

Long-Term Participant Development Pathway 1.2



Indigenous Sport for Life



Sport for Life

Preface

This document presents a roadmap for developing sport and physical activity among First Nations, Inuit, and Métis peoples. The Indigenous Long-Term Participant Development Pathway is a reference for those who work with Indigenous participants in sport and recreation. The Indigenous Long-Term Participant Development Pathway has grown out of the understanding that mainstream pathways for sport development do not necessarily align with Indigenous needs or experiences. As such, the Indigenous Long-Term Participant Development Pathway tries to address that gap by outlining the key elements that need to be considered when planning, developing, and implementing programs for and with Indigenous peoples and Indigenous communities.

Indigenous peoples across Canada live diverse experiences. For instance, nearly half of First Nations peoples live off reserve in towns and cities. Some First Nations migrate back and forth between the city and their reserve, and this poses unique challenges for athlete development. As well, while some Indigenous peoples are moving up the socio-economic ladder, many still are not. Many face a disproportionate level of poverty, lower educational outcomes, health problems, substance and alcohol abuse, and other issues. These issues stem from a challenging history in which colonization led to a cultural genocide for Indigenous peoples and impacted the health of Indigenous populations over the several generations.

Add to this picture the different values and beliefs that Indigenous peoples have adopted through various forms of traditional and non-traditional Indigenous practices. In other words, Indigenous peoples don't necessarily follow their traditional beliefs, and there is no single belief system shared between all Indigenous peoples.

Indigenous peoples across Canada also will have had different experiences with systemic and overt forms of discrimination, including (but not limited to) racism.

Against this backdrop, sport means different things to different Indigenous peoples and groups. For many Indigenous peoples, the primary purpose of sport is to build self-esteem among youth. Sport and activity gives youth a sense of purpose and direction, and, in

some cases, helps them to engage in more appropriate activity during their free time while they find their way in the world.

In the Truth and Reconciliation Report (2015), sport and recreation are identified as tools for social development to improve the health and wellbeing of individuals and communities. This is the underlying rationale for this resource – to save lives and to build healthier Indigenous peoples, who contribute to healthier communities. A by-product of that is more Indigenous athletes pursuing sport excellence and standing on top of the podium. This resource seeks to provide guidance for that sport journey – from the playground to the podium – and everywhere in between.

For the purposes of this document, we will follow the definition by Coakley and Donnelly (2009):

“Culture encompasses all of the ... ways of thinking, feeling, and acting that emerge as people try to survive, meet their needs, and achieve a sense of meaning and significance in the process.”

To create the best experience in Indigenous sport and recreation, we need to recognize that many parts of Canada's mainstream sport pathway do not reflect the needs and cultural priorities of Indigenous peoples. Accordingly, the Indigenous Long-Term Participant Development Pathway presents a framework that tries to respond to their real needs and goals.

Indigenous Long-Term Participant Development Pathway 1.2

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Planning for the wellness and sport excellence of Indigenous peoples.

Introduction

Aboriginal Sport Circle, in partnership with the Sport for Life Society, is facilitating the development of Indigenous Long-Term Participant Development Pathway resources and working to activate them in communities and sport systems. The purpose of these resources is to increase the percentage of Indigenous children who become physically literate, define a pathway for Indigenous athletes into high performance sport and to increase the number of Indigenous peoples who are active for life.

Indigenous sport and physical activity leaders have identified three resources that are needed:

- a. Indigenous Long-Term Participant Development Pathway, which articulates the pathway for participation and development in the sport system while appreciating and accommodating cultural differences.
- b. Indigenous Sport for Life Community Resource, which lays the framework for engagement in Indigenous communities and prepares communities for the adoption of Indigenous Long-Term Participant Development Pathway.
- c. Leader Training and curriculum development to allow for both of the above resources to be appropriately and effectively delivered in Indigenous communities across Canada.

Throughout the development of these resources, Indigenous community engagement has been a key part of the process. This engagement has been essential to ensure that the resources appropriately represent the Indigenous cultural perspective and create a bridge between the mainstream system and the Indigenous system.

The following work has been done to ensure that Indigenous perspectives throughout the country are understood and articulated in these resources:

1. Three regional summits held across Canada engaged First Nations, Inuit, and Métis leaders, as well as sport policy and program leaders from all provinces and territories. More than 60 delegates representing 10 provinces and two territories attended the three summits from November 2013 to January 2014, hosted in Saskatchewan, Nova Scotia and Quebec.
2. Focus Groups.
3. "Dig Deeper" focus groups in Gatineau and Montreal with a cross section of Indigenous sport leaders, Indigenous community leaders, and Provincial/Territorial Indigenous Sport Bodies (PTSABs) representatives.
4. An Indigenous Work Group advised, wrote and contributed to the resources development throughout the entire process and continues to do so as they move to activation.

Developing in Stages:

This Indigenous Long-Term Participant Development Pathway describes the qualities and abilities that athletes and participants should train at each stage in their development. By training and developing the right things at the right time, we will help Indigenous children and youth to grow into healthy adults who have developed their full potential.

In addition, as different people develop through the Indigenous Long-Term Participant Development Pathway stages, each will show aptitude for different sports and physical activities. It is the responsibility of Indigenous community and sport leaders to help each person to find their aptitude, and then to support them through the process of developing it.

Changing Attitudes Toward Participation:

With the Indigenous Long-Term Participant Development Pathway, we seek an attitude shift away from limiting opportunities for Indigenous athletes and participants in sport and physical activity. Instead, we want to ensure that we serve the needs of everyone, regardless of talent or background.

If we think a particular athlete or participant is not suited to a given sport or activity, then we should try to direct them to sports and activities where they can perform to their potential. Even if someone doesn't have the ability to advance in one sport, they may have skills or abilities that can transfer into other sports or physical activities.

We want to help Indigenous athletes to improve, but we also simply want Indigenous peoples to continue participating in sport and activity. For example, if they are cut from a team, and then offered guidance on how they can continue to participate in that sport or another activity, they are less likely to fall into complete inactivity. They will be far more likely to continue to live an active lifestyle and enjoy all of the benefits that come with it – mental, emotional, spiritual, and physical.

We invite every nation to adapt the information in this document to their particular community, situation, traditions, values, and adopted religions and beliefs.

Calls to Action


Truth and Reconciliation Commission of Canada Report

(Truth and Reconciliation Commission of Canada:
Calls to Action, 2015, p. 10)

87. We call upon all levels of government, in collaboration with Aboriginal peoples, sports halls of fame, and other relevant organizations, to provide public education that tells the national story of Aboriginal athletes in history.

88. We call upon all levels of government to take action to ensure long-term Aboriginal athlete development and growth, and continued support for the North American Aboriginal Games, including funding to host the games and for provincial and territorial team preparation and travel.

89. We call upon the federal government to amend the Physical Activity and Sport Act to support reconciliation by ensuring that policies to promote physical activity as a fundamental element of health and well-being, reduce barriers to sports participation, increase the pursuit of excellence in sport, and build capacity in the Canadian sport system, are inclusive of Aboriginal peoples.



90. We call upon the federal government to ensure that national sports policies, programs, and initiatives are inclusive of Aboriginal peoples, including, but not limited to, establishing:

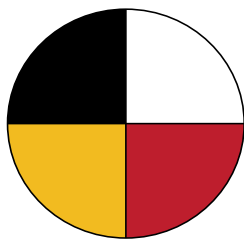
- i. In collaboration with provincial and territorial governments, stable funding for, and access to, community sports programs that reflect the diverse cultures and traditional sporting activities of Aboriginal peoples.
- ii. An elite athlete development program for Aboriginal athletes.
- iii. Programs for coaches, trainers, and sports officials that are culturally relevant for Aboriginal peoples.
- iv. Anti-racism awareness and training programs.

91. We call upon the officials and host countries of international sporting events such as the Olympics, Pan Am, and Commonwealth games to ensure that Indigenous peoples' territorial protocols are respected, and local Indigenous communities are engaged in all aspects of planning and participating in such events.

The Holistic Model

We live in a world that uses symbols to express and represent meaning. In many Indigenous cultures, the circle is an important symbol of unity and equality. All parts of the circle are essential to the whole.

Figure 1: Medicine Wheel (Aboriginal Coaching Modules, 2003)



The medicine wheel is an ancient symbol that has been used by many Indigenous peoples throughout North and South America. The medicine wheel shows the interdependence of all facets of life. Also the medicine wheel represents the ongoing and cyclical nature of change and transformation that is essential to all living creatures. One of the important principles in using the medicine wheel is that harmony and balance in all four directions is the goal of learning and change.

The medicine wheel is not used precisely the same way by every community or nation. It has been traditionally used to represent many facets of life such as the four cardinal directions of north, south, east and west; the four seasons of winter, spring, summer and fall; the four sacred medicines of tobacco, sage, cedar and sweetgrass; or the four aspects of nature—physical, mental, emotional and spiritual.

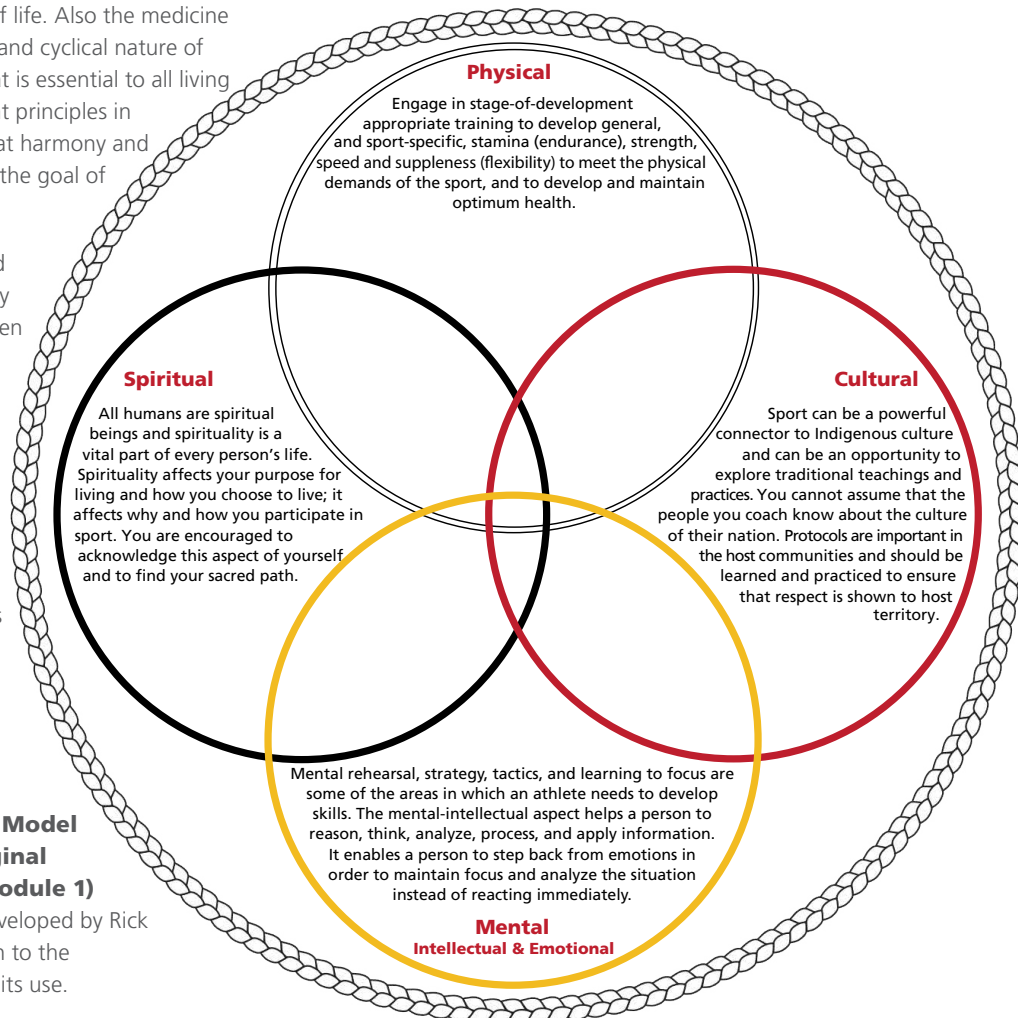
The Indigenous Long-Term Participant Development Pathway incorporates this concept by embracing the Holistic Model. The Holistic Model was inspired by the medicine wheel and was adopted to reflect the different traditional teachings and interpretations from the many nations throughout Canada.

In this Indigenous Long-Term Participant Development Pathway resource, we use the Holistic Model to represent the four main aspects of each person in their development as participants and athletes: physical, mental (intellectual and emotional), spiritual, and cultural.

(Aboriginal Coaching Modules, 2003)

Figure 2: The Holistic Model (adapted from Aboriginal Coaching Modules, Module 1)

The Holistic Model was developed by Rick Brant and generously given to the Aboriginal Sport Circle for its use.



PHYSICAL

The physical is the most obvious aspect of sport and typically receives the most attention from coaches and parents. In developing the physical capacities of young participants, coaches and parents need to consider the following things:

- Analyze the participant's skills and correct techniques
- Prepare participants for competition using the right kinds of training methods
- Plan activities based on the growth and developmental needs of the participants
- Prevent and care for injuries
- Maintain equipment and facilities
- Teach safety procedures
- Guide youth in developing healthy lifestyles
- Proper nutrition, eating traditional foods, and drinking sufficient water
- Importance of personal hygiene

CULTURAL

Sport has been an integral part of cultural traditions throughout the history of Indigenous peoples. Traditional games and sports had both spiritual and practical purposes. In Canada today, over half of all Indigenous peoples live outside their traditional communities, often in an urban "melting pot" that lacks cultural support and has lost touch with traditional teachings. Coaches and parents can help young people to explore their cultural identity through sport.

Games were played to make peace with the spirits. They were also used to teach hunting and other daily skills required by Indigenous peoples to learn their life roles. Games and competitions were also a means of settling differences between tribes. Sport, song, and dance were part of celebrations and played an important role in social gatherings. The North American Indigenous Games, for example, celebrate this traditional relationship.

To coach Indigenous participants, it is important to know and understand Indigenous values and how they relate to sport:

- Speak with Elders or Traditional Knowledge Keepers and learn the community's protocol and traditions
- Take time to learn about the culture of the community
- Find ways to include the cultural aspect in your program
- Introduce ceremonies, song, and dance as a way of celebrating achievement or honouring guests
- Learn about and honour the protocol of the host community when you travel with your participants

Examples of traditional games that played a major role in Indigenous culture include:

- stickball, known today as lacrosse
- shinny, an early form of field hockey
- double ball (shinny played with two balls connected together)
- hoop and pole, a game that tested throwing accuracy
- many forms of darts and games
- games of chance

MENTAL – INTELLECTUAL AND EMOTIONAL

The mental part of raising a young participant is just as important as the physical aspects. Mental rehearsal, strategy, tactics, and learning to focus are some of the skills that young participants need to develop. In the Holistic Model, we look at two parts of the mental aspect: intellectual and emotional.

Mental-Intellectual

- The mental-intellectual aspect helps participants to reason, analyze, and apply information in their activity. It enables them to step back from their emotions and maintain focus without reacting prematurely or rashly.
- It is important for participants to learn to see how all things fit together – to learn about strategy and tactics, and then, to analyze their competition and know what to apply and when.
- Developing the mental-intellectual not only helps young people to succeed in sport – it also helps them to live a balanced life.
- Probably the best way of helping young people to develop their mental-intellectual aspect is to encourage them to stay in school. Through personal example, coaches and parents can often influence young people to continue their education. As well, some sport programs make attendance at school a condition of participating in the sport.

Mental-Emotional

- Young people need to know that emotions help them to understand how different situations and people affect them. Coaches and parents can teach young people to pay attention to their feelings and the feelings of others.
- Coaches and parents can quickly assess the general well-being of each participant by observing emotional behaviour. Pay attention to what happens among participants on the practice and playing fields. Watch how relationships and events affect their concentration and performance.
- If a participant has difficulty controlling excitement, fear, or anger, or holds these feelings inside, a coach, or sometimes an Elder, can help that individual to find ways to release these emotions appropriately.
- Coaches and parents can teach young people how to listen to and respect the feelings of others. When young participants learn to express their emotions in a way that does not hurt themselves or others, their actions become more effective.
- Young people need to know that negative emotions, such as anger or jealousy, primarily harm the well-being of the individual holding these emotions. As well, these emotions are often symptoms of other problems.
- Indigenous participants demonstrate strong mental-emotional health when they express humility, positive self-esteem, and pride in Indigenous identity, and when they focus on solutions rather than problems.

SPIRITUAL

All humans are spiritual beings, and spirituality is an essential part of every person, whether they recognize it or not. Spirituality affects our purpose for living and how we choose to live; it affects why and how we participate in sport. Coaches and participants alike should be encouraged to acknowledge this aspect of themselves so they can find their sacred path.

Some young participants are uncomfortable talking about spirituality in sport. Coaches and parents may also share this discomfort. It may help to think about the spiritual aspect as “coaching philosophy.” Spirituality, like philosophy, helps us to think about basic life questions such as who we are and how we relate to others. It helps to put life events and sport into perspective.

Each participant’s connection with the natural world and the Creator is a deeply personal relationship. Whatever the beliefs of the participant, these beliefs need to be respected. For example, coaches should demonstrate an open and accepting attitude and allow young people to express themselves in their own ways. Coaches should encourage participants to be proud of and comfortable in sharing their life philosophy, spiritual beliefs, and practices. The coach should help participants in their own search, not push the coach’s own beliefs.

Many spiritual tools are available to Indigenous peoples. These include sweats, vision quests, prayers, songs, and dances. Some of us may not have much experience in helping others develop their spiritual aspect or have the confidence to do so. It is important that we draw on the experience of Elders or Traditional Knowledge Keepers in the Indigenous community to assist us in incorporating this aspect into sport.

Coaches and parents can model and encourage the use of daily practices that ensure the participants are ready to face the day with a clear mind. Activities may include prayer, baths, smudging, sweats, meditation, daily goal setting, dreams, visions, imagery and visualization. These preparations can help young people set goals and reflect on their life in sport. They also develop skills that they can continue to practice throughout their lives.

