

Mental training guide for the ice hockey goalies

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<p>This product based Bachelor's thesis is a guide called Mental training guide for ice hockey goalies. The guide was made primarily for Finnish ice hockey goalies and goalie coaches. The goal is to give them a guide that they could use as a part of every day coaching.</p> <p>The guide was made because there is big need for mental practices in a goalies game. Coaching in ice hockey focuses mainly only on physical skills and that's why there is a need for the mental practices in a field of hockey. The guide gives goalie coaches and goalies different techniques to improve their mental skills and knowledge about the mental side of the game.</p> <p>The goal of the guide is to give goalies and goalie coaches essential information about the mental skills that goalies need to perform well in games. The guide also gives practices for everyday use to help goalies to improve their certain mental skills.</p> <p>The guide consists of twelve different mental qualities. Those qualities are personality, self-esteem, goal setting, self –confidence, imaginary, emotions, stress and anxiety, game preparation, game plan, feedback, flow and motivation. Those mental qualities are selected to this guide based on my own experiences and discussions with different goalies and goalie coaches.</p> <p>The guide also includes a follow up tool that helps goalie coaches and goalies to find out their mental skills problem areas and also gives them a way to see how they improve with the skills.</p> <p>The guide was written in Finnish to be as easy to read and understand as possible because it is mainly made for Finnish goalie coaches and goalies.</p> <p>The guide is easy to read and also athletes and coaches from other sports could easily use this information in their own sports.</p>	
<p>Keywords Mental coaching guide, Ice Hockey Goalie, Mental skills</p>	

Table of contents

1 Introduction	2
1.1 Why I choose to make this guide.....	3
1.2 Benefit for this guide.....	5
2 Psychological demands of the ice hockey goalie	6
2.1 Mental project for the ice hockey goalies	8
2.2 Personality	9
2.3 Self esteem	12
2.4. Goal setting	13
2.5 Self confidence.....	15
2.6 Concentration.....	18
2.7 Imaginary	19
2.8 Controlling the emotions	21
2.9 Stress and anxiety	23
2.10 Preparing.....	25
2.11 Game plan	26
2.12 Feedback.....	28
2.13 Flow.....	29
2.14 Motivation	31
3 Follow up tool	34
3.1 Idea of the follow up tool	34
3.2. Benefits of the follow up tool.....	35
3.3. How to use the mental follow up tool.....	35
3.4. Problems of the follow up tool.....	35
4 Empirical part	37
4.1. Project planning.....	37
4.2. Project Implementation.....	38
4.3. Project outcome.....	39
5 Summary & Discussion.....	40
Bibliography	43
Attachments	46

Attachment 1: Follow up tool for the ice hockey goalies 46

1 Introduction

” The Biggest enemy for the goalie is himself, no one else. Stress and anxious, fear of mistakes and loosing. Elite goalie know her fears and handle those.”

Ken Dryen, Ex –NHL goalie

Ice hockey goalie is an individual athlete in a team. Goalie is the only individual in the team who can win a game alone for the team or otherwise lose the game. That is why goalies mental skills have to be in a high level and the goalie needs to be able to handle many different mental issues during a game. It’s also been said that the biggest enemy for the goalie is himself.

Goaltending in ice hockey may be one of the most demanding positions to play given the high level of pressure and stress (Miller, 2001 in Gelinias & Munroe Chanler 2006, 64). For example former professional goalie Ken Dryden, said that if the goalie had even one bad or wrong thought during the game, the game could be lost or score might be scored. In order for goaltenders to maintain control and perform optimally, they must use a combination of organized mental skills. When mental skills are utilized effectively, goaltenders consistently appear to be in the right position at the right time. According to Goldberg (1998, Gelinias & Munroe Chanler 2006, 64), achieving ultimate sport performance is having the mind and body work together in perfect harmony. According to Daccord (1998 in Gelinias & Munroe - Chanler 2006, 69), professional goaltenders claimed that their mental skills contributed the most to their ability to stop the puck.

The position of the goaltender is psychologically demanding (Miller, 2001, Gelinias & Munroe Chanler 2006, 64). Strong mental skills will help goaltenders be consistent in their play and ultimately lead to optimal performance. Many professional coaches and athletes have said that the ability to reach optimal sport performance is 90 % mental (Porter, 2003 Gelinias & Munroe Chanler 2006, 64). That’s why we should try to practice much more our mental skills because nowadays those skills are probably not practiced. Ice hockey goalies need to have their own specialized training program for their mental skills on the side of their physical training.

Like we are different persons as humans we are also different kind of person in the field of sport. We have to notice that when we start building a mental training guide, we cannot use the same program and methods for everyone because we are different kind of persons and we act differently in different kind of situations. That's why it's important that during the first step of the mental training guide we survey the individual needs that the athlete has. There might be some skills that the individual athlete needs to practice a lot or then there could be some skills that won't need progressing at all. Overall, to survive – and thrive – in that high-pressure environment that the goalie needs to face, a goalie, more than any other player needs to master the mental game.

My idea was to make a guide for ice hockey goalies and coaches to help them to realize the need of the mental skills and qualities that ice hockey goalie needs to have and handle. I also wanted to make a guide, which is easy to use and understand. In the guide there is also a three to five specific practice that goalies could use to improve a certain skill or quality. So in this bachelor thesis the guide is a specific mental training guide for ice hockey goalies. The guide also includes an ice hockey goalie follow up tool, which helps goalies and coaches to understand the goalies weaknesses of the mental skills and qualities. Follow up tool also shows improvements of the goalie while using a mental training guide.

1.1 Why I choose to make this guide

In today's ice hockey goalies performance acts as a big part of the result of a hockey game. In order to make good results and perform their best, goalies need to handle both physical and mental skills, so that they are able to play as well as they can.

My goal for this guide is to give ideas and different practices for ice hockey goalies for their everyday use, so that they can start to learn the techniques for how to develop their mental side of the game. I also want to give them a kind of a "kick start" for mental practicing, because that area is not that well covered in Finland nowadays. I wanted also to add to this guide a follow up tool that helps goalies and coaches to recognize their problem spots about their mental game and also give them a tool for everyday use to be able to follow their own improvement. That motivates them and helps them to

take more out of this program. I also wanted to be so clear that every goalie and coach could understand all the facts and practices of it and add those right away in their game. Many times goalies and goalie coaches talk about the right techniques to make some saves and moves etc. We easily forget that the physical things are not the only skills that a goalie needs to manage if he or she wants to perform well. It's kind of funny that goalies practice for example more than 20 hours per week just physical skills and forget totally that their mental skills need to be improved as well. That's even funnier when you think that many professional coaches say that more than 80 % of the goalies game in ice hockey is mental.

I myself played as a professional goalie for almost 6 years so I also needed to face many different kind of situations where I needed to perform under different mental aspects, for example under big pressures. I was also playing abroad in Czech Republic for one season, so I had time to think quite a lot of ways to improve and successfully play in high level night after night. That time was very successful and helped me a lot as a goalie and a person. When I quit my own playing career and started studying in Vierumäki sport institute in Finland I realized quite soon that sport physiology is a very interesting subject and there are quite many things that we as a coaches or goalies could do to improve the game. That's why I think that it would be very interesting and beneficial to build up a guide for the goalies that helps them to find their best way to improve their own mental skills in their game. If I would have had this kind of information and skills to use during my own career, I would have been very happy and for sure have performed better than without this knowledge.

In ice hockey a goalie needs to master many different mental skills to perform on high level. I have also noticed that there is not just one way to practice mental skills, so I wanted to give every goalie different kind of skills to choose for his/her own way to practice these skills. Starting point of this whole project is to give goalies an idea to start to think about their mental skills and qualities. After that they could start to think which ways help them to achieve their best level of performing.

1.2 Benefit for this guide

This mental guide for the goalies provides help and different skills for everyday use for the goalies and coaches. The guide helps goalies to improve their mental skills of the game and gives them 2 to 9 different practices to use to improve a certain kind of skill. It is always the goalies own choice to use the practice that serves best for him or her. It's also very beneficial for a goalie to learn the things that help him or her to perform better in their action and to learn to know yourself better than before. That self-knowledge gives them many ways to learn to control their emotions and thoughts during the action. It's not only beneficial for the field of sports because knowing yourself as a human gives you a lot for your personal life also. It's been proven that every junior athlete is not going to have a professional contract for the field of sports. Research proves that for example from age of 15 to 20 there are only 24 % of players still playing hockey in age of 20 years old (Grönman, 27 Oct 2012). That's why it's important to see the bigger picture and improve persons in their future, life outside hockey, also.

Mental follow up tool gives goalies and coaches a way to find out their own improvement and skills that need the most improvement. It is also a useful way to get goalies more motivated for this program because they can see how they perform and improve. The tool is also very useful for the motivation of the goalies. Using the tool you could easily make sure that the goalie stays motivated and interested about this mental project all the time because the tool gives all the time the specific information about his or her actions and improvements.

2 Psychological demands of the ice hockey goalie

In ice hockey goalie needs to have and handle many different kinds of mental skills. Maybe the most important skills are concentration, arousal regulation and knowledge about how to prepare as effective as possible for the upcoming games. (Mind the net goaltending, 2012).

