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SEMINAR DAY FOR JUNIOR FOOTBALL COACHES
– BASICS OF FEEDBACK AND MOTOR LEARNING

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In the last century football has become the most popular sport in the world. As of 2006 there were over 200 million players worldwide, including athletes of both genders, and all ages. According to the Fédération Internationale de Football Association (FIFA) the number of youth players had increased by seven percent from 2000 to 2006. With the increase of youth players, many junior football coaches are parents or volunteers from the community. They often lack the proper training to ensure optimal learning and growth for youth in the sport.

The aim and purpose of this thesis project was to give junior football coaches, through a seminar day, basic knowledge of motor learning along with the confidence to give appropriate feedback to their players. In order to achieve this, research and observations of three junior football team training sessions were done. By combining what was seen at the training sessions and what was found through research, the content for the seminar day was decided. The seminar day consisted of both a theory and a practical portion. The discussion topics for the theory portion were feedback, motor learning, parent/coach-child/athlete relationship, and self-esteem. After the theory, different ways of giving feedback to ensure affective motor learning, were carried out in practice.

To conclude the seminar day, the coaches were given a feedback questionnaire. From their feedback it became apparent that the day was eye-opening for the coaches, and they left with new information. In conclusion, the feedback from the seminar day indicated that the aim and purpose of this thesis project were achieved. However, the coaches expressed the need for further education, possibly from physiotherapy students.

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1 INTRODUCTION

In the sports community, coaches are often seen as the glue that keeps everything together. Coaches have a responsibility to look after their athletes, and without the proper training, they often unintentionally create an environment prone to injury. This lack of training may be seen because many junior football coaches are volunteers from the community. (Dvorak et al. 2009, 14; Radelet, Lephart, Rubinstein & Myers 2002, 1-2) All around the world, football has the highest rates of injury. Not only among professionals, but also among younger players. (Radelet, Lephart, Rubinstein & Myers 2002, 8; Sahlin 1990)

There are a number of different injuries that children and adolescents can obtain while playing football. These injuries range from ankle sprains, which are the most common injury below the knee, to a concussions. Other common injuries include minor tears of the anterior cruciate ligament or medial collateral ligament in the knee, muscles strains, and even patellofemoral pain. Lastly, hip flexor tendinitis is very common in football, due to players repeated flexing the hip. (Website of Children's Hospital Colorado 2016) Due to the frequency of injuries in football, it is pertinent for the coach and assistants to ensure that the athletes are learning the correct skills and movement patterns. If the athlete is not learning correctly, it is the coach's job to identify what aspect of training is not working to avoid injury. Not only do coaches have to identify what aspect of training is not working, but they need to evaluate each player's level of learning, and adjust their feedback accordingly. (Huber 2013)

Learning is defined as the permanent change of an individual's capability to perform a task. When learning a new skill, regardless of what and in which area of life it is, the individual goes through three stages of learning to acquire the skill permanently. Many people will say that in order to learn, practice is the key. However, there are several other factors that affect an individual's ability to learn. These factors include personality, personal life, and motivation. (Ives 2009, 96) In order for an athlete to acquire a new skill, their coach must understand these three stages of learning and which type of feedback to give. The stages of learning are important when a new skill is introduced, but also when an old skill is not being performed the correct way. The coach should be able to give the correct feedback to help the athlete adjust the skill and/or

get rid of the faulty habit that they have acquired. For the coach this means identifying how the skill is being performed, which aspect needs fixing, and how to help the athlete correct the skill. The coach needs to know different ways to give feedback, and how to utilize the athlete's individuality to learn, correct, or improve the skill. (Huber 2013, 4, 186)

In literature, *feedback* is defined as information regarding the individual's performance (Van de Ridder, Stokking, McGaghie & Ten Cate 2008, 189). In football, feedback means informing the athlete on their execution of a skill or play. This information can come from coaches, parents, teammates, and/or internally from themselves. There are two major types of feedback, extrinsic and intrinsic. Intrinsic feedback is the individual's internal information and subjective understanding on how a skills performance went. Extrinsic feedback is information about a performance that comes verbally from coaches, parents, and teammates, with the possible help of visual aids, or haptic guidance. (Sigrist, Rauter, Riener & Wolf 2013; Taylor & Wilson 2005) Coaches must always be aware of the style of feedback they choose to use. Not only can feedback offend or upset an athlete, but it can cause them to perform a skill incorrectly and potentially injure themselves. (Taylor & Wilson 2005)

As mentioned earlier many coaches are volunteers and/or parents of the athletes. Creating the parent-coach/child-athlete relationship can put unnecessary strain on interactions. Along with putting strain on these relationships, many of the parents may not be properly trained for the coaching position. (Weiss & Fretwell 2013) For this reason, the aim of the thesis project is to educate and give tools to junior football coaches on feedback and motor learning. This is done during a seminar day that will include a theory portion discussing feedback and learning, along with a practical portion to allow the coaches to try out new ways of giving feedback.

2 AIM AND PURPOSE

The purpose of this thesis project was to hold a seminar day for the coaches of junior football teams, where they would gain basic knowledge on motor learning and feedback. The aim of the thesis project was to give junior football coaches the confidence to instruct their athletes. By gaining the tools to give feedback in a productive and effective manner, the coaches can ensure optimal motor learning.

3 FOOTBALL

Association football, known as soccer in North America and football in the United Kingdom, is the most popular sport in the world. The game is a team sport, where the aim is to score into the opposing team's goal by using any part of the body, except hands. It is played between two teams, each having 11 players on the field at a time. (Alegi, Rollin, Joy, Weil & Giulianotti 2016) Football is a demanding and complex sport, where fundamental skills such as kicking, passing and running, along with aspects of speed, agility and endurance are needed (Wang & Zhang 2016).

There are signs that ancient civilizations have entertained themselves with games resembling football (Website of Football Bible 2017). However, the contemporary form of football has been around since 1863, when it separated from football rugby to become its own sport in England. The popularity of football took time to start growing internationally, but eventually it found its way to spread to most corners of the world. (Website of FIFA 2017) Football was brought to Finland in the 1890s by English sailors, first becoming popular among university students. The official Football Association of Finland (Suomen Palloliitto) was formed in 1907, and joined The Fédération Internationale de Football Association (FIFA) the following year. Today, the Football Association of Finland has 130 000 licensed players, making it the biggest sport association in Finland. (Website of Suomen Palloliitto 2016)

According to the Big Count 2006 survey, conducted by The Fédération Internationale de Football Association (FIFA), football has 265 million players in over 200 countries, making it the most popular sport in the world. Out of these registered players 10% are female, with the other 90% male. From this survey it was also found that there are 22 million athletes under the age of 18 worldwide. When comparing to the previously released Big Count 2000 survey, the total number of players had grown by 9%. Female athlete registration had grown by 19%, and youth athletes by 7%. Meaning that the popularity of football is growing fast among female and youth athletes. (FIFA 2007)

To ensure the sport remains consistent, FIFA, with the approval from the International Football Association Board (IFAB) has developed a set of rules, called the Laws of

the Game. The evolution of the Laws started in 1963, and have slowly formed into the Laws that the football nation knows today. These 17 laws cover all the possible rules, including field size, equipment, penalty kicks, and everything in between. Some parts of the Laws can be adapted for junior, female, senior and disabled athletes. The Laws that can be adapted are the duration of the match, number of substitutions, and the sizes of the field, ball and goals used. Other changes are only permitted with approval from IFAB. (FIFA 2016)

4 MOTOR SKILLS

Motor skills are movements and actions of the body that every human being acquires during childhood and possibly later in life (Website of Encyclopedia of Children's Health 2017). They are divided into two concepts. The first concept is that a motor skill is seen as a task. A task can be anything from cutting a slice of bread to doing a trick on a balance beam. Each of these tasks has their own distinctive qualities. The second concept of a motor skill is the ease with which an individual performs a task. For example, this ease could be seen in how a professional basketball player dodges an opponent, or the lack of ease a child has the first time they kick a football. (Schmidt & Wrisberg 2008, 4)