Everything in Balance

In the long term, all four of the major aspects of the Holistic Model – physical, cultural, mental (intellectual and emotional), and spiritual – need to be developed to promote each participant’s full health as a human being. Different aspects may be emphasized to different degrees at different times in each participant’s journey, but it is essential that all four aspects be honoured. This is how we create balance for communities and individuals while respecting the unique journey of each person.



The Indigenous Long-Term Participant Development Pathway

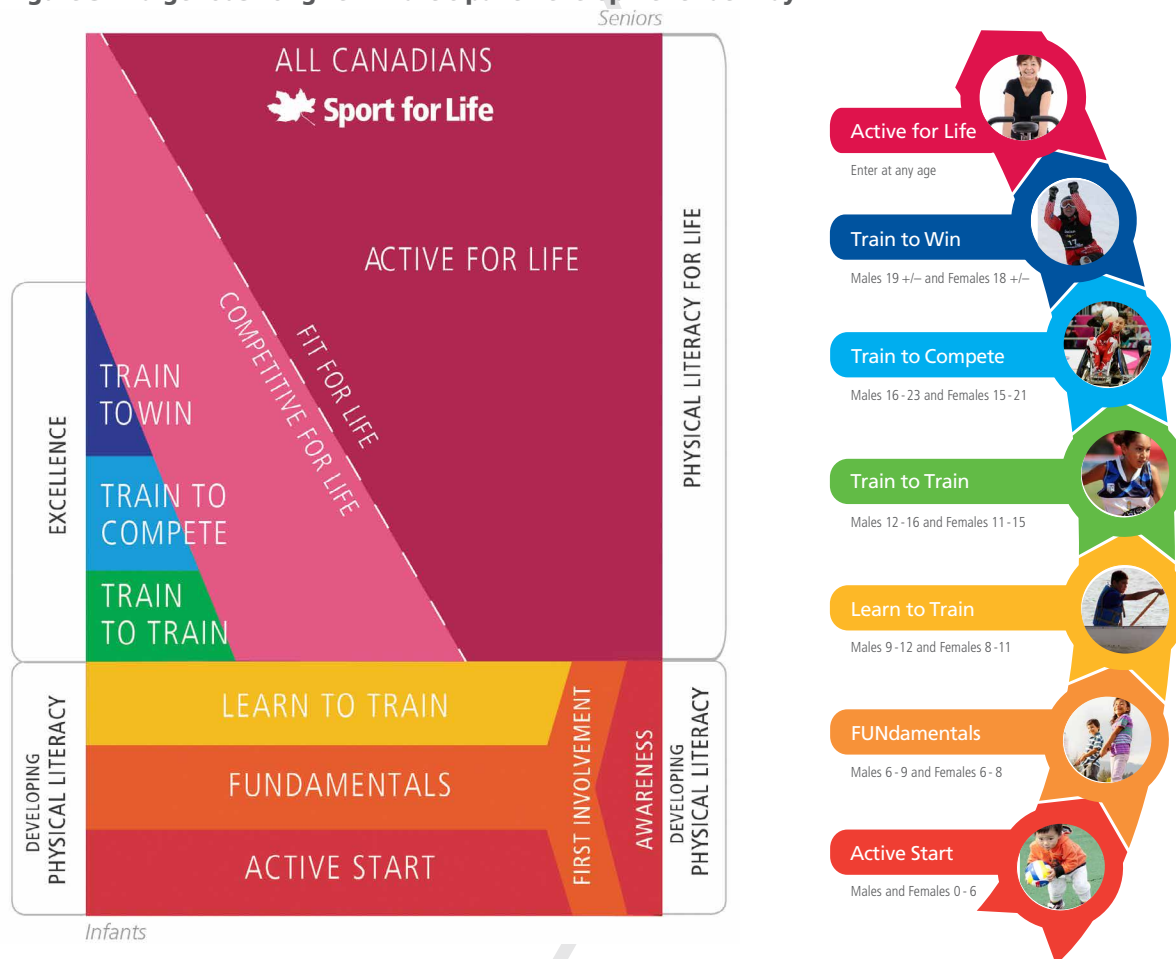
Since the beginning of time, Indigenous peoples have understood the importance of developing the whole person and promoting balance within the four aspects of the human being: physical, cultural, mental (intellectual-emotional), and spiritual. This is the essence of the Holistic Model of human development, and it is central to how we approach sport, physical activity, and participant development for Indigenous peoples.

The stages for the Indigenous Long-Term Participant Development Pathway provide developmentally appropriate programs for all ages with the aim of increasing participation and optimizing performance.

Throughout the Indigenous Long-Term Participant Development Pathway stages, we apply the key elements

of the Holistic Model to the development of Indigenous participants. There is no single prescribed way to apply these elements. Each one should be addressed as needed, in as many different ways as the individual or group needs to visit them. We invite all readers to apply them in the way and at the time that will work best for them.

Figure 3: Indigenous Long-Term Participant Development Pathway



Indigenous Participant Pathway – Two Streams

The ability to better support the Indigenous participant at each stage of their pathway relies on the hard work and dedication to sport that many Indigenous sport bodies have put into developing an Indigenous-led-and-run sport system in Canada. The Indigenous sport system evolved to address the marginalization that was occurring and to create a system that would understand and support the needs of Indigenous peoples. As all leaders and individuals in sport continue to progress relationships with the Indigenous community and their leaders, we will be able to better teach the skills that each athlete needs to succeed at each stage of sport development.

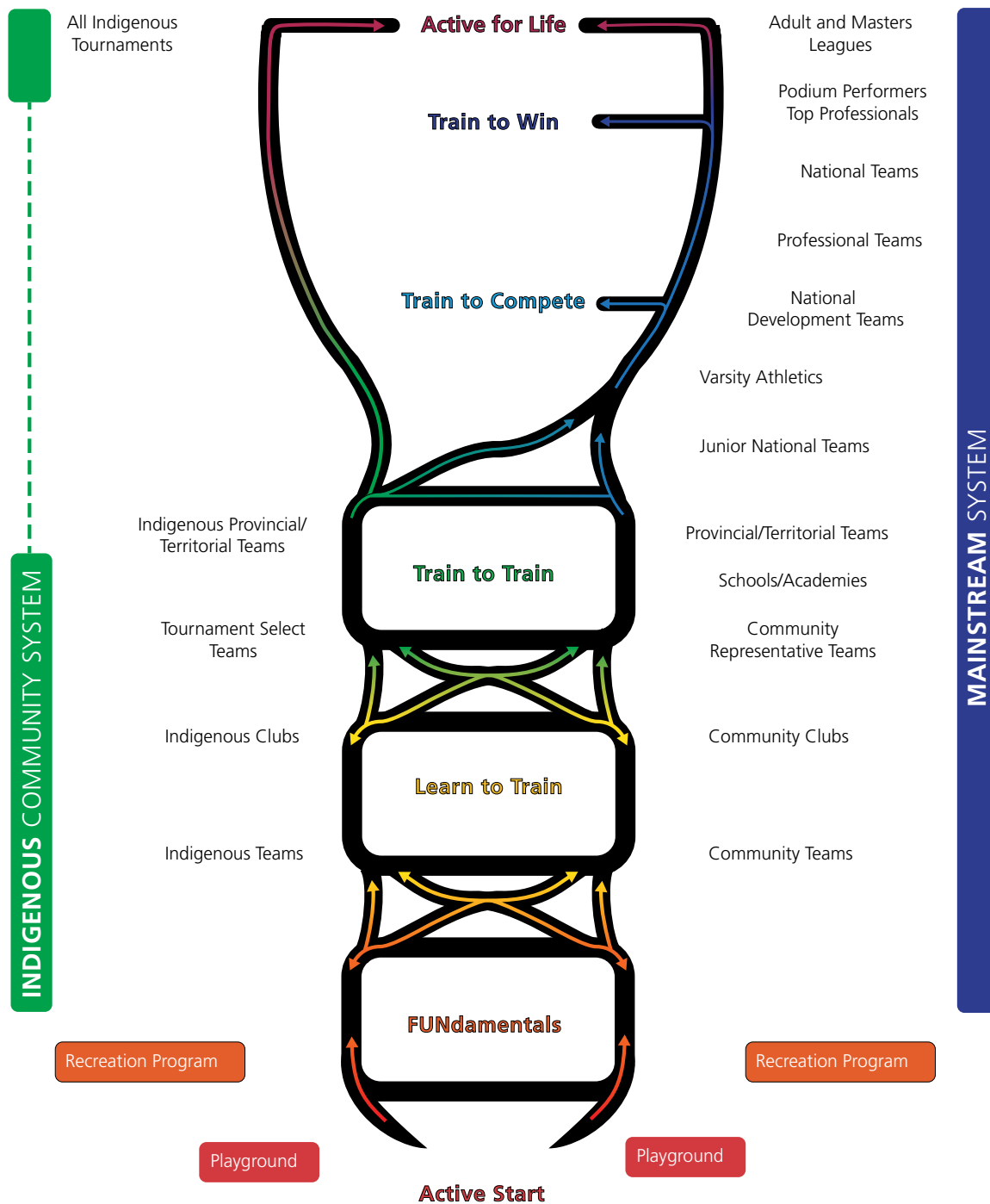
The diagram to the right attempts to demonstrate the two-stream approach that is currently occurring: the Indigenous stream, like the mainstream has the same stages of development with the key being how we all support the opportunity to move back and forth from either stream, as the needs of the Indigenous participant may demand. It also demonstrates how the two are interconnected/interdependent sport streams that link and work together. For example, it may be to the benefit of the athlete to develop in their community through the Indigenous competition stream as they have better or more consistent access to the support needed for them to progress. As their skills improve, they may move to the mainstream performance system to develop their skills further, and continue into high performance, which is a single stream to international high performance success.

The Aboriginal Sport Circle and Sport for Life Society recognize the unique opportunity this resource provides in order to educate and provide insight for mainstream and Indigenous sport leaders. This resource can develop understanding of how to build collaborative opportunities in sport that will encourage a Canadian sport system that works together to support the development of Indigenous athletes from playground to podium. It is important to learn from one another in order to build a best practices approach to encourage greater participation rates while being able to support the participant in their journey to high performance and ultimately staying active for life.

Figure 4: Indigenous Participant Pathway – Two Streams
 – This model is based on Indigenous Sport Leader and Elder Alex Nelson’s teachings.

FROM PLAYGROUND TO PODIUM:

SUPPORTED BY FAMILY, FRIENDS, INSTRUCTORS, VOLUNTEERS, AND COACHES





Active Start

Chronological Age
Males and Females 0-6

In this stage of life, children create their first thoughts about the world around them; it is important to teach children about kindness to others and kindness to self. Showing them love through healthy diet, positive physical touch, and fun activity will go a long way in helping them to become contributing community members. This stage is important for children to learn to move and learn to play. It links fundamental movement skills with play, and it gets children active while they learn.

Objectives:

- Learn fundamental movement skills through play.
- Promote healthy child development through daily physical activity.
- Enhance development of brain function, coordination, social skills, gross motor skills, emotional development, leadership, and imagination.
- Help children to build confidence and positive self-esteem.
- Help children to build strong bones and muscles, improve flexibility, and develop good posture and balance.
- Help children to maintain healthy weight, improve fitness, reduce stress, and improve sleep.
- Help children to learn to move skilfully and enjoy being active.

General Activities:

- Develop general movement skills such as crawling, walking, running, hopping, jumping, kicking, throwing and catching.
- Not being still for more than 60 minutes at a time except when sleeping.
- Some organized activities such as playing tag.
- Exploring risks and limits in safe environments.
- Environment should promote activity, combined with well-structured gymnastics and swimming programs.
- Daily physical activity with an emphasis on fun.

Considerations:

- **Mental-intellectual:** This is a stage of critical brain development. Active play is key at this stage as it builds important connections in the brain, and between the brain and children's muscles. Repetitive rhythmic activity allows brain-muscle connections to be strengthened. Children begin to use their imagination, and they develop understanding, memorization, and presentation of movement.
- **Mental-emotional:** At this early stage of development, children enjoy being involved in fun activities that offer a variety of experiences, rhythms, and interactions. It is important to pay attention to each child, as personal attention encourages each child and helps them to develop confidence and self-efficacy. Children watch and imitate adult attitudes. If children see adults having fun and enjoying physical activity, the children are more likely to enjoy activity as well. As well, in instances when children perform activities that adults are unable to do, they gain a great sense of achievement.

Children develop best when adults provide a safe place for them to play, and when they have unstructured access to a wide variety of colourful toys and equipment.

Tip for Parents:

Play follow the leader and have your children do all kinds of exaggerated movements. Have them do things you cannot to boost self-esteem. Make sure to include big movements and little movements.

Active Start Checklist:

- Provide organized physical activity for at least 30 minutes each day for toddlers and at least 60 minutes a day for preschoolers.
- Provide active play for at least 60 minutes each day, and up to several hours per day for toddlers and preschoolers.
- Toddlers and preschoolers should not be still for more than 60 minutes at a time, except while sleeping.
- Provide physical activity every day regardless of the weather.
- Starting in their infancy, provide infants, toddlers and preschoolers with opportunities to participate in daily physical activity that promotes fitness and movement skills.
- Provide parents and care givers with information that is age-appropriate for their children.
- Build movement skills towards more complex movements. These skills help lay the foundation for lifelong physical activity.
- Encourage basic movement skills – they do not just happen as a child grows older, but develop depending on each child’s heredity, activity experiences and environment.
- For children with a disability, access to age-and-ability-appropriate adapted equipment encourages them to participate.
- Focus on improving basic movement skills such as running, jumping, twisting, kicking, throwing and catching. These basic human movements are the building blocks for more complex skills.
- Offer activities that help children feel competent and comfortable participating in a variety of fun and challenging games and activities.
- Games for young children should not be competitive and should focus on participation.
- Because girls tend to be less active than boys, and children with disabilities less active than their peers, ensure that activities are gender-neutral and inclusive so that active living is equally valued and promoted for all children.



FUNdamentals

Chronological Age
Males 6-9 and Females 6-8

Teaching children to treat others as we would like to be treated is very important at this stage. They are beginning to notice differences in others and their ways of doing things, and it is important to show them that “different” doesn’t mean “wrong” – it is just different.

Like the fish swim and the birds fly, differences should be celebrated for the gifts they bring. The Creator makes no mistakes, and what we don’t understand we can learn from. Taking the time to teach this to children, and practicing it ourselves, will prevent many conflicts and help to promote tolerance.

Objectives:

- Learn fundamental movement skills and build overall movement skills.
- Skill development should be well structured, positive and FUN!
- At this age, children need both structured and unstructured free play.
- Whether or not children decide to be competitive later, being physical literate will allow them to enjoy recreational activities and enhance their quality of life.

General Activities:

- Overall movement skills such as running, jumping, throwing, and catching.
- Combined mental, intellectual, and emotional development.
- ABCs of athleticism: agility, balance, coordination, and speed.
- ABCs of athletics: running, jumping, throwing, and wheeling for wheelchair sports.
- Develop strength through use of own-body-weight exercises such as climbing trees and rocks, and skipping.
- Introduce simple rules of fair play and ethics of sport.
- Well-structured programs.
- Daily physical activity that are fun.

Considerations:

- **Mental-intellectual:** At this age, children have limited reasoning ability. Their attention span is short and their memory is developing progressively, they are action-oriented and enjoy repetition of fun activities. They improve their abilities through experience. However, their capacity for more abstract thought begins to develop later in this phase, which helps their imagination to blossom.
- **Mental-emotional:** Children like to be the center of attention during this phase and their self-concept is developing through experience and comments from others. The influence of peers becomes a strong driving force behind all activities. This is a time when children begin to understand the need for rules and structure.

Additional Considerations:

- If children are failing to develop their fundamental movement skills, we need to do remedial work to develop these.
- If children do not develop the same activity skills as their peers, they are unlikely to be included in activities with their friends and classmates.
- They will have fewer opportunities to practice and develop their skills, and they may dropout of activity altogether.

Children with Disabilities:

- The healthy development of children with disabilities requires participation in organized physical activity and active play.
- In order for children with disabilities to enjoy sport and stay active for life, communities need to find ways to provide equipment, access to facilities, and include children of all abilities in group activities.
- Just like other children, children with disabilities need to develop their physical literacy (within the range of their intellectual, physical, or developmental capacities).

FUNdamentals Checklist:

- Practice to become good at fundamental movement skills before learning sport-specific skills towards the end of the stage.
- Emphasize the overall development of the child's physical capacities, fundamental movement skills, and the ABCs of athleticism: agility, balance, coordination and speed.
- Teach correct running, jumping, and throwing techniques for this age.
- Introduce basic flexibility exercises.
- Develop speed, power, and endurance using games.
- Encourage participation in a wide range of sports.
- Develop linear, lateral, and multi-directional speed with short bursts of activity (less than five seconds), allowing for full recovery between repetitions.
- Include strength training exercises using the child's own body weight.
- Ensure that sporting and disability equipment are size, weight, and design appropriate.
- Communities should explore ways to share and provide access to appropriate equipment.
- Introduce children to the simple rules and ethics of sports.
- Introduce very simple mental skills.
- Ensure that activities change during the school year.
- Provide multi-sport camps during summer and winter holidays.
- Participate once or twice a week in a preferred sport, so long as there is participation in many other sports or activities three or four times per week.



Learn to Train

Chronological/Developmental Age

Males 9-12 and Females 8-11/Stage ends at the onset of growth spurt

Children begin to show interest in some sports and physical activities more than others at this stage. Also, they start to show that they might have a talent in some sports and physical activities. Developmentally, this is the age when they learn new skills very easily. It is important that we give them good coaching and quality instruction so they make best use of this special time in their young lives. This includes keeping things fun. Kids can compete at this age, but the competition should be driven by them and their personal goals – not by the adults.

