MOOC 2
Child-Centred Coaching & Physical Literacy

Chapter 3:
How Children Grow and Develop

MOOC 2: Child-Centred Coaching & Physical Literacy

Study Guide

An Intellectual Output of iCoachKids:

Innovative Education & Training for a Specialist Children & Youth Coaching Workforce

Acknowledgements

The Study Guide has been written by Tom Mitchell, Camilla Knight, Sheelagh Quinn, Declan O'Leary and Sergio Lara-Bercial with editorial support by Ann McMahon and Michael Joyce.

Co-funded by the Erasmus+ Programme of the European Union

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iCoachKids MOOC 2 Study Guide

Introduction

“A coach’s primary mission is to help sport participants develop not only as athletes, but also as people. To fulfil that aim, a coach needs functional and task-related competences that are underpinned by knowledge and reflection.”

From the European Sports Coach Framework (p. 39)

Congratulations Coach, by engaging in the iCoachKids MOOC 2, you have demonstrated that you have an open mind to learning more about coaching children and to further developing your own coaching skills.

Improving your coaching takes time and effort. Coach development should proceed in a progressive and sustainable way. Such an approach takes into consideration your stage of development as a coach, how you learn and which participants the coach is working with.

How Coaches Learn

In this MOOC, we recognise that learning is a lifelong process and that multiple experiences can facilitate the development of your coaching ability. During your progress through MOOC 2 we have included a variety of learning experiences to meet the needs of coaches and how they learn.

A coach is not a blank slate. Whether through personal experiences as participant or spectator, you arrive to coaching with your own conception of what it is and how it should happen. The following task will allow you to consider what you are bringing to your coaching.

STUDY GUIDE TASK: What Are You Bringing to Your Coaching?

(There are no right or wrong replies. This exercise is about you taking stock of your previous experiences.)

Coaches Learn Best When…	Your Learning and How you Like to Learn
List Your Sports Experience	**What Does This Bring to Your Coaching?**
Your Education	**What Does This Bring to Your Coaching?**
Life Experience/Learning	**What Does This Bring to Your Coaching?**
Other Things You Think/Feel Reflect You	**What Does This Bring to Your Coaching?**

Your Learning

In the early stages of coach development, you may benefit strongly from learning opportunities provided through formal education – in MOOC 2 this is reflected in what you read and the personal tasks that you undertake in applying this knowledge into your coaching. This can be seen as laying a knowledge foundation. These activities challenge or confirm initial personal theories and support the creation of a child-centred framework that helps coaches organise and make sense of their coaching practice.

As you continue to develop as a coach, non-formal learning opportunities become more relevant. Your interaction with the children, other coaches, parents, mentors and open source material provides a chance to check and challenge your emerging philosophy and way of doing things as well as gaining new knowledge. In MOOC 2 this is reflected in activities and tasks you do with others and in your environment.

It is important to note that much of coaches' learning takes place on the job. As a coach, your self-awareness and your ability to reflect on your experiences are essential to this.

STUDY GUIDE TASK: How Coaches Learn Best and How You Like to Learn

The column on the left is what research says about how coaches learn best. The column on the right is for you to: reflect on these statements; identify whether they may apply to YOU; and if they mean anything for YOUR LEARNING. This will develop you SELF-AWARENESS of how you like to learn:

Coaches Learn Best When…	Your Learning and How you Like to Learn
• Their prior experiences and abilities are recognised and they are encouraged to reflect and build on them	
• They are motivated to take responsibility for learning and are given opportunities to drive it and direct it to their own needs	
• The application of what is being learned to the practical context in which they coach is clear and facilitated	
• The topics and learning materials are clearly relevant	
• The climate is positive and supportive to minimise anxiety, encourage experimentation and challenge them appropriately	
• Interaction and sharing with other coaches is promoted	
• A variety of learning activities is offered	
• They experience some success and gain feedback that builds their self-confidence	

If you have completed these two STUDY GUIDE TASKS, you will have started to engage in the learning process promoted in the iCoachKids MOOCs. You will have identified what you are bringing to coaching children; and how you learn.

Well done and read on to learn more about how the MOOC 2 Study Guide is laid out to assist you in your learning, how the content can be applied into you coaching and to your growth as a CHILD-CENTRED COACH of children.

MOOC 2 Study Guide Structure

In MOOC 2, your development as a coach is promoted using a blended learning package composed of various activities to foster learning (for example, reality-based activities, problem-based learning, practical-coaching opportunities and reflection in/on action). This will promote knowledge gains and behavioural change and encourage you to seek additional self-directed learning opportunities.

The following HEADINGS and icons will signify different activities you will undertake in the MOOC 2 Study Guide:

VIEW – This is the video track linked to the Chapter and Section of the Study Guide you are considering

READ – This is the content knowledge that is outlined in the video track. It gives you the opportunity to examine the content at your own pace and/or to review in writing what is verbally outlined in the video

STUDY GUIDE TASK – This is an activity that will get you to consider how the content you have viewed/read may apply during your coaching with the children that you coach, and reflect on how you may change your coaching behaviours

PERSONAL COACHING TASK: This is an activity that will get you to apply the content into your coaching, with the children you coach, and to reflect on how it went for the children and for you. You may need to do these tasks a number of times and reflect on them to be able to fully apply the content into your coaching, in line with your coaching philosophy and to the benefit of the children

COACHING WITH OTHERS – This is an activity that will get you to engage other coaches you work with to discuss, apply, try, observe, get feedback from and reflect on how they see/feel your coaching is developing, and how the content can be applied by you and the other coaches. It may also encourage you to engage other relevant people, like parents, referees, club officials and even the children you coach!

COACHING IN YOUR ENVIRONMENT – This is an activity that will get you to consider how child-centred is the approach of your club/school/community group. You will then consider/discuss what changes may be made to become a more child-centred coach.

QUIZ – At the end of each chapter there will be a quiz for you to complete. This will give you a chance to re-enforce your learning by getting you to re-visit some of the main ideas covered in the chapter and hoe they can apply to your coaching. Approach the questions in an 'open-book' format; which allows you to re-read the sections of the study guide before you write your answer.

CHAPTER CLOSING TASKS – Each chapter will end with some tasks that will get you to consider/apply the ideas and coaching tools covered in the chapter into your coaching. The tasks may include:

PERSONAL COACHING TASKS

COACHING WITH OTHERS

COACHING IN YOUR ENVIRONMENT

FURTHER VIEWING/READING – By its nature, only a certain amount of content is included in the MOOC. If you want to learn more about a topic, this will direct you to additional materials to view or read

Your Development Journey as a Children's Coach

Working with children can be a very worthwhile and positive experience for people. With the growing knowledge and the approach put forward in the iCoachKids MOOCs, this experience can be positive for each and every child, as well as for each and every coach.

It’s over to you now to take the responsibility to grow your coaching knowledge and ability. Enjoy the journey coach!

iCoachKids: MOOC 2 Study Guide - Learner Activity Tracker: Chapter No 3

Name: _____ **Date:** _____

As you complete each of the activities in each of the sections, please put a tick ✓ in the circle. This will allow you to track what you have completed and where you can restart when you return to the Study Guide after a break.

Study Guide Activity / Chapter Section	VIEW / READ	PRE-CHAPTER / STUDY GUIDE TASK	PERSONAL COACHING TASK	COACHING WITH OTHERS	COACHING IN YOUR ENVIRONMENT	QUIZ	CHAPTER CLOSING TASKS	FURTHER VIEW / READ
Introduction	○							
Section 3.1	○		○	○				
Section 3.2	○							
Section 3.3	○		○	○				
Section 3.4	○		○	○				
Section 3.5	○			○	○			
Summary / Conclusion	○					○	○	○

If you have completed each of the activities in each section and the Learner Activity Grid is complete. WELL DONE! You can move to the next chapter.

Chapter 3, Introduction

VIEW AND/OR READ

You can view this section on the online MOOC: https://www.youtube.com/watch?v=XAGRmuJuc1s or you can read it in the Study Guide. If it re-enforces your learning, you can do both.

Introduction

Well done for completing Chapters 1 and 2!

