of respect. Acting with *respect for participants* means that coaches:

- Do not make some participants feel more or less worthy as persons than others, on the basis of gender, race, place of origin, athletic potential, colour, sexual orientation, religion, political beliefs, socio-economic status, marital status, age, or any other conditions.
- Have a responsibility to respect and promote the rights of all participants. This is accomplished by establishing and following procedures for **confidentiality** (right to privacy), **informed participation** and **shared decision-making** (right to self-determination – athletes' rights), and **fair and reasonable treatment** (right to procedural fairness). Coaches have a special responsibility to respect and promote the rights of participants who are vulnerable or in dependent positions, and therefore less able to protect their own rights.
- Interact with others in a manner that enables all participants in sport to maintain their dignity.
- Build mutual support among fellow coaches, officials, athletes, and their family members.

2. *Coaching Responsibly*

The principle of *coaching responsibly* carries the expectation that the activities of coaches will benefit society in general, and athletes in particular, and will do no harm. Fundamental to the implementation of this principle is the notion of competence, which implies that coaches should be well-prepared and possess up-to-date knowledge of their discipline so that they will be able to maximize benefits and minimize risks to athletes.

In addition, *coaching responsibly* implies that coaches:

- Act in the best interest of the participant/athlete's development as a whole person.
- Recognize the power inherent in the position of coach.
- Are aware of their personal values and how these affect their behaviour.
- Acknowledge the limitations of their knowledge and competence in their sport.
- Accept the responsibility to work with other coaches and professionals in sport in the best interests of the athletes.

3. Integrity in Relationships

Behaving with *integrity* means that coaches are expected to be honest, sincere, and honourable in their relationships with others. Acting on these values is possible when coaches have a high degree of self-awareness and the ability to reflect critically on how their views and opinions influence how they interact with others.

In coaching, critical reflection questions existing assumptions about the values and practices that govern coaches' actions. The essential component of critical reflection is an attitude based on (i) open-mindedness, i.e. an active predisposition to hear more than one side of an issue; (ii) active inquiry, i.e. asking why things are done the way they are; and (iii) sincerity, i.e. coaches being genuine in their coaching relationships.

4. Honouring Sport

The principle of *honouring sport* challenges coaches to recognize and promote the value of sport for individuals and teams, and for society in general. *Honouring sport* implies that coaches:

- Act on and promote clearly articulated values related to coaching and sport.
- Encourage and model honourable intentions and actions.

Fair Play Principles

In addition to a Code of Ethics, coaches and athletes should abide by the principles of Fair Play. Applying Fair Play principles implies that all those involved in sport recognize the importance of fairness, a respectful attitude, and appropriate conduct when engaged in sporting activities, and agree to model and promote them.

The following are examples of Fair Play behaviours for coaches, athletes, officials, and parents:

- Follow all of the rules, and never seek to deliberately break a rule.
- Aim to compete fairly, using talent and ability to win; refuse to win by illegal means or by cheating.
- Respect the official(s), and accept their decisions without doubting their integrity.
- Recognize good performances by the opponent.
- Maintain dignity in all circumstances, and demonstrate self-control. In defeat, recognize with dignity the superiority of the opponent. In victory, act modestly, and do not ridicule the opponent.
- For the officials – know all the rules well, and apply them with impartiality at all times.

Note: *The Fair Play principles, the NCCP Code of Ethics, and the sample codes of conduct for parents and athletes found in the appendix can all serve as starting points to help in the creation of a team code of conduct that is designed and agreed upon by the athletes, parents and other coaches of your team.*

Step 4 – Identify the Pros and Cons of Each Potential Decision That Could Be Made

As part of a thoughtful decision-making process, you should now assess the pros and cons of each option for decision. Below is a list of criteria that can help you perform such an assessment. These reflect the principles and the values of the NCCP Code of Ethics, and are classified into two categories based on whether they relate primarily to the **outcome** (or result) of the decision, or the **means** (or process) used to reach a decision.

Criteria That Relate Primarily to the Outcome

- The option promotes the achievement of a positive outcome for the majority of the individuals concerned.
- The option minimizes the negative implications that may follow.
- Potentially negative implications affect the fewest people possible.
- The option does not represent a risk for the physical, intellectual, emotional or social development of a person.
- The option does not represent an obstacle to the achievement of a person's or a group's goals.
- The option seeks to protect the interests of others who might be in a vulnerable position.

Criteria That Relate Primarily to the Means

- The option is fair and respects the rights of everyone regardless of athletic potential, sex, race, language, age, religion, etc.
- The option takes into account and is consistent with all established rules and principles.
- The option is consistent with successful decisions or actions taken in the past in similar situations.
- The option respects the authority of people in a position of responsibility.
- The option is based on credible information.

Step 5 – Select the Best Option for the Decision

Making Decisions That Are “Just and Reasonable”

We are now reaching a crucial phase of our process, i.e. the one where a decision must be made. At this stage, it is important to bring together key elements of the previous steps and reflect on how to make “the best possible decision under the circumstances”.

In Step 4, we used certain criteria to assess the merit of a variety of options for decision or for action. Based on these criteria, a solution that is “just and reasonable” can therefore be defined as one that:

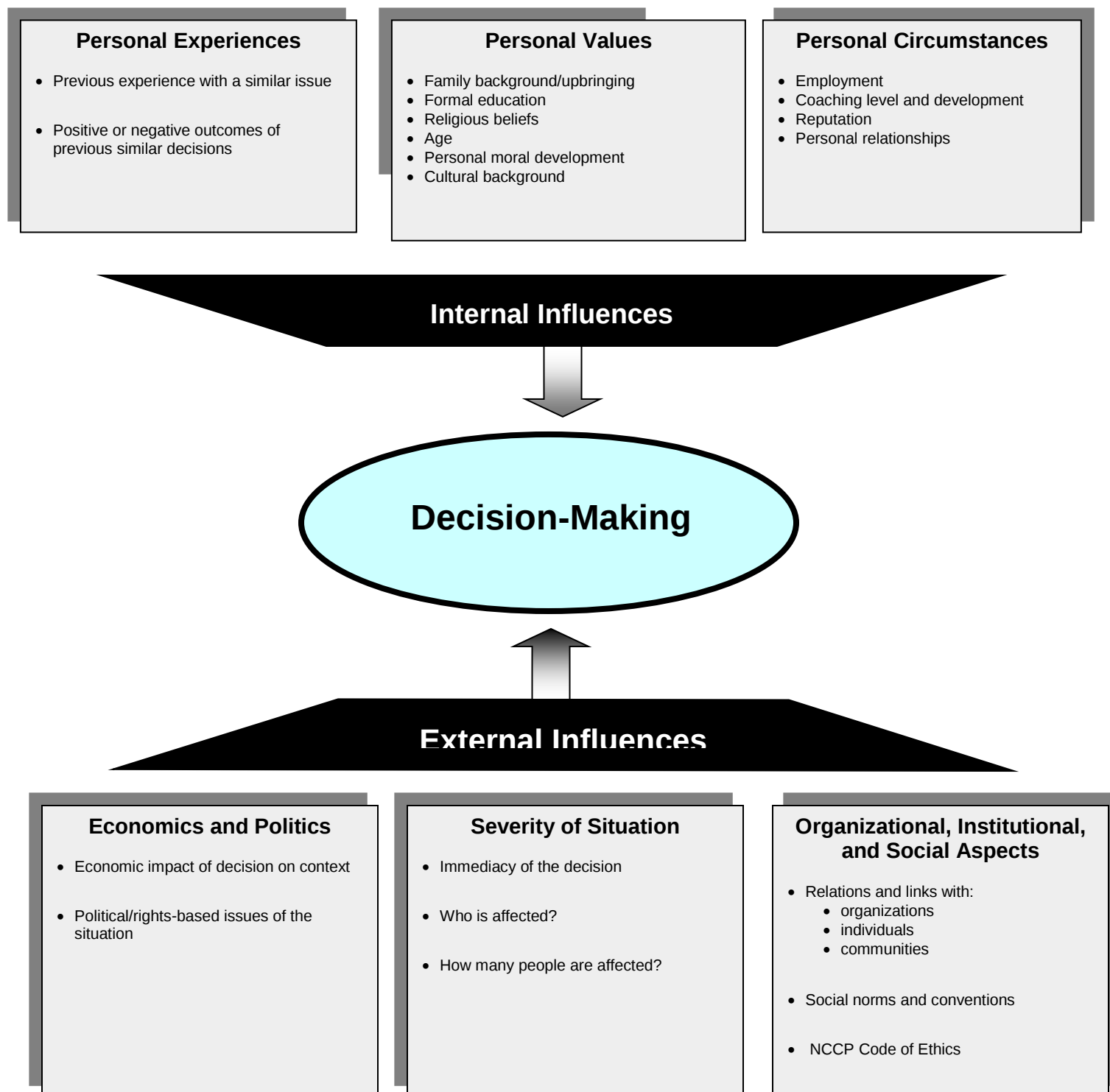
1. Results in a positive outcome for the majority of the individuals concerned.
2. Minimizes the negative implications for all parties involved.
3. Appears to be the “right thing to do” with regard to your coaching duties and responsibilities.
4. Is being made using a fair and equitable process.
5. Is consistent with certain expected standards of behaviour, such as those outlined in the NCCP Code of Ethics.

However, despite the availability of such criteria, not all ethical decisions are clear-cut. In some instances, a coach may experience some difficulty in making a decision because there appears to be **more than one reasonable solution**. Sometimes, making a decision will even involve sacrificing one value for another. To rank options that seem reasonable with a view to “making the best possible decision”, we will now consider the following aspects:

1. What factors could possibly influence decision-making?
2. How can one prioritize principles or values in which he/she strongly believes, but that seem in conflict in the situation at hand? In other words, what do you do when you are confronted with an *ethical dilemma*?

What Influences How You View a Situation and the Decisions You Make?

This figure has been adapted from Malloy, Ross, and Zackus, 2000



Moral Dilemmas and Ethical Decision-Making

As mentioned previously, certain ethical situations may generate strong feelings or doubts because there seems to be more than one reasonable solution. Sometimes, making a decision even involves sacrificing one value for another. When there are two potentially right solutions, such situations are referred to as **ethical dilemmas – a conflict between values we wish to maintain.**

The challenge in ethical decision-making is to determine which value you will maintain in your course of action.

Examples of possible conflicts between values, or ethical dilemmas, are provided below.

Team Rules vs. Parental Rights and Authority

A Team has a standing policy of curfew being set at 10:00 PM at away competitions. All parents give sign-off approval on this and other policies at the beginning of the year. One parent who often travels with the team routinely allows his/her son/daughter to stay up past this hour.

Team Rules vs. Winning the Competition

A Club has a strict policy of no swearing when on clubhouse grounds. The pre-established penalty for such speech is a one-competition automatic suspension. The day before the championship competition, the leading athlete has a temper tantrum during practice and mouths off using foul language to another athlete on the team.

Duty to Do No Harm Principle vs. Athlete's Will/Rights to Play

An athlete has been experiencing chronic knee pain as a result of a growth spurt. The athlete is begging you to be allowed to play in a key competition, and the parents support this athlete in his/her eagerness to play.

Questions to Help You Prioritize Principles and Values When Faced With an Ethical Dilemma

Sometimes, it is relatively easy to determine which value should take priority (e.g., safety of athletes in your care) but in others, it is not as clear (e.g., amount of playing time for each athlete).

When someone is faced with an ethical or moral dilemma and is forced to choose between two values, it is normally his/her most deeply held beliefs that will dictate the course of action.

Having thoroughly determined the pros and cons of the various options for decision using the criteria proposed in Step 4, and having reflected on some factors that may influence your decision-making, you can resolve an ethical dilemma by asking yourself the following questions:

- Which criteria (or value) do you consider the most important from those listed in Step 4?
- What does the NCCP Code of Ethics suggest in this type of situation?
- Is there another value in which you strongly believe, and that you would seek to maintain at all costs? If so, which is it?

Do No Harm Principle

Even though it is a sensitive issue to suggest a ranking of your values, the NCCP nonetheless considers that, above all, it is the duty of all coaches to ensure the decisions they make and the actions they take will result in no harm, physical or other, to the athletes.

Questions That May Help You to Validate That Your Decision is “Just and Reasonable”

Having gone through all the previous steps, you may still want to validate one more time that your decision is really “just and reasonable”, by asking yourself the following questions:

- Would you make this decision in all similar cases?
- If you feel that you cannot apply your decision to all similar cases, what might be a reasonable and justifiable exception? If so, in which circumstances? Do such circumstances apply in the present situation? What leads you to believe that an exception might be justified in this case, but not in other situations?
- Is the decision consistent with previous decisions that have been made in similar situations in the past, and that have resulted in a positive outcome?

Going through this last series of questions should enable you to be confident that you have made the best possible decision under the circumstances, and give you additional arguments to fully assume the consequences that may unfold when the decision is announced or implemented.

Step 6 – Design an Action Plan to Implement the Selected Decision, and Plan to Manage its Consequences

In Steps 1 to 5, you have been through a thorough reflection process that has made it possible for you to make a “just and reasonable decision” in response to an ethical situation. The question now arises: “*What to do next?*”

Putting your decision or plan of action into effect requires that you consider a number of things, particularly if it involves dealing with individuals or groups of people. Consider the following questions as you establish an action plan:

Choose your path. Exactly what is it that you are going to do? Plan carefully the steps you are going to take.

Think about what may happen. Consider the likely outcomes of the decision and how will these consequences be managed?

Identify who needs to know. Consider carefully who needs to be informed of, or involved in, the implementation of the action plan or decision.

Determine if you can deal on your own with the person involved. Is it appropriate to seek an *informal resolution* in this situation? In issues not involving a contravention of the law, it is often best to try and deal with the issue informally and directly with the individual involved. We often refer to this as adopting the *conservative approach*. It has the advantage of conferring responsibility for actions upon the party involved and allows them to resolve the situation while maintaining their own sense of dignity and self-respect. It also establishes a degree of trust between parties involved. Approach the

individual, and inform him/her of your observations or what has been shared with you.

Give him/her a chance to respond, and a chance to do the good or right thing.

Warn, don't threaten. This is an important concept when dealing with a situation at an informal level. This entails informing the individual of the logical consequences of what can happen if a situation is not resolved, rather than threatening the person with an “end of run” right out of the gate! This is plan B. Keep plan B in your back pocket.

Think about what you might do next if the informal resolution doesn't work. In the event an informal resolution does not work, carefully consider what to do next. Inform the individual that you now have to follow up with “plan B”. Consider who should be contacted, and what level of authority you should now involve in this situation.

General Coaching Tips

When in doubt or faced with an ethical dilemma, think about the “do no harm” principle.

Never "second-guess" yourself on decisions made with integrity, intelligence, thoroughness, and based on accepted values.

Make sure you are clear about your coaching values, and that you can talk about them in a way that is clear, simple, and easily understood by everyone.

Cross-reference your coaching values and principles with the NCCP Code of Ethics.

Pay attention to what is important to kids in establishing your ethical standards.

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Canadian Professional Coaches Association Code of Ethics, Ottawa, 1993.

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Acknowledgements

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Appendix 1 – Sample Code of Conduct for Athletes

During training and sport events (if applicable), we want to observe the following:

1. Athletes having fun and **enjoying themselves**.
2. Practice sessions and activities that, by design and by implementation, promote **self-esteem** in athletes.
3. Athletes learning **the fundamental technical abilities** of the sport.
4. Athletes making **new friends** by demonstrating **positive attitudes** and **tolerance**.
5. Athletes having **fair and equal opportunity to participate** in practice activities and games/competitions, regardless of skill level. Consequently, parents of children who are more skilled should not expect that their child receive greater attention and/or playing time.

Our *code of conduct* can be summarized as follows:

1. **Listen:** Listen carefully to those who are talking to you.
2. **Respect:**
 - Others (coaches, team-mates, officials, opponents, parents).
 - The equipment and facilities loaned to you for your use.
 - The environment.
3. **Work: Give your best effort at all times, both individually and as a team.**

Coach's Responsibilities:

1. **Be the program leader and be aware of all that is happening in the program.**
2. **Plan and lead fun, safe, and purposeful practice sessions.**
3. **Involve parents in the program, and clearly communicate what is expected of them (parents entrust their children to the program leaders during practice sessions and competitions, and should not intervene with their children during these times).**
4. **Create an environment that will promote all the values identified in this code, in training and in competition.**

Appendix 2 – Sample Code of Conduct for Parents

As adults, we increasingly want to define our rights and responsibilities. Take a few moments to reflect upon our rights and responsibilities as parents of children involved in organized sport. Do we have a code of conduct that guides our behaviour and expectations?

Our Rights

The stakeholders of sport, i.e. athletes, coaches, officials and activity hosts, must:

- Act with respect for themselves – demonstrate dignity, modesty, fairness, justice, maturity, leadership, a positive attitude.
- Act with respect for others in word and in action.
- Act with respect for the environment (human and physical).
- Create a sport environment that is fun, safe, and conducive to learning.
- Respect the facilities and material to which they have access.
- Know the rules of the sport.

Our Code of Conduct as Parents

Together, as a team of parents and athletes, we should identify acceptable behaviours (i.e. in the stands, on the sidelines) that demonstrate respect for others, and behaviours that promote a positive learning environment. These behaviours should be based on the values that are implied in the section “Our Rights” above.

Examples of behaviours that demonstrate respect:

- | | |
|-----------------------|--|
| - for ourselves | <ol style="list-style-type: none">1. Accept a mistake made by a player or an official without yelling at him/her2. _____3. _____ |
| - for others | <ol style="list-style-type: none">1. Do not yell instructions to the players during the game2. _____3. _____ |
| - for the environment | <ol style="list-style-type: none">1. Establish a respectful atmosphere among the spectators2. _____3. _____ |

Reflect on these guidelines and what your role might be as a parent in upholding this code.

Appendix 3- Sport as a Discrimination-Free Zone

Every individual is equal before and under the law and has the right to the equal protection and equal benefit of the law without discrimination and, in particular, without discrimination based on race, national or ethnic origin, colour, religion, sex, age or mental or physical disability.

– Canadian Charter of Rights and Freedoms

One of your shared responsibilities with participants and parents is to ensure that discriminatory behaviour on the bases described in the charter and in the NCCP Code of Ethics is not tolerated in your sport environment.

Discrimination occurs when an individual or group is treated unfavourably or unequally because of prejudice or stereotyping.

Prejudice is the use of prejudgment, or having a preconceived opinion about someone.

A stereotype is the broad, often inaccurate, belief about the characteristics of a cultural, ethnic, or racial group, used to describe an individual thought to be a member of that group.

Harassment is comments or conduct that should reasonably be known to be unwelcome to another, and can include actions such as jokes that isolate a particular group or groups, verbal slurs and insults, and condescending or intimidating behaviours.

What Can I Do to Create a Discrimination-Free Zone With My Team?

There are many influences on participants that affect their ability to treat each other fairly and with respect. For example, the participants may have been exposed to racist or sexist behaviour all around them at school, at home, and at play. The best thing you can do as a coach is to watch what you say and do, to intervene if someone on or around your team acts in a discriminatory way, and to encourage the participants and their parents to intervene themselves if they see or hear this type of behaviour.

Addressing how participants want to be treated and how they are going to treat others is a great starting point for building a team code together, which will go a long way toward preventing discriminatory behaviour before it happens.

What Can I Do if I Witness Discriminatory Behaviour?

Understand clearly that not responding is actually interpreted by others as a response; this passive response can indicate that you are OK with what was said or done. A passive response, although leaving you at little personal risk, does nothing to change or stop the behaviour from happening again.

An aggressive response usually seeks to shame the person who has shown the discriminatory behaviour. This type of response usually escalates the situation and does not model respect for others.

Choose a Positive Response to Intervene Effectively

Passive response “doing nothing” Not recommended	• Goal is to ignore the behaviour • Sometimes an attempt is made to rationalize the behaviour • Assumes the other person will not stop/change the behaviour even if an intervention is made • Considers time on task and/or personal safety as more important <i>Examples: Laugh along with a discriminatory joke, or saying nothing when a discriminatory remark is made</i>
Aggressive response “confronting” Not recommended	• Goal is to stop the behaviour in the short term • Comes across as judging the person, not the behaviour • Usually results in the other person wanting to retaliate • Often based on a sense of superior authority, strength, or numbers • The safety of the person whom you are confronting is also at risk now <i>Examples: “I can’t believe you said that. How ignorant can you be?” “Don’t you know that what you are saying is wrong?”</i>
Positive response “seeking change” Recommended	• Goal is to stop the behaviour in the short term and to change the behaviour in the long term • Names the behaviour as unacceptable • Points out what is needed in the situation • Does not judge the other person • Is based on modeling respect <i>Example: “Please do not say that; it is hurtful. How about treating that person as you would like to be treated, and as we agreed to treat one another as team members?”</i>

By choosing a positive response and intervening when you witness discriminatory behaviour, you are modeling respect for others, and attempting to educate for change.

What Is Inclusion?

Inclusion is the welcoming and providing of full access to teams and programs for participants with a disability in your community.

Inclusiveness means active involvement of participants with a disability in all aspects of the team or sport program. It does not mean that the focus of the team or sport program should be on the participants with a disability, but rather that they should play just as integral a role as any other member of the team or, participant in the program.



A Checklist - Is our Team Environment

- ☐ People first language is used (i.e. language that does not demean a particular person or group)
- ☐ Posters and other materials that demean a particular group are not displayed or exchanged (e.g., posters, cards, magazines, cartoons, videos/DVDs, screensavers)
- ☐ Name calling is not tolerated
- ☐ Jokes that poke fun at specific populations are not tolerated
- ☐ Every participant is given equitable coach attention
- ☐ Every participant is given equitable playing time in community sport
- ☐ Every participant has a say in developing the team code of conduct
- ☐ The team code of conduct outlines behaviours that will promote a discrimination-free zone and this code is enforced by all
- ☐ Initiation ceremonies are not practiced

Step 4 – Practice Planning and Cycling Safety

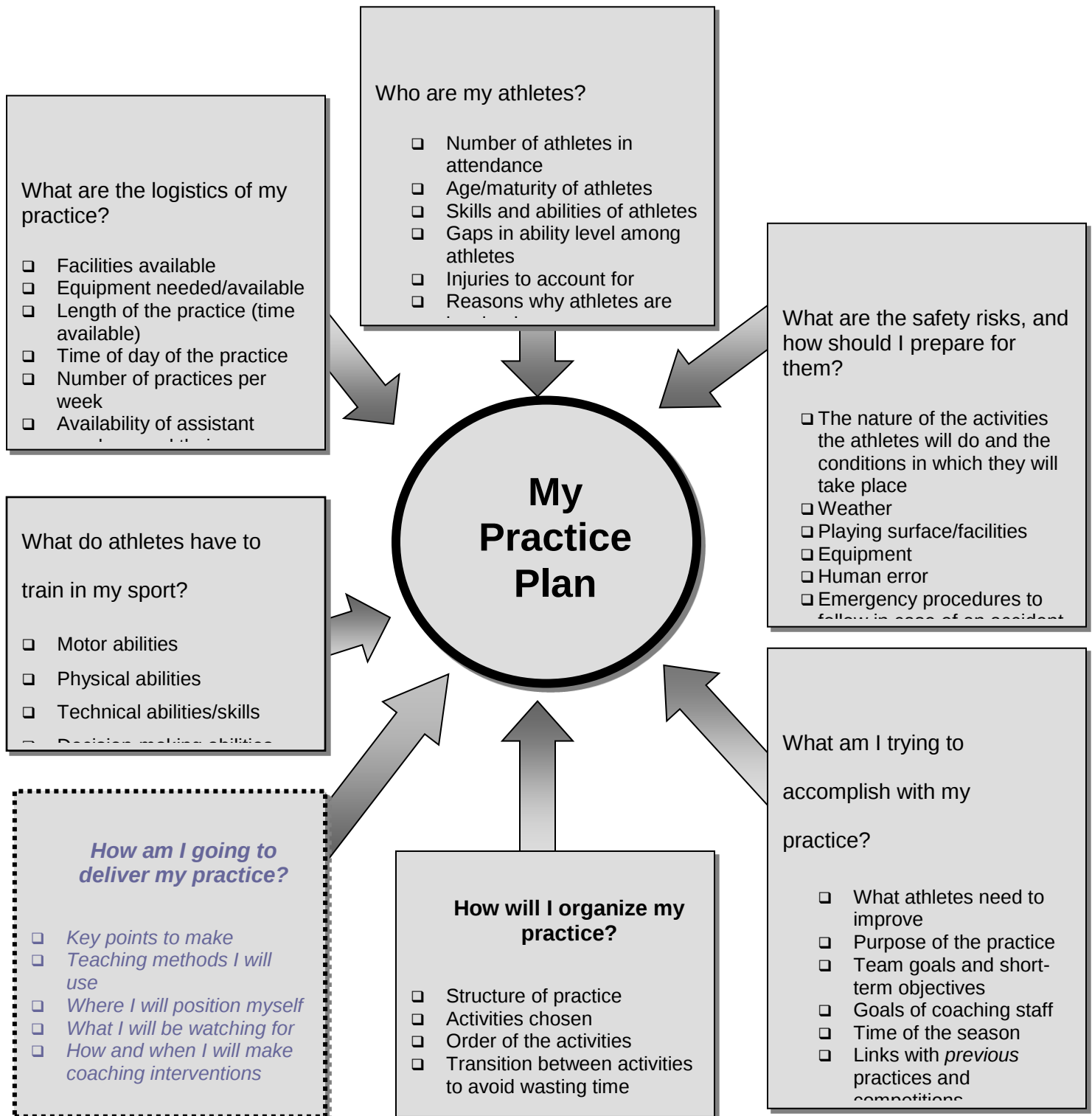
Planning a Practice

Introduction to Competition

Coaching Association of Canada, 2003

Key Questions To Consider When Planning A Practice

Note: The points listed under “How am I going to deliver my practice?” are covered in other NCCP workshops.



The Structure of a Practice

A well-structured practice has five parts:

The introduction: The coach prepares the site and equipment, welcomes the athletes, and informs them of what will be taking place during the practice. This is also a good time to assess the general status of the athletes (e.g. Have they recovered from the previous practice?).

The warm-up: The coach plans activities that gradually activate the athletes and prepare them physically and mentally to effectively perform the main part of the practice. The warm-up consists of two parts: (1) general and (2) specific. The general warm-up aims to raise the body temperature until it is sweating, to allow for progressive muscle stretching. The specific warm-up, designed for the particular sport, aims to prepare the warmed muscles for the types of movements to be performed in the main part, and therefore the movements should mimic those of the main part, gradually building in intensity and range of motion.

The main part: The coach ensures a smooth flow of activities that are challenging for the athletes, and that help them to improve sport-specific abilities and fitness. The activities chosen must be not only appropriate for the sport, but also for the athletes' age, fitness, and ability levels.

The cool-down: To initiate the recovery of the body, the coach plans low-intensity transition activities between the more intense efforts of the main part and the end of the practice. The coach also plans for some time to stretch.

The conclusion: The coach provides some comments on the practice as well as an opportunity for feedback from athletes. The coach ensures the practice ends on a positive and friendly note. Some information **about the next practice or game is also provided.**



The Structure Of A Practice - Key Elements To Plan In Each Part



<i>Practice Part</i>	<i>Time</i>	<i>Key Elements</i>
Introduction Purpose is to greet athletes and let them know what will be taking place	<i>variable</i> <i>2-3 min</i>	Before practice begins: ➤ Inspect facilities ➤ Organize equipment ➤ Greet each athlete ➤ Assess the energy level of each athlete At the beginning of practice: ➤ Review the goals of the practice and the activities planned ➤ Give safety instructions specific to the activities planned
Warm-up Purpose is to prepare the body for the efforts that will be produced during the main part	<i>5-10 min</i> <i>8-15 min</i>	General warm-up: ➤ General exercises or games to loosen muscles and raise body temperature ➤ Progressive stretching Specific warm-up: ➤ Brief activities that athletes already know that mimic the movements of the main part (may even be the same activity, but at lower intensity) ➤ A gradual increase in intensity that will not tire the athlete ➤ A quick transition between the end of the warm-up, the explanations/instructions given for the first activities of the main part, and the activities themselves

Practice Part	Time	Key Elements
Main part Purpose is to engage athletes in activities that will help them to improve sport-specific abilities and fitness	<i>Variable; usually 30-60 min or more</i>	3 or more activities linked in the proper order (see suggestions on page 88) ➤ Activities that challenge the athletes so that they can learn and improve while enjoying themselves ➤ Athletes engaged most of the time in an activity (i.e. not standing around or waiting in line) ➤ Athletes allowed lots of practice for each activity ➤ Activities that are be adapted to the age, fitness, and ability levels of the athletes and are relevant to the sport
Cool-down Purpose is to begin recovery	<i>5-10 min</i>	➤ A gradual decrease in intensity ➤ Stretching, especially of those muscles most used
Conclusion Purpose is to debrief and inform about next practice or competition	<i>3-5 min</i>	➤ Provide and ask for feedback on what went well and suggest how improvement can be made ➤ Inform about the next practice or competition (e.g. logistics, goals and emphasis) ➤ Lead team cheer ➤ Speak with each athlete before he/she leaves

Sport Safety Through Risk Management

By its very nature, physical activity can present some risk of injury. One of the key responsibilities of the coach is to manage the potential risks that present themselves during practice or competition.

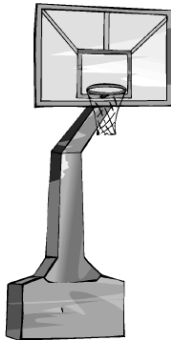
The main risk factors can be categorized as follows:



Environmental risks

Factors related to the weather and/or its effects on the site or location where the sport takes place.

Examples: Lightning, rain, puddles/mud on the playing surface, heat and humidity, cold



Equipment and facilities risks

Factors related to the quality and operating conditions of the equipment and the facilities

Examples: a ski binding that does not release, ill-fitting helmet, damaged gymnastics apparatus, debris on the playing surface



Human risks

Factors related to the participants and to the people who are associated with them, such as parents, coaches, officials, and event organizers. Human risks may also be related to a participant's individual characteristics (e.g. height, weight, level of physical preparation, ability) or behaviour (e.g. carelessness, panic, aggression). Human factors related to coaches include their training and experience, their supervision of the participants, as well as their decisions they make about situations in which they place the participants.

Examples: matching participants of uneven strength and ability in a combative sport, forgetting to spot a gymnastics participant

Strategies For Managing Risk

Information to gather	Actions to take
• Risks of the activity • Participants' medical information • Participants' contact information in case of emergency • Facility safety checklist • Past injury reports <i>Sample forms are provided in appendix</i>	• Planning • Designing an Emergency Action Plan • Inspecting equipment and facilities • Informing participants and parents • Supervising activities

Information to gather

- Phone numbers and addresses of the participants, their parents, the ambulance service, the police force, the fire department and the public safety service.
- Medical conditions of each participant (e.g. illnesses, allergies, disabilities, injuries), whom to contact in an emergency situation, and what the procedures should be in the event of an emergency (e.g. intramuscular injection with an EpiPen® for a severe allergic reaction, giving a specific medication).

Keep this information in a waterproof binder that you can carry with you to the training or competition site.

Find out if 911 services are accessible from your facility or if there is medical support on site.

Actions to take

Planning

- Ensure that the activities are appropriate for the age, fitness, and ability level of the participants.
- Ensure that the practice starts with a warm-up, and that the activities include a reasonable progression and challenge for the participants.
- Adjust activities for participants who cannot perform them as planned for the larger group.

Designing an Emergency Action Plan

- Guidelines for designing an Emergency Action Plan appear in this document.

Inspecting equipment and facilities

- Ensure that you are fully aware of the specific safety standards related to the equipment used in your sport.
- Take an inventory of collective and individual equipment.
- Take an inventory of available first aid equipment. Carry a first aid kit at all times.
- Assess the safety of the facility itself (e.g. walls, playing area, lighting) by completing a facility safety checklist.
- Identify environmental, equipment and facilities and human risk factors.
- Ensure that the participants wear their protective equipment and that it is properly adjusted and in good condition.

Informing participants and parents

- Inform the parents and the participants of the risks inherent to the sport.
- Properly explain the safety procedures and instructions related to all activities, and check that the participants understand them.
- When giving explanations for an activity during a practice or during competition, highlight potential risks.
Examples: If participants are required to cross paths, ask them to keep their heads up and to be alert to where others are as they are moving around; if it has just rained and your team is practising on wet grass, remind your participants that the field is slippery.

Supervising activities

- Ensure that the number of participants involved is not so high as to compromise adequate supervision and safety.
- Keep in mind that participants need to be constantly supervised. Stop all activities when you have to leave the room or site.
- Look for signs of fatigue and aggression in participants and, if necessary, stop the activity.
- Stop the practice if you have to leave the site for any reason, or delegate responsibility for the group to a competent person.

Summary

Preventing sport-related injuries: what to do and when to do it

Before the season
• Have a medical profile completed for each participant • Inform parents of possible risks • Ensure facilities and equipment meet established safety requirements • Create and fill in a facility safety checklist • Review last season's injuries and/or common injuries in your sport
During the season
Before a practice or competition • Inspect equipment and facilities • Meet with the officials • Prepare an Emergency Action Plan • Plan specific safety measures for the practice/competition During a practice or competition • Inform participants of specific safety measures relating to activities, facilities, and equipment • Ensure there is proper supervision • Evaluate participants • Ensure that fair play principles are followed After a practice or competition • Store equipment safely • Fill in an accident report if necessary
After the season
• Keep an accident/injury report log

Heat And Humidity As Risk Factors

The challenges of exercising in the heat: key points

- During exercise, the muscles produce heat. This heat must be dissipated, otherwise the body runs the risk of “overheating.” Overheating can result in serious, potentially life-threatening injuries.
- Sweating is one of the heat-dissipating mechanisms of the body. When sweat evaporates, it cools off the body.
- Most sport activities lead to heat production and sweating. Evaporation of sweat works best when the air is dry. In moist, damp air, sweat cannot evaporate easily and cooling off is more difficult.
- If the air temperature is high during vigorous activity, participants can lose a significant amount of water through sweating.
- High temperatures and high relative humidity make it hard for the body to dissipate heat; heavy sweating occurs, but the water lost does not help to cool off the body. Under these conditions, participants run the risk of overheating.
- Water lost as a result of heavy sweating can lead to dehydration. Dehydration can reduce performance, decrease the body’s ability to dissipate heat, and endanger health.
- During exercise in the heat, adequate hydration is a must. Participants must drink water whenever the risk of dehydration is present.
- Thirst is not a good indicator of a need for water. In fact, dehydration has already started if a participant feels thirsty.
- During most exercise conditions, the rate at which participants lose water exceeds the rate at which they can absorb it by drinking. This is accentuated during exercise in a hot environment. Therefore, participants need to drink fluids *before* they are thirsty.
- Children run a higher risk of overheating when exercising in the heat, because their sweating mechanism is not fully developed. In addition, children tend to not drink enough during exercise, in particular if the beverage is not flavoured.

The Humidex: A Guide To Assess The Risk Of Exercising In Hot And Humid Conditions

- The humidex describes how hot and humid weather feels to the average person. The humidex combines the temperature and humidity into one number to reflect the perceived temperature.
- Because it takes into account both heat and humidity, the humidex provides useful information about the risks of exercising in the heat.
- The table below shows the humidex value for various air temperatures and levels of relative humidity. For instance, if the air temperature is 25 C and the relative humidity is 70%, the humidex is 32 C. This means that the sensation of heat when it is 25 C and the relative humidity is 70% is about the same as when it is 32 C and the air is dry (20% relative humidity).

		RELATIVE HUMIDITY (%)																	
		15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
T E M P E R A T U R E (C)	20						20	20	21	22	22	23	24	24	25	25	26	27	27
	21						21	22	22	23	24	24	25	26	26	27	28	29	29
	22					22	22	23	24	25	25	26	27	27	28	29	30	30	31
	23					23	24	24	25	26	27	28	28	29	30	31	31	32	33
	24					24	25	26	27	28	28	29	30	31	32	33	33	34	35
	25				25	26	26	27	28	29	30	31	32	33	33	34	35	36	37
	26				26	27	28	29	30	31	32	33	33	34	35	36	37	38	39
	27				27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
	28			28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
	29			29	30	31	32	33	35	36	37	38	39	40	41	42	43	45	46
	30			30	31	33	34	35	36	37	39	40	41	42	43	44	46	47	48
	31			32	33	34	35	37	38	39	40	42	43	44	45	47	48	49	50
	32		32	33	34	36	37	38	40	41	42	44	45	46	48	49	50	51	53
	33		33	34	36	37	39	40	41	43	44	46	47	48	50	51	53	54	55
	34		34	36	37	39	40	42	43	45	46	48	49	51	52	53	55	56	58
	35		36	37	39	40	42	43	45	47	48	50	51	53	54	56	57	59	
	36		37	39	40	42	44	45	47	49	50	52	53	55	57	58	60		
	37	37	38	40	42	44	45	47	49	51	52	54	56	58	59				
	38	38	40	42	43	45	47	49	51	53	54	56	58	60					
	39	39	41	43	45	47	49	51	53	55	57	59							
	40	41	43	45	47	49	51	53	55	57	59								

Range Of Humidex: Degree Of Discomfort And Risk Of Overheating During Exercise

The guidelines below are provided for a heat acclimated, well-hydrated person.

Humidex value	Discomfort at rest	Risk of overheating during exercise
Below 24 C	None	Low to moderate
25 to 29 C	None	Moderate
30 to 39 C	Some	High - Children should be monitored closely
40 to 45 C	Great	Very high - Exercise is not advised for children, older people, or individuals with a poor fitness level
Above 45 C	Great Risk of overheating even at rest	Extreme - Exercise is not advised for any participant

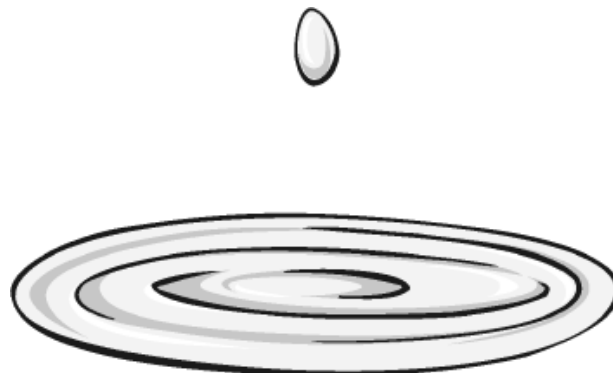
If the humidex is above 30 C, in particular if it exceeds 35 C:

- Tell participants to bring extra water or sport drinks; ensure there will be access to water during the practice or the competition, and bring a big jug of fluids.
- Tell participants to dress in loosely fitting, lightweight, and light-coloured clothes.
- Plan for low-intensity activities.
- Plan for shorter work bouts, with frequent and longer pauses.
- Schedule practices early in the morning or during the evening; avoid the hours between 9 a.m. and 6 p.m.
- Consider changing the location of the practice to a shaded area, or ask participants to bring umbrellas to create shade during breaks.
- Consider exercising indoors, in a facility with air conditioning.
- Consider alternatives to physical exercise.

Other Safety Measures To Avoid Heat Injuries

- Plan for participants to have enough time to get used to the environment they will face in competition. Insisting on heat acclimatization may mean not entering competitions if participants cannot train in a similar climate for approximately two weeks beforehand.
- In order to protect participants (in particular young children) against the potentially harmful effects of ultra violet (UV) rays, the following is recommended: they should wear a hat or a cap with a visor; clothes should cover the upper part of the body, the neck, the arms and the legs; sun screen lotion (protection factor of 30 or more) should be applied on the exposed skin, including the face and the hands. Participants should not expose their body to the sun without effective protection when the UV index is high.
- Before exercise, participants should drink 400 to 600 mL of fluid.
- During exercise, participants should drink 150 to 250 mL of fluid every 15 minutes. Remind participants to drink, lead by example, and never restrict them from drinking during a practice or a competition.
- After exercise, participants should rehydrate by drinking as much fluid as thirst dictates, and even force themselves to drink.
- Beverages should be cool (8 to 10 C) and not too sweet; children prefer flavoured sport drinks and these promote drinking.
- Tell the participants to bring a personal water bottle with cold fluids to each practice or competition; inform their parents about the importance of hydration; make sure each bottle is clean and well identified.
- Tell the participants to monitor their hydration level by checking their urine. If it is dark, there is not much of it, and it has a strong smell, the participants are most likely dehydrated and should force themselves to drink.