When Ice Hockey goalie plays the full Ice Hockey game there are many different mental skills and challenges that the goalie needs to face. Ice hockey goalie is a totally different role in the field of sports than almost any other role could be. Goalie needs to be focused all the time even the action and saves inside the game took only just a little part of the whole game time. That's why goalie needs to be able to focus and concentrate all the time and be aware of several things and happenings at the same time. That means that goalies need to have high level of mental skills to be able to perform his or her best. During the game goalie also needs to focus in action, not past or future. For example after a great save or a bad mistake the game needs to continue right away. If the goalie starts think about the past actions it might affect badly for his or her actions. Being ready to play on a high level in every game those mental skills need to be improved. (Mind the net goaltending, 2012.)

If we want to improve our mental skills the first step is to know ourselves well. We need to know how we see things and how we act in different kind of situations. Athlete, in this case a goalie, needs to know and be aware of him or herself so that the athlete knows his or her strengths and weaknesses. Improvement of these mental skills starts from practicing. It is not possible just to focus and try to turn these things on during the game. All the actions and practices need to be done during practices also. If the goalie is able to set up a game like situation in his or her practices and perform also under pressure in the practices, he or she is able to improve and turn those skills on also during the game. (Mind the net goaltending, 2012.)

Game itself is a long and very demanding action for the ice hockey goalie. Everything starts from the practices like it was said before. Preparing for the game needs to be successfully and carefully done. There are again different styles of right kind of concen-

tration techniques between different kinds of humans but after all it needs to be done somehow, because otherwise the goalie is not mentally ready to perform his or her best when the game starts.

Concentration is one of the biggest areas of mental skills in goaltenders game. Concentration is the ability to maintain focus on relevant environmental cues. When the environment changes rapidly, attention focus must also change rapidly (Mind the net goaltending, 2012). Thinking of the past or the future raises irrelevant cues that often lead to performing errors. Athletes need to focus only on relevant cues in the athletic environment and they have to eliminate distraction. Athletes describe the feeling they have during the full concentration usually with three different qualities. They stay in the present and have no thoughts about the past or future. They are mentally relaxed and have a high degree of concentration and control. They also feel that they are in a state of extraordinary awareness of both their own bodies and the external environment. (Weinberg & Gold, 2011,364.)

Nidffer and Segal, (2001, in Weinberg & Gloud, 2011, 371) view attention focus with two dimensions: Width (broad or narrow) and direction (external or internal). It is believed that effective concentration is a vital prerequisite of athletes achieving optimal performance (Moran, 2004). Wilson, Schmid and Peper (2006 in Gelinias & Munroe Chanler 2006, 65) defined concentration as the ability to focus on relevant tasks and cue while ignoring distractions, and considered concentration to be an important component of attention. Porter (2003 in Gelinias & Munroe Chanler 2006, 65) suggested that an individual's concentration skills are dependent on the individual's motivation to maintain them.

Concentration exercises can be used to help to develop a goaltender's ability to maintain focus during a game, practice, and stops in action, thus improving overall performance. One exercise a goaltender can do is what Park (1985) identified as Eye Control. Here, goaltenders are instructed to give their full attention to the puck, trying to pick up the spin, attempting to see the label, or focusing on the edge of the puck. In other words, during practice or a game, the goaltender plays only one shot at a time, focusing

on some aspect of the puck, which is smaller than the puck itself. (Park 1985 in Selk, Gelinas & Munroe Chanler 2006, 65.)

2.1 Mental project for the ice hockey goalies

There is no one right way to create this kind of guide. We have to remember that like outside the sport we are different kind of persons, we are also different kind of athletes. That means that we have to build to athletes their own kind of mental training practices that works for them. We have to find out what are the needs for the specific athlete and also notice that there might be some areas that don't need to be fixed at all.

One major thing that also affects the mental training plan is the age of the certain athlete. Some kid, who wants to become a professional athlete someday, might need help to just understand the mental needs that an athlete needs to have if they want to be on the top level someday. On the other hand some youngster might have problems with his or her self-image and that's why he or she couldn't get the best out of their performance. Or some athlete might need help to build up their goal-setting plan to make their targets more clear and effective. Some professional athletes might have problems in preparing for the games or competitions or they might need help to control their emotions. Here are just a few examples about different kinds of needs that athletes could have and there could be thousands of more, so practicing the mental side of the game is not the easiest case.

The main thing is if there is something that you could really do to make your mental skills better and improve your performance. It is not rocket science; it just needs time and an open-minded attitude.

There are also a couple of steps that everyone should take care before going to the further stages of the guide. The first step is self-image. Everyone should know him or herself and use some time to find out their own values because those effect on almost every aspect of life. Knowing yourself also helps you to notice your strengths and weaknesses and make you understand more effectively things that cause stress for you and skills that you need to improve.

An athlete could divide a year or a season into four phases (Selk, 2009,178):

1. **POSTSEASON**, this phase begins immediately after the last competitive season. This phase lasts approximately 2 months. In this phase it is important for the athlete to get away from the sport, both mentally and physically. Athlete should leave mental work out as low as possible. This is time to get rest for both body and mind.
2. **GENERALIZED PREPATORY**, in this phase athletes should start their mental training workouts. This is a good time to complete target setting for the upcoming season and to start season specific mental workouts.
3. **SPECIALIZED PREPERATION**; in this phase it would be ideal to go through mental workouts 3 to 5 times per week as a part of every practice.
4. **COMPETITIVE IN-SEASON**, in this phase the athlete should do mental workouts daily before and after practices. Athletes should also make notes and fill out for example so called success log to be aware his or her actions all the time.

2.2 Personality

Personality is one of the most important things that effect on how we response on different kind of things in life, also in sports. Personality is the sum of the characters' that make a person unique. The study of personality helps us to work better with athletes and different persons. (Weinberg & Gould, 2011, 28.)

One of the best ways to understand personality is through its structure. Think of personality as divided into three separate but related levels (figure 1): psychological core, typical responses and role-related behaviour (Hollander, 1967; Martens 1975 in Weinberg & Gould 2011, 28.)

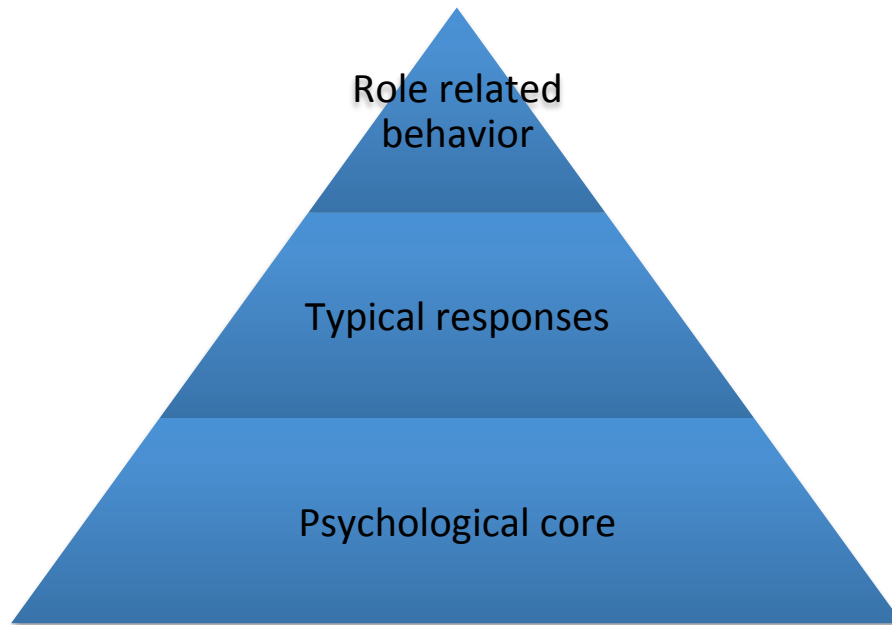


Figure 1: A schematic view of personality (Martensen R., 1975, in Weinberg & Gould, 2012, 28.)

The most basic level of personality is called the psychological core. The deepest components include your attitudes, values, interests and motives, beliefs about yourself and your self-worth. Typical responses are the ways we each learn to adjust to the environment or how we usually respond to the world around us. Role related behaviour means that how you act based on what you perceive in your social situations. This is the most changeable aspect of your personality. For example you might need to be in different situations during the day, you might be a student in a university, an employee, a coach or a friend. In each of those situations you might act differently, for example you might exert more leadership as a coach than as an employee. It is also very important that athletes have mental toughness and he or she is able to learn to love competition. (Weinberg & Gould, 2011, 28.)

Here is a 7 C's list for the qualities that great athlete will have (Miller, 2001,37):

COMPETITIVE

CONFIDENT

CONTROL EMOTIONS

COMMITTED

COMPOSURE (Keep yourself cool when heat is on...)

COURAGE

CONSISTENCY

We can also split athletes in two categories: pessimist and optimist persons. While optimists see things positive and always find out the positive aspects, at the same time a pessimist person is looking for the bad things and negative aspects. That makes a difference between two of equally talented athletes and normally gives much more chances to success for the optimist athlete (Arvaja, Oct., 2010). Good example could be a penalty shot competition, a goalie could think it in two ways: “I never win penalty shot competitions” or “I love penalty shot competitions, those bring the best out of me”.

There is also a system called ASP –test (Athletic success profile). Several teams in NHL use the ASP- test. There are 11 different traits to take care of. Here is a list of those and a definition of each of those: (Miller, 2001, 88-89).