There are certain skills that are considered to be fundamental and can be used to achieve more complex tasks. Movements and tasks can be divided into two major motor skill groups. There are gross motor skills, which use large muscle groups and typically need involvement of the whole body, for example jumping or squatting. To contrast gross motor skills, each individual also has fine motor skills. These movements use smaller muscles, are precise, and usually need assistance from the eyes. There are certain gross movements that are considered fundamental motor skills. Walking, running, kicking and jumping are such fundamental skills learnt early in life and translate later on to other motor skills. (Galligan et al. 2000, 102-105; Ives 2009, 89-90)

Further classification of motor skills refers to environmental factors. These can be divided into two groups: open and closed skills. When performing a closed skill, the individual goes through a predetermined sequence with no challenges from the environment, whereas open skills are performed in an environment that is unstable and unpredictable, requiring the person to constantly adapt. There are aspects in football that are ever changing, such as the grass during a game could be different to the grass used for practice, the velocity at which a ball is kicked varies between players, and player positioning is never the same. This causes football players to constantly adapt the skills they have. For this reason, the fundamental motor skills learnt early in life are perfected and trained in different situations in football. (Ives 2009, 90; Vääntinen, Blomqvist & Häkkinen 2010, 555, 687-689)

The development of fundamental motor skills and other physical attributes are enhanced and fine-tuned during puberty due to increased testosterone levels. It has been proven that testosterone is an important hormone when looking at the development of certain neural connections. Football enhances the ability to learn, use and develop the motor skills that each player has. This allows for the maturation and development of each player to be able to make decisions during practice and games. With this growth comes the development of the team as a whole. (Vänttinen, Blomqvist & Häkkinen 2010, 555, 687-689)

4.1 Motor Learning

In literature, the definition of *learning* is the permanent change of an individual's ability to perform a skill. Learning is achieved by practice, and cannot be affected by luck. There are aspects of an individual's everyday life, such as fatigue, that can affect performance, even if learning is taking place. Learning can be categorized into three stages: cognitive, associative, and autonomous. (Huber 2013, 186-191; Ives 2009, 96-98)

The cognitive stage largely consists of understanding the skill. This does not necessarily mean being able to do the skill well, but is more directed towards how and what to do. Feedback and guidance are critical at this stage. From the cognitive stage the learner moves on to the associative stage. This stage consists of fewer errors than the cognitive stage. The individual begins to notice the errors that occur during the performance and gains the ability to connect small movements together. Trying to perfect a skill, which is common among professionals, requires revisiting this stage. (Huber 2013, 186-191; Ives 2009, 96-98)

Lastly, there is the autonomous stage. Unlike in the associative stage, when an error occurs, the individual now has the ability to correct themselves during the performance. In the autonomous stage a state of flow can be entered. This state of flow is where the individual can execute the skill with minimal thinking. Progressing to this stage can take years of practice. However, once achieved, the individual gains the ability to analyze the surroundings and adapt their own performance in accordance to what is happening, without any disruption of the skill being performed. (Huber 2013, 186-191; Ives 2009, 96-98)

With that in mind, the path to perfection of a skill or performance is rarely a straight line. There are times when perfecting a skill happens quickly and then slows down, or slowly improves over time. The plateauing of a skill or performances' improvement can be a result of many factors. One of those factors is trying to learn new techniques or components for the skill or performance. This requires the learner to adjust how they are doing the skill, which in turn can compromise the performance. Another factor is when the learner is ahead of teaching, meaning difficulty and specification of the

skill does not match the learner's needs. A third factor affecting improvement is that the learner may not want to improve anymore. Motivation and focus to perform the skill better have diminished, causing a plateau in improvement. (Ives 2009, 97)

Transfer of learning is when certain elements of a skill can be used in another task. This means that the learner can take elements from one skill and apply them to another skill to increase their 'movement repertoire'. There are two ways that this transfer can occur, positively or negatively. Positive means that learning of a new skill happens. Negative means that the new skill is not learned and cannot be performed. Positive transfer of learning occurs more often when the secondary skill is similar to the first skill. When transfer of learning happens, the learner can use elements from a skill in everyday situations. The learner most likely has been taught a skill starting from simple elements or the basics first. From there, more complex elements are taught, allowing the learner to extract and use the basic elements (fundamentals) from a whole movement. (Ives 2009, 101-102)

For coaches it is important to make sure that their athletes are learning. The athlete will not learn the correct skill if they do not understand what it is they are being taught. This means that coaches need to look at the whole situation. Often coaches are the ones blamed when an athlete is not improving, and at times the best way to find a solution is by improving coach-athlete communication. Furthermore, as a coach expecting the athlete to be able to perform the skill perfectly right away is unrealistic. As was just described above, learning and improvement are not a smooth pathway. Time, patience, and motivation from both parties are the keys to achieve learning. (Huber 2013, 7-10, 191, 265)

4.2 Pathology of Learning

Cortical representation of the body, also known as the homunculus, which can be seen in Figure 1, is the map of the body within the brain. The brain creates two parts to this imaging, motor and sensory. This map identifies which areas of the brain have to work when activating a certain part of the body. (Nielsen & Cohen 2007) Sensory receptors are believed to facilitate what is known as proprioception. Proprioceptors are found throughout the body, in the skin, muscles, tendons, and joints. When an individual is performing a task, these proprioceptors send afferent information to the brain on the body's position. Thus, allowing the brain to identify, using the homunculus, which part of the body is active. (Hillier, Imink & Thewlis 2015, 933-934; Website of SDP Australia 2017)

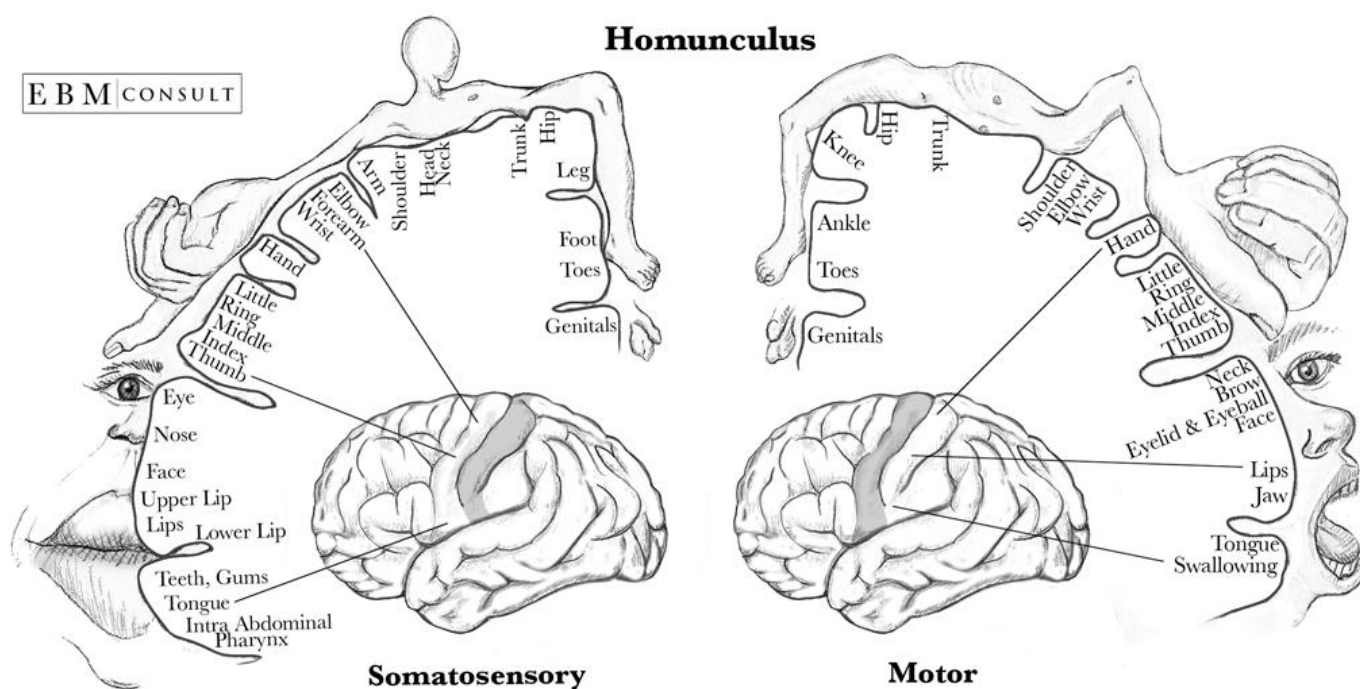


Figure 1. The Homunculus. (Website of EBM Consult 2017)