NB: Particular attention should be paid to these measures during the first few hot days of spring or summer, when participants are not yet acclimatized to hot and humid weather.



Cold As A Risk Factor

The challenges of exercising in the cold: key points

- The colder the environment, the faster a participant's body temperature will decrease.
- During exercise in a cold environment, the skin can become wet as a result of sweating, or exposure to rain or snow. A wet skin surface cools the body faster than when it is dry.
- Temperature may drop considerably once the sun has set, which can quickly increase the level of risk associated with exercising in a cold environment.
- The wind magnifies the perception of cold, and increases the rate at which the body loses heat. This effect can be further amplified if the skin is wet.
- In cold weather, high humidity makes the temperature feel colder than air temperature indicates it is.
- Cold, dry air makes it difficult to breathe for some asthmatics, although it is generally easier to tolerate the cold when the air is dry.
- Skin can freeze when exposed to very cold temperatures, and when this happens circulation slows. Tissue can be damaged if frostbite is prolonged and extensive. Extremities (e.g. toes, fingers, nose, ears) are particularly at risk in cold temperatures, because the body shunts blood flow to central organs and tissues to maintain the body's core temperature.
- In severe cold, brain function can slow down, and so risk of further injury in prolonged exposure increases.
- Children get cold much faster than adults, and their skin is more prone to freeze. People with less body fat usually have less tolerance for cold than those with more body fat.
- Muscles and other soft tissues that are cold are more susceptible to injuries such as pulls and tears, in particular if the efforts produced are sudden and intense.
- In very dry cold environments, water vapour lost through breathing and evaporation of sweat from exposed surfaces may lead to dehydration.
- Wearing appropriate clothing can be a challenge when exercising in the cold. Clothes must protect against the cold, but at the same time they must not impair the body's ability to get rid of the heat produced during exercise. Heavy clothing can be cumbersome and interfere with movement; it can also increase air resistance in some sports where speed is critical. On the other hand, the thin clothing used in many sports often offers little protection from the cold and the wind.
- The type of fabric worn can either wick water from the body surface (i.e. synthetics such as polypropylene or Gore-Tex ®) which results in less risk of heat loss, or trap it there (i.e. cotton or nylon) which results in greater risk of heat loss.

Safety Measures To Avoid Cold Injuries

When exercising in the cold:

- Ensure participants wear sufficient clothing for the conditions, and layer clothing as follows:

Layer closest to skin:	Polypropylene, close fitting (wicking effect)
Second layer:	Fleece or wool, slight room between first layer and second layer for “trapped air” effect
Third layer:	Wind-breaking, water repellent, breathable layer

- When it is very cold, ensure exposed surfaces are kept to a minimum.
- Once the body has warmed up, and if the temperature is not too cold, consider removal of the second layer of clothes during exercise to avoid excessive sweating. Have participants add a layer or use blankets to keep warm during breaks or pauses.
- Apply anti-perspirant on feet before exercising to lessen sweating of the feet (which is usually followed by cooling of the feet). Doing the same on the palm of the hands may reduce the feeling of cold for people who tend to sweat a lot in their gloves or mitts.
- Ensure participants hydrate when they exercise in the cold.
- Bring children inside when they say they are cold; it is not worth the risk to prolong exercise and have them suffer from frostbite. Once a person suffers serious frostbite, the risk of subsequent frostbites to the same area may be increased.
- Never send participants out into the cold alone or without means of communicating with you and/or an emergency centre; avoid prolonged activities in which participants are in isolated areas and run the risk of becoming exhausted.
- When the weather is very cold and participants must train outdoors, hold your practices between 11 a.m. and 2 p.m. as these tend to be the warmest hours of the day. Be aware that temperature drops quickly when the sun sets.



- **Inform participants and their parents to consider the combined effect of cold and wind (i.e. the wind chill factor, see next section) when making decisions about how to dress rather than simply looking at the thermometer. Do the same when you make coaching decisions about the choice and the scheduling of activities.**
- **If possible, choose areas that are protected from the wind; avoid activities in open areas.**
- **Ensure protective eyewear is worn to prevent snow reflection from damaging eyes, and protect from the cold and the wind.**
- **Have participants or their parents bring a change of clothing, especially socks and underwear. Try to find a warm and protected spot to change.**
- **Inform participants and parents that a hat should be worn at all times; over 30% of body heat may be lost through the head. Ensure ears are covered to avoid frostbite.**
- **Allow additional time for warming up for training and competition; it takes longer to get the body warmed up and ready for sport in cold weather than it does in warm weather.**

Wind chill factor

At certain temperatures, wind may greatly increase the perception of cold. The wind chill factor is an index that combines air temperature and wind velocity. It measures the rate at which living creatures lose body heat to the environment. The wind chill is not a temperature in the strict sense, but a temperature-like number that quantifies the sensation of cold. The wind chill factor should be consulted prior to exercising in the cold, as it provides more useful information regarding the best way to dress than temperature alone.

The table below shows the equivalent temperature (C) felt by the human body as a result of the combined effects of ambient temperature and wind velocity. At a temperature of –20 C, a 20 km/h wind will result in a cold sensation equivalent to –30 C.

		WIND VELOCITY (km/h)															
T E M P E R A T U R E (C)		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80
	5	4	3	2	1	1	0	0	-1	-1	-1	-2	-2	-2	-2	-3	-3
	0	-2	-3	-4	-5	-6	-6	-7	-7	-8	-8	-8	-9	-9	-9	-10	-10
	-5	-7	-9	-11	-12	-12	-13	-14	-14	-15	-15	-15	-16	-16	-16	-17	-17
	-10	-13	-15	-17	-18	-19	-20	-20	-21	-21	-22	-22	-23	-23	-23	-24	-24
	-15	-19	-21	-23	-24	-25	-26	-27	-27	-28	-29	-29	-30	-30	-30	-31	-31
	-20	-24	-27	-29	-30	-32	-33	-33	-34	-35	-35	-36	-36	-37	-37	-38	-38
	-25	-30	-33	-35	-37	-38	-39	-40	-41	-42	-42	-43	-43	-44	-44	-45	-45
	-30	-36	-39	-41	-43	-44	-46	-47	-48	-48	-49	-50	-50	-51	-51	-52	-52
	-35	-41	-45	-48	-49	-51	-52	-53	-54	-55	-56	-57	-57	-58	-58	-59	-60
	-40	-47	-51	-54	-56	-57	-59	-60	-61	-62	-63	-63	-64	-65	-65	-66	-67
	-45	-53	-57	-60	-62	-64	-65	-66	-68	-69	-69	-70	-71	-72	-72	-73	-74
	-50	-58	-63	-66	-68	-70	-72	-73	-74	-75	-76	-77	-78	-79	-80	-80	-81

The table below shows how quickly frostbite can occur in adults when skin is suddenly exposed to a cold environment. Times would be shorter for children, or if skin temperature upon exposure is cooler than it normally is at room temperature.

Wind chill factor	Frostbite can occur in:
-25	45 minutes
-35	10 minutes
-60	2 minutes

Emergency Action Plan (EAP)

An Emergency Action Plan (EAP) is a plan designed by coaches to assist them in responding to emergency situations. The idea behind having such a plan prepared in advance is that it will help you respond in a responsible and clear-headed way if an emergency occurs.

An EAP should be prepared for the facility or site where you normally hold practices and for any facility or site where you regularly host competitions. For away competitions, ask the host team or host facility for a copy of their EAP.

An EAP can be simple or elaborate should cover the following items:

1. Designate in advance who is in charge in the event of an emergency (this may very well be you).
2. Have a cell phone with you and make sure the battery is fully charged. If this is not possible, find out exactly where a telephone that you can use is located. Have spare change in the event you need to use a pay phone.
3. Have emergency telephone numbers with you (facility manager, fire, police, ambulance) as well as contact numbers (parents/guardians, next of kin, family doctor) for the participants.
4. Have on hand a medical profile for each participant, so that this information can be provided to emergency medical personnel. Include in this profile a signed consent from the parent/guardian to authorize medical treatment in an emergency.
5. Prepare directions to provide Emergency Medical Services (EMS) to enable them to reach the site as rapidly as possible. You may want to include information such as the closest major intersection, one way streets, or major landmarks.
6. Have a first aid kit accessible and properly stocked at all times (all coaches are strongly encouraged to pursue first aid training).
7. Designate in advance a “call person” (the person who makes contact with medical authorities and otherwise assists the person in charge). Be sure that your call person can give emergency vehicles precise instructions to reach your facility or site.

When an injury occurs, an EAP should be activated immediately if the injured person:

- is not breathing
- does not have a pulse
- is bleeding profusely
- has impaired consciousness
- has injured the back, neck or head
- has a visible major trauma to a limb



Emergency Action Plan Checklist

Access to telephones

- Cell phone, battery well charged
- Training venues
- Home venues
- Away venues
- List of emergency phone numbers (home competitions)
- List of emergency numbers (away competitions)
- Change available to make phone calls from a pay phone

Directions to access the site

- Accurate directions to the site (practice)
- Accurate directions to the site (home competitions)
- Accurate directions to the site (away competitions)

Participant information

- Personal profile forms
- Emergency contacts
- Medical profiles

Personnel information

- The person in charge is identified
- The call person is identified
- Assistants (charge and call persons) are identified

- *The medical profile of each participant should be up to date and located in the first aid kit.*
- *A first aid kit must be accessible at all times, and must be checked regularly. See the appendices for suggestions on contents for a first-aid kit.*

Sample Emergency Action Plan (p.1 of 2)

Contact Information

Attach the medical profile for each participant and for all members of the coaching staff, as well as sufficient change to make several phone calls if necessary. The EAP should be printed two-sided, on a single sheet of paper.

Emergency phone numbers: 9-1-1 for all emergencies

Cell phone number of coach: (xxx) xxx-xxxx

Cell phone number of assistant coach: (xxx) xxx-xxxx

Phone number of home facility: (xxx) xxx-xxxx

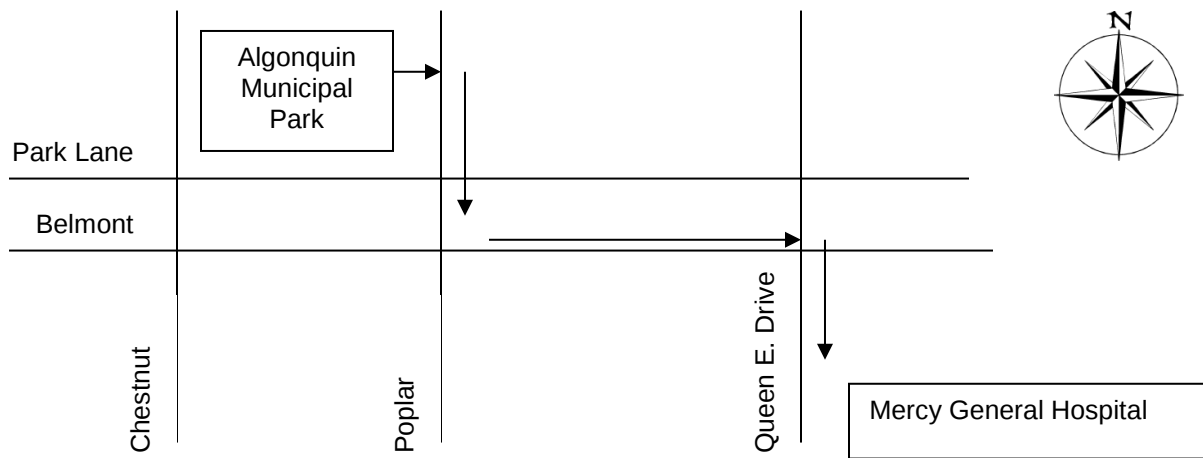
Address of home facility: Algonquin Municipal Park
123 Park Lane,
between Chestnut St. and Poplar St.
City, Province/Territory XXX XXX

Address of nearest hospital: Mercy General Hospital
1234 Queen Elizabeth Drive
City, Province/ Territory XXX XXX

Charge person (1st option): Suzy Chalmers (coach)
Charge person (2nd option): Joey Lemieux (assistant coach)
Charge person (3rd option): Angela Stevens (parent, nurse, usually on site)

Call person (1st option): Brad MacKenzie (parent, cell xxx-xxxx)
Call person (2nd option): Sheila Stevens (parent, cell xxx-xxxx)
Call person (3rd option): Stefano Martinez (parent, cell xxx-xxxx)

Directions to Mercy General Hospital from Algonquin Municipal Park:



Sample Emergency Action Plan (p.2 of 2)

Roles and responsibilities

Charge person

- ☐ Clear the risk of further harm to the injured person by securing the area and shelter the injured person from the elements
- ☐ Designate who is in charge of the other participants
- ☐ Protect yourself (wears gloves if he/she is in contact with body fluids such as blood)
- ☐ Assess ABCs (checks that airway is clear, breathing is present, a pulse is present, and there is no major bleeding)
- ☐ Wait by the injured person until EMS arrives and the injured person is transported
- ☐ Fill in an accident report form

Call person

- ☐ Call for emergency help
- ☐ Provide all necessary information to dispatch (e.g. facility location, nature of injury, what, if any, first aid has been done)
- ☐ Clear any traffic from the entrance/access road before ambulance arrives
- ☐ Wait by the driveway entrance to the facility to direct the ambulance when it arrives
- ☐ Call the emergency contact person listed on the injured person's medical profile

Steps To Follow When An Injury Occurs

Note: it is suggested that emergency situations be simulated during practice in order to familiarize coaches and athletes with the steps below.

Step 1: Control the environment so that no further harm occurs

- Stop all participants
- Protect yourself if you suspect bleeding (put on gloves)
- If outdoors, shelter the injured participant from the elements and from any traffic

Step 2: Do a first assessment of the situation

If the participant:

- is not breathing
- does not have a pulse
- is bleeding profusely
- has impaired consciousness
- has injured the back, neck or head
- has a visible major trauma to a limb
- Cannot move his/her arms or legs or has lost feeling in them

If the participant does not show the signs above, proceed to Step 3

*Activate
EAP!*

Step 3: Do a second assessment of the situation

- Gather the facts by asking the injured participant as well as anyone who witnessed the incident
- Stay with the injured participant and try to calm him/her; your tone of voice and body language are critical
- If possible, have the participant move himself/herself off the playing surface. Do not attempt to move an injured participant.

Step 4: Assess the injury

Have someone with first aid training complete an assessment of the injury and decide how to proceed.

If the person trained in first aid is not sure of the severity of the injury or there is no one available who has first aid training, activate EAP. If the assessor is sure the injury is minor, proceed to step 5.

*Activate
EAP?*

Step 5: Control the return to activity

Allow a participant to return to activity after a minor injury only if there is no:

- Swelling
- Deformity
- Continued bleeding
- Reduced range of motion
- Pain when using the injured part

Step 6: Record the injury on an accident report form and inform the parents

Head Injuries And Concussions: Guidelines For Coaches

NB: The following information is presented as a series of guidelines only. Head injuries must be treated by a recognized medical professional.

Introduction

Head injuries and concussions can occur in many sports, either in training or during competitions. Because of the potentially grave consequences of injuries to the head, coaches must take certain precautions and should enforce strict safety measures when dealing with them.

The information contained in this section is not designed to train coaches on how to implement a medical treatment or to offer medical advice in the event of a concussion. Rather, its purpose is to provide some recommendations on how to manage situations involving head injuries in a responsible manner. It is important to note that there is presently a lack of consensus in the medical community regarding precise grading scales and return to training or competition criteria following concussions.

What is a concussion?

A concussion is an injury to the brain that results from a hit to the head, or to another part of the body that allows the transmission of impact forces to the head. It shows itself through a temporary alteration in the mental status of the individual, and may also be accompanied by some physical symptoms.

Some common causes of concussions

The situations that may result in head injuries vary greatly from sport to sport. Producing a comprehensive list of possible causes is therefore difficult. However, some common causes include:

- direct blows to the head, face, jaw, or neck
- collisions from the blind side, or hits from behind
- hard fall on the buttocks, or whiplash effect
- poor quality of protective sport equipment (shock absorption), failure to wear protective equipment designed for the head, or improper adjustment of the same
- the environment (e.g. obstacles near playing surface)
- significant differences in the skill level, age, or size of participants involved in activities with physical contact or risk of impact
- poor physical condition, or insufficient strength in the neck and upper body musculature.

Symptoms of a concussion

Symptoms observed in the case of a concussion include headache, dizziness, loss of consciousness, nausea, lethargy, memory loss, confusion or disorientation (lack of awareness of time, place, date), vacant stare, lack of focus, ringing in the ears, seeing stars or flashing lights, speech impairment, balance impairment, and problems with sight.

Other signs may include a major decrease in performance, difficulty following directions given by the coach, slow responses to simple questions, and displaying inappropriate or unusual reactions (laughing, crying) or behaviours (change in personality, illogical responses to sport situations).

A person can suffer from a concussion without losing consciousness.

Managing a participant with concussion symptoms

The following short-term measures should be implemented in the event that a participant suffers a concussion:

- An unconscious participant, or an participant with significant changes in mental status following a head injury, must be transported to the emergency department of the nearest hospital by ambulance. This is a grave situation, and the participant *must be seen by a medical doctor immediately*. In such a situation, the *Emergency Action Plan must be implemented*.
- A participant showing *any* of the concussion symptoms should not be allowed to return to the current practice or competition.
- A participant showing concussion symptoms must not be left alone, and monitoring for the deterioration of his/her condition is essential. He/she should be medically evaluated as soon as possible following the injury. The circumstances of the injury should be recorded and communicated to the medical personnel.
- If any of the concussion symptoms reoccur, the participant's condition should be considered serious, and the individual *must* go immediately to the hospital.

Managing the participant's return after a concussion

Although a participant may have been given the authorization to return to regular training and competition, this must be done gradually. The participant must be re-evaluated periodically during the weeks that follow his/her return, to ensure that there are no reoccurring symptoms.

Below are a series of steps to assist coaches in managing the return to training or to competition of a participant who has suffered a concussion. Each step should take at least one day, although proceeding through each step may take longer depending on individual circumstances (Step 5 applies predominantly to sports that involve body contact).

- Step 1:** No activity, complete rest; if no symptoms are observed for one full day, move to Step 2.
- Step 2:** Low-intensity continuous exercise, such as walking, jogging, or cycling on a stationary bicycle; if no symptoms are observed, move to Step 3.
- Step 3:** Low-intensity, sport-specific activity without contact; if no symptoms are observed, move to Step 4.
- Step 4:** Moderate-intensity sport-specific training activities without body contact; if no symptoms are observed, move to Step 5.
- Step 5:** Regular practice with body contact if it is required by the sport (no hard impact); if no symptoms are observed, move to Step 6.
- Step 6:** Return to regular training and to competition.

If symptoms do reoccur, the participant must immediately stop any form of activity and be examined by a medical doctor before resuming training or competition. It is extremely important for the participant, the coach, and the medical personnel to be open and frank when evaluating the participant's condition. If reoccurring symptoms are not disclosed, the participant may suffer permanent damage.

Repeated concussions

Some data suggest that after a first concussion, a person might be more at risk of suffering from concussive injuries in the future. If a participant has a history of repeated concussions, he/she should participate in sport activities only when *full clearance* to do so is obtained from a medical professional.

NB: This information is based on the summary and agreement statement of the first international symposium on concussion in sport held in Vienna in 2001, and on a brochure produced by Judo Canada, entitled "Safety First - What You Need To Know About Concussions." The Coaching Association of Canada is grateful to the Concussion in Sport Group and its chair, Dr. Karen M. Johnston, Division of Neurosurgery, McGill University Health Centre, and to Judo Canada's sport director, Andrzej Sadej, for permission to adapt this material. The Coaching Association of Canada also wishes to express its thanks to Dr. Johnston for reviewing this text.

Coach Liability

Introduction

More than ever before, coaches are aware of the risks and responsibilities they assume when they coach. These risks and responsibilities include those that are legal in nature. No matter what their certification, experience, employment or volunteer status, sport discipline, or location of residence, coaches at all times have a legal obligation to provide a safe environment for participants.

To understand this obligation more fully, the coach must understand some key legal principles including negligence and liability. In order to fulfil this obligation, the coach must also understand concepts and techniques related to risk management. With this knowledge, the coach can determine the applicable standard of care, can assess his or her own coaching situation for risks, and can put in place appropriate measures to manage these risks.

These three topics – negligence, liability, and risk management – are discussed below. This section concludes with a ten-point “personal risk management plan.”

Negligence

Negligence is a legal term with precise legal meaning. The term relates to standards of behaviour that the law expects, and understanding the law of negligence is an essential first step in learning how to provide a safe environment for participants.

In general terms, negligence refers to behaviour or action that falls below a “reasonable standard of care.” The law in Canada demands that we behave in a particular way so that others who might be affected by our actions are not exposed to an unreasonable risk of harm. The standard of behaviour the coach is expected to meet is what is termed an “objective” standard. As adults and as coaches, we are all credited with the same general intelligence and sensibility, and thus the law expects each of us to behave in a reasonable fashion when confronted with similar circumstances.

The law does not expect a coach to be *perfect* in his or her behaviour, only that the coach be *reasonable* and act as other reasonable coaches would act in the same circumstances.

It is widely accepted that there is a certain amount of risk in many sport activities and that such risk is knowable, foreseeable, acceptable, and, depending on the sport, even desirable. What is unacceptable in sport is behaviour that places participants in a situation of unreasonable risk or danger.

A coach's conduct is negligent when all four of the following conditions occur:

- a duty of care exists (such as that which exists between a coach and a participant)
- that duty imposes a standard of care that is not met by the coach
- a participant, or other person, experiences harm
- the failure to meet the standard can be shown to have caused or substantially contributed to the harm.

For the coach, the “standard of care” is the most important of the above elements. The standard of care is what the coach *should* do in a given situation. Standard of care is difficult to define precisely because it is influenced by the risk inherent in the surrounding circumstances. Thus, the duty to act responsibly remains constant, but the specific behaviour required to fulfil that duty will change with the circumstances.

To determine what the *standard of care* is in any given circumstance involves looking to four sources:

- **Written standards** – these are government regulations, equipment standards, rules for a particular sport or facility, rules from a sport governing body, coaching standards and codes of conduct, and other internal risk management policies and procedures.
- **Unwritten standards** – these are norms or conventions in a sport, an organization, or a facility that might not be written down, but are nonetheless known, accepted, and followed.
- **Case law** – these are court decisions about similar situations. Where the circumstances are the same or similar, judges must apply legal principles in the same or similar ways. Earlier decisions of the court are a guide, or precedent, for future decisions where the facts are similar.
- **Common sense** – this means simply doing what feels right, or avoiding doing what feels wrong. Common sense is the sum of a person's knowledge and experience. Trusting one's common sense is a good practice.

The responsible and prudent coach is familiar with written policies that govern him/her, is aware of unwritten norms and practices, knows something of the case law as it applies to coaches, and has learned to trust his/her intuitive judgment and common sense.

Liability

Where all four conditions of the legal definition of negligence have been met, negligence of the coach may be established. What follows then is the question of liability. While negligence refers to *conduct*, liability refers to the *responsibility* for consequences of negligent conduct. Responsibility may lie with the coach who was negligent, or with another person or entity entirely.

For example, an insurance policy transfers the financial liability for negligence to an insurance company. A valid waiver of liability agreement might eliminate liability entirely. An injured participant may be partially responsible for his or her injuries and thus may share liability with the negligent coach. And a sport organization may be vicariously liable for the negligent actions of its coach, whether he or she is an employee or a volunteer.

Liability can also refer to responsibility for the consequences of conduct that fails to meet a predetermined legal standard other than the standard of care in a negligence situation. In addition to the liability that can arise from negligence, liability can also arise when a law is broken or when a contract is breached. The prudent coach ensures that these types of liability are avoided by adhering to laws and complying with contractual agreements.

In summary, an understanding of the legal meaning of *negligence* answers the coach's question: How does the law expect me to behave? The follow-up question is: How can I be sure that my behaviour will meet this expectation? The answer to this question lies in *risk management*.

Risk management

Risk management is defined as “reducing the chances of injury or loss by taking steps to identify, measure, and control risks.” This means that the coach spends time thinking about potentially risky situations, decides which situations might pose serious risks, and determines what practical steps he/she can take to minimize those risks. The common ingredient in all these tasks is common sense.

There are four strategies for controlling risks, all of which are important to the coach:

- **Retain the risk** – the risk is minor and it is inherent in the sport activity, and the coach is willing to accept the consequences, so he/she does nothing about the risk. In sport, this is often a legitimate risk-management strategy.
- **Reduce the risk** – the risk is moderately significant and the coach takes measures to reduce the likelihood of the risk occurring, or the consequences if it does occur, through careful planning and supervision and education of participants.
- **Transfer the risk** – the risk is significant and it is transferred to others through contracts, including waivers and insurance.
- **Avoid the risk** – the risk is severe and the coach decides to avoid whatever may cause the risk.

A word of caution for coaches: there is no template, formula, or checklist for managing risk. The law expects coaches to provide a safe environment for participants, but what that means for a coach’s conduct will vary with the circumstances, including the age and skill level of participants and the environment in which the coaching activity occurs.

The coach's personal risk management plan

The informed and prudent coach protects himself/herself by implementing a personal risk management plan. This plan helps the coach on two fronts: first, it will promote a safe program and help to prevent injuries from occurring, and second, when an injury cannot be prevented, it will help to protect the coach from liability claims.

Coaches can, and should, practice their own personal risk management by following this ten-point plan:

1. Be familiar with and adhere to applicable standards, both written and unwritten, as well as internal policies and rules governing the facility, the sport, and your program.
2. Monitor your participants' fitness and skill levels, and teach new skills in a progressive fashion suitable to their age and skills. Never leave young participants unsupervised.
3. If you do not have access to medical personnel or a qualified trainer, keep adequate first aid supplies on hand; ideally, you should be trained in administering first aid.
4. Develop an Emergency Action Plan for the facility or site where you regularly hold practices or competitions. Carry with you, at all times, emergency contact numbers and participants' medical profiles.
5. Inspect facilities and equipment before every practice and competition and take steps to ensure deficiencies are corrected immediately, or adjust your activities accordingly to avoid the risk.
6. Work with your employer or sport organization to use appropriately worded "assumption of risk" agreements in your programs and, where appropriate, in settings involving adult participants, "waiver of liability" agreements.
7. You should be covered by the liability insurance policy of your employer (if you are remunerated for your coaching services) or your organization (if you are a volunteer coach). Confirm that this is the case. If it is not, obtain your own insurance.
8. Do not be afraid to stop or withdraw from any activity that poses unreasonable risks, including stopping a practice or removing your team or your participants from a competition.
9. Trust your common sense and intuition!
10. Actively pursue your own training, professional development, and coaching certification.

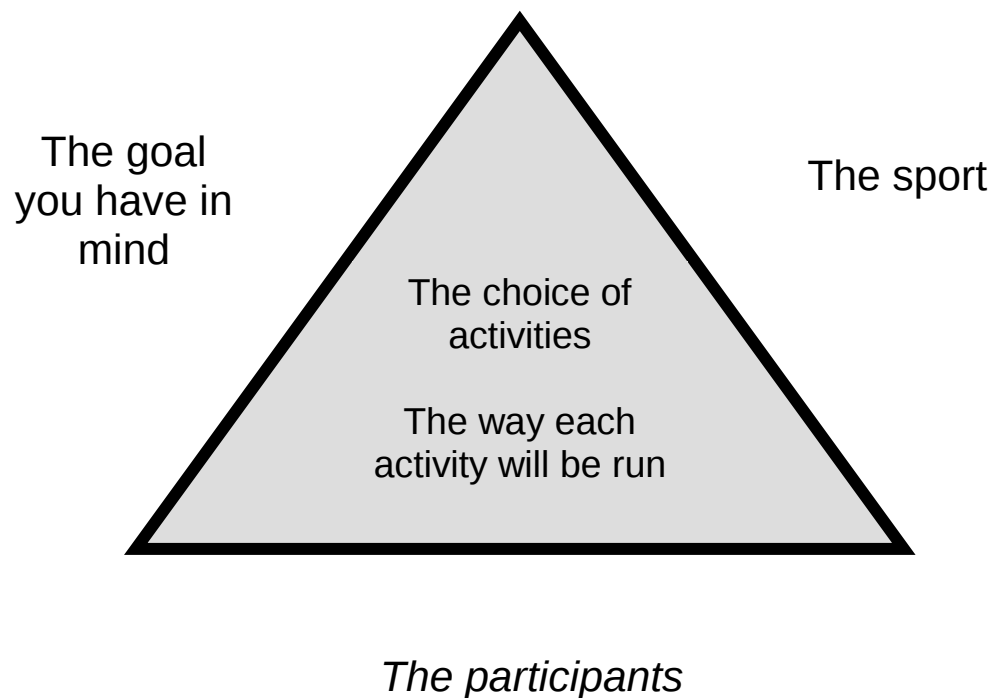
NB: Legal Questions And Answers (FAQ) on liability are provided in the appendices.

ACTIVITY DESIGN

- **General Considerations**
- **Developing Sport Skills**
- **Developing Athletic Abilities**

Choosing And Designing Activities For Your Practice: General Considerations

The art of practice planning lies in making good activity choices. As illustrated in the figure below, your choice of activities and the way they are run should be guided by three factors: the goal of the activity, the sport itself, and the athletes you coach.



- Have a goal in mind for each activity you choose.
- This goal must be appropriate for the athletes, taking into consideration their maturity as well as their proficiency in the sport.
- The way the activity is run (i.e. duration or number of repetitions, speed of execution, tasks to be performed by the athletes) must enable the goal to be met.

Sport Skill Classification

What is a skill, and how is one developed?

A skill is the ability to do something well. Most sport skills involve a movement or a series of movements, and a skilled sport performance can therefore be characterized by the following:

1. high certainty in bringing about the expected end result
2. high precision
3. efficiency, e.g. it is performed with minimum energy expenditure, and/or in the shortest possible time.

Categories of Skills

Sport skills are classified according to whether or not the movements involved:

- are performed in a stable and predictable environment; or
- have a clearly defined beginning and end points.

Some sports are easy to classify, because they involve few, well-defined skills; however, this is not the case for others that may involve a variety of skills that are performed in different conditions or situations.

The tables on the following page provide basic information about how skills can be classified, and show some sport examples.

Knowing the type of skills that are featured in your sport, or that are called upon in certain situations, may help you make planning decisions about what activities to choose for your practices, and how they should be run.

Skills classification based on the stability and predictability of the environment in which they are performed.

Closed Skills	↔	Open Skills
The movements are performed in an environment that is both stable and predictable	The movements are performed in an environment that is predictable, but changing	The movements are performed in an environment that is unpredictable
Sport examples: • Archery • Athletics (throws, jumps) • Bowling • Diving • Figure skating • Gymnastics • Shooting • Swimming in a pool • Weightlifting	Sport examples: • Bobsleigh • Luge • Cross-country running • Golf • Road cycling • Skiing • Speed skating • Yachting	Sport examples: • Combative sports • Racket sports • Team sports

Note: As indicated by the middle column (↔), there is a continuum between purely closed skills and open skills.

Skills classification based on whether or not they have well-defined beginning and end points.

Discrete Skills	Serial Skills	Continuous Skills
Distinct and easily determined beginning and end points	A series of discrete actions linked together	Actions are repetitive. No distinct and easily determined beginning and end points.
Examples of discrete skills: • Catching a ball • Throwing a punch • Swinging a golf club • Throwing a ball	Examples of serial skills: • Gymnastics routine • Figure skating routine	Examples of continuous skills: • Cycling • Running • Swimming

Skill Development: Key Points

- When learning a skill, athletes progress through some predictable stages. The table on the following page outlines some key concepts about the stages of skill development, and the needs of the athlete at each stage.
- While each athlete can be expected to go through each stage, the time and the amount of practice necessary to progress from one to the next can vary greatly from one athlete to another.
- The stages of skill development described in the following table (initiation, acquisition, consolidation, refinement, and creative variations) apply regardless of the type of skill or how it is classified.
- It is important that you recognize the stage of skill development your participants are at, as well as the specific needs they have at each stage, and that you plan your practice accordingly (i.e. that you select the right types of activities and the appropriate way to run them).

Note: It may take months or even years of practice for an athlete to reach the “Refinement” stage as defined in the shaded area of the following table. Also, the vast majority of them will never reach the “Creative variations” stage. Consequently, at the “Introduction to Competition” level, few coaches work with athletes who achieve an advanced stage of skill execution. Therefore, the focus should be on ensuring the fundamentals are correct, and that they can be performed in a variety of situations and conditions.

Stages Of Skill Development And Needs Of Athletes At Each Stage

	BEGINNER		INTERMEDIATE	ADVANCED	
	Initiation	Acquisition	Consolidation	Refinement	Creative variations
Key points to look for in assessing the stage the athlete is at	The first contact the athlete has with the skill. The athlete may have no idea of what to do in order to perform the skill.	The early stage of learning where the athlete becomes capable of (1) coordinating the key components of the movements and (2) executing them in the correct order, thus performing a rough form of the skill. The movements are not well synchronized or under control, and they lack rhythm and flow. The execution is inconsistent and lacks precision. The athlete has to think about what he or she is doing during the execution. Both form and performance tend to deteriorate markedly when the athlete tries to execute the movements quickly, or is under some pressure, as may be the case in a competitive situation.	The athlete can execute the movements or the skill in the correct form. Movement control, synchronization, and rhythm are good when performing the skill under easy and stable conditions. The movements can be repeated consistently and with precision under easy and stable conditions. Some elements of performance can be maintained when the (1) athlete is under pressure, (2) conditions change, or (3) demands increase, but performance remains inconsistent. The athlete begins to develop a more personal style.	The athlete can execute the movements in a way that is very close to the ideal model in terms of form and speed. The performance is very consistent and precision is high, even under very demanding conditions and in situations that are both complex and varied. Only minor fine-tuning may be necessary to achieve optimal execution, and a fairly definitive personal style is established. All components of the movement have been automated, which enables the athlete to focus on the environment during the execution and to make rapid adjustments as necessary. The athlete can reflect critically on his or her performance to bring about corrective measures.	This stage is achieved only by the best athletes in the world. The movements can be performed according to the ideal model, and the athlete has developed a personal style that is efficient. Personal interpretation of movements or personal movements can be combined into unique patterns in response to specific competitive situations.
Planning guide: at this stage, athletes need to...	Have a clear mental image of what a correct execution looks like. Understand the fundamental positions, stances, and patterns of the sport or skill. Feel safe when performing the skill. If necessary, reach a comfort level with some movements or feelings that may be unfamiliar, and that are part of the skill to be learned.	Understand clearly what they have to do, and have a good mental representation of the task. Perform a lot of repetitions at their own pace and under conditions that are stable, easy, and safe. Practice on both sides, if appropriate. Find some solutions by themselves through trial and error, based on some feedback from the coach.	Be exposed to a variety of situations, and perform a lot of repetitions under varied conditions. Be challenged by more complex and demanding tasks or conditions, and find more solutions through trial and error, based on less frequent feedback from the coach. Have the opportunity to practise the movements or the skill in conditions where fatigue prevails or that replicate competitive demands, and do so by having to deal with the consequences of errors.	Be exposed to complex or demanding competitive situations that require the skill to be executed at a very high level. Be trained on how to develop solutions to the problems encountered entirely on their own.	Be exposed to complex or demanding competitive situations that require the skill to be executed perfectly. Develop their own solutions.

Activity Planning Guidelines For Various Stages Of Skill Development: Characteristics Of The Activities And Appropriate Practice Conditions

- As indicated in the table entitled “Stages of Skill Development and needs of athletes at each stage,” the needs of athletes differ depending on the stage of skill development they are at. Athletes’ needs should guide the goals you have for practices that aim at developing skills.
- For practices that aim at developing skills, you should ensure that the goals, as well as the activities in which the athletes are involved are adapted to the needs of the athletes, and that the conditions in which these activities take place also match the athletes’ capabilities. Selecting or designing appropriate activities, and identifying suitable conditions in which they take place, are therefore critical steps in planning your practice.
- In addition, you will likely have to allow for the fact that not all athletes are at the same stage of skill development. This can be dealt with by planning different activities for different groups of athletes, or planning distinct practice conditions that are adapted to different athletes.
- Activities and tasks that the athletes will do during a practice can be planned in many different ways. Athletes can perform (1) the whole skill, or parts of it only (2) many repetitions without rest, or rest for varying amounts of time in between repetitions and/or (3) the same task several times in a row, or do distinct movements or actions each time either in a predictable order, or in a random order.
- The most effective activities/tasks, types of practice, and/or practice conditions may also vary according to the skill to be learned (open, closed, discrete, serial, or continuous) and/or the stage of skill development the athletes are at. Additional adjustments may be necessary to take into consideration the age of the athletes.

Planning guidelines for activities and practice conditions that support skill development at various stages are proposed in the following pages.

NB: Technical and tactical abilities to train, and the priority in which they should be trained at various ages and levels of competition are available through your National Sport Federation through its Athlete Development Model.

Activity Planning Guidelines For Various Stages Of Skill Development

Recommended practice conditions	Stages of Skill Development				
	Initiation First contact	Acquisition Movement patterning	Consolidation Correct execution in variable conditions	Refinement Minor improvements	Creative variation Inventing new movements
Surrounding environment	Stable and predictable, free of distractions	Stable and predictable, free of distractions	Increased variability and distractions in the environment, but not to the point where movement patterns deteriorate	Competition conditions	Conditions similar to those encountered in the highest level of competition
Decision-making, or uncertainty of the situations in which athletes are involved	No decision-making or options to choose from	Simple decision-making, maximum of 2 options	More complex decisions to make, increased frequency of decision-making, and more options (3-4)	Complex decisions, as many options, and at the same frequency as in a competition	Conditions similar to those encountered in the highest level of competition
Speed of execution	Slow and controlled	At athlete's own pace	Increased, variable, and close to competitive demands	Similar conditions in competition	Similar to highest level of competition
Importance of being precise and consistent	Not important	Moderately important	Precision and consistency are sought	A high degree of precision and consistency are sought	Perfection is sought at all times
# of repetitions, or opportunities to execute the movements	As needed, depending on athlete's general motor development	High	High	As many as possible	As many as possible
Risk factor and consequence of error	Completely safe conditions, errors of no consequence	Low risk conditions	Less than or similar to what is encountered in regular competition	Similar to a high level of competition	Similar to highest level of competition
During training, the emphasis should be on...	Basic stances and positions; getting the idea of what the movements are about, look like	Global execution and general form of the movement	Maintaining the form of movements and some performance consistency under a variety of conditions and under stress	Creating conditions that stress the specific elements that need adjustments	Generating new and unfamiliar situations

Part, progressive part, or whole practice or taking into account whether it is best to break down the skill into parts

Type of practice	Definition: A practice procedure in which...	Examples	Most effective for or when ...	Not recommended for or when ...
Part practice	a complex skill is broken down into distinct parts that are practised separately	Breaking down a Gymnastics or a Figure Skating routine into parts.	Skills that involve some risk, in the early stage of learning. The parts are performed relatively independent of each other in the real skill. Serial tasks of long duration where errors in one part do not impact the actions in the part(s) that follow(s). Slow serial tasks where the parts do not impact each other.	The interaction between each part is high. An error made or a change happening in one part impacts the actions in the part that follows. Discrete skills that are (1) short, (2) performed fast, or (3) involve balls or objects on a trajectory. Coordination of different parts of the body is important (hand and foot motion). Continuous skills.
Progressive part practice	parts of a skill are gradually integrated into larger blocks that come progressively closer to the real, whole action	Linking some parts of a Gymnastics or a Figure Skating routine in the order in which they will be performed. Skating and stick handling in Ice Hockey.	The task has parts that interact with each other, and adjustments may be necessary as a result of events that occurred in a previous part. The learner has reached a stage where linking actions in a complex skill no longer poses safety risks.	The learner cannot yet link critical parts or actions in a complex skill, and this poses safety risks.
Whole practice	the learner practices all parts of the skill in the right order from the outset	Golf swing. Throwing a ball. Swinging a bat. Kicking a football.	Continuous skills. Discrete skills that must be performed rapidly, and in which various parts of the body are involved. Coordination of different parts of the body is important (hand and foot motion).	The learner cannot yet link critical parts or actions in a complex skill, and this poses safety risks.

