

**AN ACTION RESEARCH CASE STUDY INTERVENTION:  
PSYCHOLOGICAL SKILLS TRAINING PROGRAM IN HIGH SCHOOL**

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## ABSTRACT

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The effect of Psychological skills training (PST) has been widely studied and its impact on the enhancement of psychological skills is undeniable. However, our knowledge is limited about the processes of teaching and learning of these skills. Almost all of the studies related to PST have been done in sport settings and teaching these skills, e.g. in high school context, has remained an under-explored domain.

This study aimed to address the planning, implementation and evaluation of sport psychological skills training program in the high school context. Participants in this study were first and second year student-athletes. The study was conducted using a qualitative action research case study approach. Data was collected from the researcher diaries, learning logs from the four participants, the final inquiry, semi-structured student interviews and the post-intervention questionnaire. Videotaped classroom sessions were also used as a data source.

Results from inductive content analysis revealed that psychological skills, like motor skills, have to be explicitly taught, modelled and practiced in order for mastery to occur. Results also showed that these skills take time to be learnt and internalized. Other results showed that psychological skills are most welcomed to be taught in high school setting. Students appreciated the functional and practical aspects in teaching and participatory and the student-centered teaching style helped students to connect the taught skills to their practices and everyday lives. The results showed that students at the age of 16-18 years were not very familiar with the concepts and methods used in the field of sport and exercise psychology. Student learning logs showed that it was a new teaching method and the students were not familiar with it. The principles of a learning log must be taught carefully before using it as a method of teaching and learning.

The results from the researcher diaries showed that planning, implementing and evaluating a PST course is time consuming but rewarding. The results showed the importance of careful pedagogical planning and evaluation behind the implementation and success of the program and that it is essential to promote PST programs in school contexts.

Psychological skills training in a high school context needs to be studied in the future by using both quantitative and qualitative approaches to explore the effectiveness of these skills on students' actions. This study showed the need for adequate support in teachers' pedagogical knowledge and training in carrying out a PST curriculum successfully.

*Keywords:* Psychological Skills Training Program; High School; Action Research

# 1 INTRODUCTION

The purpose of this study was to plan, implement and evaluate a psychological skills training course for high school use. High school years formulate the basis for occupational career and these years can be stressful for students. The aim of the program was to plan and implement a course for students to learn to deal with the stressors they face in their lives using sport psychological tools.

Burton & Raedeke (2008) state that psychological skills training [PST] has positive outcomes for performance enhancement in sports. PST can help an individual to handle competitive stress and it may also enhance self-confidence and improve performance in school; it can be seen as life-skills training (Vealey, 2007). Students in high school have gone through at least one big educational transition in their life (from basic school to high school) and the next one is waiting behind the corner (vocational education after high school). As Petitpas (2000) noticed, when our environment changes it requires us to change our behavior. Most individuals resist this change because it distracts their old habits and routines and thus it may indirectly cause stress.

According to Creed, Conlon & Dhaliwal (2013), the academic environment can be demanding and competitive for students. Today's individuals in their environments are subjected to different physiological and mental stressors and stress is unavoidable; it is an everyday fact of life (Sherman & Poczwardowski, 2000). Even people who are equal in skills and ability respond to same events in different ways; one will flourish under pressure and perform well, while the other one may find the situation stressful and threatening and perform poorly because of that (Strycharczyk, 2014). Thus situations where performance is socially evaluated increases the experienced amount and type of stress. Dealing with the stressors of being a student athlete must also be discussed in the educational content. School exams, presentations, grade pressures or other similarities stress high school students and any distraction of a student athlete's regular routine is likely to increase perceived stress (Creed et al., 2013).

Stress management and coping strategies learned as a result of participation in a psychological skills training may be utilized in many contexts (e.g. Clement, Shannon & Connole, 2012). Governments, practitioners and policy makers should invest in education; to motivate and encourage teachers to prepare their students to achieve their potential because students reaching their potential today have implications for later occupational success and satisfaction (Creed et al., 2013); today's students are the policy makers of tomorrow. Fortunately, there are already some planned implications and programs, like PST, to help our "future hopes" to manage through their adolescence years in a way which prepares them better to adjust to the challenges they definitely will meet in their lives.

According to Weinberg & Gould (2015) and Weinberg & Williams (2006) psychological skills training is not just for elite athletes or highly skilled people; PST should be beneficial for a variety of people. Weinberg and Gould (2015) stated that PST has been transferred to a variety of business and work environments e.g. police officers, firefighters and financial consultants but there is still little or no research at all about PST in educational settings. Psychological skills training [PST] applied to school environment can be one possible means to answer this need for investment (Burton & Raedeke, 2008).

All the above mentioned aspects were the reasons why this psychological skills training course was planned and implemented. It was planned for the good of high school students, to teach them psychological skills and to give them tools to apply what they had learned to proudly confront with self-confidence the challenges they meet in their everyday lives, school, sports, and other activities.

This work is a qualitative case study. It is also an action research intervention study, where I worked as a teacher-researcher in psychological skills training. Data was gathered before and during the course through researcher diaries, observations, student learning logs, final inquiries, interviews, and a follow-up questionnaire. Every classroom session of the course was video recorded and interviews audiotaped.

## 1.1 Sport psychology

Sport psychology in the grand scheme is still relatively new and contemporary discipline. According to American Psychological Association (APA, 2015), “Sport psychology is a scientific and applied field which uses psychological knowledge and skills to address optimal performance and well-being of athletes, developmental and social aspects of sports participation, and larger issues associated with sports settings and organizations”.

Until these days it has been very common for sport psychology practitioners to rely on theories mostly from clinical, counseling and mainstream psychology to guide practice (McEvan & Tod, 2015; Weinberg & Gould, 2015). According to McEvan & Tod (2015), sport psychology can benefit from the broader professional development literature in psychology when developing sport psychological training. On the other hand the range of using sport psychology and its techniques in different roles is still focused mainly on sport settings (Weinberg & Gould, 2015). Despite this, as an academic discipline and as an applied practice, the popularity of sport psychology has grown significantly recently (Gee, 2010; Weinberg & Gould, 2015).

Even though researchers like Burton and Raedeke (2008) believe that PST might work in school environment, teaching and researching on psychological skills training in high school setting is very limited, if existent. There were few undergraduate studies on PST in high school but I could not find any postgraduate studies where psychological skills training was planned, implemented and evaluated in a holistic way and where the target group was all high school students, and not just the student-athletes. There is also little or no research on how these sport psychological methods and skills work in educational settings and it is still unclear if these skills really work as transferable life skills. Therefore, the purpose of this work was to study the learning processes of planning and implementing a PST course and learning processes of these skills among high school students. The idea with this intervention was to add a voluntary course for the high school course table and induce discussion about the meaning of psychological skills in educational setting. To construct a psychological skills program for high school use is also something that has not been reported much yet.



## 1.2 Psychological skills

There are nine psychological skills that are necessary for performing well in different sports and non-sport situations. These skills include positive attitude, self-motivation, ability to set realistic goals, ability to deal effectively with people, capacity to use positive self-talk and imagery, ability to manage anxiety and emotions effectively and capacity to maintain concentration (Lesyk, 2010, 2-6). To be able to learn how to apply these skills a practitioner must use different methods, procedures or techniques in teaching them. For example, goal setting as a skill is a quality to be obtained and goal setting as a method is a technique applied to develop these skills (Weinberg & Williams, 2006).

A central paradigm of applied sport psychology, which entails psychological skills training, is the fact that psychological skills are not innate. These skills can be learned by any mentally healthy person, and, just like their physical counterparts, they will improve with practice (Weinberg & Gould, 2015). Psychological skills are important part of overall training; those should be incorporated into the practices and routines of training (Howland, 2006) and the outcome or the objective of this training can be described as mental toughness (DeWiggins, Hite & Alston, 2010).

The term life skill is a relative concept to psychological skills and it has been broadly defined as the skill needed to deal with the demands and challenges of everyday life (Allen, Rhind & Koshy, 2014; Botvin & Griffin, 2014). Sport can be used as a way to promote positive development and using sport to teach young people different life or psychological skills has become more popular over the past decades (Weinberg & Gould, 2015). Lintunen and Gould (2014) claim that, for example, socially and emotionally competent behavior of athletes provide a foundation for better adjustment and performance and thus they most probably experience more success in sports and in their lives.

