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Curriculum for EPS Hockey E2-C2 juniors

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Coaching in hockey has changed in direction from coach-centered coaching to player-centered coaching. Nowadays it is more holistic; it is not just coaching tactics and trying to win games at all costs. The way of thinking has changed; instead of the former "what does a team need" way of thinking, nowadays it is more important to ask, "What does an individual need?"

This thesis has been written for EPS Hockey E2-C2 juniors and E2-C2 coaches. The Executive Manager of EPS Hockey requested its completion, because EPS Hockey didn't have a curriculum before this thesis. There were two main objectives; ice hockey and talent development and learning. Coaches must understand, that player development is long-term project and ice hockey skills are just one part of development. Players need versatile skills to become a pro player. Although ice hockey skills development is important, coaches must also know how to fulfil players' potential and what happens during maturation.

The goal of the thesis was to collect information and knowledge for EPS Hockey`s junior players and their coaches. To create a simple, easily understandable, and comprehensive handbook for long-term player development, it is expected to help young coaches understand coaching, and also to help more experienced coaches update their hockey knowledge.

The thesis elaborates and analyzes: what kind of skills ice hockey players need, what is ice hockey as a game, what coaches need to maximize the youths' potential, and how the youth develop during ages nine to fourteen. The thesis and handbook gives 'a frame' for coaches. It helps them to remember what things they should do and emphasize as a coach.

The information was collected inter alia from the Finnish Ice Hockey association, International and Finnish studies, and Professional Hockey Coaches. The information was put together so this thesis gives a comprehensive view of E2-C2-junior players.

The result is a simple, useful handbook for E2-C2-junior coaches. The handbook gives easily understandable advice to a coach. By following handbook's tips and advice, EPS Hockey has a better chance to produce more quality players. There is a lot of research information in the sports world and there is no single way to correctly coach, but this thesis gives one good option to coach children and fulfill their potential.

Keywords
Ice hockey, Coaching, Talent development, Ice hockey skills, Learning

Table of contents

1 Introduction

”Is hockey hard? You tell me. We need to have the power of a football player, stamina of a marathon runner, concentration of a brain surgeon. All this together at high speeds on a cold and slippery surface, while 5 other guys try to kill us with clubs, while standing on 1/8 inch blades on thick ice. Is hockey hard? You tell me.” (Makkonen, 2013)

The quote above is a generalized example from ice hockey. Purpose of the quote is point out that ice hockey players need versatile skills to become a pro player. The objective of the thesis was creating a simple, easily comprehensible handbook for coaches, so that they can know what things they should emphasize and when. The handbook gives ‘a frame’ for the coaches and it helps to remember what things they should do and emphasize during the season. The long-term goal is that EPS Hockey can produce more top players for U16 top teams in the future. By following manual’s tips and advice, EPS Hockey has a better chance to produce more quality and versatile players. Earlier problem was that EPS Hockey didn’t have any manual for players or coaches in ages of 9-14, but now they have one.

The thesis has divided for two main parts. First main part, ice hockey, covers ice hockey things like ice hockey as a sport and different hockey skills, like shooting, game sense, skating and passing. The ice hockey part also consists of ice hockey’s game situations roles and those priorities. The game situations part explains comprehensively what are different game situation roles and goes through what priorities those roles have. The ice hockey part also opens for a reader physical – and psychological side of ice hockey and Game, Character, and Skating-part.

The second main part of the thesis, talent development and learning, goes through maturity, learning, talent development and motivation. It gives answers what is the difference between talent and giftedness, what happens during players growing and what it takes from the player to fulfil his/her potential. This part also gives tips for coaches how to motivate and engage players. It’s one of the most important skills for coaches to create a safe and motivating atmosphere and engage players.

2 EPS Hockey

EPS hockey ry, founded 1970, is an ice hockey club from Espoo and it's a registered society. EPS hockey's teams are training in Espoonlahti area. EPS hockey is a member of Blues-youth development organization. An important goal the members of this organization has is to help players to get into top teams when they turn 15 years old and if they don't get into top teams, member teams offer a chance to continue ice hockey playing in lower level teams. EPS Hockey has at least one team in every age group from hockey school to A-juniors. Club values are youth development, athleticism, cost-effectiveness and being a local club from Espoonlahti. As a youth development club, EPS hockey emphasizes the importance of school, home and hockey. Athleticism consists of nutrition, recovery, and competitiveness. Cost-effectiveness means that EPS hockey offers quality training for the players and events, practices, and home games, are located in Espoonlahti. EPS Hockey is also proud of being a part of Espoonlahti. EPS Hockey promises to offer an individual pathway for every player towards their dreams. The vision of the club is to grow athletic individuals. (EPS Hockey, 2015)

3 Ice Hockey

Ice hockey is a team sport where two teams playing against each other and try to score. Ice hockey is played on ice and the size of the international rink is 60 meters x 30 meters, but in some places the rink size can be smaller. Both teams have three forwards, two defenders and one goalie on ice same at the time. Both teams have their own nets and the teams protect the own net and try to prevent scoring. When team is attacking, they try to put the black and rubbery item, called puck, to the opponent's net. The full ice hockey match consists of three periods which each lasting for 20 minutes. The team which has scored more goals win the game. (IIHF 2016; IIHF and Finland Ice Hockey Association 2015, 19-20)

3.1 Game Analysis

Game analysis of ice hockey means observing causation of game situations. The most important goal of the game analysis is to give information to players and coaches from different game situations on ice. It helps to understand what happens on ice and how to practise that players can perform better those situations. Game situations can be evaluated as a quantitative performance, for example the amount of shots, or as a qualitative performance, for example the effectiveness of attacks. There are 3-6 player on ice same time from both teams and the team's success is always the result of individuals' skills and players' cooperation. (Savolainen, 2016, 565)

Westerlund and Summanen (2000) analysed, that average ice hockey shift last 30-60 seconds and average skating distance is 250 meters. (Laaksonen, 2011, 9)
Hakkarainen (2008) points out, that players' average shifts per period are 7-10 and one player effective playing time is 5-30 minutes per game. Between those shifts, players recover for 1-3 minutes on bench. Players' role and playing position in the team affect players' number of shifts and overall playing time. Usually fourth line players have the least time on ice and defenders have the most time on ice. In equal game situations intensity is high and there are a lot of accelerations, transitions, and brakes. Special situations change the way of skating and power of skating might be lower than skating in equal situations, but the shift length might also be longer. (Laaksonen, 2011,9)

Westerlund (2000) points out that ice hockey is demanding team sport technically and players must be able to play on slippery surface while skating on two thin blades. The game speed is developing all the time and players are becoming bigger and more physical. It causes bigger demands for skills than before. In the same size ice rink, players must be able to do different sport specific skills faster and under hard opponent's pressure. (Rouvali, 2014, 5-7)

There are two phases in ice hockey for teams – attacking and defending. Attacking and defending are separated to game situations roles for the individuals. A coach creates tactics for his/her team which aims to players' strengths using and preventing players' weaknesses. Teams have also defensive systems and attacking systems and players must be ready for transitions, from defending to attacking and vice versa, all the time. A vital thing in ice hockey is players' quality working and cooperation for common goals. (Westerlund 1997, 532)

3.2 Attacking and Defending

The main point in the ice hockey game is to score more goals than the opponent. To win, teams must attack and defend. Teams must attack, because they need to create scoring chances and score. The main goal is to score, but it's not always possible. The attacking team should follow the following actions:

1. Score
2. Keeping the puck on own team
3. Winning the space – Attacking is winning space and skating towards the opponent's net
4. Readiness for defence

(Karhunen, 2010)

Teams must also defend to win the game. The team can't attack and score and win the game if they don't have a puck. The main targets for the defending team are:

1. Getting puck back as soon as possible – The more the team plays with a puck the more attacking time they have
2. Prevent scoring
3. Denying time and space
4. Readiness for offense

(Karhunen, 2010)

Every player on ice participates in attacking and defending. When team has the puck, every player has his/her own role and vice versa; when the team doesn't have the puck, everyone has his/her own role. Ice hockey is a team game and everyone has his/her own role on ice all the time. (Karhunen, 2010)

3.2.1 Golden rules of attacking and defending

Karhunen (2010) presented six golden rules for attacking and six golden rules for defending, which help individual player.