Massed or distributed practice determining whether it is best to include pauses between repetitions

Type of practice	Definition	Examples	Most effective for or when ...	Not recommended for or when ...
Massed practice	An approach to practice in which a given task or movement is repeated many times in a row without pauses or rest, OR where the pauses or the rest between each repetition are <u>short</u> compared to the duration of the actual task or movement itself.	In cross-country skiing, over a 2-minute period, shifting weight from one leg to the other and gliding as long as possible each time without using poles. Punching a bag for 3 minutes.	Discrete skills or tasks that are very short (and therefore, where movements are performed rapidly), in particular during the acquisition phase (Note: in some cases, such as throwing, some rest between repetitions may be necessary to avoid injuries). During the acquisition and consolidation stages of skill development. The duration of the practice is set (e.g. facility is available for one hour) and lots of repetitions are needed. The energy requirements of the task are not too high. The activity or the task performed poses little risk.	Continuous or serial skills or tasks that require a lot of speed or coordination and where fatigue can build up during the practice and affect the quality of execution. Fatigue developing during the session increases the risk of accident or injury, particularly towards the end of the practice.
Distributed practice	An approach to practice in which the pauses or the rest following each repetition of a task or movement are <u>long</u> compared to the duration of the actual task or movement itself.	In Track and Field, practising an all-out start from the blocks over 10 or 15 meters 5 times, with a one-minute recovery consisting of light jogging and walking between each repetition.	Continuous or serial skills or tasks that require a lot of speed or coordination, and where fatigue can build up during the practice and (1) affect the quality of execution or (2) increase the risk of accident.	

Constant, variable, or random practice determining whether it is best to vary the task(s) the learner has to perform

Type of practice	Definition	Examples	Most effective for or when ...	Not recommended for or when ...
Constant practice	A practice sequence in which the same task or movement(s) are repeated under the same conditions from one repetition to another.	Throwing a ball 10 times at the same speed, from the same spot, and to the same target.	The athlete is in the initiation or the acquisition stage of skill development. When massed practice is an effective method.	The athlete is beyond the initiation or the acquisition stages of skill development, in particular for discrete and/or open skills.
Variable practice	A practice sequence in which the same task or movement(s) are repeated but where one aspect of the execution is changed from one repetition to another.	Throwing a ball 10 times, but varying <u>one</u> of the following at each trial: speed, distance, velocity, target.	The athlete is in the consolidation stage of skill development. When massed practice is an effective method. When distinct skills or movements are performed during the same practice.	The athlete is in the initiation stage of skill development.
Random practice *	A practice schedule in which various discrete or serial skills that are required for performance in the sport are practised in a random order, and where the learner does not practise the same task on two consecutive attempts.	In tennis: moving backwards to do a backhand, then doing a serve, then moving forwards to return a volley. In Basketball, practising non-repeating types of shots.	Serial skills that are already acquired. Skills that are both discrete and open. The athlete is in the consolidation stage of skill development, or is beyond this stage. When distinct skills or movements are scheduled to be performed during the same practice.	The athlete is in the initiation or the acquisition stage of skill development.

* There is strong evidence supporting the fact that random practice, although sometimes associated with inferior performance compared to constant practice in the short term, results in superior retention and performance in the long term. In other words, when constant practice is used to learn a skill or task, the performance during the session is often better compared to random practice, but the latter promotes better skill retention and overall performance in the long run. This suggests that random practice may be a very effective approach for both discrete and serial skills, as well as for open skills. The reasons for this may be that random practice causes the athletes to forget short-term solutions to the task at hand; this could engage them actively in the learning process, by eliminating “automatic” repetitions.

Important Notes

Performance versus learning

- Motor performance is the participant's behaviour when executing a task, as determined by the coach through qualitative and/or quantitative assessments.
- Learning refers to the permanent change in the motor performance (or skill) as a result of practice.
- A reassessment of motor performance at a later date (retention test) is therefore necessary to determine if skill learning has indeed occurred.
- Failure to appreciate the difference between performance and learning can lead to a misinterpretation of an athlete's progress or actual capability to execute a task independently and consistently.
- It is important to establish a distinction between how well a skill can be performed during a training session, and how well the participant performs when it counts, i.e. in competition.

Rate of improvement and amount of practice

- Improvements in skill occur rapidly in early practice, but more slowly in later practice. Learning occurs in stages, with a different rate of improvement associated with each stage.
- The amount of practice is the single most important variable that leads to motor performance improvements and skill learning.

Short- and long-term effects of using specific practice conditions

- Both variable and random practice conditions have been shown to positively affect learning, to promote the ability to transfer the skill into another environment, and to increase generalization because they are challenging to the athlete, and promote effortful, problem-solving activities during movement repetitions.
- Repeating the same task many times under the same conditions (blocked practice) usually results in good performance improvements in the short-term.
- Repeating the different tasks under the variable conditions (random practice) usually results in inferior performance improvements in the short-term compared to blocked practice, yet it promotes greater learning in the mid- to long-term as determined by retention and transfer tests.
- Coaches who incorporate a problem-solving approach to skill training by using random practice may need to educate participants and their parents about the short- and longer-term effects of this method, as opposed to other approaches, such as blocked practice.

Athletic Abilities: Definitions And Key Points

To succeed in his/her sport, the athlete must have and seek to improve certain abilities that support performance. These athletic abilities (sometimes called performance factors) can be grouped in four general categories: physical, motor, tactical, and mental.

Category	Athletic abilities required in most sports
Physical abilities are determined by the rate at which energy and force can be produced by the muscles, and by the range at which the movements can be executed.	Maximum speed: The highest rate at which a movement or a series of movements can be executed, or the ability to cover a given distance in the shortest possible time during an all-out effort of very short duration (<i>8 seconds or less</i>). Speed-endurance: The ability to sustain efforts at near maximum speed for as long as possible (<i>normally, very intense efforts lasting between 8 and 60 seconds</i>). Aerobic stamina: The ability to sustain a dynamic effort over an extended period of time (<i>normally, efforts lasting several minutes, or even hours</i>). Note: Intense efforts lasting between 2 and 10 minutes require a subset of this athletic ability referred-to as “maximum aerobic power”. Maximum strength: The highest level of tension generated by a muscle or muscle group during a maximum contraction, regardless of the duration of the contraction. Speed-strength: The ability to perform a muscle contraction or overcome a resistance as fast as possible (<i>normally, very brief efforts of 1 or 2 seconds</i>). Strength-endurance: The ability to perform repeated muscle contractions at intensities below maximum strength (<i>normally, 15 to 30 repetitions, or more</i>). Flexibility: The ability to perform movements of large amplitude about a joint without sustaining injury.
Motor abilities support the controlled execution of movements.	Coordination: The ability to perform movements in the correct order and with the right timing. Balance: The ability to achieve and maintain stability. There are three types of balance: (1) static balance: adopting a controlled body position in a stable environment (2) dynamic balance: maintaining control during movement, and/or stabilizing the body by performing muscular contractions to offset the effect of an external force and (3) the ability to keep an object or another body under control in a static or in a dynamic manner. Agility: The ability to execute movements or to move rapidly, with precision, and with ease.
Tactical abilities support effective decisions	The ability to analyse a situation and produce a correct response, i.e. one that gives a competitive advantage and/or increases the probability of a good performance.
Mental abilities enable the athlete to be in the proper state of mind to perform successfully.	Goal setting: The ability to identify clear goals and priorities that will guide future actions and decisions. Concentration: The ability to pay attention to what is important in a given situation, and avoid negative influences or distractions. Emotional Control: The ability to consciously maintain a high level of control over one's feelings when in stressful conditions.

Importance Of Physical And Motor Abilities According To The Sport Family

Sport family	Physical abilities							Motor abilities	
	Speed	Speed-endurance	Aerobic stamina	Maximum strength	Speed-strength	Strength-endurance	Flexibility	Coordination	Balance
Team sports Soccer * Ice hockey Basketball Lacrosse *Volleyball	High	High *Moderate	Moderate	Moderate *High	High	Moderate	Moderate	Very high	High to very high
Cyclical sports – long duration *Speed skating > 5 km Road cycling Running > 5 km *Cross country skiing Distance swimming	Moderate	High	Very high	Moderate	Moderate	High	Moderate	Moderate *High	Moderate *High
Cyclical sports – Medium duration *Speed skat. 1,5-5 km *Speed skat. short tr. Track cycling 3-5 km Swimming 400- 800 m Rowing Running 800 – 3000 m	Moderate *High	High to very high	High	Moderate to high	Moderate	High to very high	Moderate	Moderate *High	Moderate *High
Cyclical sports – short duration *Speed skating < 1,0 km *Speed skat. short tr. Track cycling < 2 km Swimming < 100 m Running < 400 m	Very high	Very high	Moderate	High to very high	High to very high	High	Moderate to high	Very high	High *Very high

NB: This information is presented as general guidelines only; the importance of a given athletic ability may vary according to the discipline, player position, level of competition, selected tactics, etc.

Training Athletic Abilities: Summary And Key Points

Athletic ability	To improve this athletic ability, the activity must have the following features or characteristics:
Speed	• Movements or actions performed at maximal speed or near maximal speed <u>AND</u> • Movements or actions identical to those in which speed improvement is sought <u>AND</u> • Efforts of short duration, i.e. less than 5 to 8 seconds <u>AND</u> • Long recovery between efforts, i.e. 8 to 10 times longer than the effort itself. Note 1: Training no longer effective when intensity or quality of execution decreases. Note 2: Total time of all repetitions = 30 seconds to 2 minutes.
Speed-endurance	• Movements or actions performed at near maximal speed <u>AND</u> • Movements or actions identical to those in which speed-endurance improvement is sought <u>AND</u> • Efforts comprised between 10 and 60 seconds <u>AND</u> • Recovery between efforts is. 6 to 8 times longer than effort. Note: Total time of all repetitions = 2 to 5 minutes.
Aerobic stamina	• Repeated high intensity dynamic efforts performed without interruptions for more than 2 or 3 minutes each <u>OR</u> • High intensity steady-state efforts performed for 10-15 minutes or more <u>OR</u> • Moderate intensity steady-state efforts performed for 30 minutes or more <u>OR</u> • High intensity intermittent efforts of 15 seconds to 2-3 minutes followed by pauses of equal or shorter duration for 20 to 30 minutes or more. Note: The more intense the efforts, the greater the training effect on maximum aerobic power.
Maximum strength	Note: In many cases, the sport itself does not provide good opportunities to develop this athletic ability. See detailed guidelines.
Speed-strength	• Movements or actions that require jumping, bounding, or quick pushing <u>OR</u> • Movements or actions that require accelerating objects as quickly as possible.
Strength-endurance	• Repeated muscle contractions that are sustained for several seconds <u>OR</u> • Several sub-maximal muscle contractions performed consecutively at a constant rate.
Flexibility	• Controlled movements of large amplitude <u>OR</u> • Controlled movements in which the muscles are stretched, and where the position is maintained for 20 to 40 seconds. Note: No external force should be exerted on the limb or the articulation.
Coordination	• Activities that involve a sequence of actions that must be performed in a given order. Note: Improvements more likely to occur if activity is performed when the athlete is not tired.
Balance	• Activities where difficult or unusual positions must be assumed and maintained <u>OR</u> • Activities where “normal” movements are performed in unusual positions <u>OR</u> • Activities where balance is challenged by external factors, or that require an effort to maintain balance.
Tactics	• Situations that are relevant to the competitive experience <u>AND</u> • Situations that involve decision-making in order to gain an advantage <u>AND</u> • Situations that involve some degree of uncertainty <u>OR</u> • Situations where the best option must be selected.

NB: Activities and methods to improve mental abilities are dealt with in another NCCP document.

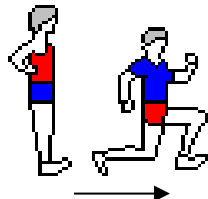
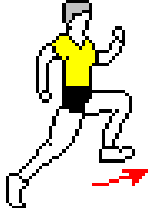
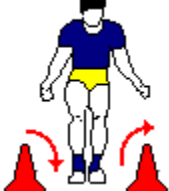
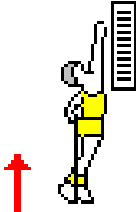
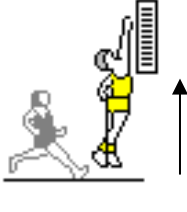
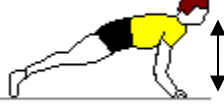
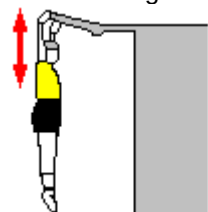
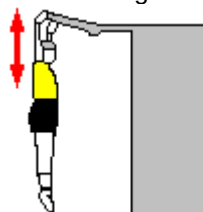
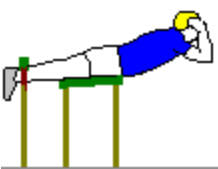
Basic Flexibility Exercises

(illustrations provided by CardiSport, www.cardisport.com)



Basic Strength Exercises Using Body Weight Or Light Implements

(Illustrations provided by Cardisport, www.cardisport.com)

			
			
Hands shoulder width 	Hands wider than shoulders 	Palms facing in 	Palms facing out 
With or without twist 			Light bar 
Medicine ball 	Medicine ball 	Medicine ball 	Soft ball (tennis) 

Guidelines: Activities For Developing Tactics

- The activity should imitate competitive or real-play situations at the performance level of participants/athletes.
- Participants/athletes must have a clear understanding of the desired objective for the situation/activity (e.g.: quick transition in order to outnumber the opponent; surprise an opponent in order to gain an advantage in a particular situation).
- The situation should involve some degree of uncertainty, and should present a number of options for the participants/athletes. Avoid stereotypical and predictable situations wherein the participants/athletes do not have to think or focus.
- Participants/athletes should be encouraged to be creative.
- The activity should be performed at game speed; in some cases, especially in the first few trials or to ensure that participants/athletes have a clear understanding of the intent of the activity, the pace can be somewhat slower.
- Take time to question the participants/athletes about their choices or decision-making process in order to help them discover the various options they had in the situation presented to them; this approach requires the participants/athletes to reflect critically on their choices.

Some examples of questions include:

- What did you see in the situation?
- What choices did you think you had, and what did you think would have been the possible outcomes of each?
- What clues did you use to guide your choice(s)?
- What were you hoping would occur as a result of your choice(s)?
- What do you think is the best way to take an advantage over the opponent in this situation? Why?
- What can you do to hide your intentions to the opponent as long as possible?
- What actions can you take to make the opponent uncertain about what you want to do, or about where and when you will do it?

Training Athletic Abilities:

**Considerations And
Recommendations Based On
Growth and Development**

Important development considerations in children

General remarks

Certain changes occur as children grow and develop. These changes — also called *stages of development* — affect every aspect of life and sport. Stages of physical development influence the ability to perform skills, and stages of emotional development affect the kind of cooperation or competition participants are capable of.

In general, there are no major developmental differences between boys and girls before puberty. However, during adolescence performance capabilities become increasingly different in some areas. As a coach, it is important to know how such changes may affect performance in sport.

What is puberty?

Puberty (or adolescence) is the time of life when important transformations occur in the body and the mind of children; during this time, adult sexual characteristics develop. Some important points about puberty are listed below:

- It is a period of rapid change in several areas (growth, motor development, interests, relations with others)
- The child goes through predictable phases
- The amount of time in each phase is not predictable, which implies that at a given age there can be a lot of variability among children

When does puberty begin?

The onset of puberty is highly variable among children, although as a rule it occurs earlier in girls compared to boys. In each sex, puberty may begin at a wide range of ages.

In boys - Puberty begins on average at 12.5 to 13 years of age. However, it may begin 2 years earlier or later in about 25 to 30% of individuals, and may even begin 4 years earlier or later in a few cases

In girls - Puberty begins on average at 11 to 11.5. However, it may begin 1 to 1.5 years earlier or later in about 25 to 30% of individuals, and may even begin 2 to 2.5 years earlier or later in a few cases

How long does puberty last?

In both boys and girls, puberty lasts on average 4 years. Again, there can be a high degree of variability, and the duration of this period may be 1 to 1.5 years longer or shorter than the average in about 25 to 30% of individuals. In a few cases, the duration of puberty may even be longer.

Why is this information important to coaches?

Some participants are early developers, others are late developers

Children of the same age are not all at the same stage of their development. Some participants will reach puberty at a very young age (early developers) and, as such, may be advantaged for a short period of time when they train or compete against others of the same age group. Other children will not enter into puberty until a few years later (late developers).

However, it should be emphasized that athletic success *at the adult level* is not determined by how early the athlete has reached puberty, or how quickly he or she has gone through puberty. Many late developers may become very good athletes. A notable instance of a late developing athlete is Michael Jordan, one of the best Basketball players of all times.

During adolescence, some activities may have to be adapted to suit the specific needs of early or late developers

A given activity may be appropriate for training the athletic abilities of some participants, but not yet appropriate for others. Consequently, some of the characteristics of an activity (intensity, duration, practice conditions) may have to be adapted to meet the needs of some children.

Adapting the activity to the child's developmental stage should be a preoccupation of coaches to take into account the differences between "average participants" and early and late developers. This will provide each participant with an appropriate challenge, and will increase the likelihood that they will have enjoyment and success in sport, and remain involved.

What To Emphasize Or To Avoid At Various Ages: General Training Recommendations Based on Growth and Development Guidelines

The table in the following page outlines the athletic abilities that should be emphasized or avoided at various ages for male and female athletes. In this table, the following legend is used:

Females (F) Males (M)

☹	Training of this quality to be avoided at this age
	Training of this quality can be done at this age, but should not be considered a priority
	Training of this quality can be done with moderation at this age
☺	Training of this quality is optimal at this age
	Training of this quality should be done in function of the needs of the sport at this age

Important notes to coaches:

1. The recommendations contained in the following table represent the opinion of experts in the fields of growth and development and training; as such, they apply to most sports. However, for some sports in which athletes specialize at a very young age, such as Gymnastics, some of these recommendations may seem to differ from certain training approaches commonly used. If this is the case, we invite coaches to (1) exercise judgment both in the interpretation of the present guidelines and in the implementation of sport-specific training methods and (2) consult with recognized experts where necessary, in order to ensure that the training activities performed by the athletes are appropriate, safe, and adapted to their physical maturity.
2. At the same chronological age (i.e. 12 years of age) there can be a significant degree of variability in the physical maturation level of kids. When referring to the guidelines outlined in the following table, it would not be unusual to have situations where some athletes are ahead of, or behind, the general training guidelines by 2 or more years.



Training of athletic abilities and participants' age: guidelines

Athletic ability	Age (in years)															
		6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Aerobic stamina (short efforts 10-15 min)	F									😊	😊	😊	😊			
	M										😊	😊	😊			
Aerobic stamina (prolonged efforts)	F	😞	😞	😞	😞	😞	😞						😊	😊	😊	
	M	😞	😞	😞	😞	😞	😞	😞					😊	😊	😊	
Speed-endurance	F	😞	😞	😞	😞	😞										
	M	😞	😞	😞	😞	😞										
Strength-endurance	F	😞	😞	😞							😊	😊	😊	😊		
	M	😞	😞	😞							😊	😊	😊	😊	😊	
Maximum strength	F	😞	😞	😞	😞	😞	😞	😞	😞	😞			😊	😊	😊	
	M	😞	😞	😞	😞	😞	😞	😞	😞	😞				😊	😊	
Speed-strength (power)	F	😞	😞	😞	😞	😞	😞	😞	😞			😊	😊	😊		
	M	😞	😞	😞	😞	😞	😞	😞	😞	😞			😊	😊	😊	
Flexibility	F							😊	😊	😊	😊	😊	😊			
	M								😊	😊	😊	😊	😊	😊	😊	
Speed (efforts of 8 seconds or less)	F									😊	😊	😊	😊			
	M										😊	😊	😊	😊		
Speed (fast cadence of movement)	F	😊	😊	😊	😊	😊	😊	😊								
	M	😊	😊	😊	😊	😊	😊	😊								
Coordination / Agility / Balance	F	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊					
	M	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊				
Basic techniques	F			😊	😊	😊	😊	😊	😊							
	M			😊	😊	😊	😊	😊	😊	😊						
More advanced techniques	F									😊	😊	😊	😊			
	M										😊	😊				
Tactics	F	😞	😞	😞												
	M	😞	😞	😞												

😞 should be avoided 😊 optimal training age □ not a priority ◐ in moderation ■ as needed by the sport

3-5 Years, Growth And Development Of Participants (1 of 2 pages)

General remarks		
• Cannot see the difference between what is real and what is not • Lives in an imaginary world • Constantly imitates • Highly dependent on parents • Needs to have a well-established routine in daily activities		
Psychosocial		
• Highly individualistic, even egocentric • May be afraid of strangers • Boys and girls may be involved in the same activities without any problem		
Learning		
• Period of life where significant progress is seen in areas such as ability to learn, intelligence, and language; is capable of understanding concepts such as age, time, space, and morality (good-bad) • Limited ability to concentrate (very short attention span); difficulty understanding abstract concepts • Limited ability to reason and solve problems • Cannot take into account most of the information or stimuli from the environment		
Physical		
• Growth rate is slightly reduced compared to the first two years of life; body proportions become more balanced; head is fragile • Resting heart rate and heart rate during exercise higher compared to adults • Development of the nervous system takes place at a very high rate during this period; growth of the brain is approximately 75% completed at three years of age, and 90% at the age of six • Hand-eye coordination is improved, as well as speed/rhythm of execution of fundamental movements; increased control of movements, which nonetheless remain somewhat jerky • Motor performance is highly linked to kinesthetic and touch senses • At age five, activities such as walking or running are usually well mastered and can be incorporated into games; 35 metres can be run in approximately 10 seconds		

3-5 Years, Growth And Development Of Participants (2 of 2 pages)

Preferences

- Likes activities that stimulate several different senses and the imagination
- Likes simple games with easy-to-understand tasks and rules
- Prefers individual activities, yet will share his or her environment of play with others

To avoid

- Any activity that is structured or requires attention
- Activities that feature repeated impacts or where there is a risk of collision
- Repetitive activities (to prevent boredom and also overuse injuries)
- Exposure to a cold or a hot environment
- Comparisons with other children
- Emphasizing the result or performance

Suggestions

- Activities that feature a variety of motor experiences, and where the emphasis is put on the kinesthetic sense (i.e. knowledge of the body and location of body parts in space)
- Simple explanations and provision of manual assistance to the child during the execution of the movement
- All activities should take the form of games
- The instructions and the teaching must be specific, simple, and aimed at a very clear objective
- Creation of small groups where activities take the form of games, with focus on psychomotor development (balance, coordination, movements in all directions, various forms of movement). Where possible, parents should be involved, thus creating an opportunity to consolidate a close relationship with the child through play
- Children need to be praised and complimented generously and regularly for their efforts



6-7 Years, Growth And Development Of Participants (1 of 3 pages)

General remarks

- At this age the child remains fairly individualistic and self-centred; needs a lot of attention and must be in the company of an adult and/or in a small group
- High dependence on parents
- Acknowledges the coach as the leader
- Needs to have a well-established routine in daily activities
- Has no athletic or competitive background
- Interest for sport activities may begin to grow



Psychosocial

- Rather individualistic; often tries to expand social circle and the number of friends, especially with individuals of the same sex
- Sometimes shy
- Is conscious of own feelings and emotions, and of those of others toward him/her; can play on these feelings to obtain privileges
- Boys and girls can be involved in the same activities without difficulty

Learning

- Learns best by observing, quickly followed by doing
- Short attention span (a few minutes)
- Ability to reason is limited to what is readily observable
- May be afraid of the unknown
- Is likely to imitate and be highly imaginative; is often curious and wants to know everything

6-7 Years, Growth And Development Of Participants (2 of 3 pages)

Physical

- Development of the nervous system is almost complete
- Rate of physical growth is constant, yet relatively slow; on average, little difference is observed between boys and girls with regard to height and weight
- Head is still very fragile; bones, tendons, muscles, and ligaments cannot sustain heavy loads
- Always seems to be moving; coordination is not very well developed; endurance is low
- Resting heart rate and heart rate during exercise are higher than for adults; resting heart rate is approximately 100 bpm
- Aerobic metabolism predominates during effort; low anaerobic capacity
- Sweating mechanism of children is not well developed, which reduces their capacity to dissipate heat during exercise; children are at an increased risk of heat injuries; children cool off rapidly, and do not tolerate cold well

Preferences

- Enjoys individual activities, with some interaction with the group (e.g. tag); likes to throw, catch, hit, kick, run, jump, climb, and other activities where the whole body is involved
- Enjoys all types of activities that require imagination or involve imitating an adult
- Games should encourage creativity and have few rules

To avoid

- Activities that require repeated impact or wherein there is a risk of collision
- Repetitive activities and activities that feature too much structure (to prevent boredom and also overuse injuries)
- Exercising in a very cold or hot environment
- Using equipment that is not designed for children (i.e. too big, too heavy)
- Specialization in a sport or in a position
- Repetition of all-out efforts lasting between 20 and 60 seconds; work against a high resistance; prolonged aerobic endurance efforts
- Emphasizing the result or performance
- Negative competitive experiences
- Comparisons with other children
- Lengthy explanations
- Negative criticism



6-7 Years, Growth And Development Of Participants (3 of 3 pages)

Suggestions

- All activities should take the form of games; conditions in which activities or games take place should be varied to promote the development of a variety of motor patterns and skills
- Rules should be adapted to encourage a high degree of interaction between and involvement of participants, and to increase the probability of success during the activity; modified, scaled-down equipment should be used
- Demonstrations should be highly specific, simple, and aimed at the achievement of a well-defined objective; duration of activities should be relatively short, and exercises should change frequently
- Children need to be praised and complimented generously and regularly for their efforts; feedback should focus on one point only; choose the most important one; children should be encouraged to be proud of their own performance, and to congratulate others for theirs
- Basic motor abilities should be developed through games; techniques should be introduced in ways that stimulate the child's imagination (e.g. refer to a funny situation of the child's life, a cartoon)
- Encourage children to drink water, and in hot conditions, ensure that there are plenty of beverages available

Examples

- Relay or obstacle races
- Somersaults, pirouettes, jumps, runs, lateral movements, rope climbing, rope skipping, use of play structures, sliding, throwing, catching, passing a ball with hands or feet; hitting a ball
- Basic strength exercises using the child's own body weight (push-ups, pull-ups, squats with own body weight)

8-9 Years, Growth And Development Of Participants (1 of 3 pages)

General remarks

- Has a high degree of imagination; being active is very important; likes to work, learn, and accomplish things
- Still needs a well-established routine in daily activities
- Wants to act on his/her own; does not like conventions or norms, but will accept the coach's instructions if there is a sense that he/she participates in the establishment of the rules and conditions governing the activity
- Very little or no athletic background
- Interest in sport activities is often high
- Some early developers may be entering puberty, particularly girls.

Psychosocial

- Is still individualistic and self-centred, but shows an increasing interest for the group; wants to be accepted by others, and usually shows a great deal of loyalty toward the team
- Needs praise and positive feedback
- Is conscious of own feelings and emotions, and of those of others toward him/her; can play on these feelings to obtain privileges
- Boys and girls may be involved in the same activities without difficulty
- Seeks the approval of others; may reject opportunities to interact with individuals of the opposite sex

Learning

- Accepts following instructions to learn faster, and reacts favourably to positive feedback/praise; ability to concentrate and to pay attention is relatively good; can begin to make some generalizations
- The emphasis should be on motor development and the learning of skills in a variety of sports
- It is possible to start teaching the rules of the game and fundamental tactical principles
- Is capable of assessing the angles of moving objects (e.g. balls), yet may still have some difficulty distinguishing between right and left
- Ability to reason and solve problems is limited to what can be observed

8-9 Years, Growth And Development Of Participants (2 of 3 pages)

Physical
• Physical characteristics are similar to children aged 6-7, but coordination and stamina are better; growth rate is slow, which tends to allow for a greater degree of motor control and autonomy • The development of the nervous system is almost complete • Reaction time is slow; shows an increased ability to make coordinated and quick movements • Large muscle masses (e.g. the legs) show a greater degree of development compared to smaller ones (e.g. arms, hands) • Very little potential for increased muscle mass (hypertrophy); strength gains result primarily from increased coordination and neural factors • Resting heart rate and heart rate during exercise are higher than for adults; aerobic metabolism predominates during effort and anaerobic capacity is low • The sweating mechanism of children is not well developed, which reduces their capacity to dissipate heat during exercise; children are at an increased risk of heat injuries
Preferences
• Enjoys individual or group games, and drills where participants are paired • Likes activities where the whole body is involved (e.g. jumping, running) • Likes to assume some responsibility, and to take part in decisions relating to games or activities played • Prefers activities that will allow him/her to shine and to be successful
To avoid
• Activities that feature repeated impacts or where there is a risk of collision; repetitive activities (for reasons of boredom but also to prevent overuse injuries); activities that are too structured • Mechanical and/or highly repetitive approach to the teaching of fundamental techniques; use of equipment that is not designed for children • Repetition of all-out efforts lasting between 20 and 60 seconds; work against a high resistance; prolonged aerobic endurance efforts • Exposure to a cold or hot environment • Specialization in a sport or for a position • Emphasizing winning and creating a pressure to perform • Comparisons with other children • Negative competitive experiences • Lengthy explanations • Negative criticism

8-9 Years, Growth And Development Of Participants (3 of 3 pages)

Suggestions

- Establish guidelines for acceptable behaviour, and act in a constant and predictable manner; however, accept each child unconditionally
- Children need to be praised and complimented generously and regularly for their efforts; feedback must focus on one point only; choose the most important one; emphasize the following: development of confidence, self-esteem, peer interaction, cooperation, having fun, putting winning and losing into perspective, and giving a 100% effort
- Demonstrations must be highly specific, simple, and aimed at the achievement of a well-defined objective; duration of activities must be relatively short, and exercises must change frequently
- Focus on activities that are aimed at developing coordination, balance, and proper motor patterns; encourage participation in a variety of sports and activities; encourage the use of both right and left hands and feet whenever possible to enhance motor patterns and improve coordination; good age to use speed games
- Modified, scaled-down equipment should be used; competitive games where ability levels are matched; create opportunities for the child to demonstrate the progress he/she has made in a way that will enhance self-image; participants should have the opportunity to take some responsibility, and to assess the impact of such decisions; rules should be adapted to encourage a high degree of interaction between and involvement of participants, and to increase the probability of success during the activity
- Encourage children to drink water, and ensure that plenty of beverages are available when exercising in the heat

10-11 Years, Growth And Development Of Participants (1 of 3 pages)

General remarks

- **Develops conscience, morality, and values**
- May display a highly competitive attitude (wants to look like a competent performer)
- Marked distinctions between boys and girls begin to be visible, particularly toward the end of this period
- May want to break free from the authority of adults, and may show a defiant attitude
- Athletic background may be highly variable among participants; participation in sport activities is often done on a seasonal basis, in programs that can be relatively short (a few weeks)
- Time devoted to general training and acquisition of a variety of skills and motor patterns should be greater than time spent training for a specific activity, or preparing for, or being engaged in, competition

Psychosocial

- Is usually very interested in group activities, and creates strong links with a few friends
- Wants to enjoy a greater degree of autonomy, and wants to help
- Shows a high degree of loyalty to the group
- Begins to be interested in individuals of the opposite sex, without showing it openly
- Expresses his/her feelings easily (e.g. anger, sadness)
- Boys and girls can be involved together in the same activities

Learning

- Child begins to show some ability to deal with abstract concepts, yet prefers concrete examples
- Emphasis should still be on general motor development and the learning of skills in a variety of sports, however fine motor control improves during this period
- It is possible to start teaching a few specialized techniques, as well as fundamental tactical principles; the rules of the games should be well understood
- Capacity to concentrate increases (can stay focused for approximately 10 minutes at a time)

10-11 Years, Growth And Development Of Participants (2 of 3 pages)

Physical

- Strength and endurance gains are possible as a result of fitness training, but improvements are also directly related to growth; very little potential for increased muscle mass (hypertrophy). Strength gains result primarily from increased coordination and neural factors
- Flexibility improves but it should also be trained
- Reaction time is relatively slow, however good visual acuity and depth perception allow for better performance in throwing/catching exercises
- **Sweating mechanism of children is not well developed, which reduces their capacity to dissipate heat during exercise; children are at an increased risk of heat injuries**
- In girls, the second half of this period marks the beginning of a major growth spurt that will last approximately 3.5 years; some girls may have their first menstruation as early as 11 years old.
- In some boys, puberty will begin at the end of this period.

Preferences

- Enjoys games that feature some competition, team games, as well as activities that require some form of effort or that represent some sort of a physical challenge

To avoid

- Activities that feature repeated impacts or where there is a risk of collision; repetitive activities (to prevent boredom and also overuse injuries); activities that feature too much structure; exposure to a cold or hot environment
- Use of equipment that is not designed for children; repetition of all-out efforts lasting between 20 and 60 seconds; work against a high resistance; prolonged aerobic endurance efforts
- Specialization in a sport or for a position on the team
- Emphasizing winning and creating a pressure to perform
- Comparisons with other children
- Unpleasant or non-gratifying competitive experiences.
- Mechanical and/or highly repetitive approach to the teaching of fundamental techniques

Suggestions

- Participation in several sports/activities should be encouraged
- Rules should be adapted to encourage a high degree of interaction between and involvement of participants, and to increase the probability of success during the activity; modified, scaled-down equipment should be used
- Demonstrations should be highly specific, simple, and aimed at the achievement of a well-defined objective; duration of activities should be relatively short, and exercises should change frequently
- Time when participants are actively involved in activities during practices should be maximized
- Children need to be praised and complimented generously and regularly for their efforts
- Feedback should focus on one point only; choose the most important one; emphasize the development of confidence, self-esteem, peer interaction, cooperation, having fun, putting winning and losing into perspective, and giving a 100% effort
- Encourage children to drink water, and ensure plenty of beverages are available when exercising in the heat

12-15 Years, Growth And Development Of Participants (1 of 3 pages)

General remarks

- Period where major growth spurts occur; in each sex, large differences in physical maturation may be observed in individuals of the same chronological age; in general, girls develop earlier than boys
- Acquires moral concepts, values, and attitudes that make it possible to relate meaningfully to society; positive role models are important
- Opinion of friends tends to be more important than that of the coach; participants want to look like, or be perceived as competent performers
- This is a period of major change during which participants are likely to challenge authority, be very critical, question decisions, and ask for justification
- Competition becomes increasingly important to some participants; time devoted to general training should be greater than time spent training specifically for a sport, or time spent competing

Psychosocial

- It is important to separate boys and girls for activities and competition
- Emotional instability may be observed due to the rate at which physiological changes occur
- Shows a greater desire for independence; this can be a time of rejection of parental authority and, in general, a period when there is a high degree of confrontation with adults
- Develops close relations with individuals of both sexes; enjoys being more independent, and having more responsibility; a great deal of interest toward sexuality is observed toward the end of this period
- This period is important for the development of values such as respect for others, fair play, and a work ethic

Learning

- Begins to think like an adult. It is important to take into account the different maturity level between boys and girls; interests and abilities differ between the sexes; challenges are often very appealing
- Needs change on a regular basis; is highly curious; capacity to concentrate increases (can stay focused for 20 minutes or more at a time); increasingly capable of abstract thinking
- This is a good period to consolidate the development of fine motor skills, to teach more complex tactical notions, and to encourage decision-making in specific situations
- Specialization by sport and for a position can begin; however, participation in a variety of sports that have different demands should be encouraged

12-15 Years, Growth And Development Of Participants (2 of 3 pages)

Physical

Girls: The development of secondary sexual characteristics (pubic hair, breasts) begins around 11-11.5 years of age. On average, the growth spurt begins shortly thereafter. Maximal growth rate (or peak height velocity, PHV) is normally observed between 11.5 and 12.5, and menarche (first menstruations) occurs approximately one year after PHV. During this period, body fat content tends to increase progressively, and typical female body forms (hips) appear due to hormonal effect. As a result of these changes, performance often plateaus or may even decline for a short period of time. In addition, for a period of several months following menarche, girls may have difficulty sustaining heavy training loads. Girls should be counselled that this phenomenon is normal, and that their performance will continue to improve after this temporary phase.

Boys: The development of secondary sexual characteristics (pubic hair, testes, penis size) occurs progressively around age 11. On average, the growth spurt begins at age 13, and PHV is reached at around age 14-15. Significant gains in muscle mass and in strength typically occur one year after PHV (i.e. at around ages 15-16) due to higher levels of testosterone; this age represents a good time to initiate strength training with heavier loads if this athletic ability is important in the sport.