When a new skill is being learned, the cortical representation of that body part expands due to motor and sensory input. This means every time a skill is repeated, the areas of the brain that are responsible for that movement grow even more. When fundamental movements are learnt as a child, the brain begins to develop the map of the body. The areas that are responsible for body parts begin to develop the neural connections needed to produce movement or sensation. The growth of the cortical map, however, only happens when learning a movement. Once the movement has been learned, growth stops. (Nielsen & Cohen 2007) An interesting aspect of this learning is that the individual can learn just by observing someone else perform the movement. The brain identifies the areas needed for the movement, by using what is known as mirror neurons. (Stefan et al. 2005) For coaches this is important because when teaching a new skill to athletes, showing them the incorrect movement pattern instead of the correct one, causes the mirror neurons to take in the faulty information. This information can therefore put the athlete in risk of injury or create bad habits. (Nielsen & Cohen 2007)

Both performing and learning a task have been shown to come from, and effect on, the same area of the brain. This means once learning has stopped and growth of the cortical map has ended, the connections made in the brain begin the perfection process. Training or practicing a movement therefore tailors the connections within the brain, creating an efficient performance of a movement. (Nielsen & Cohen 2007)

5 COACHING

A coach in a sports setting, like a teacher in a classroom setting, is the one that ensures everything is going according to plan. They are what holds the team together. Quite often in junior sports settings the coaches do not get paid for the work that they do. They show up for the job as volunteers because they love the sport. Since most coaches are volunteering for the position, they may not have any formal training in coaching. This requires them to use their own experiences in the sport to plan training sessions. (Radelet, Lephart, Rubinstein & Myers 2002, 2) The effectiveness a coach has on his/her players is described as their belief that they have the ability to affect the player's performance and learning (Harwood 2008, 5). With a lack of knowledge in coaching and the persistency of parents, junior athletes may feel pressured to win and be competitive (Radelet, Lephart, Rubinstein & Myers 2002, 2). One aspect of football that is seen in professional athletes, is their ability to be creative during a game. However, in junior teams the coach, during a game, is often expected to make any and all decisions. Thus, stunting the creative development of junior athletes. (McShane 2002, 19) The pressure to win may take away from the reason they began playing in the first place, which is the joy playing the sport gives them. (Radelet, Lephart, Rubinstein & Myers 2002, 2)

When looking at the psychological development of adolescents, there are two aspects that coaches and parents need to consider: internal and external factors. The internal factors encompass the individual, such as their self-esteem, motivation for achievement, commitment, and communication skills. However, external factors such as the coach's behaviour can influence the athlete's internal factors. The athlete may see the coach as more than just an instructor, but also as a friend, advisor, and/or role model. The coach's behaviour not only affects the athlete internally, but is one of the most critical external factors influencing athlete's performance. The coach and parents together must provide a positive learning environment for the whole team. (Harwood 2008, 3; Mino, Nasser & Misagh 2014, 523; Website of Topend Sports 2016)

One relationship that has a large impact on the athlete is having a parent as a coach. This relationship though, is one that has not been researched in depth. However, there

is evidence that up to 90% of all junior football coaches are parents to one or more of the teams' players. Parent-coaches have a huge responsibility in the child's participation of a sport and the development of the learning environment. As a large part of the learning environment, parent-coaches need to acknowledge the positive and negative influences they may have on their child-athletes. The positive effects parent-coaches have on their child-athletes could be the time they get to spend together, and the possible life values they can acquire. However, there are certain negative effects that need to be considered, which are excessive criticism, expectations, and attention towards their child-athlete. (Website of Educated Sports Parent 2017; Weiss & Fretwell 2013) In order for this type of relationship to grow and be harmonious, it is extremely important that both sides communicate. With a constant dialogue, it is easier for child-athletes to identify when mom or dad is coach and when they are just mom or dad. With this in mind, parent-coaches must remember that they have the opportunity to ensure that all youth athletes receive an equal and positive sporting experience. (Jowett, Timson-Katchis & Adams 2007, 71)

In Finland, all football head coaches are expected to be educated by the Football Association of Finland (Suomen Palloliitto). Six levels of training are offered in coaching. There are three basic levels that anyone wanting to coach football can do. These levels are known as E, D, and C. The other three levels are known as professional levels, which are meant for elite coaches. These professional levels consist of UEFA B, UEFA A, and UEFA PRO. The basic level courses focus on coaching of children and youth. Level E is an introduction to the coaching world, providing basic information on instructing youth athletes. Level D familiarizes coaches on individual coaching philosophies, and the four basic parts of coaching. These four parts are: learning the skills, learning the concept of football, basics of conditioning, and how to create a love for the game. Level C provides the coaches with teaching tools for position-specific training and strategies, cooperation of players, and injury prevention and treatment. Level C deepens the participant's knowledge in coaching and leading junior teams. (Website of Suomen Palloliitto 2016)

6 FEEDBACK

For anyone working with an athlete, it is important to understand what motivates the athlete, and which style of feedback helps the athlete improve. Most athletes will think they know what aspects they need to work on, however they may not always clearly see what is holding them back. Giving feedback should give the athlete another perspective on how to improve. The feedback is what gives the athlete the motivation and knowledge to correct those aspects of a movement and/or skill that are restricting advancement. However, the feedback given needs to be appropriate for that particular athlete to motivate them. (Kainz 2007, 19-23; Taylor & Wilson 2005) An example of motivating feedback was shown in a study where a group was given verbal feedback. Those receiving that feedback had their motor endurance increase by 39%, compared to the control group (Bickers 1993, 199). With the appropriate feedback the athlete may try harder to improve. However, the improvement and performance cannot solely depend on feedback, there are many other aspects that affect an individual's improvement, such as personality, mood, motivation, and physical stress. (Kainz 2007, 19-23; Taylor & Wilson 2005) There are several different styles of feedback which can be seen in Figure 2. These styles begin with intrinsic and extrinsic, from where they break down into more specific styles. (Wrisberg 2007, 285)

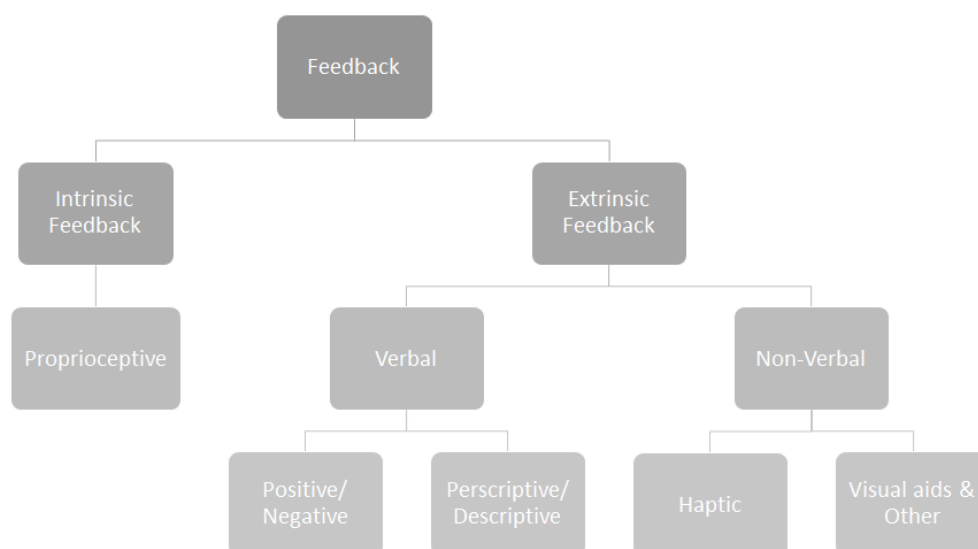


Figure 2. Feedback (Järvinen 2016, based on Sigrist, Rauter, Riener & Wolf 2013; Wrisberg 2007)