Objectives:

- Learn overall sports skills such as dribbling, kicking, throwing, and catching.
- The period between the ages of nine and 12 years (before the onset of the adolescent growth spurt) is the optimal time period for skills development and learning.
- Unless the child is doing an early specialization sport such as figure skating, diving, or gymnastics, specialization in one sport should be avoided.
- Early specialization in a single sport can work against a child's long-term skill development.
- Introduce recovery and regeneration techniques.

General Activities:

- Overall sports skills development such as pitching (throwing), shooting (kicking), and sprinting (running).
- This is the most important stage for learning skills.
- Combine mental, intellectual, and emotional development.
- Introduce mental preparation (visualization, positive self-talk).
- Develop strength through use of own body weight, plus medicine ball and Swiss ball if available.
- Introduce “ancillary capacities” – each child's understanding of warm-up, cool-down, stretching, nutrition, hydration, and mental preparation.
- Further identification and development of unique talents.
- Single or double seasonal plans (see *Glossary*).
- Sport-specific training three times per week; participation in other sports three times per week and active play on the seventh day of the week.

Considerations:

- **Mental-intellectual:** Children begin to gain a greater understanding of how the world works, and they are ready to acquire the general sports skills that make up the cornerstones of all athletic development. They understand direct instructions, but they will not understand abstract statements.
- **Mental-emotional:** Children are developing their self-concept and feel secure with routine and structured training. They also begin judging their behaviour and the behaviour of others. As they begin to recognize differences in abilities, there's the risk that they may judge themselves to be inferior to others, and they may withdraw from sport and activity as a result. It's important to help all children to develop a similar skill level, so they do not begin to feel inferior to their peers.

Additional Considerations:

- If children do not develop the same activity skills as their peers, they are unlikely to be included in peer-group activities.
- They will have fewer opportunities to practice and develop their skills, and they may dropout of activity altogether.

Learn to Train Checklist:

- Continue to develop all fundamental movement skills and teach general, fundamental sports skills. If this optimal learning time is missed, it may limit the child's ability to reach their full long-term potential.
- Develop strength using exercises that incorporate the child's own body weight.
- Introduce hopping and bounding exercises or routines to aid in strength and power development.
- Continue to develop endurance through activity games and relays.
- Continue to develop flexibility through stretching.
- Continue to develop speed by using specific activities that focus on agility, quickness and change of direction during the warm-up.
- Continue to develop mental skills including focus and visualization. (Refer to "Mental Fitness for Long-Term Athlete Development" resource).
- Make sure that the level of competition matches the level of ability and development of each child.
- Identify sports the child enjoys, and also identify sport they may have an aptitude for. (Enjoyment and success will increase the possibility of the child staying active for life.)
- Introduce single-phase seasonal plans, but keep in mind that some sports need to have two phases of training in their seasonal plans to meet the demands of that sport.
- Apply a ratio of 70 percent training to 30 percent competition (the 30 percent includes training sessions that use games and competition, along with actual competitions). These percentages vary according to different sports and individuals. Focus on skills for long-term success instead of winning in the short-term.
- Continue to encourage unstructured free play.



Train to Train

Chronological/Developmental Age

Males 12 - 16 and Females 11 - 15/Stage begins at the onset of the growth spurt and the demonstrated capability to progress through the excellence stages.

As they enter their teen years, some Indigenous participants will show that they have a special talent in their sport, and some of them will decide that they want to challenge themselves to compete at the highest levels. In the Excellence stages, we offer youth specialized coaching and training so that they can achieve their personal best, while demonstrating their pride in representing their community and their people. This is also the stage when we introduce seasonal planning to manage and optimize training, competition, and recovery.

Objectives:

- Build an aerobic base, develop speed and strength towards the end of the stage, and further develop sport-specific skills and tactics.
- Begin to focus on one or two favourite sports.
- This is an optimal period to train aerobic capacity, speed, and strength.
- During competitions, athletes play to win and to do their best, but the major focus of training and competition is on applying the skills, strategies, and tactics learned in training.
- Continue to develop recovery and regeneration routines.
- Further ancillary capacities, including techniques to taper and peak.

General Activities:

- Focus on developing sport-specific skills.
- This is the major fitness development stage: aerobic, speed, and strength.
- The start of the growth spurt and the start of menstruation (moontime) are the biological markers.
- Focus on building the physical and mental “engine” of each athlete – starting to maximize their capacities in both areas.
- Training should provide integrated mental, intellectual, and emotional development.
- Introduce free weights.
- Develop further ancillary capacities such as nutrition, warm-up and proper rest.
- Conduct regular musculoskeletal evaluations during the growth spurt.

- Start to identify and select talent.
- Single or double-phase seasonal training plans.
- Sport-specific training six to nine times per week, including complementary sports.

Additional Considerations:

- **Mental-intellectual:** Young people start to have the ability to think abstractly. They also start to put more emphasis on self-identity, and they are eager to perfect their skills. This is when systematic planning and deductive reasoning emerges. In sport, this stage is key to understanding the rules of sport and the consequences of one’s actions.
- **Mental-emotional:** It is important to note that physical, mental, and emotional maturity do not necessarily develop at the same rate. During this phase, behaviour is influenced by friends and classmates, and there is often tension between adults and adolescents. Teens need a chance to explore their own ideas of self and how they fit in. Pressure from coaches or parents to play a certain role can cause confusion for the teen. Participants are capable of co-operating and accepting some responsibility, and it is important that they are able to display tenderness, admiration, and appreciation. Desire emerges to have friends of the opposite sex.

Train to Train Checklist:

- Introduce seasonal training plans to manage training, competition, and recovery.
- Depending on sport-specific needs, make aerobic training a priority after the start of the growth spurt.
- Continue to develop skill, speed, strength and flexibility.
- Flexibility training is important because bones grow quickly during this stage, and this leads to stress on tendons, ligaments, and muscles.
- Pay attention to the optimal training periods for strength in females: immediately after the growth spurt or the start of menstruation. For males, the optimal training period for strength begins 12 to 18 months after the start of the growth spurt (PHV).
- The optimal training periods for aerobic capacity and strength depend on maturation. For this reason, the time to train strength and aerobic capacity will vary according to whether an athlete is an early, average, or late maturer.
- Learn to cope with the physical and mental challenges of competition and develop further mental skills.
- Introduce athletes with disabilities to specialized sport-specific equipment such as racing wheelchairs and athletic prostheses. For all athletes, the use of body-size and skill-level appropriate equipment remains important.
- Optimize training and competition ratios and follow a ratio of 60 percent training to 40 percent competition (the 40 percent includes competition-specific training and actual competitions).
- Too much competition wastes valuable training time, and not enough competition means that athletes do not have enough in-competition practice of technical/tactical and decision-making skills.
- Use single- and/or double-phase seasonal plans for optimal preparation.
- Train athletes in regular competitive situations in the form of practice matches, scrimmages, or competitive games and drills.



Train to Compete

Chronological/Developmental Age

Males 16-23 +/- and Females 15-21 +/- Ability to challenge for National podium performances (Sport-specific needs will define the length of the Train to Compete stage)

It takes courage to face an opponent and represent one's community. It takes courage to face ourselves and acknowledge strengths and weaknesses. Moving forward with heart, regardless of the doubts that may be present, is a great way to gain strength and lead by example. At this age, Indigenous athletes are developing their identities through their accomplishments and may doubt their abilities in moving ahead in competition. This is a good time to teach them more about mental preparation and how to manage their thoughts to conquer their emotions. Experiencing doubts and being able to accomplish the task ahead of us are two different things. Pushing through the discomfort with courage helps us accomplish what we thought was impossible.

Objectives:

- Optimize each athlete's physical capabilities and learn to compete under any circumstances.
- Optimize fitness preparation and sport-, individual-, and position-specific skills as well as performance.
- Optimize recovery and regeneration programs (e.g. seasonal planning allows for recovery).
- Optimize ancillary capacities.
- Optimize mental fitness development.

General Activities:

- Single-, double-, or triple-phase seasonal training plans.
- Sport-, event-, position-specific physical conditioning.
- Sport-, event-, position-specific technical and tactical preparation.
- Sport-, event-, position-specific technical and playing skills under competitive conditions.
- Combined mental, intellectual, and emotional development.
- Advanced mental preparation.
- Optimize ancillary capacities.
- Specialization.
- Sport-specific technical, tactical, and fitness training nine to 12 times per week.

Considerations:

- **Mental-intellectual:** Generally, by age 16, the brain has reached its adult size but continues to mature and develop for several more years. This means that critical thinking is well developed during this phase. Participants will continue to develop logical reasoning.
- **Mental-emotional:** Participants are searching for a stable, balanced self-image, though peer group influence is still a powerful force. This is also a key time for individuals to "find themselves" within sport, and they should be granted the opportunity to explore and experiment within their sport or activity. Activities and interaction with the opposite sex are also important.

Train to Compete Checklist

- Provide year-round, high intensity, individual-, event- and position-specific training.
- Teach athletes to perform their skills under a variety of competitive conditions during training.
- Place special emphasis on optimal preparation by modelling competitions in training.
- Tailor fitness programs, recovery programs, psychological preparation, and technical development to each individual.
- Emphasize individual preparation that addresses each athlete's strengths and weaknesses.
- Specialize in a single sport, position, or event.
- Use single-, double-, and/or triple-phase seasonal training plans for optimal preparation and recovery.
- Change the training-to-competition and competition-specific training ratio to 40:60. Devote 40 percent of available time to the development of technical and tactical skills and improving fitness, and 60 percent to competition-specific training and actual competitions.



Train to Win

Chronological Age

Males 19 +/- and Females 18 +/-

(Sport-specific needs will define the length of the Train to Win stage)

Winning is not a principal cultural value of Indigenous peoples, but it is important to train for a goal. For Indigenous participants, coaches, and communities, the key is to define what “winning” means. In mainstream sport, winning is a key goal, but Indigenous sport may choose to define their goals differently.

Objectives:

- Athletes learn to deliver performance on demand.
- Maximize fitness preparation and sport-, individual-, and position-specific skills as well as performance.
- All of the athlete’s physical, technical, tactical (including decision-making skills), mental, personal, and lifestyle capacities should be fully established.
- The focus of training shifts to maximizing performance.
- World-class able-bodied and disability sport performances require world-class equipment that is fine-tuned to the demands of the event and the requirements of the athlete.
- Maximize recovery and regeneration programs.
- Maximize ancillary capacities.
- Maximize mental fitness.

General Activities:

- Maintain or improve physical capacities.
- Further develop technical, tactical, and playing skills.
- Model all possible aspects of competition in training.
- Frequent, short breaks to prevent physical and mental burnout.
- Maximize ancillary capacities.
- Performance on demand.

Considerations:

- **Mental-intellectual:** The brain matures at about 19 to 20 years of age. At this point, athletes have a complete understanding and acceptance of the need for rules, regulations, and structure.
- **Mental-emotional:** Self-actualization and self-expression start to become important to the athlete, and there is a greater need to be self-directed and independent. Major decisions on career, education, and lifestyle become an increasing priority. Interactions with the opposite sex continue to be important, and lasting relationships are being formed.

Train to Win Checklist:

- Train participants to peak for major competitions.
- Ensure that training is high intensity and relatively high volume throughout the year.
- Allow frequent, short breaks to prevent physical and mental burnout.
- Use single-, double-, triple-, or multiple-phase seasonal training plans for optimal preparation, as required by sport-specific needs.
- Change the training-to-competition ratio to 25:75, with the competition percentage including competition-specific training and actual competitions.



Active for Life: Life is a Physical Event

Enter at any time after physical literacy is acquired.

After children and youth have developed physical literacy, and after some have competed in the higher stages, Indigenous peoples will eventually move into the Active for Life stage of the Indigenous Long-Term Participant Development Pathway.

This is the stage when each person has recognized the value of sport and physical activity in their life. Now they are choosing to remain active for the rest of their lives.

By keeping active in different recreational and sport settings, they continue to enjoy the benefits of good health, community belonging, fun and enjoyment, and even a little competitive spirit for some.

Life is an athletic event – whether it is playing with your kids, carrying groceries, or just being at work. You want to be able to participate. There is a need to have and maintain physical literacy to be active for life. This requires ongoing commitment to regular fitness activities in a variety of settings and with a range of movements. Once physical literacy is acquired, it should be maintained for life and it is easier for your body and mind to recall those skills as they are required/needed. However, regular engagement is still required to avoid losing these skills.

Life is an Athletic Event



Develop an active lifestyle by participating in non-organized sport or physical activity that may be unfamiliar. Being active for life is more likely if physical literacy is acquired before the teenage years.

The Active for Life stage includes three streams of participants:

- Competitive for Life
- Fit for Life
- Leadership for Life

Depending on their level and range of interests, some participants may be active in one, two, or all three of these streams.

Objectives:

- A smooth transition from the early stages to lifelong physical activity and participation in sport; or
- A smooth transition from the Excellence stages to Competitive for Life, Fit for Life, or Leadership for Life.

General Activities:

Competitive for Life:

Competitive for Life includes all organized sport outside of the Performance Pathway that functions under a set of rules.

- Minimum of 60 minutes of moderate daily activity or 30 minutes of intense activity for adults.
- Transfer from one sport to another. For example, the gymnast becomes an aerial skier, the sprinter takes up bobsledding, or the 12-year-old basketball player discovers canoeing.
- Move from one aspect of sport to another. For example, the middle distance runner becomes a guide runner for blind athletes, or the cyclist rides tandem at the Paralympic Games, such as Masters Games.
- Move from highly competitive sport to lifelong competitive sport including age-group competition.
- Embrace an active lifestyle by participating in a new sport that may be unfamiliar.

Fit for Life:

Fit for Life includes all non-competitive physical activities such as hiking, gardening, yoga, aerobics, skiing, cycling and walking, as well as non-organized sport (self-determined rules) such as pick-up games in the school yard or park.

- Minimum of 60 minutes of moderate daily activity or 30 minutes of intense activity for adults.
- Move from competitive sport to recreational activities such as running, walking, hiking, and cycling.
- Use the skills developed in one sport or activity to foster involvement in others.
- Keep active by continuing to participate in non-organized physical activity.
- For athletes who are leaving the Excellence stages and the competition stream, a positive experience in sport is the key to keeping them in activity and leadership roles.

Leadership for Life:

Leadership for Life describes those people who contribute in ways other than being an athlete or participant in the sport or activity itself. This includes coaches and instructors, officials, and administrators in either a volunteer or professional capacity.

In addition to being leaders within the Indigenous Long-Term Participant Development Pathway, it is possible that these individuals also participate in the Competitive for Life and/or Fit for Life streams.

The concept of service is central to the traditional leadership style of Indigenous peoples. It is understood that each person has something special to offer and is valued as a contributor to his or her community. Similarly, Indigenous athletes are expected to show this kind of leadership and commitment to serving the common good.

Photo Credit: Anthony Sauvé (*Far Left*), Indigenous Sport, Physical Activity and Recreation Council (BC) (*Top and Far Right*), Getty Images (*Bottom*).

10 Key Factors Influencing Indigenous Long-Term Participant Development Pathway

The foundation for participant development is built on several key factors. These are the concepts that support the development of active participants and successful athletes.

1. Physical Literacy:
Learn to Move and Learn to Play
2. Specialization: The Straight Trail
3. Developmental Age: From Seed to Tree
4. Optimal Training Periods:
Planting the Garden
5. Mental (Intellectual and Emotional) Development: Training the Good Mind
6. Planning, Training, Competition, and Recovery
7. Competition: Representing Your People
8. Excellence Takes Time
9. Working Together: One Mind, One Heart
10. Continuous Improvement:
Honouring the Circle



Physical Literacy:

Learn to Move and Learn to Play

Physical literacy is the heart of both participation and excellence in physical activity and sport. Individuals who are physically literate are more likely to be active for life.

Physical literacy is the physical competence, confidence, and motivation to be active for life in different settings and environments (both indoors and outdoors on the ground, in the air, on and in water, and on snow and ice).

Physical literacy is best developed at a young age, before the onset of the growth spurt. Today's children are not playing and moving as much, so they are not developing their movement abilities, and this makes them inclined to move even less. As a result, as Indigenous peoples become less active, we see increases in diabetes and other chronic diseases. It is time to teach Indigenous youth to begin moving early, so they have the best chance to live the healthiest life possible.

Physical Literacy Core Principles

- Inclusive concept accessible to all
- Represents a unique journey for each individual
- Can be cultivated and enjoyed through a range of experiences in different environments and contexts
- Needs to be valued and nurtured throughout life
- Contributes to the development of the whole person

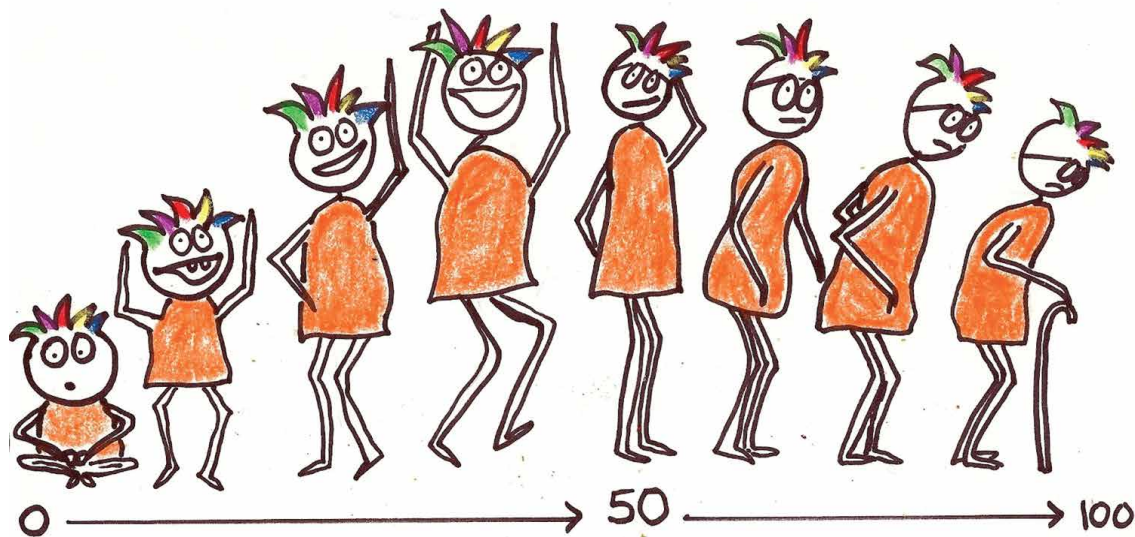



Photo Credit: Anthony Sauvé (Left)



To develop healthy and active Indigenous communities, the first goal is to provide opportunities for children to move and to play. Through play and movement, children develop physical literacy, which allows them to achieve their personal excellence and lead an active lifestyle through adulthood.