- During the growth spurt, feet and hands tend to grow first, followed by the legs and the arms; long bones are fragile during this time; growth is accompanied by an increase in body weight throughout the period
- As a result of the rapid growth spurts that occur during PHV, body parts can be disproportionate; this can have a direct effect on coordination and the ability to perform certain skills that were well mastered before
- This period is well suited for the development of aerobic fitness, as well as flexibility
- Strength and speed-endurance training can begin toward the end of this period

Preferences

- Enjoys challenges and the opportunity to accomplish individual feats
- Accomplishment of actions that are likely to be looked at or admired by peers/friends
- Activities that contribute to the development of fine skills/dexterity and that do not require too much strength (i.e. racket sports, swimming, golf, skiing), team games, situations where some form of competition exists

To avoid

- Repetition of all-out efforts lasting between 20 and 60 seconds before or during PHV; work against a high resistance; prolonged aerobic endurance efforts that involve impact on the joints (i.e. running on a hard surface such as asphalt); repetitive activities (to prevent boredom and also overuse injuries)
- High mechanical stress (compression forces) on the long bones and the backbone, e.g. lifting heavy weights
- Programs where the number of competitions is greater than the number of practices
- Pressure to perform
- Negative competitive experiences

12-15 Years, Growth And Development Of Participants (3 of 3 pages)

Suggestions

- Time when participants are actively involved in activities during a practice should be as high as possible
- Acquisition of more complex or sport-specific techniques; explanations can be more elaborate, where appropriate
- Correct execution of movements must be emphasized if strength training is performed.
- Appropriate supervision of training activities is important to prevent unnecessary risks that adolescents may take
- Games emphasizing skill and dexterity
- Opportunities to meet or interact with sport role models (athletes or coaches); competitions or tournaments that involve trips; social activities among the team/training group
- When an athlete or participant who has reached puberty experiences pain in the joints (e.g. shoulders, elbows, knees), or if he or she now seems to have difficulty completing workouts that could previously be sustained with no difficulty, training loads (amount-frequency-intensity) may have to be decreased to avoid undue stress on the athlete's body.
- Depending on the maturity level, involvement of the adolescent in roles such as officiating, or the leadership of certain activities (e.g. leading a warm-up or cool-down)

16-17 Years, Growth And Development Of Participants (1 of 2 pages)

General remarks

- At the end of puberty, the individual is no longer a child, but is not completely an adult yet, which can create some identity problems
- Late developers may still be experiencing the effects of puberty
- The participant seeks greater autonomy, and progressively becomes more mature emotionally
- Specialization in a sport or for a position may require year-long preparation; however, training may remain a seasonal process, particularly at the beginning of this period
- Training volume increases progressively from one year to another, and may reach 15 hours or more per week, depending on the sport, at the end of this period
- In participants who are training seriously, the amount of time devoted to general training, specific training, and preparing for competition or competing is approximately the same

Psychosocial

- Sexuality becomes very important and participants seek intimacy with others
- Although a greater degree of independence is sought, friends remain very important
- Wants to be considered an adult
- Often, the coach will be a role model; the participant will frequently reject parental authority
- Participants become increasingly aware of their own values
- Social activities are very important

Learning

- Social awareness increases, and as a result participants develop a broader range of behaviours; participants also develop the ability to think logically
- Period when participants begin to specialize in particular sports, and develop broader strategic and tactical awareness

Physical

- Major physiological systems and functions are established; appropriate time to develop aerobic capacity; significant increase in strength and anaerobic capacity (endurance-speed)
- Training of power and speed can be done
- Increase in muscle mass in boys, due to the increased production of certain hormones, in particular testosterone
- Growth in girls typically ends at 17-18 years, and at 19 –20 years in boys

16-17 Years, Growth And Development Of Participants (2 of 2 pages)

Preferences
• Prefers to play the full game or activity, i.e. without modification of the rules or conditions of play • Prefers activities that contribute to improving physical appearance or to creating a particular status in the eyes of peers (e.g. sport, art, theatre) • Group activities become important (e.g. movies, dances, parties, travel)
To avoid
• Development of certain muscle groups while ignoring antagonists (e.g. developing the quadriceps but not the hamstrings)
Suggestions
• Delegate certain tasks, provide opportunities for the participant to solve technical-tactical problems and improve decision-making • All athletic abilities can be trained and developed, relative to the degree of physical maturity of the individual • Strength-endurance can be trained with no reservations based on the demands of the sport; if increased muscle mass is an important goal to achieve given the sport, this can be accomplished through strength training programs using moderate loads in sets of 8-12 repetitions; all major muscle groups should be developed to avoid muscle imbalances (note: <i>major increases in muscle mass should not be expected in females</i>) • Strength training with very heavy weights (1-5 repetition maximum, or RM) can be done by both sexes, but with caution and under the guidance of experienced coaches • Include sessions dealing with officiating, strategy, and tactics • Creating an assistant coaching role for some appropriately qualified participants may improve self-esteem and peer acceptance • Important time to work at developing respect for others, and concepts like fair play and work ethic • Provide opportunities for participants to observe and meet role models

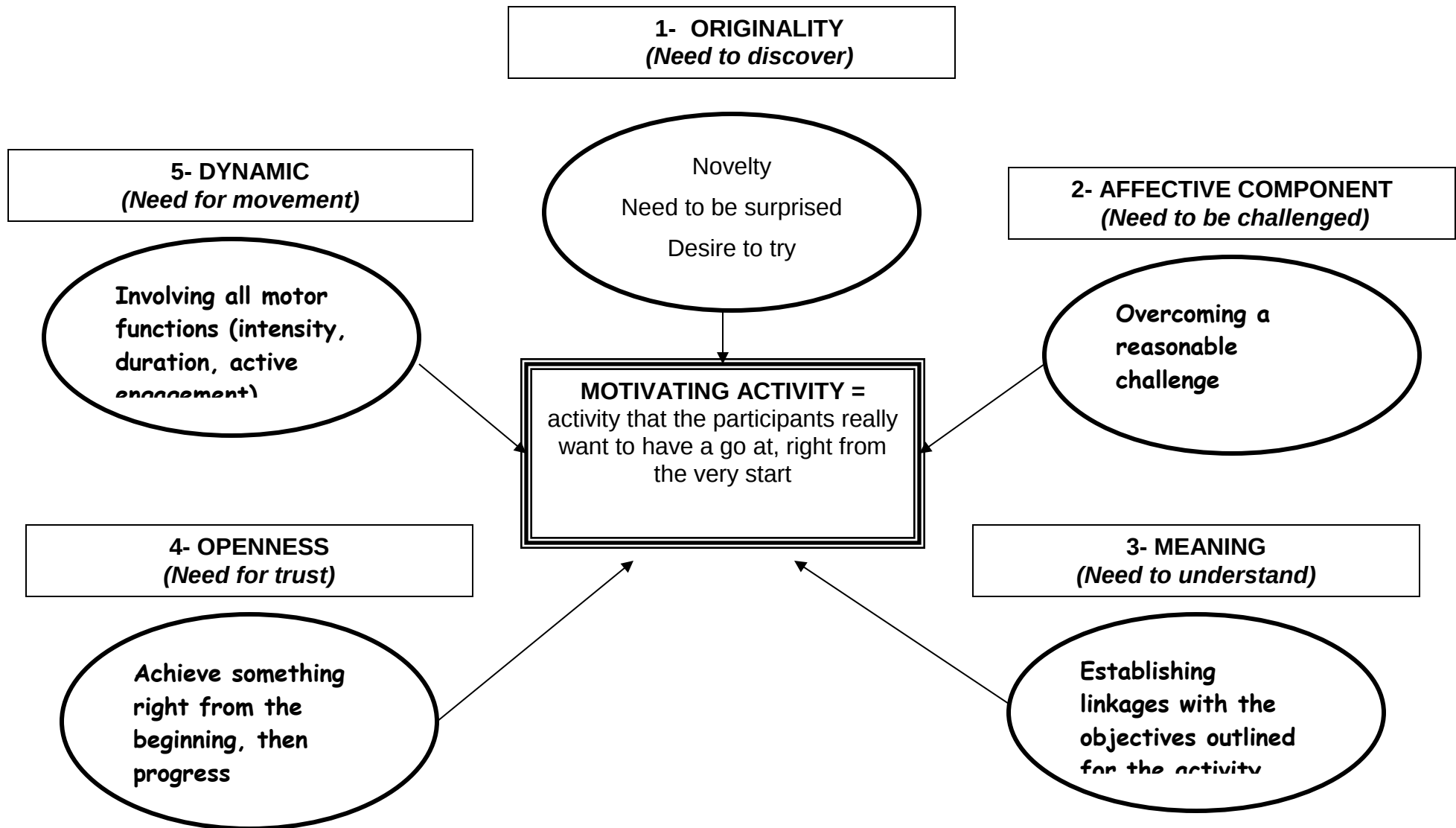
18 Years And Older, Growth And Development Of Participants (1 of 2 pages)

General remarks
• Major physiological systems and functions are established, which allows for the training of all athletic abilities • Self-assured; chooses own path and goes out on his/her own • Resists involvement in situations which may question self-image as an independent person • The need to achieve may lead the participant to strive for improved performance • General training time may be reduced as the serious participant concentrates on specialization and preparation for competition
Psychosocial
• Professional and family obligations lead to much less free time • Intimate relationships are very important • Financial independence provides greater opportunity for choice • May become a member of a group of close friends
Learning
• Adults over 25 years of age often have experience in a broad range of activities (e.g. sport, work, education) which can greatly improve learning and the transfer of knowledge and experience from one area to another
Physical
• Young men stop growing at around 20 years of age • The individual may expend significant energy and time raising children and working • Strength, speed, and power are at their peak in the early 20s, and may be maintained through to the early 30s • Endurance reaches its peak towards the late 20s; after the age of 30, physical capacities begin to decline progressively
Preferences
• Activities that help relieve stress
To avoid
• Nothing; all athletic abilities can be trained

Suggestions

- Interaction with others is important and may take the form of participation in seminars, workshops, or sport training camps
- Individuals may seek roles and responsibilities in the management, organization or promotion of activities and events
- Becoming a coach, official, or referee is one way of keeping this group engaged and committed, and also offers the opportunity for social interaction
- Engage in competitive activities and events in practices

Five Criteria To Develop Challenging Activities That Motivate Athletes To Learn
(From Martel, 2003; adapted from Florence, Brunelle and Carlier, 1998)

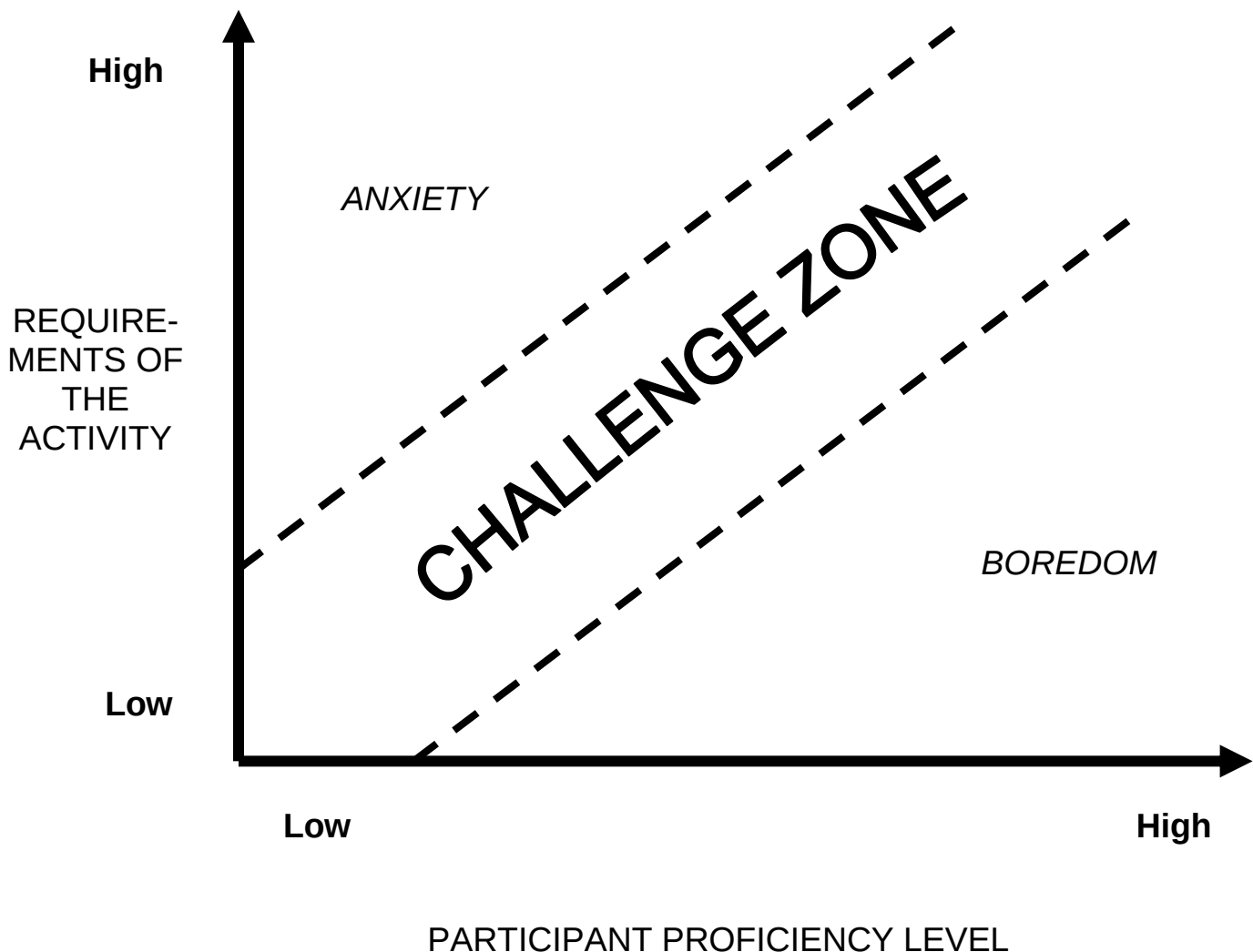


Principle: An activity does not necessarily have to feature all criteria simultaneously to be considered “motivating”; rather, the coach must decide which of these criteria should apply in a given situation in order to generate an optimal level of interest in the participants.

The Challenge Zone

Or matching the difficulty of the activity with the skill level of the participant

When the requirements of an activity are too high for the participant's ability, he/she may become anxious or discouraged, and therefore may have difficulty learning. On the other hand, when the requirements are too low, the participant may quickly show signs of boredom or lack of interest. The difficulty level associated with the task must therefore be "optimal," i.e. the participant must feel that he/she has the ability to succeed but that the **activity represents a challenge**. In other words, the participant will be motivated to learn when challenged at the appropriate level, which implies that there must be a reasonable chance of either success or failure when he or she performs a task. **As a general rule, if the participants' success rate is approximately 2 times out of 3, then the activity represents a suitable challenge.**



Main Part of The Practice: Optimal Order of The Activities

Often a practice will feature several activities aimed at developing a variety of abilities. Paying attention to the **order** in which the activities are planned in the main part of the practice may increase the probability of achieving the desired goal. Below are a few general guidelines to that effect.

EARLY IN THE MAIN PART OF THE PRACTICE ...

Athletes are not fatigued, so try to plan for:

- Activities to acquire **new** techniques, skills, or motor patterns.
- Activities that develop or require coordination or balance.
- Activities that develop or require speed.

THEN CONSIDER ...

- Activities to develop or require speed-endurance.
- Activities to develop or require strength.
- Activities to develop or require strength-endurance.

LATER IN THE MAIN PART OF THE PRACTICE ...

Athletes may be more fatigued, so try to plan for:

- Activities to consolidate skills already acquired.
- Activities that develop or require aerobic endurance.
- Activities to develop flexibility.

Planning a Practice: Self-Evaluation Checklist

Structure and organization

- ☐ The practice is organized and well structured (introduction; warm-up; main part; cool-down; conclusion).
- ☐ The duration of the practice is appropriate for the age and ability level of the participants/athletes.
- ☐ Full use is made of available facilities and equipment to achieve the practice goals.
- ☐ In the main part of the practice activities are sequenced optimally relative to each other.

Nature of the activities

- ☐ The practice includes a variety of activities.
- ☐ Participants have sufficient practice time during each activity.
- ☐ The activities have well-defined goals, and the purpose of the tasks involved is clear.
- ☐ The activities are adapted to the skill and fitness level of the participants.
- ☐ The activities are appropriate to the growth and development stage of the participants.
- ☐ Practice conditions are adapted to the stage of skill development the participants are at.
- ☐ The activities present exciting and reasonable challenges to the athletes, and are chosen or designed so that the success rate by the participants when performing the task is about 65-70%.

Safety

- ☐ Potential environmental, mechanical, and human risk factors have been considered, and the activities are designed accordingly.
- ☐ An Emergency Action Plan is available.

PRACTICE PLANNING TIPS

- Always include a warm-up in your practice plan. Never skip or rush the warm-up, as this may lead to injury. Consider having athletes warm-up before the practice begins if you are short on time, for instance if facilities are only available for a limited period of time.
- Plan to use anybody who is available to help - parent assistants can help by arranging stations so that you can minimize down time and line ups, and maximize the time your athletes are actively engaged in activities. In this case, make sure your assistants are familiar with your practice plan, and give them simple and clear tasks to do.
- In your choice of activities, avoid activities and games that eliminate people – those athletes that need the most practice at what you are doing will likely get bumped first.
- When you plan an activity that involves opposition, pair up athletes with similar ability levels so that they can challenge each other and each has a fair chance of success. This may also reduce the risk of injuries.
- Think of all the skills required to perform the drill! A drill or an activity might be relevant to your sport or to the long-term goal you have in mind, but the skill or fitness level of your athletes AT THIS TIME may be such that they cannot really benefit from it.
- Be realistic about the actual number of skills your athletes can learn over the course of a season. For some skills, it may take a lot of time and practice for an athlete to go beyond the acquisition stage (see the Skill Development Model described earlier in this document).
- Always make sure the fundamentals of your sport are well mastered before planning for more advanced techniques. However, it is a good idea to begin developing tactical and decision-making skills early on, by putting your athletes in quite complex sport-specific situations which require them to use their observation skills, analyse the situation, and work at coming up with possible solutions.
- Plan for fun – see if you can find a way to develop a skill or ability through a game or activity the athletes enjoy doing? Ask the athletes which activities they prefer: use them often, or try variations of them to achieve specific goals.
- Be creative when athletes have to do a lot of repetitions, as is the case in the acquisition and consolidation stages of skill development. Although your athletes may have to work on the same fundamental movements from one practice to another to acquire the correct motor patterns, use a variety of activities or games in which these movements have to be performed, and look for new and fun ways of doing them to avoid monotony.
- Take time to get athletes to talk about their own performances and what they think is important to work on improving individually, and if appropriate, as a team. Try to build this into your next practice plan.
- Use random practice whenever possible, as it promotes better long-term performance improvements.

PRACTICE PLANNING TIPS

- Better long-term improvement in performance can be achieved by not making practices too predictable.
- Motor tasks that do not produce extreme fatigue or muscle soreness can be practiced every day.
- Tasks that do produce marked fatigue or muscle soreness should not be practiced every day, and recovery between practices must be longer. Alternate the days where these skills or tasks are performed with recovery days, or with days where other, less fatiguing skills are practiced. For skills that involve some impact or where exhaustion can occur, it may be necessary to practice them only every third day.
- Be aware of the athletes' physical capabilities before you ask them to do physical activity (Growth and Development)
- Simulate competitive situations in practice. Include all elements of the game or competition in your practices. e.g. rules, competition protocols, how to interact with officials, show respect for opponents and team mates, treat others appropriately, etc.
- Make a list of all of the skills that should be coached to the athletes given their age and experience in the sport – this becomes a key element of your development plan or model.
- The first time you play a game or conduct a drill it may not be as successful as you might like – the athletes may need more time to learn it. Give the activity a name, so that they will recognize it immediately in the future.
- Find out what your athletes like and dislike about practice. Keep a file or a list of favourite drills, activities and games. Don't be afraid to repeat a game or drill – we enjoy doing the things we like to do.
- Practice does not make perfect, it only makes permanent. Perfect practice makes perfect, permanently.
- Keep a binder that has EVERYTHING in it: medical information, player information, rosters, directions, systems of play, team rules, etc. Keep a written or electronic record of what you do in practice.
- Make a list of EVERYTHING: have a TO DO LIST (generic sheet for every day/practice).
- Make a list of all your systems of play, break them all down into parts, and organize drills for each individual concept. Break down all concepts into different options. Develop a drill for every option.
- Try to keep things as simple as possible.

Glossary

Acceleration: The change in speed over time.

Dynamic: In movement.

Continuous effort: Dynamic effort characterized by no rest period.

Intermittent effort or interval effort: Dynamic effort characterized by alternating periods of effort and recovery.

Intensity: The power output associated with an effort.

Puberty: Stage of life during which secondary sex characteristics and genitalia develop. Puberty is also characterized by a major growth spurt.

Recovery: The process whereby work capacity is restored after an effort that resulted in fatigue.

Retention test: A test which seeks to determine if a given performance can be repeated over time in order to assess whether learning has occurred.

Skill: The ability to perform a task with certainty, precision, and economy of time or energy.

Static: Still, at rest, not in motion.

Acknowledgments

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Experts consulted

Tim Lee, Ph.D. – Professor, Kinesiology Department, McMaster University (Hamilton, Ontario): section entitled “Sport Skills”.

Lyle Sanderson, Ph.D. – Professor, Physical Education Department, University of Saskatchewan (Saskatoon): section entitled “Training Of The Athletic Abilities: Considerations And Recommendations Based On Growth and Development”.

David Carmichael, M.Sc. - Section entitled “Training Of The Athletic Abilities: Considerations And Recommendations Based On Growth and Development”.

Karen Johnson M.D. – Division of Neurosurgery, McGill University Health Centre: section entitled Head Injuries And Concussions: Guidelines For Coaches

Guy Thibault Ph.D. – Direction des Sports, Gouvernement du Québec: section entitled “Athletic Abilities”.

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Appendices

Appendix 1 – First-aid Kit

A complete first-aid kit is essential. This kit must be carefully prepared in order to treat the most common injuries. Furthermore, it must be accessible to those responsible for the team. Here is a list of what a first-aid kit should contain.

<i>Content</i>	<i>Use</i>
Medical record	◦ important information in case of an emergency
<i>Disinfectants</i>	
• soft antiseptic soap • antiseptic cream • antiseptic solution • peroxide	◦ all skin lesions ◦ laceration requiring cleaning before a dressing can be applied
<i>Dressings</i>	
• ocular • aseptic (sterile gauze, 50, 75, 100mm rolls) • adhesive bandages (“Band-Aid” type and butterfly closures) • elastic bandages (100 and 150mm) • triangular bandages and safety pins	◦ cover and close the eye ◦ dry compression ◦ protection of minor lesions ◦ compression ◦ multiple uses but primarily to act as an arm support in case of a fracture
<i>Drug products and ointments</i>	
• zinc ointment • xylocaine spray	◦ scratches or blisters ◦ sore burns
<i>Other useful items</i>	
• cleaning solution for foreign bodies • scissors • tongue depressor • body temperature thermometer • chemical cold bags (if you don’t have access to real ice) • plastic bags • phone number list (cell phone, pen, quarters, paper, participants’ emergency records) • tools • adhesive tape (37.5mm)	◦ dislodge foreign bodies ◦ common use ◦ multiple uses ◦ check body temperature in case of trauma ◦ for ice cubes ◦ ensure quick response ◦ minor repair of equipment ◦ support wounded joints

Appendix 2 – Sample Facility Inspection Grid

Facility: _____

Date: _____

Inspected by: _____

Item	Adequate	Inadequate	Corrective measures*	Observations
Stationary Equipment				
(mats, beams, nets, etc.)				
Team Equipment				
Individual Equipment				
First-aid Kit & Procedures				
Others				
*Corrections 1) add 2) replace 3) modify 4) discard 5) clean 6) repair 7) check				

***This document, once completed, should be given to the facilities manager, and the coach should keep a copy for his/her files.**

Facilities Manager Name: _____ Signature: _____

Name of coach: _____ Date (dd/mm/yy): _____

Signature of Coach: _____

Appendix 3 – List of participants, coordinates and emergency information

Telephones : 911 service available Yes () No () Ambulance _____

Police _____

Fire department _____

Name of participants and sex (M/F)	Date of birth (YYYY/MM/DD)	Address and telephone number at home	Known medical conditions	Specific procedure to implement	Person(s) to contact in case of emergency	Telephone number(s)

Appendix 4 – Sample Accident Report Form

Date of report / /
 dd mm yyyy

PATIENT INFORMATION

LAST NAME:		FIRST NAME:	
STREET ADDRESS:		CITY:	
POSTAL CODE:		PHONE: ()	
E-MAIL :		AGE :	
SEX: ___M ___F	HEIGHT: _____	WEIGHT: _____	DOB: <u> </u> / <u> </u> / <u> </u> dd / mm / yyyy
KNOWN MEDICAL CONDITIONS/ALLERGIES:			

INCIDENT INFORMATION

DATE & TIME OF INCIDENT: <u> </u> / <u> </u> / <u> </u> <u> </u> <u> </u> AM dd mm yyyy PM	TIME OF FIRST INTERVENTION: <u> </u> <u> </u> AM PM	TIME OF MEDICAL SUPPORT ARRIVAL: <u> </u> <u> </u> AM PM
CHARGE PERSON, DESCRIBE THE INCIDENT: (what took place, where it took place, what were the signs and symptoms of the patient)		
PATIENT, DESCRIBE THE INCIDENT: (see above)		
EVENT & CONDITIONS: (what was the event during which the incident took place, location of incident, surface quality, light, weather etc.):		
ACTIONS TAKEN/INTERVENTION:		
After treatment, the patient was:		
☐ Sent home ☐ Sent to hospital/a clinic ☐ Returned to activity		

OVER...

Accident Report Form (p.2)

CHARGE PERSON INFORMATION

LAST NAME:	FIRST NAME:
STREET ADDRESS:	CITY:
POSTAL CODE:	PHONE: ()
E-MAIL:	AGE:
ROLE (Coach, assistant, parent, official, bystander, therapist):	

WITNESS INFORMATION (someone who observed the incident and the response, not the charge person)

LAST NAME:	FIRST NAME:
STREET ADDRESS:	CITY:
POSTAL CODE:	PHONE: ()
E-MAIL:	AGE:

OTHER COMMENTS OR REMARKS

FORM COMPLETED BY:

_____	_____
PRINT NAME	SIGNATURE

Appendix 5

Steps In Choosing/Designing Activities For A Practice

As emphasized throughout this document, effective practice planning requires making good activity choices. By taking into account (1) the specific needs of participants and (2) the characteristics and demands of each activity, you can select the type and conditions of practice that are most appropriate. This way, you increase the probability that the desired learning or training effects will occur. As a summary, the procedure below is recommended when planning the activities of a practice.

Step 1- Determine what you want the athletes to be able to do. This may be a long-term goal, that is one that may take several practices or even weeks to be achieved.

Step 2- Assess the nature of the task you want the athletes to be able to do as far as the skills (open vs closed; discrete vs serial vs continuous) and the athletic abilities (physical, motor, tactical, and mental) involved.

Step 3 *- Given the nature of the task and its demands, determine whether it is appropriate to the age and developmental stage of the athletes, as well as the stage of skill development they are at. If your answer to this question is yes, then proceed to step 4; if the answer is no, return to step 1 and make the necessary adjustments.

Step 4 *- Decide whether the task needs to be broken down into distinct parts or if it should be executed as a whole.

Step 5- Determine the type of practice that is most appropriate (massed vs distributed; constant vs variable).

Step 6 *- Determine the practice conditions that are most appropriate.

Step 7- Given your logistics and the equipment available, select or design sport activities that meet the above criteria.

Step 8- Define the measures of success for the activity.

Step 9 *- Identify potential risk factors associated with the activity, and take them into account in the activity design.

Step 10 *- Think about the best way to give the explanations and instructions to the athletes, to make it easy for them to understand what the activity is about and how it should be performed.

Notes:

Steps marked with an asterisk () involve some consideration to safety.*

The above guidelines apply to the planning part of the practice. The delivery of the practice involves additional and complementary coaching skills related to interaction with people, group management, teaching and instructing, and intervention. These are dealt with in separate NCCP learning activities.

Appendix 6 – Sample Practice Planning Sheet

Sport/team/athlete(s): _____ Date: _____

Location: _____ Start time: _____ Total Duration: _____

Objective(s) :

Equipment:

Activities Goals : Athletic qual., type of effort; length; intensity, movements, etc.	Key Points/Messages Guidelines, safety; etc.
Introduction (duration = min)	
General warm-up (duration = min) Specific warm-up (duration = min)	
Main part (duration = min)	
Cool down (duration = min)	
Conclusion (duration = min)	

Appendix 7 – Sample Activity Planning Sheet

Practice session date: _____ Participants/athletes : _____

Name of the activity: _____ Warm-up () Main part () Cool Down ()

Duration: _____ Objective(s): _____

Equipment needed: _____

Description (*Athletic abilities to be trained; purpose; movements; types of effort; intensity; duration; etc.*):

Directions/guidelines to give the participants/athletes:

Success criteria : _____

Risk factors/safety guidelines to give to participants/athletes: _____

Notes/comments: _____

Appendix 8 - Legal Questions And Answers (FAQ)

The following are frequently asked legal questions about coaching. Answers to these questions have been provided by the Centre for Sport and Law.

1. What are the major differences between provinces/territories regarding the law and how does this impact me as a coach?

Laws in Canada can be divided into *public* laws (those laws that govern relations between the state and individuals) and *private* laws (those laws that govern relations between and among individuals and private entities – this area of law is also referred to as civil law). In Canada, public laws are generally in federal jurisdiction while private laws are generally in provincial jurisdiction.

The most well-known body of public law in Canada is the Criminal Code: this applies to everyone, regardless of province/territory of residence. Civil law varies from province/territory to province/territory, but not greatly. Examples of civil law relevant to coaches and varying slightly from one province/territory to another include human rights law, occupier's liability and the law of defamation.

An important distinction between criminal law and civil law is that there is a different 'standard' of proof, where the standard of proof refers to the certainty with which something must be proven. In criminal matters, guilt must be proven 'beyond a reasonable doubt' (a fairly high standard), while in civil matters, fault must be proven 'on a balance of probabilities' which means with a certainty that is greater than 50 percent. This is a lower standard of proof than the criminal standard. Thus, a person charged with a criminal offence could be found not guilty, while the same allegation made under civil law might be upheld.

In criminal law penalties are imposed and may include fines, restrictions on activities, restitution (paying back the person harmed), or imprisonment. In civil law, the penalties take the form of monetary compensation. The amount of compensation will depend on the cost to reimburse the harmed person for their expenses and lost income, and will also attempt to place a monetary value on any injury that the person sustains. The courts can also require a person to perform a certain service (such as following through with a contractual promise) or to refrain from doing something in the future.

2. Are paid/contracted coaches subject to a different standard than are volunteer coaches?

Yes and no. Paid and volunteer coaches of equivalent knowledge, skill and certification, performing equivalent duties within a sport setting, will likely be held to the same legal standard of care. They will, however, have different entitlements and privileges in other areas of the law – for example, a volunteer does not have the rights an employee has under employment standards legislation.

Depending upon the circumstances of a coaching activity, paid and volunteer coaches could be held to the same or similar standard. However, coaches who are paid and coaches who are not paid will usually have different duties, obligations, and scope of authority. This will influence the standard of care to which they will be held. This standard is not dictated by whether or not they receive payment for their services, but rather is dictated by the scope of the coach's

responsibility and the nature of the relationship between the coach and the participant. The standard of care is constant in that it is always a reasonable standard; however, what is reasonable will vary according to the circumstances in which the paid coach and the volunteer coach find themselves.

3. Are coaches who are also physical educators held to a different standard?

Yes and no. Children are required by law to go to school and when in school they are under the authority and care of school officials, including teachers. Thus, a teacher has a statutory duty to stand *in loco parentis*, a legal term meaning that he or she stands in the place of a parent with respect to his or her students. As such, teachers have duties and responsibilities equivalent to that of a 'prudent parent', and must behave as a parent would behave in caring for their child. Coaches who are not in a school setting do not stand "*in loco parentis*" in the same way that teachers do, and are not required to meet this statutory duty.

However, both coaches and teachers have specialized skills and knowledge and have a responsibility to provide a reasonable standard of care. The standard of care for anyone is determined by written standards, unwritten standards, case law, and common sense. The coach who is also a teacher will be held to written and unwritten standards that govern coaching (such as coaching manuals, rules of the sport, coaching code of conduct) as well as written and unwritten standards that apply to teachers (such as teacher manuals, school board policies, and duties imposed by statute upon teachers). The coach in the school setting must fulfil both roles and must adhere to standards that apply to both coaching and teaching activities.

4. How would a judge describe a "reasonable and prudent person" when referring to a coach?

A coach will be held to an objective standard of behaviour that is what an average and reasonable coach would do, or not do, in the same circumstances. *Black's Law Dictionary* defines 'reasonable care' as that degree of care which a person of ordinary prudence would exercise in the same or similar circumstance. A coach has special skills and knowledge and is not the same as a 'person of ordinary prudence', thus the reasonable standard for the coach will be that standard expected of a reasonably prudent coach having similar knowledge and skill and finding themselves in similar circumstances.

Keep in mind that the standard is objective, meaning that it is determined not by what a coach *did* or *did not* do in a situation, but by what a coach *ought* to have done, or *ought not* to have done. It might be tempting to believe that if a coach obtains less training and gains less knowledge, he or she will be held to a lesser standard. This is not the case, as the circumstances may well require a coach of greater knowledge and skill, and *that* will form the benchmark against which the coach's conduct will be measured.

5. Are there differences in liability if you are a head coach or an assistant coach?

Yes. The head coach and assistant coach have different degrees of responsibility and authority. The behaviour required to meet the standard of care is influenced by this.

6. What is jurisprudence?

Technically, jurisprudence is defined as the “philosophy of law” or the “science of law”. For everyday purposes, jurisprudence refers to legal principles and how they have evolved over time. The law is not static; it continually evolves to reflect changing community standards. Jurisprudence refers to the principles that are reflected in our laws, both in legislation and in common law (also referred to as “judge-made” or the accumulated body of court decisions).

7. If I am required to sign multiple codes of ethics or conduct, to which will I be held, or will I be held to all?

You will be held to all of the codes you execute, within the specific jurisdiction in which they have been signed. In other words, if you sign a code with your provincial sport body it may hold you to it for the activities you undertake for it or within its jurisdiction. If you sign a code for a local sport club, it may hold you to it for activities you undertake with and for the club.

There may also be situations where your activity is subject to two or more codes at the same time, such as if you are coaching at the Canada Games. Unless the codes specify clearly which one might take precedence, or “trump” the others, then all may apply simultaneously. This can create difficulties if any of the terms in different codes are contradictory.

8. Is special liability insurance a requirement for coaches?

Special liability insurance is not a requirement for coaches, but is highly recommended as a risk management measure. Ideally, organizations that employ or engage coaches should include the coach as an insured party under their general liability insurance policy. Coaches should confirm this is the case and if it is not, the coach should insist that the policy be revised accordingly. As a last resort, an individual coach can purchase his or her own insurance, but this may be difficult to obtain and expensive.

9. What happens if I am uninsured? Are my personal assets at risk?

The purpose of liability insurance is to cover the costs that an individual might have to pay in the event they are sued, or are required to compensate another person for loss or damage. Insurance may also cover the costs to defend oneself or to otherwise respond to an allegation of wrongdoing, even where such an allegation may prove to be untrue.

The vast majority of coaches never find themselves in situations where they need insurance. However, if they do and they are not covered by an insurance policy, then they will be personally responsible for paying these costs. This could mean tapping into savings and other personal assets.

It is also important to note that insurance policies and coverage vary widely and a given insurance policy may not cover all of the coach’s circumstances or all financial obligations.

10. What are my responsibilities if an accident occurs? Must I accompany a participant to the hospital?

The coach's responsibilities begin long before an accident occurs. The coach should have an Emergency Action Plan that identifies who does what in the event of an accident, and should have on hand all the necessary information to contact emergency and medical authorities as well as parents/guardians, and to inform medical professionals of the medical history of the injured person.

A coach does not necessarily have an obligation to accompany a participant to the hospital; it will depend on the nature and severity of the injury, whether or not there is another responsible person available to accompany the participant, and whether the remaining participants can be properly supervised should the coach be required to leave. The coach will have to make informed decisions about these matters depending on the circumstances; the Emergency Action Plan provides guidance for this decision-making, which is why it is so important to have prepared in advance.

11. What are the most commonly occurring cases where coaches require legal assistance?

Coaches most frequently need legal assistance to deal with employment matters such as employment contracts and termination. They also seek assistance to deal with allegations of harassment and misconduct matters. On occasion, coaches require legal assistance when implicated in a lawsuit from a person who has been injured and is seeking compensation.

12. What are the key preventive measures a coach can take to protect himself/herself?

The competent, informed and prudent coach practises his or her own personal risk management as described in the NCCP materials. A ten-point plan is presented there that lays out an array of risk management techniques accessible to all coaches. A coach protects himself or herself through gaining knowledge about negligence and liability, and applying techniques to identify and control risks in the coaching environment.

Step 5 – Leading a Practice Session

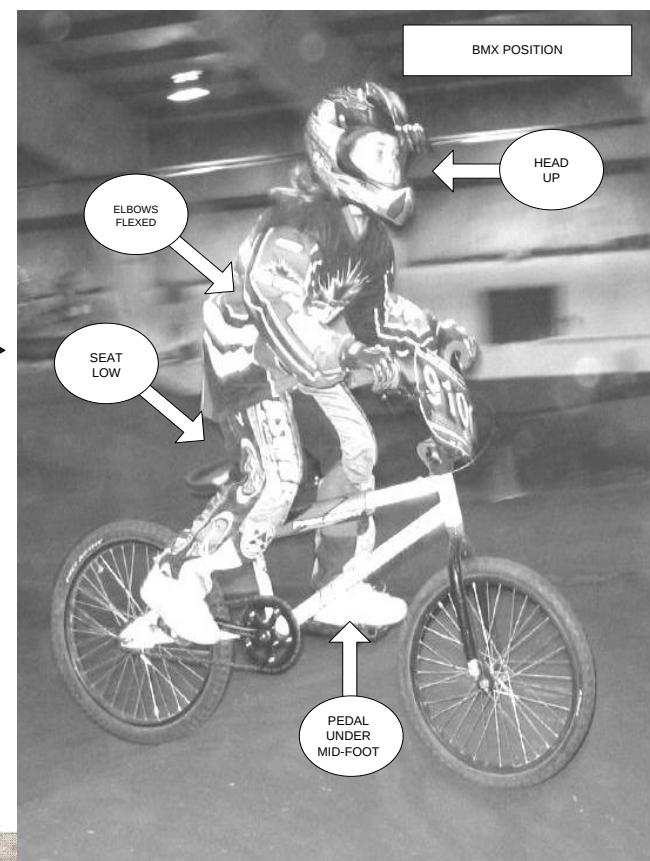


BASIC CYCLING POSITIONS

BMX

BMX position is designed for maximum agility. The seat is low, the trunk is high, the head up, and elbows flexed. The mid-foot is over the pedal axle.

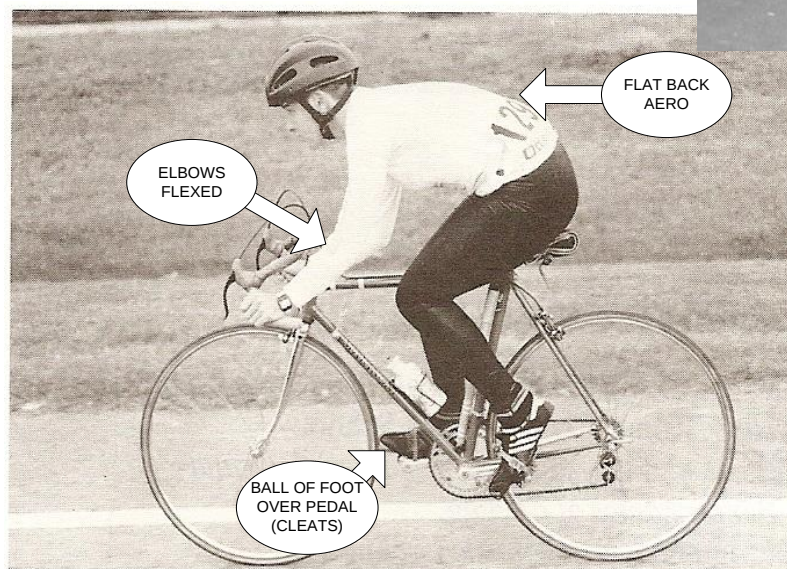
Priorities: Short term speed, agility and absorbing shock.



Mountain Bike (MTB)

MTB position is between BMX and road. The seat is high for long-distance pedaling efficiency, but can be lowered for skill events. The trunk is high, head up, elbows flexed.

Priorities: Comfort and efficiency over distance, agility and absorbing shock.



ROAD

The seat is high for long-distance pedaling efficiency, and the trunk is low for aerodynamics. The head is up and elbows flexed. The ball of foot is over the pedal axle.

Priorities: Comfort and efficiency over distance.

Bike Safety Checklist

Participant _____

This checklist should be taken into your local bike shop. The bike shop should perform a safety check on the bike to ensure it is safe and in proper working order. This check should minimize time spent on repairs, and optimize riding time. There will be charges for necessary repairs.

Pass Fail Repaired

☐	☐	☐	Handlebar, stem, seat, seat post, pedals, cranks and important bolts are all tight.
☐	☐	☐	Gears shift smoothly, derailleurs, cables and housing in sound working condition, levers tight, limit screws properly adjusted.
☐	☐	☐	Brakes work properly, levers, cables and housing, pads in good working order and condition.
☐	☐	☐	Wheels are reasonably true with no broken or loose spokes.
☐	☐	☐	Frame and fork are not bent, cracked, or otherwise seriously misaligned.
☐	☐	☐	Bearings in headset, bottom bracket, cones in hubs, are not excessively loose or in need of urgent repair.
☐	☐	☐	Tires are not seriously worn, torn, cracked, cut, or in need of replacement.
☐	☐	☐	Wheel nuts and/or quick releases are properly installed and tight.
☐	☐	☐	Bell, rear and front reflector/lights are in working order.