Attacking:

1. Attacking begins immediately after takeaway
2. A puck is always faster than a player
3. A puck carrier must move from the narrow space to the wide space
4. Non-puck carriers must move to the free space and offer a chance to pass
5. Most of the goals are made from 'sector 1'
6. Defending begins immediately after losing the puck

(Karhunen, 2010 ,10)

Defending:

1. Defending begins immediately after losing the puck
2. One player is always disturbing the opponent's puck-carrier

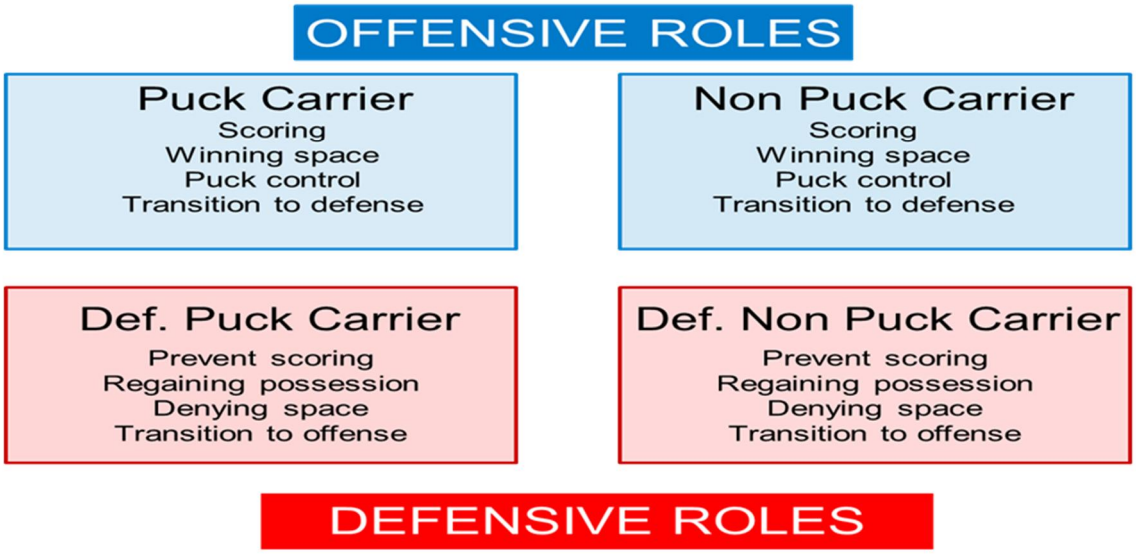
3. Angle puck-carrier to corners and boards
4. Play between own net and opponent in defensive zone
5. Watch over to opponent's stick (own stick under opponent's stick)
6. Think about attack immediately after takeaway – playing towards attacking zone

(Karhunen, 2010, 11)

3.3 Game Situation roles

According to Kari Savolainen (2013,1), there are four game situation roles in ice hockey: Puck Carrier, Non-puck carrier, defending puck carrier and defending non-puck carrier. Table 1 shows each roles' goals. The blue boxes above are offensive roles and the red boxes are defensive roles. In normal 5-on-5 game situation, there is one puck carrier, four non-puck carriers, one defending puck carrier and four defending non-puck carriers. (Savolainen, 2013,1)

Table 1: Game situations roles (Savolainen, 2013)



E2-C2 juniors' coaches should teach those roles to the players and how to use those. Different ball games help players to learn individually game situation roles and those goals. Coaches can use 2-3 players cooperation drills, but 5-on-5 drills are also recommendable. Players should also learn principles of transition game; from defend to offense and vice versa. At the team level, players should have readiness to play versatile

game situation game. Basically, players should be able to play all of those four roles and change the role quickly. (FIHA, 2013) Also, Tiikkaja (2016) recommends that coaches should be emphasized the importance of teaching game situation roles in ages of 9-14. Like FIHA says, it's recommendable that coaches use 2-3 players' cooperation drills and little by little coaches can begin to use 5-on-5 drills. (Tiikkaja, 2016, 577)

3.3.1 Attacking with the puck

A player, who is attacking with puck is called a puck-carrier. In ice hockey, there is always only one player on ice who is the puck-carrier. The puck-carrier's first goal is scoring. To score, player needs shooting skill, puck-handling skill and passing skill. The player can shoot from the slot, pass to an open player in the slot or carry the puck to a better place. If the puck-carrier can't score, the second goal is winning space. The puck-carrier needs to skate with puck from narrow space to open space or pass the puck forward to open space or a team mate. If the player can't win space, the third goal is puck control. The player must move, skate and cover the puck, which means winning 1-on-1 battles. Another possibility is passing the puck backwards or laterally to the team mate to open space. If player can't succeed with these three goals, he/she must be ready to defend right after takeaway. Transition to defence should happen immediately after takeaway and player must be ready to react to that. The player must know what happens on ice and he/she must understand and read the game all the time. Players with good game sense can time, play in the right place and anticipate and it helps the player to play better. (Karhunen, 2010, 12 and Savolainen 2013,2-3)

3.3.2 Attacking without the puck

A player, who is attacking without the puck is called a non-puck-carrier. In the normal 5-on-5 situation, there are four non-puck-carriers on ice. The first goal for those player is scoring. They must get open for a pass to the slot, give pressure by blocking, be ready for the rebounds and screen the goalkeeper. If it's not possible to do those things, the next goal is winning space. The players have to get open for a pass forward, clear and make space in front of the puck and support the puck-carrier by blocking opponents. Third goal is puck control. Non-puck-carriers have to get open for back or

lateral passes and they have to make space for a puck-carrier by blocking. If the player can't succeed with these three goals, he/she must be ready to defend right after takeaway. Transition to defence roles should happen quickly after takeaway and the player must be ready to react to that. The player must know what happens on ice and he/she must understand and read the game all the time. The players with the good game sense and reading can time, play in the right place and anticipate and it helps player to play better. (Karhunen, 2010, 13 and Savolainen 2013,5)

3.3.3 Defending against the puck-carrier

When the team is defending, there should always be one player, who is defending the opponent's puck-carrier. The defender first goal is get puck back to own team. The sooner the defending team gets the puck back, the faster they can begin to attack and score. The defender must deny the puck-carrier time and space and give stick pressure (blade-to-blade). Cooperation with team mates is important, because sometimes defending team must "double-team" the puck-carrier to get puck back to own team. If takeaway it's not possible to do, the next thing is to prevent scoring by blocking shots and cooperating with the goalkeeper. The player also must steer the puck-carrier into the small and narrow space, because the scoring is much more difficult outside the best scoring area that is in the front of the net. Rule of thumb is playing between your own net and the puck-carrier. After takeaway, the defender must be ready to a quick role change into offense. A good game sense helps to start the attack faster. (Karhunen, 2010, 14 and Savolainen 2013,6-7)

3.3.4 Defending against the non-puck-carrier

In the normal 5-on-5 situation, there should always be one defender, who plays against the puck-carrier and four defenders who plays against the non-puck-carriers. The goal is to get the puck back to your own team as fast as possible and prevent the opponent from scoring. When players are playing against non-puck carriers they need to cover opponents in the slot and block them before they come to the slot. The players must all the time cut potential passing lines, stay between own net and opponent, ready to catch loose pucks and they must be ready to change the role from defending non-puck

carrier to defending puck-carrier. The players must also be ready for another role change: from defense to offense. After takeaway players need to react and start attacking immediately. The players need a good game sense and insight for being able to play in the right place at the right time and for being quick enough for reacting to changing roles. (Karhunen, 2010, 15 and Savolainen 2013, 8)

3.3.5 Game situations teaching in different age groups

According to International Ice hockey Centre of Excellence (IIHCE), players should learn how to play in different attacking situations in different ages. Following tables describes what kind of attacking situations as a puck-carrier and a non-puck carrier players should learn in different age groups. The main goals are scoring and winning space. (IIHCE)

Table 2: Odd man attacks (IIHCE, 2010)
Following table describes what kind of situations players should learn when they are attacking with odd man.

x = Players start practising
xx = Emphasizing understanding of different game situations roles and their actions
xxx = Emphasizing cooperating between different game situation roles

	E2	**E1**	**D2**	**D1**	**C2**
1-0					
2-0	**xx**	**xxx**			
3-0		**x**	**xx**	**xxx**	
2-1	**x**	**xx**	**xxx**		
3-1			**x**	**xx**	**xxx**
3-2				**x**	**xx**

Table 3: Equal attacks (IIHCE, 2010)

Following table describes what kind of situations players should learn when they are attacking equally. The main goals are scoring, winning space, making space and readiness to defend.

x = Players start practising
xx = Emphasizing understanding of different game situations roles and their actions
xxx = Emphasizing cooperating between different game situation roles

	E2	**E1**	**D2**	**D1**	**C2**
1-1	**xxx**				
2-2		**x**	**xx**	**xxx**	
3-3				**x**	**xx**

Table 4: Shorthanded attacks (IIHCE, 2010)

Following table describes what kind of situations players should learn when they are attacking shorthanded. The main goals are scoring, making space and readiness to defend.

x = Players start practising
xx = Emphasizing understanding of different game situations roles and their actions
xxx = Emphasizing cooperating between different game situation roles

	E2	**E1**	**D2**	**D1**	**C2**
1-2			**x**	**x**	**x**
2-3				**x**	**x**

Table 5: Defending against opponent's odd man attacking (IIHCE, 2010)