Remember, this course is about becoming a child-centred coach, which is about providing what children need and want so they can enjoy a positive and developmental sport experience.

Child-Centred Coaching = Meeting Children's Needs and Wants = Positive Development

In MOOC 1, we introduced Andy Abraham's coach decision-making model as a very important tool to plan and make decisions in our coaching.

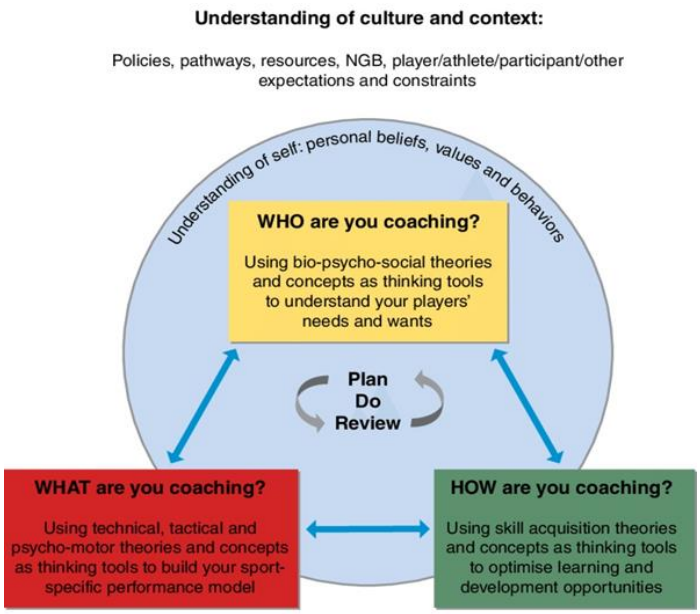


Figure 1 - The Coach Decision-Making Model. Adapted from Abraham et al. (2015) and reproduced from European Sport Coaching Framework (Lara-Bercial et al., 2017)

The model is also known as the **WHO**, **WHAT**, **HOW** model. In short, a coach must understand WHO they are coaching and what stage of development they are at. They also have to understand WHAT it is they want to teach their participants. In other words, their coaching curriculum. Finally, they need an understanding of the HOW: what pedagogical tools and strategies they wish to use to facilitate and maximise learning.

In this chapter, we are going to focus on the **WHO**. To do so, we will explore how children develop from a bio-psycho-social perspective. What does this mean? Well, it means that we will put our 4-D goggles on to fully appreciate the depth and breadth of child development.

WHO are you coaching?

Using bio-psycho-social theories and concepts as thinking tools to understanding your children's needs and wants

Child Development

Through our work with students and coaches, we have come to realise that many times, we look at children as if they were a flat picture with very little depth. We have seen how, most times, coaches are able to assess the physical development of a child because it happens right in front of your face and is easy to see.

However, we have also noticed that other vital developmental areas like cognitive, social and emotional tend to go unnoticed and are rarely factored in when planning seasons and sessions.

We **cannot** allow that to happen.

SPEC Model

In MOOC 1, we also introduced the SPEC model, developed by Sergio Lara-Bercial to help coaches understand the implications of child development across the SOCIAL, PHYSICAL, EMOTIONAL and SOCIAL beams. Expanding on this model will be the main goal of this chapter.

Figure 2 – The SPEC Model (reproduced from Wildcats Activ8 Coaches' Resource – Sport Northern Ireland, 2012)

Children change a lot from 5 to 12 years of age, and they do so across all four beams of the SPEC model. It is paramount for coaches to get a grip of how this multidimensional development happens. Before we take a deeper look into each of the four beams of the SPEC model, let us have a look at some key ideas that should always be at the back of our mind when thinking about child development.

1. Development is not linear. Children will take steps forward and steps back. We must be patient!
2. Children develop at different paces' in the four beams. That is why we have to look at each area separately and not base our coaching on just the more visible physical beam.
3. Two children of the same chronological age may be poles apart in one or more of the beams because they may have a different biological or training age. That is, because they may be early or late maturers or because they may have been training for longer.

Ok, buckle up and enjoy the ride of child development. We have some of the best world experts to take you through it. Enjoy!

Chapter 3, Section 3, Part 1

Social Development

VIEW AND/OR READ

You can view this section on the online MOOC: https://www.youtube.com/watch?v=PzlCy6kn2W0 or you can read it in the Study Guide. If it re-enforces your learning, you can do both.

Introduction

This section has been developed with the support of Prof Nicolette Schipper van Veldhoven, from NOC*NSF and Windesheim University, Netherlands. Thanks Nicolette!

In MOOC 1 you learned about developing **Effective Environments for Children in Sport**. Creating the right environment lays the foundation for making sport a positive experience. Let us not forget that this is the most important job for children's coaches in clubs, school and community groups across the world.

Main Goal of the Coach = Making Sport a Positive Experience

Children act, interact and react differently to their environment at different ages and stages of development. Therefore, as coaches, we need to understand how children develop over time, but very importantly, we have to do so, not only physically, but socially, emotionally and cognitively too.

What children need and want from sport changes over time – Physically, Socially, Emotionally and Cognitively

Social Development

This chapter will tell you all you need to know about the social development of children.

Social Development =
Learning to Interact with Others and the World Around Us

Social development is about the way in which children learn to interact with each other and the world around them. For instance, how they are considerate and respectful with each other, how they show empathy with others, how they express their own emotions, how they learn and adhere to social rules like taking turns, sharing, playing together, or the capacity to peacefully resolve conflict.

Social development is characterised by learning social skills. These social skills are age-related but not age-dependent. This means that it depends more on each child's maturational stage rather than chronological age.

Social Development is Age-Related but *NOT* Age-Dependant

However, we can generalise some key markers or milestones during key developmental stages. It is also important to understand that the key social players and relationships for the child will also vary during different stages.

In broad terms, fostering social development for coaches has a lot to do with *creating a caring and safe climate*!

Social Development Starts with a Caring and Safe Climate

Before we get into the specifics of each stage, here goes some general advice:

1. **Role Model:** Always be a role model. Set a good example yourself in how you interact with them and other people like parents and referees.
2. **Opportunities to Interact:** Provide many opportunities for them to play and interact with each other.
3. **Problem Solving:** Give children the chance to individually and collectively solve problems by themselves and celebrate their successes.
4. **Basic Rules:** Play many games with children with 'changing turns' and basic rules they have to follow.
5. **Praise:** Reward and praise children when they play nicely with others and when they are able to share toys or equipment.
6. **Reward Effort over Results:** Give compliments for a child's efforts and not only for their achievements.
7. **Acknowledge 'good losers':** Praise a child when they lose a game but take it well.

8. **Be Aware:** Make sure to be always attentive for 'teachable moments' and step in if any aggressive behaviour takes place.

Developmental Stages

Ok, so after this general advice, let us now see what is important to know specifically in each developmental stage.

Toddlers & Pre-Schoolers: 1-4 years' old

Let us start with toddlers and preschool children of 1 to 4 years of age. Guess what, the key here is to. **Let them Play!**

During infancy, up to 18 months, the main relationship infants' form is with their primary caregiver. This is all based around the sense of trust they develop that their basic needs will be met.

Main Relationship: Up to 18 Months = Primary Care giver

Between 18 months and 4 years of age, children's main relationships tend to be parents and extended family. If they attend nursery, they also start building relationships with carers and other children. At this stage, as they become more mobile and self-sufficient, they begin to explore the world around them. This will continue for the rest of their lives.

Main Relationship: 18m – 4 years = Parents and extended family

Primary School Kids: 5-11 years' old

As their autonomy increases through the primary school years (that is 5 to 11 years), children keep exploring the world and develop more initiative and courage. They increasingly begin to actively look for contact with others and to enjoy when others respond positively to them.

Children of this age enjoy exploring the world and interacting with other children

Throughout this whole period, and mainly through play, children learn social skills, the rules of interaction, and become more self-confident.

From a social development point of view, perhaps the most important thing to realise as a coach is that young children are very self-centred and cannot yet fully empathise with others. In other words, do not chastise or scold a child for appearing to be selfish or disconnected from the rest. That is just where that child is at, and your job is to support them get to the next stage.