Mechanic Recommendations:

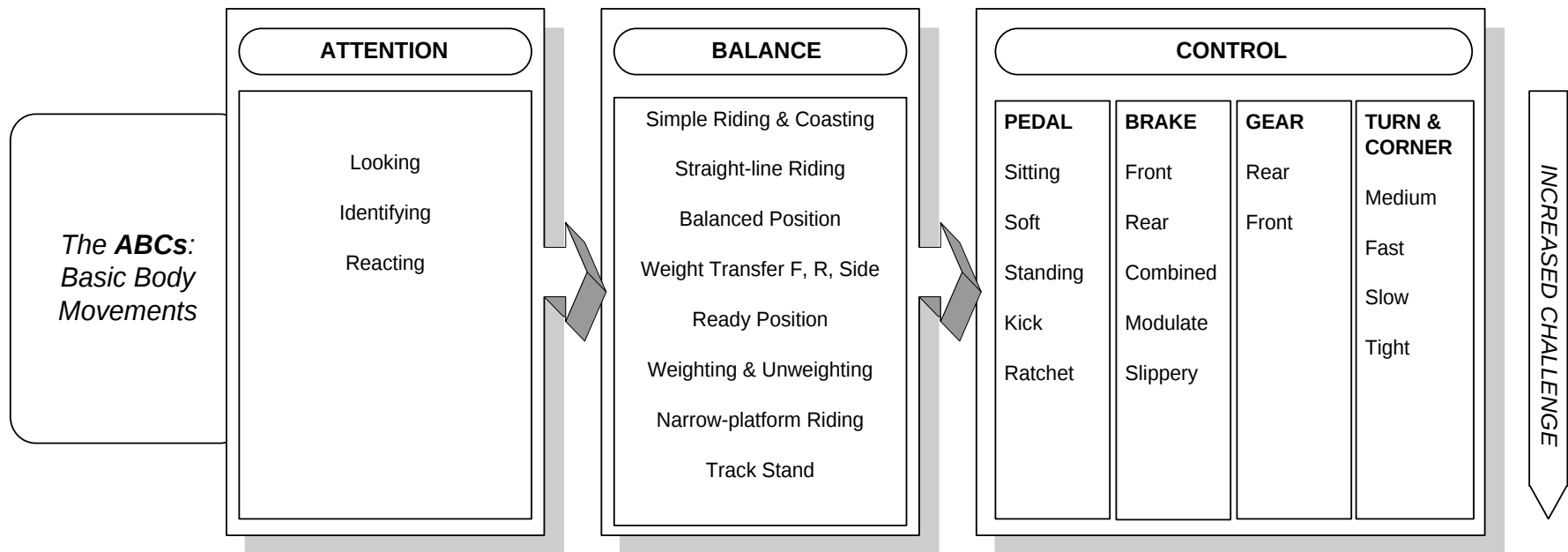
Mechanic Name: _____ Date: _____ Shop: _____

This Bike check is meant to only be a preventative inspection. Neither the bike shop nor the coach are responsible for the state of each participant's bicycle. It is the full responsibility of each participant to ensure that their bicycle is properly maintained and safe. Please take your bicycle into the bike shop as soon as possible, as you may need to leave it there for a few days (bike shops tend to be busiest during nice weather). This form must be returned completed at the first session.

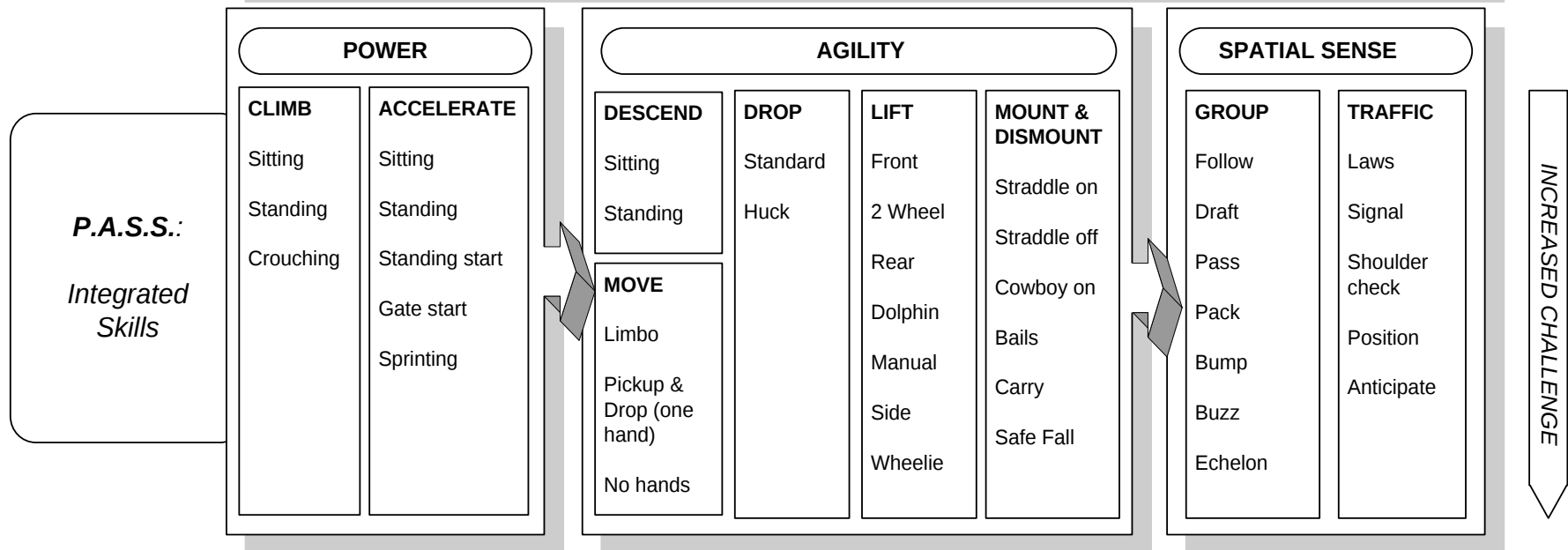
Cycling Skill Development Model

The model on the next page shows an approach to building basic cycling skills. This brief explanation will help you use the model in your coaching. See *the glossary for an explanation of terms*.

- The first step in developing cycling skills are the ABCs: Attention, Balance and Control. These form a foundation for more advanced skills. Each of the ABCs can be broken down into various parts. Understanding the ABCs allows the coach to instruct skills from the building blocks on up, to analyze movements and detect and correct fundamental errors, and to plan effective skill progressions.
- When analyzing a cycling skill, always look for the ABCs first. Every skill is based on some combination of A, B and C in the set-up and initiation of the skill. If there are problems with these basics, the cyclist will not be able to build more advanced skills. If the cyclist is fearful or concentrating too hard on a specific part of the skill, he/she may not execute basic ABCs correctly.
- The ABCs can be put together, or integrated, into more complex skills: Power, Agility, and Spatial Sense skills (P.A.S.S.). For example, an Agility skill like Limbo (ducking under an obstacle) requires the cyclist to pay Attention and adjust his/her speed and path; to use Balance by shifting weight; and to Control by braking, steering, and pedaling in preparation for the obstacle.
- Ready position has special importance. In ready position, the cyclist has knees and elbows slightly flexed, fingers on the brake levers, and is attentive to upcoming conditions. He or she is ready to react. One objective of building good ABCs is to prepare the rider for Ready Position which in turn is a starting point for many P.A.S.S. skills.
- In general, skills are integrated into new more complex skills, from left to right on the model diagram. Within each box, there is also a progression from top to bottom, with more challenging skills at the bottom (for example, Control – Brake goes from one front brake at top to combined, modulated braking in slippery conditions at the bottom).



P.A.S.S. SKILLS - BUILT FROM ABCs



A CYCLING SKILLS MODEL

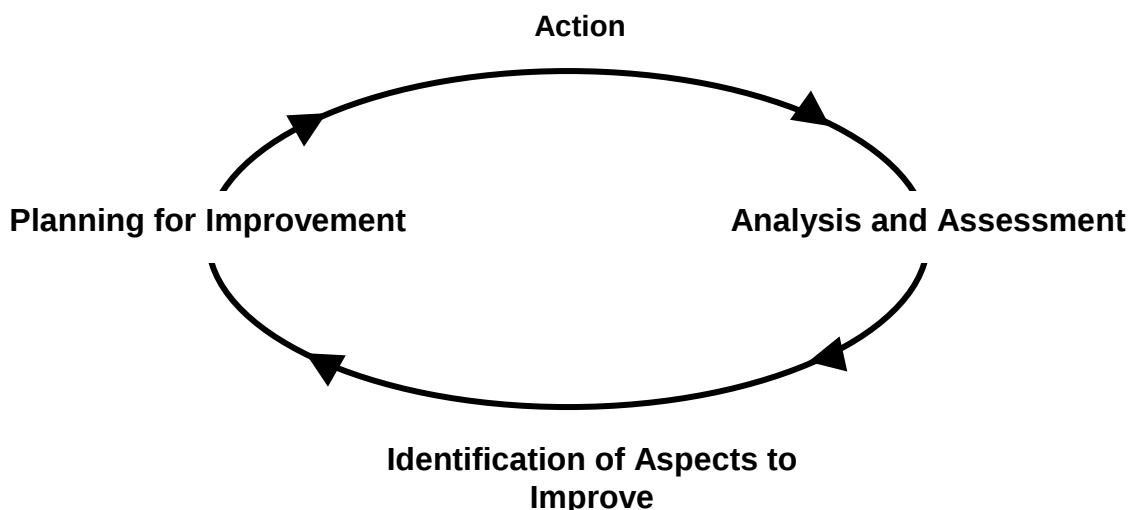
(The following is reprinted from Teaching and Learning, Introduction to Competition Part A, Coaching Association of Canada, 2003)

TEACHING AND LEARNING: INTRODUCTION

The teaching process may be broken down into five main phases: (1) designing learning activities; (2) setting up the activities; (3) delivering the activities; (4) assessing the learning; (5) adjusting and re-tooling. The first phase (activity design) is when you plan your training and practice sessions; this is the starting point for your teaching. You will find more specific material on this area in the “Planning a Practice” module.

In the present module, we intend to focus on the teaching process, and on specific aspects and skills that relate to what you do when you are with your athletes in a practice session. Of course, you must always keep in mind that the actual sport content of what you teach remains an essential part of an effective teaching process. On the other hand, you will also see in this module that the best technical knowledge or planning skills may turn out to be ineffective if certain principles of effective teaching are not respected. This module aims at providing you with opportunities to better understand these principles, while also engaging you in some reflection on your own teaching. It is also designed to equip you with some tools to help you improve your teaching skills.

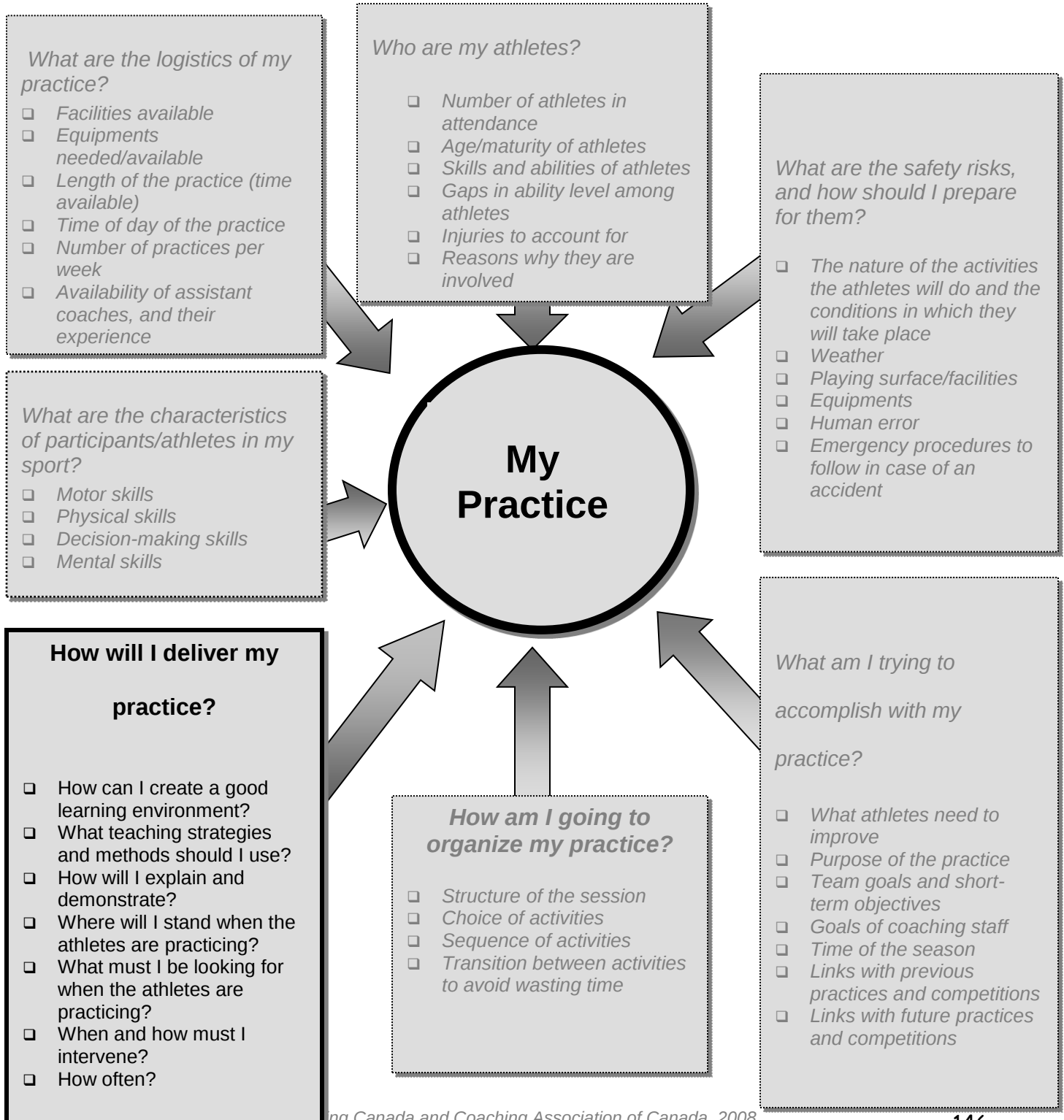
Although it is not realistic to expect anyone to improve his/her teaching abilities significantly in six hours of training, one of our goals is to provide you with some very concrete means to continue developing your teaching skills on your own. This will be done through the “self-monitoring” process shown below.



This module will enable you to get involved in each step of this process by: (1) showing you how to use some tools designed to assess teaching effectiveness; (2) providing you with the opportunity to use some of these tools; (3) showing you how to analyze the data in order to identify specific aspects of your teaching you may wish to work on to be more effective.

Link Between Planning and Teaching

There are some key elements to consider when you design and deliver a practice session. The points listed under the heading *“How Will I Deliver My Practice?”* are dealt with in this module. The other aspects of the process are covered in other NCCP modules, more specifically in the *Planning a practice* module. Reference will be made to these sections within this module.



TEACHING AND LEARNING:

BASIC CONCEPTS

Definitions of Performance and Learning ¹

One of the principal preoccupations for coaches is how to maximize learning (or the achievement of a particular motor performance), even when there is only limited time available. To achieve this goal, it is important to be familiar with some basic concepts related to how people learn skills and how effective coaches teach sport activities.

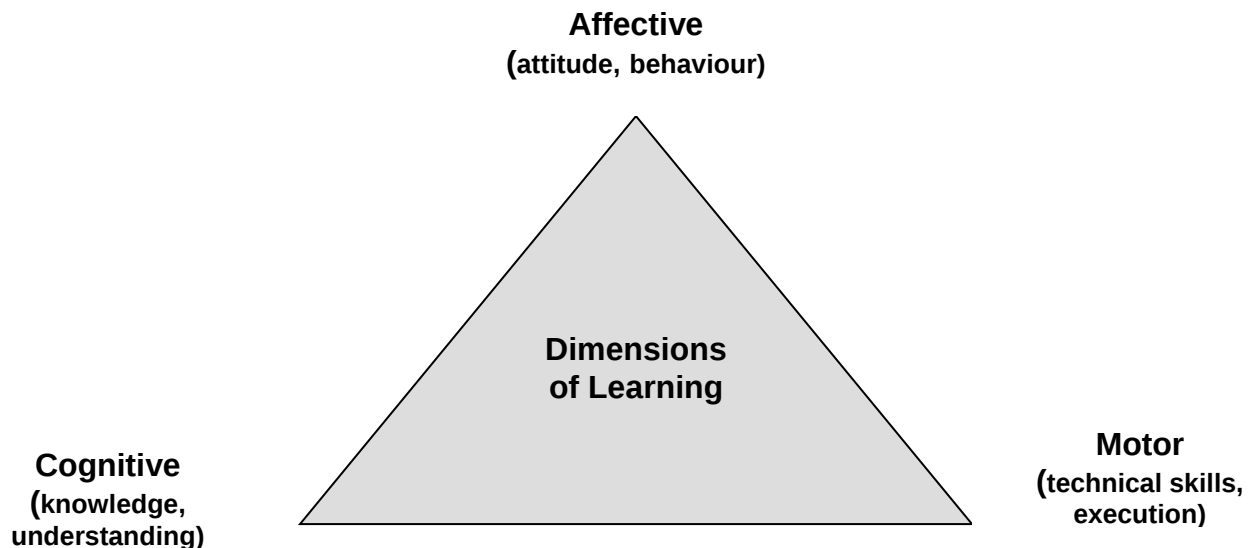
Distinction Between Performance and Learning

- Motor performance is the observable behaviour of the athlete when he/she is executing a task; it can be assessed using very precise criteria, for example the number of times the athlete throws and hits the target.
- Learning refers to the permanent change in the motor performance or in the ability to carry out certain tasks or movements as a result of practice.
- Performance observed during a practice session is not necessarily a good indication of learning by the athlete. If and when the objective is to establish whether learning has taken place, a reassessment of performance at a future date is required. Additional assessments enable to verify skill retention, i.e. whether the skill can be executed repeatedly and consistently.
- If the coach does not appreciate the distinction between performance and learning, there is a risk of incorrectly interpreting the extent of the athlete's progress, and the athlete's ability to execute a particular task consistently and independently.
- In addition, when performance assessments are done, it is important to establish a distinction between the level of performance of a skill or the execution of a particular task in practice, and the level of performance when it is most important, i.e. in competition.

¹ The definitions presented here are a synthesis of views expressed by several experts in motor learning and sport teaching, notably Lee, Target, Cathelineau, Siedentop and Rink.

Dimensions of Learning

Learning may be considered from three distinct dimensions: motor, cognitive, and affective.

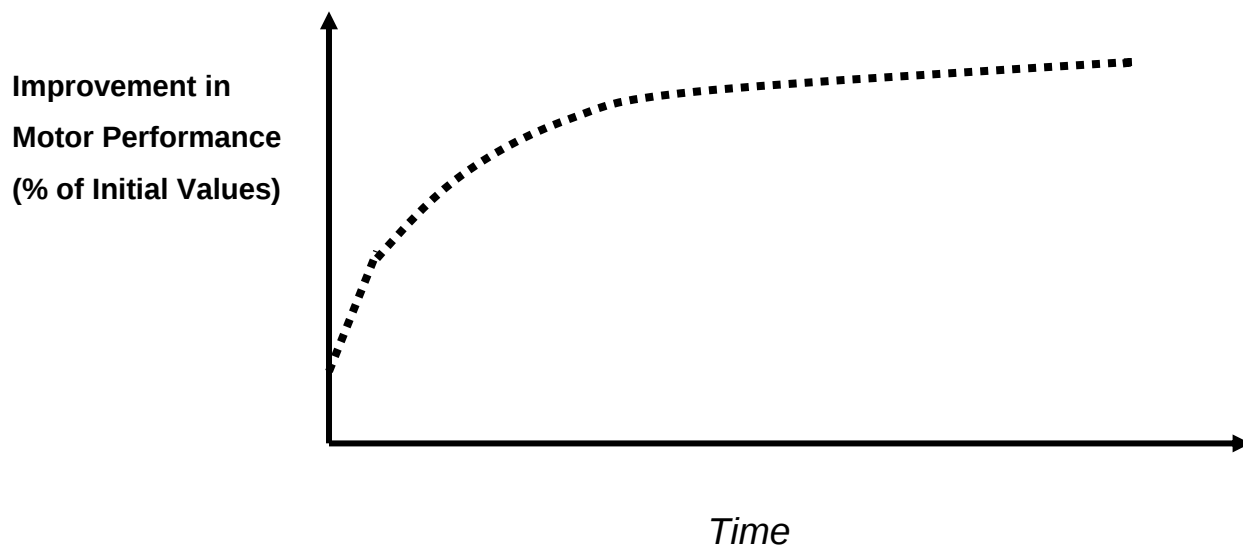


- **The affective dimension** concerns learning from the point of view of attitudes, values, and ethical behaviour. This dimension is closely linked to the self-esteem of athletes. Later on, we will consider how to recognize a lack of self-esteem in the athlete.
- **The cognitive dimension** concerns learning from the perspective of the acquisition of knowledge, whether it be technical, tactical, or strategic. It is as much about what the athlete knows (or does not know) as what the athlete understands (or does not understand).
- **The motor dimension** concerns learning from the perspective of the execution of skills, techniques, or any other form of motor performance.

Rate of Improvement Relative to the Amount of Practice Over Time

- When an athlete begins to practice, there is a rapid improvement in the ability to carry out a task or perform a particular movement, but the rate of improvement is much slower later on.
- Learning happens in stages, and the rate of improvement varies from stage to stage.
- The quantity and quality of practice, i.e. the time and the number of repetitions, are the most important factors that lead to motor performance improvements and skill learning.

Figure 1: Rate of Improvement Relative to Time



Effects of Different Types of Practice on Motor Learning

There are different types of practice that can be used to teach skills, and their effect on learning and performance can vary.

Practices that emphasize repeating the same task many times under the same conditions (blocked practice) usually lead to a rapid improvement in performance; however, this improvement may not be stable or maintained over time.

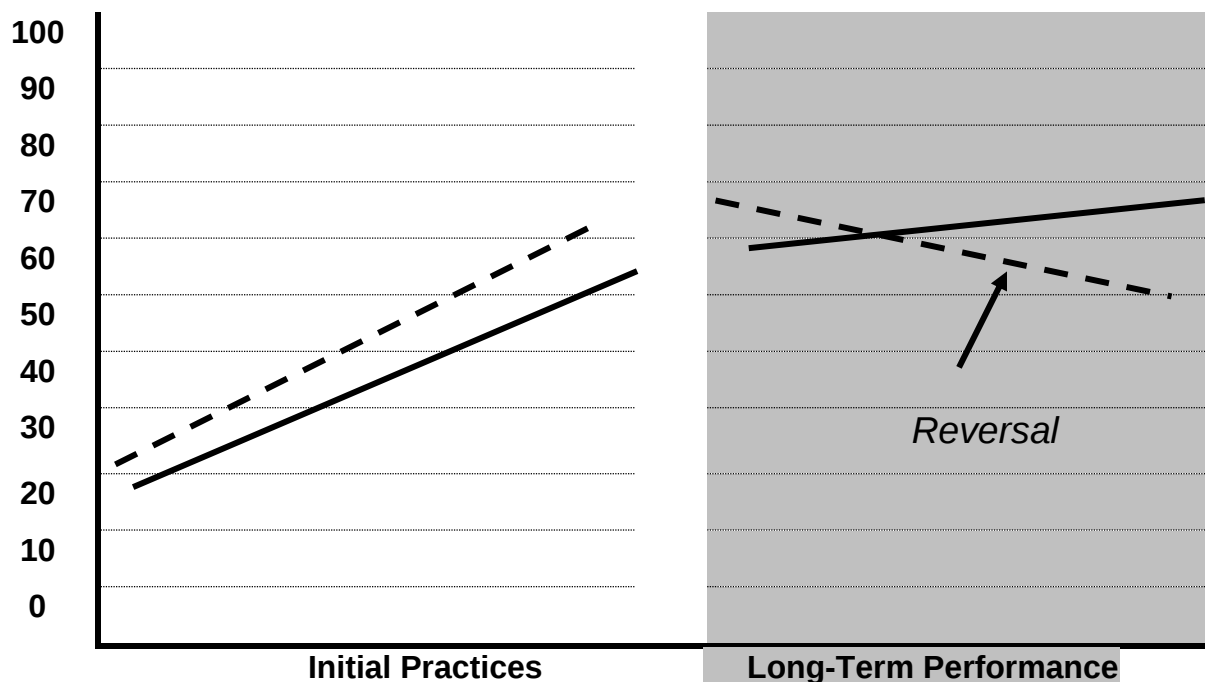
Practices that require some form of problem-solving by the person carrying out the task (known as “decision training”) may not produce as rapid an improvement in motor performance early on, but lead to superior learning and retention of skills, as well as superior transfer of skill into the competitive environment.

Figure 2:

Improvement and Retention of Performance Relative to the Type of Practice 2

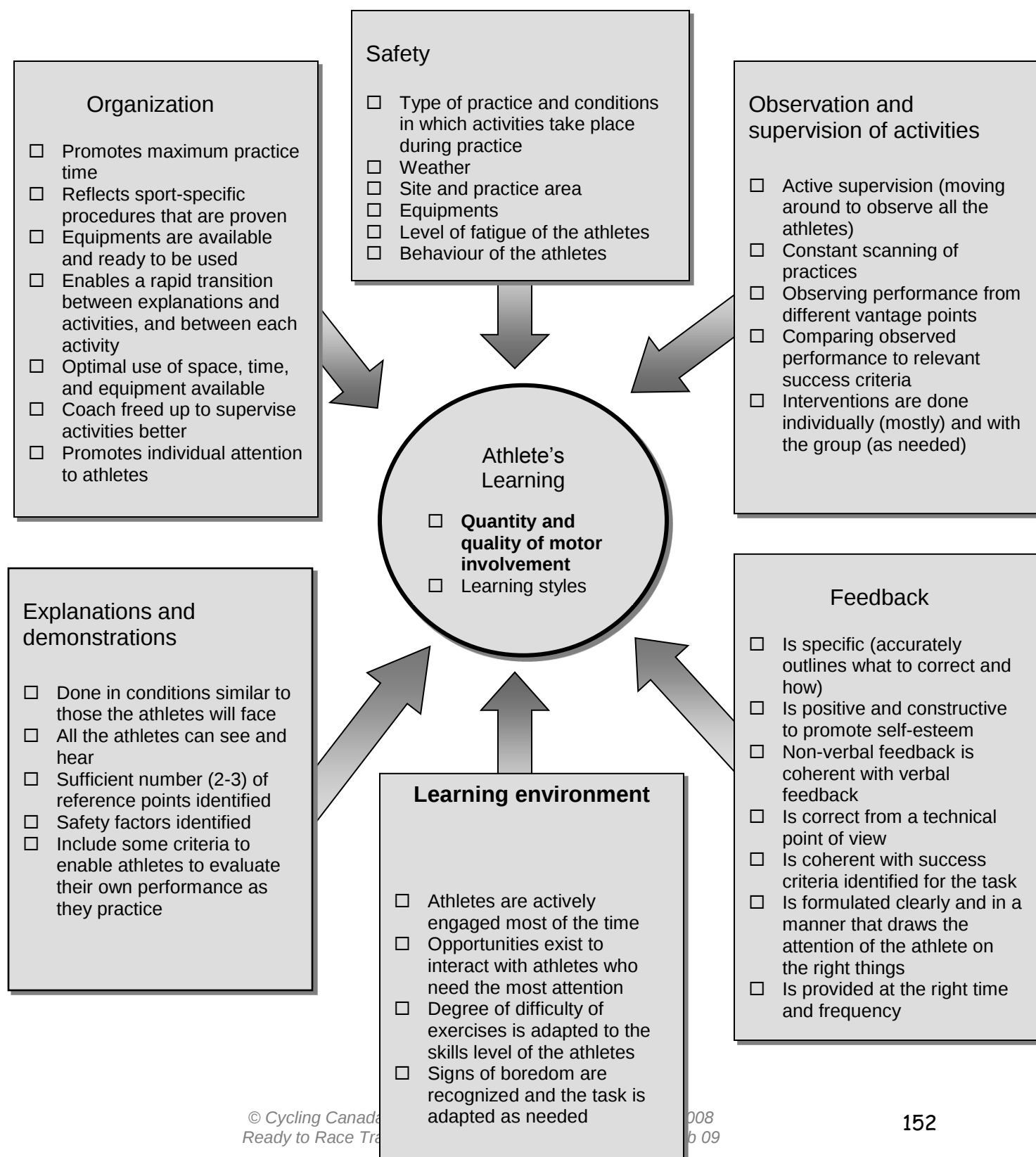
Behavioural Training _ _ _ _ _

Decision Training _____



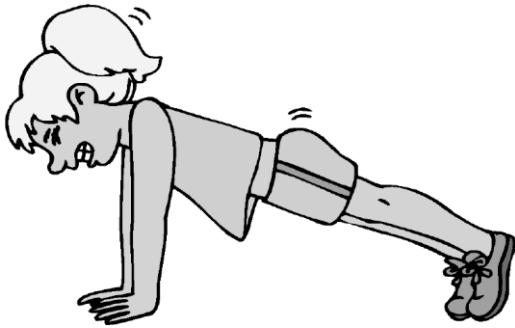
2 Taken from : Vickers, J.N. (2002). *Decision-training: A New Approach to Practice*. Published by the Coaches Association of British Columbia.

Diagram #1
Key Factors to Consider in Assessing the Effectiveness of Teaching



SELF-ESTEEM OF ATHLETES

Self-Esteem: Definition and Importance in Sport



What is Self-Esteem?

Self-esteem is the way a person sees himself/herself. Self-esteem can be affected by comments, positive or negative, from others, including messages about the person's participation in sport.

The Importance of Self-Esteem in Sport

Sport gives participants opportunities to acquire new skills and evaluate their abilities thanks to participation in competition. Participants who have high self-esteem tend to learn better and achieve better performance than those who do not. One of the most important stages in the development of self-esteem occurs between the ages of 6 and 11 years. So, parents, coaches, and other adults who intervene directly with children have an important role to play in the development of self-esteem of young people.

Even comments that seem harmless to the people making them may have a significant impact on the participant. Parents and coaches should always try to find something that the child does well, even though there are times when they must point out things that need to be improved. Positive reinforcement may focus on the way the athlete performs a particular skill, or on aspects which are not directly linked to performance, for example, respecting the rules, being on time, looking after equipments, making others laugh or helping others relax.

As a coach, what you say (verbally or through your body language) is extremely important in the eyes of the participants, and you may have direct influence on their self-esteem. So you must always assess the potential impact of the words you choose to say to participants or the comments you make to them.



Indications that a Child is Lacking Self-Esteem

The following reactions may indicate a lack of self-esteem in a child:

1. The child avoids doing a task or responding to a challenge, or gives up at the first opportunity.
2. The child cheats or lies in order to avoid losing a game or getting a poor result.
3. The child shows signs of regression and acts like a baby or in an immature way for his or her age.
4. The child is extremely stubborn, in order to hide feelings of incompetence, frustration or helplessness.
5. The child makes excuses (“the coach is stupid”) or makes light of events (“this is a dumb sport anyway”).
6. The child moves to the fringes of society by cutting or reducing ties with friends, or other people in general.
7. The child is having mood swings, appears sad, weeps and/or has fits of anger, frustration, or periods of silence.
8. The child makes negative comments about himself/herself such as “I never do anything well”, “Nobody likes me”, “I’m not pretty”, “It’s my fault...”
9. The child is sensitive to praise and criticism.
10. The child is excessively worried about the opinion of others.
11. The child is significantly affected by the negative influence of friends.
12. The child helps too much or not at all in the house.

Suggestions for Helping Young People Develop Self-Esteem

1. Greet each one of the children warmly when they arrive, and make sure that they are happy to be there.
2. Show them your confidence in their ability to learn.
3. Show them respect.
4. Tell them what they do well.
5. Show them you appreciate them as people.
6. Communicate with them in a positive manner.
7. Engage them in activities appropriate for their level of development. Fix realistic objectives and expectations based on the abilities of the participants.
8. Praise the participants sincerely and often, for example, encourage them three or four times before making corrections. Encourage participants to try without always putting the emphasis on results.
9. Avoid elimination games and games which put pressure on participants. Create situations in which participants have a good chance of being successful.
10. Be precise when you praise their efforts or performance.
11. Congratulate them on their special achievements; recognize each participant's progress.
12. Smile, wink or nod to participants to acknowledge their efforts. A "pat on the back" is a great way to encourage participants.
13. Give participants responsibility. Have them participate in decision-making and give everyone the opportunity to be the leader. Alternate the role of captain.
14. Seek the opinion of the participants and encourage them to ask questions.
15. Communicate to them the true joy of participating in sport.

Suggestions for Helping Young People Develop Confidence and Self-Esteem in Certain Situations

Making comments and giving feedback at practice

1. Give simple precise suggestions.
2. Give participants responsibilities.
3. Encourage participants. Be enthusiastic and constructive.
4. Don't make it a chore – have fun!

Before and during practice – Listen to participants

1. Actively seek their input.
2. Respect their opinion.
3. Show that you are flexible in your point of view.
4. Value the participants' participation.

Pre-competition communication

1. Take the tension out of competition: have the participants focus on what they are going to do rather than the final result.
2. Be enthusiastic and constructive.
3. Recognize participants' emotional involvement and learn to listen.
4. Remind them what works well.
5. Tell them of your confidence in them.

After winning a competition

1. Always make some comments.
2. Enjoy the victory.
3. Underline what has gone well.
4. Point out what can be improved.
5. Lay the foundations for future victories.

After losing a competition

1. Recognize effort.
2. Underline the strong points.
3. Point out what can be improved.
4. Be sure participants learn something from the experience.
5. Play down the defeat, remind them that there will be other opportunities and that the important thing is to have done their best.

The Learner:

Recognizing the Learner's Preferred Learning
Style in Order to Maximize Learning

Recognizing the Learner's Preferred Learning Style (Additional information about learning styles is included in the appendices)

You are Primarily a “Visual” Person

Your General Profile

This means that you are particularly sensitive to the visual aspects of your environment, that you live in the present, that you are aware of what is going on around you, and that you very quickly bring up images of the past in order to make sense of what is happening to you. You like art and beauty, order and disorder. You have a very fine sense of nuances of colour and form. You pick up details: you identify your athletes' handwriting. You recognize people easily. Their appearance, some aspect of how they look, their location in a particular setting are points of reference that you capture in a flash. You get athletes to stay in the same place, so that you will have time to identify them by their place in the room. So much so that when people forget and change places in the room, you may well call them by the wrong name...

You have a good sense of orientation, so you are able to locate where you are on a plan or map, and you don't have to ask the way. You don't always understand why athletes ask you to repeat some instruction for a drill or comment on a practice. “Just open your eyes”, you tell them. You believe that a clear explanation or document requires illustrations, diagrams. When there are no visual pieces, you immediately draw something on the board: you believe it is easier, clearer than any verbal explanation.

You are creative. There are always ideas bouncing around in your head. Athletes sometimes say you speak a little too quickly. It is not always easy to follow your explanations, which are often full of picturesque details. Sometimes you forget to define exactly where you want to go with it. However, you have a sound sense of how to synthesize information and you are as able as anyone to describe the main points. You just allow yourself to get carried away by your rich imagination.

Particular Aspects You Should Pay Attention To

You have to learn how to enter the world of auditory people. If you understand them better, you will find their long explanations less tiring. Provide just the right word, and they will be satisfied; your explanation will make more sense for them. Even easier: get them to give a name to your activities or exercises or to summarize the main points of your message. That way you will satisfy their need for words and you will frame how long they can talk; they will appreciate your activities better and you will provide them a meaningful opportunity to contribute to the group's dynamics.

Kinesthetic people often seem to you to be too “slow”. Use your creativity to create imaginary journeys for them: they will revel in your images... They will experience multiple sensations that they will find overwhelming. Begin your explanations by saying: “Imagine yourself walking...visiting...touching...” Any action verb will do providing you cause them to be mentally active in the course of their reflection. Ask them what they feel when they create these images. If you are able to keep them in contact with their own feelings, they will become more creative and be more interested in your activities. They remind to everyone (and to yourself) that you are also a body capable of experiencing sensations, feelings, needs. They will add some human depth and breadth to your sometimes overly detached view of the world.

Teach others to use their eyes more, especially to remember movement patterns or diagrams outlining certain tactics. You excel in this area because you perceive any visually-based strategy as being more effective.

You Are Primarily an “Auditory” Person

Your General Profile

This means that you are particularly receptive to the auditory aspect of your environment, and that you very readily call up sounds and words heard in the past to help you make sense of what is happening to you.

You are sensitive to the harmony of sounds, the meaning of words, the rhythm of things. You have a fine sense of the various ranges of tonality: the bass and treble are very familiar to you. You recognize people primarily by the tone of their voice. You remember the names of your athletes. You have clever methods to help you do that. You like to choose just the right word. You like to talk, to tell stories. You like to sing or, at the very least, you appreciate the musicality of what you say or hear.

You like to listen to people, discuss, or play with ideas. Your athletes like your careful elocution: you take pleasure in talking. Your voice is melodious, well ordered. You usually breathe through the middle of the thorax by filling your lungs well, which enables you to maintain a regular rhythm.

Particular Aspects You Should Pay Attention To

The previous aspects can sometimes work against you as well: you take such pleasure explaining that you may occasionally forget that some of your athletes soon “turn off” and are unable to sustain their attention to purely auditory sources of information. From time to time, be sure to provide some visual support to revive their interest and regain their attention. It will also make their task easier when you supplement your explanations with concrete examples that will enable them to create their own internal images. Abstract terms tend to be too much in the realm of sounds alone

So what about kinesthetic people? Words alone will always be an empty vessel for them, unless you can also appeal to their senses, their need for physical sensation. Choose the words that complement their preferred sense. On the next pages you will find a table of words most frequently used by each of these profiled classes of people. The list of kinesthetic terms contains suggestions for more appropriate words to use with this kind of athlete.

You Are Primarily a “Kinesthetic” Person

Your General Profile

This means that among the many perceptions that you form at any given moment, you are particularly sensitive to those that you feel. From time to time, you pause in order to check your feelings, and this is your way of being in contact with what is going on around you.

You are aware of the ambiance, the relationships between people. You have a keen sense of the state of mind of those you are speaking with. You are passionate: your athletes appreciate the way you “rev them up”. You are warm and spontaneous. Sometimes, you let yourself get carried away by your emotions: your athletes are afraid of your anger. You are very emotional, and you do not like delicate situations when you have to control yourself. You know how to grab the attention of your athletes because you express yourself in concrete terms, with a fairly slow delivery. You often call on your emotions and theirs.

As you follow your inspiration of the moment, you have a tendency to improvise. The outcome is often positive. You are always available to answer your athletes’ questions: you adapt to the needs of the moment. You are able to remain attentive to them and not feel too restricted by rigid plans.

Particular Aspects You Should Pay Attention To

You would be even more effective if you took more frequent pauses in order to reframe what is being said: a plan, key ideas on the blackboard, to resume the essential elements of what is to be learned. Otherwise, your athletes may get the impression that you are changing the subject abruptly. They need to be able to be involved in the process to acquire a more global vision of the course if they are to understand the general meaning of the program.

For primarily visual learners, your many expressions and gestures are a valuable source of information. Anecdotes, a concrete and dynamic approach help them create vivid mental images. You can have them provide a synthesis of what has already been said or done, or how this fits into the larger picture: they will be very good at this exercise. The rhythm of your presentation may seem too slow to them: mental pictures

are created very quickly in their minds, so much so that you may not be capable of keeping pace with the way they interpret information. Have them speak from time to time, so that the rest of the class can benefit from their brightly coloured examples and images.