Tenenbaum & Eklund (2007) claim that sport psychological research is slowly moving from performance as the only outcome of interest to examine intervention effects on other important outcomes such as life transitions, the quality of sport experiences, and life skills. However, little research has examined the transfer of

life skills into other academic and life domains or its connection with the psychological skills.

### 1.2.1 Mental toughness

Mental toughness is a concept used to describe the quality which determines how people deal with challenges, stressors, and pressures (e.g. Connaughton, Hanton & Jones, 2010; Gucciardi, Gordon & Dimmock, 2009; Strycharczyk, 2014). According to DeWiggins et al. (2010, 458), “*mental toughness or the ability to stay focused, composed, and confident in stressful situations is a key factor contributing to success in any performance-related field*”. Certain attributes of mental toughness, defined by Butt, Weinberg and Culp (2010, 322), such as coping with and performing under pressure, drive or desire to succeed; setting goals, positive attitude, task control and working hard can be seen as something that can be achieved through systematic psychological training. Strong self- belief, affective intelligence, motivation and attentional control are attributes which have also been shown to describe a person who is mentally tough (Connaughton et al., 2010; Gucciardi, 2011). Mental toughness has shown to be an important characteristic for an athletic success and it is associated with many coping strategies, e.g. imagery (Nicholls, Polman, Levy & Backhouse, 2008) and self-confidence (Butt et al., 2010).

There is evidence that mental toughness is also associated with performance and behavior in the classroom; it is positively correlated with educational achievement levels (St Claire-Thompson, Bugler, Robinson, Clough, McGeown & Perry, 2014; Strycharczyk, 2014). Strycharczyk (2014) claims that it is something that is in all of us; it is a narrow personality trait and it applies to most of the situations we face, in school, work, play and study.

According to Strycharczyk (2014, 4), mental toughness is easy to recognize in schools; e.g. someone who gets poor grades takes it as a learning opportunity when the other one sees it as a fatal blow and as something that is innate and cannot be changed. Related to that, Weinberg & Gould (2015) claim that the importance of psychological skills is seen in the highly valued attribute of mental toughness; e.g.

studied Olympic athletes' perceived mental toughness as the most important determinant of success in their sports.

The psychological skills training programs provide a structured approach to the training and development of the attributes of mental toughness or skills related to it. For example, self-confidence, intrinsic motivation, attention control, and emotional regulation have been showed to be necessary for individuals to perform to their highest potential (DeWiggins et al., 2010).

### 1.3 Psychological skills training

Psychological skills training [PST] refers to “*systematic and consistent practice of psychological skills for the purpose of enhancing performance, increasing enjoyment, or achieving greater sport and physical activity self-satisfaction*” (Vealey 2007; Weinberg & Gould, 2015, 248). The ultimate goal of PST is self-regulation. Self-regulative person is able to regulate her own functioning, work towards her goals by effectively monitoring and controlling her thoughts, feelings and behaviors (DeWiggins et al., 2010; Weinberg & Gould, 2015).

Integrating and implementing a PST- course or program has its roots in the 1950s. During the 1970s and 1980s it was systematically applied in many western countries (Vealey, 2007; Weinberg & Gould, 2015; Weinberg & Williams, 2006). Since those days the number of studies and interventions in the field have been made and developed. Most literature on PST utilize expressions such as “psychological skills” and “mental techniques” more or less interchangeably, whereas some authors point out the difference between psychological skills as the desired outcome (e.g. increased self-confidence) and psychological methods or techniques (e.g. imagery) as the means to promote the desired outcomes through the systematic rehearsal of these techniques. Sometimes, the term “psychological strategies” is used for the application of psychological techniques (Birrer & Morgan, 2010; Weinberg & Gould, 2015).

Psychological skills training is one part of the previously mentioned discipline of sport psychology, to be precise, the psychology of coaching (Lintunen, Rovio, Haarala, Orava, Westerlund & Ruiz, 2012). Psychological skills include but is not limited to psychological skills training and it connects both cognitive and

behavioral processes (Paquette & Sullivan, 2012). According to Martin, Vause & Schwartzman (2005), most studies assess athletic performance only at competitions but the goal of PST should be viewed more widely like Petitpas (2000, 33) stated: *“to enhance individuals abilities to cope effectively in different life events by enhancing their self-efficacy and helping them identify or develop a range of coping resources”*. PST should be seen in a wider perspective, it should be a part of everyday training (Lintunen et al., 2012).

Goal-setting, arousal regulation (e.g. breath control and relaxation), concentration, self-talk and imagery have been named as the basic mental techniques or skills prevalently used and taught in sport psychology interventions, supplemented with multimodal PST, which incorporates a combination of these basic techniques (Birrer & Morgan, 2010; Omar-Fauzee, Sadeghi, Jamalis & Abd-Latif, 2010; Sadeghi, Omar-Fausee, Jamalis, Ab-Latif & Cheric, 2010; Vealey, 2007; Weinberg & Gould, 2015). However, according to Birrer and Morgan (2010), there are numerous additional techniques that can be used to enhance the psychological skills of an athlete, e.g. mindfulness which combines different techniques. On the other hand it is important to note that the same psychological technique can be used for the development of different psychological skills, depending on the specific application but the overall focus in every intervention should be on personal growth and development skills as outcomes of interest (Vealey, 2007; Vealey & Greenleaf, 2006)

People who are conducting the training of these skills are often cited as sport psychologists. They can be considered as helping professionals engaged in the process of psychological service-delivery (McEvan & Tod, 2015). Regulations in different countries vary but in Finland it is not just sport psychologists but also other persons certificated by the Finnish Psychological Association that can offer their sport psychological services to those in need (<http://www.psyli.fi/inenglish>).

In conclusion, it should be pointed out that the concepts of sport psychology and psychological skills training [PST] are anything but clear and univocal. In the literature concepts such as performance psychology (e.g. Massey, Meyer & Hatch, 2011), enhancement psychology (e.g. Zinsser, Perkins, Gervais & Burtelo, 2004) and mental skills training [MST] (e.g. Birrer & Morgan, 2010; Howland, 2006;;

Weinberg & Williams, 2006; Weinberg & Gould, 2015) are used when referring to these same terms and techniques used in the field.

### 1.3.1 Effectiveness of PST

The current state of knowledge regarding PST is posted as effective for attaining optimal athletic performance and the benefit of PST is widely reported (Gill & Williams, 2008; Vealey, 2007; Weinberg & Gould, 2015; Weinberg & Williams, 2006). A number of literature reviews and previous studies verify that planned psychological interventions and programs are effective in enhancing athletic performance (e.g. Birrer & Morgan, 2010; Massey, Meyer & Mullen, 2015; Weinberg & Gould, 2015).

Weinberg & Williams (2006) and Weinberg & Gould (2015) identified 45 studies where some process of psychological skills training was introduced in competitive sport settings; 85% of these studies found positive performance effects in sports like karate, skiing, boxing, gymnastics, baseball, tennis and figure skating. In other studies it has been shown that PST can significantly improve the performance level in different sports, e.g. in basketball (Shitrit, 2001), ice hockey (Schuijers, 2002), golf (Ramsey, Cumming & Edwards 2008), rugby (Sharp, Woodcock, Holland, Cumming & Duda, 2013), table tennis (Van Raalte & Britton 2002) and in volleyball (AL- Haliq, Khasawneh & Al-Akor, 2013).

The analysis of a large number of interventions indicated moderate to large positive effects on performance for PST interventions (Weinberg & Williams, 2006; Weinberg & Gould, 2015). Positive relationship between confidence and performance is well supported in the sport literature (Machida, Ward & Vealey, 2012; Hays, Thomas, Maynard & Butt, 2010) and self-regulation seems to be an important source of confidence among high level athletes (Duda, Cumming & Balaguer, 2005). Zinsser, Bunker & Williams (2006) presented that there is a direct correlation between self-confidence and success. In a study by Hays et al. (2010), high sport confidence facilitated sport performance through its positive effects on athletes' thoughts, feelings and behaviors.