1. **DRIVE**, is the desire or need to win, to achieve and to be successful in athletics. An athlete with drive desires to attain athletic excellence and responds positively to competitive situations. This kind of athlete also sets high goals in athletics.
2. **DETERMINATION** is the willingness to put forth the physical effort necessary to be successful. This kind of athlete has good working habits and he or she works independently.
3. **LEADERSHIP**, especially for the goalies this quality is important because sometimes is important to step up and be a leader on the ice. This kind of athlete enjoys responsibilities.
4. **EMOTIONAL CONTROL**, athlete with strong emotional control can face the stress in a calm way. This kind of athlete is not frustrated by bad mistakes, bad calls or breaks.
5. **COACHABILITY** means trust and respect for the coach. This kind of athlete is open for coach’s advices and learns from those.
6. **TRUST**, this kind of athlete trusts the coach and his or her team -mates and gets along with his or her teammates and coach.
7. **AGGRESSIVENESS**, this kind of athlete is ready to put everything on the ice to achieve victory. He or she thinks that taking the offensive is crucial for winning.

8. RESPONSIBILITY is acceptance of responsibility for the consequences of one's actions, including mistakes.
9. SELF-CONFIDENCE is belief that he or she has the ability needed to be successful in sports.
10. MENTAL TOUGHNESS means the ability to accept the strong criticism and setbacks without competing less effectively.
11. CONSCIENTIOUSNESS is the willingness to do things according to the rules. A conscientious athlete will not attempt to bend the rules to suit personal needs.

2.3 Self esteem

Self-esteem is used to describe a person's overall sense of self-worth or personal value. Self-esteem is often seen as a personality trait, which means that it tends to be stable and enduring. People with high self-esteem are usually more successful in life than those with low self-esteem (Heino 2000, 47-49). The concept of self-confidence often arises in sport. It does not matter how talented an athlete is physically and technically, if he or she lacks self-confidence. If the athlete does not trust in his own abilities he or she may not succeed in his or her sport. (Marsh, 27 Aug 2010).

People with strong self-esteem feel that they are valuable and appreciate themselves (Rosenberg 1979, 54). Self-esteem can involve a variety of beliefs about the self, such as the appraisal of one's own appearance, beliefs, emotions and behaviors. In sports it is very important to have a right kind of control of own life and actions. With that skill athletes are able to control his or her own actions better and for example mistakes are easier to handle. (Marsh, 27 Aug 2010.)

Self-esteem is strongly associated with self-assessment (Aho & Laine, 1997, 20-23). According to Keltikangas-Järvinen (1994, 47) self-esteem can be assessed according to how much a person can see positive qualities in themselves. The more positive qualities a person can see the better the self-esteem. People that have a strong self-esteem usually have a realistic, slightly optimistic self- perception (Aho & Laine, 1997, 22-23.)

If athletes want to improve his or her self-esteem he or she needs to have realistic mindset and knowledge of his or her strengths and weaknesses (Marsh 27 Aug, 2010.)

Athletes, especially younger ones easily connect their sport performances on which kind of persons they are and that makes their life and sport performances way more difficult and stressful. So in each situation it is very crucial to have a holistic life management to be able to perform on the best possible level. One of the biggest fears for the athletes is fear of mistakes and failures, bad feeling and embarrassment about own actions and fear of that some important persons stop caring about the athlete (Conroy, 2001 in Liukkonen, Jaakkola & Kataja, 2006,99.)

2.4. Goal setting

According to Locke's definition goal is the objective of activity, a thing that an individual tries to reach (Weinberg & Gould 2011, 343). Having goals is one of the most important things for the athlete. Over 90 percent of 500 studies show that goal setting improves performance. (Weinberg & Gould, 2011,349.) Goal setting is an extremely powerful technique for enhancing performance. It gives helps athletes to focus on their everyday actions. Right kind of goals also helps the athlete to measure and follow up his or her own actions. There are different kinds of goals. Short term goals are goals for a short period e.g. the athlete wants to win 6 out of 8 upcoming games or save % of the goalie should be over 0.92% in upcoming 5 games. (Weinberg and Cloud, 2011, 351). Burton (1992 in Weinberg & Gould 2011, 345) suggested that goals indirectly affect performance through their impact on anxiety and self-confidence.

You can split goals to objective and subjective targets. Objective targets focus on "attaining a specific standard of proficiency on a task, usually within a specified time" (Locke & Larham, 2002, 705). For example you could lose a specified amount of weight during the next 3 months. Subjective goals are not that specific or measurable. Those could be for example "I want to do well" or "I want to have fun".

There are also three different kinds of goals. Outcome goals normally focus on a result of an event, for example scoring more goals than the opponent or winning the race. The challenge of this kind of goals is that you could play the game of your life but still lose the game and thus you would fail your goal of winning the match. For all outcome goals the athlete sets he/she is supposed to set also several performance and process goals that will lead to that outcome. Performance goals focus more on achiev-

ing standards or performance independently. For example you could set a goal to improve you save percentage from 90 % to 92% or to drop your GAA for 2,00 to 1,75. Process goals focus more on improving a technique, for example a goalie wants to fix his or her basic stand better or placing his/her hand in a better place. (Weinberg & Gould, 2011,35.) One very usefully and good way to make goals is use so called smart-goals principles. That system tell athlete which things goals should have to make them be effective and usefully.

SMARTS - GOALS (Smith, 1994 in Weinberg & Gould 2011, 355.)

S PECIFIC, Goals should indicate precisely what is to be done.

M EASURABLE, Goals should be measurable.

A CTION ORIENTED, Goals should indicate something that needs to be done.

R EALISTIC, Goals should be achievable.

T IMELY, Goals should be achievable in a reasonable time.

S ELF- DETERMINED, Goals should be set by the athlete

Setting goals is not that easy and you have to know some principles to set the right kind of goal. Specific goals, compared with general “do your best “goals are the most effective for producing behavioural change (Weinberg and Cloud, 2011 348.)

Here is a list of some important things about setting goals: (Weinberg & Gould, 2011,349.)

1. Set Specific goals
2. Set moderately difficult but realistic goals
3. Set long – and short-term goals
4. Set performance and process, as well as outcome goals.
5. Se practice and competition goals
6. Record goals
7. Develop goal achievement strategies
8. Consider the individual personality and motivation
9. Make sure that individual has commitment for the goals
10. Provide goal support
11. Provide evaluation of and feedback about goals.

2.5 Self confidence

Self-confidence could be described as psychological strength, optimism, and a feeling that the athlete could have done something (Zinsser, Bunker & Williams 2008, in Matikka & Roos-Salmi 2012, 151). Main thing is that the athlete believes that he or she could perform well in a certain situation (Weinberg & Gould 2008, 323). So in another way self-confidence can be described as believing in your own skills and also a feeling of trust to your own actions (Liukkonen, Jakkola & Kataja 2006, 99). Athletes could improve their own self-confidence and this is also beneficial (Hassmen, Kenttä & Gustafsson 2009 in Matikka & Roos-Salmi, 2012, 151). As an athlete it is very crucial to have a good self-knowledge about your own actions because that helps athletes to recover faster and better from slumps and mistakes. Good self-confidence effects positively to the athlete's performance, motivation and performance overall. Anxiousness is getting lower when athletes have a good self-confidence before and inside the competitions. When the level of self-confidence is optimal the performance is at its best. Optimal self-confidence means that an athlete is so convinced to reach his or her goal that he or she strives hard to do so. Optimal level of self-confidence does not guarantee good performance, but it is essential to reaching full potential. A strong belief in own abilities also helps dealing with mistakes and errors. (Weinberg & Gould 2007, 325-327.)

According to Vealey & Knight (in Weinberg & Gould 2007, 323-324.) self-confidence can be multidimensional and consist of several aspects. Aspects include confidence in own abilities to perform tasks requiring physical skills, confidence in own abilities to use psychological skills, confidence to use perceptual skills (decision making, adaptability), confidence in own level of physical fitness and training status, and confidence in own ability to learn and to develop skills

Self-confidence is essential if the athlete wants to perform on a high level. An athlete who has a good self-confidence thinks that he or she has got the permission to win. Good example for that is a story from British Roger Bannister who ran 1 mile under 4 minutes, which was almost an unbeatable time for runners in those days. During next two years more than fifty runners ran under 4 minutes, why? Because runners started to believe that it is possible to run under 4 minutes. Athletes with low self- confidence

focus on their weaknesses rather than on their strengths. (Weinberg & Gould 2011, 321.)

Athletes mind during performance works so that first comes believe, then behaviour and finally performance (figure 2.) People think that sometimes belief and idea affect straight to performance but that is not true. That's why we should again remember that we could effect on how we act in different kind of situations. (Marsh, Aug 27, 2010.)

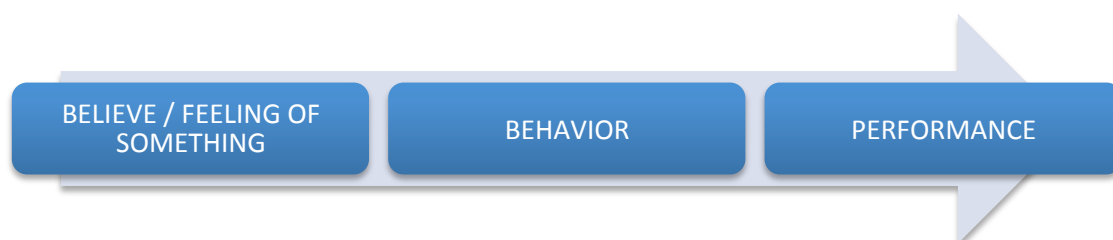


Figure 2. How thoughts and feelings affect on our performance (Marsh Aug 27, 2010).