Athletes who are primarily auditory may become frustrated: they like structured practices, and activities that are planned, described in precise, well thought-out terms. Have them comment on a technique or summarize an important explanation, because they often link things together in a subtle way. Don't hesitate to recognize your differences in your conception of knowledge, so learn to rely on their strong points: "What word would you use to describe this?", "How would you classify the various ideas we have heard today?" Thanks to your primarily kinesthetic sense, you practice your profession with great sensitivity. This is one of your great attributes: to teach in a lively, unexpected and sometimes unusual way. You epitomize this picturesque Chinese proverb: *"Teaching that only enters the eyes and the ears is like an imaginary meal"*.

Translated from an adaptation of: *La programmation neuro-linguistique*, by Reine Lépineux, Nicole Soloeilhac and Andrée Zerah, 1984.

Vocabulary for the Kinesthetic Person

Verbs

soften	sensitize	touch	firm up
soothe	warm up	move	solidify
feel	cool down	shock	weigh down
relax	contact	shake	hit
break	irritate	press	carry
seize	grab	flatter	boost

Adjectives

soft	relaxed	concrete	firm
sensitive	insensitive	tender	solid
gentle	warm	cold	heavy
light	tepid	shocking	touching
trying	ticklish	agitated	striking
brittle	irritable	pressing	moving

Adverbs

softly	in contact with	concretely	firmly
sensitively	insensitively	tenderly	solidly
gently	warmly	coldly	heavily

Nouns

softness	feeling	contact	firmness
sensitivity	insensitivity	tenderness	solidity
gentleness	warmth	coldness	heaviness
lightness	mildness	shock	test
contact	agitation	blow	breakage
irritation	pressure	movement	emotion

Expressions

have good sense	have your feet on the ground
be open-handed	take to heart
pretty as a picture	have a good “nose”
put your finger on	make an impression
come to blows	be fed up
get on your nerves	fuel your arguments
get stuck into	cry your eyes out
be a stickler for principles	get on your high horse
come out of your shell	stand on your own two feet
be as meek as a lamb	
look as if butter wouldn't melt in your mouth	

Vocabulary for the Auditory Person

Verbs

hear	express	relate	yell	amplify	alarm	announce	listen	shout	put into dialogue	burst out	ask about	articulate	narrate
say	question	sound	cry out	recount	discuss	compose							
speaking	harmonize	moan	ask	mention	inform	declare							

Adjectives

harmonious	solemn	orchestrated	talkative	deaf	shrill	melodious	oral	high-pitched	dissonant	strident	muffled	musical	loud	vocal	deafening	piercing	hollow	discordant	calm	audible	amplified	nasal
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Adverbs

harmoniously	noisily	solemnly	orally	of course	loudly	in harmony	deafeningly
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Nouns

harmony	click	listening	roar	tone	declaration	dialogue	question	sound	din	discussion	tonality	(in) tune	cry	request	word	voice	amplification	(out of) tune	groan	shout	speech	announcement	burst
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Expressions

play a wrong note	whispering	hear voices	ring true	turn a deaf ear	echo	sharp cry	get through to	have an earful of	out loud	burst your eardrums	lend an ear	have somebody's ear	be in tune	sound false	experience the whole gamut	different version	put the accent	be all ears	bawl out	talk through your hat	overhear
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Vocabulary for the Visual Person

Verbs

notice	look at	look at	show
shine	clarify	distinguish	visualize
light up	lighten	hide	catch sight of
imagine	discern	illustrate	mark out
paint	depict	observe	appear
seem	discover	expose	scan
inspect	fix	glow	sparkle
blaze	illuminate	dazzle	

Adjectives

remarkable	dark	luminous	somber
brilliant	light	blurred	vague
clear	lucid	imaginative	clairvoyant
picturesque	cloudy	spectacular	coloured
deep	far-sighted	hazy	outlined
loud	obscure	obvious	distinct
expressive	limpid		

Adverbs

brilliantly	clearly	distinctly	vaguely
clearly	lucidly	expressively	

Nouns

remark	perspective	look	objective
burst	clarity	graph	illusion
snapshot	sharpness	point of view	imagination
clairvoyance	screen	cloud	spectacle
painting	observation	forecast	image
aspect	view	panorama	discovery

Expressions

see life through rose-coloured spectacles	take your bearings
take stock of	before your very eyes
open your eyes wide	scattered to the four winds
look furtively	face-to-face
see someone in their true colours	without a shadow of a doubt
take a close look	to the naked eye
only have eyes for	be blindingly obvious

The Teaching Process

REPRESENTATION OF THE TEACHING PROCESS

Organization

- Includes safety measures, and how the activity starts and finishes
- Requires at least 50% motor involvement
- Coach is able to supervise

Can someone else do the demonstration better than me?

Explanation/Demonstration

- Describe the aim of the exercise
- Outline what is to be done and how
- Describe points of reference/cues
- Identify criteria of successful performance
- Touch the different communication channels (visual, kinesthetic, auditory)

Observation

- Ensure that the athletes are actively engaged and achieve a good rate of success
- To observe, move around without interfering with athletes
- Observe both individuals and the group
- Verify if success criteria are achieved

Did I give the athletes enough time to practice before stopping them to give feedback?

Feedback

- Identify the cause of failure
- Adapt the activity as needed
- Help athletes by reassuring them
- Explain and demonstrate again if necessary
- Recognize successful performance

Effects of the Feedback

- Give the athletes time to practice again to check whether they have acted on the feedback

Did I remember to ask the athletes to give me feedback before giving them mine?

KEY ELEMENTS OF EACH STEP IN THE TEACHING PROCESS

Step 1: Organization

- Always think about how to begin and finish an activity or a drill.
- Always take into account the safety issues of the activity or drill.
- Organize the activity in a way that allows each athlete to remain active during at least 50% of practice time.
- Organize the activity in a way that enables athletes to progress at their own pace.
- Set up the environment in such a way as to allow yourself to move around and see every athlete without interfering.
- Ensure each athlete has the maximum possible amount of practice time (number of repetitions)
- Always plan for the equipments that will be used during the activity or the drill, prepare them ahead of time and make sure they are available at the time of the activity.

ASK YOURSELF THESE QUESTIONS

BEFORE AND AFTER THE PRACTICE

Did I set up the practice or the activity in a way that:

1. Enabled each of the athletes to be actively engaged for at least 50% of the time?
2. Allowed me to spend more than half my time with individual athletes?
3. Enabled each athlete to progress at his/her own pace, respecting the athlete's starting point?
4. Gave me sufficient time to observe the athletes?

Practice Organization

Coach: _____

Observer: _____

The set up for the activity was:

_____ Quick and efficient

_____ Quick but not efficient

_____ Neither quick nor efficient

The athletes began the activity:

_____ Quickly and correctly

_____ Quickly, but not correctly

_____ Correctly, but not quickly

_____ Neither quickly nor correctly

During the activity:

Good use was made of the available equipment:

Yes ()

No ()

Good use was made of the available space:

Yes ()

No ()

Good use was made of the available time:

Yes ()

No ()

Groupings were adequate:

Yes ()

No ()

Athletes practiced in safe conditions:

Yes ()

No ()

In the practice, the athletes are actively engaged:

_____ Most of the time (50 % or more of the time)

_____ Moderately (30-50 % of the time)

_____ Insufficiently (30 % or less of the time)

Step 2: Explanation and Demonstration

- Tell the athletes the object of the exercise or drill.
- Always give the athletes some cues or reference points (what he/she should look for or feel while performing). Effective cues are short, clear, simple and not too many (two or three).
- A cue is a precise piece of information that enables the performer to control a movement. It must be observable by the coach and easily understood by the athlete. There are two types of cues: external and internal.
 - An EXTERNAL CUE can be seen or heard by the athlete.
 - An INTERNAL CUE is perceived internally by the athlete (kinesthetic sensations).
- Suggest to athletes that, *while executing the movement*, they should pay attention to or concentrate on (1) something external to their body (e.g., a target); or (2) the expected outcome of their movements, and not too much on how the movement is being performed or on what they feel. In motor learning, this type of instruction is called *external focus of attention*.
- Always show and tell the athlete what successful performance will look and feel like (how will the athlete know that he or she has succeeded?).
- Be sure to use appropriate words, movements, or visuals (if possible) to take into account the preferred learning style of each athlete (visual, kinesthetic, and auditory).

ASK YOURSELF THESE QUESTIONS → DURING AND AFTER THE PRACTICE

Did my explanations and demonstrations enable me to:

1. Create a clear picture of *what* I wanted to see happen and *how*?
2. Describe the logistical and organizational aspects of the drill/activity?
3. Emphasize the most important aspects (reference points, external focus)?
4. Pass on information on the “why” of things (e.g., the reasons why a movement should be done in a particular way)?
5. Respect the athletes’ individual learning styles?
6. Check for understanding?

Practical Applications of Recent Research in Motor Learning: Key Points on Giving Instructions

Recent research in the area of motor learning has focused on the effectiveness of different ways of giving instructions. Among others areas of interest, researchers have tried to determine what athletes should focus on *during* the execution of a motor task: (1) on the way the movement or skill is performed (internal focus); or (2) on an external element or the anticipated effect of the movement (external focus). The key points from these studies are summarized below.

- **To promote learning, instructions should be given in such a way as to focus the athlete's attention on some external factor and/or the anticipated effect of his/her movement, rather than on the way the movement is executed**

Focusing too much on the way to perform a particular movement, e.g., focusing on the position of the elbow and how to make a flick of the wrist at the end of the movement, can be detrimental to motor learning. During the execution of the movement, it seems to be more effective to draw the athlete's attention to some external factor, (e.g., the target to hit, or the expected outcome of the movement like the particular trajectory to impart to a ball) rather than internal elements (e.g., feeling each phase of the movement during its execution). Research on this topic is known as "focus of attention".

There is ample evidence to suggest that instructions whereby the athlete is asked to focus attention on some element external to his/her body have a positive impact on both short-term performance (i.e. during the practice session) and longer-term performance; this type of instruction therefore appears to promote both learning and retention of skill. In addition, instructions of this type appear to be effective for most sports skills, and whatever the level of the performer. Finally, the positive effects of this type of instructions on both performance and learning do not appear to affect negatively the *form* of the movements; in other words, the quality of the execution does not appear to suffer.

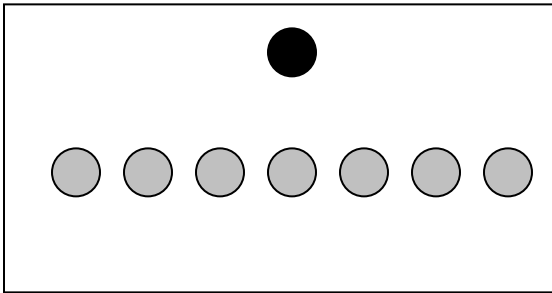
- **If possible, external focus should be directed towards an element, and anticipated effect, or an outcome which is far from the performer's body**

Current research suggests that the most effective approach requires the learner to focus on an expected outcome situated as far as possible from the athlete's body, but which can nevertheless still be directly linked to the movement itself.

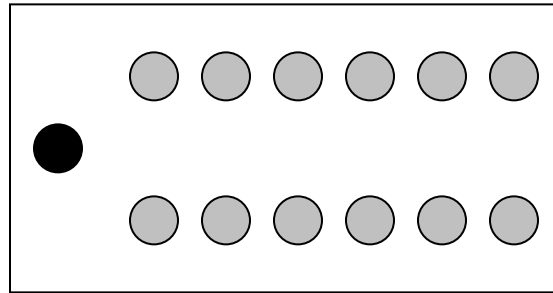
Choosing a Formation for Giving an Explanation or a Demonstration

It is important to choose an effective formation in order to be seen and heard by the athletes. The choice of formation depends on the space available, the kind of message (information, explanation, demonstration) and the number of athletes. The diagrams below show common formations.

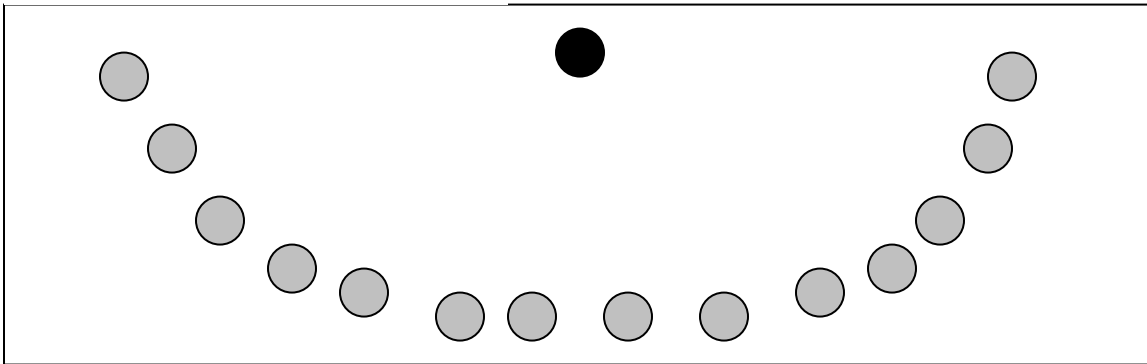
Straight line



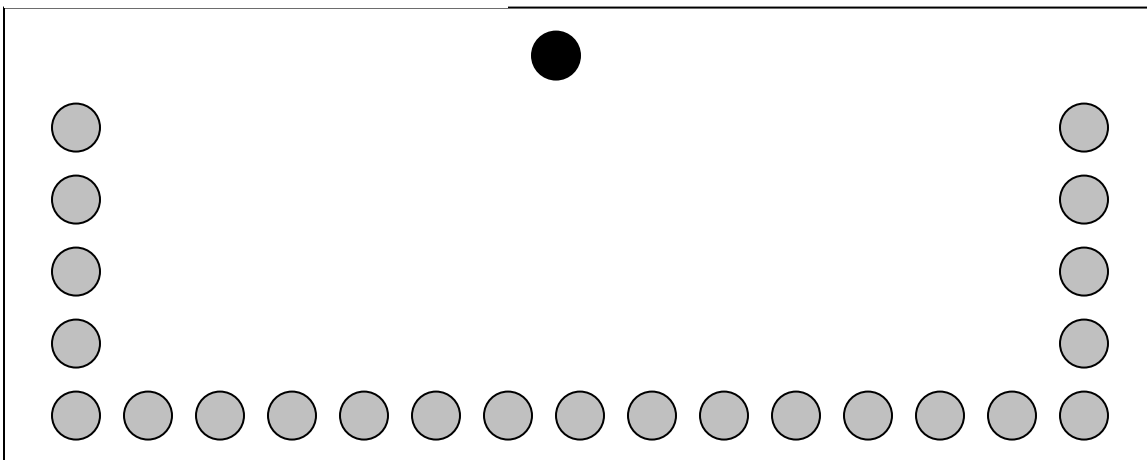
Two lines



Semi-circle



U formation



Adapting the Basic Formations

These basic formations can be adapted to meet the needs of larger groups, for example:

- Make two rows: the front row kneeling or sitting, and the second row standing.
- Make three rows: front row sitting, the second kneeling, and the third standing.

Control Distractions

The athletes must be arranged with potential distractions behind them, for example:

- Sun in their eyes
- Reflections
- Activity in the street
- Other groups of athletes training
- Spectators

Choose a Good Vantage Point for the Athletes

It is important to ensure that the athletes have a good vantage point to watch the demonstration. Think of the best vantage points for the athletes in relation to the formation you have chosen **before** you begin the demonstration

If you need to, turn 90 or 180 degrees and do the demonstration again so that everyone can have several views of the demonstration, and has the opportunity to observe from the best vantage point. However, avoid doing the demonstration too many times as it may take too much time, and the athletes who have already seen it enough may “switch off”.

Demonstration

Coach : _____ Observer : _____

		Demo 1		Demo 2	
		Yes	No	Yes	No
1	Equipments were ready for the start of the demonstration	Yes	No	Yes	No
2	Organization of the athletes was appropriate	Yes	No	Yes	No
3	Demonstration gave a good general idea of the technique or movement	Yes	No	Yes	No
4	Demonstration directed the attention of the athletes to an external focus (target, outcome, expected effect)	Yes	No	Yes	No
5	Coach pointed out what should be avoided	Yes	No	Yes	No
6	Demonstration was repeated from different angles	Yes	No	Yes	No
7	Athletes were involved in the demonstration in an appropriate way	Yes	No	Yes	No
8	Coach identified internal and external points of reference	Yes	No	Yes	No
9	Coach explained the reason for doing the activity/drill (link with previous practices, etc.)	Yes	No	Yes	No
10	Coach checked that the athletes had a good understanding of what needs to be done	Yes	No	Yes	No
11	Technical elements of the demonstration were executed correctly	Yes	No	Yes	No
12	Amount of information provided by the coach was appropriate (clear, short, accurate)	Yes	No	Yes	No
13	Coach used vocabulary respecting the three learning styles	Yes	No	Yes	No
14	Coach emphasized safety aspects when appropriate	Yes	No	Yes	No
15	Coach's voice was loud enough and projected well enough	Yes	No	Yes	No

Comments:

Overall assessment:

- () Excellent performance
- () Good performance, some adjustments required, but generally well done
- () One or two serious mistakes, room for improvement, but acceptable
- () Not acceptable, several serious mistakes

Step 3: Observation

- Ensure that the athletes get involved in the activity quickly (rapid transition).
- Always ensure athletes have a clear understanding of the task at hand, in view of the instructions that were given.
- Always ensure that the activity or drill is appropriate for the skill level of the athletes, and that it is not beyond their current abilities.
- Always ensure that there is a good rate of success among the athletes, i.e. most of the athletes are able to achieve the desired outcome.
- Be actively involved in the supervision of the athletes, so that you get to see ALL the athletes during the activity. Scanning the activity and moving around to watch what is going on from different vantage points enable you to be actively involved. (*Note: During sport-specific workshops, find out about the best way of moving around and observing athletes without interfering with them*).
- Be sure to watch individual athletes so that you can be aware of the individual differences in performance, and can then provide individualised feedback.
- Find out if the athletes have fun, or if they are not bored or discouraged.

ASK YOURSELF THESE QUESTIONS

DURING AND AFTER THE PRACTICE

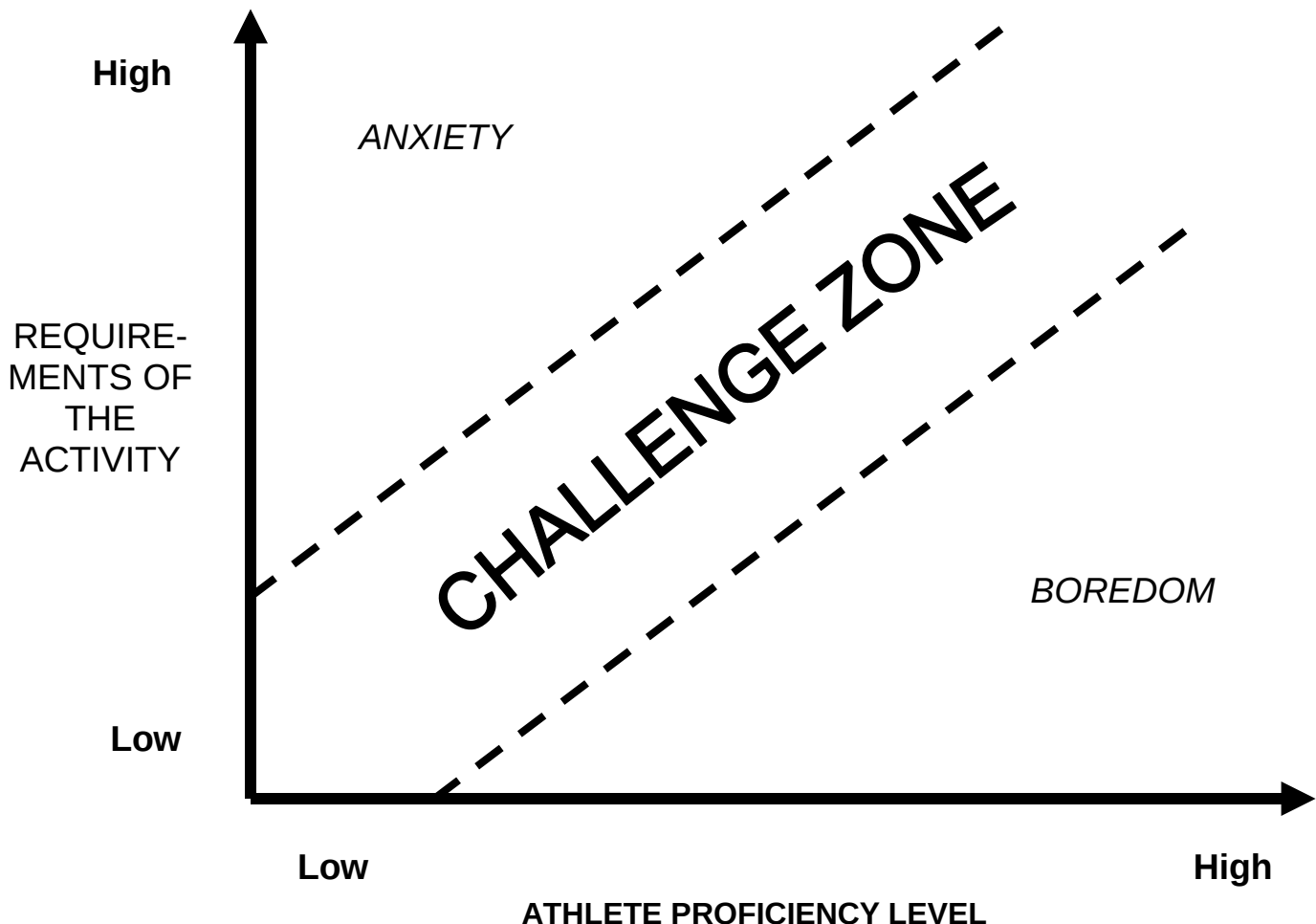
Did my supervision enable me to:

1. Keep the athletes actively engaged in the activity?
2. See all the athletes as a group and individually?
3. Observe key reference points and success criteria from different vantage points?
4. Be sure everyone is safe?
5. Evaluate the athletes' degree of success in the execution of the activity or drill?
(See *Challenge Zone* on the next page.)

The Challenge Zone

Or Matching the Difficulty of the Activity With the Skill Level of the Participant

While observing the athletes, the coach should verify that they are appropriately challenged by the task at hand. When the demands of an activity are too high for the participant's ability, he/she may become anxious or discouraged, and therefore may have difficulty learning. On the other hand, when the requirements are too low, the athlete may quickly show signs of boredom or lack of interest. The difficulty level associated with the task must therefore be "optimal," i.e. the participant must feel that he/she has the ability to succeed but that the **activity represents a challenge**. In other words, the athlete will be motivated to learn when challenged at the appropriate level, which implies that there must be a reasonable chance of either success or failure when he/she performs a task. ***As a general rule, if the participants' success rate is approximately 2 times out of 3, then the activity represents a suitable challenge.***



Step 4: Giving Appropriate Feedback

In this section, we will present several steps to enable the coach to give appropriate feedback.

First step: Success or Failure? Before providing any feedback, the coach must first identify whether or not the athlete is succeeding in the activity.

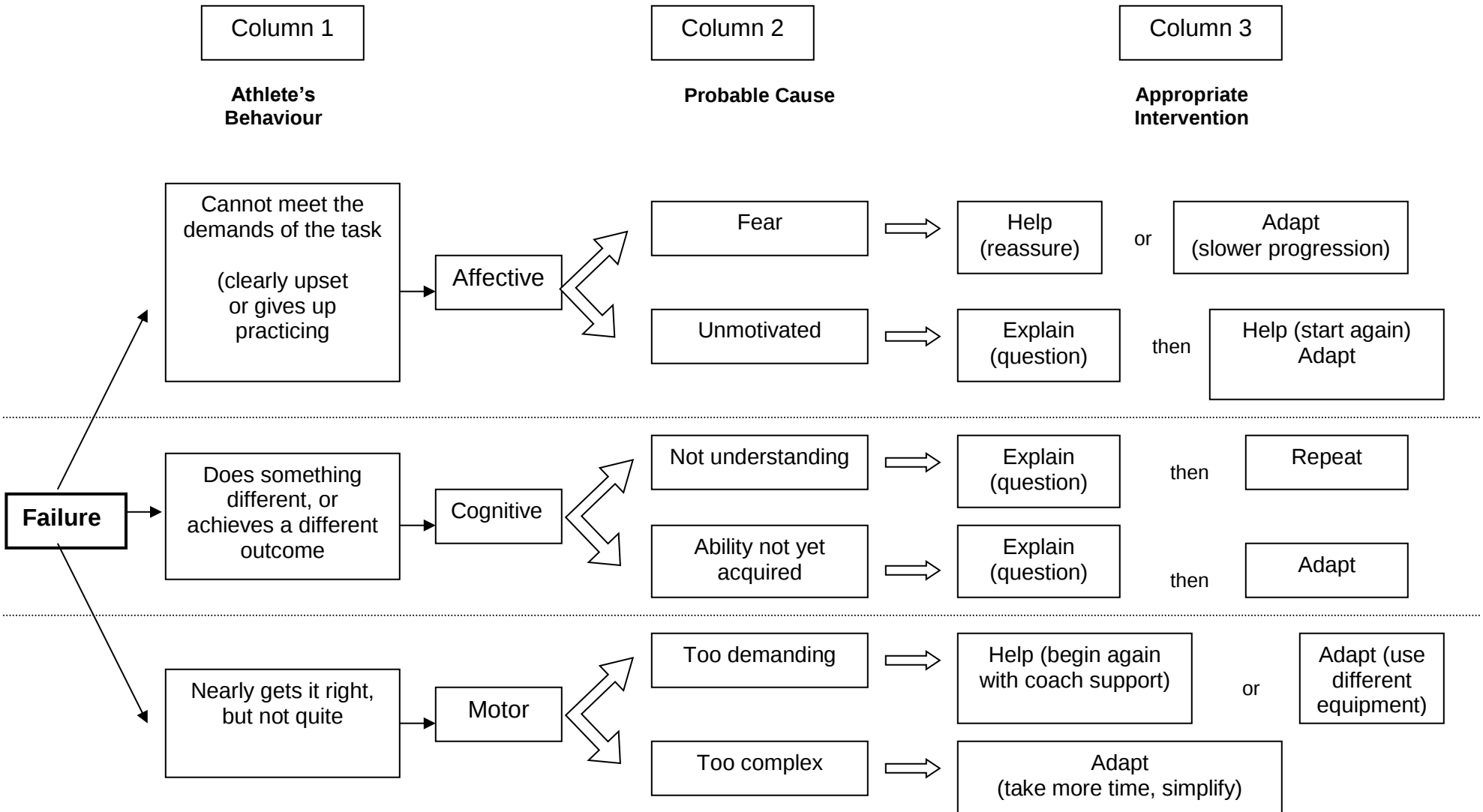
Second step: Categories of Intervention Once an evaluation of the athlete's performance is made and the coach has determined whether or not the athlete is experiencing success, an appropriate type of intervention must then be chosen. Various types of interventions are listed in Table 1. The first type of (inhibiting) is obviously not appropriate, and therefore should not be used. Among the other options, some are more effective when the athlete cannot perform the task successfully, and others when he/she can. These particular aspects are dealt with in the following pages.

Table 1
Five Types Of Intervention ³

Types of Intervention	Behaviours or Actions by the Coach
A. Inhibiting	1. Do nothing. 2. Shout, rebuke.
B. Repeating	3. Repeat instructions. 4. Demonstrate or repeat previous demonstration.
C. Explaining	5. Explain how to do it right (verbal or reference point). 6. Question the athlete.
D. Helping	7. Reassure, encourage. 8. Have the athlete start again.
E. Adapting	9. Use different equipments or practice areas. 10. Reduce difficulty level or give more time.

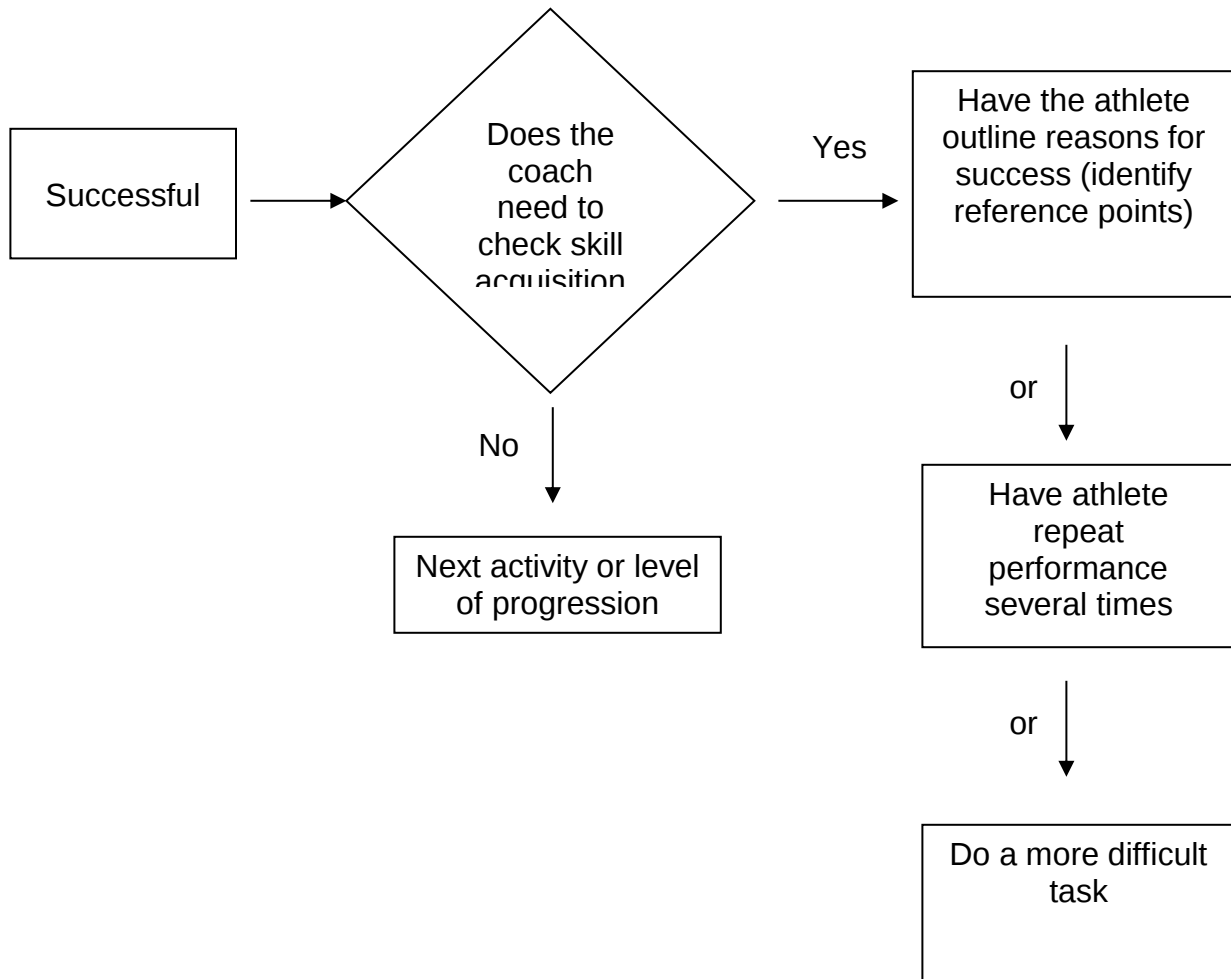
³ Adapted from Target, C. and Cathelineau, J. (1990). *Pédagogie sportive*. Vigot. Collection Sport et enseignement.

Intervention When the Athlete is Not Experiencing Success ⁴



⁴ Adapted from Target, C. and Cathelineau, J. (1990). *Pédagogie sportive*. Vigot. Collection Sport et enseignement.

Intervention When the Athlete is Succeeding ⁵



⁵ Adapted from Target, C. and Cathelineau, J. (1990). *Pédagogie sportive*. Vigot. Collection Sport et enseignement.

General Comments about Feedback

- Timing is everything for giving feedback: the athlete needs to be open to hearing it, and near enough to hear you.
- Draw the athlete's attention to some element external to his/her body or to the anticipated effect of the movement rather than on the way the movement is being done.
- Let the athletes practice without always interrupting them. The more you talk, the less they can practice!
- Repeating the same general comments, (e.g., "That's great!", "Keep going!") is not enough. It's not that it is bad, but effective feedback is more than simply general encouragement.
- To promote acquisition and development of skills, information given must be specific.
- To be useful, feedback must also be accurate. To be accurate, the coach must: (1) really know the skills the athlete is working on; (2) have a clear reference point as far as correct execution is concerned; and (3) be in the right place to observe the athlete's performance.
- In the case of motor skills, a demonstration (i.e. non-verbal feedback or the execution of a very precise movement) is often useful feedback to give to the athlete.
- Feedback given to the whole group is often effective.
- Although feedback is important and contributes to learning, avoid giving feedback too often, or too much at any one time.
- Remember that it is always the quality and quantity of feedback that determines its effectiveness.

When providing feedback to athletes, coaches should aim at the following:

- Positive feedback should be offered more often than negative feedback.
- Specific feedback should be offered more often than general feedback.
- *A good balance should be struck between descriptive and prescriptive feedback (Note: descriptive feedback that is both specific and positive may influence the athlete's self-esteem in a positive way).*

Third step: Saying the Right Thing. Thus far, we have seen that the coach must first determine whether the athlete is succeeding or failing, and then decide what kind of intervention is best in either case. We will now see what each type of intervention sounds like in words.

Types of Feedback

Types	Definitions	Examples
Evaluative	The coach assesses the quality of the performance; he/she makes some kind of assessment or judgment	• That's fine! • Good job! • No, not like that! • Not good enough!
Prescriptive	The coach tells the athlete how to execute the skill next time	• Throw it higher! (general) • Get your arm higher! (specific)
Descriptive	The coach describes to the athlete what he/she has just done	• The build-up was too slow (general) • Your legs were really extended (specific)

ASK YOURSELF THESE QUESTIONS
PRACTICE

DURING AND AFTER THE

Was my feedback: →

1. Specific, not general, for example: "You did _____ perfectly!" instead of "That's fine!"?
2. Positive and constructive, not negative and humiliating?
3. Directly linked to the skill or behaviour to be improved?
4. Informative and relevant to the most important performance factors?
5. Balanced, i.e. it contained information on what has been done well, and also on what still has to be improved, for example: "Your _____ (movement) is better than last time. The next thing to do would be to _____ (add another level of complexity to the movement, or a particular piece to refine)"?
6. Clear, precise and easy to understand by the athlete, e.g. were the words I used simple?

OBSERVATION OF THE COACH'S FEEDBACK

Coach: _____ Number of athletes: _____ Length of time of Observation: _____

Types	Definitions	Examples	
Evaluative	The coach assesses the quality of the performance, so the coach makes some kind of assessment or judgment	• That's fine! • Good job!	• No, not like that! • Not good enough!
Prescriptive	The coach tells the athlete how to execute the skill next time	• Throw it higher! (general) • Kick farther!	• Get your arm higher! (specific)
Descriptive	The coach describes to the athlete what he/she has just done	• The build-up was too slow (general)	• Your leg was really extended (specific)

Type of Feedback	Occurrence (Check Mark)	Total	# / Minute
Positive Evaluative			
Negative Evaluative			
General Prescriptive			
Specific Prescriptive			
General Descriptive			
Specific Descriptive			

Practical Application of Recent Research in Motor Learning: Key Points on Giving Feedback

Until recently, the vast majority of coaching publications recommended that, to be effective in helping athletes correct mistakes and improve performance, feedback had to be provided:

- As often as possible.
- As soon as possible after the execution of the movement or task.
- In the most precise manner possible.

During recent years, however, researchers have re-examined some of these recommendations on the grounds that they were based on studies of the short-term improvement of performance rather than on the effects of longer-term learning, which is clearly the ultimate aim of coaching.

While the recommendation regarding the importance of providing clear and specific feedback remains unchanged, the most recent data concerning feedback indicate that:

- **Feedback must require some reflection or cognitive effort on the part of the learner.** Feedback must be seen as supporting information that the learner is expected to interpret and use in an active way; as such, it should require some analysis and decision-making by the learner. Feedback must encourage the athlete to be an independent and autonomous learner, and look for solutions to the particular challenges posed by the practice. The longer-term objective is that the athlete becomes able to maintain and modify performance without the coach's intervention.
- **Very frequent feedback does not promote learning.** A comparison between intermittent feedback (after every two or three repetitions or even less frequently) and frequent feedback (after every repetition or attempt) shows that very frequent feedback does not promote learning. In other words, more is not necessarily better.

- **Feedback given during the execution of the task may lead to short-term performance improvement, but is not optimal for promoting learning.** Feedback provided while an individual performs a task appears to boost performance in the short-term, but actually degrades learning compared to feedback provided after the execution of the task. *(In this case, it is particularly important to understand the difference between performance and learning in order to get things in perspective).*
- **The least effective approach: frequent feedback during the execution.** The negative effect of the phenomenon described in the preceding paragraph is made even more striking when feedback is given very often while the learner is practicing: while it may lead to short-term improvement, it also tends to create dependency on this kind of feedback, which can impair longer-term learning.
- **In the short-term, “summary feedback” is not as effective as “instantaneous feedback”, but it does lead to superior learning and retention of skills.** Summary feedback is a method of giving feedback after several attempts or repetitions of a task, in such a way as to give (1) an objective view of tendencies observed during the execution of a movement, for example by producing a graph showing how performance varies from one attempt to another; or (2) information about the “average” performance achieved after several repetitions. Compared with “instantaneous feedback” (that is, feedback given after every repetition), summary feedback does not lead to rapid, short-term acquisition of new motor skills; however, it leads to superior long-term learning and better retention of skills
- **To promote learning, feedback should only be given when the difference between the athlete’s performance and the desired result requires it.** Bandwidth feedback refers to the practice of providing feedback only when performance is outside an acceptable range of correctness, for instance, when it falls outside a range of + or – 25% of the acceptable “target result”. The “target result” can be either the form of the movement or the precision of the execution. Motor learning research indicates that using a relatively large bandwidth is beneficial for learning. This tends to (1) reduce the frequency at which feedback is provided; (2) promote summary feedback whereby the participant may be encouraged to compare less successful attempts with those that fell within the “acceptable range of performance”; and (3) develop a degree of autonomy and ability to engage in self-analysis of performance by the athlete. In this last case, the coach may ask the athlete to compare his/her self-analysis with the information given by the coach about correct or incorrect execution of the task.

Another aspect that has been studied recently is the nature of the feedback given to the learner. Among other things, researchers have sought to determine what participants should be told to focus on during the execution of a motor activity: (1) on the way the movement is performed (internal focus); or (2) on some external focus, or on the anticipated effects of the action (external focus). Major research findings in this area are summarized on the next page.

- **To promote greater learning, feedback should direct the attention of the learner towards some external focus of attention or on the anticipated effects of the movement rather than on the way the movement is performed.** When a movement is being performed, focussing too much attention on the way it is being executed (for example, thinking about the exact position of the elbow, and the flick of the wrist at the end of the movement) may delay motor learning. During the execution of the movement, it seems to be more effective to draw the athlete's attention to some external element, (e.g., the target to hit, or the expected outcome of the movement like the particular trajectory to impart to a ball) rather than internal elements (e.g., feeling each phase of the movement during its execution). Research on this topic is known as "focus of attention". There is good evidence to suggest that the type of feedback directed towards an external focus of attention has a positive impact both on the short-term performance (during the session) and the longer-term, so it promotes both learning and retention of skills. Furthermore, feedback directed towards an external focus of attention appears to be effective for most sport skills, whatever the level of the athlete. Finally, the effectiveness of this type of feedback does not appear to have any negative effect on the movements themselves; in other words, the quality of execution does not seem to be negatively affected
- **If possible, external focus should be directed towards an element or an anticipated effect that is far away from the performer.** Current research suggests that the most effective approach requires the learner to focus on an expected outcome situated as far as possible from the athlete's body, but which can nevertheless still be directly linked to the movement itself.