As children grow older, they can empathise with the feelings and opinions of others. As a result, they also learn to deal better with disagreements, rules and conflicts.

Another significant step forward for children during the primary school years is the increase in their capacity to stand up for themselves. As they meet more people and create wider networks they become more self-confident and empathetic, but they also get better at holding their ground and expressing and controlling their emotions. However, this is not always a straight road and coaches must be prepared to support children when the wheels come off emotionally in social situations!

Key Social Milestones

1. Self-confidence
2. Empathy
3. Assertiveness
4. Emotional regulation

Adolescence – 11-12 years onwards

Finally, as children progress through adolescence, roughly from 11-12 years of age onwards, the main focus of their relationships will be their peer group. Peers and role models are likely to influence adolescents the most and they are likely to be pre-occupied with how they appear to others. At this point, positive peer relationships are very important and should be promoted by parents and coaches.

Main Relationships & Influence = Peer Groups & Role Models

As the parents of teenagers amongst you will be very aware, children change dramatically during puberty. They discover other interests, make new friends, and generally expand their horizons and areas of interest. They will also become more critical of themselves, others, and also of their parents and coaches. Remember what we said about being a role model: patience and positive modelling are of the essence at this stage.

Adolescence is a lot to take in: be a role model and most of all … be PATIENT

The development of social skills becomes even more important for adolescents. Young people want others to like them and become their friends. At the same time, adolescents have to learn to master respectful interactions while standing up for themselves, resolve arguments and empathise with others. Remember that at this stage, young people are developing their identity and thus often create their own culture and image. Again, try not to be judgmental; we all went through that phase!

Key Social Milestones

1. Respectful interactions
2. Greater assertiveness
3. Higher empathy

4. Conflict resolution
5. Personal identity

Conclusion

Ok, we have covered a lot of ground here. Let us wrap it up with some final recommendations:

With Young Children …

When working with very young children make the most of their incredible imagination and engage them with stories and fantasy scenarios. You can also use simple games where they have to learn to respect simple rules.

With Older Children …

They get older and more confident, make sure to show them that you are also confident in what they can do and that you trust them. Make sure to give each child a lot of attention. Make them feel important!

With adolescents …

Finally, as they reach puberty and adolescence, let go and encourage them to find solutions and answers by themselves, make sure to respect their feelings and boundaries, and make an effort to understand who their peers are and what they are into.

Over-Arching Principle
At all ages take time to know each child you coach and what makes each one tick. It requires time and effort, but it will pay off big time!

Thanks for reading and see you in the next section!

Personal Coaching / Coaching with Others

Use the 8 general points provided on a ***Safe and Caring Climate*** in the chapter (see below) to describe how your coaching currently contributes to the social development of children (I WILL CONTINUE TO). Identify other ways you can do this for each of the points (I WILL START). Based on what you have learned, consider if you are doing anything that you would change (I WILL STOP).

If you work with other coaches, encourage them to do this exercise also; and then discuss each other's responses. Identify what you will do going forward.

1. Role Model: Always be a role model. Set a good example yourself in how you interact with them and other people like parents and referees.

I will CONTINUE TO:
I will START:
I will STOP:

2. Opportunities to Interact: Provide many opportunities for them to play and interact with each other.

I will CONTINUE TO:
I will START:
I will STOP:

3. Problem Solving: Give children the chance to individually and collectively solve problems by themselves and celebrate their successes.

I will CONTINUE TO:
I will START:
I will STOP:

4. Basic Rules: Play many games with children with 'changing turns' and basic rules they have to follow.

I will CONTINUE TO:
I will START:
I will STOP:

5. Praise: Reward and praise children when they play nicely with others and when they are able to share toys or equipment.

I will CONTINUE TO:
I will START:
I will STOP:

6. Reward Effort over Results: Give compliments for a child's efforts and not only for their achievements.

I will CONTINUE TO:
I will START:
I will STOP:

7. Acknowledge 'good losers': Praise a child when they lose a game but take it well.

I will CONTINUE TO:
I will START:
I will STOP:

8. Be Aware: Make sure to be always attentive for 'teachable moments' and step in if any aggressive behaviour takes place.

I will CONTINUE TO:
I will START:
I will STOP:

Chapter 3, Section 3, Part 2

Physical Development

VIEW AND/OR READ

You can view this section on the online MOOC: https://www.youtube.com/watch?v=_PqzFrSd0U4 or you can read it in the Study Guide. If it re-enforces your learning, you can do both.

Introduction

The previous section summarised how children develop from a social perspective.

This section will outline the various stages of physical development children go through, explore some important issues related to the process of physical maturation and draw some key implications for coaches.

Before we start, some key terms that will be important to understand for this chapter, including defining what we mean by the terms 'Youth', 'Children' and 'Adolescents':

- **By CHILDREN** we mean 2 to 10 years of age in girls and 2 to 11 in boys
- **By ADOLESCENTS** we mean the period from approximately 11 to 19 years in girls and 12 to 19 in boys
- **By YOUTH** we mean both Children and Adolescents

Note: Please note that adolescence is a more difficult period to define due to maturation. That is, adolescence technically starts when certain hormonal changes occur leading to the onset of puberty.

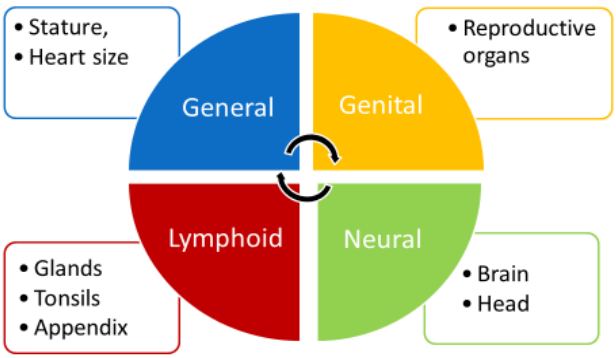
Other key terms to be aware of include 'Growth', 'Maturation' and 'Development'.

WHAT IS GROWTH?

Growth is an increase in the size of the body or its parts and includes changes in height, body mass, fat and the organs. There are 4 main types of growth which occur in the body. These are:

1. **General Growth:** This includes changes in size to the body and its parts and includes areas such as height and heart size
2. **Neural Growth:** This relates to the changes in size of the head and the brain
3. **Genital Growth:** This results in changes to the reproductive organs
4. **Lymphoid Growth:** This is related to changes in the lymphoid system such as the glands, appendix, and tonsils

Types of Growth



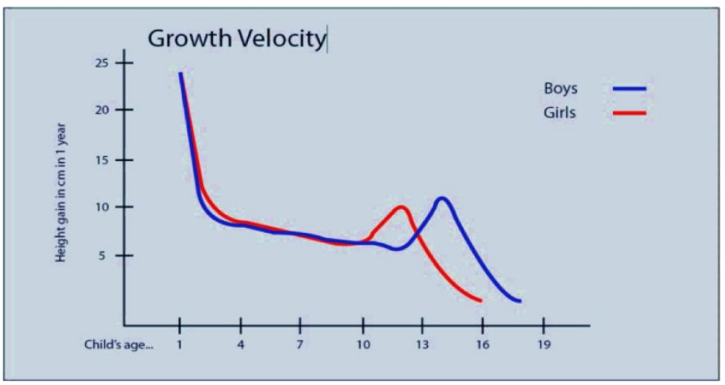
(Baxter-Jones, Eisenmann & Sherar, 2005)

The main two types of growth we will focus upon here are **General Growth** and **Neural Growth**.