Good self-confidence also helps the athlete to know what to do in hard situations when the athlete might sometimes think that he or she doesn't know what to do. Experiences tell also the athlete what to do and confidence allows doing that. (Casstevens, 2001,54.)

Confidence is the key component to a strong mental game. The goalies we all love and idolize are usually the ones who are brimming with confidence, which translates into consistently strong performances. Every year we witness goalies at all levels that are "hot" and steal the show. This getting "hot" is a sign of a truly confident goalie. When goaltenders become "hot" or see a "hot" goalie they need to learn to pay attention to what has led to the increased confidence. Goaltenders need always be learning and need to recognize what it takes daily to be a confident goalie. (Mind the net goaltending, 2012.)

The process of creating or recreating an experience in the mind is known as imagery (Vealey & Greenleaf, 2006 in Weinberg & Gould, 2011, 319). Researchers and athletes alike have long been interested in imagery and its effect on sport performance. According to Munroe, Giacobbi, Hall and Weinberg 2000 in Weinberg & Gould 2011, 295), athletes can use imagery for a number of functions and in different situations. Bandura

(1986 in Gelinas & Munroe Chanler 2006, 68) indicated that imagined experiences are a great source of self-efficacy (situation specific self-confidence).

Things that goalies need to have in their confidence (Mind the net goaltending, 2012):

1. Overall skill level need to be in a certain level and goalie need to be practiced well.
2. Overall mentally toughness. Goalie needs to be mentally strong enough to handle all the negative thoughts and stress.
3. Ability to deal with obstacles. Goalie needs to know how to work with disappointments. For example how to focus again after letting a goal in.
4. Ability to learn from mistakes. Goalie needs to learn fast from his or her mistakes so that the performance will be better after that
5. General fitness level. Nowadays goalies are not in that good physical shape. It was different 10 years ago when goalies were normally among the best athletes in the whole team. Nowadays it's almost opposite.

It's essential thing for the athlete's confidence to have a great trust for the organization and team that athletes need to work in (figure 3.).



Figure 3. Confidence levels in sports (Vealey 2009 in Liukkonen, Jaakkola, Kataja, 2006, 83.)

2.6 Concentration

Concentration is the ability to maintain focus on relevant environmental cues. When the environment changes rapidly, attention focus must also change rapidly. Thinking of the past or the future raises irrelevant cues that often lead to performance errors.

(Weinberg and Cloud, 2011,365) Definition of concentration in sports contains four parts:

- a) Focusing on the relevant cues in the environment.
- b) Maintaining that attention focus over time.
- c) Having awareness of the situation and performance errors.
- d) Shifting attention focus when necessary.

Nidffer and Segal, (2001 in Weinberg & Gould 2011, 371-372) view attention focus along two dimensions: width (broad or narrow) and direction (external or internal). It is believed that effective concentration is a vital prerequisite of athletes achieving optimal performance (Moran 2004 in Weinberg & Gould 2011, 365). Wilson, Schmid and Peper (2006 in Gelinias & Munroe Chanler 2006, 65) defined concentration as the ability to focus on relevant tasks and cues while ignoring distractions, and is considered to be an important component of attention. Porter (2003 in Gelinias & Munroe Chanler 2006, 65) suggested that an individual's concentration skills are dependent on the individual's motivation to maintain them.

Concentration exercises can be used to help to develop a goaltender's ability to maintain focus during a game, practice, and stops in action, thus improving overall performance. One exercise a goaltender can do is identified as Eye Control. Here, goaltenders are instructed to give their full attention to the puck, trying to pick up the spin, attempting to see the label, or focusing on the edge of the puck. In other words, during practice or a game, the goaltender plays only one shot at a time, focusing on some aspect of the puck, which is smaller than the puck itself. (Park 1985 in Gelinias & Munroe Chanler, 2006,64.)

These are some tips that goalies could have to maintain their concentration (Mind the net goaltending, 2012).

1. Follow the puck when the play is in the other end of the rink
2. Goalie needs to be ready when the puck crosses the red line.
3. Make sure that goalie is ready to make a save while puck is on the own d-zone.
4. Follow the puck until it's out of the own d-zone
5. Keep up communication with the players all the time.
6. Play the puck and be active all the time.

2.7 Imaginary

The process of creating or recreating an experience in the mind is known as imagery (Vealey & Greenleaf, 2006 in Gelinas & Munroe Chanler 2006, 67). Researchers and athletes alike have long been interested in imagery and its effect on sport performance. According to Munroe, Giacobbi, Hall and Weinberg (2000 in Gelinas & Munroe - Chanler 2006, 67), athletes can use imagery for a number of functions and in different situations. Bandura (1986 in Gelinas & Munroe Chanler 2006, 68) indicated that imagined experiences are a great source of self-efficacy (situation specific self-confidence).

Imaginary is a form of simulation. It is similar to a real sensory experience but the actual experience occurs in the mind. People are able to use imaginary because we all remember things from the past and we can build pictures and feelings from those happenings in our mind. People can also imagine and picture events that haven't ever actually happened. Imaginary should involve as many senses as possible. So through the imaginary the athlete can recreate previous positivity experience or picture new events to prepare mentally for the performance. (Weinberg & Cloud, 2011, 295.)

Imagery is a method that allows the athlete to trace through their minds all of the important moves/plays that will be required in order to play a strong game. This helps to build confidence and to develop a winning attitude. Imagery rehearsal also improves concentration because it allows you to play important parts of a hockey game in your mind before the actual game begins. This ensures that your thoughts are focused on

the game and what you must do to play well rather than looking at someone in the stands when the match starts.

The use of imagery or mental pictures as a form of pre-game mental preparation also programs your brain to respond in certain ways; so that when you step on the ice you will automatically respond as you planned in your mind (Mind the net goaltending, 2012). For example, if in your mental images you pictured yourself successfully stopping breakaways and wrap around, this will happen automatically in the game.

Terry Orlick (1998 in Matikka & Roos-Salmi, 2012, 101) has done research about excellent performance and found out that it is important that the athlete follows and recognizes his or her goals all the time so that the athlete has a clear view where he or she are going. Orlick thinks that right kind of focus in a high level improves learning, processes happiness, improves performance and control in every day actions. Orlick has built up a picture that collects together those elements that a successful experience needs to have (figure 4.)

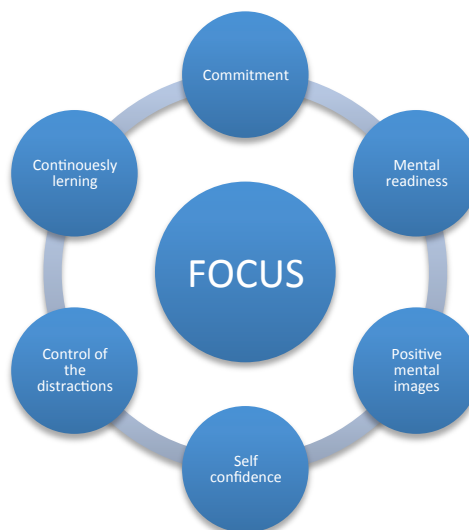


Figure 4. Wheel of excellent performance (Orlick 2008,12 in Matikka & Roos-Salmi 2012, 102).

2.8 Controlling the emotions

Controlling emotions is an essential skill for an athlete and especially for a goalie in ice hockey. Goalie needs to be able to perform his or her best while having stressful thoughts and so called wrong thoughts. The most beneficial way to affect on that is to learn how to deal and control emotions in different kind of situations. It's been proven that either too high or too low intensity and arousal level is not the optimal for top performance. Athlete with too low arousal level couldn't take everything out for his or her capacity and at the same time athlete with high arousal level couldn't perform his or her best because thoughts, reactions and motoric skills are not working that well if the athlete is too anxious. (Zaichkovsky & Naylor, 2004 in Gelinias Munroe -Chandler, 2006, 65.)

Hockey is an intense, high-speed game. To play winning hockey, you must be able to manage your emotions and create right feelings. That means being able to energize, pump up and attack but also to calm down, regain composure and play smoothly. Many hockey players are struggling with maintaining the right attack-smoothness balance. The exact balance point varies depending on a player's personality, experience, position and role on the team. The relationship between athletic performance and emotional arousal is depicted in figure 5. As emotional intensity increases (A), performance improves until it peaks (B). Thereafter, increase in intensity (over arousal) cause players to get too pumped or too tight and lead to a reduction in performance (C). (Miller, 2001,15.)