<i>Examples of Situations that Refer to an Internal Focus of Attention</i>	<i>Examples of Situations that Refer to an External Focus of Attention</i>
Concentrating on ... • the force exerted <u>by</u> a certain body part during movements • keeping a specific part of the body in a certain position during movement • paying attention to the arms position during a golf shot • focussing on feeling the movement during a tennis shot	Concentrating on ... • the force exerted <u>on</u> an object or implement during movements • keeping a specific object or implement in a certain position during movement • paying attention to the pendulum-like action of the club during a golf shot • focussing on the trajectory of a ball and its landing point during a tennis shot.

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Appendices

Appendix 1 – Intervention Skills

The most important intervention skills recognized by the majority of researchers are the following:

Planning

1. The content of the session must have some relation to the overall program.
2. The coach must know his/her stuff.
3. The objectives of the practice must be clearly defined.
4. The key elements of the practice and criteria for success must be clearly defined.
5. Exercises must be varied and progressive.
6. Exercises must be adapted to the level of the athletes.

Organization

1. Ensure there is enough appropriate equipment.
2. Choose the right formation for explanations and demonstrations.
3. Be stimulating and lively (have fun!).
4. Be sure that the practice area is safe throughout the session.

Giving information

1. Explanations must be brief and clear.
2. Explanations must be complete (organization of the group, how the practice will go, the duration of the practice, etc.).
3. The context must be appropriate (quiet, respectful: the learner must be paying attention in order to learn, but must also be open to receiving and assimilating the explanation being given).
4. The coach must be in the right position during the explanation, i.e. in front of the group; the participants/athletes may be standing or sitting in a semi-circle in front of the coach.
5. The words used must be correct and adapted to meet the needs of the targeted group (don't use words or terminology that only you know).
6. Delivery must be controlled: speak slowly, loud enough and with enthusiasm; ask the participants/athletes if your voice carries well enough.
7. Demonstrations serve above all to create a mental picture of the movement. Obviously, this picture must be as accurate as possible, as it is the basis of all learning. A good demonstration has the following characteristics: the movement is well-executed, the timing is right, the demonstration is carried out in the right place, and everyone can see it.
8. Give clear instructions such as: "Make as many passes as possible in the time given, and keep moving!"
9. Ask questions to check whether your instructions have been understood, for example, "What must you do during this drill?"
10. Check that the participants/athletes have understood the object of the exercise before letting them go back into a game situation.

Managing the group

1. Ensure that the participants are aware of the rules to follow and the code of conduct.
2. Be sure to inform the participants/athletes of the rules, and of the consequences of not following them; the consequences must be reasonable and take into account the age of the participants/athletes, and the nature of the infraction.
3. Watch out for signs of indiscipline, and react quickly and appropriately to this kind of behaviour.
4. Apply the rules and impose the appropriate penalty for breaking the rules (which you have already established).
5. Adapt quickly to maintain control of the group at all times.

Observation

1. Pick your spot and move around to see all the participants/athletes. By maintaining good visual and auditory contact, it is possible to know what is really happening in the group. Constant scanning of the group is the basis for sound observation. Visual contact is the primary way of capturing attention. Although it is important to watch, you must also think about what is going on. You must learn to recognize signs of boredom, disagreement, tiredness, so that you can deal with them quickly.
2. You must learn to pick up indications or signs of sound execution – or the lack of it – and intervene quickly to correct the situation when you need to.
3. When you give feedback, remember the following criteria:
 - ⇒ Specific, not general
 - ⇒ Positive and constructive, not destructive or negative
 - ⇒ Focus on behaviour that can be improved
 - ⇒ Clear and informative
 - ⇒ Sandwich approach: positive comments on what the participant/athlete is doing well, things to work at, encouragement or some other positive aspect

Note: *Although feedback is important, don't overdo it, as it is important to allow participants/athletes to practice and perform without intervention or constant interruption.*

Conclusion

The competence of the coach can be assessed on the basis of the following criteria:

- ⇒ The ambiance created in the practice session
- ⇒ The amount of motor activity of the participants/athletes
- ⇒ The participants/athletes' learning

Appendix 2 – Creating a Positive Learning Environment: General Principles

1. Interact more with the participants/athletes who need it most

Feedback from the coach is intended to inform and encourage athletes who may have limited skills, and who, by definition, find it difficult to execute the skills correctly.

2. Ensure that participants/athletes are actively involved

Too long a time spent organizing the group and the equipment, and, similarly, long periods of inactivity during the practices may lead to loss of interest by the participants/athletes and lead to a lack of discipline.

3. Adapt the degree of difficulty of the practices to the abilities of the participants/athletes

Practices must involve tasks that create a degree of uncertainty in the participants/athletes, i.e. they must have the impression, but not be absolutely certain, that they are able to execute the task correctly. This kind of task presents them with an interesting challenge.

4. Define what successful performance looks like

Without clear objectives to achieve and when they do not know how they are doing, participants/athletes live in a climate of uncertainty and ambiguity which may promote dependency on the coach, or loss of interest in the activity.

5. Give specific and constructive feedback

Coaches must give specific information that will lead the participants/athletes to think. It is better to avoid sharp criticism, as it is well known that this can have a negative influence on learning and the development of the person.

6. Do not allow a few participants to monopolize attention

It is important to recognize that certain participants/athletes condition the coach to react the way they want, and end up expecting all the coach's attention. Add to this phenomenon the fact that every coach likes some participants/athletes more than others, and it is not surprising to discover that other people feel left out and badly treated when this occurs.

7. Improve the scope of feedback

When coaches give feedback to participants/athletes, they often use stereotypical messages, which often become repetitive and little more than habitual statements. Sometimes you need not give any feedback. The quality and credibility of the feedback are more important than the quantity.

Appendix 3 – Effective Communication

If the coach is to establish a good working relationship with the participants and other coaches involved in the project (at practice sessions, meetings, and at any other time), he/she must develop good communication skills. This section provides some practical suggestions for improving communication skills.

Effective Communication

Personal

1. Know yourself, both as a coach and as a person.
2. Know your preferred communication style (analytical, dynamic, pleasant, expressive), and choose the appropriate one(s) for your target group.
3. Be aware of the importance of the non-verbal aspects of communication: when you are a coach, people look at you! Participants and athletes notice your slightest movements and gestures. Non-verbal language represents around 80% of all communication. Your verbal language must not contradict your non-verbal language; rather, they should be complementary. For example, if you say: "Let's take the time we need to do this practice properly", but you are constantly looking at your watch, you are sending two contradictory messages.

Effective Communication (cont'd)

- 4.
5. Create opportunities to listen to and communicate with other people.
6. Pay real attention to and take genuine interest in the person you are speaking to.
7. Accept the fact you will probably have to clarify and repeat whatever you say often during the season. You may have to say the same thing in several different ways and use different words before the message is truly understood and acted upon.
8. Show that you listen actively and ensure you understand the message you are receiving. Active listening suggests that you ask for clarification whenever necessary, and that, on occasions, you may repeat what you have heard to be sure that you have understood the other person, for example, "When you said....., did you mean.....or.....?" or "If I understand what you said, now you are going to.....".

Ambiance

1. Create a positive ambiance based on confidence, be patient, tolerant, and show empathy towards others.
2. Create a positive environment for communication (appropriate location, absence of noise, discreet, etc.). If it's not possible to spend time with the other person, make an appointment with him/her for another time, for example, after practice.

Interpersonal

1. Respect the differences and particularities of every individual.
2. Be open with other people, right from the beginning of the relationship.
3. Clearly identify expectations in front of participants and athletes.
4. Describe how you meet these expectations.
5. Describe the attitudes and behaviours you expect to see (a code of behaviour).
6. Communicate a coherent and relevant message to the members of your target group, in terms that they understand.
7. Don't talk too long to the group (before or after the meeting) or in an individual meeting, especially if it is with a young person; be brief and specific.

Appendix 4 – Learning Styles Questionnaire: Athletes/Children

Instruction: Check all the boxes that correspond to your normal behaviours. Complete all three series of questions.

Series 1

- ☐ When I have nothing else to do in the evening, I like to watch television.
- ☐ I need visual images to help me remember names.
- ☐ I like to read books and magazines.
- ☐ I prefer to get written instructions from my professor rather than verbal ones.
- ☐ I write down what I have to do.
- ☐ When I cook, I stick closely to the recipe.
- ☐ I have no difficulty putting together models or toys as long as I have written instructions.
- ☐ Scrabble is my favourite game.
- ☐ My outward appearance is important to me.
- ☐ I like to go to museums and exhibitions.
- ☐ I keep a journal and I keep a written record of what I have done.
- ☐ I often look at the photos and works of art used in advertisements.
- ☐ I revise for my exams by making a summary of the essential points.
- ☐ I find my way easily in a new place provided that I have a map.
- ☐ I like my bedroom to be very neat and tidy.
- ☐ I go to see at least two films a month.
- ☐ I don't think much of people who are badly dressed.
- ☐ I like to watch people.
- ☐ I always get the scratches touched up and fix the broken parts on my bike.
- ☐ I think fresh flowers really brighten up a house or office.

TOTAL for series 1: _____

Series 2

- ☐ In the evening, when I have nothing else to do, I like to listen to music.
- ☐ When I need to remember someone's name, I repeat it over and over again.
- ☐ I like long conversations.
- ☐ I prefer my professor to explain something to me verbally rather than in writing.
- ☐ I like listening to conversations and interviews on the radio and television.
- ☐ I make up rhymes to help me remember things.
- ☐ I listen well.
- ☐ I prefer to keep up with the news by listening to the radio, rather than by reading about it.
- ☐ I talk to myself a lot.
- ☐ I prefer to listen to an audiocassette describing a piece of equipment rather than read the directions.
- ☐ I don't like it when my bicycle makes strange noises (clicking, grinding, etc.).
- ☐ I learn a lot about a person by listening to his/her voice.
- ☐ I buy lots of CDs, videocassettes and DVDs.
- ☐ I revise for my exams by reading my notes out loud or by discussing with other people.
- ☐ I would prefer to make an oral presentation for a class rather than write an essay on the topic.
- ☐ I like to go to music concerts.
- ☐ Sometimes, people say I talk too much.
- ☐ When I am in a place I don't know, I like to ask the way in a gas station.
- ☐ I talk to my cat or dog.
- ☐ I solve a math problem by saying it out loud.

TOTAL for series 2: _____

Series 3

- ☐ I like physical education classes.
- ☐ I can recognize things by touch when my eyes are covered.
- ☐ I always follow the beat when I hear music.
- ☐ I like to live outdoors.
- ☐ I am well coordinated.
- ☐ I tend to lose weight easily.
- ☐ I buy clothes that feel good to touch.
- ☐ I like to pet animals.
- ☐ I physically touch people I am talking with.
- ☐ I learned touch-typing quickly when I was learning to type on my computer.
- ☐ People picked me up and touched me a lot when I was a child.
- ☐ I prefer to participate in a sport rather than watch it.
- ☐ I like to take a warm bath at the end of the day.
- ☐ I love massages.
- ☐ I am a good dancer.
- ☐ I am a member of a gym or health club.
- ☐ I like to get up and stretch a lot.
- ☐ I can tell a lot about a person by the way he/she shakes my hand.
- ☐ My body gets tight at the end of a hard day.
- ☐ I like crafts and manual labour, and/or to build things.

TOTAL for series 3: = _____

TOTAL for series 1 (visual) = _____

TOTAL for series 2 (auditory) = _____

TOTAL for series 3 (kinesthetic) = _____

Appendix 5 – Preferred Learning Style Checklist

Discover your preferred learning and self-expression style.

This checklist assesses the strengths of your senses – auditory, visual, and kinesthetic.

There are ten incomplete sentences and three choices for completing each sentence. You are asked to score the three choices for each sentence as they apply to you. Score (3) points for the choice that applies to you, score (2) for your second choice, and (1) point to the answer that is least typical of you.

The Checklist

1. When I learn something new, I usually...
 - a. () want someone to explain it to me.
 - b. () want to read about it in a book or magazine.
 - c. () want to try it out, take notes, or make a model of it.
2. At a party, most of the time I like to...
 - a. () listen and talk to two or three people at once.
 - b. () see how everyone looks and watch the people.
 - c. () dance, play games, or take part in some activities.
3. If I were helping with a musical show, I would most likely...
 - a. () write the music, sing the songs, or play the accompaniment.
 - b. () design the costumes, paint the scenery, or work the lighting effects.
 - c. () make the costumes, build the sets, or take an acting role.
4. When I am angry, my first reaction is to...
 - a. () tell people off, laugh, joke, or talk it over with someone.
 - b. () blame myself or someone else, daydream about taking revenge, or keep it inside.
 - c. () make a fist or tense my muscles, take it out on something else, hit or throw things.
5. A happy event I would like to have is...
 - a. () hearing thunderous applause for my speech or music.
 - b. () photographing the prized picture of a sensational newspaper story.
 - c. () achieving the fame of being first in a physical activity such as dancing, acting, surfing, or sports events.

6. I prefer a teacher to...
 - a. () use the lecture method with informative explanations and discussions.
 - b. () write on a chalkboard, use visual aids, and assign readings.
 - c. () require posters, models or in-service practice and some activities in class.
7. I know I talk with...
 - a. () different tones of voice.
 - b. () my eyes and facial expressions.
 - c. () my hands and gestures.
8. If I had to remember an event so that I could record it later, I would choose to...
 - a. () tell it aloud to someone else or hear an audio tape recording or a song about it.
 - b. () see pictures of it or read a description.
 - c. () replay it in some practice rehearsal using movements such as dance, play-acting, or drill.
9. When cooking something new, I like to...
 - a. () have someone tell me the directions – a friend or television show.
 - b. () read the recipe and judge how it looks.
 - c. () use many pots and dishes, stir often and taste-test.
10. In my free time, I like to...
 - a. () listen to the radio, talk on the telephone, or attend a musical event.
 - b. () go to the movies, watch television, or read a magazine or book.
 - c. () get some exercise, go for a walk, play games, or make things.

Add up all your scores for your (a) choices _____ Auditory

Add up all your scores for your (b) choices _____ Visual

Add up all your scores for your (c) choices _____ Kinesthetic

Look over your scores for each style. The range should be from 10 to 30, and together they will total 60.

Each of us learns through all three styles. A number of us have a preferred or dominant learning style.

Appendix 6

General Observations and Recommended Teaching Methods for Visual, Auditory, and Kinesthetic Learners

VISUAL LEARNERS

General Observations

1. They often do better when you show them rather than tell them. They may have difficulty getting directions orally.
2. They may have difficulty with oral directions, or appear confused with a great deal of auditory stimuli.
3. They have tendency to watch your face when they are read or spoken to.
4. They like to look at books and pictures.
5. They like things orderly and neat. They often dress in an attractive manner.
6. They can generally find things that are lost and seldom misplace their own things.
7. They often can recall where they saw something some time ago.
8. They notice details. They are good proofreaders; see typing errors, notice if your clothing has a flaw.
9. They can find pages and/or places in a book quite easily.
10. They often draw reasonably well – at least with good balance and symmetry.
11. May use minimal words when responding to questions; may rarely talk in class.

Recommended Teaching Methods

1. Give visual directions and demonstrations as often as possible.
2. Use visual aids such as film, videos, images, overheads, books, magazines, slides, panel boards, etc.
3. Use color-coding systems and highly visual aids.

AUDITORY LEARNERS

General Observations

1. They are often referred-to as a “talker”, and are seldom quiet. They tell jokes, tall tales, and are full of excuses why something is not done.
2. They follow oral instructions easily.
3. They may have difficulty with written work and copying. They often have rather poor handwriting, drawing and other art work. They have trouble reproducing seen figures and letters, and generally they have poor visual memory.
4. They remember spoken words or ideas quite well. They may answer better when questions are explained to them verbally compared to when they must read them.
5. They like musical and rhythmic activities.
6. They tend to memorize easily, and they often know all the words to songs.
7. They may appear physically awkward. They often have a poor perception of space and may get lost in unfamiliar surroundings.
8. They often have poor perception of time and space and often do not keep track of time easily.
9. They often have mixed laterality (left hand – right footed)

Recommended Teaching Methods

1. Teach them to talk through the steps in a task or activity.
2. Encourage them to think out loud, and listen to what they are saying.
3. Utilize tape-recorded instruction for information and/or examination.
4. Use lots of audio equipment in the learning process.
5. Pair the individual with a visual learner.

KINESTHETIC-TACTUAL LEARNERS

General Observations

1. They often are quite literally a “mover”, and considered hyperactive.
2. They appear to want to feel and touch everything, rub their hands over objects; they can't keep hands to themselves
3. They are usually quite well coordinated.
4. They enjoy doing things with their hands. They like to take things apart and to put things together.
5. They may truly enjoy writing things down.
6. They utilize concrete objects as learning aids, especially those that can be manipulated easily
7. They learn best by doing and exploring the environment.

Recommended Teaching Methods

1. Use movement exploration.
2. Have them tap tempos.
3. Use all the concrete, manipulative devices possible in the teaching/learning mode.
4. Employ role playing where possible.
5. Let them assist you in creating learning aids.

Step 6 – Getting Ready to Race

An Introduction To Mental Preparation

What Is Mental Preparation And Why Is It Important?

As a coach, athlete, or parent, you may have asked yourself one of the following questions at one time or another, or heard others discuss them:

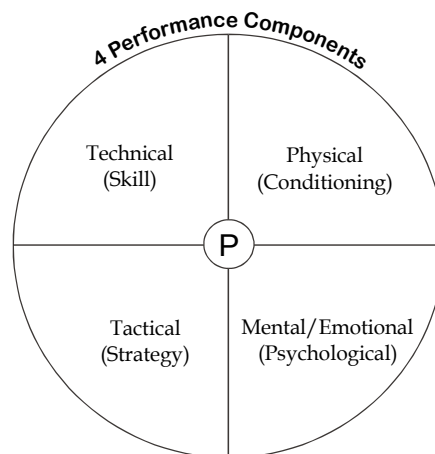
- *Why do some athletes perform better than others who seem to have greater technical and physical abilities?*
- *Why do some athletes perform perfectly in practice, but fail to meet their expectations in competition?*
- *Why are some athletes able to put forward a best-ever performance at a very critical moment, while others seem to “choke” or perform well below their capabilities “when it really counts”?*

By and large, the answers to these questions lie in the area of mental preparation. Mental preparation is about training the mind to work with the body in a variety of sport situations, and training it *not to work against it*.

Performance Components

As illustrated in the chart below, there are four major components that influence sport performance; the ability of an athlete to do well in competition is a result of adequate preparation in all four areas.

Failure to adopt a *balanced approach* or to address certain components may leave athletes with a deficit that results in less than optimal performance; one of the most common deficit areas is a lack of mental preparation. Successful coaches and athletes often report that purposeful and planned training in the area of mental preparation was instrumental to their accomplishments.



Ideal Performance State (IPS)

Every athlete has an *Ideal Performance State (IPS)*, that is a state in which he/ or she is completely prepared and poised for perfect performance; the IPS is a reflection of the athlete's preparation in all the key areas outlined in the previous diagram. Planning for and engaging in the development of mental training skills with the athletes you coach is therefore critical to helping them achieve their IPS at key competitions.

Mental Strategies Used By Successful Athletes (Weinberg and Gould, 1999)

- To enhance confidence, successful athletes practice specific strategies to deal with adversity during competition.
- They practice routines to deal with unusual circumstances and distractions before and during competition.
- They concentrate wholly on the upcoming performance, blocking out irrelevant events and thoughts.
- They use several mental rehearsal methods prior to competition.
- They don't worry about other competitors before a competition, focusing instead on what they can control.
- They develop detailed competition plans.
- They learn to regulate arousal and anxiety.

Though the table above describes general tendencies of successful athletes, each athlete is unique, and it is only by developing each athlete's skills and attributes that he/she can perform to potential.

The Role Of The Coach In Helping Athletes Being Well-Prepared Mentally

The Role Of The Coach In The Area Of Mental Preparation

The coach's responsibilities in the area of mental preparation include:

- Building a psychologically healthy environment with the athletes.
- Learning and teaching basic mental skills to the athletes as part of regular training, or finding someone who can assist in this area of preparation.
- Assisting athletes to integrate mental skills training into their performance preparation.
- Helping the athletes prepare for all possible events and situations.
- Mapping out a journey to success through goal setting with the athletes.

Although you can set up the framework, conditions, and process by which the athletes you coach can develop their mental abilities, the athletes will only be successful in the long term if you help them develop independence and self-direction in all areas of mental preparation.

A psychologically healthy environment is one that:

- Provides opportunity for fun and enjoyment through challenge and success.
- Allows for self-expression and shared humour.
- Encourages self-reflection as a means for effective learning.
- Recognizes that caring for the athletes' needs is all-important.

Considerations On Selecting Athletes

(from Designing a Sport Program: Introduction to Competition Alain Marion, M.Sc. – Director, National Coaching Certification Program (Coaching Association of Canada).

General Considerations

Most coaches must, at one point or another, make decisions about the selection of athletes. The goal of these decisions can be to identify those who: (1) will be chosen for a team; (2) will take part in a particular competition; (3) will go with the team to a tournament; and/or (4) will have more competitive opportunities.

These decisions are often unavoidable due to restrictions on the number of athletes who can register for certain competitions or be part of a team. Even in cases where each athlete/participant can take part in competitions or the club or team has a policy stating that each athlete can take part, it may happen that the financial resources are insufficient to provide everyone with equal support. In either one of these scenarios, the coach can be confronted with the harsh reality of having to select some athletes, and not select others.

Possible Negative Impacts Of Selection

Decisions about the selection of athletes inevitably lead to some disappointment among those who were not chosen or among their parents. Indeed, most athletes will have invested considerable effort and energy to be "picked", to say nothing of the financial investments made by their parents and others. When they learn the news, the athletes might feel they have failed. Some will be afraid of their family and friends' reactions, or even be "ashamed of themselves" after this perceived failure, which might negatively affect their self-esteem. Now and then, the athletes or their parents show some frustration; these negative reactions can even encourage them to change sports or drop out of organized sport all together.

Selection camps therefore constitute a serious task that a coach must carry out professionally.

Suggestion: Make The Selection Procedure And Criteria Public

To minimize the negative reactions that can arise after selecting athletes, the process must not be seen as being improvised, vague, or biased from the outset. A good way of accomplishing this is to make sure that all the athletes/participants, their parents, and the club or sport association directors know exactly when and how the "decision" will be made.

Such an approach implies that you describe the selection procedure and criteria that will be used. In other words, you will have to clearly indicate *when* the decision will be made, *who* will make it, *how* it will be made, *how many* athletes will be chosen and on *what criteria* the decisions will be based. Other information, e.g., the place (when necessary), the opportunities available in the future for those who were not picked, and the options for appealing a decision can also be part of the procedure and criteria.

Defining the selection procedure and criteria is often more difficult than it appears at first glance given the stakes involved for the athletes, the resulting consequences and emotions, and the numerous unforeseen situations that can arise. It is therefore useful to talk about this subject

with other coaches, experienced directors, and even with the athletes themselves. This will provide you with feedback and ideas from people who often have a wide range of experience with the difficulties involved in trials and who have developed effective ways of managing the process fairly. Even if you have a precise idea of how you want to proceed, the viewpoints of other people can help you refine your procedure and criteria and make them clearer and more explicit.

The selection procedure and criteria should preferably be written out and handed out to the athletes, their parents and the club or sport association directors well before the date you intend to announce your decision. Moreover, you might consider having the procedure and criteria approved by the athletes, parents, and administrators before making your procedure and criteria public. This will provide you with feedback and suggestions and ensure that everyone has understood the implications of what was announced.

Aspects to Consider When Writing up the Selection Procedure and Criteria

When you are writing up the selection procedure and criteria, you should consider the following aspects:

- Do not conduct trials unless you are obliged to do so, and encourage the largest possible number of athletes to take part in the program activities. Do not be afraid to call into question certain well-established practices whose main effect is to discourage young people and reduce their development opportunities. For example, consider forming more than one team or more than one training group when possible, and take on some assistants.
- If you absolutely have to carry out trials, make sure that their timing is well chosen, so as not to interfere with the main principles of athletic development. Moreover, avoid selecting athletes very early in the program. The latter is not recommended in programs involving young athletes/participants for the following reasons: (1) an early emphasis placed on specific preparation and program performance is detrimental to a more progressive approach to training which focuses on long-term development; (2) the athletes who have not done any specific training during the off-season, or who have participated in other sports, are often at a disadvantage compared to those who have been involved in sport-specific training all year, even when they have high athletic potential. Selecting athletes at the beginning of the program encourages an early specialization, and emphasizes results too early in the season, which is not desirable in the perspective of the long-term development of young athletes.
- The selection criteria must reflect the values and development objectives of the coach, club, and sport association (e.g., participation, equal opportunities for everyone, performance, progress, effort, attitude, etc.)
- The procedure and criteria must be simply and clearly described and have no "grey zones". Everyone must unequivocally understand the "how, when, and where" as well as other information dealing with the number of athletes/participants who will be picked and the person or group in charge of decision-making. Complicated phrasing that no one can understand should be avoided.

- Whenever possible, the criteria should include objective elements, such as specific performance standards, a point system, statistics dealing with important aspects of your sport, results during previously identified competitions, etc. Such an approach will make it possible to avoid situations where athletes feel excluded from the outset and feel they have no chance of being picked because a given person is in charge of the selection process. This type of criteria must also appear to be fair and reasonable to the majority of participants.
- Make sure that your criteria cover the most likely scenarios and possibilities. For instance, what happens if one of the athletes/participants is sick or injured, breaks equipment during one of the trial stages, or cannot be present for an unavoidable reason? Moreover, what constitutes an injury or an unavoidable reason? What happens in the case of a tie or if one of the preliminary trials is not held? What happens if one of the athletes who has systematically dominated has a poor performance? Or if certain athletes/participants who are showing considerable potential are not yet able to perform at the required level, despite the fact that, in the weeks to come, they will undoubtedly surpass others who might be picked at selection time? "Crossing your fingers" and hoping that this type of situation will not happen is not a good strategy, since experience shows that this kind of dilemma occurs fairly frequently. One of the possible options is to prepare for these possibilities by indicating in the criteria that a certain number of athletes/participants will be picked "at the coach's discretion". In other words, they will be picked based on your personal evaluation of their current or future aptitudes, their level of commitment, and their attitude. However, you should expect to be asked to justify any choices based on the "coach's discretion"...
- Make sure that the criteria are identically explained to each athlete, to other coaches, parents, and members of the team or club's support personnel. A scenario in which different and incompatible selection approaches are presented separately to different people must absolutely be avoided, since the resulting differences in understanding and expectations may later prove impossible to reconcile and carry out.
- When appropriate, you might indicate that the criteria were developed to identify athletes who have a particular profile or who demonstrate precise performance skills or aptitudes. This can allow you to provide additional explanations as to why such or such criteria are used. In such a case, it could be useful to refer to certain facts or statistics in order to justify the choice of criteria.
- Once the criteria are made public, you will have to stick to what was announced, even if the implementation of the procedure and criteria create some surprises as to which athletes are selected. In this way, you will prove your integrity and credibility in other people's eyes. This possibility shows how important it is to seriously think about the procedure and criteria used in selecting athletes.

Suggestions for Managing Selection Announcements and Promoting the Confidence and Self-Esteem of Non-Selected Athletes/Participants

- Once your decision has been made, meet individually and as quickly as possible with each non-selected athlete to tell him/her about your choice. Avoid making public or delayed announcements, or relaying the information to an athlete through a third party.
- You should do the following when you meet with the athlete:
 - ❑ Reassert his/her strong points.
 - ❑ Praise his/her participation and efforts.
 - ❑ Go over the selection criteria and the way you applied them.
 - ❑ Avoid comparing the athletes/participants during the discussion.
 - ❑ Provide simple, precise and constructive improvement strategies.
 - ❑ Take the drama out of the trials. Remind him/her that there will be other opportunities and that the most important thing is not the final result but to have tried one's best.
 - ❑ Encourage him/her to continue and persevere. Express your confidence in him/her.
 - ❑ Acknowledge his/her emotions, and be ready to listen to them.
 - ❑ Respect his/her dignity at all times.
 - ❑ Actively seek his/her comments and reactions, and respect his/her viewpoint.
 - ❑ Before proceeding with the announcements, find out about the possible alternatives for those who have not been picked so that you can suggest options to them. For instance, provide them with the phone number of another coach who could take them into his/her program.
 - ❑ Make sure that he/she learns a positive lesson from the experience. End up on a positive note by praising, once again, his/her participation and effort and reassert his/her strong points.
- Talk with the parents of each non-selected athlete/participant so as to answer their questions.

NUTRITION FOR SPORT

Preliminary Remarks

A good diet and sufficient intake of fluids are important for health, growth and maturation, and may also have a significant effect on the ability of your athletes to train and perform well in competition. Maintaining good dietary habits plays an important role in establishing a healthy life style. This may also help athletes perform to their best and promote faster recovery, for example when there are several sessions or competitions on consecutive days.

On the other hand, you do have to be realistic about how much you can influence your athletes' diet. The determining factor is more likely to be the involvement of the athletes' parents: they are usually the ones who decide the type of food eaten at home and the way it is prepared, both on a day-to-day basis and for meals before or after training or competition.

This module is not trying to make you an expert in sports nutrition! You will find information and simple, practical recommendations about diet and hydration before, during and after activity, both in practice and in competition. These recommendations will help you inform and influence your athletes and their parents on (1) the importance of a good diet and hydration, and (2) how to put in place simple steps which will be useful for both the general good health of the athletes and their performance.

Specific problems like weight-management, special diets, commercial products, combining foods based on their glycemic index, vegetarianism and eating disorders are well beyond the scope of this module. If you have questions on these topics, or if you are not sure what to recommend in certain situations, do not hesitate to consult an expert in sports nutrition.

Be aware of how much influence you can have on your athletes and their parents, and avoid making comments that could be misinterpreted, for example on an athlete's weight or size; if you are not an expert in sports nutrition, avoid giving advice on how to lose or gain weight. It could do more harm than good. Once again, it would be useful to consult an expert. For more information on sports nutrition, consult the Coaching Association of Canada website <http://www.coach.ca>.

Section 1:

General Recommendations Concerning Athlete Nutrition

General Recommendations

Concerning Athletes' Nutrition

1.1 Nutritional Needs of Athletes

An athlete's diet must be well balanced, supplying adequate energy and nutrients for optimum performance and providing for the repair and maintenance of tissues and for growth.

The nutritional needs of an athlete in training are not significantly different from the requirements of all healthy individuals. However, athletes should pay attention to the following:

- (1) **Eating a variety of foods** – foods from each group should be eaten every day (grain products; vegetables and fruits; milk products; meats and alternatives)
- (2) **Sufficient energy intake** – there must be adequate dietary intake to meet the energy demands of training, competition, and body weight maintenance. Energy requirements vary according to age, gender, body composition, and amount and type of physical activity (related to exercise intensity and volume). In general, judged sports, such as gymnastics, diving, skating, and equestrian require less energy than endurance events like triathlon, swimming, cycling, cross country skiing, road racing, speed skating, etc.
- (3) **Sufficient carbohydrate intake** – provided by the “grain products” food group, carbohydrate is the main energy source athletes rely on in most sports. Whether they are involved in high-intensity, short duration events or in endurance events, athletes use carbohydrate as their main source of energy. Carbohydrate stored in muscles can be depleted after 75 – 90 minutes of moderate to high intensity activity.
- (4) **Sufficient fluid intake** – the need for water increases during exercise because of the loss of fluid caused by sweating and increased ventilation. This is important for all sports, including water sports, as dehydration can lead to a marked decrease in performance.
- (5) **Sufficient protein intake** – an athlete requires slightly more protein than a sedentary person in order to provide for adequate maintenance of muscle mass and repair of tissues.

1.2 Canada's Food Guide to Healthy Eating

What Is Canada's Food Guide to Healthy Eating?

Canada's Food Guide to Healthy Eating reflects the dietary guidelines of the *Nutrition Recommendations* (1990), which describe the dietary model that would supply recommended levels of essential nutrients while reducing the risk of chronic disease. *Canada's Food guide to Healthy Eating* translates the *Nutrition Recommendations* into concrete advice to the Canadian public.

Canada's Guidelines for Healthy Eating

The following guidelines were developed as the key messages to be communicated to healthy Canadians:

1. Enjoy a VARIETY of foods.
2. Emphasize cereals, breads, other grain products, vegetables and fruit.
3. Choose lower-fat dairy products, leaner meats and food prepared with little or no fat.
4. Achieve and maintain a healthy body weight by enjoying regular physical activity and healthy eating.
5. Limit the intake of salt, alcohol and caffeine.

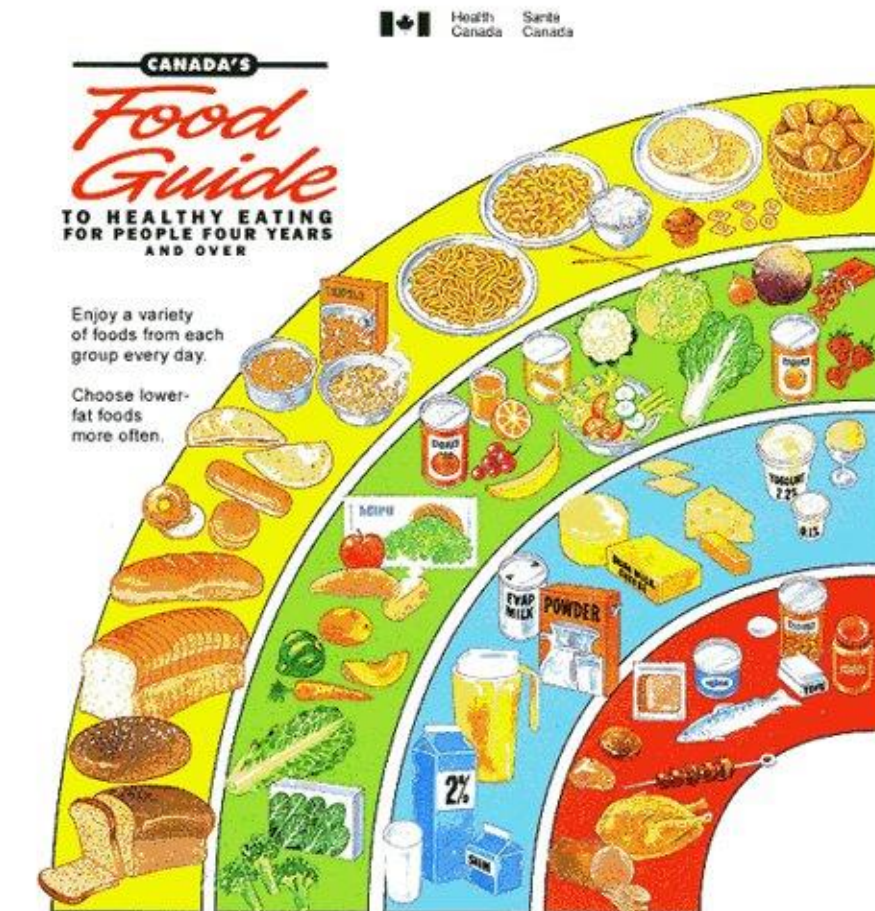
The following page shows a figure outlining the main recommendations of *Canada's Food Guide to Healthy Eating*. In this figure, all four food groups are represented: (1) Grain products; (2) Vegetables and fruit; (3) Milk products; (4) Meats and alternatives

The figure also provides recommendations concerning the number of servings of each food group that should be consumed each day, and shows examples of what constitutes a "serving" in each food group.

For more information concerning *Canada's Food Guide to Healthy Eating*, consult the following Web site:

http://www.hc-sc.gc.ca/hpfb-dgpsa/onpp-bppn/food_guide_rainbow_e.html

Canada's Food Guide to Healthy Eating

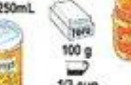
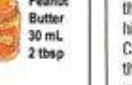
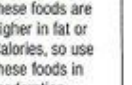


Grain products (carbohydrate): Choose whole grain and enriched products more often.

Vegetables and fruit: Choose dark green and orange vegetables and orange fruit more often.

Milk products: Choose lower-fat milk products more often.

Meat and alternatives (proteins): Choose leaner meats, poultry and fish, as well as dried peas, beans

Grain Products 5-12 SERVINGS PER DAY	1 serving  1 Slice  Cold Cereal 30 g  Hot Cereal 175 mL 3/4 cup 2 servings  1 Bagel, Pita or Bun  Pasta or Rice 250 mL 1 cup
Vegetables and Fruit 5-10 SERVINGS PER DAY	1 serving  1 Medium Size Vegetable or Fruit  Fresh, Frozen or Canned Vegetables or Fruit 125 mL 1/2 cup  Salad 250 mL 1 cup  Juice 125 mL 1/2 cup
Milk Products Servings per Day Children 4-9 years: 2-3 Youth 10-16 years: 3-4 Adults: 2-4 Pregnant and Breast-feeding Women: 3-4	1 serving  250 mL 1 cup  3"x1"x1" 50 g  2 Slices 50 g  175 g 3/4 cup
Meat and Alternatives 2-3 SERVINGS PER DAY	1 serving  Meat, Poultry or Fish 50-100 g  1/3-2/3 Can 50-100 g  1-2 Eggs  Beans 125-250 mL  Peanut Butter 30 mL 2 tbsp  Tofu 100 g 1/3 cup
Other Foods Taste and enjoyment can also come from other foods and beverages that are not part of the 4 food groups. Some of these foods are higher in fat or calories, so use these foods in moderation.	

Each food to the left represents a portion for the food group in question.

1.3 Sample Diets for Different Types of Sports

The following table identifies three different action plans based on *Canada's Food Guide to Healthy Eating*. The appropriate dietary action plan should supply adequate energy to meet an athlete's current training demands. The number of recommended servings represents **minimum quantities**. Growth, gender, and body size also influence energy needs.

	SELECT AN ACTION PLAN		
FOOD GROUP	ONE	TWO	THREE
Refer to <i>Canada's Food Guide to Healthy Eating</i> for examples of servings from each food group	For athletes in judged sports, such as gymnasts, divers, and figure skaters NO ATHLETE SHOULD EAT LESS THAN THE MINIMUM # OF SERVINGS.	For most athletes, including players in team sports	For endurance athletes e.g., swimmers, cyclists competing in road-racing, cross country runners or skiers, triathletes, speed skaters.
GRAIN PRODUCTS	Minimum of 5 servings	8 servings or more	15 servings or more
VEGETABLES AND FRUIT	Minimum of 5 servings	8 servings or more	15 servings or more
MILK PRODUCTS	Adults – 3-4 servings Teens – 3-4 servings	Adults – 3-4 servings Teens – 3-4 servings	Adults – 3-6 servings Teens – 3-6 servings
MEAT AND ALTERNATIVES	Minimum of 2 servings	2 servings	2-4 servings
OTHER FOODS	Minimize – there just isn't room for extra energy coming from foods without many nutrients.	Choose in moderation after you have enough servings from the other food groups.	If you are finding it difficult to eat a large enough volume of food to meet your energy needs, extra sweets and fats can be added.

Section 2:

Dietary Intake Pre-Competition Or Before Intense Activity

2. Dietary Intake Pre-Competition or Before Intense Activity

2.1 Priorities for a Competition Day

On a competition day, the aim is to ensure proper hydration and sufficient energy to allow the athlete to meet the demands of the activity. As a result, the focus should be on ensuring:

- the amount of food consumed is appropriate given the type of effort to be performed
- the majority of food ingested is carbohydrate
- the fat content of the food ingested is low
- enough water is drunk

2.2 Recommended Foods

General Characteristics

Rich in carbohydrate - The pre-event meal must be high in carbohydrate (65-70% of total calories consumed). Fat and protein, which take longer to digest, should be consumed in smaller amounts. For instance, pasta, rice, cereals, potatoes, bread, low-fat granola bars, and dry cookies, are all appropriate, as they are easy to digest and absorb.