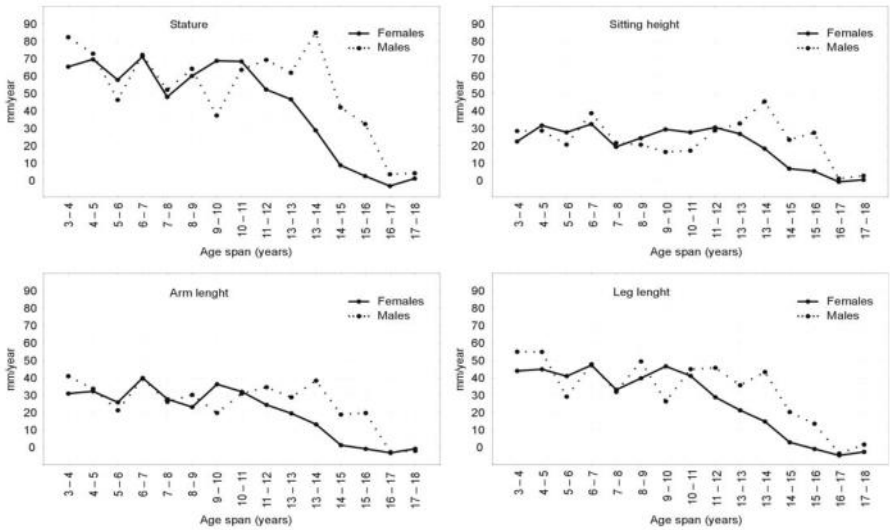
General Growth

General Growth reflects the external (e.g., height) and internal (e.g., heart and lungs) growth that occur in the body. For a coach the two most important types are height and mass.

Height and **Mass** increase rapidly in the first few years of life and then plateau off. There is then a steady period of growth until the growth spurt, which we'll focus upon later.



Have a look at these growth charts for the typical size of boys and girls. It is very important however, to be aware of the differences in sizes of boys and girls of the same age. For example, an 8-year-old girl can normally vary between 115cm and 151cm and a boy can vary between 120cm and 152cm.



Živičnjak, M., Smolej Narančić, N., Szirovicza, L., Franke, D., Hrenović, J. and Bišof, V., 2003.

In addition, children do develop slightly differently depending on their gender but there is more variation amongst girls and boys than there is between them.

More variation amongst boys or girls than between boys and girls

Very importantly, every child is unique and will develop at his or her own pace, therefore it is recommended that a child's growth is monitored approximately every 3 months.

Monitor height every three months

In the prepubertal period until 9-10 years of age, gender differences are relatively negligible. However, around the age of 10 or 11, girls will generally experience a growth spurt before boys do and are thus taller. This is due to the earlier onset of puberty in girls. However, by the age of 14 or 15 boys have usually outgrown girls. This accelerated period of growth that children experience with the onset of puberty is often referred to as the 'growth spurt' and will have an impact upon the physical capabilities of participants within your session.

Onset of puberty happens earlier in girls than boys

During this accelerate period, growth occurs distal to proximal, this means hands and feet grow first before the torso which results in youths having relatively long legs that can impact upon their physical capabilities such as motor coordination and spatial awareness. Therefore, children may appear clumsy and uncoordinated in their movements.

We must consider this when designing activities within our sessions and may need to 'retrain and reinforce' some of the fundamental movement skills (i.e., squat, lunge, skips, run), which children will have first learnt at a young age.

Rapid Growth = Coordination Loss = Be Patient Coach!

Neural Growth

Let us now move on to neural growth. Neural growth relates to growth of the head and the brain. You may have noticed that young children have relatively large heads. By the age of 8, the brain and head is approximately 90% of its adult size. This affects their balance and needs to be considered within your coaching.

Children have proportionally larger heads than adults

For example, this means children are able to control proximal parts of the body and bigger muscle groups earlier than distal and smaller muscle groups (i.e., they will be able to kick, hit or throw for distance but less for placement). This means that within your coaching an emphasis should be placed on gross motor skill development before fine motor skill development.

Proximal Control Better Than Distal Control
And
Gross Motor Skills Easier Than Fine Motor Skills

What this neural growth does allow is for the development of fundamental movement skills at these childhood years. See section 4.1 for more information in this area.

MATURATION and DEVELOPMENT

Now that we understand growth a bit better, let us talk about **Maturation**. This is important because growth is quite consistent and steady until we approach the maturity or growth spurt period. Maturation is the progress towards the adult state. There are two key stages to maturation.

The first one is **Timing:**

- **Timing is** the age when specific maturational events occur. For example, the age of pubic hair appearance or age at maximum growth in height.

Timing = When

The second one is **Tempo:**

- **Tempo is** the rate at which maturation progresses. In other words, how quick or slow someone passes through maturation.

Tempo = How Fast

During the 'growth spurt', there are 2 key stages: **Peak High Velocity** and **Peak Weight Velocity**.

- ***Peak height velocity or PHV*** refers to the maximum velocity of growth in stature and has been used as a key marker in relation to developments in performance during this period (Malina et al., 2004).

Peak Height Velocity = Maximum Speed of Growth

- ***Peak weight velocity or PWV*** is a phase of development characterised by rapid increases in muscle mass as a result of increasing sex hormone concentrations (Ford et al., 2011).

Peak Weight Velocity = Maximum Speed of Weight Increase

As we said earlier, girls generally go through their growth spurt around the ages of 11-12 years of age, while boys experience a growth spurt slightly later around 13-14 years of age. It is after this growth spurt that we start to see significant differences in the physical capabilities of boys and girls. This is because of the changes in the body that occur during this period. Boys tend to have an increase in lean muscle mass due to the increase in the hormone testosterone while girls generally

experience an increase in fat mass due to the increase in female hormones progesterone and oestrogen.

Testosterone = Boys increase lean muscle mass

Progesterone & Oestrogen = Girls increase fat mass

All in all, these accelerated periods of growth will impact upon children's co-ordination and spatial awareness, therefore they may appear clumsy and 'awkward' in their movement.

Chronological Age and Biological Age

We also often see considerable variation in the growth and maturation rates among participants, with youths of the same chronological age differing dramatically in their biological maturity. Consequently, this means we may have children with very different physical capabilities within the same group when coaching and we therefore need to consider how we may adapt our sessions to challenge both the early and late mature.

Coaching Implications

So, what are the key take home messages for you to consider in your coaching:

1. Height and mass increase rapidly in the first few years of life and then plateau off. There is then a steady period of growth until the growth spurt. During this period, children are ready to learn fundamental movement skills, and these should be emphasised in your sessions.

Teach fundamental movement skills during periods of steady growth

2. Children do develop slightly differently depending on their gender but there is more variation amongst girls and boys than there is between them. It is recommended growth is monitored approximately every 3 months so you can adapt your training accordingly.

Monitor growth every three months

3. With the onset of puberty, children experience a growth spurt that may make them appear clumsy and uncoordinated in their movements referred to as ‘adolescent awkwardness.’

Be patient during the growth spurt

4. During the growth spurt we may need to ‘retrain and reinforce’ some of the fundamental movement skills (i.e. squat, lunge, skips, run), which children will have first learnt at a young age but seem to lose at this point.

During growth spurt: Retrain and Reinforce

Conclusion

Ok, coach that is a lot to take in. Do not worry, we will revisit Physical Development in Chapter 4 when we will think through how this plays out in your coaching context. Now please move on to the next chapter: emotional development. Thanks!

Chapter 3, Section 3, Part 3

Emotional Development

VIEW AND/OR READ

You can view this section on the online MOOC: https://www.youtube.com/watch?v=ECffMCIGvNE or you can read it in the Study Guide. If it re-enforces your learning, you can do both.

Introduction

In previous sections we have explored Social and Physical development and their implications for coaching. Now, we turn to another very important area: **Emotional Development**.

Emotional Development describes the way in which children increasingly experience their emotions consciously and are able to manage and control them.
Children's Emotional Development has a strong connection with their Social Development which we looked at in section 3.1. This is because emotions play a very important role in our interactions with others and in our ability to adapt to the environment.

In short, **Emotional Development** is characterised by a growing awareness of self, language acquisition and the understanding and control of emotions. Children must learn to see, understand and deal with their own feelings and the feelings of others in order to be able to act in a socially competent way.

- Awareness of Self
- Language Acquisition
- Understanding and Controlling Emotions
- Empathy

Some **Key Markers** of good emotional development are self-control, perseverance in the face of difficulty, being able to identify unwritten rules in social settings, being able to read the emotional climate of a situation and being a good listener.