6.1 Intrinsic Feedback

There are two major groups of feedback. First, there is intrinsic or internal feedback. *Intrinsic feedback* develops over time as the body and brain mature. This type of feedback comes from within the athlete. The feedback comes from proprioceptors and motor neurons in the skin, tendons, joints and muscles. These proprioceptors tell the brain, and homunculus, exactly how each part of the body is positioned. Meaning while the athlete is doing a movement or skill, the proprioceptors are constantly sending information to brain. Once the athlete reaches the autonomous stage of learning, it is not always necessary to give extrinsic feedback, because they receive most of their feedback intrinsically. (Hillier, Imink & Thewlis 2015, 933-934; Ilies, Pater & Judge 2007, 592-595)

6.2 Extrinsic Feedback

The second type of feedback is *extrinsic* or *external feedback*. This type of feedback can come from a coach, parent, or friend. When in the early stages of learning, extrinsic feedback is very important. The athlete has not fully developed an understanding of the skill, and therefore needs guidance. Extrinsic feedback can come in several different forms, such as positive or negative feedback, as well as verbal or non-verbal (visual or haptic) feedback. (Sigrist, Rauter, Riener & Wolf 2013; Taylor & Wilson 2005, 55-58)

Positive feedback is used as a form of reassurances that the athlete is doing the skill and/or movement correctly. This type of feedback is important for beginners, because it helps boost their motivation and self-esteem with the skill. Often coaches, teachers or parents use positive feedback as a reward. *Negative feedback*, however, is used to inhibit the wrong movement pattern or habit from forming. This involves telling the athlete that the attempt of the skill or movement was incorrect. When working with beginners, negative feedback like positive feedback, is very helpful in increasing motivation and assurance. (Taylor & Wilson 2005, 25-27)

Along with positive and negative styles of extrinsic feedback, there are descriptive and prescriptive feedback. *Descriptive feedback* entails reiterating what the athlete did. The athlete, for example, went to kick the ball and the ball did not go where the athlete had intended. The coach would, using descriptive feedback, tell the athlete that the ball went in the wrong direction. When coaching experienced athletes, descriptive feedback is sufficient, since the athlete should, with the help of intrinsic feedback, be able to correct their performance. (Edwards 2010, 460-461; Wrisberg 2007, 118)

Prescriptive feedback entails giving the athlete an idea of why the ball went in the wrong direction and how they can fix that. For example, you did not follow through on your kick, next time allow your leg to swing through in the same direction as the ball. When coaching younger athletes who are new to the sport, prescriptive feedback gives the athlete a clearer idea of how to adjust their performance. From there they can begin to develop their skills and correct themselves. It is the coach's job to understand when feedback is necessary and if it will help the athlete. The coach should know when

an athlete is advanced enough to interpret to their intrinsic feedback, and trust that the athlete will ask if they are unsure why that attempt went awry. (Edwards 2010, 460-461; Wrisberg 2007, 118)

When thinking about extrinsic feedback, many people might automatically refer to verbal feedback. However, there are many other ways to give athletes extrinsic feedback. These involve using non-verbal feedback, such as visual aids or haptic information. *Haptic* refers to the use of an individual's receptors in the skin to relay information to the brain. (Sigrist, Rauter, Riener & Wolf 2013.) Haptic comes from the Greek word "*haptesthais*", which is directly translated to the verb "*to touch*" (Website of Merriam-Webster Dictionary 2017). Haptic feedback has been shown to improve motor learning and performance. With the use of touch, the athlete becomes present and more aware of the situation. Haptic feedback has also been shown to decrease the individual's anticipated amount of work when performing a task. (Sigrist, Rauter, Riener & Wolf 2013) As for *visual aids*, coaches, teachers and parents can use videos, diagrams, and/or showing the athlete themselves (Wrisberg 2007, 100, 115-116).

6.3 Motivation and Self-Esteem

Motivation means an individual has a stimulus that encourages them to pursue personal and/or team goals. The concept of motivation is seen as a complex and a continuously changing process where the individual's personality, as well as cognitive and social factors all work together. Motivation affects the intensity, stamina, task selection, and performance itself. When performing a task or skill, motivation has two distinct objectives. The first objective is that motivation gives the individual the ambition to improve at performing a task or skill, such as an athlete who trains for hours on end to become the best version of themselves. The second objective is that motivation gives the individual the ability to direct their behaviours in order to achieve their goal. (Jaakkola 2010, 117-119)

With these two objectives in mind, motivation can be internal and external. *Internal motivation* is the drive an individual has to do a sport or activity. There does not need to be any particular reason behind it. It is done solely for the purpose of the individual's enjoyment. *External motivation* can come from the idea of receiving a reward and/or praise. However, external motivation can increase an individual's ambition to complete a task or skill because of the prospect of disappointing others, being disciplined, and/or receiving negative feedback. Lack of internal motivation is most often the reason behind, if an individual stops participating in a sport. (Jaakkola 2010, 117-119) Though, when self-esteem and confidence are increased, the individual's motivation to continue a sport and achieve their goals is heightened (Bénabou & Tirole 2002).

There are many different forms of self-esteem that may affect how individuals view themselves. *General self-esteem* is defined as how an individual feels about themselves. *Self-concept* is how an individual sees themselves as a whole. There is also the physical aspect of self-esteem. This is known as *physical self-concept*, which is defined as a combination of physical competency and physical appearance. *Physical competency* is how well an individual views their ability to participate in a certain sport. Many athletes, when under the impression that their performance was better than normal, will be in a better mood and have a higher level of satisfaction, thus increasing their physical competency. (Bowker 2006, 214-218)

Each individual reacts differently to feedback depending on who gives the feedback, the individual's confidence, and how the feedback is being given. If an individual has lower self-esteem, positive feedback will most likely boost their confidence, giving them the reassurance that they are heading in the right direction. When given negative feedback, the individual will feel inadequate and respond negatively. Someone who has high self-esteem may not react to positive feedback, because they already know their worth. When given negative feedback, they may not take it personally and ignore it, or they will take it as encouragement to improve. Each individual is different and their response to feedback cannot be predicted. (Ilies, Pater & Judge 2007, 592-595; Moreland & Sweeney 1984)

7 MUSAN SALAMA

The football club Musan Salama (MuSa) was founded in 1960, and is located in Pori, Finland. Throughout the years, the club has grown steadily, and in 2016 MuSa had over 700 licensed players of all ages. They have become the junior “breeder” club of the Satakunta area, with a total of 14 junior teams. The ages of the teams players range from 7 to 19. (Website of Musan Salama 2016)

Each junior team generally has three to four coaches. MuSa requires the head coach of each junior team to have at least level D education in coaching. The assisting coaches might be parents of the players, or just active individuals from the community. The practice hours of the junior players range from one hour a week to possibly six or seven times a week. (Puustinen, Personal communication on 29.09.2016)

As MuSa is mainly focused on coaching the children and youth, they have established a pyramid of values (Figure 3). The pyramid shows MuSa's main values and principles of operations. These values and principles cover all aspects of their football culture. They range from values of cooperation between athletes, coaches, and parents, along with following rules, season planning, and communication between all. These values and principles are explained in more detail in Figure 4. (Website of Musan Salama 2016)