According to International Ice hockey Centre of Excellence (IIHCE), players should learn how to play in different defensive situations in different ages. Following table describes what kind of defensive situations, defending a puck-carrier and defending a non-puck carrier, players should learn in different age groups. The main goals are preventing scoring and regaining puck.

x = Players start practising
xx = Emphasizing understanding of different game situations roles and their actions
xxx = Emphasizing cooperating between different game situation roles

	E2	**E1**	**D2**	**D1**	**C2**
2-1			**x**	**xx**	**xxx**
3-2				**x**	**xx**

Table 6: Defending equally (IIHCE, 2010)

The following table describes what kind of situations players should learn when they are defending equally in different game situations and different game situations roles. The main goals are preventing scoring, regaining puck, preventing space winning and readiness to attack.

x = Players start practising
xx = Emphasizing understanding of different game situations roles and their actions
xxx = Emphasizing cooperating between different game situation roles

	E2	**E1**	**D2**	**D1**	**C2**
1-1	**xx**	**xxx**			
2-2		**x**	**xx**	**xxx**	
3-3				**x**	**xx**

Table 7: Defending against the opponent's shorthanded attacks (IIHCE, 2010)

The following table describes what kind of situations players should learn when they are defending against shorthanded attacks in different game situations and different game situations roles. The main goals are preventing scoring, regaining the puck, preventing space winning and readiness to attack.

x = Players start practising

xx = Emphasizing understanding of different game situations roles and their actions

xxx = Emphasizing cooperating between different game situation roles

	E2	**E1**	**D2**	**D1**	**C2**
1-2	**x**	**x**	**xx**	**xxx**	
1-3			**x**	**x**	**xx**
2-3				**x**	**x**

Table 8: Establishing playing positions, special situations and game tactics (IIHCE, 2010)

Establishing playing positions, special situations and game tactics are also part of ice hockey.

x = Players start practising

xx = Emphasizing understanding of different game situations roles and their actions

xxx = Emphasizing cooperating between different game situation roles

	E2	**E1**	**D2**	**D1**	**C2**
playing as a goalie	**xxx**				
playing as a defender	**x**	**xx**	**xxx**		
playing as a forward	**x**	**xx**	**xxx**		
Attacking tactics				**x**	**xx**
Defending tactics				**x**	**x**
Power play					**x**
Box play					**x**

3.3.6 Comparison between ice hockey and football

Football and ice hockey have many similarities but also many differences. Football is a team ball game played as teams in the same way as ice hockey is. The teams aim at scoring more goals than the opponent and want to be the winning team. Both of these have the attacking zone and the defensive one, but the football coaches use also three vertical lanes when teaching and coaching kids. There are four game situation roles in ice hockey and the same roles can be found in football as well. The football coaches, however, do not teach them as much as the ice hockey coaches do. In addition, the ice-hockey coaches use the so-called priority method. It does not belong to the football coaching. The football coaches focus more on how to attack and give tools for that. For example, how to recognize situations and how to create odd man situations on field. They also categorize the odd man situations: numeral, areal and qualitative. Set pieces like free kicks and corners are an essential part of football. Such as set pieces do not exist in ice-hockey. The football coaches` basic task is to teach the principles of the set pieces to kids and reserve enough time for doing that. Who gives a free kick? Who is a target player? What is the area where a kicker crosses or passes the ball?

As we see there are many similarities but also differences, when we compare ice hockey and football. But these two excellent forms of sport have the same passion to win the opponent, score more goals than the opponent to be the winning team after that multi-phase, versatile, and demanding game. (Wistuba, 2016)

3.4 Ice hockey skills

In ice hockey, the techniques are divided into skating, puck handling, passing, and shooting. The vital part of the basics of ice hockey is created in the early stage when a kid begins to play by putting to good use the whole versatile ice hockey specific skill training. When a young athlete masters these sport specific skills, he/she is ready to improve his/he playing skills combined with game sense. (IIHCE, 2009)

3.4.1 Skating

Skating is the most important skill in ice hockey. Versatility, power, speed, and endurance are the basics of good skating, which create the strong foundation for other sport specific skills. There are four central points in forward skating and backwards skating: position, stride, glide and return. In addition, skating is divided into curve skating, starts, stops, and turns. (IIHCE, 2010)

According to International Ice Hockey centre of excellence (IIHCE, 2010), lots of skating skills should be learnt before players turn on E2-junior, like skating forward, skating backward and braking. E-junior coaches should emphasize transition from forward skating to backward skating and vice versa, curve skating forward and backward and different turns. Especially a defender turn and a winger turn. When players turn on D-juniors, they basically should be able to skate forward and backward well, turn well in different situations and stop well in different situations, that they can focus on the more challenging things, like creating scoring chances by moving a goalie sideways. (IIHCE, 2010)

3.4.2 Shooting

According to International Ice Hockey Centre of excellence (IIHCE,2010), shooting is technically divided to four different shots: snap shot, wrist shot, slap shot and backhand shot. The versatile control of shots with good skating give a good chance to score in different situations. Generally shooting is a vital part of scoring.

Westerlund (2007) says that, nowadays shooting and scoring happen under hard stick pressure and players should train that. Still, players should also learn right techniques and master them. (Laaksonen, 2011, 16-17)

Children 12-and-under and 14-and-under should train and master all kind of shots. (Hoff et al. 2014, 28.41.)

3.4.3 Passing

Varmanen (2010) says, that passing is the most effective way of advancing attacking playing in every zone in ice hockey. Passing and receiving pass while skating are important skills for individual level and team level, because it effects on the whole team game speed. Defensive team is hard to defend if attacking team can skate, pass and control puck continuously. It's important to understand that the defensive team must react to every pass. Coaches always should demand quality passes in practice and drills should simulate real game situations. (Laaksonen, 2011,17-18)
According to Hoff et al. (2014), children 12-and-under and 14-and-under should learn and master forehand pass, backhand pass, receiving pass properly with stick, hand and skate, saucer pass, indirect pass, area pass and one-touch passes.

3.4.4 Puck Control

Basis of good puck control is that player is able to control the puck in different positions and carry and control puck versatility while skating. Those skills create a chance to pass and receive pass properly, shoot and control puck with own team. Puck control main points are puck touch, rhythm of legs and arms, width of moves and game observing. Players touch the puck with stick's blade. They must be able to control puck with different parts of the blade – forehand, backhand and top and bottom of the blade, soft puck touch and use arms freely, which require that player's elbows don't touch the body. (IIHCE, 2010)

Keeping head up while skating and controlling puck create a better chance to react and make decisions for players in real game situations. When puck stays on player's blade while head is up, it creates a better chance to do right decision with the puck for a player. (Tapola, 2008,3-5,21)

3.4.5 Game sense

According to Luhtanen (1989) game sense is a skill to solve changing game situations appropriately with a puck and without a puck. Game reading is the basis of game sense. Even if coaches tell player what to do in different situations, it is always a player who makes decisions. Decisions are based on learned solutions and game sense. Players with good game sense are important players for teams, because they can play in every game situation roles effectively. Good game sense demands continuously observation from a player. The players need to know where the puck is, team mates and opponents. Also, a player needs to anticipate what kind of situation is coming for and act before he/she receives a pass or do some else sport specific act. (Martinmäki, 2010, 30)

3.5 Physical

"All fitness qualities should be trained in an integrated manner at all stages of development; however, priority should still be given towards enhancing fundamental movement skill competency and muscular strength levels" (Lloyd, et al. 2015, 1448)

At the age of 7-10 the endurance develops by doing game-like running drills, for example relay races. Also, speed skill develops by doing different speed and reaction races and games. Strength skills develop by doing versatile endurance strength training. In these age periods, children will learn to skate, swim, ski and play different ball games. Training sessions should consist of flexibility-, agility-, balance- and sense and coordination training. (Forsman & Lampinen, 2008, 429) Hoff et al. (2014) also point out, that players should perform exercises that improve their agility, coordination, balance, and speed. Activities and exercises should include relay races, fun games, eye-hand coordination exercises, flexibility and stretching exercises.