The three stages that develop physical literacy set the foundation for everything that happens during the teenage years and adulthood. Whether we wish to see Indigenous children compete in the Olympics, Paralympics, North American Indigenous Games (NAIG), or simply become healthy and active for life, they need to have developed physical literacy.

Physical literacy is the:

DEVELOPMENT OF MOVEMENT SKILLS (PHYSICAL COMPETENCE) – the ability to perform basic movement skills that allow individuals to live, learn, work and play in various indoor and outdoor environments. Physical competence can be acquired and advanced through a mix of informal, unstructured play and intentional instruction. By developing the ABCs (agility, balance and speed) of fundamental movement skills, ability is gained in activities such as running, swimming, skiing, skating, hopping, skipping, jumping, dodging, falling, kicking, throwing, and a range of skills that require general hand-eye coordination.

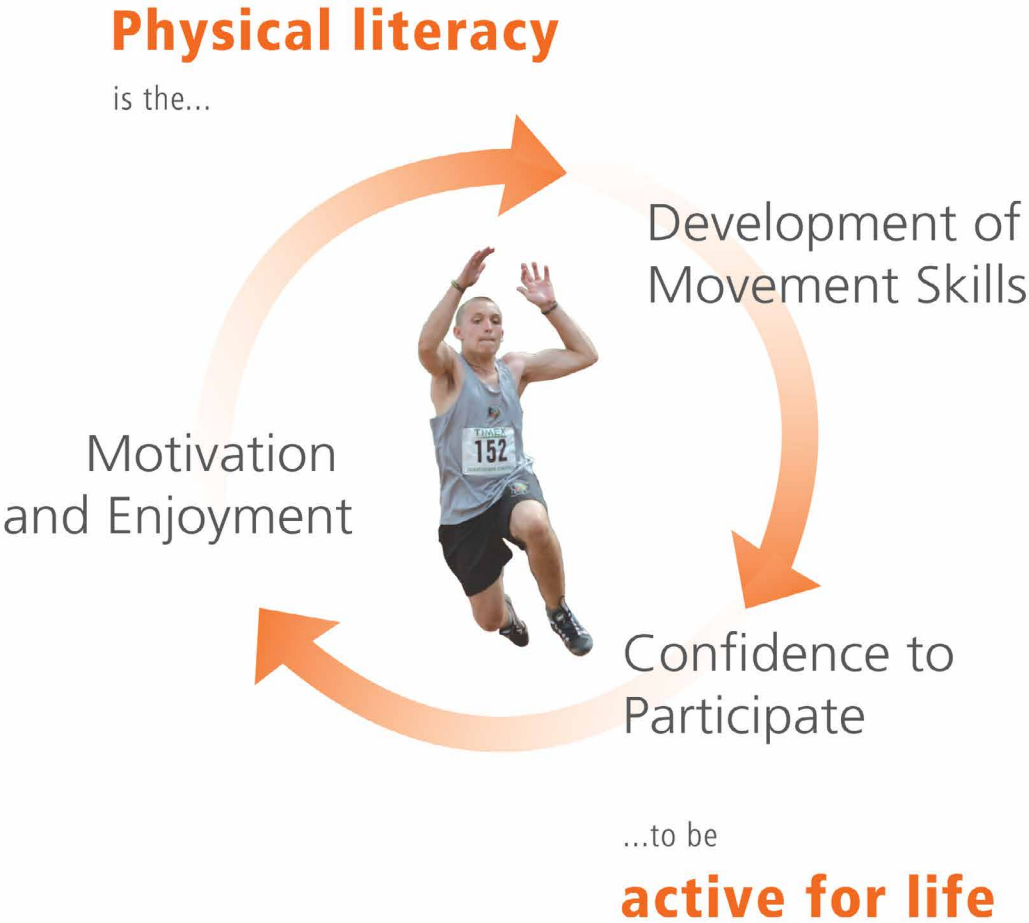
CONFIDENCE – the self-belief that you can enjoy many physical activities, play sports or perform skills as required for any task of daily living. Confidence is a feeling of self-assurance arising from one's appreciation of one's own abilities or qualities. It is developed through appropriate exposure to a variety of programs and environments that welcome diverse abilities and are supported by parents, guardians, coaches, administrators, teammates, and friends.

MOTIVATION AND ENJOYMENT – the intrinsic enthusiasm, knowledge, and understanding to value and take responsibility for engagement in physical activity – whether in organized or unstructured formats, in traditional or alternative sport or recreational environments – for life. This can be achieved through positive experiences focused on provision of choice that create a sense of understanding, belonging and connectedness.

Definition of Physical Literacy (International Physical Literacy Association, May 2014)

Physical literacy is the motivation, confidence, physical competence, knowledge and understanding to value and take responsibility for engagement in physical activities for life.

Figure 5: Physical Literacy



What does physical literacy look like?

Physically literate individuals can:

- Demonstrate a wide variety of basic fundamental movement skills and fundamental sport skills.
- Move with ability, confidence and desire in different environments (both indoors and outdoors on the ground, in the air, on and in water, and on snow and ice).
- Develop the motivation and the ability to understand, communicate, apply, and analyze different forms of movement.
- Make good choices in physical activity, recreation, and sport. This improves their physical and psychological wellness, and helps them to pursue sport achievement if they have the ability and motivation.

The basic movement skills can be developed through the following five sets of activities:

- **Athletics:** run, jump, throw, and wheel (for participants with a physical disability).
- **Gymnastics:** ABCs of athleticism (agility, balance, coordination, and speed).
- **Swimming:** the foundation for all water-based sports, as well as water safety for balance in a buoyant environment.
- **Skating, slipping and sliding activities** – developing stability on ice, snow, and water.
- All styles of **dancing, combative sports** and **cultural games**.

Together, these skills and activities provide a base for all other sports. Without these basic movement skills, children will have difficulty participating in any sport. For example, to enjoy baseball, basketball, cricket, football, netball, handball, rugby, and softball, children need to master the simple skill of catching.

In the first three stages, it is very important to provide many opportunities for children to explore their movement potential in a safe environment with developmentally appropriate games (i.e. small sided games).

Children with Disabilities

It is also important that children with disabilities have the opportunity to develop their physical literacy. By doing so, they are more likely to be included in school, community, or club-based activities.

If children with disabilities are not included, their opportunities to participate in physical activity and sport will be limited for the rest of their lives.

Children with disabilities may have difficulty gaining the fundamentals for the following reasons:

- They do not have access to adapted facilities or equipment.
- Some parents, teachers, and coaches are overly protective, so they shield children with disabilities from the bumps and bruises of childhood play.
- Adapted physical education for children with disabilities is not well developed in all communities and school systems.
- Some coaches do not welcome children with disabilities because they do not have the knowledge to adapt their program and design integrative skills, drills, and games.

It takes knowledge and creativity to integrate children with disabilities into group activities, but it can be done. One route is to work with disabilities organizations who have the expertise and who have already done much of the work to design adapted activities and programs that work.

Figure 6: Fundamental Movement Skills and the Enjoyment of Activities



Run

If You **Can**



Jump
Balance
Run
Swim
Throw

You May
Enjoy



Baseball
Hunting
Lacrosse
Soccer
Track & Field



Throw

If You **Can**

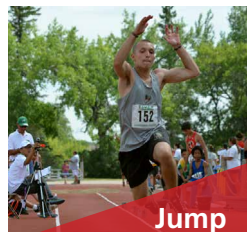


Balance
Jump
Throw
Swim
Run

You May
Enjoy



Basketball
Fishing
Hunting
Snow Snake
Softball



Jump

If You **Can**



Throw
Swim
Jump
Balance
Run

You May
Enjoy



Blanket Toss
Gathering
High Kick
Track & Field
Volleyball



Balance

If You **Can**



Throw
Jump
Balance
Swim
Run

You May
Enjoy



Archery
Jigging
Hockey
Snowboard
Yoga

2



Photo Credit: Anthony Sauvé

Specialization:

The Straight Trail

The quickest way to get to a destination is the straight route. Before beginning this journey, we need to make sure that we learn as much as we can about the terrain and what we will need to achieve the goal. This takes time and purposeful preparation. In order to excel at a specific sport, we need to develop the skills that will take us there.

Specialization in sports means working to develop excellence in one particular sport, position on the team or an event within the sport.

Sports can be classified as either early or late specialization. Examples of early specialization sports include artistic and acrobatic sports such as gymnastics, diving, and figure skating. These are different from late specialization sports because the children learn very complex skills before adolescence. These skills may not be fully mastered if they are learned after the start of the growth spurt.

Most sports are late specialization sports. Examples include soccer, hockey, basketball, lacrosse, baseball, and tennis.

If physical literacy is acquired before the start of the teenage growth spurt and physical maturation, athletes can select a very late specialization sport when they are 12 to 15 years old and still have the potential to rise to the top ranks in that sport.

Based on sport-specific Long-Term Athlete Development Frameworks around the world, experts can recommend when it is ideal to specialize in each sport. Based on these recommendations, we are able to group sports into early and late specializations.

Early Specialization:

- Acrobatic sports and activities (gymnastics, diving, figure skating)
- Highly kinesthetic activities and sports (swimming or synchro)
- Any activity demanding complex motor skill development

Late Specialization – Early Engagement:

- Early Engagement
 - Kinesthetic (alpine ski, freestyle ski, equine, snowboard, luge, cross country ski)
 - Team sports (basketball, ice hockey, baseball, rugby, soccer, water polo, field hockey)
 - Visual (tennis, badminton, squash, fencing)
- Standard (typical timing of specialization – majority of sports fit into this category)
- Very Late Specialization (cycling, wakeboard)
- Very Late Specialization; Transfer – when the skills developed in one sport allow an athlete to smoothly transition into another sport (rowing, triathlon, volleyball – beach and indoor, bobsleigh)

Problems with Early Specialization

Specializing too early in a single, late specialization sport can lead to a number of problems in athlete development:

- One-sided, imbalanced development (e.g. hockey, golf – always swinging the stick or the club in one direction on one side of the body).
- Poor development of the ABCs, fundamental movement skills, and fundamental sport skills.
- Overuse injuries (wear and tear on joints, tendons, ligaments, and muscles).
- Early burnout (i.e. person stops enjoying the activity due to the large amount of pressure and lack of fun, so they lose their motivation to continue).
- Early retirement from training and competition.

Disability Sports

Disability sports are typically late specialization sports. It is important that children who are born with a disability or who have experienced a disability early in life, be exposed to as broad of a range of movement and sports skills as possible before specializing in the sport of their choice. For older athletes who acquire a disability, it is important that they again pass through the early stages – using the capacities that their disability permits – and be exposed to a variety of sports before they specialize in only one sport.

3



Developmental Age:

From Seed to Tree

When planting a seed to grow into a tree, we need to make sure it gets everything it needs at every stage of its development. The same applies to Indigenous youth. If we want them to become healthy contributing members of the community, we need to support them by providing for their ever-changing needs.

Developmental Age

Children of the same chronological age can differ by several years in their level of physical maturation. Growth, development, and rate of maturation are the result of a combination of genes, hormones, nutrients, and the environments (physical and psychosocial) in which each person lives. This combination of factors regulates the child's physical growth, neuromuscular development, sexual maturation, mental, intellectual, and emotional development, and general physical changes during the first two decades of life.

There are many physical changes in puberty that help children to grow into adults. These developments occur over a number of years and include major changes to height, body fat, bone, muscle, brain, and sexual characteristics (e.g. breasts, genitalia, pubic and axillary hair growth).

The terms "growth," "maturation," and "development" are often used interchangeably as though they mean the same thing. However, they are different terms that refer to different biological activities.

Growth refers to step-by-step changes in quantity and measurable changes in body size such as height, weight, and fat percentage.

Maturation refers to qualitative changes in the body, both structural and functional, such as cartilage changing into bone in the skeleton.

Development refers to both biological (physical) and behavioural (way of acting) conditions.

Age-related terms used in the Indigenous Long-Term Participant Development Pathway:

Chronological age refers to the number of years and days since birth (calendar age). Children of the same chronological age can be different by several years in their level of biological (physical) maturation.

Relative age refers to differences in chronological age among children born in the same sport program year. For example, a sport may have age-group classification based on age on December 31st of a year, and this can lead to an athlete born in December being essentially one year less developed than a peer who was born the previous January.

Developmental age refers to the degree of physical, mental, moral, intellectual, and emotional maturity. Physical developmental age can be determined by skeletal maturity or bone age. Mental, moral, intellectual, and emotional maturity are more difficult to determine.

Skeletal age refers to the maturity of the skeleton determined by the degree of ossification of the bones. It is a measure that takes into consideration how far given bones have progressed toward maturity, not in size, but with respect to the progressive change from cartilage to bone.

Training age refers to the age where athletes begin planned, regular involvement in training.

General training age refers to the number of years in training in different sports.

Sport-specific training age refers to the number of years an athlete has been training in one particular sport.

Interpreting for different “ages”:

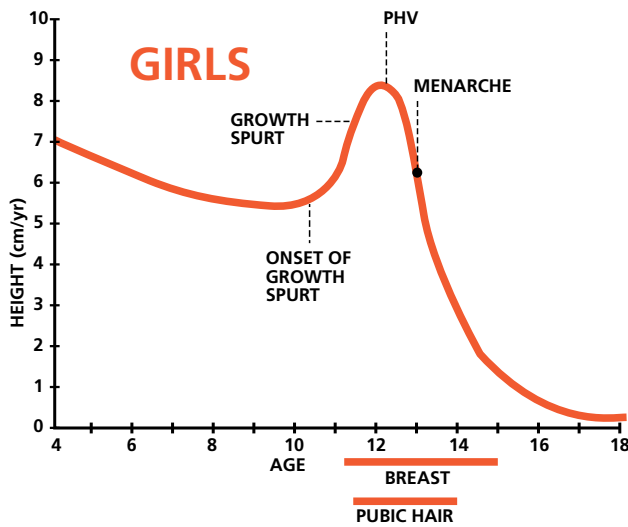
The rate of a child’s growth is important for athletic training because children who mature at an early age have a big advantage during the early part of the Train to Train stage compared to average or late maturers. However, after all athletes have gone through their growth spurt, it is often the late maturers who have greater potential to become top athletes. This means that we need to ensure that they have had quality coaching throughout their youth despite not having shown early “talent”.

To design the right training, competition, and recovery program, we need to identify early, average, and late maturers in relation to the Indigenous Long-Term Participant Development Pathway training recommendations and the athlete’s readiness to learn and perform.

The onset of the growth spurt, and the fastest rate of growth (PHV) help us to design training, competition, and recovery programs that fits the maturation and development of each athlete.

Note: specific disabilities may dramatically change the timing and sequence of childhood and adolescent development.

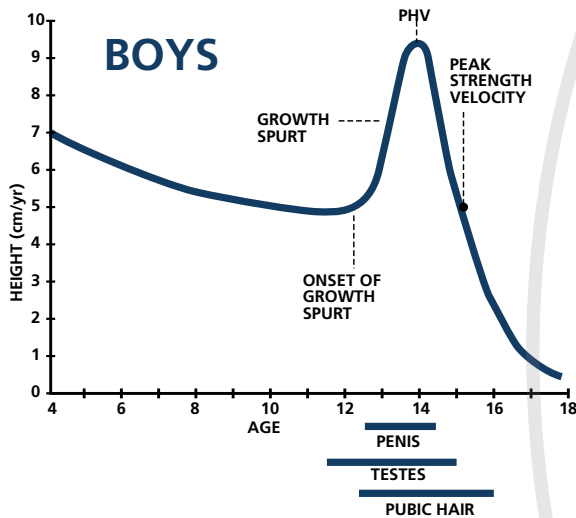
Figure 7: Maturity Events in Girls (Adapted and modified from Ross & Marfell-Jones, 1982)



In girls, the fastest rate of growth happens at about 12 years of age. Usually the first physical sign of adolescence is breast budding, which occurs slightly after the beginning of the growth spurt. Shortly after, pubic hair begins to grow. Onset of menstruation occurs rather late in the growth spurt.

The fastest rate of growth in strength comes immediately after the fastest rate of physical growth, or at the onset of menstruation. This is usually about one year after the fastest rate of physical growth during the growth spurt. The timing of physical development may occur two or even more years earlier or later than average.

Figure 8: Maturity Events in Boys (Adapted and modified from Ross & Marfell-Jones, 1982)



The fastest rate of growth in boys is more intense than in girls and, on average, occurs about two years later than girls. Growth of the testes, pubic hair, and penis are key indicators of the maturation process.

In boys, their fastest rate of growth in strength comes 12 to 18 months after their fastest period of physical growth.

As with girls, the timing of physical development for boys may happen two or more years earlier or later than average. Early maturing boys may have as much as a four-year physical advantage over their late-maturing peers. Eventually, the late maturers will catch up when they experience their growth spurt.

Currently, most athletic training and competition programs are based on chronological age. However, athletes of the same age between ages 10 and 16 can be three to five years apart developmentally (Borms, 1986). For this reason, chronological age is a poor guide for creating competition divisions for adolescents.

Sport leaders need to develop strategies that will encourage late maturing boys to remain in sport until they have caught up developmentally with their early maturing peers, who have an early competitive advantage because of their increased size and strength.

For girls, there is a need to develop strategies to retain early developers in programs until the competitive disadvantage of wider hips and breast development is reduced, as late developers also obtain more adult body shapes.