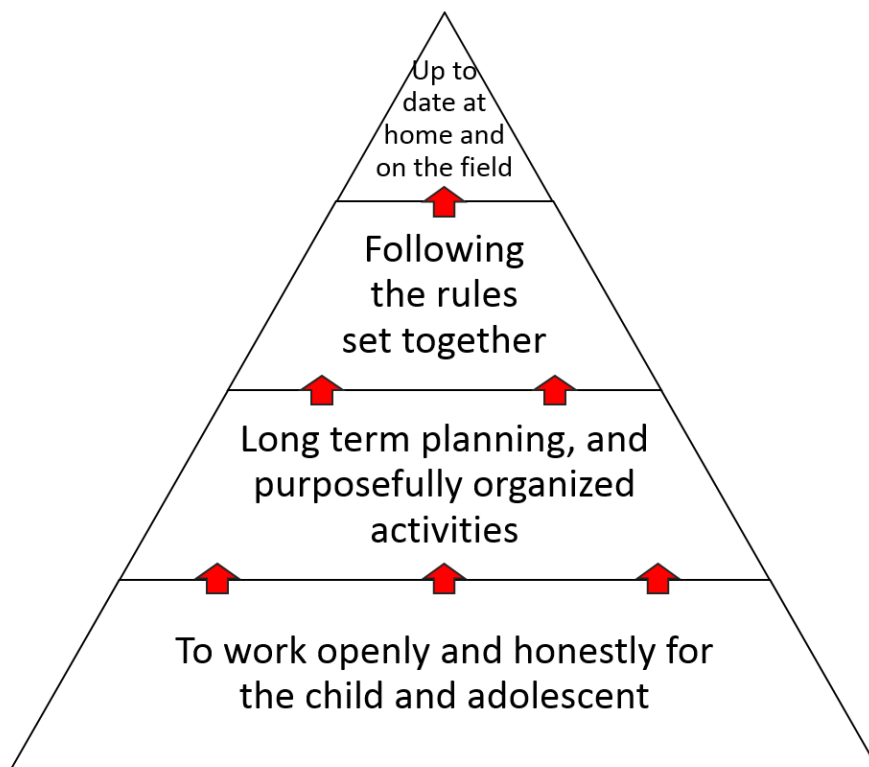


Figure 3 the pyramid of values (Website of Musan Salama, Translated by Järvinen 2016)

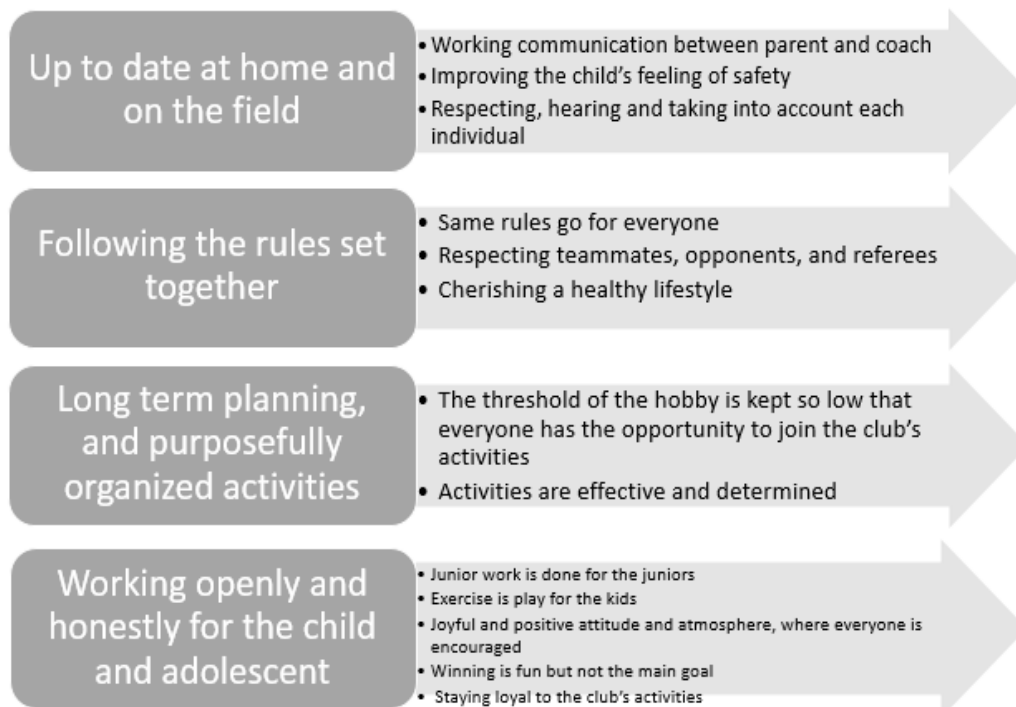


Figure 4 Pyramid of values explained (Website of Musan Salama, Translated by Järvinen 2016)

8 THESIS PROCESS

The thesis project's process began by contacting the Musan Salama (MuSa) football club. A meeting time was arranged for Mid-May of 2016. The contact personnel for the club were the head of the junior football program, and a physiotherapist, who is a parent to a few of the junior players and one of the conditioning coaches. Prior to the meeting, a discussion with the supervisor for the thesis project was conducted. The supervisor was briefed on the topic and feedback was received.

The head of the junior football program and the physiotherapist were both present at the meeting. During the meeting, the thesis project topic and implementation were discussed. Both sides came to agreement that the coaches needed to be given the tools and confidence to better instruct the youth players. One observation that was discussed was how there were a few junior teams whose coaches had expressed interest in learning more. There were also other teams, whose coaches needed to be given tools to find confidence in giving appropriate feedback. The idea of a booklet for the coaches with the material from the seminar day was received well and encouraged. It was agreed upon that MuSa would cover the costs of printing the booklets, along with any articles that were needed for the theory portion of the thesis project. A rough draft of the proposed timeline and theory portion was presented, and the agreement for the thesis project was signed.

Most of the theory for the thesis project was researched and written during the summer and early fall of 2016. The topics for the theory were chosen according to what was discussed in the meeting, along with what was found on coaching education. Once most of the theory part of the thesis project was finished, the contact personnel at MuSa were informed and the dates for the training observations set. The dates for observing the training sessions were during the fall of 2016. Each training session was one hour and a half, and they were held on different outdoor fields around Pori, Finland. The coaching of three junior teams, each of different age groups, were observed. Based on these observations, the content for the seminar day was planned.

Planning and preparation for the seminar day was done during November of 2016. MuSa was presented with two date options for the seminar day. Of these two dates they chose December 3rd, 2016. The seminar was held at Satakunta University of Applied Sciences in Pori, Finland. After the seminar day, the remaining portion of the thesis project was written, during the end of 2016 and January 2017. The thesis project was finished and presented in February of 2017.

8.1 Study Design

The study design of this thesis was a *thesis project*. There are many definitions of projects depending on the content and how the project is conducted. For the purpose of this thesis, it is defined as a *temporary project*, having a clear beginning and end. (Website of Project Management Institute. 2017)

This thesis project was designed with a collaborating organization, with a specific purpose and aim in mind. Along with having a theory portion, the main aim of the thesis project was to hold a seminar day for the junior football coaches of Musan Salama football club. A *seminar* is a meeting of individuals who are seeking information or training on a specific topic. There are several types of seminars, however the seminar for this thesis project was identified as a *personal development seminar*. This type of seminar is one where the individuals who attend are seeking for new information regarding coaching, along with stimulating discussion. (Hard. 2016)

8.2 Proposed timeline

This thesis project's proposed timeline (Table 1) was planned with the collaborating sports club, and approved by the supervisor. Prior to beginning research and agreement preparation, the collaborating sports club was contacted and inquiry on their interest in the topic was conducted. The proposed concept and timeline was presented in May of 2016, with plans to have the thesis project completed in February of 2017.

Table 1. Proposed dates and tasks for the thesis project.

DATE	TASK
MAY 2016	PRESENTATION OF THESIS CONCEPT, MEETING WITH SPORTS CLUB & SIGNING OF AGREEMENTS
JUNE – AUGUST 2016	THEORY RESEARCH & WRITING
SEPTEMBER – OCTOBER 2016	OBSERVATION OF TRAINING SESSIONS
NOVEMBER 2016	PLANNING SEMINAR DAY
DECEMBER 2016	SEMINAR DAY
JANUARY 2017	CONCLUSION AND DISCUSSION
FEBRUARY 2017	THESIS PRESENTATION

9 IMPLEMENTATION

The aim and purpose of the thesis project was to give junior football coaches the basic knowledge on feedback and learning. In order to achieve this, it was necessary to observe training sessions to pin point exactly where the coaches needed guidance. Three training sessions were observed to see the variation of coaching styles. Based on what was seen during the observation sessions, the content for the seminar day was planned using current literature and studies.

9.1 Observation

The observation days were conducted over the fall of 2016. These days consisted of going to watch three junior football teams during practice. The point of the observation days was to evaluate the coaches and team interaction. From these evaluations the content for the seminar day was decided.