Key Markers of Emotional Development
Self-Control
Perseverance
Identifying Unwritten Rules
Reading Social Situations
Listening Skills

From the perspective of the coach, fostering **Emotional Development** is very much connected to the idea of creating a *caring climate*!

Pre-School Age: 18 months to 4 years

For example, by comparison to infants, pre-schoolers have a growing degree of control over their emotions. This helps them put in words how they feel. They are also able to learn what behaviours and emotions are considered appropriate in different situations. Moreover, because pre-schoolers have already understood that they are separate from the world around them, they are able to start seeing things from someone else's perspective. This is the origin of empathy.

At this stage, coaches can do a number of things to promote emotional development. For example:

1. **Set a good example:** Set a good example, be a role model. Remember, children learn a lot by observation and imitation.
2. **Let the children know you like and value them:** Let children know explicitly that you like them and that you enjoy your time with them.
3. **Praise the children:** Praise them when they do something well.
4. **Be consistent:** Very important, be consistent in your responses. Your stability and dependability will be contagious.
5. **Use opportunities to talk about feelings:** Use certain opportunities to talk about feelings, both their own and those of others.
6. Say, for example, "You're happy with that new game, aren't you?"
7. Or, "Look, your teammate is sad because she has lost the ball. Please try to cheer her up."

Primary School Age: 5-11 Years Old

By the time, children go to school and until approximately 11 years of age, they start to develop what are called “learned emotions”. For instance, shame and pride. These emotions are regarded as learned emotions because they are very culturally determined.

At this age, children also discover that they can experience multiple emotions simultaneously. Some of these emotions may even be conflicting like happiness and disappointment, but children may find it difficult to separate them.

Importantly, during this period, children will often try to determine how far they can push and where the boundaries are.

In addition to what we said for pre-schoolers, during the primary school years, coaches can do a number of things to stimulate emotional growth. For example:

1. **Set clear general rules:** Set some clear rules and tell them why they are important to be followed. It may help to develop these rules together with the children so they feel they own them.
2. **Set clear limits for specific behaviours:** Set clear limits in relation to things like bullying and other transgressive or aggressive behaviours. You may even want to have discussions with the children where they can try to explain why these limits are important.
3. **Ignore attention-seeking behaviour:** As counterintuitive as it sounds, sometimes it helps to ignore poor behaviour, so the child realises that it does not get them any attention.
4. **Give each child your full attention:** As we always say, try to give each child your full individual attention during every session.

Adolescent: 11-12 to 19 Years of Age

Ok, so what about adolescents. Well, adolescence need not be a period of ‘storm and stress’ if we understand a bit more what is going on within the adolescent body and mind.

In general, adolescents are very aware of their own emotions and the emotions of others and they have an extensive vocabulary to describe them. During this period, their emotional regulation is developing and therefore they are progressively more capable of influencing their own emotional states. At this stage, they are also becoming more able to

interpret different situations and react with appropriate behaviours and emotions.

Adolescents get better at:

- Being aware of own and other's emotions
- Talk about their feelings
- Control their emotions
- Read and react to situations appropriately

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Adolescents get better at:

- Being aware of own and other's emotions
- Talk about their feelings
- Control their emotions
- Read and react to situations appropriately

During adolescence, concerns about physical changes can be a source of worry and heightened emotions. In addition, the increased production of hormones also affects moods and general emotional responses. If you work with teenagers, you will realise that strong and sudden mood swings are not uncommon. Young people can behave unpredictably, and they will regularly oppose the authority of family members, teachers and coaches. This does not mean they are bad people!

Adolescents:

- Are concerned about physical changes
- Experience mood swings due to hormones
- Can be unpredictable
- Will challenge authority

So, what can we do as coaches to promote emotional development at this stage? Here we go.

1. **Show them that you care:** Show them how much you care and that you are there for them as a person not only as an athlete.
2. **Tell them that you are proud of them:** Tell them that you are proud of how well they try to do their best.
3. **Help them explore:** Help them explore their own behaviours and emotions by holding them accountable and helping them explain why they behaved or felt in a certain way.

4. **Motivations and worries:** Ask them what motivates or worries them. Adolescents are probably more concerned with their own environment and peer group than with sport performance.
5. **Stay calm - be a positive role model:** Stay calm during 'mood swings'. Be a positive role model and let it go away.
6. **Anticipate and stay calm – it is not personal:** Anticipate that they will challenge you and argue, and that this is relatively normal behaviour. Again, stay calm and reason with them. Whatever you do, do not make it personal!

Conclusion

Wow, that was emotional! In the next section we will look at the **Cognitive Development** of children and what it means for you as a coach.

Thanks for reading and see you soon!

Personal Coaching / Coaching with Others

a) Do a personal reflection (250-word) on what negative emotional responses you have seen in your sessions and what you could do next time they present.

Coaching with Others

b) Conduct this exercise with (an)other coach(es), ensuring they are not threatened by the task and that they do not need to be defensive. Discuss different approaches to the scenario.

Chapter 3, Section 3, Part 4

Cognitive Development

VIEW AND/OR READ

You can view this section on the online MOOC: https://www.youtube.com/watch?v=kMWmrfkpcbo or you can read it in the Study Guide. If it re-enforces your learning, you can do both.

Introduction

In this section we are going to talk about **Cognitive Development**.

Before getting into talking about **Cognitive Development** however a quick recap. In previous sections we have described how you can understand children through **Social, Physical and Emotional Development** concepts. These sections have simplified the research about how children grow and develop, and how knowing this can impact on your coaching practice. However, it is important to also acknowledge that children and young people do not present in these neat concepts. Hopefully you will note we are trying to help you see these connections by offering coaching ideas that are similar across the sections.

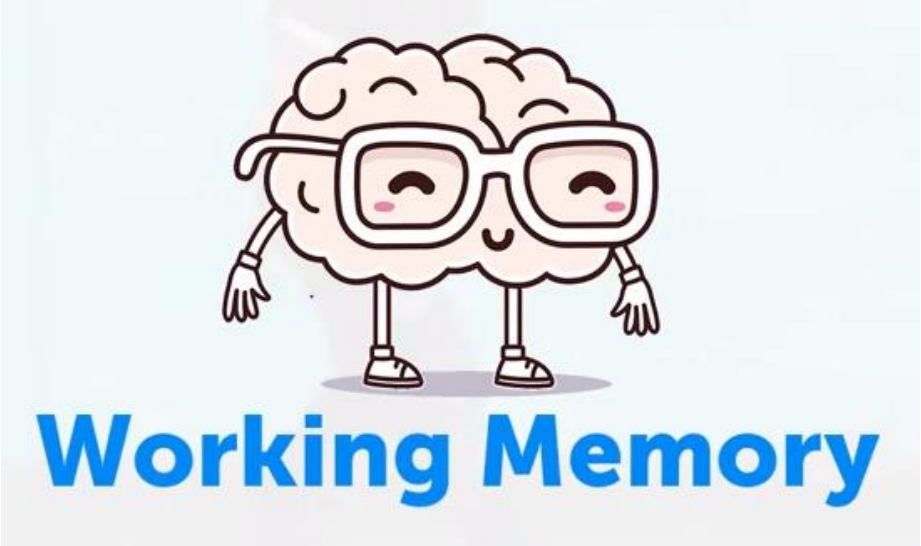
So, what do we mean by the term **Cognitive Development**? To answer this question, we should probably talk about cognition before we talk about cognitive development. **Cognition** relates to how we think about the world and how we operate in it.

We might talk about thinking, problem solving, forming judgements, decision making and learning. We hope you would agree these are all crucial elements of how children can engage with and develop through sport. **Cognitive Development** therefore, relates to how children develop their capacity to do each of these things. This development can be through practice; it can also be though the brain maturing due to biological changes.

Cognitive Development = Practice + Brain Maturation

The good news is that an awareness of these developments can support our coaching of children through good planning, delivery and reflection. However, awareness can also help us help ourselves.

Children and young people can drive us to confusion and distraction! Knowing why can help us retain a sense of perspective, understanding and, crucially, patience.



Working Memory

There is one component to Cognitive Development that we are going to share with you today. This is known as Working Memory. Gaining an understanding of this concept has real implications for how we work with children and young people.