Familiar - Since pre-competition “nerves” can upset the stomach, athletes should be familiar and comfortable with the food. In other words, they should have tried it before, preferably in pre-exercise or training conditions.

The Best Choices when Breakfast is the Pre-Event Meal

The following are examples of foods that are appropriate for breakfast the day of a competition or during training:

- Cereal – with low-fat milk
- Yogurt – low-fat, plain or fruit
- Fruit
- French toast and/or pancakes – with no added butter or margarine
- Egg dishes – not fried
- Ham or steak – if lean/not fried (small amounts)
- Potato – not fried
- Rice – not fried
- Noodles, Pasta
- Toast – with limited amounts of butter/margarine
- Muffins – try jam or jelly, not butter

- Beverages – Athletes should drink plenty of fluid!
- Bottled water
- Fruit juice – fresh, canned, cartons
- Skim milk, Ovaltine

The Best Choices when Lunch or Dinner is the Pre-Event-Meal

The following are examples of foods that are appropriate for lunch or dinner prior to competition or training:

- Fruit and vegetables, fruit and vegetable juices – fresh, canned, cartons
- Soups – broth-based
- Meat, Fish, Poultry – broiled, roasted, baked, barbecued, poached (reasonable portions; trimmed fat; skin from chicken removed)
- Cold cuts – turkey, chicken, lean beef, lean ham (reasonable portions)
- Meat alternatives – beans, peas, and lentil dishes **if these are familiar foods**; gas produced when these foods are not part of the usual diet can cause discomfort.
- Vegetables – steamed, boiled, baked
- Potatoes – baked, boiled, mashed (without butter/margarine)
- Rice – steamed, plain
- Noodles – plain
- Pasta – plain or tomato or vegetable sauce
- Bread – rolls, crackers, all breads
- Salads – bean, peeled fresh vegetables, fruit salad, low-fat cottage cheese; (small amount of dressing)
- Desserts – fruit, yogurt (low fat), custards, puddings
- Cheese – in moderation

2.3 Foods to Avoid

Characteristics

The following should be limited **prior to competition or training**:

- fatty foods, because they are slow to digest
- protein-rich food, because they are slow to digest and are not needed as fuel during exercise
- alcoholic beverages such as wine, and beer, because they can have a dehydrating effect.

Prior to Competition or Training, the following foods should be avoided – Breakfast

The following foods are high in fat, are difficult to digest, and/or nutrient-poor:

Whole milk, cream
Fried eggs
Side bacon, sausage
French fries, hash browns
Fried rice
Cream or butter sauces
Doughnuts, Danish, pastries
Croissants
Butter, margarine

Prior to Competition or Training, the following foods should be avoided – Snack, Lunch, or Dinner

The following foods are high in fat and/or are nutrient-poor:

Cookies, crackers, chips, granola bars
Cream soups
Fried fish, meat, poultry
Buttered, sautéed, creamed vegetables, or soufflés
Fried potatoes
Butter or cream sauces
Pâté, sausages, processed meats, liverwurst
Potato and macaroni salad, creamy coleslaw
Salad dressing
Pies, ice cream, pastries

2.4 Foods that may not be well tolerated prior to competition or practice and that should be consumed with caution

- Spicy foods may be difficult to digest prior to exertion. (When traveling in other countries, athletes can bring a few favorite spices if they are already used to them.)
- Prior to exercise, fiber-rich foods like whole-grain bread, cookies, and whole-wheat cereals, dried fruits (prunes, etc.) stimulate digestion and induce elimination. These foods should be avoided, especially if the athlete has diarrhea.
- Gas-producing foods like cabbage, broccoli, onions, and carbonated drinks, make some athletes feel bloated.
- Coffee, tea, cola, and chocolate may cause diarrhea, which can have a dehydrating effect.
- Alcoholic beverages can impair performance and have a dehydrating effect. In some sports, alcohol is a banned substance.

2.5 Digestion Period

The meal size and food choices will vary depending on the time between eating and performing. Athletes must allow sufficient time for digestion. High kcal meals, especially those high in fat content, take longer to digest than lighter snacks.

The guidelines below should be used when planning meal times relative to a training session, a competition, or a series of competitions held on the same day. Coaches should be aware of individual tolerance levels for food. Experiment with these guidelines in practice in order to establish an appropriate protocol for each athlete.

- (1) Allow 3-4 hours for a large meal (approximately 500-800 kcal or more) to digest
- (2) Allow 2-3 hours for a smaller meal (approximately 300-500 kcal) to digest
- (3) Allow 1-2 hours for a small snack or blender/liquid meal to digest, or whatever the athlete's own tolerance indicates.

If the athlete will be competing within the next 2 hours, small quantities of carbohydrate are the best choice: fruit, beverages, low-fat crackers, bread, yogurt, and/or well-cooked pasta. The athlete should also drink plenty of water. (When the athlete is traveling, bottled water should be used.)

2.6 Some General Food Safety Advice

The following suggestions apply to food served in cafeterias, and restaurants or prepared for “bag lunches” taken to sport venues:

- Hot dishes (e.g. meat, casseroles, rice) should be served hot (not warm).
- Cold foods (e.g. cold cuts, salads, milk, dessert, sandwiches) should be served cold (not warm).
- If the meals at the venue have NOT been refrigerated, do NOT eat salads prepared with mayonnaise (e.g. macaroni, potato, or creamy coleslaw) or egg-based dishes (including custards).
- Foods should be served either hot or cold, and should be consumed within one hour of preparation.

Section 3:

Hydration

3. Hydration

3.1 Importance of Fluids

Proper hydration is important for all athletes in order to:

- (1) replace water lost as a result of sweating
- (2) avoid marked decreases in performance that result from dehydration
- (3) help maintain core body temperature within acceptable limits during exercise.

3.2 Effects of Dehydration on Performance

Dehydration negatively affects performance and is associated with premature fatigue. This is particularly the case for prolonged aerobic exercises such as distance running or cycling, but athletes competing in team sports or events of short duration can also be affected by dehydration.

Ironically, dehydration reduces the capacity of the digestive system to absorb water. Athletes should not wait until they are dehydrated before they drink, as this slows rehydration and causes gastric cramping.

3.3 Feeling Thirsty and Dehydration Level

It is well established that the sensation of thirst is not a good indicator of an individual's level of dehydration. When thirst manifests itself, approximately 2% of body mass has already been lost. Consequently, one cannot gauge dehydration by referring to the sensation of thirst. Therefore during exercise, it is important to drink on a schedule rather than according to thirst.

If thirst were the only point of reference used for determining fluid needs following profuse sweating, re-establishing optimum hydration could take 24 to 48 hours.

3.4 Drinking Fluids Before Activity

Athletes should drink plenty of fluid every day, particularly before a practice session or competition. Athletes who are well hydrated have the following characteristics:

- (1) sweating begins sooner, and is more abundant
- (2) an enhanced rate of absorption of the fluids consumed during exercise.

In practical terms, this means drinking 1.5–2.5 cups (400–600 mL) of fluid 2 to 3 hours before exercise. This allows time for excess fluid to be excreted as urine before the exercise starts. To ensure complete hydration, consuming 0.5–1.5 cups (150–350 mL) of fluid about 15 minutes before exercise is recommended.

3.5 Drinking Fluids During Activity

Amount of fluids to drink

Athletes should drink enough fluid to maintain fluid balance throughout the exercise. The amount of fluid an individual can tolerate during exercise varies from one person to another, but usually ranges between 10 and 15 mL per kg of body weight per hour. In other words, as the following table suggests, a 60 kg person can absorb between 600 and 900 mL of fluid in an hour, and a 70 kg person between 700 and 1050 mL, etc.

Body weight (kg)	Approximate quantity of fluid absorbed by the body in one hour (mL)	
	from ...	to ...
30	300	450
40	400	600
50	500	750
60	600	900
70	700	1050
80	800	1200
90	900	1350

Rather than drinking large amounts of fluid at one go, it is better to drink 0.5–1.5 cups (150–350 mL) of fluid every 15 to 20 minutes, or as much as one can tolerate without feeling any discomfort.

Athletes rarely consume enough fluid to maximize the absorption capacity of the digestive system or to balance fluid losses. Increased fluid intake during exercise will improve fluid balance for most athletes.

Precautions

To encourage athletes to drink plenty of fluids, have them bring several bottles or containers of water or sport drinks. For reasons of good hygiene, do not allow them to share bottles or containers with other people.

Sport Drinks

Sport drinks containing carbohydrate are recommended for activities lasting more than 60 minutes without interruption. Several studies suggest an improvement in performance as a result of drinking sport drinks, which promote optimal performance by providing both fluids and carbohydrates. When exercise lasts less than one hour, consuming a sport drink will probably not improve performance significantly. In this circumstance, drinking water should be adequate unless it is hot and humid, in which case a sport drink is recommended.

Strategy for Encouraging Hydration in Children

Recent studies show that children's consumption of fluids is increased when drinks contain carbohydrates (40–80 grams per litre) and a little sodium. It is suggested that the coach encourage this type of drink rather than plain water in order to ensure that children take in enough fluids when they exercise in hot weather.

3.6 Rehydration After Activity

After an exercise where sweating has been profuse, it is extremely important to replace fluid. This sensation of thirst is not a good gauge. Consequently, forced hydration is often necessary. It is possible to estimate how much fluid an individual has lost during exercise by weighing before and after the activity. The difference in kg represents the amount of fluid lost, in litres, since one litre of water weighs one kg. For each kg of body weight lost, at least 1.0 litre of fluid plus an extra 0.5 litre should be consumed. It is important to drink more than one litre per kg of body weight lost to account for urinary losses.

The color and amount of urine are an easy way for athletes to monitor their dehydration level. Scanty, dark urine signals a need for more fluid, in which case athletes should force themselves to drink more fluids. Plenty of clear-coloured urine usually indicates adequate hydration.

Section 4:

Strategies to Promote Recovery

4. Strategies to Promote Recovery

4.1 Nutrition Between Competition

When there are two or more competitions on the same day, it is primarily the time available between periods of activity that will determine the quantity and type of food consumed. The principles described in this section, and also those contained in Section 2, should be respected.

In general terms, it is better to consume snacks high in carbohydrates between each competition and wait until the end of the day to consume a more substantial meal. It is also important to ensure that athletes consume enough fluid between each event.

4.2 Recommendations for Replenishing Reserves After Activity

For rapid recovery, it is important that athletes refuel immediately after a practice session or competition, especially if another physically demanding event or training session is scheduled the following day. Athletes should:

- (1) **Drink plenty of fluids:** at least 1.0 liter (4 cups) of fluid per kg of body weight lost during exercise, plus 500 mL is recommended. Refer to Section 3 “Rehydration after activity” for rehydration strategies. To rehydrate between competitions on the same day, follow the guidelines for hydration during activity.
- (2) **Consume carbohydrates soon after activity:** as soon as possible after exercise, preferably within 30 minutes, athletes should consume carbohydrate; this procedure should be repeated every 2 hours until the next meal. This allows muscle energy stores to be replenished at a faster rate than if the athlete waits until mealtime to consume carbohydrate-rich foods. Athletes usually find it easier to consume liquid carbohydrate (fruit juices, sweet drinks, etc.) rather than solid foods, since exercise dulls the appetite.

The following table shows the amount of carbohydrate to consume relative to body weight. Also provided are examples of foods providing approximately 50 grams of carbohydrate.

Body weight (kg)	Approximate quantity of carbohydrate to consume up to 30 minutes after activity and every two hours until the next meal-time
30	45 grams
40	60 grams
50	75 grams
60	90 grams
70	105 grams
80	120 grams
90	135 grams

Examples of foods containing approximately 50 grams of carbohydrate:

- 700 mL of sport drink
- 500 mL of fruit juice or soft drink
- 3 average size pieces of fruit
- a large “Mars” bar
- 3 “muesli” bars
- 2 pancakes with maple syrup
- 60 gram packet of jelly beans or jujubes

Examples of foods containing approximately 50 grams of carbohydrate and 10 grams of protein:

- 300 mL of cold milk
- 400 g of fruit yogourt
- bowl of cereal with milk
- 300 mL of liquid meal supplement
- 2 English muffins with peanut butter

- (3) **The meal after exercise should be high in carbohydrate, adequate in protein, and relatively low in fat.** Carbohydrate-rich foods should constitute the meals and snacks that follow an intense effort; to ensure carbohydrate stores in the muscles can be replenished quickly.
- (4) **Moderate amounts of salt and a few portions of salty foods should be consumed,** for example, tomato or vegetable juice, pretzels, canned soup or bouillon, pickles, ketchup, soy sauce, salsa, cheese, salted nuts.
- (5) **At least three portions of potassium-rich foods (vegetables and fruit) are recommended,** for example, vegetables, potatoes, fruit juices and fresh fruit, dried fruit.
- (6) **Think ahead:** Non-perishable foods can be brought to the competition or training site if food choices are limited there.

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Sport Nutrition Advisory Committee, Coaching Association of Canada

I - PRE-RIDE	II - DURING RIDE	III - FIRST 30 mins AFTER	IV - POST RIDE
MORE THAN 4 HRS BEFORE Normal meal at meal time eg lean meat/fish, vegetables, fruit	DURATION 1 HOUR 2 HOURS 3 HOURS 4 HOURS NO FOOD OR DRINK START feeding by 30 minutes 600- 1000 ml water or sport drink START feeding by 30 mins. 600-1000 ml per hr sport drink OR 1 gel plus 600-1000 water per hr START feeding by 30 mins. 600-1000 ml per hour sport drink OR 1 gel plus 600-1000 ml water per hour TOTAL 3-5 bottles OPTION diluted coke or gel with caffeine in last 30 mins. EAT/ DRINK EAT/ DRINK EAT/ DRINK EAT/ DRINK EAT/ DRINK	RIDE 2 HOURS OR LESS: 1 700 ml bottle sport drink per ride hour RIDE MORE THAN 2 HRS: 1 bottle recovery drink* as soon as possible (10 mins) PLUS 1 more bottle recovery drink for every additional hour (eg 4 hr ride= 2 bottles) * Recovery drink is a special mix or liquid available from many sport drink manufacturers. It includes carbohydrates along with some protein and minerals.	1 HOUR OR LESS: resume normal diet pattern after first 30 minutes post-ride RIDE OVER 1 HOUR: Follow post-race recovery diet for as many hours as you rode. After 30-45 minutes post-ride but before the next regular meal: include raisins, small amount of additional salt, and fresh fruit or pure fruit-based drinks (avoid sweetened fruit drinks) At first regular meal after ride: add boiled/baked potatoes or sweet potatoes to regular meal (lean meat, low fat, vegetables) Continue rehydration: recover to pre-race body weight After post-ride recovery period, resume normal diet

Ready to Race Training Basics Reference Material v 3.1 Feb 09

ASSOCIATION OF CYCLING INSTRUCTORS OF CANADA

CYCLING DIET PLAN - See Canada's Food Guide for daily regular diet examples

FAQ on Caffeine and Energy Drinks

This answer is brought to you by many of the Australian nutrition professionals who regularly contribute to a nutrition email discussion group.

1. What do high-caffeine energy drinks consist of and why are those ingredients present?

The caffeine-containing energy drinks usually contain a wide range of ingredients, with different brands having similar, but not identical formulations. One ingredient they all have in common is a form of sugar such as sucrose (table sugar) or glucose. Many also include a range of vitamins (especially B group vitamins). Some have amino acids (e.g. 'taurine') while herbal supplements such as Gingko biloba, Echinacea, Ginseng and St John's Wort are present in many. They also usually include guarana (a caffeine-containing extract from a South American plant). In the next five paragraphs the most likely reasons for the inclusion of these ingredients are discussed, together with an appraisal of their probable value (or otherwise) to health and fitness.

Sugar is present as a source of energy and also because it has an appealing taste. Sugar is rapidly digested and absorbed into the body, so the kilojoules of energy it provides are quickly made available for physical work. The inclusion of sugar in the drink is therefore sound from the physiological point of view.

B group vitamins are used by the body to release energy from food, but a well-balanced diet provides adequate intake of these vitamins, so they are probably not an important component of these drinks.

The rationale for providing amino acids (components of protein) such as taurine is unclear. It is believed that taurine plays a role in muscle contraction, especially in the heart, but the typical Australian diet is relatively high in protein, so few people are likely to be deficient in taurine.

Herbal supplements are often touted as providing health benefits, but there isn't much scientific evidence supporting most such claims. Also, the Therapeutic Goods Administration has warned that high intakes of these supplements can be harmful, and that some can interfere with the effectiveness of--or interact in harmful ways with--medicines.

Guarana is usually present in these drinks as the main source of caffeine. Caffeine is there as a 'stimulant', that is, to give a stimulus to both physical and cognitive (i.e. mental) performance. But a stimulant can be a 'double-edged sword'. As explained in detail below, excessive stimulation due to caffeine can have a detrimental effect not only on physical performance, but also on aspects of metabolism that influence health (such as blood pressure and heart rate).

2. How much caffeine do energy drinks contain and how does this compare with other caffeine-containing beverages?

The typical energy drink provides about 80 mg of caffeine per can (although this varies between brands). This is about the same as the amount of caffeine provided by an average strength cup of coffee, and about twice that in a cup of tea. It is also about twice the level of caffeine found in a can of carbonated, cola-flavoured soft drink.

3. What are the possible effects on health from the amount of caffeine in these drinks?

The caffeine level in most of these drinks is only equivalent to that in coffee, because many typical consumers are young--and quite high levels of consumption are common--there is at least the potential for health risks associated with energy drinks.

Many parents would not allow their young children to drink coffee or strong tea--because they know that these drinks contain caffeine--the same may not apply to energy drinks. For example, an Australian survey found that 27% of boys aged 8-12 had consumed high-caffeine energy drinks in the two-week period prior to the survey.

This may be at least partly because the quantity of caffeine isn't always stated on the label of energy drinks, and many people aren't aware of how much caffeine constitutes 'high-caffeine' anyway. Parents, guardians and other people in positions of responsibility (e.g. sports coaches) should be aware that young children could have disturbed sleeping patterns, suffer bed-wetting and show symptoms of anxiety from ingesting the caffeine in just one can of energy drink. It is clear that pre teens should not consume high caffeine drinks and it is highly desirable to discourage their use by people in their early teens.

Some people are especially sensitive to caffeine, showing symptoms of caffeine sensitivity (tremors, sleep disturbances, gastrointestinal upsets) following consumption of relatively small doses of caffeine. Those who suffer these adverse reactions to caffeine-containing drinks such as coffee should not consume energy drinks. People with heart disease should avoid large intakes of caffeine. The sudden 'jolt' to metabolism caused by caffeine (which is a stimulant) can be enough to trigger a heart attack in people with pre-existing heart conditions. Pregnant women are also well advised to avoid high-caffeine beverages. During the first trimester (three months) of pregnancy, consuming as little as 100 mg of caffeine per day was associated with an increased risk of spontaneous abortion in studies conducted in Sweden.

Finally, these drinks are sometimes consumed in conjunction with alcoholic beverages. Even on their own, high-caffeine drinks will cause 'diuresis' (increased urine production). The combined effect of alcohol and caffeine will be to dehydrate people to an even greater extent than occurs with either caffeine or alcohol alone.

4. Do these drinks really provide a 'boost' to physical and/or cognitive performance?

There is no doubt that caffeine is an effective 'ergogenic aid' (enhances physical performance) and an aid to cognitive performance as it stimulates cardiac output and the central nervous system. Due to this, the International Olympic Committee (IOC) has banned its use above a certain level (as detected in the athlete's urine).

But as with so many substances, if a little is good, more is NOT better. In the Australian survey, some teenagers were reported to be consuming up to five cans of energy drink (up to ~400 mg of caffeine, depending on the brand) before sporting events. This is more than is needed to safely gain a boost to performance and carries with it a risk of increased blood pressure, anxiety, shaking, elevated heart rate and increased urine production (increasing the risk of dehydration).

[For more on the safe and effective use of caffeine to improve athletic performance, see the Appendix to this question].

5. Do these high-caffeine energy drinks have the same function in sport as 'sports drinks'?

High-caffeine energy drinks do not have the same role to play in sports as sports drinks (i.e. carbohydrate/electrolyte solutions). Caffeine is a stimulant, so it provides a short sharp boost to performance. On the other hand, sports drinks do not contain stimulants - only carbohydrate and salts (to replace those lost in sweat).

Also, the quantity of sugar present in energy drinks is often much higher (e.g. 10-12%) than in sports drinks (which are usually 6-8% sugar). High sugar concentration can slow absorption of water into the body, making these drinks unsuitable as rehydration drinks during prolonged and vigorous physical exercise. Sports drinks are the most appropriate hydration fluid during vigorous activity (especially if it is conducted in the heat). [For more information on suitable rehydration fluids see the FAQ on sports drinks in this series].

6. Can energy drinks be used as a satisfactory meal replacement?

Although high-caffeine energy drinks do provide some energy (in the form of sugar) and vitamins (some brands), this does not mean that they constitute a suitable meal replacement. They contain very little protein or minerals, and no dietary fibre. They are 'drinks', not meal replacers.

Summary

In summary, a can of high-caffeine energy drink generally provides about as much caffeine as a cup of coffee. When taken in small quantities (up to two or three cans per day) these drinks are as unlikely to be harmful to most adolescents and adults as drinking two or three cups of coffee.

There is convincing evidence that young children, caffeine-sensitive people, pregnant women and people with heart disease should avoid the high caffeine intakes that would result from consuming these drinks (or from consuming coffee).

Although caffeine does provide a boost to physical and mental performance, consuming many cans of these energy drinks shortly before physical activity is more likely to be detrimental than beneficial to athletes or other active people.

Recommended for further reading on caffeine

http://users.bigpond.net.au/allergydietitian/fi/fi_caffeine.html

Reference

Wahlquist, M.L. 1997 "Food and Nutrition - Australia, Asia and the Pacific", Allen and Unwin Pty Ltd, NSW.

APPENDIX: Caffeine as an 'ergogenic aid' to athletic performance

An ergogenic aid is a substance or technique that improves physical performance. Caffeine is an effective ergogenic aid, particularly for athletic events that involve endurance (e.g. marathon running, triathlon, long distance swimming). Caffeine has been shown to increase the use of fat as an energy substrate, thereby sparing glucose. For athletes who do choose to consume caffeine as an ergogenic aid, it is important to remember that there is a limit to the amount an athlete may consume before breaching the rules of the International Olympic Committee (IOC). Also, as noted in the main body of this FAQ, excess caffeine intake can lead to impaired performance.

The amount of caffeine an athlete can consume safely, and that may induce a performance enhancement, will vary according to previous history of caffeine intake, body size, concurrent intake of other caffeine-containing products, and the timing of consumption in relation to the athletic activity. Many athletes who consume caffeine beverages are unaware of their individual acceptable level of intake. An ergogenic benefit for endurance performance can be expected at a moderate intake (3-5 mg caffeine/kg body weight) with a very low risk of being tested above the acceptable IOC level for urinary caffeine concentration (which must not exceed 12µg/mL). For a 60-70 kg athlete, 3-5 mg caffeine/kg body weight corresponds to about three cups of coffee or three cans of caffeinated energy drink (assuming 80 mg of caffeine per can). Caffeine concentration in the blood peaks about 2-4 hours after caffeine consumption, so the caffeine boost is likely to be maximal when needed if the caffeine beverage is taken shortly before the endurance athletic event (e.g. 1-2 hours prior to the start).

A higher caffeine intake will not cause any greater performance benefit. In fact it may produce an illegal urinary level of caffeine and/or negative side effects. With many energy drinks having a high caffeine content, and often not being clearly labelled, the risk for excess intake of caffeine is likely to be high particularly for small or younger athletes.

The advice in this Appendix should not be construed as a recommendation to an endurance athlete to take caffeine to improve performance. Rather, if you do take caffeine, the advice is intended to minimise the risk of taking excessive quantities.

[Date Issued: September 2001]

Disclaimer: This material is provided on the basis that it constitutes advice of a general nature only. It is not intended to replace the advice of a physician or a dietitian.

This article can be found at:

http://www.nutritionaustralia.org/Food_Facts/FAQ/caffeine_and_energy_drinks.asp

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RACE SUPPORT

Support During Events

During a race, all your interaction with your riders will be from the side of the course. However, there are many valuable services that can be performed for the riders from this location:

- feeding the athletes during the race
- exchanging eyewear
- providing split time information or positions

Race Feeding

Even if a race is relatively short or the weather cool, riders can lose up to one litre of fluid per hour due to sweating; however the body cannot absorb more than approximately one half litre (10 ml/kg/hour) of fluid in the same period. Consequently, losing a water bottle and not having it replaced can be a major setback for a rider. Therefore, in any race where feeding is permitted (see the CC rule book), the coach should either hand drinks to the riders or arrange for someone else to do the feed.

Feed Zones:

The feed zones in a road or mountain bike race allow the coach to pass food and fluids to a racer. In MTB XC replacement eyeglasses can also be passed. Technical information can also be given. The most pertinent information to a rider is split time and placing in the group or against another rider.

The coach should be aware that in a MTB race there is to be NO technical support or touching. If the coach does either, the rider may be disqualified. See CC MTB Rules. In road races technical support (e.g. wheel changes, other minor repairs) may be permitted alongside the course, or in designated “pit” areas in a circuit race, but this is strictly forbidden in feed zones which are for feeding only. See CC Road Rules.

The *coach must*:

- Be visible and in sight of the racer, wear a team jersey or jacket
- The jersey may be worn backwards with pockets in front if feeding more than one rider in a race
- Be prepared at all times
- organize bottles for each rider, with names on individual bottles
- keep water cool, if applicable/possible
- open the top of the spout so that the rider can drink immediately (optional)
- grasp the bottle by the top
- get acknowledgement from the rider that a feed is wanted (or what is wanted)
- from the side of the trail/road, extend the arm over the trail/road
- hold the bottle up until the rider has grasped it
- stay within the feed zone
- be aware of and do not interfere with other riders and coaches
- wear appropriate footwear
- avoid running in the feed zone

Riders Responsibilities:

The rider has the following responsibilities when a bottle is being handed up:

- to come to the side of the course to take a feed. The feeder must not run into the trail to reach the rider
- to wave to indicate that a feed is wanted
- to place themselves in an optimal position for taking a feed, possibly slowing down if the feed zone is on a very fast section of trail
- to throw off the bottle where the feeder can see it. It may be necessary to refill the bottle and hand it out again. Avoid mix-ups in returning bottles to different athletes to reduce the chance of spreading infections.
- to extend the arm to grasp the bottle. The rider should then retract the arm rapidly and put bottle in cage. Practice before competition!

Calculating Time Differences (The Gap)

The coach can help riders by giving them time checks, that is, information on the difference in time between themselves and the leading or chasing groups. Time information can help the rider with setting the pace, especially in the later phase of the race and can provide information on other riders which could be pertinent to the strategy in the race.

Time checks can be provided in two ways:

- Start the watch as the leader passes, calculate the difference between your riders and the leaders, and shout the time to your riders as they pass. Unfortunately, you cannot use this method to give time checks to the lead group.
- Select a section of course where you can see far enough back or use walkie-talkie to relay lead group splits to an assistant farther up the course to relay splits as the leaders go by.

Fixing a Flat Tire

Of all the mechanical problems that may arise, changing a flat is by far the most common and should not be a problem for the rider. NOTE: In MTB events the rider must change the flat during the race and will be disqualified if assisted. Have them try this quick method in a training session.

Rear Wheel Change:

- Change rear gear to smallest cog
- Unfasten brake pads and quick release
- Slip wheel out of drop outs
- Remove tire by lifting tire edge off the rim with tire remover
- Slip tire out of the way of tube
- Pull tube out of tire casing

- Inflate tube slightly and insert the valve into valve hole
- Place new tube around wheel and seat properly
- Pull tire over tube, ensure that it is not pinched by using thumbs to depress the tire around the rim base
- Inflate tube, check for pinches
- Replace wheel into drop outs, close quick release
- Refasten brakes
- Go

Support After the Race

The coach should consider support after the race as important as preparation. The support provided afterward can set the tone for future competition by putting successes into perspective and commencing post race recovery.

Meet the rider at the finish line as soon as possible after the event. Support should start at the finish line and includes:

- food and drink
- warm clothing, if needed
- cool-down, athletes will often need to be reminded to cool down
- quick evaluation of the race, if appropriate
- doping control procedures, if required
- check results as soon as possible after they are posted
- an appeal if necessary
- attendance at the Award Ceremony
- evaluate and debrief on performance
- have the team meet as group 30-40 minutes post race at a predetermined location.

The rider may need assistance in communication with officials and/or the race organizers and the coach should be prepared to submit a protest if the situation merits attention.

The coach should be prepared to drive the rider, bicycle and all the equipment the rider needed before the event back to the accommodation or hotel. A rendezvous should be determined after the cool-down, so that no one misses the departure to the hotel.

After all the races are completed, the coach should inspect hotel/accommodations for articles left behind and that the rooms are in good condition. Report problems to the management, pay the hotel and phone bills.

Plan the return trip home and advise the riders of their responsibilities and schedule for departure. Plan enough time to ensure that all equipment is packed properly. Ensure that the vehicle is in good order, filled with oil and gas. Plan enough time for the riders to eat before departure.

Allow enough time in the planning that everything can be accomplished in the

amount of time allotted for departure. The key is to plan ahead and have the team of riders agree about the time so there is not too much of a rush. Late results, protests and/or doping control procedures should be planned for.

Summary

As a coach you will be responsible for the safety and wellbeing of individuals at events and training where there will be a need for planning, organization and management skills. Planning ahead and looking for the inevitable will help prevent situations where the rider will lose valuable training or racing time. It may also prevent an accident, ensuring that everyone involved is secure and able to profit from the environment to their fullest.

The organization required for a small team is usually the same organization needed for a larger group, however remember that the larger the group the longer it takes to deliver the plan.

It is the athletes and coaches responsibility to work together to ensure the best possible result from an event. When coach and athlete both know that each has worked to the best of their ability there is no room for disgruntled feelings or negative attitudes about the result. Each should be able to agree that they have raced or coached to the level entrusted to them.

ATHLETES WITH A DISABILITY

First Contact

When coaching athletes with a disability (AWAD), “first contact” usually refers to the first time an athlete encounters a sport, or has an opportunity to try a sport. It is important to understand that “first contact” works both ways- when the athlete meets the sport and coach, and when the coach meets the athletes. In this section we will look at both sides of “first contact”.

First Reactions

For both coach and athlete, first contact may bring apprehension or fear. The athlete may be asking: “Can I do this? Will I be accepted?”

The coach may be asking the very same questions. The first time meeting and working with AWAD, the coach may wonder what the athletes are capable of doing, and in the case of athletes with an intellectual disability, what they are capable of understanding. Lack of knowledge about disability may lead the coach to make wrong assumptions; sometimes a motor control or speech impairment may lead the coach to think the athlete has an intellectual or learning impairment, when this is not the case. When people meet, there is always the possibility of an awkward moment. In the case of AWAD, lack of understanding by the coach, or the concern of spectators or parents of the athletes, may make the moment of first contact seem even more awkward.

Coaches need to remember that these are boys, girls, women and men *who just want to participate in sport*. When coming into an established program the coach should:

- Be open and honest, especially if he/she has not worked with AWAD before;
- Avoid assumptions about what the athletes can and cannot do;
- Ask questions, of the athletes and other coaches;
- Assess the ability of athletes much as he/she would assess any other athlete.

When starting a new program, or welcoming a new athlete, the coach should remember that the athletes may share the same worries. It can take more courage for an athlete with a disability to try a new sport. A negative first contact may mean the potential athlete is lost to the sport forever. So,

- Talk with the athlete and learn about them- what their mobility or other restrictions are, and how they feel about trying the sport for the first time;
- Talk with the other athletes on the team or in the group, introducing the new athlete;
- Remember that an athlete with a disability wants to be treated with respect. They may not want to receive any special attention or help. If they do want something, they will ask;
- Set the new athlete up to succeed, by choosing appropriate activities, pairing them with a more experienced athlete, and offering honest praise for a good effort;

- Emphasize that everyone has a right to participate. Don't let the new athlete worry that they are holding things back or slowing the group down.

Understanding Disability

An excellent resource to help coaches learn more about working with AWAD is Coaching Athletes With a Disability, from Coaching Association of Canada. Much of the information in this section is drawn from that resource.

The different types of disabilities are grouped into broad categories such as mobility impairment, sensory impairment, and intellectual impairment. Disabilities are either congenital (i.e., present at birth) or acquired (i.e., not present at birth, but acquired through a traumatic injury or an illness). Basic information, including specific safety considerations and recommendations to coaches, is presented in Coaching Athletes With a Disability.

For the coach, it can be important to know whether a disability was acquired or congenital. A person who acquired a disability in an accident may possess skills from previous sport experience and may know about training but now need to relearn some skills. Someone born with a disability has typically adjusted to how his or her body operates; however, sport opportunities may have been limited, and as a result some motor or sport-specific skills may be delayed.

Persons with a disability have usually gone through rehabilitation or therapy during which they have provided their life story on numerous occasions to nurses, doctors, and others. Sharing personal information about their disability is generally not an issue. The coach can ask specific questions about whether or how the disability affects balance, movements, etc.

Behavioural patterns may differ greatly amongst persons with an intellectual disability. Assessment methods are available to help coaches identify the situations that may cause changes in behaviour, and information is available on specific strategies to effectively manage these situations.

Some athletes with a disability may also need medication. Generally, the medication issues for people with a disability are the same as with able-bodied people. For example, medication may be required for diabetes, asthma, a heart condition, seizures, or some other health-related problem.

Initially, the person with a disability (or, in the case of young children, a parent) is the best judge of what the individual can or cannot do on the playing field. The best way to get these answers is to ask.

Some athletes with an intellectual disability can easily explain their needs and objectives to a coach, while others may not be as verbal or as clear. Therefore, it may be essential for a coach to talk to a parent or guardian to learn more about the disability.

Communications

Good communications between coaches and athletes or parents is essential in any sport. When working with AWAD, there are a few additional factors to be aware of.

- AWAD, especially those with congenital disability, participating for the first time may have less sport background than able-bodied athletes of the same age. They may not be as familiar with certain terms or expressions used by coaches as other athletes.
- Overprotective parents are more common. Parents may have particular concerns about safety, access, or integration. While these concerns may have some validity, it is important to position sport participation as a means to athlete development and self-sufficiency. Just as for able-bodied athletes, sport helps people grow and develop confidence. Work closely with parents to help relieve their concerns.

The manual Coaching Athletes with a Disability offers these “Do’s and Don’ts”:

- Do not be scared to ask questions
- Ensure equal treatment
- Do not assume that athletes with an intellectual disability do not understand
- Have a well-structured practice plan and use a progressive approach with athletes that have an intellectual disability
- Sit down when talking to a person in a wheelchair
- Ask permission before touching a wheelchair, crutches or walker.

At first contact, an open welcoming attitude, willingness to ask and answer questions, extra time dealing with parental concerns if raised, and an effort to see beyond the disability will help get both coach and athlete off to a great start!

Glossary of Cycling Terms

A

ABCs: Attention, Balance, Control- the basic movements which make up cycling skills.

ATB: (all-terrain bike) a mountain bike.

Apex: the sharpest point of a corner.

Attack Position: the alert and well-balanced position you ride in when you approach, or ride on, rough terrain. It is characterized by bent knees, rear above the saddle, elbows slightly bent, and a raised head.

Axle: the shaft on which the wheel or pedal rotates.

B

BB: bottom bracket.

BMX: Bicycle Moto Cross, short dirt-track racing usually with turns and jumps.

Bail: (as in “bail out”) - to suddenly stop to avoid falling, usually by putting one foot down, or sometimes by springing off a falling bike to land on both feet.

Balanced Position: coasting with pedals and cranks level (parallel to ground), arms and knees straight and nearly locked, and head up. An energy-saving way to coast on bumpy ground.

Berm: an embankment on a trail.

Bonk: when you run out of energy due to depletion of carbohydrates.

Bump: a skill which involves riders bumping elbows or shoulders. Used to improve confidence before riding in close quarters with others.

Buzz: a skill which involves a following rider touching their front tire to the rear tire of a moving leading rider. Named after the noise knobby tires make when they touch at speed. Used to improve confidence before riding in close quarters with others.

C

CC: Cycling Canada

Chainring: a toothed sprocket attached to the crankarm.

Clipless Pedal: a pedal that has spring-loaded cleats that clip to a riders shoe.

Crankarm: the levers of a crankset that your pedals attach to.

Crankset: the bottom bracket, crankarms, and chainrings go together to make up the crankset.

Criterion: a race (usually road, sometimes MTB) with a number of laps around a short course.

Cross-country: a traditional MTB race that mixes many types of riding conditions into one course.

Cyclocross: an off-road race that involves riders having to dismount and run over obstacles, carrying their bikes. Usually modified road bikes are used.

D

Dab: to put your foot down while riding so you don't fall over.

Deraileur: the mechanical device that moves the chain over the cogs or chainrings, changing gears.

Doubletrack: two trails that run parallel to each other (sometimes used interchangeably with "fire road").

Downhill: a type of racing held on steep slopes - fastest rider to the bottom wins.

Downshift: shifting to a lower gear.

Drivetrain: the parts of a bike that includes the crankarms, chainrings, bottom bracket, front deraileur, chain, rear deraileur, and freewheel.

E

Endo: a crash that involves you flying over your handlebars.

F

Flat pedal: A pedal without a means to lock the shoe, ie no clip or cleat-engagement mechanism. Used for BMX, MTB tricks and skills, and general cycling.

Front Wheel Lift: To lift the front wheel over an obstacle by quickly weighting and unweighting the front wheel then pulling the handlebars to the chest, in a continuous movement.

Freewheel: the cluster of cogs on the rear wheelset that allows you to stop pedalling while the bike is still moving forwards.

G

Granny Gear: the lowest gear ratio you can ride with (smallest chainring with the largest cassette cog).

Granny Ring: The smallest of your chainrings.

I

IMBA: International Mountain Bicycling Association: an organization dedicated to the building and protection of mountain bike trails.

K

Kick: a short power-stroke to the pedals, less than one full revolution.

L

Limbo: To duck under an obstacle while riding.

M

Mass-start: when a large group starts a race or ride together.

Manual: A lift which raises the front wheel so the rider can jump the bicycle, thus landing on the rear wheel (or both together), and not endo.

MTB: Mountain bike.

N

NCCP: National Coaching Certification Program. Canada's coach development and education program.

O

Off-Camber: sloped ground that makes handling difficult.

P

P.A.S.S.: Power, Agility, Spatial Skills- groups of integrated cycling skills built upon the ABCs.

Preload: to weight part of the bike by body weight transfer, usually the front fork.

R

Ratchet: a riding technique in which you pedal in partial strokes in order to clear obstacles.

Reach: the distance from the end of the stem to the other end of the top tube.

Ready Position: Coasting with pedals and cranks level (parallel to ground), knees and elbows flexed to absorb shock, fingers on brakes, and head up. The position to be in when you want to be alert and ready to move quickly. Also called “attack position” or “cat position” ie ready to spring.

S

Saddle: the seat that the rider sits on.

Singletrack: a narrow mountain bike trail that must be ridden single file.

Shoulder check: To look over one’s shoulder to make sure you are not being overtaken by other traffic (bicycle or car).

Soft pedal: To reduce force on the pedals while continuing to pedal- useful in helping gear shifting in high-load situations (eg climbing).

Standover Clearance: the distance between the top tube and the rider's crotch.

Switchback: a turn on a hill that is too steep to be climbed without zig-zagging.

T

Time trial: a race against the clock. Riders start one at a time.

Trackstand: a riding technique that involves the rider stopping completely without putting a foot down.

U

Upshift: to shift into a higher gear.

W

Wash Out: when you lose traction on one or both wheels and slide.

Wheelie: a riding technique in which the rider lifts the front tire and rides on the rear wheel.