The first of the three observation sessions was of two girls' teams. These teams' ages were from nine- to ten-years-old. There were five coaches between the two teams. Two of the coaches were female, and who were just finishing their D-level coaching course. The other three coaches were male, of which two were fathers to some of the athletes. The two female coaches had set up an obstacle course, which was used as part of their final evaluation for the D-level course. The practice began with these two coaches instructing the girls in a game of tag. The purpose of the game, along with warming the athletes up, was to improve balance, which the coaches explained to the girls. After the warm up the girls were split into their separate teams. The older girls were with the two female coaches, and the younger ones went with the male coaches. The older group went straight into the obstacle course training. At the obstacle course, they did rounds for warm up, and then the coaches timed the girls. Water breaks were constantly given during this time; this gave the coaches time to go over their plan. After the obstacle course, a reaction time activity was done, where the two coaches were given feedback from the head of the junior football program. The coaches took the feedback and the athletes began paying more attention to the activity.

The younger group focused on passing and dribbling the ball. With the younger group the coaches split themselves up; two worked with groups of two, while one coach worked one-on-one with the athletes. The training was made into a circuit style activity. This group did not get nearly as many water breaks as the older group. Once both groups were done, they came together for a friendly football game. After their game a short cool down consisting of stretching was done, and then the girls were allowed to leave.

The second observation session was of a boys' team, age 12. This team had four coaches all together, one of which was there specifically for the goalies. With this team

it was very obvious who the head coach was and who the assistant coaches were. The boys began their training with a warm up that was done independently. This warm up was one that they have been practicing and doing for the whole season. They should have learnt to do it correctly, and be able to understand why they were doing the movements. After the warm up the goalies went with their coach to do a separate training activity. The rest of the team were left to do reaction time drills and small scrimmage games. The head coach was actively participating in the drills, giving constant feedback, and explaining why each movement was done. Once they finished their separate training they came back together to do a shooting exercise, and cool down.

The final observation team was of a boys' team, age 11. This team had three coaches, however on this day the head coach was not present, meaning the training session was run by the two assistant coaches. The training began with an independent warm up that the boys had been doing all season. After the warm up the boys were split up into three groups in which they did drills. The coaches were running back and forth between the three groups, and at one point the other coach disappeared. One aspect of this team that stood out was the lack of authority that the coaches had, when comparing to the previously observed teams. For the most part, the athletes were fooling around and not listening to the coaches. Only once they were told that they were being observed did they briefly calm down. Once the drills were finished the coaches had nothing more planned for training, because of this the team played a friendly game against a younger team.

9.2 Planning of Seminar Day

Planning for the seminar day started from the observation of the three training sessions. From these sessions, the bases of what the theory and practical parts of the day were going to be about were decided. During the training sessions, there were several aspects of coaching that jumped out. These aspects were the use of voice, different styles of feedback, coaches' attitudes, favouritism of athletes, and coaches' confidence in knowing what they were doing. Out of these aspects, the most prominent one was all of the coaches' confidence. Coaches are role models for athletes and when they do not have the confidence in knowing what they are doing, they do not have authority over the athletes. Without that authority, the athletes reacted in one of two ways. One is standing around and waiting, and the other is fooling around and not focusing.

Another thing that was apparent during training sessions was the lack of participation of the assistant coaches which might have come from the lack of confidence previously mentioned. For example, the last observation day, it was very clear that the assistant coaches were not used to running practice and having control over the athletes. Assistant coaches in all of the training sessions were not aware of how to correct movement patterns. Use of voice was good in all training sessions. Most of the coaches understood how to get the attention of all of the athletes. However, when giving feedback it was very hard to give positive or corrective feedback. Coaches gave mostly negative feedback, especially those whose own child was on that team.

Athletes should always know why they are doing something in training. This knowledge allows them to understand why they must do the movement correctly and how not to injure themselves. During the observation days there were a wide variety of ways that coaches dealt with explaining why and how to do something. In one team the athletes kept asking questions about where they should feel a stretch, and what muscles were working during a movement. Another team's coach did the exercises with the athletes and explained why they were doing them. With the third team, there was no explanation and no one asking questions. This team had a few athletes who were doing movements correctly, and other athletes who either did not know how to do the movement or they were not interested in doing it.

From these observations, the outline for the theory was planned. There was evidence that an explanation on how children learn, how movement patterns develop, and how the brain works during the learning process were needed. Furthermore, discussion on how to give feedback, different ways of giving feedback, and how they can utilize an athlete's intrinsic feedback were required. The decision to discuss motivation, self-esteem, and individuality was made when consideration of what type of feedback the coaches would be giving. The choice to briefly discuss coaching was made from the observation and the fact that the coaches did not exude confidence. However, this section was kept quite small because they should already have some training in coaching.

Once the theory part was set, the practical portion of the seminar day was planned. The practical part was designed to focus on giving feedback, and incorporating the use of touch. Children are not always aware of where a certain muscle is or how it works. Incorporating touch with verbal feedback gives the child a broader understanding of how to correct a movement. Football coaches often have to give general feedback to the team, along with personalized feedback to athletes. For this reason, the practical portion was divided into three sections. These sections were: instructing and showing a movement to the group, giving general feedback for that movement, and personalized feedback using different extrinsic forms of feedback.

Setting of the date and time for the seminar day was determined on the availability of the gym at Satakunta University of Applied Sciences. The head of the junior football program at MuSa suggested having the seminar day on a Saturday morning, since they do not have training and coaches will not be at work. Based on all of these factors, two possible dates were considered, and of these two, December 3rd, 2016 was chosen.

9.3 Seminar day

The seminar day was held at Satakunta University of Applied Sciences in Pori, Finland on December 3rd, 2016. The seminar was for coaches and assistant coaches of the junior football teams at Musan Salama Football club. Altogether there were 7 participants.

The day began just after 09.00 with the theory portion, which lasted approximately an hour. Theory, as seen in Appendix 1, began with an introduction of the aims and purpose of the thesis project, followed by an overview of what was seen at the training sessions. From there a brief explanation about motor learning and the pathology of learning was explained. This topic evoked a conversation on how children learn, and why showing them the correct movement versus the wrong movement is important. A body awareness exercise was done to help the coaches understand how proprioceptors work in relaying information to the brain. After the body awareness exercise, a deeper explanation of motor learning and the different stages of learning were explained. These stages of learning were demonstrated by showing how a child learns to dribble a football as an example, and how coaches can utilize this knowledge to ensure optimal motor learning.

A very brief discussion on what coaching is was conducted, and the ever looming topic about parent/coach – child/athlete relationship was discussed. This relationship was one that many of the coaches eluded to having difficulty with, because many of them coach their own children. They discussed and expressed their own frustration, and what techniques they used to ensure that neither relationship was harmed. The next topic that was looked at was feedback. This was done by having an explanation about internal feedback, which helped with understanding motor learning and proprioception. Then, an explanation of external feedback and its subgroups was given. This again evoked conversation about how the coaches gave feedback, and what in their opinion worked and did not work. Lastly, an explanation on different types of personalities and how they interact with feedback was given. Unlike the other topics, this one did not evoke as much discussion. Once the theory part (Appendix 1) of the morning was done, a brief overview of the practical portion was conducted. From there a half an hour coffee break was held, where conversation continued.

The practical portion of the seminar day was held in the big gym on campus, and lasted approximately an hour and a half. Since there were seven participants, this part was done in a large circle, where each person had a mat to do the movements on. The practical part began with the instructing of a movement, explaining how to do it and where the movement should be felt. Each participant had to decide on a movement themselves, and the movement could be anything such as a stretch or strengthening exercise. This was difficult for some participants, as they wanted to begin giving feedback and corrections right away. Once everyone had instructed how to do a movement, the general feedback part began. Each participant, using the same movement, had to give generalized feedback, which entailed not pointing out an individual's mistakes, but by picking a common mistake to correct. This task again proved difficult, and many participants began giving personalized feedback.

After each participant gave generalized feedback, they were split into pairs. In these pairs, one partner had to do a movement while the other gave feedback. First they had to give strictly positive feedback, even if their partner was doing the movement incorrectly. Then they had to give strictly negative feedback, without incorporating prescriptive feedback. Giving negative feedback was much easier than giving positive. However, one participant said he tries to only give positive and corrective feedback to his players, and therefore trying to give negative feedback was difficult. Once positive and negative feedback were given, they practiced giving descriptive and prescriptive feedback.