Photo Credit: Anthony Sauvé



Photo Credit: Anthony Sauvé



Photo Credit: Indigenous Sport, Physical Activity and Recreation Council (BC)



Photo Credit: Anthony Sauvé

4



Photo Credit: CaneteCo. Photography & Design

Optimal Training Periods:

Planting the Garden

Indigenous peoples have always known the right time to plant and to gather the plants they needed by reading the signs in Creation. Youth go through very important stages of growth and development and we need to learn to read the signs in order to provide them with what they need at the right time.

An optimal training period is a time when it is easier for the body to learn a specific skill or develop a specific physical capacity. The entire period of childhood can be viewed as a sensitive period for mastering fundamental movement skills (Gallahue and Donnelly, 2003).

The optimal training periods are stages of growth and maturation when the body responds well to specific types of training (e.g. stamina [endurance], strengths, speed, and skills).

The different physiological abilities can be trained at any age, but the optimal training period is when children and youth respond especially well to specific types of training.

The optimal training periods that occur before adolescence are based on chronological age, while those that occur during or after adolescence/biological markers are based on their relationship to onset of the maturation signs (Balyi, 2001). These include the start of the teenage growth spurt and the fastest growth rate during the growth spurt (PHV)* as a whole. In girls, they also include the onset of menstruation.

Optimal training periods for stamina, strength, and skills are identified using maturation signs as well. The trainability of speed and suppleness (flexibility) are based on chronological age, since all available research is based on chronological age.

Regardless of differences in each person's training response one thing must be remembered: **All systems are always trainable!** That is, at any age of life, you can make improvements through training.

*PHV = Peak Height Velocity

Figure 9 illustrates the optimal training periods for females and males. Three sensitive periods – skills, stamina, and strength – are based on the moving scales of the onset of the growth spurt and the fastest growth rate during the growth spurt (PHV). The other two optimal training periods – speed and suppleness – are based on chronological age, due to the fact that all research on speed and suppleness has been based on chronological age.

The trainability of the different systems for children and youth with disabilities is not well understood. Applying this information to specific athletes with disabilities is a good example of coaching being an art as well as a science.

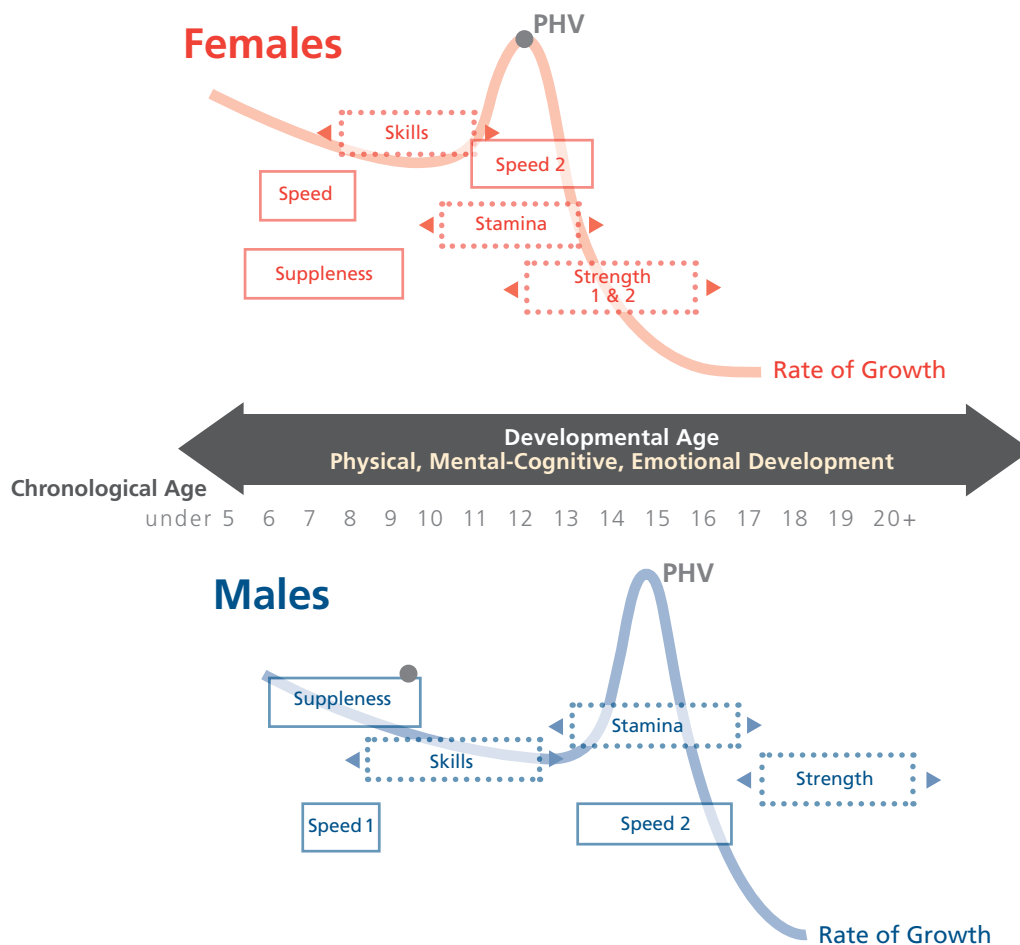
The idea of trainability has caused some argument within sport and academic communities. Trainability is well documented in coaching and research literature, including Arbeit (1997), Borms (1986), Kobayashi et al. (1978), Malina, Bouchard and Bar-Or (2004), Rowland (2005), Rushall (1998), Viru (1995), and Viru et al. (1998; 1999).

This body of work provides reasonable evidence to support the concept of accelerated adaptation to training or sensitive periods of trainability.

During the optimal training periods, the “windows” of trainability are fully open. Outside of the optimal training periods, the windows are still open, but only partially open. All systems are always trainable, but there is accelerated adaptation to training during Optimal Training Periods.

All research done on speed and flexibility is based on chronological age. The solid lines represent that research. The dotted lines represent the optimal training periods based on developmental age. The dotted lines are defined by the onset of the growth spurt.

Figure 9: The Sensitive Periods of Accelerated Adaptation to Training (Balyi and Way, 2005)





The 10 S's of Training and Performance

In trainability, there are five basic S's of training and performance (Dick, 2007) that represent five key qualities or capacities in athlete training and development:

1. Stamina (Endurance)
2. Strength
3. Speed
4. Skill
5. Suppleness (Flexibility)



1. Stamina



2. Strength



3. Speed



5. Suppleness

1. Stamina (Endurance)

The optimal training period for stamina occurs at the onset of the adolescent growth spurt. Aerobic capacity training is recommended before athletes reach PHV. Aerobic power should be introduced progressively after PHV when growth rate slows down.

2. Strength

The optimal training period for strength in girls is immediately after the fastest rate of growth during the growth spurt, or after the start of menstruation. For boys, it is 12 to 18 months after the fastest rate of growth during the growth spurt.

3. Speed

For boys, the first optimal training period for speed is between the ages of seven and nine years, and the second is between the ages of 13 and 16. For girls, the first optimal training period for speed is between the ages of six and eight years, and the second is between the ages of 11 and 13. There is a shift in coaching philosophy that speed should be trained at the beginning of every training session, at the end of the warm-up.

4. Skill

The optimal training period for the best skill training generally takes place between the ages of nine and 12 years for boys and between the ages of eight and 11 for girls, or more precisely, before the beginning of the adolescent growth spurt. This period is sometimes called the "skill hungry" years.

5. Suppleness (Flexibility)

The optimal training period for suppleness for both boys and girls happens between the ages of six and 10. Although flexibility training during puberty yields good results, special attention should be paid to flexibility during the adolescent growth spurt due to stresses on muscles, ligaments and tendons by the rapidly growing bones.

In addition to the following five basic S's of trainability, an additional five S's have been identified for building a complete and holistic plan for developing athletes. These include the following considerations:

6. Structure/Stature
7. Schooling
8. (p)Sychology
9. Sustenance
10. Socio-cultural

6. Structure/Stature

Structure is the anatomical components of the body. Stature is the height of a human. Instructors, coaches, teachers, or parents should record measurements regularly during maturation. This is done to track growth and identify the beginning of the adolescent growth spurt, the fastest rate of growth during the growth spurt, and whether athletes are early, average, or late maturing.

By tracking stature and developmental age, coaches can plan training to address the optimal training periods (Viru, 1995; Viru et al, 1998; 1999) of physical development (endurance, strength, speed, and flexibility) and skill development. Measurements should be done every three months, measuring standing height, sitting height, and arm span. Structure can be measured by monitoring stature and weight.

(For further information, see "The Role of Monitoring Growth in Long-Term Athlete Development" – Sport for Life Resources.)

7. Schooling

With training and competition schedules, school needs have to be considered. These include homework, exams, and other school duties. When possible, training camps and competition should complement, not conflict, with the timing of major school events.

8. (p)Sychology – Mental Fitness

Mental fitness and strategies can start to be introduced to athletes at an early age. It should start with teaching a positive attitude, improving focus, encouraging imagination, and focusing on effort and fun. As athletes grow through the stages of the Indigenous Long-Term Participant Development Pathway, more advanced mental skills and strategies can be introduced to handle increased pressures and demands.

Developing mental fitness depends on:

- The time and effort spent developing the mental skills.
- The athlete's openness to self-learning and reflecting on competitive experiences.

For athletes to reach their full potential, mental fitness should be taught throughout their long-term development.

(For further information, see "Mental Fitness for Long-Term Athlete Development" – Sport for Life Resources.)



6. Structure/Stature

7. Schooling

8. (p)Sychology

9. Sustenance (Recovery and Regeneration)

Physical activity, competition, training, and sport participation in general will lead to fatigue. Recovery and regeneration is about overcoming fatigue. When the body rests, it adjusts to training and gets stronger, and it develops endurance and power.

There are many ways to speed up the recovery process. These include nutrition, hydration, rest, sleep, and the use of techniques such as massages, contrast baths, ice baths, and warm water jets. Recovery strategies will vary according to the stage of the Indigenous Long-Term Participant Development Pathway and the athlete's level of competition.

In the recovery process, coaches and parents also need to remember the athlete's other life activities outside of sport. These also represent sources of fatigue and stress.

Poor planning and too much training and competition can cause high levels of fatigue. The same fatigue can also come from simply not scheduling enough rest and recovery.

Coaches and parents need to make sure that "overstress" does not occur. Overstress can come from the combined effects of everyday life stresses, such as school, exams, peer groups, family and romantic relationships, as well as increased training time and intensities, or competition. All coaches who work with a particular athlete need to communicate to prevent the athlete from becoming too stressed.

(For further information, see "Recovery and Regeneration for Long-Term Athlete Development" – Sport for Life Resources.)

10. Socio-cultural

The socio-cultural aspects of sport are very important and need to be managed with proper planning. Sport can help to teach cultural and community values. This begins in the local community and continues as an athlete progresses through the Indigenous Long-Term Participant Development Pathway stages (potentially to international competitions).

Experiencing different cultures helps athletes see different perspectives. For example, they become aware of different ethnicities and national diversity.

When travelling, recovery time can be used to educate athletes about the competition location, including history, geography, architecture, cuisine, literature, music, and visual arts.

With proper planning, sport can offer much more than simply commuting between hotel room and competition. It is an opportunity to grow as a person and to develop awareness of the world.

"Sport socialization" is another factor. This refers to the sport subculture in a particular sport. Sport subcultures can be very different between sports – just consider the differences between rugby, gymnastics, soccer, or swimming subcultures. Within each sport subculture, it is important that coaches and parents guard against group dynamics that create a culture of abuse, bullying, or even racism.

Overall, socio-cultural activity is not a negative distraction or an interference with training or competition activities. It should be a positive addition to the development of the participant as a person.



9. Sustenance



10. Socio-cultural



5



Mental (Intellectual and Emotional) Development: Training the Good Mind

Teaching cultural values at every stage of development will ensure that Indigenous youth learn good ways of dealing with any situation that may present itself. Playing sports is a wonderful opportunity to teach all of the life lessons that can be applied in other settings such as collaboration, problem solving, conflict resolution, and teamwork.

Mental, intellectual, and emotional factors are very important to each athlete's development. Not only is holistic development – which also includes physical development – beneficial to the individual, but also all of these skills are part of the Holistic Model approach.

Just as physical and technical skills require long-term and step-by-step development, the psychological aspects of athlete development need this as well. This includes teaching fair play and ethical sport behaviour, mental skills for performance, emotional control, sequencing, and decision-making.

Training, competition, and recovery programs should consider the intellectual, moral, and emotional development of each athlete. This is not simple, since there are no easily visible signs for the transitions between stages of intellectual, moral, and emotional development. We just need to do the best we can with the different personalities we are dealing with.

Figure 10 outlines how Piaget's (1954) stages of intellectual development, and Erikson's (1959, 1964) stages of emotional development match up with the first five stages of the Indigenous Long-Term Participant Development Pathway.

Intellectual Development:

Children go through both the **sensorimotor** and **pre-operational** stages during the Active Start stage. During the first couple of years of life, children explore the world around them through movement and sensory experience. They begin to understand that objects are permanent by the end of their first year, and by age two, they are generally able to plan and make movements to get what they want, such as moving an object to get an object behind it.

Between ages two and seven, children begin to understand language and develop the ability to talk about things that are not present, though they still maintain a self-centered point of view. Role-playing and symbolism, such as a blanket draped over a chair representing a fort, become important at this stage.

The **concrete operational** stage covers the FUNdamentals through Learn to Train stages where children continue to develop logic. They begin to understand how the world operates. However, some abstract concepts – such as game plans or team strategy – may still be difficult for them to understand. Making sense of the term of “reversibility” and the consequences of some actions (e.g. kicking a basketball is a foul, and five fouls means dismissal from the game) comes into play as well.

The **formal operational** stage takes place during the Train to Train and Train to Compete stages and remains the dominant stage for the remainder of life. The ability to think about abstractions (ideas instead of facts) becomes very important. Logical thought and deductive reasoning

develop, and structured thinking such as long-term planning becomes part of the individual's thought process. Participants fully understand the rules of the game and the consequences of their actions.

Emotional Development:

Individuals go through several stages of emotional development (assuming that they are cared for and raised well).

Hope is the first year of life when children begin trusting adults.

Will is where children learn to explore and begin to develop independence, lasting until age three.

Purpose develops between ages four and six.

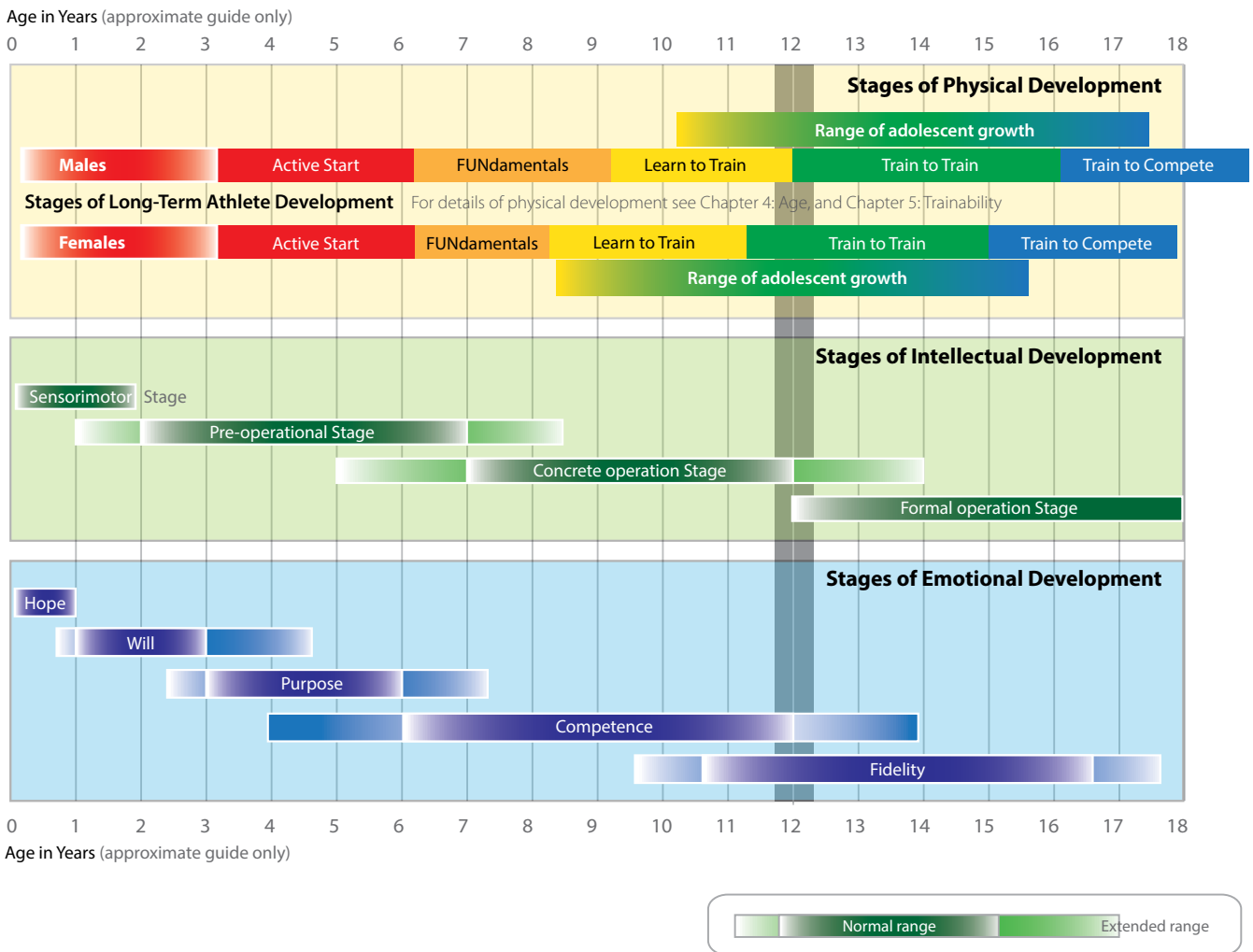
Initiative develops as children learn to plan and develop the confidence to do things on their own.