According to Burton & Raedeke (2008), PST can help athletes handle competitive stress and feel self-confident but it can also improve performance in school; it is

also a training in life-skills, for example learning how to handle pressure and criticism. Hays (2000) also claim that it is not just athletes who can utilize the PST. In her study performing artists responded to techniques focusing on performance enhancement very well. In a study by Clark and Williamon (2011), PST was delivered to students at the music conservatoire and the results indicated greater levels of self-awareness, confidence, facilitative views and heightened control over anxiety and healthier perspectives toward music-making. Their results showed significant changes in participants practice activities and increase in their self-efficacy to performing. Similar findings can be found from the study by Laukka and Quick (2011). A third non-sport example presents a study where psychological skills training were given to military personnel, to be exact, for soldiers (DeWiggins et al., 2010). Researchers found that when teaching psychological skills to soldiers they not only learned what tools should be used but also when and how to apply those tools in specific real life situations. McCrory, Cobley and Marchant (2013) got similar results in their military recruits study; recruits learned to apply psychological skills in their tasks successfully after a relatively short 10 day- PST period.

Other example from non- sport domain which relates to PST, concerns health care and education. Botvin & Griffin (2014) stated that life skills training [LST], which is a competence enhancement based preventive intervention, emphasizes on drug resistance skills training within the context of a generic personal and social skills training model. In LST, similar methods than in PST are applied e.g. goal-setting, relaxation and imagery. These basic psychological skills are taught and applied as addressing the risk and protective factors associated e.g. with drug use initiation. LST is one of the most thoroughly evaluated evidence-based drug abuse prevention program for middle school students.

So, if coaching or teaching is seen as a dynamic and interactive process, as Paquette and Sullivan (2012) suggest, and if psychological skills training can be applied to all athletes at all levels (Weinberg & Williams, 2006), for performing artists, soldiers and health care, it should be worth to teach these skills in other settings, e.g. in high school as Smith & Smoll (2002) and Sharp et al. (2013) suggested.

### 1.3.1.1 Effectiveness of various psychological skills

Goal setting, as previously mentioned, is one of the most popular motivational techniques for enhancing performance and productivity in business, education, and sport (Forsblom, Kontinen & Lintunen, 2015; Marchant, 2000; Rovio, Eskola, Gould & Lintunen, 2011; Jaakkola & Rovio, 2012; Weinberg & Gould, 2015). Several reviews and meta-analyses have supported the fact that goal setting is an effective performance enhancement strategy, when the goals are set specifically, measurably, and they are moderately difficult (e.g. Birrer & Morgan, 2010; David, Megginson & Clutterbuck, 2013; Gill & Williams, 2008; Gould, 2006; Weinberg & Williams, 2006; Weinberg & Gould, 2015). In a study by Bandura and Locke (2003), set personal goals together with perceived self-efficacy and self-confidence, enhanced motivation and performance attainments in athletes.

The improvement of arousal regulation skills like breath control and relaxation gives athletes a chance to reduce or increase their level of arousal efficiently (Pineschi & DiPietro, 2013). By increasing your breathing rate you can generate and produce more energy, reduce tension and activate your regulative systems (Weinberg & Gould, 2015). Utilizing selective attention or concentration permits essential information to gain access to the nervous system (Abernathy, Maxwell, Masters, Van Der Kamp & Jackson, 2007) and proper concentration is said to be essential for performing at ones best (Wilson, Peper and Schmid, 2006).

Self-talk helps to focus and enhance concentration for the task at hand. It is also a useful tool in enhancing motivation, increasing confidence and self-esteem, regulating arousal levels, acquiring new skills, improving mental preparation and sustaining effort (Hamilton, Scott & MacDougall, 2006; Hatzigeorgiadis, Zourbanos, Galanis & Theodorakis, 2011; Weinberg & Gould, 2015). When it is effective, self-talk is positive, realistic and concise (Roos-Salmi, 2012).

Imagery is often used psychological coaching method in sports (Kataja, 2012; Weinberg & Gould, 2015; Williams, Cooley, Newell, Weibull & Cumming, 2013; Williams & Cumming, 2011). Studies show that imagery is very useful in enhancing performance by using all the senses to re-create or create an experience in the mind; this helps athletes to perform better and increase self-confidence (e.g. Omar-Fauzee, Wan Daud, Abdullah & Rashid, 2009; Sadeghi et al., 2010).

Imagery has scientific evidence to support its value in learning and performing, especially in motor skills. These studies have been conducted across different levels and in many sports (Weinberg & Gould, 2015).

Sharp et al. (2013) found that participants believed the PST program to be an interactive and a well-planned program which increased their understanding of PST methods and awareness of PST strategies to manage their performance. The participants' opinion was that it was very important that their coaches developed a greater knowledge and understanding of PST methods. They also believed that perceived psychological skills and methods they learnt through the PST program were transferable to other sports and areas of their lives (e.g., school). In another study where Olympic athletes were interviewed, they appraised the importance of mental preparation and training; mental training and discipline was a critical component of their success (Weinberg & Williams, 2006; Weinberg & Gould, 2015).

Despite of above mentioned, by seeing a psychologist people still tend to react as if there is something wrong with the person. Massey et al. (2015) speculate that maybe the perceived effectiveness of sport psychology services is one possible explanation for athletes not engaging in PST routines. Gee (2010) remarks that just like people suffering from mental illness often avoid mental health services, for the fear of being negatively labeled, athletes are using the same tactics as they seem to avoid the services of sport psychologists for these same reasons, e.g. they think that sport psychology is only for problematic athletes and it is the reason why so many athletes remain resistant to adopting and maintaining a PST routine (Massey et al., 2015). But this should not be the case; it is not a clinical but educational approach that should be used in and to promote sport and exercise psychology. The word educational here is the key; working to improve one's psychological skills should not be seen as a weakness but rather as a way to improve performance and growth as human (Weinberg & Williams, 2006). Weinberg & Gould (2015) claim that psychological skills should be trained and practiced systematically and similar to physical skills and it also should be goal-oriented, planned, controlled and evaluated.



After any PST program an individual should be able to self-regulate his or her internal functioning in the desired manner. By self-regulation Weinberg & Gould (2015, 257) mean “*the ability to work toward one’s short- and long- term goals by effectively monitoring and managing one’s thoughts, feelings, and behaviors*”. Vealey (2007) and Weinberg & Gould (2015) argue that the ultimate goal of PST is to help individuals function on their own in the world around them. Hence, the aim of the PST training could be summarized as to strengthen participants’ self-regulation and mental toughness in different situations.

In conclusion it should be mentioned that there is a lot of evidence on the effectiveness of PST but very little or no research at all on how to pedagogically plan, implement and evaluate a PST program. For example, one of the best studies in the field, DeWiggins et al. (2010) Personal performance plan, presents a meritorious program on how psychological skills can bring mental strength for life but pervasive research about the teaching and evaluating processes of a PST in a holistic way is still an under-explored area as is how PST is experienced by the participants. These questions were something this study aimed to answer for.

#### 1.4 Theories, approaches and frameworks behind this PST program

There are a few theories, approaches and frameworks behind this thesis. According to Vealey (2007), the process of psychological skills training includes different philosophies, models, strategies, and techniques. All these define the approach to enhancing psychological skills.

First, the holistic approach, often known as holistic education and teaching framework (Forbes & Miller, 2004), was the guiding philosophy behind this intervention. This philosophy reflects the ideas and beliefs about the nature of teaching, learning and education. The precedents of holistic education reveal a mixture of disciplines, in this case pedagogy and psychology, both researchers’ expertise areas of science. Holistic approach combined with student- athlete-centered approach (Vealey, 2007) were the philosophical cornerstones upon which the program was planned, implemented and evaluated. These approaches are presented in the chapters’ 1.4.1-1.4.3, pp. 18-23.

Secondly, specific psychological training strategies and techniques were developed and utilized by modeling of intervention (Vealey, 2007). In this intervention, the model was a combination of the ideas of Weinberg and Gould (2015) and the personal performance plan [PPP] by DeWiggins et al. (2010) but the ideas of life development intervention (Petitpas, 2000) and transactional model of stress and coping [TMSC] by Lazarus (2006) were also utilized. For example, the PST program introduced by Weinberg and Gould (2015) consisted of three main phases, the one by DeWiggins et al. (2010) of four phases. The life development intervention (Petitpas, 2000, 33) assumes that continuous growth is natural aspect of human development but sometimes events and situations produce stress and anxiety so the transactional model of stress and coping was utilized for evaluating the processes of coping with stressful events (Lazarus, 2006; Massey et al., 2011). To make the appropriate model to this specific course, ideas of each above mentioned approaches were combined and used in different phases of the intervention.