Out of these two styles, prescriptive feedback was the easiest for them to give. However, many participants began giving feedback with a negative statement. Descriptive feedback was difficult, because many coaches wanted to give corrective instructions as well. For the prescriptive feedback, an element of touch was incorporated. It was explained to the coaches that children may not always realize what area of the body they are being asked to move or activate. By combining verbal feedback and haptic feedback, the athlete understands better what is being asked of them. They were instructed to use different types of touch, such as activating or calming touch, to achieve the desired outcome. Some of the coaches were hesitant to use touch while instructing, while others were able use it with ease.

After the practical portion of the seminar day was completed, each coach was given a feedback form they could fill anonymously. Prior to filling out the forms, they gave verbal feedback on the seminar day, expressing their gratitude and the usefulness of the contents discussed. The feedback form had three questions that were intended to determine if the content of the day was useful to them. The results from the feedback are assessed in the conclusion.

10 CONCLUSION

The aim and purpose of this thesis project was to provide junior football coaches with the tools and confidence to give feedback in a productive and effective manner through an informational seminar day. At the seminar day there was a theory portion, which covered motor learning, feedback, coaching, self-esteem, and motivation. The other part of the seminar day was conducted using practical exercises, where the coaches were given the opportunity to practice different ways of giving feedback. After the practical half of the seminar day, the coaches received a feedback questionnaire.

There were three questions in the questionnaire, which were:

- 1) Was the seminar useful?
- 2) Do you think you will integrate the information from the seminar with your coaching style?
- 3) Which part of the seminar day did you find most important?

From the feedback that was received, it was evident that those present found the topics and discussions eye-opening. As answers for the first two questions, each participant said that the information received on the seminar day was useful, and they will be integrating the things they learned with their own coaching style. Some of them even said that the topics discussed made them already begin to question their own coaching, and think of how they can improve. As for the last question, what was the most important part of the seminar day, one topic was dominant. All the coaches mentioned giving feedback as the most important thing they learned during the seminar day. Most of them expressed how beneficial the differentiation of different types of feedback was, whereas some felt that incorporating touch when giving feedback was the one thing that stood out. In addition to the anonymous written feedback, the participants gave verbal feedback throughout the day. They enjoyed how much discussion, and exchanging of ideas there was. Also, as the matter of the parent/coach-child/athlete is not often discussed, they appreciated the topic being brought up and getting a chance to talk about it with others in the same situation. They came to the conclusion together that this topic is one that they can discuss more and keep continuously improving on.

Even though there were only seven coaches present for the seminar day, from the feedback it is evident that both the aim and purpose of this thesis project were achieved.

In conclusion, it is apparent that much more research on how coaches can alter their feedback for desired effects is needed. There also needs to be some alteration in how coaches are educated in giving different feedback, and how athletes react to feedback based on their personalities. While researching for this thesis project it became apparent that more research and studies need to be conducted regarding the parent/coach-child/athlete relationship, and the effects it has on both parties. However, based on the aims and purpose of this thesis project, the junior football community here in Pori, Finland is aware of the adaptations and needed education of coaches to provide youth athletes with an optimal football experience.

11 DISCUSSION

In literature, a physiotherapist is defined as someone who helps individuals suffering from an injury or disability by means of exercise, manual therapy, guidance, and education (Website of Chartered Society of Physiotherapy 2017). When thinking of professional and/or elite sports, physiotherapist is often one of the team's professionals that comes to mind. Physiotherapists are there for athletes to assure quick recovery from injury, and prevent injury in the form of conditioning training. However, quite often junior teams do not have the luxury of having a physiotherapist as a part of their team, and the athletes end up relying on the coach for injury prevention tactics. For that reason, our thesis topic is one that we hope intrigues physiotherapists. We have tried to give the coaches a different view as to how they can give their athletes a positive and injury free sporting experience. By doing this we avoided the topic of injury prevention altogether, and focused on the basics of feedback and motor learning. If a coach has the confidence to give their athletes appropriate and accurate feedback, they are, in turn ensuring the athlete learns the correct movement patterns. By learning the correct movement patterns the athlete is avoiding situations that may cause an injury.

To guarantee that we gave the coaches the tools to prevent injuries, we needed to ensure that we understood the different areas of coaching. This entailed understanding the levels of coaching education in Finland, the psychological effect coaches can have on their athletes, and how coaches' confidence plays a role in the authority they have. From this research, we found that coaches play a large role when it comes to external factors that affect an athlete, along with having an effect on the athlete's internal motivation. The way a coach approaches or deals with a situation can make or break an athlete's desire to do well in the sport. However, this does not mean the athlete will quit, but in turn can result in faulty decision making that could lead to injury. From here we understood that ways of giving feedback and basic knowledge of motor learning would not be enough, and we decided to include self-esteem and motivation of the athlete in the research and seminar day.

When it came to researching the topics, we should have focused more on the physiotherapeutic point of view. However, we made this difficult for ourselves, because in

the beginning we mainly focused on the football aspects. This was because we wanted the research to link directly to the coaching environment, rather than a clinical setting. The topics that could have been explored from different points of view were: motivation, self-esteem, and certain areas of feedback. However, because we had the coaching environment in mind, we failed to consider the other aspects when researching these topics. Extrinsic feedback, motor learning, and the pathology behind learning were topics that we learned in school. For this reason researching these topics from the physiotherapeutic view was straightforward. As physiotherapy students, we decided that introducing the use of touch in extrinsic feedback to the coaches was one tool that we had the ability to teach them. In physiotherapy, the therapeutic touch is very important when giving clients instructions on exercises. Touch helps individuals find the correct muscles, and the correct way to activate or relax those muscles.

An optimal topic for future research could be the use of therapeutic touch in a sports setting. As we discovered, the coaches felt that touch was an important aspect in giving feedback. When giving instructions or feedback to an individual, especially a child who does not fully understand the body's anatomy, touch is very helpful in activating the correct muscles. However, there is not enough evidence on how coaches can effectively utilize touch in their coaching. Other topics that could be researched further with a physiotherapeutic perspective are motivation and self-esteem. Even though both these topics are well researched in sports psychology, sports physiotherapists need to keep these topics in mind with injury prevention. Another topic that could be researched more is the parent/coach-child/athlete relationship. We found that there are quite a large number of studies done on the coach-athlete relationship, even though many youth teams have a coach that is a parent of one or more of the athletes. From what we discussed with the coaches at the seminar day, it seems these parent/coach-child/athlete relationships are often under a large amount of stress.

After this thesis was concluded, we came to the realization that the project could have been carried out further with follow-up observations. Having had a chance to discuss with the coaches, we gained a clearer insight into the coaching process, and the connection it has with physiotherapy. Follow-up observations would have been beneficial for both us and the coaches, to see how they integrated what they learned at the seminar day into their coaching. We would have also gained a broader understanding to what

aspects from the seminar day worked and what did not. Furthermore, the coaches expressed interest in wanting continuous education when it comes to feedback and injury prevention. Having the coaches interested in learning more, and with an understanding of which aspects they need training on, more seminar days could have been held. With this, we believe that future physiotherapy students can continue working with MuSa, in educating the coaches on feedback, motor learning, and injury prevention.

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SEMINAR DAY FOR JUNIOR
FOOTBALL COACHES
– BASICS OF FEEDBACK &
MOTOR LEARNING

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Satakunnan Ammattikorkeakoulu



AIKATAULU

- 9.00 - 10.30 Teoriaosuus
- 10.30 - 11.15 Lounas
- 11.15 - 13.30 Käytännön harjoittelu
- 13.30 - 14.00 Kysymykset ja Palaute

TAVOITE JA TARKOITUS

- Opinnäytetyön tavoite on antaa nuorten jalkapallovalmentajille välineet, sekä kasvattaa itseluottamusta, tuottavan ja tehokkaan palautteen antamiseen.
- Opinnäytetyön tarkoitus on pitää Musan Salaman valmentajille seminaaripäivä, jossa he oppivat ohjaamaan, sekä antamaan motivoivaa palautetta.