As to the kids, who are 10-13 years-old, endurance will develop by doing aerobic running practices and interval training. Speed skill develops by doing reaction training and propagation speed training. Children's strength skills develop by doing versatile endurance strength training and basic strength training. Sport specific skill training is also im-

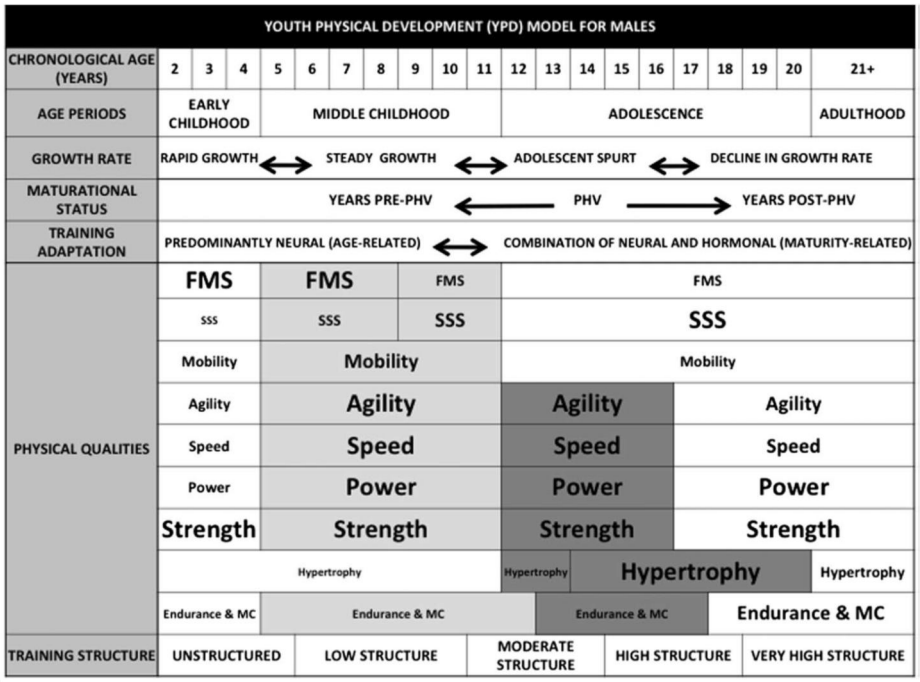
portant in this age group and basic sport specific techniques should be learned. Coordination training is also important and flexibility skills should be developed and maintained. (Forsman & Lampinen, 2008, 429) According to Hoff et al. (2014), different relays, obstacle courses and team games work well with this age group. Light calisthenics is also recommended.

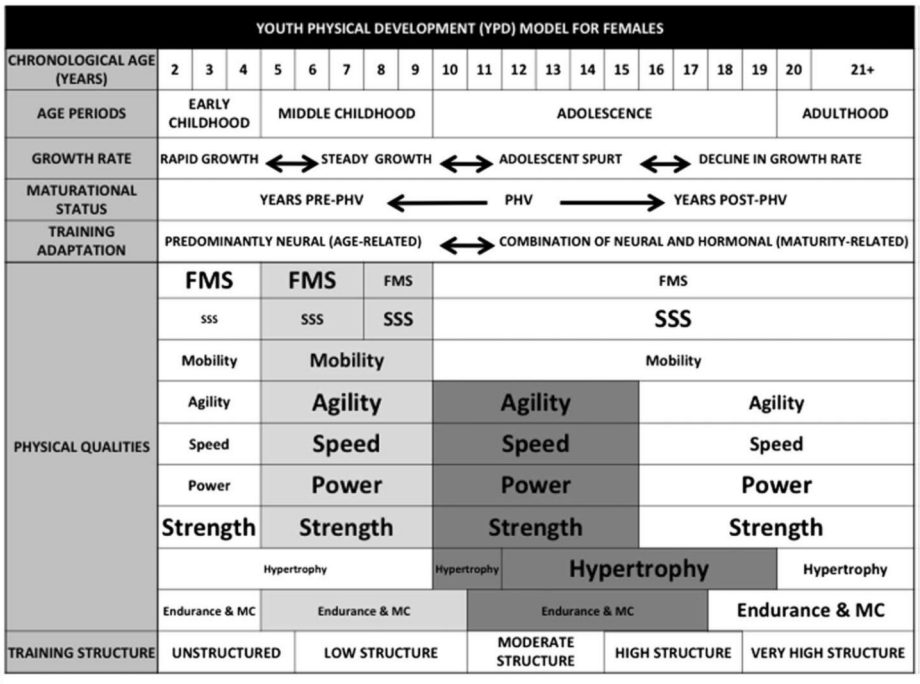
According to youth physical development model, boys' adolescence period starts at 12-year-old and girls' period starts at the age of 10-year-old. It's important, however, to remember that everyone is an individual and everyone doesn't develop at the same time. Amount of sport specific skill training rises and amount of mobility and fundamental movement skill training decreases. (Lloyd et al. 2015, 1444)

Lloyd et al (2015) also show, that following table (YPD model) moved away from "athlete-centered" terminology to place emphasis on the long-term development of physical abilities for all youth. According to model, all fitness components are trainable at all stages of development. (Lloyd et al. 2015, 1443)

Table 9: Youth physical development (Lloyd et al. 2015, 1444)

PHV = peak height velocity; FMS = fundamental movement skills; SSS = sport-specific skills; MC = metabolic conditioning. Font size refers to importance.





In team ball sports, like ice hockey, E-juniors should have about 14 hours training per week. 14 hours include team practices and player's independent training. About four hours should be ice hockey specific training, rest of the hours should be physical train-

ing. 8 out of 10 hours should be nervous system, respiratory system- and cardio vascular system training. Last two hours is strength training. D- and C-juniors practising more and their sport specific time per week is from 6 hours to even 11 hours. Athletes' need of respiratory system- and cardio vascular system training increase from couple of hours to about six hours. They need also to put more time to strength training, but same time need of nervous system training decreases to two or two and a half hours. Physical training should be a versatile and long-term process. It is recommended that athletes with high goals should train and move 20 hours per week: ½ in team practices, ¼ independently by doing sport specific exercises and ¼ in school or spare time. (Hakkarainen, 2015,180,185)

According to Ahonen et al. (2008), 7-12 years-old should move and train minimum two hours per day and 13-18 years-old 1-1,5 hours per day. To reach optimal benefits, it is recommendable, that children moves more than required minimum time per day, but exact number of hours to reach optimal benefits doesn't exist. Also, Ahonen et al don't set any maximum limit for physical activities. (Ahonen et al,2008, 18)

3.6 Psychological

Kids between 6-12 are interested their own life and they want to take more responsibility of it. Children in this ages want to learn a lot new things, they want to be a part of the group and they have a good imagination. This age group is a good phase kids' life to work in groups, but in the same time they also need tight and clear rules. Children need a lot encouragement, even if they are highly motivated. If a kid feels that, he/she can't perform well repeatedly, it can cause inferiority and reduction of self-esteem. Children usually ask lot of question and try to find new information. They wanted to be heard and taken seriously. It's important for kids in this group, that they can develop themselves. They like and enjoy to do physical activities, like running, skating, and jumping. Adults and coaches' role is to be encouragement for kids, but same time they need to also be honest and straightforward. After all, the main development task for the kids are ability with adults and especially with peers and feeling of capability. Older children between ages 13-16 are more challenging. Puberty begins for all children at the latest in this age group. Children become more mature and they thoughts

and opinions are changing quickly. Children are trying to figure out and find their own identity and they test boundaries; what is right and what is wrong. Younger kids, between 6-12, ask lot of questions, but older kids are more rebellious, because they have become more mature. They need acceptance and help from adults and coaches to find themselves. (Vasarainen & Hara, 2005, 33-36, 38-39; Hakkarainen et al., 2009, 114-122.)

3.7 Social

Children are starting their social life between ages 6-12 within own age individuals. Practically it means that kids start going to school and attending to sport club activities. Usually children need active interaction and discussions with adults and especially activity of parents has an impact on children starting and continuing sport hobby. Children between ages 6-12 start to learn cooperation skills and role of friends and social relationships increases. In puberty, ages 13-15, youths are prone to effects of group of friends as the social relationships are taking a bigger role in child's life. Adolescent and youths can break rules if they feel that the rules are unfair. (Vasarainen & Hara 2005, 38-41.)

Tiikkaja (2016) points out, that parents support is a vital thing for the players. Role of home is create "a sport supported atmosphere". Parents should support child's sport choice, support to play backyard games, help player's time management with school, hobby and spare time and help child in nutrition-, recovery- and rest things. (Tiikkaja, 2016, 578. Huippu-urheilu valmennus]

3.8 Game, character, skating

Ice hockey player's developing is divided to game, character, and skating. Game means developing as ice hockey player and it consists of sport specific performances. Skating means developing as an athlete and character means developing as a human and it is a foundation of developing. It consists of players' attitude, values, motivation and vitality. (Arvaja and Mustonen, 2016, 574)

Niemelä and Pykälä (2014) also divides hockey skills to three different categories: Game, character, and skating. Game category consists of tactical skills and technical skills. Character category means mentally skills and skating category means physical skills. The reason for these categories is that these skills create basis of individual hockey skills. These four skills development should be seen in practice every day. Those skills determine how players act and play in real game situations. Mental skills are basically 'background of everything'. It consists of self-confidence, self-knowledge and taking responsibility. Tactical skills mean recognizing situations and reacting. Players must recognize situation and they must know what to do and do the best act according to priority of game situation role. Technical skills, like skating, passing, shooting, puck handling, are tools for the tactical skills. Physical skills are tools for the technical skills and those skills are speed, strength, endurance, mobility, and balance. There are hundreds of things what player should improve in ice hockey, but the player can't improve everything effectively in one season. That's why coaches have to make decision with players, what skills they really want to improve during season. 50% of training should be decided skills training through the season. Decided skill practices and goals should always be age-appropriate, realistic and challenging to reach. Result of one game or one season shouldn't determine practicing. If the long-term practice process is well performed and organized, the result will come when the result really matters. (Niemelä and Pykälä, 2014)