The third layer to be taken into account in the process of psychological skills training was what strategies were to be applied (Vealey, 2007; Vealey & Greenleaf, 2006). This stemmed from the philosophy and model and from the practitioners background. The fourth and final layer of this PST process was the techniques and methods used in a training strategy (Vealey, 2007). In this intervention the most cited, reported, and effective sport psychological tools were applied.

In the planning, implementing and evaluation phases of this PST course the ideas of Weinberg and Gould (2015), the Look, think, act- model [LTA] by Stringer (2009) and the Personal performance plan [PPP] by DeWiggins et al. (2010) were the most applied and utilized approaches.

#### 1.4.1 Holistic approach and nature of teaching: Look, Think, Act

In the holistic approach a student is seen as a physical, psychosocial, cognitive, ethical, and spiritual being. Therefore, good teaching and learning must look at the student as a whole (Cutri, Rogers & Montero, 2007). As Hopkins (2014) argued, teachers have to take into account the culture we live in. What is remarkable is that the world around us has changed; top-down teaching is no longer the way to teach

in the classroom but a bottom- up approach, which engages the students to take an active role in learning (Stringer, 2014).

The “Look, Think, Act” action research cycle, presented by Stringer (2009) can be seen as one of the main frameworks here, to ensure that the system adapts to changes within and changes in the environment. Patterson, Baldwin, Araujo, Shearer, Stewart (2010, 10-11) argued that *“this particular framework is powerful because it can move action researchers to take a critical stance. From this stance (during the “think” phase), action researchers would be concerned with larger political and cultural systems and with the ideologies that influence patterns in schools, as well as with more instrumental actions and consequences. Those ideological patterns across the system are sometimes hard to resist”*. This framework will be more closely presented in the chapter 3.2.1 (Look, think, act, pp. 29-31).

Because the world has changed, educational systems that tend to limit the individual initiative by encouraging conformity and control are no longer valid (Hopkins, 2014). According to Cutri et al. (2007), good education is and must be, multicultural in order to gain a deeper perspective on issues through the sharing of many different cultural perspectives. This demand for different cultures to meet should be seen as an encountering of school culture and student or human culture. This was the way I as a researcher was thinking while planning the course. As Slattery (2013) pointed out, a clear split can still be seen between the theory and school practices and with this gap I tried to break my teaching to show the students’ that there is a rich and dynamic relationship between theories and practices.

#### 1.4.2 Student-centered approach

Student- centered approach was picked as a classroom teaching method. According to Hopkins (2014) and Wright (2011), moving towards learner-centered teaching will lead to greater success for students. Learner-centred, dialogical and action-oriented teaching and learning methods are essential in both teaching and learning (Lintunen & Kuusela, 2007). Student or learner-centered teaching and learning has its grounds in social-cognitive theory, which examines the range of personal values, experiences, and dispositions and how they interact with the world

(Phillips, 2011). In this paradigm student perceptions are valuable insights for understanding their interests and attitudes about learning. This approach brings out the student interest, engagement, motivation, and when learning experiences are connected to the real world, it brings along positive emotions and relationships which support successful learning.

In a study of Wright (2011), many college teachers believed that student-centered classroom provided a more effective learning environment. In these reports students tended to respond positively to the changes introduced, and the teachers succeeded in creating more learner-centered classrooms while achieving their course objectives. The Finnish Curriculum Design 2016- process (<http://www.ops2016.fi/ops2016/>), whose aim was to plan, produce and carry out a nationwide guidance and training model for the curriculum reform, highlights and challenges the future teaching to take into account the students' participation. The aim of the new curriculum is to meet the challenges of the new era, to promote student participation and integrate and standardize teaching objectives along the country.

According to Phillips (2011), certain level of student autonomy during learning seems to be tied to achieving goals. And when learning takes place in interaction with other students (social aspect of learning), it is consequential for students. Student-centered learning and education broadly encompasses methods of teaching that shift the focus of instruction from the teacher to the student. It aims to develop learner autonomy and independence by putting responsibility in the hands of students (Geven & Attard, 2012).

McKeown (2011) suggestions of giving yourself the latitude to develop your own style of teaching was applied. Observing, experimenting, and reflecting develops your own style and along the way to flop is normal. These ideas were something that should be taught in teacher training from the start; there is no perfect way to do teaching. You have to take chances and push your skills to get better (McKeown, 2011).

### 1.4.3 The Personal Performance Plan (PPP)

One approach that gave a lot of ideas to my planning and implementing phases of this PST course was The Personal Performance Plan [PPP] by DeWiggins et al. (2010). It is a phased approach to PST and grounded in performance and learning. Originally PPP was developed for military use but their ideas suited well with my teaching philosophy: *“Effective learning includes both conceptual knowledge and ample opportunities to apply that knowledge in the real-world settings”* (DeWiggins et al., 2010, 463).

This approach highlights certain specific psychological tools within task preparation, execution, and reflection. This approach teaches not only what psychological skills should be used but when and how to apply those tools in real life settings. The psychological training program proposed and discussed here provides a structured approach especially to the training and development of the mental toughness skills, a.k.a. mental strength for life.

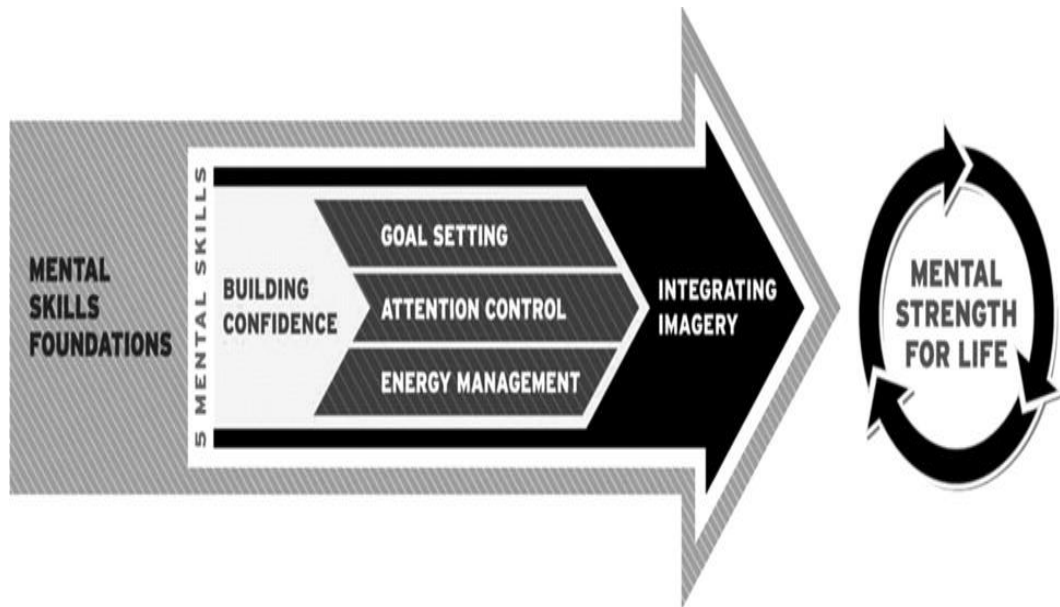
The PPP approach includes four phases. In the first, the planning phase, psychological tools as goal-setting and imagery are introduced. This phase can be used in enhancing skill learning and performance. The objective in this phase is to set clear goals of success and produce vivid images of perfect performance because goals direct attention, effort, and action toward goal-relevant actions (Locke & Latham, 2006). In the second phase, pre-task execution phase, the psychological tools of energy management and functional self-talk are highlighted and included into a routine. In the third or, the execution phase, personalized refocus techniques are emphasized. In this phase, cue words can be used, often referred to as task-oriented self-talk, to stay and concentrate in the moment. In the fourth and the last phase, the recovery phase, psychological tools of imagery and energy management are highlighted and applied.

After execution, according to the authors, it is important to evaluate preparation and performance, what went good and what needs to be improved. Evaluating psychological skills development has been seen as an important part of any program that is teaching these skills (Weinberg & Gould, 2015).

The PPP training progresses through three steps of education, acquisition, and application. In that way the approach has clear confluences with model of Weinberg and Gould (2015). The educational step in PPP includes classroom training designed to provide the essential core education of mental training. This core session includes theoretical, conceptual, and practical information regarding psychological skills training. During this part, each participant receives a workbook and guided instruction to develop mental tools targeting the requirements and the needs of the real life task.