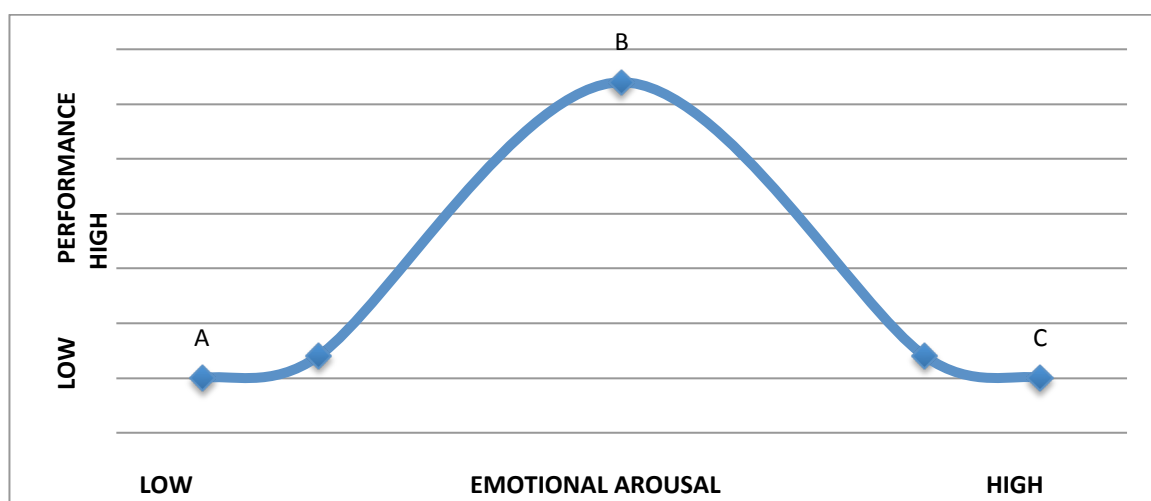


Figure 5. Arousal and performance (Miller 2001, 47.)

Every athlete has his or her own best level to perform. Some might need to have a huge pump up before games and competitions while other athlete could just have fun before actions. It's a very important skill for the athlete that he or she could notice and prepare for the particular situation. The athlete could split his/her emotions in so called performance curve, 1-10. Around 7-8 should be the optimal performance level (Figure 6). That figure gives an example for a hockey player feeling inside his or her body and show how that feeling affect on a players intensity level inside the game. There are three things that effect on athletes performance curve (Marsh Aug 2007, 2010.)

1. Temperament (What kind of person you are)
2. Length of the performance (Sprinter vs. Marathon runner)
3. Performance type or role (Centre or goalie),

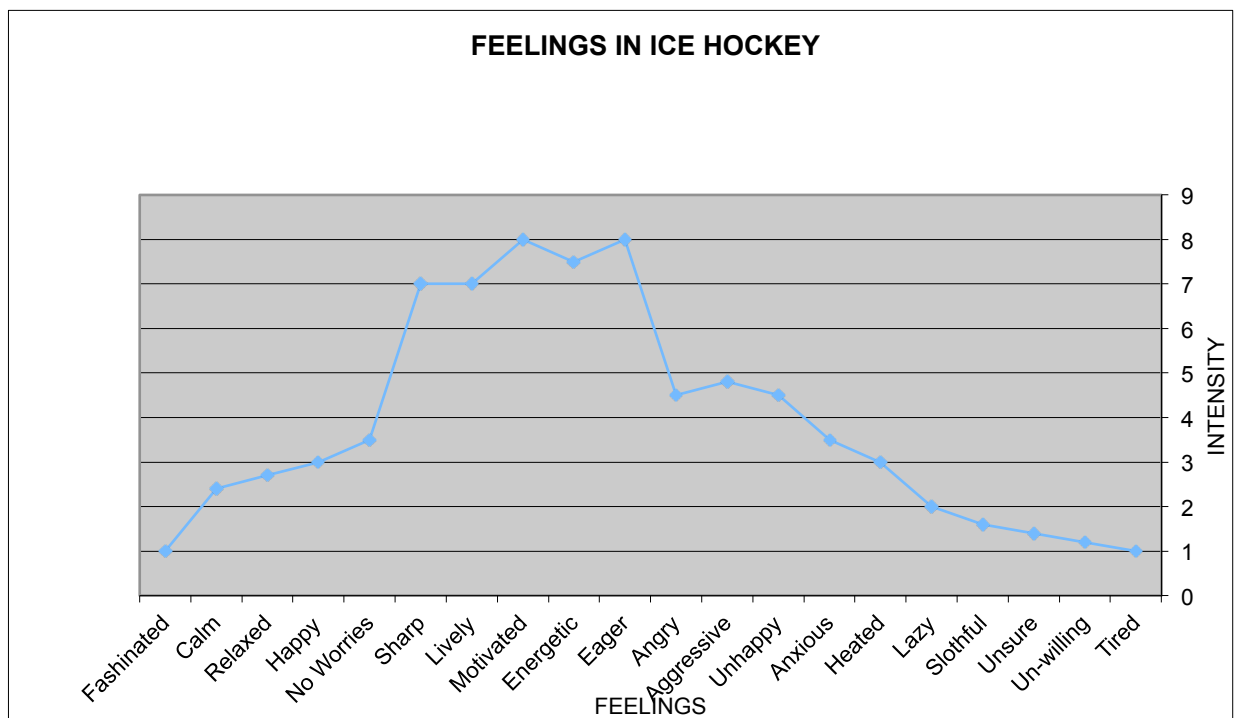


Figure 6. Example figure for a hockey player feeling in ice hockey (Marsh, Aug 27 2010)

2.9 Stress and anxiety

Arousal is a general physiological and psychological activation, varying on a continuum from deep sleep to intense excitement (Weinberg & Gould, 2011, 78). In sports stressful thought is an affect that causes effect on our body, which takes 3 minutes to recover again to be on the same level than before. During that affect we are not able to perform that well than before (Marsh, 27 Aug, 2010). There are four stress factors that cause stress for athletes. Those factors are social environment (spectators, weather etc.), social factors (schedules, financial things, social things etc.), own body (injuries, sickness, lack of sleep etc.) and own thoughts. The factor that causes most of our stress is our own thoughts. That's why it is very beneficial to understand that we are able to control our thoughts and change those. (Marsh, 27 Aug 2010.)

Anxiety is a negative emotional state. It involves nervousness, worry, and fear. Thus, anxiety has a component called cognitive anxiety. Anxiety also has a component of somatic anxiety. Somatic anxiety is the degree of physical activation perceived. (Weinberg & Gould 200,78.)

Anxiety is also divided into state anxiety and trait anxiety. State anxiety changes all the time even during competition. State anxiety is defined as an emotional state characterized by subjective, consciously perceived feelings of apprehension and tension, accompanied by or associated with activation or arousal of the autonomic nervous system (Spielberg 1966, 17 in Weinberg & Gould 2011,79). Trait anxiety is a part of personality. It predisposes an individual to see different situations as more threatening than they really are. Thus the level of state anxiety increases. Usually, the higher the level of trait anxiety a person has, the higher the level of state anxiety is. (Spielberg 1966, in Weinberg & Gould, 2001,79.)

All athletes have an optimal level of arousal, a level where peak performance is possible. Too little or too much arousal can negatively affect performance. Some goal-tenders may need to psych themselves up, while others may need to relax in order to reach their peak performance level. Controlling anxiety, especially cognitive anxiety, is an important mental skill for athletes to develop (Cassmore, 2002,27). If a goaltender is plagued with high levels of anxiety, one technique to reduce it is through relaxation.

Adapted from Jacobson's (1938 in Weinberg & Gould 2011, 274) progressive relaxation, and based on the notion that tension and relaxation are mutually exclusive; goal-tenders can tighten and relax muscles of the body as a way to reduce anxiety. Another method, which can be beneficial during practice or competition, is breath control or concentration. (Weinberg & Gould, 2011,274.)

Anshel (1990) invented a system called COPE- model, which means a model to control acute stress. COPE focuses on a number of psychological techniques to help athletes learn how to control acute stress (Gregory & Anshel 1990). According to Anshel (1990), many stress management programs view athletes as passive recipients of stress – handling measurements. Conversely, COPE focuses on the athlete's ability to consciously attend to each of a pre-planned series of purposeful thoughts and actions. COPE is based on cognitive-behavioural premise, in which athlete is taught to respond first from a psychological standpoint, then behaviourally in the appropriate manner, to maintain adequate mental and physiological readiness for performance. COPE is an acronym that identifies four processes: Controlling emotions, organizing input into meaningful and non- meaningful categories, Planning the next response, Executing skilled performance. (Anshel & Gregory, 1990 in Silva, Lerner, Metzler, 2007, 162.)

Regulate is another stress management technique, offered by Johnson (2005 in Silva, Metzler & Lerner 2007, 157). This stress management technique incorporates important components of the coping process and establishes the importance of perceived controllability over stressful situations.

The model suggests training the following areas (Silva, Metzler & Lerner, 2007 157):

- Recognize Stress
- Enhance Challenge Appraisals
- Generate coping strategies
- Uniqueness of individual and situation
- Learn and practice
- Amplify your confidence
- Take Control
- Evaluate coping effectiveness

2.10 Preparing

For the goalie in ice hockey it is extremely important to know how to prepare for a game in the most efficient way. Game day preparation is all about getting your body and mind ready to perform. Most young goaltenders will do all they can to train and hone their physical skills to play the position but pay little attention to pre-game preparation. Developing routines off the ice and on the ice are effective ways to prepare for the game. Pre-game routines will take the goaltender's body through a series of stages that lead up to the game. (Mind the net goaltending, 2012.)