4 Talent development and learning

Giftedness and talent are common topics in junior sports. The canadian professor Francoys Gagne has a model, which shows that athletic talent appears only with hard and dedicated training. Basically, you don't born as a top athlete and you won't become a top athlete without training even if you have gifts. Also, the environment is an important factor and affects on talent development and athletic talent appears only, if the environment supports that. Talent is a multifaceted phenomenon which consists of physiological, psychological, and social factors. (Jaakkola,2015,103)

4.1 Talent development

"Youth athlete development is contingent on an individually unique and constantly changing base of normal physical growth, biological maturation and behavioural development, and therefore it must be considered individually." (Bergeron et al. 2015. 8)

Kushner et al. (2015, 8) point out that it is not surprising that there are many elite athletes in pro level because of those athletes participated in a variety of sports during their childhood and early adolescence. Diverse sports participation and muscle strength enhancing to support motor skill development, may reduce the likelihood of sports-related injuries, especially repetitive movement injuries, in young athletes. Also, Lloyd et al (2016) point out that engagement in physical activity during childhood is vital. It's a common philosophy in long-term athletic development.

" Coaches should strive to activate players for the majority of each practice session and avoid the archaic practice in which kids spend much of their time standing in line waiting to participate in drills." (Hoff, 2014, 14.)

These archaic practices activate young players for only 12-15 minutes in a 60-minute practice and coaches at the E-junior level should aim to have much more activity than this for each player in each practice. Number of repetitions is a big factor in talent development and coaches should consider the number of repetitions that each player executes while performing the desired skills in a practice. (Hoff, 2014, 14.)

While D-juniors' practice shouldn't be as active as E-juniors' practice, coaches must still seek to increase the amount of time players spend participating in drills and small games in each practice session rather than standing on lines and watching. Athletes are more likely to successfully perform skills when they have been given many repetitions in practice. For D-juniors, skill based training is much more important than system based training. The development of hockey skills takes a tremendous amount of time and the time invested at these ages will pay great dividends later. Athletes who are allowed to spend large amounts of time acquiring and developing skills at these ages will have an advantage in later years over many athletes who didn't have this opportunity. (Hoff, 2014,24-25.)

When players turn to 14-years-olds (C2-juniors), it's important to remember that these young players have many recreational and free-time options. It's essential that 14-and-Under players still enjoy hockey games and practices in order to keep them involved in the sport and continuing their development. Teams at this age level should increase the amount of time they spend focused on team play, however the majority of time in practices should still be spent on improving individual hockey skills and understanding concepts. (Hoff, 2014,35-37.)

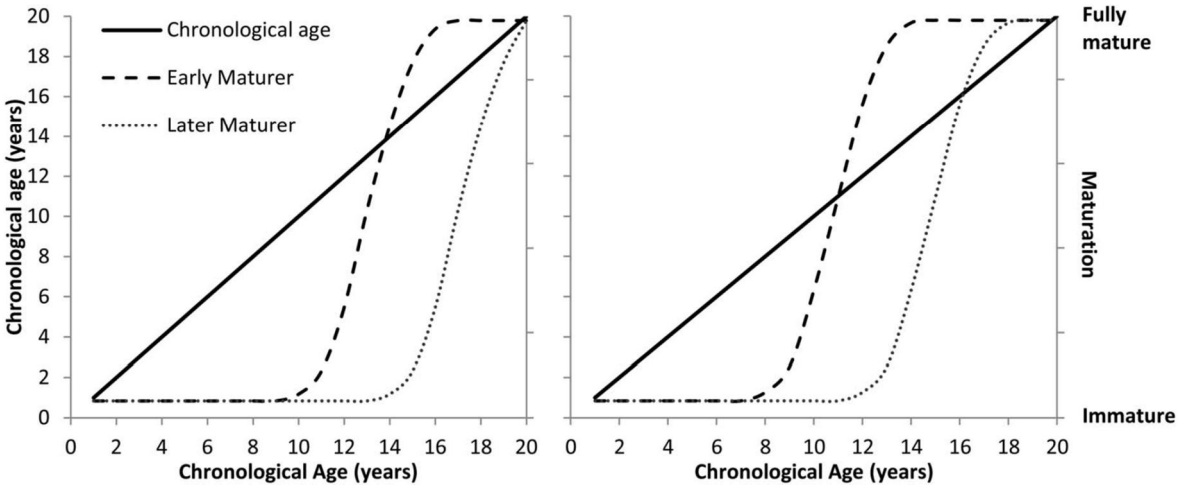
Training doesn't automatically lead to development. Training, nutrition, and recovery should be in balance together. Athletes should eat 5-8 versatile meals per day and they need energy to recovery after practice. That's why eating and drinking are crucial part of development. Water is a primary drink for the athletes and 30-45 minutes before practice athletes should drink 3-5 dl water to avoid dehydration. Athletes should comply cyclic circadian rhythm in nutrition and sleep. (Hakkarainen, 2015, 96)

4.2 Maturation

Biological maturation is associated with significant change to several physiological and structural processes throughout childhood and in adolescence. Mismatched rapid growth in the long bones relative to muscular lengthening may disturb structure, physical performance, and neuromuscular function. Coaches who work with children should

be aware of the age-related changes that typically take place during a child's development to ensure that their strength and conditioning programming is as effective and safe as possible for improving performance and reducing injury risk. Chronological age means an individual's current age, from date of birth to this moment, and it has usually been used in sports to group age grade teams, identify talented performers, and set limits for exercise prescription. However, it is a proven fact that individuals of the same chronological age can differ markedly with respect to biological maturity. Chronological age is easily determined, but the estimation of biological maturity is more challenging.

Figure 1. Differences in developmental trends of chronological age and biological maturation for boys (left) and girls (right). (Lloyd et al. 2)



Many methods have been described within the literature and are commonly categorized into sexual, skeletal, or somatic maturity indicators. Skeletal age refers to the degree of biological maturation according to the development of skeletal tissue and sexual age refers to the degree of biological maturation toward fully active reproductive capability. Traditionally, sexual maturation has been determined through observations of secondary sexual characteristics like genitalia and pubic hair development. Somatic age refers to the degree of growth in overall stature and measures of somatic growth include diagnoses of prediction of age at peak height velocity, longitudinal growth curves, and the use of percentages and predictions of adult stature. (Lloyd et al. 2014, 1-6)

4.3 Motivation, engagement, autonomy

It's important for coaches to understand that E-junior players are in the "golden age of skill development", which is a crucial time in the long-term development of a player. Coaches must always remember that fun is a key component of youth sports. Practices and games at the E-junior level must be fun in order for these players to continue working hard to acquire and improve skills. When coaches can deliver the appropriate level of skill development for every player, then players have an excellent opportunity to engage. Engagement occurs when players can successfully execute the targeted skills within an environment that still provides an optimal challenge level: not too easy, not too hard. Finding the appropriate balance between challenge and success for players can be a continuing challenge for coaches, but providing the optimal combination should always be the goal. Fun and engagement are very important factors in the development process. Coaches should never underestimate the importance of fun and engagement. (Hoff et al. 2014. 23-24)

C- and D-juniors have many recreational and free-time options. It's essential that this age group players still enjoy hockey games and practices to keep them involved in the sport and continuing their development. It's important that coaches are aware of physical and emotional challenges, but that they also realize there is an excellent opportunity for development at these ages. With the increased opportunities for players of these ages, fun must remain at the forefront. C- and D-juniors need also an optimal challenge level. When coaches can create the optimal level, where each player can demonstrate success while still having an appropriate level of difficulty, engagement will occur for every player. Coaches who find the optimal challenge level for each player and incorporate fun into practices are creating the optimal environment for long-term development. The big challenge for coaches is that this optimal level will vary from player to player. Coaches must be creative when they trying to individualize practices. The optimal skill level should be targeted for each player. When engagement occurs, players will see their improvement and maximize their development as they are working at the appropriate level. (Hoff et al. 2014, 35-36)

One good and important way to keep up players' motivation and engage them is autonomy. Autonomy means, that an athlete feels, that she/he has a chance to make decision which affect his/her own training and playing and being part of decision making. Coaches' autonomy procedures increase players' motivation for sport. Examples from autonomy procedures are giving more responsibility and players' involving. Coaches can increase athlete's autonomy experiences by giving chances to participate practice planning. Even young athletes have ideas how to do some familiar drill in the abnormal way. A big thing at the increasing experience of autonomy is that coaches listen to their own athletes' opinions and ideas. That way athletes will get a feeling, that they are the important part of the group. (Hämäläinen et al. 2015, 112-113)