Before talking about working memory, I would just like to reinforce the idea that has been consistent across these iCK materials. Children develop at different rates and big changes can happen in relatively short periods of time.

Children develop at different rates = Avoid comparing them

Therefore, your player born at the beginning of the school year will typically be more cognitively mature than your player born at the end of the school year. Sometimes much more so. The implication here is to avoid what often feels natural, and compare these children with each other. We can reach inappropriate conclusions about the younger child being ‘immature’ and ‘difficult’ by doing so. We absolutely need to treat each child based on who they are rather than who they are not.

So, back to **Working Memor**y. Broadly speaking, we all have a limited capacity of ideas that we can work with at any one time, the classic idea is 7 plus or minus 2 bits of information. Because of this limitation, the brain learns to compensate by creating chunks of information or rules of thumb that are short cuts that reduce the information we have to work with. Think about how we store phone numbers.

Working Memory = bits of information we are able to work with at any given time = 7 +/-2 bits

1. Avoid saying too much in instructions or team talks

A key implication therefore is avoid saying too much in instructions or team talks. Also, to try and find ways to capture key ideas in short statements. For example, in rugby, passing backwards often feels counter intuitive for children. We could use lots of instructions to get this principle across. Alternatively, we could simply instruct the people without the ball to make sure the person with the ball is always in front of them. This rule of thumb capture lots of ideas in one short statement.

Implications for coaches:

- Avoid saying too much
- Use short statements
- Use rules of thumb

2. Capacity seems to increase with age up until about 11 or 12 years of age

The second important element about working memory is that capacity seems to increase with age up until about 11 or 12 years of age. That is, we don't start with a capacity of 7 plus or minus 2, young children may only have a capacity of 2. In other words, if we ask young children to think about more than 2 or 3 things they will very quickly get confused.

Hopefully the implication here is clear, the younger the child we work with the less information they can deal with – **Keep It Simple Coach**!

Alert! Working memory is smaller in younger children = Keep It Simple!

A really interesting bit of research we want to talk to you about was carried out by **Tim Buszard**. Tim and his colleagues found that the size of a child's working memory (they described this as being either higher or lower) impacted on how they dealt with 5 instructions for shooting a basketball. Their results showed that the children with higher working memory improved following instruction, perhaps no surprise there. However, those with lower working memory actually got worse, **yes 'coaching' may have actually made children get worse!**

So, by implication does this mean that we should now measure children's working memory capacity before coaching them? Does it mean that we should instruct the heck out of those children with higher

working memory? Not quite! It does mean that we should learn to know our athletes and individualise our coaching toward them.

Know your athletes and customise your coaching

Who are the children who cope and work well with instructions or questions? Who are the children who seem to get easily confused and struggle with instructions? For those who cope, we can perhaps be a bit more challenging. For those who struggle we simplify, perhaps through demonstration and offer less detail (although this is generally good advice for everyone!). But remember working memory will change with maturation. Understanding will also improve. Both can help children cope with more information. So, keep checking for changes in your players and don't put them in boxes that you never take them out of.

Working Memory improves with maturation = Don't put kids in boxes!

Chunking

The final piece of advice relating to memory returns to the idea of chunking. The way our memory works with chunking is by making connections between bits of information. This has really important implications for coaches. If we can find connections with what we would like to coach and what children know we can use those connections to good effect.

Chunking = Connecting bits of information to aid retention

Firstly, the ideas we present to children mean more because they already know something about what you are talking to them about. Secondly, it allows immediate chunking, meaning, there is less demand of working memory. This frees up space to engage with the tasks we as coaches give them. Analogies, examples and metaphors are all ways of doing this. Starting an instruction with, "this is a bit like…" or, "do you remember when…" or, "have you seen…" can all help make those connections with children and young people.

Benefits of chunking:

- Connects new ideas to previous ones
- Reduces demand on working memory

Conclusion

Ultimately, all of the coaching implications offered here all come back to one core message. Take time to get to know your players and acknowledge their differences. This will help you work with them as individuals. We hope all of the sections around the **Child's Growth and Development** will help you in this process.

Core Message = Take time to get to know your players

Please do the Personal Coaching and Coaching with Others Task before progressing to the next section.

Personal Coaching / Coaching with Others

a) Consider the recommendations made in this chapter, especially around Working Memory, pick 3 that resonate with you, and explain how you are going to account for them in your coaching.

Recommendations	Implications for my coaching
1.	
2.	
3.	

b) Discuss these with those you coach and include their thoughts on implications for your coaching sessions.

Chapter 3, Section 3, Part 5

Implications for Talent Identification and Development

VIEW AND/OR READ

You can view this section on the online MOOC: https://www.youtube.com/watch?v=UU32qXHxaA4&t= or you can read it in the Study Guide. If it re-enforces your learning, you can do both.

Introduction

The previous sections summarised how children grow and develop in four key areas - Social, Physical, Emotional and Cognitive – otherwise known as the **SPEC Model**.

SPEC Model - Lara-Bercial (2012)

This section will look at the implications of how children grow for Talent Identification and Development.

Talent Identification and Development

Talent Identification and Development systems have become popular in recent years. These systems aim to help find and nurture young athletes into the sporting superstars of tomorrow.

Talent Identification is the process of finding individuals with the POTENTIAL at an earlier age to become elite performers in the future.

This often involves coaches and scouts observing sporting performance to decide on a player's potential.

Talent Development systems provide athletes with a suitable learning environment to accelerate and fulfil their potential. This learning environment is often supported by higher quality coaching, enhanced training and competition, and other support services like strength and conditioning and medical support.

Different sports and countries run different talent identification and development programmes. In some sports, these can start within children from 7 years of age. Yes, that's right – 7 years of age!'

However, as children grow this can make talent identification and development challenging!

Talent Identification & Development is Challenging

Here are 3 key challenges for talent identification within young athletes that you should be aware of:

Challenge #1 - PREDICTING POTENTIAL AT AN EARLY AGE IS VERY DIFFICULT!

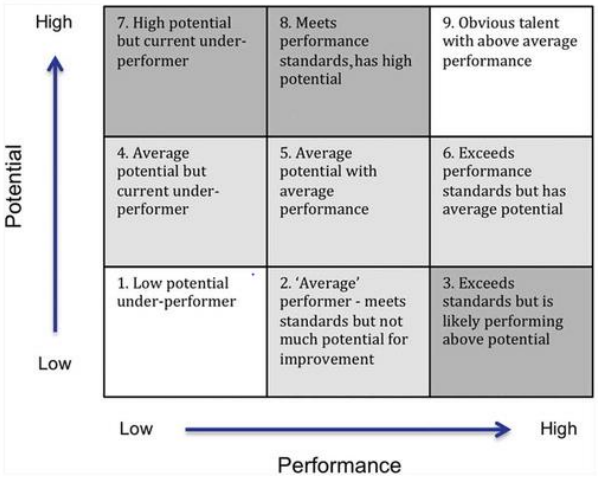
Talent identification ultimately involves trying to predict the future. The further away an individual is from adulthood, the less accurate a talent identification decision can be.

Trying to predict potential within childhood is also difficult when we consider a child's growth. As discussed in the previous four sections, children grow – socially, physically, emotionally and cognitively. As these types of growth all occur at different times, this makes talent identification decisions even more difficult.

Growth and development at certain time points can influence sporting performance and how talent is perceived! In a way 'all that glitters is not gold', and some gold may be hidden until full growth is achieved!

Lastly, talent identification should focus on predicting POTENTIAL. Assessing future potential against current performance is difficult – what does potential look like?

Joseph Baker and colleagues presented a 3 by 3-way matrix of performance vs. potential to help coaches classify athletes as high performing-high potential (box number 9) to low performing-low potential (box number 1).



Overall, talent identification is very much about thinking about future performance – so get out your crystal ball!

Challenge #2 - EARLY IDENTIFICATION EQUALS EARLY SPECIALISATION

Talent identification within sports can occur at early ages. For example, within gymnastics this can occur between 6 to 9 years and 7 to 8 years in soccer. These early talent identification processes may promote early sport specialisation – which includes intensive year-round training within a single sport.