Competence develops through the course of the Active Start to Train to Train stages. This is where children begin judging and comparing their behaviour with the behaviour of others. They recognize differences in abilities and if they judge themselves to be inferior to others, they may withdraw from participation.

Fidelity ranges from the end of the Learn to Train through Train to Compete stages, and it encompasses the self-reflection period of one's youth. It is important for children to explore their own world and thoughts without pressure from parents or coaches to be a certain role, which can lead to confusion.

A major objective of the Indigenous Long-Term Participant Development Pathway is a holistic approach to athlete development. This includes emphasis on ethics, fair play, and character building throughout the various stages. The holistic approach reflects Indigenous values, and is further reinforced by the Holistic Model (p. 8).

Figure 10: The Relationships among LTAD Stages and Stages of Intellectual and Emotional Development (Adapted from work by Piaget, 1954; Erikson, 1959, 1964; Balyi, Way and Higgs, 2013)



6



Planning, Training, Competition, and Recovery

We need to get athletes strong and teach them how to develop their athletic abilities before we take them into competitions. This takes planning and it takes training. Communities often send their athletes to competition without having prepared them properly. This puts them at risk for injury and for disappointment as they have less chances of succeeding.

It requires time management. By carefully planning the timing of training, competition, and recovery, we prepare the athlete to be physically ready at the right time of the competition season. Planning provides the structure to make sure that the training progression is logical and scientifically based. This is how we bring out the best performance at the right time.

In the Indigenous Long-Term Participant Development Pathway, careful planning connects the athlete and their developmental stage to the specific qualities and abilities that need to be developed at that stage.

Training, competition, and recovery can be divided into weeks, days, and sessions.

The terms used to separate the three parts of time in a training and competition plan are:

Phases of annual plan

- An annual plan is a yearly plan made up of phases.
- Phases are the largest sections in an annual training plan.
- Phases are typically three or four month blocks.

Mesocycles of annual plan

- Phases are divided into small sections called mesocycles.
- Mesocycles are typically one-month blocks.

Microcycles of annual plan

- The mesocycles are again divided into smaller blocks.
- A microcycle is usually one week in length.
- Training and recovery sessions are subsets in each microcycle.

Planning structures the volume, intensity, and frequency of training through long-term (multi-year) and short-term (annual) training, competition, and recovery programs to achieve top performances at the right time.

Double- and Triple-Phase Seasonal Training Plans:

Seasonal training plans divide time into named blocks. The theory is that preparing for two competitive periods in one year allows for the continuation of higher and more specific training intensities, with little disruption to skill development.

Single-, double-, triple-, and multiple-phase seasonal training plans follow the same idea. They include many short recovery and regeneration periods.

Planning should be very flexible. The Indigenous Long-Term Participant Development Pathway recommends planning at all stages. Seasonal training plans should always take into account growth, maturation, and trainability principles.

A Decade in the Making

It is typically an eight to 12-year process to develop top-level Indigenous athletes. Through that time, the Indigenous Long-Term Participant Development Pathway outlines how to optimize each athlete's physical, technical, tactical, and mental preparation including lifestyle, as well as their ancillary capacities.

For athletes quadrennial planning is also part of Indigenous Long-Term Participant Development Pathway. This refers to the four-year Olympic and Paralympic cycle for Train to Win athletes. Their annual training, competition, and recovery plans follow a quadrennial plan. Each year of the quadrennial plan identifies key periods of training and competition, as well as the transition into the next calendar year of the plan.

Current planning models are designed for Train to Compete and Train to Win athletes. There is limited information and science available on annual plans for Learn to Train and Train to Train (children, adolescents, and athletes with disabilities).

The following two charts illustrate a sample annual plan for summer and winter sports. While the same principles apply at each, the months of the year of the phases will be different for the annual plans.

Figure 11: Periods and Phases of a Winter and Summer Periodized Annual Plan (Balyi, Way and Higgs, 2013)

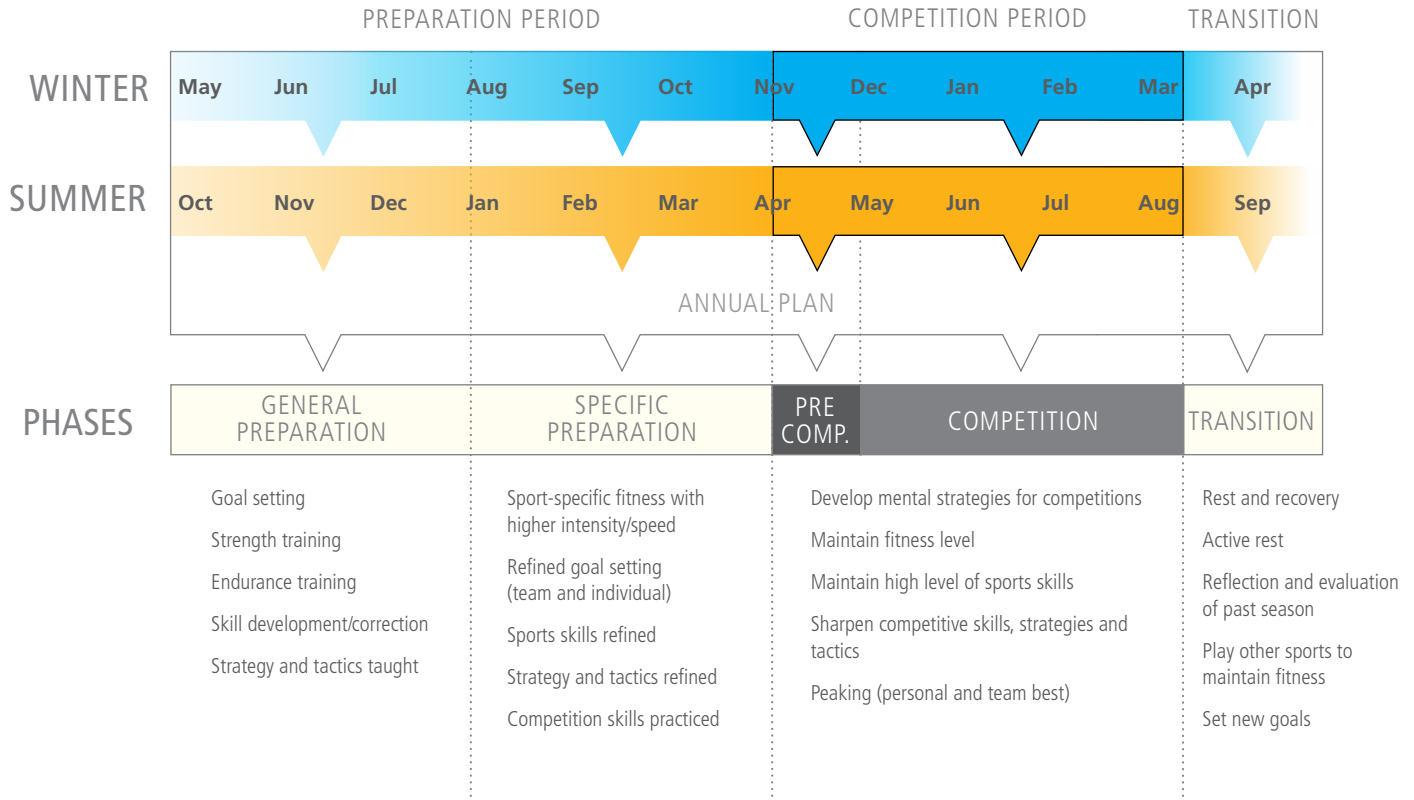


Table 1: Phases of an Annual Plan for Single, Double and Triple Periodization

Five Phases of a Single Periodized Annual Plan	Eight Phases of a Double Periodized Annual Plan	Eleven Phases of a Triple Periodized Annual Plan
General Preparation Phase (GPP)	General Preparation Phase (GPP)	General Preparation Phase (GPP)
Specific Preparation Phase (SPP)	Specific Preparation Phase (SPP) 1	Specific Preparation Phase (SPP) 1
Pre-Competition Phase (PCP)	Pre-Competition Phase (PCP) 1	Pre-Competition Phase (PCP) 1
Competition Phase (CP)	Competition Phase (CP) 1 Peak One	Competition Phase (CP) 1 Peak One
Transition Phase (TP)	Specific Preparation Phase (SPP) 2	Specific Preparation Phase (SPP) 2
	Pre-Competition Phase (PCP) 2	Pre-Competition Phase (PCP) 2
	Competition Phase (CP) 2 Peak Two	Competition Phase (CP) 2 Peak Two
	Transition Phase (TP)	Specific Preparation Phase (SPP) 3
		Pre-Competition Phase (PCP) 3
		Competition Phase (CP) 3 Peak Three
		Transition Phase (TP)

When coaches take sport-specific courses in the annual training plans are explored more extensively through coach education and training programs such as the National Coach Certification Program (NCCP), along with the Aboriginal Coaching Modules provided by the Coaching Association of Canada (CAC). Training plans are very sport specific, so it is important that those leading these programs are familiar with that sport, and work with the sport to understand the athlete training programs that are in place and to appreciate that the stage of development and maturity of the participants that one is working with. Each national and provincial sport federation can provide further information.

Figure 12: Three years of Annual Plans leading to the North American Indigenous Games

YEAR	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
	General Preparatory Phase			Specific Preparatory Phase				PCP	Competitive Phase			Rest
2 years before NAIG	General fitness			Sport-specific fitness				Taper	Prepare for peak performance			Transition
	General and sport-specific skills			Sport-specific skills					Optimize selection of competitions			
	General tactics			Advanced tactics					Optimize taper and peak			
	General mental preparation			Advanced mental preparation					PEAK			
1 year before NAIG	Fine-tune general preparation			Fine-tune specific preparation				Model taper	Fine-tune competition selection			
									Maximize taper and peak			
									PEAK modelling NAIG tournament			
Year of NAIG	Finalize general preparation			Finalize specific preparation				Model fine-tune taper	Model fine-tune competition selection and peaks. Peaking for NAIG			
									NAIG			

General fitness: basic stamina (endurance), strength, speed and suppleness (flexibility)

Specific fitness: sport-specific endurance, strength, speed and flexibility

General tactics: general sport-specific tactics

General mental preparation: basic sport psychology

Prepare for peak: taper

Taper: reduced training and maintain intensity and frequency of training

Modelling NAIG tournament: each year, peak at the timing of NAIG

PCP: Pre-Competitive Phase

Modelling: mimicking an activity

7

Competition: Representing Your People

Anytime we step outside of our community, we have the responsibility of representing Indigenous peoples. That means we need to put our best foot forward, whether it is physically through sport or through words and actions in different situations.

To make sure youth develop to the best of their abilities and prevent injuries, we need to plan out the optimal practice/competition ratio for their developmental age and stage.

Competition calendar planning at all stages is critical to athlete development. At certain Indigenous Long-Term Participant Development Pathway stages, developing the physical capacities is more important than competition. At later Indigenous Long-Term Participant Development Pathway stages, the focus shifts to being able to compete well.

Table 2 outlines general recommendations for the ratio of training-to-competition and competition-specific training. Consider how the quantity and quality of the training and competition program changes as long-term plans progress.

Table 2: Training to Competition Ratios

Stages	Recommended Ratio
Active Start	No specific ratios – all activity based on developing physical literacy and child’s passion to play and participate
FUNdamentals	All activities FUN-based including some structured competition
Learn to Train	70 percent training to 30 percent competition-specific training and actual competition
Train to Train	60 percent training to 40 percent competition-specific training and actual competition
Train to Compete	40 percent training to 60 percent competition-specific training and actual competition
Train to Win	25 percent training to 75 percent competition-specific training and actual competition
Active for Life	Based on the individual’s desire

Key points to consider:

- Sport-specific competition ratios (how many games compared to practices) are needed at all stages of the Indigenous Long-Term Participant Development Pathway.
- Level and length of the competitive season should be in line with the changing needs of the athlete as they develop.
- Over-competition and under-training at the end of the Learn to Train and Train to Train stages result in a lack of basic skills, and it may actually lower the athlete's fitness levels.
- The appropriate level of competition is key to technical, tactical, and mental development at all stages.
- Schedules are often set for team sports by leagues and organizations and not by the coach and athlete, making optimal training difficult.
- For individual sports, individual competition schedules can be selected by the coach and athlete based on the athlete's developmental needs.
- The current competition structure is based on tradition. Rather than relying on "what we did before", competition calendars should be planned to improve training and performance of the athlete depending upon their Indigenous Long-Term Participant Development Pathway stage.
- When we create and schedule competitions, we should consider how these competitions will help athletes to produce their best performances and respect their tapering and peaking requirements.
- Optimal training-to-competition ratios for individual sports vary greatly and must be determined on a sport-specific basis.
- The competition structure and schedule should be reviewed for each sport. When implementing the Indigenous Long-Term Participant Development Pathway, this is one of the biggest challenges for team sports and an important challenge for individual sports, especially when tournaments are thrown into the schedule.

North American Indigenous Games

The North American Indigenous Games (NAIG) showcases unity, sport, culture, youth, volunteerism, and teamwork between Indigenous Nations in pursuit of excellence for our future leaders.

(NAIG 2014)

Average participation

(social impact study, July 2015)

Over 4,000 athletes

1,000 coaching staff

200 team management and mission staff

100 professional host society staff

3,500 community volunteers

Positive social impacts resulted in:

96% intended to stay active

97% intended to maintain healthy diets post-2014 NAIG

91% believed others saw them as role models

89% felt more confidence from competing

Goals

Holistic community, family, and youth development

Creating an exceptional athlete experience

Host an Indigenous, multi-sport and cultural event that celebrates North America's cultural diversity

Building human capacity

The transfer of knowledge program

Private sector funding success



Photo Credit: Anthony Sauvé



Photo Credit: Anthony Sauvé



Photo Credit: Anthony Sauvé



8



Photo Credit: Anthony Sauvé

Excellence Takes Time

Developing excellence as an athlete can be compared to walking through fields of very deep snow without snowshoes. The first time we “break the trail” it will be very difficult. We may have to overcome obstacles and put in a significant amount of effort to get to where we want to go. However, the more we walk this same trail, the easier it becomes as we pack down the snow. The same goes for learning new skills and becoming good at a particular sport.

To help Indigenous athletes to break the trail and reach their highest potential, the mainstream and Indigenous sport systems need to work together to share best practices in coaching and training.

National Sport Organizations (e.g. Soccer Canada) in partnership with multi-sport bodies (e.g. Canadian Sport Institutes) have developed many tools to support and better understand the skills needed at each stage of athlete development. Indigenous athletes are best served when we ensure good communication with these organizations. Each National Sport Organization has sport specific Long-Term Athlete Development Frameworks with detailed stage by stage performance components that support progress within the four domains of physical, technical/tactical, mental, and lifestyle.

Sport leaders and coaches should contact the regional, provincial, or national organization for their sport to make sure that important information is shared and used in daily training. This builds understanding of the skills that athletes need at each stage of the athlete pathway (physical, psychological, technical, tactical, environmental, equipment, and social).

Early research into talent development suggested that a minimum of 10 years of practice (or 10,000 hours) is needed for expert performers in any field to reach the elite level (Ericsson, Charness, Feltovich & Hoffman, 2006).

Other evidence shows that elite athletes need at least 11 to 13 years of practice to reach levels of excellence (Gibbons et al., 2002).

Regardless of the exact number for each person, the lesson is the same: there are no shortcuts to achieving excellence, and excellence takes time.

Furthermore, it is clear that different people have different rates of improvement.

Participant development is clearly a long-term process, and most elite participants will generally need about 10 years or more of practice to achieve international standing. As a part of this process, short-term performance goals must never be allowed to interfere with long-term athlete development (Viru, 1995).

Repetitions versus Hours

For some sports, the road to excellence is not paved in hours, but through planned practice repetitions. Shooting or archery would be measured in the number of shots an athlete has taken; golf would be measured in the number of swings; in parachuting, an athlete's excellence is related to the number of jumps.

The United States Olympic Committee's "The Path to Excellence" study (Gibbons et al., 2002) provided a complete view of the development of U.S. Olympians who competed between 1984 and 1998. The evidence showed that these U.S. Olympians began their participation and training in their Olympic sport at the average age of 12.0 for males and 11.5 for females.

From there, most U.S. Olympians reported an 11- to 13-year period of talent development to make an Olympic team.

As well, U.S. Olympic medalists were younger than non-medalists by 1.3 to 3.6 years during the first five stages of development, suggesting that medalists were receiving motor skill development and training during the "skill hungry" years.

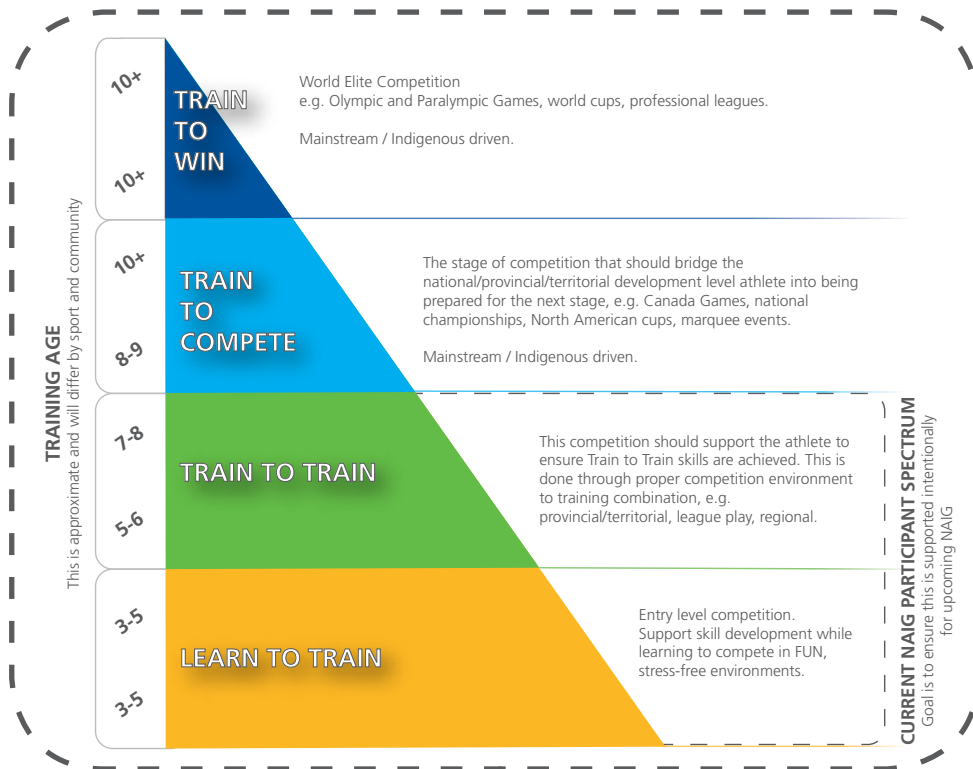
Whether it is eight, 10 or 12 years, it clearly takes time for an athlete to reach excellence.