Following the education step is the acquisition step. In this step, participants go into the field and practice using their learned skills in realistic environments, beginning with drills and slow rehearsals and progressing until standards of implementation are met. The participants bring up their workbooks to relate to the previously learned information, and practice using mental tools in each phase as they relate to the certain specific task. Throughout this program, participants receive feedback on the knowledge and mental tools attained in the classroom through accurately detailed reviews.

Lastly, the application step focuses on the full integration of mental tools and skills with physical, technical, and tactical elements during each phase of the task. Participants are provided the opportunity to apply their knowledge of mental tools to real-life practice with pertinent feedback. Through repeating practices, implementation of the PPP becomes instinctual and reactive, automatic and these learned skills can bring mental strength for life (picture 1).



Picture 1: Mental strength for life, DeWiggins et al., 2010.

### 1.5 Psychological skills training program for high school students

It has been said that learning to learn and use of psychological skills in actual situations takes months (Weinberg & Gould, 2015; Weinberg & Williams, 2006). Because of the situational demands of this PST course I had to plan an abbreviated program. In planning a PST program practical constraints of the situation defined the type and length of the program. The practitioner must also think carefully how many skills are to be taught (Weinberg & Gould, 2015). In this case the planning phase started in the beginning of November, 2014 and it took over two months to complete it but the timeline that was given to implement the course was only six weeks. However, according to Weinberg and Gould (2015) and Weinberg and Williams (2006), there is no general agreement or ready-made solution for how much time should be spent teaching and learning these techniques, what techniques are best for different objectives or how to integrate and implement a PST program.

Stringer (2009) argues that planning a course or a lesson is more than just setting out a program of learning. A teacher must take into account not only the information or skills to be learned, but also the characteristics and capabilities of the students in the class. In this case, I as a teacher had an idea of what to teach and to whom but when this initial idea did not actualize I had to change my plan a little.

Like Stringer (2009; 2014) noted, a successful program of learning requires careful targeting and planning of what is to be learned. This planning has to take into account the qualities of the learners because any classroom is a veritable “zoo” of abilities, orientations, responses, behaviors, and potentials and therefore there is a difference whether the course was offered to athletes or to someone else.

Despite the participants, the best approach to teach psychological skills to a group of people is to be flexible and individualized (Weinberg & Gould, 2015; Weinberg & Williams, 2006). People are unique and everyone is not learning at the same pace or at the same way; that is why a practitioner should use different methods or techniques in his teaching. With this in mind I chose previously mentioned student-centered teaching approach for this intervention by request.

Planning, implementing and evaluating this PST course included several elements. Getting familiarized with the previous studies and interventions was naturally the first step to take. Another important task, according to Lavallee, Kremer, Moran & Williams (2003), is the education of the leader (e.g. sport psychologist, teacher, and coach) relative to activity. An assessment plan or the needs analysis, where the leader (sport psychologist etc.) should self-educate him in task related issues, know the clients background, skills and what they might want to achieve with this program, should be made before the actual teaching or coaching takes place. Other elements to be considered included what was the timeline needed and to be used, when to implement the program, what were the educational aspects, how to measure learning and how to evaluate or assess the success of the intervention (Nideffer & Sagal, 2006; Weinberg & Williams, 2006; Weinberg & Gould, 2015).

General upper secondary education policies and new curriculum plans had also to be taken into account when planning the course. One main aim in this reform for the new curriculum for high schools in Finland emphasizes functionality and practicality in teaching and learning and that was the cornerstone idea behind all actions (<http://www.minedu.fi/OPM/Koulutus/lukiokoulutus/?lang=en>; [http://www.oph.fi/english/curricula\\_and\\_qualifications/general\\_upper\\_secondary\\_education](http://www.oph.fi/english/curricula_and_qualifications/general_upper_secondary_education);

[http://www.ops2016.fi/ops2016/aineistot/Curriculum\\_Design\\_2016.pdf](http://www.ops2016.fi/ops2016/aineistot/Curriculum_Design_2016.pdf)). The curriculum for this present program is presented in the APPENDIX 1.



My aim was to create an open and student- centered learning climate where students would have to put more effort on implementing the course. Wright (2011) argued that usually decisions about the course are made by the instructor and it is exactly what students want and expect. I wanted to break this old habit but it was not an easy task to try to change the learning environment. Suggestions by Smoll and Smith (2006) were used in teaching, to encourage students to be themselves, to find and share exercises by their own and finally reflect what they had learned in their learning logs. Partly because of the tight schedules and timetables and partly because of the reactions of the participants, top-down protocol (Stringer, 2014) was practical and mostly used.

According to Weinberg and Williams (2006), psychological skills training should be planned, implemented and supervised by a qualified sport psychologist. Other personnel, familiar with the methods and techniques used in the field should also be qualified to teach these skills and the supervision acts an important role in teaching. As Van Raalte & Andersen (2000) point out, supervision in applied sport psychology is needed to ensure the care of the individual when a trainee accomplishes the PST course. Through supervision, a trainee learns to understand himself, his strengths and weaknesses. Supervision is also a way to develop trainees' competency, knowledge, and ethical aspects. When it comes to supervising in my case, I was very lucky and honored to be supervised by one of the most known, commended and certified Finnish Sport psychologist, Mr. Niilo Konttinen, the senior researcher and the head of the behavioral unit at the Research Center for Olympic Sports (KIHU). His experience, support and guidance helped me a lot during the implementation of the PST- program.

The other supervisor in this program was the high school principal. Meetings and negotiations with her were needed especially in regards to technical aspects. She modified the course contents to meet the requirements of their high school curriculum but also to general high school curriculum in Finland. Thus, extensive supervision was an integral part of the training process for me as a teacher (e.g. Van Raalte & Andersen, 2000).

Cornerstones to this intervention program besides the need analysis came from previous sport psychological studies concerning psychological skills training

[PST]. This study had certain confluences to the ideas of Social Emotional Learning [SEL] (e.g. Lintunen & Gould, 2014; Merrell & Gueldner, 2010) and Social Skills Training [SST] (e.g. Cornish and Ross, 2004) in a way that social and emotional skills which can be seen as psychological skills in a way are being taught through school-based programs because schools have been identified as a highly effective setting for such skills to be taught. The basic assumption was that the best learning appears when the learning context is supportive, challenging, engaging, and meaningful and when students can learn to use new skills in and out of the classroom (CASEL, 2015). In this study, practice situations were to be similar to the real situations as possible. For example, teaching and learning happened in normal school contexts, and most practices were executed during students own time, in their real life situations, after school hours.

The aim of the intervention was to familiarize students with the world of psychological skills and to show the meaning of mental preparation and practicing these skills during the pre-competition period in order to achieve self-confidence which helps in the real life events to deal with stressors (Kingston, Lane & Thomas, 2010). An important aim of teaching was to highlight the meaning of psychological skills in all their actions and not just for their sport performances, to enhance the mental toughness in them to achieve mental strength for life (DeWiggins et al., 2010; Strycharczyk, 2014).

## 2 PURPOSE OF THE STUDY

The purpose of this qualitative action research case study was to plan, describe and evaluate the implementation of a 12- hour- long Psychological Skills Training program in a high school setting. The aim of the study was to explore the process and learning of PST among high school students and their lived experiences during a 6- week intervention study. The data was derived from researcher diaries, student learning logs, classroom field observations, student interviews, final inquiry and follow-up questionnaires.

More in detail, the aim was to:

- a) Describe and understand the planning, implementation and evaluation of the PST intervention.
- b) Study how students perceive the intervention program.

## 3 METHODS

### 3.1 The researcher's background

My personal educational background is deep in psychology and education. I have done my Master's degree studies in psychology, and am a licensed clinical psychologist. In addition, I have a teacher's licensure and a guidance counselor specialization. All these qualifications have been accomplished at the University of Jyväskylä, Finland. I have 5 years of work experience in teaching and guidance counseling for 14-18 year old students, and 9 years in career planning services as a psychologist (for all age groups).

My personal interests in life are in many cases related to sports. I have been an active, competitive athlete in the fields of ice hockey, gymnastics, skiing and floor ball for over 20 years and after my competitive career I have been coaching and working as a sport psychological consultant.

I have had this idea, to plan and implement a PST course for high school use, on my mind for years. Now the time was right, ideas turned to plans and plans to concrete actions. I am very interested in Sport and Exercise Psychology and I plan to focus my path in the future towards sport psychological issues.