Early Specialisation may enhance sport-specific performance in the short-term. However, it has recently been hotly debated on the benefits of this approach compared to youth athletes sampling a wide range of sports. Research shows that those who play multiple sports while growing up have a stronger chance of becoming top athletes.

The International Olympic Committee has raised awareness of some potential negative outcomes of early specialisation. These negative outcomes included:

- Injury
- Overtraining
- Negative psycho-social health such as burnout

Positive Impacts of TDP Involvement	Negatives Impacts of TDP Involvements
Physical Impact:	*Physical Impact:*
• Muscular strength/endurance	• Overtraining
• Improved cardiovascular fitness	• Injury
• Weight control/More beneficial body composition	• Long term negative health impacts (e.g. joint health, CTE)
• Development of fundamental movement skills	
• Increased sport specific skills	
• Long term health benefits (e.g. bone health)	
Psych-Social Impact:	*Psych-Social Impact:*
• Increased self-esteem & higher perceived (physical) competence and confidence.	• Decreased self-perceptions, confidence and self esteem
• Healthy stress – recovery balance	• Excessive pressure
• Increased self-regulation and volition	• Burnout
• Positive self-concept	• Athletic identity development & identity foreclosure
• Character Development	• Willingness to "Self-Harm" and engage in unhealthy/risk behaviors (e.g. unhealthy heating)
• Affiliation & peer relationships	• Compromised affiliation & peer relationships
• Positive psychosocial development, initiative, social skills- development of life skills (e.g. work ethic, perseverance, resilience, communication)	
Educational Impact:	*Educational Impact:*
• Academic high achievers, higher graduation rates.	• Poor educational performance, sacrifice of education.
	• Lack of career exploration.

Rongen, F (2015) Talent Development: An evaluation of the impact of football academy involvement on youth athlete development, PhD Thesis, Leeds Beckett University.

Therefore, although early talent identification may have some benefits to sports, in the interest of the health and wellbeing of young athletes, coaches should consider the potential negative impact of such early talent identification programmes before deciding this is the way to go.

Challenge #3 - YOUNG ATHLETES ARE GROUPED INTO AGE GROUPS

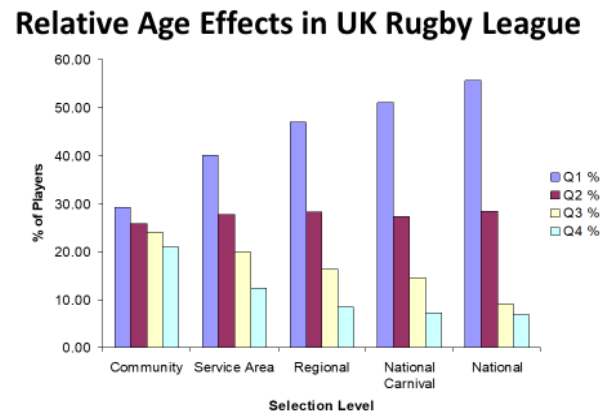
Athletes within most sports, like education, are grouped into annual age categories. For example, in the United Kingdom, they use 1st September to 31st August as the selection start and cut-off dates, which coincides with the school year. This process is designed to provide equal competition and developmental opportunities for young athletes.

From a talent identification perspective, this process should allow equal opportunities for athletes to be identified. However, this fails to consider the chronological age differences between individuals within an annual-age category- otherwise known as relative age. For example, if we consider two children, one born on the 1st September and the other born on the 31st August, there is a 364-day difference in age, but they will play in the same age group!

These differences have resulted in what is known as the Relative Age Effect. The **Relative Age Effect** is the short term and long-term participation and development consequences resulting from these differences in age. Ultimately, young athletes can be advantaged or disadvantaged within talent identification and youth sport based upon their birth date and the dates used to create annual-age groups.

Relative Age Effective = The consequences resulting from the differences in chronological age within competition groups

The **Relative Age Effect** is very common across children's sport and talent identification programmes. See the graph here, which shows relative age effects in UK rugby league's talent identification system. 50% of players selected into their national programme at 13-15 years were born between September and November!



Till, K. et al. (2010) The prevalence, influential factors and mechanisms of relative age effects in UK Rugby League. *Scand J Med Sci Sports*. 20. 320-329.

These relative age (dis)advantages are a result of the likely enhanced growth of relatively older individuals. The advantages may not only be

physical, but also cognitive, social and emotional. Remember the SPEC model!

Conclusion

To summarise, it is vital coaches understand how children grow and develop and the impact this has on the need for and impact of talent identification and development systems.

Now, it is time for you to think how this plays out in your coaching context. Please move on to the reflective activities.

Coaching with Others / Coaching in Your Environment

Consider the 3 challenges posed in this section and explain what you and others in your club could do to avoid the pitfalls of Talent ID.

Challenge	Actions to Avoid Pitfalls
Challenge #1 - PREDICTING POTENTIAL AT AN EARLY AGE IS VERY DIFFICULT!	
Challenge #2 - EARLY IDENTIFICATION EQUALS EARLY SPECIALISATION	
Challenge #3 - YOUNG ATHLETES ARE GROUPED INTO AGE GROUPS	

Chapter 3, Summary & Conclusions
How Children Grow and Develop

VIEW AND/OR READ

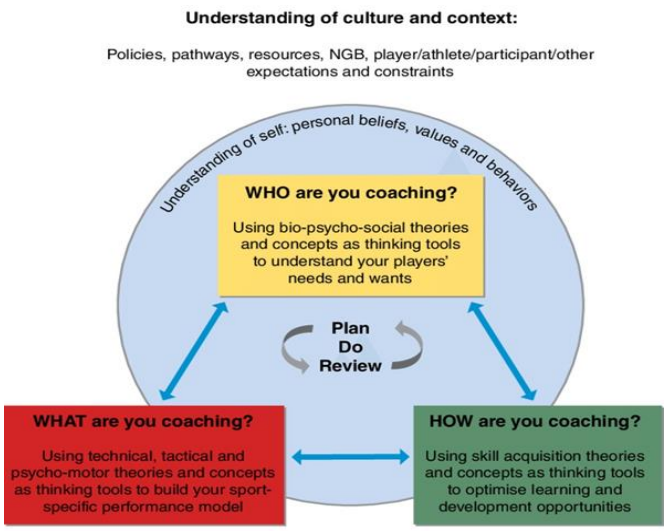
You can view this section on the online MOOC: https://www.youtube.com/watch?v=lkoo7nlVB_s or you can read it in the Study Guide. If it re-enforces your learning, you can do both.

Introduction

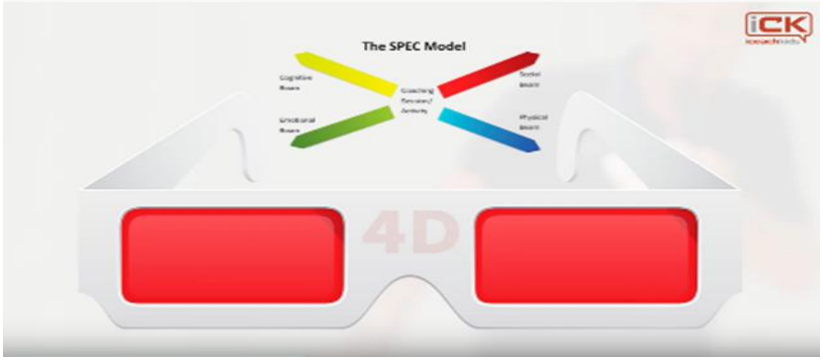
Congratulations Coach! Another Chapter under your belt.

This was a key chapter in our quest to become a child-centred coach. Remember that our job is to give children what they need and want at different stages of development so they can enjoy a positive and developmental sport experience.

In this Chapter we focused on the WHO of the Coach Decision-Making Model.



To do so we put our 4-D goggles on and explored how children develop from a bio-psycho-social perspective across the four beams of the SPEC model.



As we travelled along the four beams of the SPEC model, we saw that children change dramatically from 5 to 12 years of age on all four dimensions. It is paramount for coaches to get a grip of how this multidimensional development happens.