Figure 13: Indigenous Pathway to Excellence

	FUNdamentals		Learn to Train		Train to Train		Train to Compete		Train to Win	
	0-2 Training Age	2-4	3-5 Training Age	3-5	5-6 Training Age	7-8	8-9 Training Age	10+	10+ Training Age	10+
FOCUS	Movement fundamentals & athletic development		Technical & Tactical Skill	Tactical Skill Development	Holistic athlete development		Learning to perform		Performing	
BENCHMARK	Participation	Skill Development	Regional / Local	Age Group Podium	Provincial / Jr. National	Provincial Podium	Jr. World Qualifier	Jr. World Contender	International Top 20	World Cup Success
EVENT EXAMPLE	Festivals		Local & Regional Tournaments / Leagues		Provincial Championships to NAIG		Can-Am Tournaments		Olympics / Paralympics	
TRAINING DETAIL	Lessons, fun & activities		Strength & conditioning, cross-training		Add 1-2 weeks of off-season training		2+ weeks off-season training, S&C maintenance		Year-round training	
TRAINING HOURS	~300		~450	~500	~550	~600	~650	~700	~800	~900
DAILY TRAINING ENVIRONMENT	Positive & FUN Training Environment		Positive Environment, Intro to IST*, Seasonal Coaching		Competitive, Team IST, Full-time Seasonal Coach		Competitive, Individual IST, Full-time Coach		Competitive, Full IST, Financial Support	

*IST = Integrated Support Team, which is a team of sport science and medicine practitioners supporting the athlete and coach.

Figure 14: The Pathway to NAIG Pathway alongside mainstream Sport for Life Framework



The Pathway to NAIG and mainstream Pathway show similar trends, and to facilitate the understanding and implications of the Indigenous Long-Term Participant Development Pathway, training age is identified.

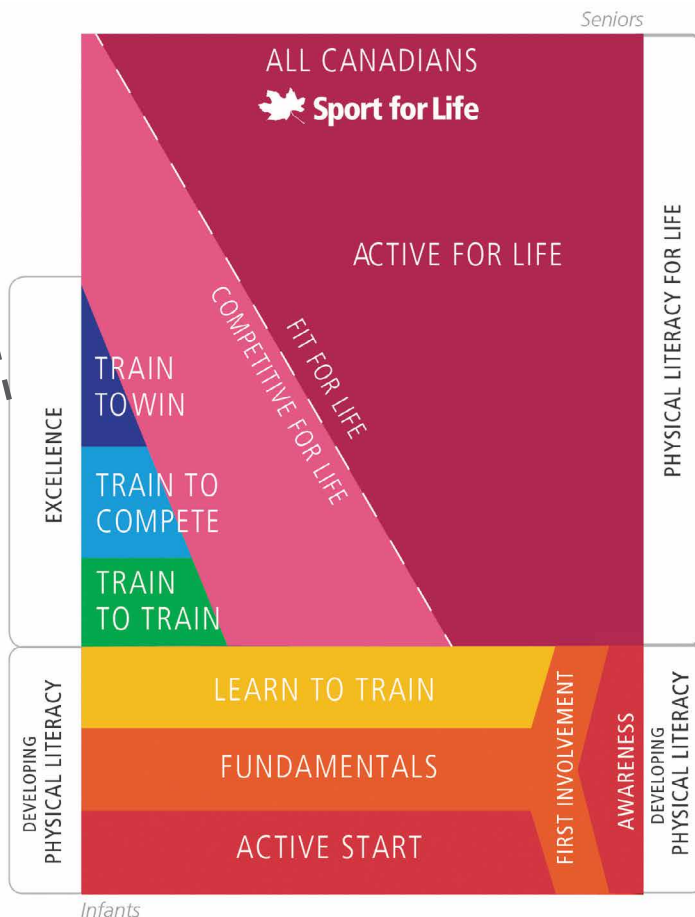


Photo Credit: Indigenous Sport, Physical Activity and Recreation Council (BC) (Right)



9



Working Together: One Mind, One Heart

To help children and youth develop into successful athletes and long-term participants, we need to get everyone working together and pulling in the same direction.

Table 3 should be seen as recommendations to help different organizations work together so that Indigenous sport and participant development is best served. Areas where different organizations can work together are identified under system development, and organizations can choose to which specific performance priorities to work on together. The activities of schools, communities, clubs, PTASBs, PTSOs and NSOs should be aligned and integrated throughout the Indigenous Long-Term Participant Development Pathway to link and allow for movement between the Indigenous Community Steam and the Mainstream Systems (see Figure 4).

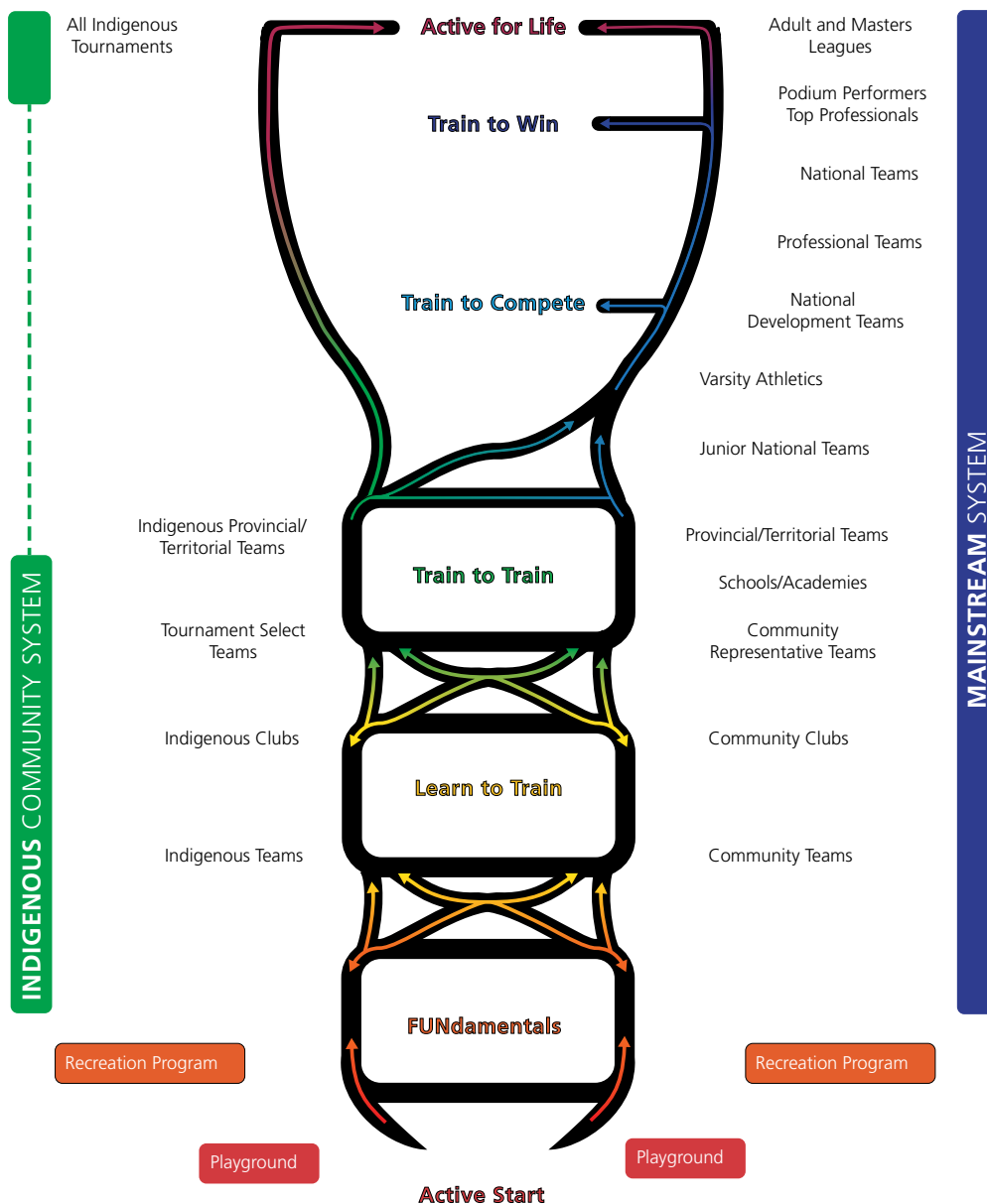
Table 3: Where and What We Can Work Together On

SYSTEM DEVELOPMENT	PERFORMANCE PRIORITIES
Clubs	Athlete Performance and Support
Community Initiatives	Coach Education and Support
Communications	Competition
Facility Plans	Equipment
Financial Sustainability	Facility Access
Governance	Sport Medicine
Games:	Sport Science
International	Talent ID - Scouting
National	Teams:
Provincial	National
Event Hosting	Provincial
Human Resources	Club
Marketing	Training
Risk Management	Research
Sport Sector	
Technology	
Volunteers	

Figure 4: Indigenous Participant Pathway – Two Streams
 – This model is based on Elder Alex Nelson's teachings.

FROM PLAYGROUND TO PODIUM:

SUPPORTED BY FAMILY, FRIENDS, INSTRUCTORS, VOLUNTEERS, AND COACHES





Continuous Improvement:

Honouring the Circle

Just like a circle where there is no end and no beginning, the Indigenous Long-Term Participant Development Pathway is based on the principle of continuous improvement. As we apply the framework, we watch for opportunities to improve it. New scientific discoveries and new understandings of development are always appearing, and we should be ready to use these new understandings whenever possible.

The Indigenous Long-Term Participant Development Pathway encourages continuous adjustments based on these key principles:

- The Indigenous Long-Term Participant Development Pathway is based on scientific and coaching best practices as well as sport-specific information and observations. It is further developed by continuous research.
- The Indigenous Long-Term Participant Development Pathway, as a forever-evolving process, reflects all developing facets of physical education, sport, and recreation. It responds to these developments to ensure logical delivery of programs to participants of all ages.
- The Indigenous Long-Term Participant Development Pathway promotes ongoing education and sensitization of everyone involved in sport, recreation, physical activity, and education for Indigenous peoples. Key understandings include the strong relationship between physical education, school sport, community recreation, lifelong physical activity, and high performance sport.
- The Indigenous Long-Term Participant Development Pathway promotes coordination between different sectors (e.g. sport, recreation, education) based on common principles and shared goals for promoting Indigenous sport and physical activity.

Furthermore, all partners are invited to contribute to the ongoing evolution and development of the Indigenous Long-Term Participant Development Pathway, for the benefit of all Indigenous peoples.

Impacts of the Indigenous Long-Term Participant Development Pathway

The Indigenous Long-Term Participant Development Pathway allows for a shift in thinking about how we can support our athletes to succeed in the sport system, and how they can become active and healthy participants for life.

Impacts on Parents

As parents of children, and even just as community members, it is our responsibility to provide opportunities for the youth to be healthy through sport and physical activity.

(See Appendix A for helpful tips for parents.)

Impacts on Coaches

To be successful, the Indigenous Long-Term Participant Development Pathway requires highly skilled, trained, and certified coaches who understand the stages of athlete development and the things that need to happen at each age and stage to provide developmentally appropriate programs.

The Indigenous Long-Term Participant Development Pathway can help coaches to:

- Have a significant impact on coaching education curriculum and sport-specific coaching education by NSOs.
- Identify a need for part-time and full-time coaches who will specialize in coaching developmental athletes.

(See Appendix B for practical tips for coaches and Indigenous Coaching Pathway.)

Impacts on Clubs and Community Sport and Recreation

Canada's sport clubs and community centres provide many opportunities for participation, and they are essential to the Indigenous Long-Term Participant Development Pathway's success. The Indigenous Long-Term Participant Development Pathway can help Indigenous communities and sport leaders to:

- Identify programs needed to deliver high quality sport, particularly in the early stage of the Pathway.
- Inform and educate staff and community leaders about the benefits of the Indigenous Long-Term Participant Development Pathway.
- Align programs with schools, clubs, and community sports.
- Organize logical competition at the national and provincial levels and in clubs, community sport, and recreational activities.

Impacts on the Education System

There is growing recognition of the urgent need for Canada's children to become much more physically active. The education system must take a prominent role in promoting physical activity. The Indigenous Long-Term Participant Development Pathway will:

- Highlight the need for daily quality physical education.
- Highlight the need to improve training for teachers in the elementary schools to understand the concept of physical literacy and long-term participant development.
- Show teachers how to correctly teach fundamental movement skills and foundation sports skills.
- Encourage new courses at colleges and universities to ensure that educators and coaches understand physical literacy and long-term participant development then apply this understanding to their teaching and coaching.

Impacts on the Sport System

The Indigenous Long-Term Participant Development Pathway addresses the five major goals and five major outcomes of the Canadian Sport Policy 2012:

Goals:

1. Introduction to sport
2. Recreational sport
3. Competitive sport
4. High performance sport
5. Sport for development

Outcomes:

1. Excellence
2. Enhanced education and skill development
3. Improved health and wellness
4. Increased civic pride, engagement and cohesion
5. Increased economic development and prosperity

The Indigenous Long-Term Participant Development Pathway will ensure:

- An increasing number of children acquiring physical literacy resulting in the improved health and wellness of society.
- That a higher proportion of Indigenous peoples from all regions are involved in quality sport activities and all forms of participation.
- A great number of children will have an athletic foundation that can be developed through appropriate training, competition, and recovery programs, and that they will have opportunities to achieve personal bests in competition.
- That the essential components of an ethically based, athlete/participant-centred development system are in place, and that these are continually modernized and strengthened as required.
- That the different parts of the sport system are more connected and coordinated as a result of collaboration and communication amongst the stakeholders.

Impacts on Sport Science

Sport scientists and researchers play a vital role in helping athletes to compete at their full potential. They increase athlete's understanding of the science behind their sport and what it takes to deliver a top sport performance. The Indigenous Long-Term Participant Development Pathway will encourage research into all aspects of Indigenous athlete development:

- Physical development.
- Mental (intellectual and emotional) development.
- Trainability and readiness factors.
- How organizations adopt and align to the Indigenous Long-Term Participant Development Pathway values and principles.
- How to provide developmentally appropriate training, competition, and recovery programs for all stages.
- How to establish proper periodization principles (e.g. length of the competitive phase for all stages).
- How to establish normative data for all the stages of the Indigenous Long-Term Participant Development Pathway.

Photo Credit: Anthony Sauvé (Right)



Summary

The Indigenous Long-Term Participant Development Pathway resource represents an important step towards reclaiming health and strength for Indigenous peoples. By providing a clear pathway of athlete and participant development for athletes, parents, coaches, and decision makers, it is hoped that we can again make physical activity and sport a priority among Indigenous peoples.

The Indigenous Long-Term Participant Development Pathway provides an overall guideline to help coaches, athletes, and sport leaders to optimize development at all stages of the participant's life. It is athlete/participant-centred from a child's first involvement in sport to the transition to lifelong physical activity or into the high performance sport pathway. In this long-term process, the Indigenous Long-Term Participant Development Pathway also tries to bridge gaps between the mainstream and Indigenous sport systems.

The 10 Key Factors

The foundation for participant development is built on several key factors. These are the key concepts that support the development of active participants and successful athletes.

1. Physical Literacy: Learn to Move and Learn to Play
2. Specialization: The Straight Trail
3. Developmental Age: From Seed to Tree
4. Optimal Training Periods: Planting the Garden
5. Mental (Intellectual and Emotional) Development: Training the Good Mind
6. Planning, Training, Competition, and Recovery
7. Competition: Representing Your People
8. Excellence Takes Time
9. Working Together: One Mind, One Heart
10. Continuous Improvement: Honouring the Circle

The 10 S's of Training and Performance

The 10 S's of Training and Performance include five basic performance capacities and five general S's that complete the holistic development of the athlete.

1. Stamina (Endurance)
2. Strength
3. Speed
4. Skill
5. Suppleness (Flexibility)
6. Structure/Stature
7. Schooling
8. (p)Sychology – Mental Fitness
9. Sustenance (Recovery and Regeneration)
10. Socio-cultural

Indigenous Long-Term Participant Development Pathway Stages

1. Active Start
2. FUNdamentals
3. Learn to Train
4. Train to Train
5. Train to Compete
6. Train to Win
7. Active for Life

In summary, the Indigenous Long-Term Participant Development Pathway seeks to align the Indigenous Sport Stream with the mainstream offering developing participants the best of both worlds. The Holistic Model will develop participants that can move between the Indigenous sport stream and the mainstream thus maximizing the opportunities of Indigenous participants to be engaged in sport and physical activity in a meaningful way, and in whatever capacity they desire.

Appendix A:

Tips for Parents

Tips for Being a Supportive Parent

Ensure your children are physically active every day. You can do this by having daily family walks to the park or just by playing games like tag or follow the leader for the younger kids. For older kids, you can challenge them in different sporting activities or encourage them to bike to various locations instead of driving them everywhere.

Providing good nutrition and making sure your child has a water bottle goes a long way in making sports a better experience. If your car doesn't have gas, it can't move forward!