### 3.2 Research design

This study used an action research case study approach to gather information about psychological skills training [PST] program in the high school setting, in this case the University of Jyväskylä Teacher Training School. The Teacher Training School (Norssi) is part of the University of Jyväskylä's Faculty of Education. It is a university practice school that provides basic education and general upper secondary education. Norssi's aim is to provide students who are undergoing teacher training with the supervised teaching practice required for a broad-based teacher qualification ([www.norssi.jyu.fi](http://www.norssi.jyu.fi)). The school prepares its students for a modern information society and it is an active member of Finnish teacher training schools' network ([www.enorssi.fi](http://www.enorssi.fi)).

Action research [AR] is a cognitive framework for practitioner research where thinking together in dialogue is valued and innovation and coordinated action is thereby generated (Mckenna & Dunstan-Lewis, 2004; Patterson et al., 2010; Stringer, 2014). An action research is a holistic approach that integrates reflection and action (Kemmis, McTaggart & Nixon, 2014).

Adopting an AR approach can be justified on many grounds; it is actual doing and it is done with the participants. According to Reason and Bradbury (2008), an action research has certain characteristics: it is grounded in real life experience, developed in partnership, it addresses significant needs, develops new ways of seeing/interpreting the world, works with (rather than simply studying) people, uses methods that are appropriate to the participants at hand, and develops needed structures to follow so that the work may have a lasting, positive impact.

During this intervention study I worked as a teacher-researcher, being an active part of the course. Metsämuuronen (2000) claims that when working as a teacher-researcher one can either be more in a part of a researcher (observer as a participant) or in a part of a teacher (participant as an observer). In this particular study both perspectives were used. The observations the teacher-researcher did during the action were crucial part of action research. The purpose of the participatory observation was to understand the subject of research and that way to influence actions of the group in process (Heikkinen, Rovio & Syrjälä, 2008).

### 3.2.1 Look, think, act

Patterson et al. (2010, 8-9) refer to Stringer's studies who described the practitioner inquiry process as a "Look, Think, and Act"- cycle, [LTA] (figure 1: Look, think, act). The action research protocol is iterative, or cyclical, in nature (Heikkinen et al., 2008; Kindon, Pain & Kesby, 2007; Stringer, 2014). The protocol is intended to foster deeper understanding of a given situation, starting with conceptualizing and particularizing the problem and moving through several interventions and evaluations. The core concern for action research in this case was to develop practical as well as conceptual contributions by doing research with, rather than on, people. *"It seeks to reconnect action and reflection, theory and practice, in*

*participation with others, in the pursuit of practical solutions to issues of pressing concern to people.*” (Reason & Bradbury, 2008, 4).

The LTA protocol guided the planning of the course as we all as teacher preparation and instruction. The "Look" step or phase (acquiring the information) refers to a data collection and analysis scheme in the first phase (November-December 2014). The "Think" step refers to a reflecting on the information (analyzing and evaluating that happened along the way), and the "Act" cycle focused on using of the outcomes of reflection and analysis (planning, implementing, and evaluating student learning). The act cycle also focused on action steps related to academic skills or on actions beyond the classroom; the teaching and learning process so to say. The act phase often involved framing new questions that led to further inquiry.

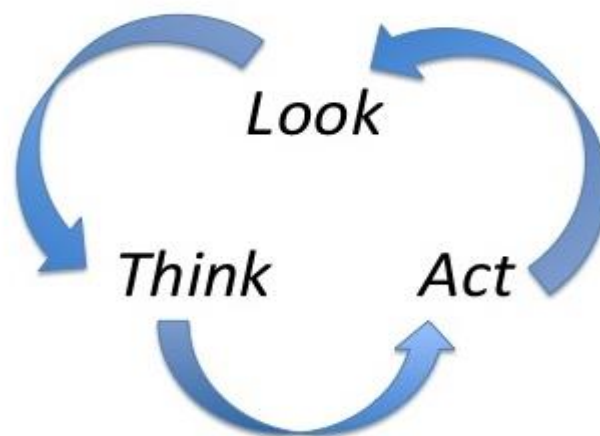


Figure 1: Look, Think. Act action research cycle, Stringer, 2009.

The essentials of an action research design are planning, implementation and evaluation (Hopkins, 2008; Kemmis et al., 2014; Stringer, 2009; 2014). At first in this study, in early November 2014, an understanding of a problem was developed and plans were made for some form of interventional strategy (planning or “look”). After this the intervention was carried out (the action in AR, the “act”), from January till March, 2015. During and around the time of the intervention, observations were collected in various forms (monitoring the implementation by observation). And lastly, the new interventional strategies were applied, and the

cyclic process repeated (evaluation, reflection and revision, the “think”). Evaluation was actually made during the whole process, from November 2014 till March 2015, in each phase, before and after each classroom session.

AR took place in a person-task environment (Schack & Hackfort, 2007); in this case the University of Jyväskylä Teacher Training School. It was a process designed to empower all participants in the educational process (students, instructors and other parties) with the means of improving the practices conducted within the educational experience (Reason & Bradbury, 2008). Additionally, there was a different relative emphasis on the importance of action and its relationship to conceptual insight; the course was planned to follow the rules of learning by doing. Hopkins (2008, 1) argues that “*classroom research is an act undertaken by teachers, to enhance their own or a colleague’s teaching, to test the assumptions of educational theory in practice, or as a means of evaluating and implementing whole school priorities.*” Planning, acting, observing, and then reflecting on one’s actions, or simplified, look, think, act formulates a cyclical AR study.

Stringer (2014) argues that an action research [AR] does not use a single method. It uses multiple ways to gather information and many actions and reflective processes to face problems and issues (Heikkinen et al., 2008). This action research study approached the participants with group session intervention, and used interviews, observations, learning logs, questionnaires and researcher diaries as methods of data collection.

### 3.3 Needs analysis

A useful way to start a new program or intervention is by carrying out a needs analysis. Weinberg and Williams (2006) and Weinberg and Gould (2015) call this phase a needs assessment, and it simply means determining strengths and weaknesses of participants. According to Cornish and Ross (2004), a person who is familiar with the participants in various contexts (such as a teacher) is in the best position to carry out a needs analysis. Researcher’s previous work history included one year working in this very same school in a role of the guidance counselor and that helped the executing of the need analysis. In this case the needs analysis that was done with the principal and guidance counselor, senior students, senior

colleagues and supervisor to reveal those psychological skills that were desired to be taught and learned.

At first, the principal of the Teacher Training School and the guidance counselor revealed that most students who are preparing for their exams, especially their matriculation exams, seem to be both physically and psychologically stressed and they could benefit of teaching and learning these psychological skills in school. Secondly, the senior athlete-students were asked what kind of methods they would like to be included in this kind of intervention. Thirdly, the senior colleague students (of Sport and Exercise Psychology) and the supervisor were asked what kind of interventions they had been using in their practicums and work and what techniques and methods they had noticed to be working well with students. Fourth, workbook from colleagues was received and it helped in organizing and planning lectures a more professional way. And fifth, lots of articles and literature reviews were read. This literature review pointed out which were the most comprehensive skills and techniques to be taught.

Weinberg and Williams (2006) and Weinberg and Gould (2015) question what components should be incorporated in psychological skills training. McCarthy, Jones, Harwood & Olivier (2010) noted that it is important to appreciate what participants understand about psychological skills to teach these skills effectively. Every individual and every sport has different demands and that is what has to be taken into account when planning and implementing a PST course, especially for a group. In a heterogeneous group like a school class it is a challenge for a practitioner to know needs for every student and that is where other people can help.

According to Weinberg and Williams (2006) and Weinberg and Gould (2015), there is multitude of possibilities to choose the skills to be taught from and it makes it difficult to integrate all the components into one program. Foundation skills that are necessary to achieve success (e.g. self-confidence), performance skills which are critical to the execution of skills during performance (e.g. attentional focus) and personal development skills that represent maturational markers of personal development (e.g. identity achievement) were used in this intervention (e.g. Vealey, 2007).



After a careful thinking and planning, six psychological skills to be taught in this program were selected. These skills included goal- setting, breathing and relaxation, concentration, self-talk, and imagery. These particular skills were chosen to help the students' to enhance their self-confidence, to take over and master the situations they live in, in order to help them to trust themselves, perform better and be more self-regulated. The aim of the intervention can be pointed as teaching psychological skills to be used as life skills, skills that bring mental strength for life (Allen et al., 2014; Botvin & Griffin, 2014; DeWiggins et al., 2010).