4.4 Learning

Preadolescents children (ages 10-11) have an improved ability to think in terms of the past, present, and future. A coach can take advantage of this developmental milestone to maximize positive training outcomes. To instill correct technique, it is recommended that a coach review previous exercise performances during subsequent sessions. Corrective feedback from coaches will become more important as preadolescent children are more likely to understand verbal feedback and will be more capable of self-adjusting form and technique. Motivation for training is now a hybrid of fun-oriented and goal-oriented activities for preadolescents. Feedback should be given through a well-balanced combination of praise and constructive criticism. Children in this stage of development have more fully developed cognitive processes, such as self-correction, heightened intellect, comparison, and the ability to understand the purpose behind consequences. For the players, it's more beneficial if feedback is positive at the first time – what player did right during practice. After that, coaches can give constructive criticism. Preadolescent children might also begin to self-correct their own technique. These athletes can greatly benefit from watching a coach demonstrate techniques to compare to their own techniques to target criteria to improve. Progressions to more difficult exercises must still be regulated by an individual's ability to consistently demonstrate correct form and technique of a precursor exercise. (Kushner et al. 2015, 9-10)

Adolescence (ages 12-18) is characterized by accelerated developments in motor skills, physical growth, and higher order cognitive functions. The use of more technical direction can be employed for practicing, given the cognitive capabilities of these athletes. Directions can be primarily verbal, although visual aids such as coaches demonstration or videos may still be needed for more complex exercises and drills. Improved mental capacity might also improve a player's ability to recall performances from previous training sessions, and this may allow an individual to progress more efficiently through exercise progressions. At these ages, players become more proficient at self correction in real-time, and they can readily identify correct and incorrect technique. This capability is due to a host of cognitive and perceptual-motor factors, including the player's more finely tuned proprioceptive senses. However, specific and timely feedback from a coach is still beneficial to the player's improvement and development. (Kushner et al. 2015, 10-11)

" Acquisitions of necessary neuromotor skills are required in order for an individual child to attain thresholds relative to the ability to comprehend instructions and then physically execute a task." (Myer et al. 2013. 3)

Easy example is that before running and jumping a kid needs to learn walk first. Walking is one of the developmental thresholds what the kid must achieve and jumping and running are the next thresholds. It is important to recognize and understand that individual's ability to reach one threshold at an earlier than average age does not guarantee that he/she will reach all developmental thresholds early. Every individual develops, but not same time. For someone, it takes longer to improve and develop some specific skill than others. (Myer et al. 2013. 3)

5 Project planning

The project planning began early in spring 2016. EPS Hockey Executive Director and the head of coaching presented the idea of this thesis in the first contract negotiation meeting. EPS Hockey already has a curriculum for young kids, but they didn't have a curriculum for the players ages 9-14 and they needed it. The suggestion was that I take responsibility for EPS C-juniors and I create a curriculum for E2-C2-juniors. We made a deal and in summer I have the first thesis meeting with executive director, the head of coaching and the head of juniors. We made together guidelines for what the curriculum should consist of. I had my own ideas and they had their own ideas and we put them together. Both sides had the same idea that the curriculum consists of ice hockey things, learning things and coaching things. The plan was to use game, character and skating as topics of the curriculum, because that's how EPS Hockey divides hockey skills. I have also divided the hockey skills in the same way. I started to review literature and articles what I could use in my thesis. I made a book- and article list and also a list of things that I wanted to talk about in my thesis. After that I made a list of thesis topics and I had a conversation with teachers. We made a few changes for the topic list and I got a couple of good book recommendations I should use in my thesis. Two main topics was ice hockey and talent development and learning. Then I had the second meeting with EPS Hockey and I presented the whole topic list. Everyone agreed that the topic list looks good. We also decided together that the curriculum should be pretty short, understandable, and compact so that is easy to use. They have had experience of too fancy a curriculum earlier. As a coach, I agreed that I wouldn't use too fancy curriculum. It must be short and lucid so that it can be used easily daily. The schedule was created: the literature part first and the deadline was due to be by end of January. The product deadline was in the middle of March.

6 Implementation

The objective of the thesis was to create a compact and understandable curriculum for EPS Hockey E2-C2 juniors. The thesis product turned out to be a compact handbook/curriculum for coaches. My goal was to present my findings from the literature reviews and create a handbook that coach can use during the season and when they make plans for each season. I started to work with my literature part first and it was in October in 2016. Little by little the ice hockey part was ready and little by little the second major topic talent development and learning was ready before by the deadline. I had a good list of books, articles, and presentations so it was easy to collect information and knowledge. The only problem was that it was not so easy to decide what things I should take with, use in my thesis, because there was so much excellent and necessary information and knowledge in many these books and articles. When the literature part was ready I sent it to the teachers and I got some good tips how to edit my thesis. I did a few changes and moved on to the product part which was ready in couple of days by the deadline. I went it through with the head of coaching and executive manager and I added two minor things to the product.

The handbook has been created for E2-C2 juniors and it was divided into three major topics. The first one covers all the basic things every coach needs. It consists of common ice hockey principles and it reminds which things coach must remember when he/she is coaching. Second major part is divided to three parts: Game, Character, and Skating. It shows to coach what things his/her player should learn during the season and how much players need to practise. The character part also gives tips how to understand children better and how to engage them. The third major part consists of one page the summary for E-, D-, and C2 juniors. The summary shows essential points, things the coach should emphasize in upcoming season and how much children should practise during season, month, and week. It also gives information of age group seasonal targets and there is an example week in the end of the summary for every age group.

7 Discussion

The product was created in collaboration with EPS Hockey's executive director and head of coaching. Practically, of course, I made whole thesis myself, but they gave me ideas and examples concerning what the thesis and the product could consist of and what their idea about the curriculum/ handbook is. The teachers helped me a lot and willingly gave me their good ideas and bibliography recommendations and so it was much easier for me to find relevant information and knowledge. The final product, handbook/curriculum, has been created to help coaches to coach and teach E2-C2-juniors better. The handbook it's not an ice hockey philosopher's stone and it's not only way to coach children of these age groups, but it's one good way to coach them. For example, there are many studies about youth physical development with different results in the sport world. Some studies say, that 'windows of adaption' exist and some studies say, that those 'windows' don't exist. It's a common thing in Finland to speak about windows of adaption and the contrary information comes from abroad. It's important to understand, that new studies and information is coming all the time and we must adapt to that. Although youth physical development it's not 'a black and white'-thing, I used 'Finnish model' in my handbook, because I wanted to give some concrete model what coaches can follow.

There are a lot of different coaching styles in the hockey world and like the thesis says, everyone is an individual and everyone learns differently and coaches must handle players differently. The handbook gives advice and tips to coaches and it creates a good foundation for children's ice hockey skills development if they follow the instructions of handbook with coaches. The coach really matters, because there are too many coaches in clubs who just run the practice. The handbook helps to coach, not just run practices. If the coaches and players together follow the handbook from E2-age to C2-age, the possibility to get into top U16 teams should be higher than nowadays. Earlier EPS didn't have a coherent and clear plan for these age groups and that's why EPS's employees and I believe that this handbook helps coaches to create better seasonal plans, help players on daily and in that way help players to develop their skills and get

into U16 top teams which is one of the EPS Hockey's main tasks as a youth development club.

When I was making this thesis, I noticed I could "pick" many small important things for helping my own coaching - new necessary tools into my tool box. When I was writing something I often started to think over 'Can I use this thing myself?', 'I have to use this in my practice' and 'Why didn't I realize that earlier?'. For example, the motivation, engagement, and autonomy part were very useful for me. I got lot of ideas and knowledge how to work better with my players. Also, I liked idea "Result of one game or one season shouldn't determine practicing. If the long-term practice process is well performed and organized, the result will come when the result really matters." Coaching must be consistent through the season and it ensure players development, which is the most important thing in junior hockey.