Coaching Zones

Figure 3 – The Coaching Zones (reproduced from Wildcats Activ8 Coaches' Resource – Sport Northern Ireland, 2012)

The key, as always, is to keep children in the **Learning Zone**. Creating enough stretch for them to develop without overwhelming! Not a small feat!

Social Development

At a social level, we emphasised the need to create opportunities for children to interact and work with other children and adults so they can grow their repertoire of social skills. Small group work and problem-solving activities were recommended.

Keys to Social Development:

- Create opportunities for interaction
- Foster problem solving
- Promote group work

Physical Development

From a physical perspective, we showed you how growth is steady during the childhood years. This creates the conditions for kids to learn a great variety of foundational motor skills and so coaches should really promote this in their sessions. As children enter puberty, their height and weight increase rapidly. As coaches we must be mindful of their new, quick changing proportions which will be causing havoc in their general and specific coordination and help them relearn some basic skills they had already mastered before their growth spurt.

Keys to Physical Development:

- Develop foundational motor skills early
- Manage adolescent growth spurt

Emotional Development

In terms of emotional development, the key is understanding that children must be given the time and opportunity to first label and understand their emotions. Once they can do this, they will be able to progressively be aware of the emotions they are experiencing and their impact on themselves and on other people. From here, our role as coaches is to support them through this process of gaining emotional self-regulation. Scolding and shouting will not cut it. Explanations, discussions and role-modelling will go a lot further. And remember, children can progress and regress emotionally, so don't be disheartened if a child all of a sudden seems not be able to control an emotion that they had no problem with before.

Keys to Emotional Development:

- Help kids understand emotions
- Support children progressively control emotions
- Explain and role model positive emotional control

Cognitive Development

Finally, we looked at cognitive development. We saw that the capacity of children to receive and assimilate information, to work through problems and find multiple solutions, to use abstract thinking, and to produce and communicate information for others will increase dramatically all through childhood. Again, as a coach, our job is to be constantly testing these capacities and to be on the lookout for opportunities to stretch them and take them to new levels. The activities we use, the pedagogical choices we make and our leadership style may need to constantly adapt to these ever-changing landscape. Isn't that fun??!!

Keys to Cognitive Development

- Be aware of current abilities
- Test and stretch cognitive capacity
- Adapt as they develop

Child Development Mantras

Ok, so before we wrap up this chapter, let us have a look at some very important ideas we introduced earlier that should always be at the back of our mind when thinking about child development.

1. **Development is not linear.** Children will take steps forward and steps back. We must be patient!
2. **All developmental areas are interconnected.** At times one can be a gatekeeper to another. For instance, a child who cannot regulate emotions, may struggle to learn and to develop cognitively.
3. **Children develop at different paces on the four beams.** That is why we have to consider all beams and not base our coaching on just the more visible physical beam.
4. **Children of the same chronological age may have a different biological or training age.** Two children of the same chronological age may be poles apart in one or more of the beams because they may have a different biological or training age. That is, because they may be early or late matures or because they may have been training for longer.

Conclusion

Ok, that was a wild ride indeed. Thank you to all the experts that have helped us make sense of this very important topic!

Thanks for reading and completing the tasks. See you in the next Chapter where we will fully explore the idea of physical literacy, movement skills and conditioning the children's body so they can lay a solid foundation to build a big house on when the time is right!

Quiz

Now go to the quiz and smash it!

STUDY GUIDE TASK: QUIZ

1. Social development relates primarily to:

a) Children's confidence to perform in front of others
b) Children's capacity to interact with others and the world around them
c) Children's ability to be the joker in the room

2. Coaches can foster social development by (more than one right answer):

a) Creating opportunities for interaction between children
b) Encouraging children to speak whenever they wish to
c) Foster individual and group problem solving

3. Children's physical growth is:

a) Steady and consistent from birth to full maturity
b) Comprised of a combination of steady and rapid growth periods until full maturity
c) Mostly related to environmental conditions

4. In relation to children's physical development, coaches (more than one right answer):

a) Should develop foundational motor skills early
b) Monitor height and weight and proactively manage periods of rapid growth
c) Emphasise muscle hypertrophy from an early age

5. Emotional development is primarily concerned with:

a) How much children cry during sessions
b) Children's ability to consciously experience and control emotions
c) Children's desire to comply with instructions and rules

6. Key markers of emotional development include (select all that apply):

a) Self-Control
b) Perseverance
c) Identifying Unwritten Rules
d) Reading Age
e) Reading Social Situations
f) Listening Skills

7. Cognitive development primarily involves (more than one right answer):

a) Children's capacity to receive and assimilate information
b) Children's ability to work through problems and use abstract thinking
c) Children's capacity to memorise the times tables

8. To help develop children' cognitive capacity, coaches should:

a) Ask them to learn the rules of the sport by heart
b) Constantly test and stretch cognitive capacity
c) Encourage them to play chess during water breaks

9. When thinking about child development, coaches should be aware that (select all that apply):

a) Development is not linear
b) All developmental areas are interconnected
c) Children develop at different paces
d) Children have a chronological, biological, and training age

10. Three major implications of child development for talent identification and development are (select three options):

a) Predicting potential at an early age is very difficult
b) Finding the best athletes before their growth spurt is paramount
c) Early identification normally leads to early specialisation
d) Traditional competition age groupings lead to Relative Age Effects
e) Children must always compete above their age group to develop

Q1

Social development relates primarily to:
b) Children's capacity to interact with others and the world around them

Q2

Coaches can foster social development by (more than one right answer):
a) Creating opportunities for interaction between children
c) Foster individual and group problem solving

Q3

Children's physical growth is:
b) Comprised of a combination of steady and rapid growth periods until full maturity

Q4

In relation to children's physical development, coaches (more than one right answer):
a) Should develop foundational motor skills early
b) Monitor height and weight and proactively manage periods of rapid growth

Q5

Emotional development is primarily concerned with:
b) Children's ability to consciously experience and control emotions

Q6

Key markers of emotional development include:
a) Self-Control
b) Perseverance
c) Identifying Unwritten Rules
e) Reading Social Situations
f) Listening Skills

Q7

Cognitive development primarily involves (more than one right answer):
a) Children's capacity to receive and assimilate information
b) Children's ability to work through problems and use abstract thinking

Q8

To help develop children' cognitive capacity, coaches should:
b) Constantly test and stretch cognitive capacity

Q9

When thinking about child development, coaches should be aware that (select all that apply):
a) Development is not linear
b) All developmental areas are interconnected
c) Children develop at different paces
d) Children have a chronological, biological, and training age

Q10

Three major implications of child development for talent identification and development are:
a) Predicting potential at an early age is very difficult
c) Early identification normally leads to early specialisation
d) Traditional competition age groupings lead to Relative Age Effects

FURTHER VIEWING/READING

Sport Ireland Coaching, Coaching Children Workshops – Factsheets:

https://www.sportireland.ie/coaching/coaching-children-workshop

International Sports Coaching Framework 1.2 – ICCE
https://www.icce.ws/_assets/files/iscf-1.2-10-7-15.pdf

Sports and physical education from a pedagogical perspective: a golden opportunity
Nicolette Schipper van Veldhoven February 2017

https://www.researchgate.net/publication/316042160_Sports_and_physical_education_from_a_pedagogical_perspective_a_golden_opportunity

Controlling for maturation in paediatric exercise science
https://www.researchgate.net/publication/296946862_Controlling_for_maturation_in_pediatric_exercise_science

The Long-Term Athlete Development model: Physiological evidence and application
https://www.researchgate.net/publication/49778283_The_Long-Term_Athlete_Development_model_Physiological_evidence_and_application#fullTextFileContent

Emotional Development in Childhood
http://www.child-encyclopedia.com/emotions/according-experts/emotional-development-childhood

Compromising Talent: Issues in Identifying and Selecting Talent in Sport
https://www.tandfonline.com/doi/abs/10.1080/00336297.2017.1333438?src=recsys&journalCode=ugst20

Are youth sport talent identification and development systems necessary and healthy?
https://sportsmedicine-open.springeropen.com/articles/10.1186/s40798-018-0135-2