### 3.4 Participants

Six Finnish high school students from the University of Jyväskylä Teacher Training School registered into this course and intervention study (N=6; m=1; f= 5; age 16-18). Five girls and one boy registered at the course in Wilma (student administrative system). Eventually 5 of them, all females, participated in the course and 4 of them finally completed the course (n=4; f= 4; age 16-18). The students had started their studies from half a year to one and a half years ago, i.e. they were first and second year students. The course was offered as a voluntary and elective course.

### 3.5 Procedure

The study was conducted between November 2014 and March 2015. The actual PST course was held between January 13<sup>th</sup>, 2015 and February 17<sup>th</sup>, 2015 over six weeks. The official intervention included 6 group sessions, 2 classroom hours each, total of 12 classroom hours (90 minutes per session) and 24 hours of independent practicing. In addition, each participant also underwent a short semi-structured personal interview and feedback session after the six week program. During that session, the thoughts of students' learning logs and answers for homework assignments were discussed. This session also included discussions about the course and its contents.

The participants who completed this PST- program gained one high school credit of elective course study to their high school diploma. The course was evaluated as

pass, completed or fail and numeric grade was not given. To pass and complete the PST course, participants needed to fulfill the following demands: all homework assignments were to be finished in time, learning logs had to be written from all classes and transferred to net based learning environment, and students were to be present in the classroom sessions (absence from the class could be compensated and negotiated with the teacher). The course assessment was not included in the lesson plan grids; it was executed after finishing all six classroom sessions and tasks.

Classroom sessions were held at Tuesdays 14.30-16.00. In addition, a 2 hour interview and feedback session was reserved for all participants to fulfill the request of 38 hours, which is the normal duration of a high school course in Finland. The final interviews were held between February 17<sup>th</sup> and March 3<sup>rd</sup>, 2015 and the follow-up questionnaire was sent two months after the course ended, in the beginning of May, 2015. Classroom sessions were videotaped and used as an extra data source. Results were content analyzed and categorized.

I as a researcher wrote my diary in the planning phase and also during the intervention phase, before and after each classroom session. The researcher diary was a tool for me as the teacher, to observe the learning processes, my own learning and reflections. In addition, the students kept their mandatory and personal learning log during the whole six weeks intervention period and their interviews formed another important data source for the study. Not only because of the schools policy and the importance for the future learning, but also because of the nature of teaching, the course and all the material used in it were transferred to this learning environment (peda.net). Peda.net was used as a resource bank and students homework assignments were placed there. Peda.net was an essential part of the course and it gave students a chance to accommodate and assimilate knowledge, ask for assistance, mingle and over all, search for information. In addition this learning environment gave other teachers the possibility to adopt techniques or models used in class or to repeat the program.

Kolb's ideas of experimental learning were guiding the researcher diaries (Kolb, 1984). Even though this theory was written in adult education means (Malinen,

2014), I found it useful in my teaching, especially when reflecting my own actions. Kolb's ideas of learning are alike with the principles of an action research (e.g. Patterson et al., 2010) and came close to my ideas of teaching psychological skills by using different methods and techniques.

The course included lectures carried out by the teacher but there was also a reflective learning log- style abstract conceptualization of concepts (thinking). In addition teaching and learning included actual doing (doing) which led students and me as a researcher to reflect our thoughts in diaries and learning logs (feeling). The course was active in a way that it taught these certain life skills in a manner that they could be used in any needed situation. Students were observed (watching) in classroom settings and these observations clearly showed if something was understood, needed clarification, was beneficial for them or was not interesting to them. And this reflection led to change the action if needed.

In the classroom sessions, self-observation and self-monitoring (e.g. Ste-Marie, 2013) were used in favor of developing teaching, learning, and performance. In self-observation, the person observes his current performance, often as a video replay and in self-monitoring he watches through video editing his most successful past performance. There were two purposes for this videotaping; to learn more about the teaching style and also to add these videos in the net for student use. Especially modeling has been shown to influence confidence and lead to enhanced performance (Ste-Marie, 2013; Weinberg & Gould, 2015).

In planning the practical parts of the intervention, most exercises used in this intervention were taken from the books *Foundations of sport and exercise psychology* by Weinberg and Gould (2015), *Urheilopsykologian perusteet* by Matikka & Roos-Salmi (eds.) (2012) and from the *Mental training book* by Skills Finland, edited by Minkkinen, Pylvänen & Airaksinen (2015). Exercises from various other sources were also used. I personally asked the permission to use the exercises presented in the books from the authors, to be used in this intervention. Permission was granted and in different sessions the exercises from these different sources were mixed. In addition, most used databases and search engines in this

study were EBSCOhost, Elsevier, JYKDOK, SPORTDiscus, SAGE, and Google Scholar.

### 3.5.1 The planning phase

The planning phase of this intervention lasted from the first meeting with the principal to the preparing of the last classroom session. The planning went on during the whole process of the intervention, consequently including the implementation of the classroom sessions and doing evaluation of all actions which led to adjustments of the course, following the principles of an action research study (e.g. Stringer, 2014).

The actual planning of the intervention took over two months; it started in 3<sup>rd</sup> of November, 2014 and continued until the start of the course, January 12<sup>th</sup>, 2015. In planning of this course, sport psychological articles and previous studies which implemented PST in sports and other settings were extensively read (see chapters 1.3 - 1.4). At that time I familiarized also with an action research method. Needs analysis with the principal, guidance counselor, senior students, colleagues and supervisor was done. This all can be called learning from the experiences of previous studies and actions. One part of this self-education and assessment was filled with the meetings of the principal (total 4 times) and discussing about the needs of the students. Study counselors gave the background information and basic knowledge from the participants and senior students shared their views what should be taught. Senior sport psychology students and the supervisor offered their knowledge and information and shared their experiences about similar projects they had executed before. According to Hardy et al. (2010), practitioner should feel free to choose the version of the inventory that he feels is most appropriate for his needs and in that way the intervention was a mixture of previous studies, experiences and models.

The ideas of “Look, think, act” model by Stringer (2009) were used in this first phase, especially in lesson planning and preparation, and reviewing information and resources. Lots of time was spent in the library searching for information and adequate sources in regards of this phase (Look). The second step of selecting, planning, and organizing information (Think) was the step where all collected

information had to be formulated into a high school course. The last step in phase one where designing a lessons plan was a dominant can be called an “Act”.

The PPP approach by DeWiggins et al. (2010) was useful in planning but especially in implementing the course lessons. The educational step included classroom training and that was the base of our PST course. Classroom session included theoretical, conceptual, and practical information regarding psychological skills training. In PPP workbooks are used to enhance learning but our intervention was based on different tasks that were given at hand in each session. Planning and implementation of this PST program’s classroom sessions followed the steps of PPP also in the next, the acquisition step, where it was vital that participants went into the field and applied skills what they had learned, in their real life environments, as in school, exercises and other venues. This was done through homework assignments which were planned to cover individual training and independent search for knowledge of each topic at hand. The key point here was in actual learning by doing. Students received feedback on their progress of psychological skills through the net based learning environment.

The PST course aimed at enhancing and gaining mental strength for life using several tactics. The fundamental idea of the course was, practice makes perfect and that was why we first practiced these certain psychological skills in the classroom setting and after that through students’ homework assignments. When the proper foundation for these skills was set, it was thought that it could be easier for participants to adopt skills needed in various life settings. One aim of the course was to build the foundations for these skills and through learning and practicing to gain more and more confidence in using them.

At first the idea was to give this PST only to sports class students but after our meeting with the principal we decided to give it to all seniors who are preparing to their final exams. This discussion can be seen as part of an action research study (e.g. Stringer, 2014) where planning, acting, observing and reflecting formulate and guide one’s actions. What had been planned did not work in the first place so it was time to react and change the action plan. Student who passed the course could get one credit out of it and that was something we used to lure students to

participate. In this phase we (me, the principal and study counselors) promoted the upcoming course by emails and advertisements on school's notice boards. But like it often happens in life, everything did not go as planned. We could not get those senior students to participate, because they were busy with their studies and schedules. This showed one thing that is characteristic for an action research study; change of plans has to be made along the way and after this minor setback we offered the course for all those students who were interested in to participate.