Yuri Hanin, a Russian sport psychologist presented an alternative view that he calls individualized zones of optimal functions (IZOF) model. Hanin found that top athletes have a zone of optimal state anxiety in which their best performance occurs. Outside this zone, negative and poor performance occurs. Hanin's IZOF view differs from the inverted U- hypothesis in two important ways. First, the optimal level of state anxiety does not always occur at the midpoint of the continuum but rather varies from individual to individual (figure 7). Second, the optimal level of state anxiety is not a single point but a bandwidth. Thus, coaches and teachers should help participants identify and reach their own, specific zone of anxiety state. Hanin concluded also that for best performance to occur athletes need individualized optimal levels not only of state anxiety but a variety of other emotions as well (Weinberg & Gould, 2011,88).

Athlete A	In zone	Out of zone		
Athlete B	Out of zone	In zone	Out of zone	
Athlete C	Out of zone		In zone	
LOW	30	40	50	60 HIGH
State of anxiety level				

Figure 7. Hanin's Individual zones of optimal functions (IZOF) (Weinberg & Gould 2011,88.)

2.11 Game plan

It is very important to notice that you can't always control what happens in the game or competition, but you are able to control how you react in different situations. Playing through the ice hockey game is not an easy job. It is very demanding. Especially hard it is for the goalie that should focus the whole time and be extremely ready for different situations and read the game all the time. It's very important that athletes play in present, not in the future and not in the past. Worrying about the past mistake usually brings you another one. For example if you start to think about the game clock it could be easy to use this saying: "One eye on the clock means that there is only one eye on the puck". (Mind the net goaltending, 2012.)

After a goal it is essential that the goalie could re-focus and continue the game right away. Goalie needs to be present all the time so there are no choices of thinking past or future happenings. Good way to act and deal after a goal is to use so a called 5 R – technique: (Nurminen, Sep 20, 2011.)

REACT, RELAX, REPLAY, RE-PLAY, RE-FOCUS. Going through these 5 steps a goalie could continue the game right after a mistake or a goal.

During the game goalie should concentrate only in a few main things. Good way to do that is to have own "ABC's" in the game that the goalie could think in every situation and especially during the breaks. Those "ABC's" could be for example like this: "Follow the puck", "Skate a lot" and "fight for every puck" (Miller, 2003, 161). One good way to stay concentrated all the time is having some kind of "safety place" which can be for example some particular place or commercial inside the ice rink. In that place goalie could feel safe and focus on the task again if his or her mind is loosing from the task. (Marsh, 27 Aug 2010.)

Because ice hockey games last at least 60 minutes and goalies have to be focused all the time it is crucial that the goalie can split his game in different parts. Good way to do that is to split the game in shifts and always during the breaks the goalie could focus again on the upcoming shift or the next shot etc. Good way to do to this is to use some kind of an imaginary and/or use some "Key words". Good way to stay concen-

trated is also to use positive self-talk. It means that the goalie “talks “to him or herself and says positive things about the game like “I’m fast”, “I feel energized” or something like that. Self-talk meaning an internal positive self-talk that the athlete is doing inside his or her mind. Every one of us uses self-talks in our everyday life and if the athlete is able to use that positively, it will be beneficial for him. (Zinsser, Bunker & Williams, 2008 in Matikka & Roos-Salmi, 2012,164). A person speaks around 50 000 words each day in his or her mind. That means every minute there will be 200- 300 thoughts or words inside our head (Plate & Plate, 2005 in Matikka & Roos-Salmi 2012, 164). The most important question about self-talk is that do we want to control our thoughts or are we letting thoughts control our actions (Liukkonen, Jakkola & Kataja, 2006 in Matikka & Roos-Salmi, 2012,165). With positive self-talk athletes could effect on his or her self-confidence, atmosphere of the competition or thinking about the practice history (Hartzigeorigiadis, 2009 in Weinberg & Gould, 2011, 380). Powerful self-talk is positive, realistic and easy to understand. All the negative thoughts are good to stop as soon as possible, so that they don’t effect on your feelings (Burron & Radenke 2008 in Matikka & Roos-Salmi, 2012, 165.)

Good way to handle your own thoughts and stay focused inside the game is having so called cue words. Cue words are used to trigger a particular response and are really a form of self-talk. They can be instructional for example “shoulders back”, “watch the puck” or motivational or emotional for example “strong”, “move”, “fast”. Those words help our mind to stay focused and keep us going towards the positive outcomes that we want to achieve. Cue words need to be simple, positive and easy to add on our own actions (Weinberg & Gould, 2011,371).

During the intermission it is very important not to think too much about the past happenings. It is much more important to focus on the next period. Goalie could go quickly through the past period goals and maybe even better, the good saves and moves from that period. But then it’s important to start to focus on the next period. During the intermission there is also enough time to use visualization and the goalie could go through some basic situations like 2 vs. 1 or breakaways on his or her mind. It’s also a very good habit to think and play through everything that could happen in

the first shift of the period because then you are ready for everything that could happen in the beginning of the game.

2.12 Feedback

I wanted to add feedback in the guide because even it is not a quality of the goalie; it is a crucial for a coach to know which kind of feedback he or she is giving to the athlete. It's also very important that feedback is given a right way. Positive feedback is much more effective than negative. As a goalie coach it's very important to remember that. Normally in ice hockey the next game is waiting very soon and that's why it's very important to analyse the past game quickly and start to concentrate on the next one. It's also important to analyse what happened during the game and also go through the goals and different situations. It's also very useful to go through the mental follow up tool that is attached in the end of this thesis. It is easy to find the mental skills and the mental side of the game and it helps to analyse goalies performance.

Like already said feedback should be mostly positive because that gives us a feeling that we are part of a learning situation. Good way to give feedback is to use a so called hamburger model. It means that first we open our athletes mind channels to give some positive information about the game and after that we give some points that the athlete might improve in his/her performance. In the end we give again some positive feedback and ideas how to work with the things that need to be improved. In that way the athlete feels that he/she is important and the whole competition situation is a positive learning process. (Liukkonen, Jaakkola & Kataja, 2006, 89).

While the coach gives feedback to the athlete he or she needs to make sure that following things are taken care of: (Weinberg & Gould, 2012, 135).

1. Feedback should contain information relevant to performing the skill correctly.
2. Feedback should be appropriate the performance or behavior
3. Feedback during the practice should be given as immediately as possible.
4. Feedback should promote taking personal responsibility for performance and behavior.
5. Feedback should be short, clear and geared to the performer's age level.

2.13 Flow

Flow is a positive psychological mental pace that an athlete could achieve. Flow is easy to picture as a zone where a person has the ability to perform at his or her highest level. That happens when he or she feels balance between the challenge and own skills and is ready to face those challenges and response on those (Csikszentmihalyi, 1992 in Matikka & Roos-Salmi 2012,236). Jackson and Kimiecik (2008 in Matikka & Roos-Salmi 2012, 235) are saying that the main thing is the subjective experience that gives performance an individual meaning and collects actions, thoughts and feelings together (Figure 8).

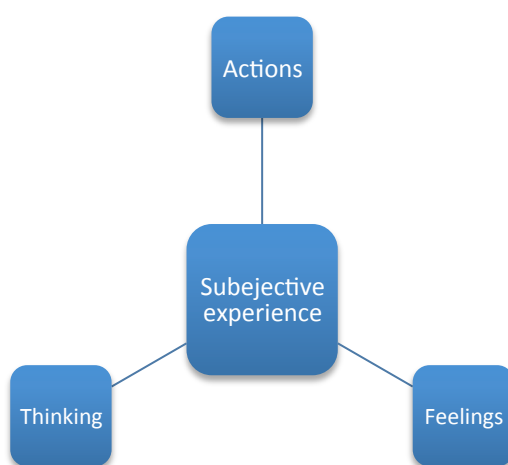


Figure 8. Subjective experience (Jackson & Kimiecik, 2008 in Matikka & Roos-Salmi 2012,235.)

There are quite many researches describing how athletes feel while having an ultimate flow experience. Here is a list of those feelings (Weinberg & Gould 2008, 147-148):

1. Challenges and skills match each other
2. Mind-set totally on the task
3. Clear goals
4. Combination between actions and knowledge
5. Fully focused on the actions
6. Self-knowledge is loosing
7. Feeling of control is getting away
8. There are no outcome goals or expectations.
9. Time knowledge is loosing
10. Easy to move and perform.

Around 80 % of the athletes think that they could control flow-pace by their own actions. They think that they could control that while they have all the factors working together, but if some part of the those factors is losing they easily drop off the flow-pace (Weinberg and Gloud, 2011,151.)

Susan Jackson (2007 in Matikka & Roos-Salmi 2012,239) has made an interview of professional athlete's flow- phase. As a conclusion of the results of this interview Jackson made a list of those factors that could help an athlete to achieve the flow-phase. So according to Jackson those factors that help us to achieve and keep flow phase are:

1. Motivation about the task
2. Optimal feeling before the completion
3. Plan for the preparing and competition plan.
4. Optimal physical preparation for the competition and readiness to perform best.
5. Optimal facilities.
6. Knowledge about right kind of actions and self-awareness.
7. Focus on right tasks.
8. Self believe for the own actions and positive feeling.
9. Positive team spirit and open discussion.
10. Past experiences.