YLEISIÄ HAVAINTOJA

Kolmen harjoituksen perusteella

- Hyvä äänenkäyttö
- Oman lapsen huomioiminen
- Apuvalmentajien osallistuminen
- Palautteen tyyli (rankentava ja negatiivinen)

MOTORINEN OPPIMINEN

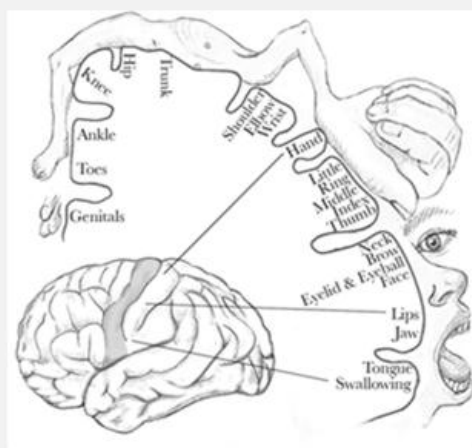
- Miten selitetään oppiminen – oppimisessa tapahtuu pysyvää muutosta yksilön kyvyssä suorittaa liikkeettä tai taitoa
- Oppiminen on jaettu kolmeen vaiheeseen: kognitiivinen, assosiativinen, ja autonominen
- On monta asiaa mitkä voivat rajoittaa pelaajan motivaatiota ja keskittymiskykyä. Tämä tarkoittaa että oppiminen ei aina mene halutusti perille
 - Esimerkiksi väsymys, kotona tapahtuvat asiat, ylläritus

Huber 2013, 186-191; Ives 2009, 96-98;
Schmidt & Wrisberg 2008, 4

OPPIMISEN PATOLOGIA

- Jokaisella on kuva omasta kehosta aivoissa (Homunculus)
- Homunculus kasvaa nuoruudessa kun opimme uusia liikkeitä
- Tämä tarkoittaa että meidän kehonkuvamme ja kehonhahmotus muuttuvat kasvaessa
- Kehonkuva sekä kehonhahmotus muuttuu vuosien mukana vammojen ja liikunnan myötä. Niitä pystyy muuttamaan ja kasvattamaan koko elämän ajan.

Hillier, Imink & Thewlis 2015, 933-934; Website of SDP Australia 2016



Kehonkuva

- Miten aivot tietä mikä osa kehosta on mikä
- Joka kerta kun lapsi tekee jotakin uutta heidän aivot ottaa sen muistin ja tallentaa mikä osa kehosta teki sen ja missä se on

Kehonhahmotus

- Hermot (proprioseptorit) ihossa, lihaksissa, jänteissä, ja nivelissä kertovat aivoille mitä tapahtuu kehossa.
 - Esim. Missä paino on, mikä on jäykkä, onko polvet koukussa tai ylijoennuksessa.

Hillier, Imink & Thewlis 2015, 933-934; Website of EBM Consult 2016; Website of SDP Australia 2016

KOGNITIIVINEN VAIHE

- Ensimmäinen oppimisen vaihe
- Oppimisen kognitiivinen vaihe tarkoittaa uuden taidon ymmärtämistä
- Tässä vaiheessa opitaan MITEN ja MITÄ tehdään
- Oppiminen tapahtuu virheiden kautta
- Palaute ja opastus on TÄRKEITÄ tässä oppimisen vaiheessa

Huber 2013, 186-191; Ives 2009, 96-98

ASSOSIATIIVINEN VAIHE

- Toinen oppimisen vaihe
- Yhdistetään pieniä osia liikkeestä muodostaakseen kokonaisuuden
- Vähemmän virheitä, joita pelaaja osaa itse korjata jälkeinpäin
- Taidon viimeistely ja viilaaminen vaatii tässä uudelleenkäyntiä tähän vaiheeseen

Huber 2013, 186-191; Ives 2009, 96-98

AUTONOMINEN VAIHE

- Kolmas oppimisen vaihe
- Pelaaja osaa itse korjata virheitä liikesuorituksen aikana
- Pelaaja saavuttaa "flow" -tilan, jossa suoritus tapahtuu automaattisesti
- Pelaaja pystyy analysoimaan ympäristöä ilman että liikesuoritus häiriintyy
- Tähän vaiheeseen pääsy voi kestää vuosia

Huber 2013, 186-191; Ives 2009, 96-98

VALMENNUS

- Koko joukkueen selkäranka
- Auttaa urheilijoita kehittymään täyteen potentiaaliinsa
- Monia rooleja; ohjaaja, tuki, motivaattori, jne...
- Valmentajien käytös vaikuttaa pelaajien motivaatioon ja tyytyväisyyteen

Radelet, Lephart, Rubinstein & Myers 2002, 2

VALMENTAJIEN ROOLIT

- Päävalmentajan täytyy:
 - Tietää miksi harjoitteita tehdään
 - Osata selittää pelaajille miksi niitä tehdään
- Apuvalmentajat
 - Aktiivisuus!
 - Virheellisten suoritusten korjaaminen
 - Palautteen antaminen
- Valmentajana pelaajan vanhempi

Radelet, Lephart, Rubinstein & Myers 2002, 2;
Weiss & Fretwell 2013

PALAUTE

- Sisäinen palaute – pelaajan oma käsitys suorituksesta. Palaute kulkeutuu aivoihin, jonka kautta pelaaja pystyy itse korjaamaan ja kehittämään suoritusta. Aivot saavat palautetta visuaalisesti, sekä asento- ja liikeaistin avulla (kinesteettinen aisti)
- Ulkoinen palaute – valmentaja antaa palautetta suorituksesta.
 - Positiivinen palaute
 - Negatiivinen palaute
 - Kuvaileva/Kertova palaute
 - Ohjaileva palaute
- Itseanalysointi - sisäisen ja ulkoisen palautteen perusteella

Ilies, Pater & Judge 2007, 592-595

ULKOINEN PALAUTE

- Positiivinen palaute – korostaa että pelaaja teki oikein
 - Esim. Askellkyykky "Hyvää suoritus"
- Negatiivinen palaute – korostaa että pelaaja teki väärin
 - Esim. Askellkyykky "Sinä teit sen väärin"
- Kuvaileva/Kertova palaute – kerro mitä näit. Parasta käyttää edistyneiden pelaajien kanssa
 - Esim. Askellkyykky "Sinun polvi kiersi sisään"
- Ohjaileva palaute – kerro mitä mielestäsi pelaaja voi parantaa näkemäsi perusteella
 - Esim. Askellkyykky "Sinun polvi meni sisään, yritä pitää polvi varpaitten päälle"

Taylor & Wilson 2005, 25-27; Edwards
2010, 460-461

ITSETUNTO

- Jokainen yksilö ottaa palautteen vastaan eri tavalla

	Korkea itsetunto	Matala itsetunto
Positiivinen palaute	Ei reagoi, koska tietää oman arvonsa	Antaa varmuutta että on menossa oikeaan suuntaan
Rakentava palaute		
Negatiivinen palaute	Ei välitä TAI rohkaistuu kehittymään	Tuntee itsensä riittämättömäksi ja motivaatio hiipuu

- Esimerkki harjoituksista

Bowker 2006, 214-218; Iles, Pater & Judge 2007, 592-595

KÄYTÄNNÖN OSUUS

- Ryhmälle liikkeen ohjaus: saa päättää minkä liikkeen ohjaat ja pitää selittää miksi sitä tehdään ja missä sen pitäisi tuntua (e.g. askelkyky – pakarat ja etureisilihakset, tasapaino)
 - NÄYTÄ, OHJAA ja SELITÄ
 - Harjoittelu ryhmässä (noin 5 hlö tai ryhmä puoliksi)
- Ryhmälle yleispalaute: kun on jotain korjattavaa mikä pätee moneen pelaajaan
 - Harjoittelu ryhmässä (noin 5hlö tai ryhmä puoliksi)
- Miten korjata virheellinen asento (tai suoritus): punnerrus
 - Negatiivinen, positiivinen
 - Kuvalleiva, ohjalleiva
 - Kosketus, sekä suullinen ohjaus
 - Harjoittelu parin kanssa

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