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Appendix 1

Opetussuunnitelma EPS E2-C2

Sisällysluettelo

1. Yleistä valmentajalle

EPS Valmentajien kultaiset ohjeet
1. Koutsaa, opeta, opasta, kannusta, anna palautetta – älä 'katso päältä'
2. Posin kautta – enemmän positiivisuutta kuin negatiivisuutta
3. Jokainen yksilö on erilainen – pelaajasi kehittyvät eri aikaan
4. Enemmän liikettä, vähemmän jonossa seisomista
5. Painota ravinnon ja levon merkitystä laadukkaan harjoittelun kanssa – Ravinto, lepo ja harjoittelu takaavat kehityksen
6. Yksittäinen tulos ei määritä mitään – tulos tulee, kun tekeminen on laadukasta pitkäjänteisesti

Pelaajien taidot EPS:ssä
Peli = Äly
Luonne = Halu
Luistelu = Kyky

Yleiset jääkiekon periaatteet:

Pidä huoli, että pelaajasi ymmärtävät, että jääkiekko on joukkuepeli:

- Jokainen jäällä oleva pelaaja osallistuu hyökkäys pelaamiseen, kun omalla joukkueella on kiekko
- Jokainen jäällä oleva pelaaja osallistuu puolustus pelaamiseen, kun vastustajalla on kiekko

Hyökkäys	Puolustus
Hyökkäys alkaa heti, kun kiekko saadaan	Puolustaminen alkaa heti kiekon menetyksen jälkeen
Kiekko on aina pelaajaa nopeampi	Aina yksi häiritsemässä vastustajan kiekollista pelaajaa
Kiekollinen ahtaasta tilasta väljempään tilaan	Ohjaa kiekollista laitoihin ja nurkkiin
Kiekottomat hakevat vapaata paikkaa	Sijoitu omassa päässä vastustajan ja oman maalin väliin
Maalit syntyvät maalintekoympyrästä	Vartioi vastustajan mailaa (maila mailan alla)
Puolustaminen alkaa heti kiekon menetyksen jälkeen	Heti kun saat kiekon, ajattele hyökkäystä -> pelaaminen ylöspäin

2.1 Peli

Jokaisella kentällä olevalla pelaajalla on oma rooli. Taulukosta näet roolit, niiden tehtävät, tavoitteet ja taidot:

Hyökkäys pelaaminen

1. Kiekollinen hyökkääjä

- Maalinteko
  - Laukominen
  - Kiekonkäsittely
  - Syöttäminen
- Tilan voittaminen
  - Liikkuminen → Luistelu
    - » Kuljettaminen isompaan tilaan
  - Syöttäminen
- Kiekonhallinnan pitäminen omalla joukkueella
  - Liikkuminen → Luistelu
  - Kiekon suojaaminen → 1 vs. 1 tilanteiden voittaminen
  - Syöttäminen
- Puolustusvalmius!
  - Reagointi

2. Kiekoton hyökkääjä

- Maalinteko
  - Tarjoamalla syöttöpaikkaa
  - Irtokiekkovalmius
  - Maskipelaaminen!
- Tilan voittaminen
  - Syöttöpaikan tarjoaminen eteenpäin
    - » Pelin vieminen kohti vastustajan maalia
- Kiekonhallinnan pitäminen omalla joukkueella
  - Tarjoamalla syöttöpaikkaa
  - Liikkeellä → tilaa kiekolliselle
  - Blokkaamalla
- Puolustusvalmius!
  - Reagointi

Puolustus pelaaminen

3. Kiekollisen puolustaja

- Kiekon riistäminen → kiekko nopeasti omalle joukkueelle
  - Liikkuminen → Luistelu
  - Mailahäirintä
- Maalinteon estäminen
  - Liikkuminen → Luistelu
  - Laukausten peittäminen
  - Mailahäirintä
- Tilan poistaminen
  - Sijoittuminen
    - » Vastustajan ja oman maalin väliin → keskusta!
- Hyökkäysvalmius
  - Reagointi

4. Kiekottoman puolustaja

- Kiekon riistäminen → kiekko nopeasti omalle joukkueelle
  - Pelaajavartiointi
  - Syöttölinjojen peittäminen
  - Irtokiekkovalmius
- Maalinteon estäminen
  - Liikkuminen
  - Sijoittuminen → Pelaajavartiointi
- Tilan estäminen
  - Sijoittuminen
    - » Vastustajan ja oman maalin väliin
    - » Syöttölinjojen peittäminen
- Hyökkäysvalmius
  - Reagointi

- Opeta pelaajalle pelitilanneroolit ja niiden tehtävät
- Kentällä olevilla koko ajan jokin rooleista – kaikki osallistuu, ei vain seurata vierestä

Pelitilanne roolien levelit:

Hyökkäys pelaaminen	
0 = Yksi hyökkää, muut katsoo	Kiekollinen hyökkää yksin, muut vain seuraavat mitä kiekollinen tekee
1 = Tietoisuus pelitilanne rooleista	Pelaaja alkaa ymmärtää pelitilanneroolinsa merkitystä ja pyrkii pelaamaan sen mukaisesti
2 = Tietoisuus pelitilanneroolien vaihtoon	Pelaaja ymmärtää milloin pelitilannerooli vaihtuu ja pyrkii pelaamaan uuden roolin mukaisesti
3 = Taktiset riskit, esim. pakin ajo sisään, kolmosen ajo maalille	Pelaaja ymmärtää ja alkaa toteuttaa tietoisesti taktisia riskejä esim. kolmosen ajo maalille
4 = Jatkuvat pelitilanneroolien vaihdot eri tilanteiden mukaan	Pelaaja ymmärtää ja pystyy reagoimaan kokoajan saumattomasti pelitilanneroolien muutoksiin

Puolustus pelaaminen	
0 = Kiekollisen puolustaminen	Yksi tai useampi puolustaa kiekollista hyökkääjää
1 = Tietoisuus kiekottomasta hyökkääjästä	Pelaaja ymmärtää, että kiekottomia pitää myös puolustaa ja pyrkii siihen
2 = Tietoisuus pelitilanneroolien vaihtoon	Pelaaja ymmärtää milloin pelitilannerooli vaihtuu ja pyrkii pelaamaan uuden roolin mukaisesti
3 = Taktiset riskit, esim. tuplaus	Pelaaja ymmärtää ja alkaa tietoisesti ottaa taktisia riskejä, esim. kiekollisen tuplaus
4 = Jatkuvat pelitilanneroolien vaihdot eri tilanteiden mukaan	Pelaaja ymmärtää ja pystyy reagoimaan kokoajan saumattomasti pelitilanneroolien muutoksiin

- Valmentaja: Pidä huoli, että pelaaja osaa alemman levelin/leveleiden asiat kiitettävästi ennen kuin alat opettaa seuraavan levelin asioita!

2.2 Luonne

- Huolehdi, että pelaajalla on aidosti kivaa harjoituksissa – Hauskuus avaintekijä lasten urheilussa -> Halu tulla uudestaan ja kehittää itseään

- Luo harjoitteista sopivan haastavia – ei liian helppoja, ei liian vaikeita -> onnistumisen tunne

- Luo turvallinen harjoitteluympäristö – Koti, Koulu, Kiekko

- 10-11-vuotiaille jääkiekko hauskuus- sekä tavoitepainotteista – Auta pelaajaa positiivisella ja korjaavalla palautteella ja/tai näytä itse esimerkein

- 12-18-vuotiaat pystyvät korjaamaan itse virheitään – oikea-aikainen ja korjaava palaute valmentajalta on silti hyödyllinen

- Vaikka pelaajat ovat motivoituneita, he tarvitsevat silti tsemppaamista valmentajilta – Rohkaise ja ole positiivinen

- Pelaajat haluavat olla osa ryhmää – pidä huoli, ettei kukaan tunne itseään ulkopuoliseksi

- Osallista pelaajia – kysy ja haasta -> ryhmään kuulumisen tunne -> sitoutuminen

- Kuuntele pelaajia – pelaajilla myös ideoita harjoitteluun -> ryhmään kuulumisen tunne -> sitoutuminen

- Autonomia – anna vastuuta ja mahdollisuutta vaikuttaa omaan tekemiseen -> sitoutuminen

- Pidä ohjeet ja säännöt selkeänä ja reiluina – pelaajat kapinoivat, jos tuntevat epäoikeudenmukaisuutta

2.3 Luistelu

X =Harjoittelu vähäistä

XX=Harjoittelua jonkin verran

XXX=Harjoittelua paljon (Painopiste, harjoittelu 50% koko harjoittelusta)

Ominaisuus	6-8v	9-11v	12-14v	15-18v
Tasapaino, Ketteryys	XXX	XXX	XX	X
Motoriikka	XXX	XXX	XX	X
Koordinaatio	XXX	XXX	XX	X
Liikkuvuus	XXX	XXX	XX	X
Lajitaito	XX	XX	XXX	XXX
Nopeus	X	XX	XXX	XX
Voima (lihasmassa)				XX
Voima (lihaskunto)	X	XX	XX	X
Kestävyys	X	XX	XXX	XX

- Muista: Jokainen pelaaja on erilainen yksilö ja kehittyy eri tahtiin - taulukko vain suuntaa antava!
- Kaikkia ominaisuuksia ei kannata/voi harjoituttaa harjoitteluviikon aikana – Pelaaja liikkuu myös harjoitusten ulkopuolella

Liikunnan määrä joukkuetapahtumissa ja lajin omatoimisessa harjoittelussa viikossa			
	E-juniorit	**D-juniorit**	**C-juniorit**
Lajiharjoittelu	4-5h	5-7h	9-12h
Hengitys- ja verenkierto sekä aineenvaihdunta	4-5h	5-7h	4-6h
Tukielimet ja lihakset	2-3h	3-4h	4-5h
Hermosto	4-5h	2-3h	1-2h
Yhteensä	14-15h	15-18h	18-21h
Liikunnan määrä (kaikki liikunta)	Min 1,5h-2h/päivä	Min 1h-1,5h/päivä	Min 1h-1,5h/päivä