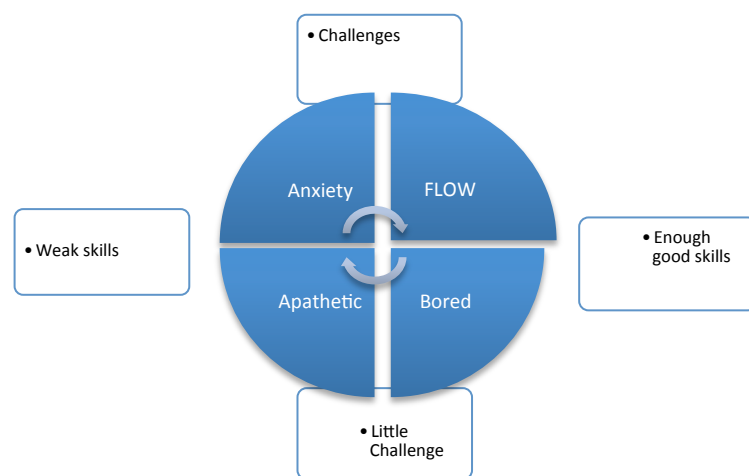


Figure 9. Flow experience (Matikka & Roos-Salmi, 2012, 237).

Achieving peak performance depends on controlling the mind that controls the body. Elite goaltenders want to be in the zone, the magical place where mind and body work in perfect synch. Movements seem to flow without conscious effort. (Weinberg & Gould, 2011, 150.) Thoughts have direct and powerful connections to all sorts of physiological functions. Thoughts have induced changes for athletes who rely on fine motor skills to have imperceptible adjustments. This can mean the difference between a save and a goal being scored. Much of the action takes place without the goaltender even being aware that it is occurring. After years of practice the movement and save selection required is second nature to the goaltender. So it is easy to think that the skill resides in muscle memory. But even those actions involve a tremendous amount of mental processing. They are just happening so fast for the goaltender even to realize that they are going on. (Mind the net goaltending, 2012.)

Any learned sports skill begins in the thinking part of the brain, with nerves in the pre-frontal cortex. As those neurons get excited, they activate nerve cells connected to the limbic system just under the cerebrum of the brain, the area associated with emotions such as fear, anxiety, elation and satisfaction. That area is tied in turn to the motor cortex, which controls the muscles. (Weinberg & Gould 2011, 150.)

2.14 Motivation

Motivation can be defined as simply as the direction and intensity of one's effort (Sage 1977 in Weinberg & Gould 2011, 51). The word motivation is led from the word motive, which means the desire, drive or will to do something. Motives lead people consciously or unconsciously toward certain goals. (Peltonen & Ruohotie 1992,16 in Malminkare 2011, 14). There are two different components of motivation, direction of effort and intensity of effort. Direction of effort refers to whether an individual seeks out, approaches or is attracted to a certain situation. Intensity of effort refers to how much effort a person puts forth in a particular situation. So motivation is the direction and intensity of effort. Best way to understand motivation is to consider both the person and the situation and how the two interact. (Weinberg & Gould 2007, 53.)

Motivation can be viewed from three different perspectives (Weinberg & Gould 2007, 53-54.):

- Trait-centered view
- Situation-centered view
- Interactional view

From the trait-centered view motivated behavior is primarily seen as a part of individual characteristics. Roughly said a person is born as a winner or loser. The situation-centered view is in direct contrast to trait-centered view. It contends that the level of motivation is primarily determined by situation. For example motivation can be high on competitive situations but low on training. The third view is the interactional view. Interactional view suggests that motivation results neither solely from personal factors nor situational factors. From this view the best way to understand motivation is to examine how these two set of factors interact (Weinberg & Gould 2011 53-54).

To enhance motivation you must analyse and respond not only to a player's personality but also to interaction of personal and situational characteristics. Because motivations may change over time, you should continue monitoring people's motives, why they participate in actions and want to achieve something.(Weinberg & Gould, 2011, 54).

It has been found out that motivation changes across age groups, with older adult's motives being fewer egocentric than younger adults' (Steinberg, Grieve & Class, 2000 in Weinberg & Gould 2011, 56). As a leader or coach you have a critical role in influencing a person's motivation. In fact, recent survey of physical educators, who were all coaches, showed that 73 % of them considered themselves and their actions to be very important motivational factors for their athletes. (Theodorakis & Garlgalianos,2003 in Weinberg & Gould 2011, 55).

The source of motivation can be either internal or external. The sources of extrinsic motivation are from the surrounding environment of an athlete. External sources of 10 motivations include trophies, team jackets, money, pleasing parents or friends and so on. Intrinsic motivation is a bit harder to define. It comes from within a person. A person has an internal will to do something without caring about external sources of motivation. The only definite motivators beyond question are hunger and thirst. This is

associated with the motivation to survive. But it does not explain why certain athletes keep on playing although their doctors have told them not to. (Cox, in Bull 1997, 6-7.)

Motivation is also divided as primary and secondary. The primary source of motivation is derived from the activity itself. For example a hockey player may have a primary source of motivation to score a goal. Secondary source of motivation follows the primary. For the hockey player the secondary source of motivation could be to please the coach or parents. (Cox, in Bull 1997, 8.)

Motivation has a huge impact on individual everyday actions. Motivation will also help athletes to improve her or him in everyday actions. Results that have a beneficial impact on athlete with motivation are listed in a motivation circle (Figure 9). (Grönman, Oct 27, 2012).



Figure 9. Motivation circle. (Grönman, Oct 27 2012).

There are two related motives that influence performance and participation in sports: Achievement motivation and competitiveness. Achievement motivation refers to a person's efforts to master a task, achieve excellence, overcome obstacles, perform better than others and take pride in exercising talent (Murray, 1938 in Weinberg & Gould 2011, 55). It is also a person's orientation to strive for the task success, persist in face of failure and experience pride in accomplishments (Gill, 2008 in Weinberg & Gould, 55). Competitiveness is defined as a "disposition to strive for satisfaction when making comparisons with some standard of excellence in the presence of evaluate others" (Martens, 1976, 3).

3 Follow up tool

Follow up tool for this kind of mental training gives coaches and athletes, in this case ice hockey goalies, a good knowledge of their weaknesses and strengths in the mental side of the game. The follow up tool gives coaches or other followers a chance to evaluate goalies performance and notice his weaknesses and strengths on ice actions during the game. The follow up tool gives measurable points for all the important mental skills that an ice hockey goalie should have.

Areas of the follow up tool are preparing, concentration, and skills to continue after mistake or goal, anxiousness, skills to win and mind control. The self-evaluation part of the follow up tool has categories about self-believe (self-confidence), feelings before the game, feelings inside the game, mind control inside the game and anxiousness level inside the whole game situation. Using this follow up tool coaches are able to see results after 3 to 5 games, not before that. Ice hockey is a team sport so there are always some other factors that the goalie by him or herself couldn't affect. That could sometimes cause some wrong results.

The follow up tool is very useful also because you as a coach do not need to build up any kind of atmosphere or anything special. You can use this tool while watching a normal game and collect your different statistics easily.

3.1 Idea of the follow up tool

Idea for this follow up tool is to improve goalies mental skills needed to perform well in a hockey game. The follow up tool helps to recognize problem areas for goalies mental game and gives important knowledge about what a goalie needs to improve and focus on. All the categories that are analysed in the tool are closely connected to certain actions and happenings inside the ice hockey game.

The follow up tool is very useful also because you as a coach do not need to build up any kind of specific atmosphere or anything special. You can use this follow up tool when watching a normal game and can collect different statistics easily.

3.2. Benefits of the follow up tool

This follow up tool gives a goalie and his or her coach lots of important and useful information about the mental strengths and weaknesses of the goalies game. Because of that information goalies and coaches could start to practice those problem areas right away. You need only a couple of games to notice certain mental areas in a goalies game that needs to be improved.

3.3. How to use the mental follow up tool

Goalie coach or other observer could use the follow up tool during the games. Persons who use the follow up tool need to have at least some experience and understanding of the goalies game. It's also suitable that the same person tries to observe a certain goalie as often as possible. So in the first part of the follow up tool the observer fills in the numbers in a specific part of the follow up tool during the game and after the game, around 10 minutes after, the observer discusses with the goalie and asks him or her to fill out the self-evaluation part of the tool.

First section of the follow up tool the goalie coach or the other observer uses is intended simply to fill up the template so that the observer can calculate the numbers from each category. Evaluating the first skill the observer puts + or – after each shot depending of what kind of save the goalie makes.

In the second part, easy goals, the observer counts the “easy goals” that the goalie let in during the game. Easy goal in this follow up tool is a shot that goes in the net from outside of the best scoring areas without any screening or deflections.

Then the last part, self-evaluation part, is what the goalie fills out. The goalie needs to use scale from 1 to 7 to evaluate his or her performance. 1 is the lowest and 7 is the highest performance number.

3.4. Problems of the follow up tool

There are some problems and things that we need to notice while using this follow up tool. First of all we have to remember that there are many kinds of things that affect

some goalies differently than the others. We also need patience when using the follow up tool so that we get enough games to evaluate to get the right kind of information out of them. In ice hockey there are also many factors that could change and affect the game. That's why we have to understand that there is always some room for luck or some other things that goalies by themselves could not affect. One challenge is also that goalies need to be critical and honest about his or her actions. Sometime it seems to be hard for us to see our own actions in the right way.

We could also try to add many more categories and more specific measures for how to measure mental skills with the tool to get even more specific information about the goalies performance. It might also be very good if we could sometimes build up a different kind of mental tool for different age categories because age is a thing that effects our actions quite a lot as a person. Ice hockey is a team sport so there are always some other factors that the goalie alone couldn't affect. That could sometimes cause some wrong results in the follow up tool.