If you can't attend every game or practice, make sure to ask your children about practice and listen to the challenges and successes they have experienced. These are often great opportunities to teach life lessons and will show them that you are interested and that you care about their experiences.

As parents, we want to see our children succeed and that may mean getting over-involved and pushing our kids too much. It's very important to keep it about them and what they need. Asking them how you can support them is a wonderful way to strengthen the parent-child relationship.

If you see that something could be improved, ask the coach, official, league organizer, or other how you can support them into making things better. Too often we criticize before we seek ways to help improve situations. Be the person who helps make things better, not the person who makes things unpleasant.

Highlight every strength or accomplishment your child achieves. We have enough reasons to feel badly throughout our days, we need to start looking for ways to feel good and be proud about the positives.

Teach perspective. Before each and every one of us learned how to walk, we stumbled and fell many times. By continuing to work at it, we are now able to do it without even thinking about it! Excellence takes time and effort. If something is hard, it does not mean it is impossible but it means it takes more effort to achieve.

Prepare your child for the awkwardness of the growth spurt and explain that they may have a period where their skills change as they get used to their longer limbs. This is a temporary situation and they will adapt to the changes if they continue to work at it. Also remember equipment size changes as they grow!

Keep it fun and keep it light! There is no need to be serious when accomplishing important things. We can keep things enjoyable even when they require effort.

Appendix B:

Tips for Coaches and Indigenous Coach Pathway

Tips for Being a Good Coach

Hold a parent-athlete meeting at the start of the season to talk about coaching philosophy, dressing room edict, team protocol while on the road, and others. Early communication with your athletes and parents will prevent many issues later.

Get familiar with your participants'/athletes' Indigenous Long-Term Participant Development Pathway stage of development to make sure you are training the right athletic qualities for their age/stage.

Integrate the four aspects of the Holistic Model into every practice and game (physical, cultural, mental – intellectual and emotional, spiritual). **Note: If you don't feel comfortable addressing one of the aspects then invite an Elder, Traditional Knowledge Keeper, or another community member to help.

Get yourself familiarize with planning components (periodization) in order to get your participants/athletes physically, technically, tactically and mentally ready at the right time in the season.

Plan your practices ahead of time to include a warm-up, skill training (technical and tactical), practical application (competition situation), and then a cool down and stretching.

Take a few moments after every practice to highlight the positive points and what needs to be improved. **Always end things on a good note.

Be mindful of over training. The body gets stronger as it rests. Doing too much can be just as harmful as doing too little. A change of activity with lesser intensity can be a very good way to restore and replenish, along with complete rest.

Build team dynamics by having participants/athletes do activities outside of the playing field. This can be anything like volunteering at a community event, fundraising activities, or just a fun activity like a pool party at a player's house.

Inform and include parents as often as you can. They are your greatest allies if you tell them what you need help with.

As a coach, you are also a teacher. As a teacher, we have the responsibility to continue learning. The more you work on your coaching practice, the better you will become. The best part about sport and physical activity is that you are never done learning!

For some kids, participating in sports is the best part of their day. Remember this and keep a fun and enjoyable experience for all skill levels.

Indigenous Coach Pathway

The following resources are recommended for new Indigenous coaches:

1. Aboriginal Coaching Modules (ACM) training: delivered by the Coaching Association of Canada (CAC).
2. Fundamental Movement Skills (FMS) training delivered by Provincial and Territorial Sport Organizations (PTSOs).
3. Making Ethical Decisions (MED): delivered by CAC online.
4. Basic sport-specific training: delivered by PTSOs.
5. Continuous skills upgrading through the National Coaching Certification Program (NCCP) multi-sport training opportunities.

Aboriginal Coaching Modules

The professional development of Aboriginal coaches through NCCP certification has been identified by the Aboriginal Sport Circle (ASC) as a national priority. In order to educate and promote the value of the NCCP and to establish meaningful participation of Aboriginal peoples in this national program, the ASC embarked on a multi-year process to develop supplemental training material for Aboriginal coaches taking NCCP workshops. The result of this process is the Aboriginal Coaching Modules (ACM), which responds to the need for a national training curriculum with content that reflects the uniqueness of Aboriginal cultures, values, and lifestyles.

The ACM is a professional development training tool for Aboriginal and non-Aboriginal coaches who coach Aboriginal athletes, as they become certified through the NCCP. The material in the ACM has been developed to meet the following learning objectives:

- Understanding the role of sport in Aboriginal communities;
- Understanding and positively influencing the community in which you coach;
- Coaching the whole person; coaching beyond the physical to include the mental (intellectual and emotional), spiritual and cultural;
- Responding to racism in sport;
- Establishing a code of behaviour for your team that respects differences and addresses racism;
- Helping those you coach make healthy lifestyle choices.

The long-term objectives in delivering the ACM material include:

- Make the wisdom of Aboriginal culture available to both Aboriginal and mainstream sport;
- Increasing awareness of and support for the ACM among Aboriginal communities and the mainstream sport community in Canada;
- Allowing coaches and communities the opportunity to embrace culturally sensitive practices so they can better meet the diverse needs of Aboriginal athletes in Canada;
- Having coaches at all levels of sport utilize the material from the ACM in their day-to-day interaction with Aboriginal athletes;
- Creating opportunities for positive dialogue between administrators, facilitators, coaches, and athletes about how the ACM should evolve to meet the constantly changing needs of young Aboriginal athletes;
- Increase the number of NCCP certified Aboriginal coaches.

The ACM is rolled out in three modules:

1. Holistic Approach to Coaching
2. Dealing with Racism in Sport
3. Lifestyles, Health, and Nutrition

Module 1

Holistic Approach to Coaching encompasses a holistic approach to coaching which includes topics such as creating a positive environment, the Medicine Wheel, a coaching perspective: physical, mental, emotional, intellectual, cultural, and spiritual aspects, values (the Four Pillars), coach-to-community relationships.

Module 2

Dealing with Racism in Sport encompasses issues on dealing with racism in sport including definitions that may be useful in the discussion of racism and knowing when to use the right word to describe what is happening in a certain situation, i.e. discrimination, racism, prejudice, stereotype, systemic discrimination. It also discusses how to respond to racism and the three choices of response, examples of coaches' responses, organizational responses to racism, creating a positive environment, and coach-to-family relationships.

Module 3

Individual and Community Health and Wellness encompasses topics on lifestyle, health, and nutrition, and how to be familiar with the unique lifestyle, health situations, and challenges that Aboriginal youth may face. Topics in this chapter include: understanding the community where you coach, mental health, personal and community health practices, diet and nutrition, health conditions and diseases, and influencing change.

Coaching Makes a Difference

Coaching young people offers an opportunity to make a difference in this world. Sport can be about developing a sense of community and common purpose. Sport can foster better health conditions, social skills, and community healing.

Coaching Indigenous youth in and outside of Indigenous communities provides a coach with opportunities for personal growth and development; as well, it can foster personal and community development in Indigenous youth.

For more information, visit www.coach.ca/aboriginal-coaching-modules-p158240.

Further Information

For more information on Indigenous sport, recreation, and physical activity programs and services, Indigenous participant development or Indigenous coach resources, please contact the following Provincial/Territorial Aboriginal Sport Bodies (PTASBs) or the respective Provincial/Territorial Coach Representative (PTCR).

SPORT FOR LIFE SOCIETY

www.sportforlife.ca

ALBERTA

Indigenous Sport Council Alberta
www.indigenoussportsalberta.com

Alberta Sport Connection
www.albertasport.ca

Coach Alberta
www.coachalberta.ca

BRITISH COLUMBIA

Indigenous Sport, Physical Activity and Recreation Council
www.isparc.ca

viaSport
www.viasport.ca

MANITOBA

Manitoba Aboriginal Sport and Recreation Council
www.masrc.com

Sport Manitoba
www.sportmanitoba.ca

Coaching Manitoba
www.coachingmanitoba.ca

NEW BRUNSWICK

Aboriginal Sport and Recreation New Brunswick
www.asrnb.ca

Coach New Brunswick
www.coachnb.com

NEWFOUNDLAND AND LABRADOR

Aboriginal Sports Recreation Circle
Newfoundland and Labrador
www.asrcnl.ca

Sport Newfoundland and Labrador
www.sportnl.ca

Coaching Newfoundland and Labrador
www.coachingnl.ca

NORTHWEST TERRITORIES

Aboriginal Sports Circle NWT
www.ascnwt.ca

Sport North Federation
www.sportnorth.com

NOVA SCOTIA

Mi'kmaw Sport Council of Nova Scotia
www.kinu.ca/sports-health-and-wellness

COACHING ASSOCIATION OF CANADA

www.coach.ca

NOVA SCOTIA (continued)

Sport Nova Scotia
www.sportnovascotia.ca

Coaching Nova Scotia
www.coachingns.com

NUNAVUT

Sport and Recreation – Government of Nunavut
www.gov.nu.ca/sports-and-recreation

ONTARIO

Indigenous Sport and Wellness Ontario
www.iswo.ca

Coaches Association of Ontario
www.coachesontario.ca

PRINCE EDWARD ISLAND

PEI Aboriginal Sports Circle
www.mcpei.ca/#programs

Sport PEI
www.sportpei.pe.ca

Coaching PEI
www.coachpei.ca

QUEBEC

First Nations of Quebec and Labrador
Health and Social Services Commission
www.cssspnql.com

Sports Quebec
www.sportsquebec.com

Mohawk Council of Kahnawà:ke (sport department)
www.kahnawake.com

SASKATCHEWAN

Federation of Sovereign Indigenous Nations
www.fsin.com

Sask Sport Inc.
www.sasksport.sk.ca

Coaches Association of Saskatchewan
www.saskcoach.ca

YUKON

Yukon Aboriginal Sport Circle
www.yasc.ca

Sport Yukon
www.sportyukon.com

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Glossary

Aboriginal: the descendants of the original inhabitants of North America.

abstractions: something that exists only as an idea.

aerobic capacity: the highest amount of oxygen consumed during maximal exercise in activities that use the large muscle groups in the legs, or arms and legs combined.

aerobic power: power represents an amount of energy consumed or produced during and unit of time. Aerobic means with oxygen, combining the two means.

ancillary capacities: refer to the knowledge and experience-base of a player and includes warm-up and cool-down procedures, stretching, nutrition, hydration, rest, recovery, restoration, regeneration, mental preparation, and taper and peak. The more knowledgeable athletes are about these training and performance factors, the more they can enhance their training and performance levels. When athletes reach their genetic potential and physiologically cannot improve anymore, performance can be improved by using the ancillary capacities to full advantage.

athlete-centred: focused on the needs and interests of the individual athlete.

club: a sport club is an organization that has been formed by individuals with a common interest and desire to participate in a sport. A club may be entry level, developmental, high performance, recreational, or any combination of these elements.

cognitive: relating to the mental processes of perception, memory, judgment, and reasoning, as contrasted with emotional and volitional processes.

cognitive development: the ability to remember, solve problems and make decisions.

competition-specific training: training that prepares the athlete for the competition.

congenital: present from birth.

contrast baths: a form of treatment where a limb or the entire body is put in ice water followed by the immediate immersion of the limb or body in warm water. This procedure is repeated several times, alternating hot and cold.

cuisine: a style or quality of cooking.

deductive: based on reason and logical analysis of available facts.

elite: a select part of a group that is superior to the rest in terms of ability or qualities.

equine: relating to horses.

ethics: moral principles that impact a person's or group's behaviour.

ethical sport: ethical sport occurs when participants abide by the rules of the game, without attempting to gain an unfair advantage in any way, while competing in the spirit of sport.

ethnicity: a social group that shares a common and distinctive culture, religion, language, or the like.

facility: individual buildings or groups of structures designed for exercising, training, and/or competition in various sports.

fidelity: faithfulness to a person, cause, or belief, demonstrated by continuing loyalty and support.

financial sustainability: ability to secure or earn enough money to meet expenses over time.

fundamental: forming a necessary base or core of importance.

holistic: includes all aspects of the person: physical, cultural, mental – intellectual and emotional, and spiritual.

hydration: drinking enough water. Water should be our primary source of hydration before, during, and after physical activity.

implementing: taking actions to build and establish the details of a plan.

Indigenous: means “native to the area.” In this sense, Aboriginal peoples are indeed indigenous to North America. As a proper name for a people, the term is capitalized to form “Indigenous peoples.” Its meaning is similar to “Aboriginal Peoples,” “Native Peoples” or “First Peoples” (National Aboriginal Health Organization, 2012).

integrate: include and connect.

integrated: included and connected.

integration: including into something.

kinesthetic: the sensation of movement or strain in muscles, tendons, and joints; muscle sense.

motor skill: an intentional movement involving a motor-to-muscular component that must be learned and voluntarily made to perform a task. Gross motor skills require the use of large muscle groups to perform tasks such as crawling, walking, and running. Fine motor skills use smaller muscle groups to perform precise actions such as beadwork or playing video games.

neuromuscular: affecting both the nerves and the muscles.

normative data: information that refers to the majority of individuals.

operational stage: the stage of cognitive development in which a child is capable of performing a variety of mental operations and thoughts using concrete concepts.

optimal: best or most favourable.

optimize: make the best or most effective use of (a situation, opportunity, or resource).

over-competition: competing more than training and resting. Participants compete too often without enough training.

overuse injuries: injuries that are not caused by a sudden impact, but through repetitive stress on muscles, tendons, and bones over time. In other words, doing the same movement over and over again creates disproportionate and unnatural strain on limited, localized physical structures of the body, leading to injury of these structures.

peaking: reach a highest point of fitness, technical, and tactical skills that are optimized at a specified time.

peak Height Velocity (PHV): the period when maximum rate of growth occurs.

peak Strength Velocity (PSV): the period when maximum rate of increase in strength occurs.

peer: someone who is of equal standing either by age, grade, or status.

pre-operational stages: in Piaget’s stages of cognitive development, a period between ages two and six during which a child learns to use language. During this stage, children do not yet understand concrete logic, cannot mentally manipulate information, and are unable to take the point of view of other people.

psychosocial: relating to a person’s way of thinking, their family and cultural environment, and their behaviour.

quadrennial: a four-year plan or Olympic/Paralympic cycle lasting for or relating to a period of four years.

reversibility: capable of returning to an original condition.

sensorimotor: having or involving both sensory (senses) and motor (movement) functions or pathways.

sensory: relating to sensation or the physical senses; transmitted or perceived by the senses.

sequence: a particular order in which related events, movements, or things follow each other.

sequencing: arrange training activities in a particular order that makes sense. For example, one needs to learn how to walk before running just like someone should learn how to kick before kicking a ball into the goal.

socialization: the process of developing a personal identity and learning the accepted ways of acting, speaking, and interacting with others.

socio-cultural: the combination or interaction of social and cultural elements.

Sport for Life: a movement to improve the quality of sport and physical literacy in Canada. It links sport, education, recreation and health, and aligns community, provincial and national programming. Sport for Life's vision is physically literate Canadians achieving sporting excellence and optimum health. Sport for Life's mission is building physical literacy and quality sport. When enacted, Sport for Life's values and principles link and integrate programs delivered by health, recreation, education and sport, and align programming in clubs, provincial/territorial and national sport and multi-sport organizations. Sport for Life addresses the overarching system and structure of sport and physical activity in Canada, including the relationship between school sport, physical education and organized sport at all levels, from policy to program delivery.

sport sector: the industry in which people, activities, business, and organizations are involved in producing, facilitating, promoting, or organizing any activity, experience, or business enterprise focused on sports.

sport-specific preparation: training that requires specific physical exercises that are intended to improve physical (motor) abilities such as endurance, strength, speed, and flexibility. Additionally, sport-specific technical/tactical training should take place.

stakeholder: a person or organization with an interest or concern in something (e.g. funders are stakeholders).

stamina: physical endurance.

subculture: a group having social, economic, ethnic, or other traits distinctive enough to differentiate it from others within the same culture or society.

suppleness: flexibility and optimal range of motion to stretch muscles without injury.

tactical: decision making in training such as assessing the situation and then deciding what the best action is.

tapering: diminish or reduce training volume, maintain intensity and frequency of training.

technical: aim of technical preparation is to create and improve sports skills.

technical skills: abilities acquired through learning and practice. They are often job or task specific.

trainability: refers to genetic endowment of athletes as they respond individually to specific stimuli and adapt to it accordingly. The ability of a person to gain something from training and to attain a specific skill set.

training camp: sports camps organize various forms of recreation and healthful activities and provide sports training for children and young people; they also provide training and advanced training for instructors, coaches, and referees.

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Financial Contributors

We acknowledge the financial support of the Government of Canada through Sport Canada, a branch of the department of Canadian Heritage.

Sport for Life thanks the following institutions for contributing to the development of this publication:

Cowichan 2008 NAIG Legacy

Aboriginal Sport Circle

Alwyn Morris Foundation

Indigenous Sport, Physical Activity and Recreation Council (BC)

Indigenous Sport and Wellness Ontario

First Nations of Quebec

Government of Nova Scotia

Labrador Health and Social Services Commission

Sask Sport Inc.

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British Columbia

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Yukon

Charly Kelly, Tara Wardle: Sport and Recreation Branch, **Gaël Marchand:** Yukon Aboriginal Sport Circle

Published by Sport for Life Society 2019

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Indigenous Long-Term Participant Development Pathway 1.2 Resource

We would like to extend a very special thanks to the following people for their outstanding work on the Canadian Sport for Life—Long Term Athlete Development Resource paper, an essential foundation for the Indigenous Long-term Participant Development Pathway resource: Istvan Balyi, Richard Way, Dr. Colin Higgs, Dr. Stephen Norris, and Charles Cardinal.

Photo Credits: Canada Snowboard, Anthony Sauvé, Indigenous Sport, Physical Activity and Recreation Council (BC)

Acknowledgement: North American Indigenous Games (NAIG)

Lastly, Sport for Life Society would like to thank the great athletes of the current, past and future who were featured in the first edition of the Indigenous Long-Term Participant Development Pathway Resource.

ISBN: 978-1-927921-75-3