- Taulukossa laskettu ns. arkiliikunta mukaan vain viimeisessä rivissä
- Seura ei pysty tarjoamaan vaadittua tuntimäärää viikossa – liikkuminen ja harjoittelu omatoimisesti joukkuetapahtumien ulkopuolella
- Tavoitteellisesti urheilevalla nuorella liikunta tavoite vähintään 20 tuntia viikossa: Ohjatut lajiharjoitukset, omatoiminen harjoittelu, koulumatkat, koululiikunta, välitunnit, pihapelit ja -leikit yms.
- Kannusta monilajisuuteen – ei pelkästään jääkiekkoa

3. E-juniorit

E-junioreiden ohjelmointi		
Painopisteet	Luistelu ja syöttäminen sekä pelit, jossa paljon luistelua	
Vuodessa(Elo-Huhti)	Noin 225h	
Kuukaudessa	20h-29h	10-14 harjoituspäivää ja 4-9 pelipäivää
Viikossa	4,5h-8h	2-4 harjoituspäivää ja 0-2 pelipäivää
Päivässä	1,5h	Alkujumppa + Jää + Cool down

- Taulukossa seuran tarjoamat harjoitusmäärät
- Kannusta monilajisuuteen – ei vain jääkiekkoa
- Liikuntaa myös omatoimisesti, ei pelkästään seuran tapahtumissa
- Noin 15min dynaaminen alkujumppa – luo pelaajille rutiini
- Noin 10-15min cool down – luo pelaajille rutiini
- **50% harjoittelusta tulee olla painopisteharjoittelua**

Ominaisuus	9-11v	Liikunnan määrä E-juniorin joukkuetapahtumissa ja lajin omatoimisessa harjoittelussa viikossa	
Tasapaino, Ketteryys	XXX	Lajiharjoittelu	4-5h
Motoriikka	XXX	Muu liikunta	10-11h
Koordinaatio	XXX		
Liikkuvuus	XXX		
Lajitaito	XX	Yhteensä	14-15h
Nopeus	XX	Liikunnan määrä (kaikki liikunta)	Min 1,5-2h/päivä
Voima (lihasmassa)		**Tavoitteet:** • **Pelaaja osaa kaikki ikäluokan painopisteasiat kiitettävästi** • **Pelaaja osaa pelata pelitilannerooli level 1 mukaisesti** • **Pelaaja on liikunnallinen ja sitoutunut urheilija (20h/vko)**	
Voima (lihaskunto)	XX		
Kestävyys	XX		

E-juniorit esimerkki viikko						
Maanantai	Tiistai	Keskiviikko	Torstai	Perjantai	Lauantai	Sunnuntai
Alkujumppa Jää 50min Cool down + Omatoiminen harjoittelu (esim. Puukuula ja laukominen)	Koululiikunta + Omatoiminen harjoittelu (esim. pihapelit)	Alkujumppa Jää 80min Cool down	Omatoiminen harjoittelu (Esim. Lihaskunto ja liikkuvuus)	Koululiikunta +Alkujumppa Jää 50min Cool down	Peli	Vapaa/Piha pelit

Huom! taulukossa ei ole toisen lajin harjoituksia, arkiliikuntaa eikä välitunti liikuntaa

4. D-juniorit

D-junioreiden ohjelmointi		
Painopisteet	Syöttäminen luistelusta luisteluun ja pelit, jossa paljon syöttöjä (Jos E-juniori vaiheen painopisteet tehty hyvin)	
Vuodessa(10kk)	Noin 400h	
Kuukaudessa	36h-46h	13-18 harjoituspäivää ja 4-9 pelipäivää
Viikossa	8h-11h	3-4 harjoituspäivää ja 0-2 pelipäivää
Päivässä	2h-3h	Oheinen + Jää + Cool down

- Taulukossa seuran tarjoamat harjoitusmäärät
- Kannusta monilajisuuteen – ei vain jääkiekkoa
- Liikuntaa myös omatoimisesti, ei pelkästään seuran tapahtumissa
- Oheinen pitää sisällään dynaamisen alkujumpan sekä itse oheisharjoittelun
- Cool down aina harjoituksen jälkeen – rutiini E-junioreista
- **50% harjoittelusta tulee olla painopisteharjoittelua**

Ominaisuus	12-14v	Liikunnan määrä D-juniorin joukkuetapahtumissa ja lajin omatoimisessa harjoittelussa viikossa	
Tasapaino, Ketteryys	XX	Lajiharjoittelu	5-7h
Motoriikka	XX	Muu liikunta	10-11h
Koordinaatio	XX		
Liikkuvuus	XX		
Lajitaito	XXX	Yhteensä	15-18h
Nopeus	XXX	Liikunnan määrä (kaikki liikunta)	Min 1-1,5h/päivä
Voima (lihasmassa)		**Tavoitteet:** • **Pelaaja osaa kaikki ikäluokan painopisteasiat kiitettävästi** • **Pelaaja osaa pelata pelitilannerooli level 2 mukaisesti** • **Pelaaja on liikunnallinen ja sitoutunut urheilija (20h/vko)**	
Voima (lihaskunto)	XX		
Kestävyys	XXX		

D-juniorit esimerkki viikko						
Maanantai	Tiistai	Keskiviikko	Torstai	Perjantai	Lauantai	Sunnuntai
Koululiikunta + Omatoiminen harjoittelu (esim. Lihaskunto ja liikkuvuus)	(Aamujää) Oheinen Jää 80min Cool down	Koululiikunta + Oheinen Jää 50min Cool down	(Aamujää) Omatoiminen harjoittelu esim. (Pihapelit ja liikkuvuus)	Oheinen Jää 50min Cool down Omatoiminen harjoittelu (esim. Laukominen ja puukuula)	Peli	Peli/Vapaa/ Pihapelit

Huom! taulukossa ei ole toisen lajin harjoituksia, arkiliikuntaa eikä välitunti liikuntaa. Aamujää joillekin pelaajille mahdollinen riippuen koulusta.

5. C2-juniorit

C-junioreiden ohjelmointi		
Painopisteet	Laukominen, maalinteko, peli maalivahtia vastaan ja pelit pelitilanneroolien kautta (Jos D- ja E-juniorivaiheen painopisteet tehty hyvin)	
Vuodessa(10kk)	Noin 480h	
Kuukaudessa	40,5h-55h	13-18 harjoitusta ja 4-9 peliä
Viikossa	9h-12,5h	3-4 harjoituspäivää ja 0-2 pelipäivää
Päivässä	2,5h-3h	Oheinen + Jää + Cool down

- Taulukossa seuran tarjoamat harjoitusmäärät
- Kannusta monilajisuuteen – Lajivalinta ei välttämätön C2-ikäisenä
- Liikuntaa myös omatoimisesti, ei pelkästään seuran tapahtumissa
- Oheinen pitää sisällään dynaamisen alkujumpan sekä itse oheisharjoittelun
- Cool down harjoituksen jälkeen – rutiini E- ja D-junioreista
- **50% harjoittelusta tulee olla painopisteharjoittelua**

Ominaisuus	12-14v	Liikunnan määrä C2-juniorin joukkuetapahtumissa ja lajin omatoimisessa harjoittelussa viikossa	
Tasapaino, Ketteryys	XX	Lajiharjoittelu	9-12h
Motoriikka	XX	Muu liikunta	9-10h
Koordinaatio	XX		
Liikkuvuus	XX		
Lajitaito	XXX	Yhteensä	18-21h
Nopeus	XXX	Liikunnan määrä (kaikki liikunta)	Min 1-1,5h/päivä
Voima (lihasmassa)		**Tavoitteet:**	
Voima (lihaskunto)	XX	• **Pelaaja osaa kaikki ikäluokan painopisteasiat kiitettävästi**	
Kestävyys	XXX	• **Pelaaja osaa pelata pelitilannerooli level 3 mukaisesti**	
		• **Pelaaja on liikunnallinen sekä sitoutunut urheilija ja pelaajalla on selkeät tavoitteet ja suunnitelmat kohti huippua**	

C-juniorit esimerkki viikko						
Maanantai	Tiistai	Keskiviikko	Torstai	Perjantai	Lauantai	Sunnuntai
Omatoiminen harjoittelu (esim. Pihapelit) + Oheinen Jää 50min Cool down	(Aamujää) Oheinen Jää 80min Cool down	Omatoiminen harjoittelu (esim. Lihaskunto ja liikkuvuus) + Oheinen Jää 50min Cool down	(Aamujää) Koululiikunta + Omatoiminen harjoittelu (esim. Laukominen ja puukuula)	Oheinen Jää 50min Cool down	Peli	Vapaa/ pihapelit

Huom! Taulukossa ei ole toisen lajin harjoituksia, arkiliikuntaa eikä välitunti liikuntaa. Aamujäät joillekin pelaajille mahdollinen riippuen koulusta.