4 Empirical part

4.1. Project planning

I started this thesis about an idea to make a guidebook that helps ice hockey goalies and their coaches to practice and improve their mental skills and knowledge. I played myself, as a professional ice hockey goalie so I had a little knowledge already about the mental skills that goalie needs to have to be able to perform on a high level. Those skills came even more clear to me after having discussions with different goalies and goalie coaches. That's why I choose 13 different skills and qualities into this guide. These are the ones I see most important to have as a goalie. Those skills and qualities were personality, self-esteem, goal setting, self – confidence, concentration, imaginary, controlling the emotions, stress and anxiety, preparing, how to play the hockey game, feedback, flow-phase and motivation.

After I found out those skills that I wanted to include in my guide I started researching existing literature concerning those skills and how those skills can be practiced. I bought some books from the Internet because there is not that much information available in Finland about this subject. I used also materials I had gotten from the lessons and from different meetings I have had. I also tried some practices that I had planned myself on ice with my psycho -social teacher to make sure how those practices could be used in every day practices.

I started to work on the project with a few basic objectives. First of all, I wanted to make a guide as easy to read and understand as possible. That's why I included lots of examples in the guide from hockey life. Secondly, I wanted to give different kind of practices for the goalies and goalie coaches for their every day practices for each skill. Third objective that I had was to add a follow up tool in the guide. That helps goalies and coaches to follow their improvement and helps them to find those mental skills that they have to improve.

4.2. Project Implementation

The guide is divided into:

- Forewords
- Overall look of the mental game for ice hockey goalie
- Differences between age groups
- Mental training program for ice hockey goalies
- Self- evaluation forms
- Follow up tool

The overall look of ice hockey goalies game tells about the needs and qualities that an ice hockey goalie needs to have. It tells about the game of hockey and which kinds of skills are needed to have during the ice hockey game.

The age group difference part describes the facts and differences that athlete; in this case goalies, will have and need to be taken care of while practicing mental skills. It's important to know and understand differences that humans have in different ages.

The part “Mental training program for ice hockey goalies” is divided in 13 different skills. Each skill starts with a little theory part of it. After that there are examples from ice hockey life and how that certain skill is needed in ice hockey. That makes it easier to understand for the reader. Finally there are three to five different practices to take for everyday use for ice hockey goalies. Those practices help goalies to improve their skills.

Self-evaluation forms are also included into the guide and are easy to use and understand. There is for example a form that a goalie could use after playing a great or bad game. That self -evaluating form helps the goalie to find out which actions or feelings affect on his or her performance, either in a good or bad way. That information is beneficial for the goalie in the future.

Follow up tool is also included in the guide and that part explains how to use the tool and how to read the results from it. The actual follow up tool is added in the end of the guide.

4.3. Project outcome

The end result of the project was a 68-page guide. The guide is written in Finnish and it is divided into seven different sections including several subtitles. I was satisfied with the outcome. The main objective of the project was to produce an easy to read and easy to understand guide for ice hockey goalies and goalie coaches into their every day use. I think goalies and goalie coaches can find a lot of useful information and knowledge from the guide to improve their game. Hockey players and in many cases also athletes from different sports could also use this guide.

The follow up tool is added to the end of the guide. It is easy to use and gives specific information about ice hockey goalies mental skills during the game and when analysing it afterwards.

5 Summary & Discussion

The objective of the guide was to provide basic knowledge about psychological needs that an ice hockey goalie has about his or her game. Another objective was to add a follow up tool to the guide to help goalies to recognize their problems concerning mental skills and to see how they can be improved with help of the guide.

One of the main reasons why I did this guide was that I believed there are lot of things to do with mental skills for ice hockey goalies to make them better goalies. Many coaches in my opinion are not able to teach mental skills and don't have the knowledge that is needed when coaching mental skills for goalies. I was satisfied with the outcome of the project. The guide is useful and coaches and goalies could easily add it to their every day practices.

Some time during the project I had some problems on drawing the line on how deep I should go with each objective and skill. I wanted to give the reader some theoretical information about the skills also but at the same time I wanted to keep the guide as simple as I could. That meant that I had to leave some things out from the theoretical parts. I wanted to keep the guide so easy to use that every coach and goalie could understand it and find themselves in the examples.

Mental skills and how to practice them is not the easiest subject because in the bottom line we are still individuals and we have different styles and ways to do things. Different things effect on us differently. It is hard to build up a program that gives proper advice for every goalie for what to do and how to do it. But still the biggest thing for me with this project is that I know and believe that there are lots of things to do in this area of the goalies game and I hope that in the future more young goalies focus also on mental training and in that way improve themselves as athletes.

Overall I am pleased with the mental guide and the tool. Those are easy to add in real life actions for the goalie. The tool is also working very well and gives the goalie useful information even in a small amount of time. I also think that this mental program will help goalies with their mental skills, help them to learn more about themselves and

recognize those things that effect on them. With that knowledge the goalie will step up in the next level in his or her performance. Like said earlier more than 80 % of the game is mental, so if we could build goalies awareness about mental skills with this program, we are going to get results from it.

There are lots of things that coaches could improve and do differently and better in the area of mental skills training. I am sure that there will be a huge step for this area of coaching during the next couple of years. That's why I think that biggest difference between the ok and the elite goalies will be on the mental side of the game and how the goalie could handle that side of his or her game.

A problem could still be that the goalie has to be honest and really take the project seriously enough to get the benefits out of it. Trend in ice hockey especially in Finland is that mental skills are a little bit weird and athletes are not ready to put enough effort to practice those skills. Also the coaches and the goalie coaches have to be more open-minded and look for more information about mental training. So far that area of the game is not that well covered by the coaches and that's why there are a lot of things to improve about the area of mental skills of goalies as well as players.

I have been using the tool and found out some facts that are important while using it. First of all the tool shows that athletes and in this case goalies are different as persons and that's why it needs to be taken care of while using it. For example age of the athlete means a lot. One of the biggest things is to have a good way of self-esteem. The tool shows that almost every mental aspect of a goalies game is somehow connected to self-knowledge and about how they as a persons and athlete act in different kind of situations. With that knowledge goalies feel that they are better and that they have much more tools to use while having different situations during the game. Those tools are always individual and might not work for someone else.

There are also some thinks that might be improved in the tool. One thing might be to build up different kind of tool for different age-categories. We might also add some new questions on it to measure more specific actions from the game.

After using this tool and discussing with goalies from any level, juniors and professionals, I have found that this mental subject is very interesting and all in all goalies are very interested about it. Goalies that I have met were also very interested to take part of the mental practicing lessons. Those goalies that I have worked with have been very thankful and feel that this kind of practice is important and they really think that the tool and mental practices are beneficial for them.

The results that I have got by using this tool show that we could really improve goalies mental skills. First step and direct result out of the tool is that goalies and coaches recognize quite quickly after some games their own problems of their mental skills. That is also a huge benefit, because nowadays goalies and overall athletes are not that well self-aware about themselves. After I found that information I was able to work with the goalies in their own problem areas. Those areas were for example letting goals in one after another right away, which means that they had problems with continuing the game and re-focusing or for example they had problems in earlier games, which told us right away that there are things what we can try to change and work with preparing. Some goalies seem also to have problems to get themselves into a right kind of “game mood”. While we recognize that by using the tool, we start working with optimal zone of their functionality. Overall the tool gives quite a lot of information for the goalies and coaches and that’s why it’s easy to start to work with the problem areas of the game.

Finally I would say that this project was very interesting and it has already given me a lot of help to my own coaching. In the future I will, for sure, still improve the tool and the mental guide and also for sure I will be using those as a part of my coaching.

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Attachments

Attachment 1: Follow up tool for the ice hockey goalies

MENTAL OVERALL RATING SYSTEM TOOL FOR THE ICE HOCKEY GOALIES

NAME	DATE
GAME	RESULT

1. Saves during the first 5 min in game (+ /-) :
 - Preparing
 2. Goals against during the last min in period 1 & 2:
 - Focusing
 3. Goals against after the goal during 2 min:
 - Re- focusing
 4. Goals against during the last 3 min in game
 - Pressure handling / skill to win
 5. Goals on the overtime:
 - Pressure handling / skill to win
 6. Easy goals by coach:
-
7. Goalie himself:
 - **SELF CONFIDENCE: 1 2 3 4 5 6 7**
 How strong your self-confidence was? 1 weak – 7 perfect
 - **FEELING BEFORE THE GAME: 1 2 3 4 5 6 7**
 How was your self-confidence before the game? 1 weak- 7 strong
 - **FEELING INSIDE YOUR MIND DURING THE GAME: 1 2 3 4 5 6 7**
 How your mind feeling stay during the game<+ how well you recover from the goal? 1 weak- 7 perfect
 - **HOW MIND STAYS UNDER CONTROL DURING THE GAME: 1 2 3 4 5 6 7**
 1= cannot play 2=hard to play 3=Problems 4=More problems 5= focused 6= well focused 7= Excellent
 - **PRESSURE / ANXIETY LEVEL: 1 2 3 4 5 6 7**
 1= Canno't play 2= Can, but big problems 3=Can play but hard to play 4= Equal 5= No special problems 6= Good level, could play high level 7= Perfect level, no problems at all