Students were encouraged to search for information and drills and to share it with the group in the classroom sessions or in the net based learning environment. Students were also recommended to watch elite athletes perform and use modeling to learn and enhance their own performance like Weinberg and Gould (2015) suggested. I tried to act as a model myself and whatever we did I acted as professional as I could; this is how Weinberg and Williams (2006) recommended a PST practitioner to act. If you as a practitioner feel confident, and do your job as good as possible, participants most likely feel and act the same way. That is the reason why I practiced my lectures many times in advance so I could be as professional and convincing as possible.

I as the researcher reflected on my own and students' learning processes and performances as "Think" and providing feedback and information as "Act" by Stringer (2009). Feedback was given in *peda.net*, a net based learning environment where all presented material, slides and exercises were shared. Phase 3, assessment and evaluation, where the lesson outcomes and student performance were reviewed and was referred to as "Look". The next step in phase three was to identify successes, i.e. what was good and what were the strengths but also to notice weaknesses and gaps. This was referred to as "Think" and the last step of planning and improving instruction and learning step as "Act". All these phases, planning and preparation, instruction or implementation, assessment and evaluation are covered in my researcher's diary, students' learning logs, final inquiry (feedback) and interview sessions in forthcoming chapters.

### 3.5.2 The implementation phase

The actual learning by doing or the implementation phase was organized between January 13<sup>th</sup>, 2015 and February 17<sup>th</sup>, 2015. Multiple types of skills to be taught were picked from foundation, performance, and personal development skills (Vealey, 2007). Goal setting, breath control, concentration, self-talk, relaxation and imagery were picked from the previous sport studies and partly from the studies of DeWiggins et al. (2010) but also because an individual, and especially an athlete needs to be able to self-regulate her thoughts, actions, and emotions with respect to the goal at hand (Duda et al., 2005). From foundation skills e.g. goal setting were used to determine students' achievement drives, and self-talk to understand one's self-awareness level or productive thinking. Performance skills like energy management and attentional focus were trained through breathing, concentration, relaxation, and imagery practices (see e.g. DeWiggins et al., 2010). Personal development skills can be called the high level category where all the training aimed and was practiced through self-confidence exercises.

Following the guidelines by Weinberg and Gould (2015) and DeWiggins et al. (2010), the implementation phase included the education phase, where students learned the importance and meaning of PST; how to acquire psychological skills and how these skills affect performance; every session started by defining the key concepts and how they could be transferred into the participants' lives. This educational phase was included in every session.

The implementation phase also included acquisition and teaching phases, which focused on strategies and techniques on learning different psychological skills. This was the learning-by-doing phase (Lesgold, 2001). The lecturing, or classroom sessions, included formal or traditional teaching where the teacher presented the topic (top- down teaching) and students actively listened and there was always space for questions. In teaching, pair or group work were used. In all sessions, visual aids were used a lot, e.g. audio and video clips were used to introduce a new topic or to teach new psychological skills. This traditional or formal teaching combined with bottom- up teaching had practical touch and used modelling in how to apply and practice different skills in students own time. Questionnaires were also

used in teaching e.g. self-confidence and mastery and concrete tables were used in goal-setting and self-talk and kinesthetic exercises in relaxation.

The final phase in the implementation of a PST program (phase 3 in PPP) can be called the practice phase (Weinberg & Gould, 2015) or the execution phase (DeWiggins et al., 2010). The main idea was to teach students to systematically practice and integrate these certain and applicable psychological skills into their own performance situations; in school, in their sports, and wherever they thought they would need these skills. The idea of this phase was to make participants understand the meaning of rehearsal; when they learned to apply these skills in different places, these skills would be automatized through overlearning and at the same time, these skills could be integrated into other situations (from home to school, from exercises to competitions etc.) and by that to stimulate these learned skills in actual (exams, competitions etc.) situations.

In the classroom sessions I tried to create a positive and easy to access learning environment. Like in teaching, similar process of inquiry to action learning helped students to frame their activities in terms of a series of questions (Stringer, 2009). The idea in this course was to start each session with a topic that was focused on a particular set of concepts and/or skills, where students were asked to think certain things like: What do I need to learn? What do I need to know or to be able to do? How can I learn those things? How can I show that I have learned them? These questions were included one way or another in every week's themes and homework assignments.

As summarized, the lessons were planned so that every time there was a lecture, some individual, pair or group work and drills regarding to the topic at hand. I wanted to create a warm and open climate between these student-athletes and me as a practitioner and teacher. The methods, techniques and skills picked to learn were the most used in sports settings (Vealey, 2007; Weinberg & Williams, 2006; Weinberg & Gould, 2015), but new to school environment.

### 3.5.3 The evaluation phase

The evaluation phase went on from day one, 4<sup>th</sup> of November, 2014. The researcher diary was written in all phases of the intervention and the evaluation was executed



day by day but the actual course evaluation started after first classroom session, January 13<sup>th</sup>, 2015. Evaluation handled all diaries, learning logs, interviews and final inquiry. The overall evaluation showed that the course was successful and achieved its goals.

In addition, the course was modified and transferred into the net based learning environment called peda.net and functioning of this tool was also evaluated. Peda.net is the most commonly used learning environment in the Teacher training school (<https://peda.net/jyu/normaalikoulu/oppiaineet/pv>). Partly this transformation was done because of the school's curriculum and responsibilities which include the provision of training regarding the practical implementation of syllabi and development of innovative pedagogical models but also because the national curriculum is changing in 2016 and more and more of teaching and learning will be offered through net based learning environments (<http://ops-tyokalupakki.fi/jyvaskyla/normaalikoulu OPS2016>).

The participants had to operate through this site, e.g. this was the place where they returned their learning logs. This site also included informal discussion areas for students. Despite of their knowledge of the e-based learning, students' activity in other than learning outcomes- section was minimal, so it seemed that this net based learning environment did not work as planned. Maybe instructions were scarce or students did not internalize the meaning of the site or their roles in that section.

#### 3.5.4 Classroom procedures

Classroom sessions included lectures and individual, pair or group work. Lectures introduced sport and exercise psychology's most used techniques and methods for these specific skills learning. Every session included homework assignments and reflective learning log of what they had learned and experienced through the course. The learning log formed half of the course evaluation.

Stringer (2009, 3) argues that "*teachers commonly encompass lesson plans within a grid or table that enables them to check the progress of the lesson as students move through the sets of learning activities and assessment tasks*". For this course and for this reason, a lesson plan for each session was made before the intervention and evaluated after each classroom session.

The curriculum for the program in its entirety is presented in the APPENDIX 1 where the topics, objectives and methods of each session will be comprehensively opened. The course table is presented in the APPENDIX 2 and a sample grid, all realized lesson plan grids for each classroom sessions as well as classroom sessions in brief are presented in the APPENDIX 3. Lesson plans for this course included time/duration, content, description of procedures and reflections about all classroom sessions. I did not want to include the evaluation into the lesson plan grid because it was something that took time and needed space. The evaluation part of the grid (shaded in grey in the APPENDIX 3) was written separately and is fully covered in the researcher diaries (chapter 4.3, pp. 52-70). Instructions for the learning logs are presented in the APPENDIX 4 and all exercises used within the sessions can be found from the APPENDIXES 5-18.

From the third classroom session on (goal-setting), practical part started and ended every session. Regarding to Weinberg and Williams (2006), most psychological skills should be taught and practiced 15 to 30 minutes in the beginning or ending of the practice. As they recommended, the content of the session determines whether it is better to start with the practice or end with it.

The first class or session started with a short introduction to the topic at hand, including introducing participants, themes, and objectives of each lecture, methods used, outcomes and evaluation. After the first session, a short recap was made in the beginning of each following class and discussion about the last topic was executed. During classes lots of audiovisual materials were used to invigorate the topic, e.g. auditory relaxation tapes as well as short YouTube-video clips from all topics were used along with teacher driven lectures. Every session was evaluated in the researcher's diary. Based on the groups and participants' needs and researchers' reflections, modifications in the preliminary program were made during the course.

Every unit of these 6 lessons was designed and developed using Sport and Exercise and Educational literature and previous PST interventions. The course was planned following the regulations for high school course's content and duration given by the Ministry of education and culture, to be precise, under the General upper secondary education in Finland (for further information:

<http://www.minedu.fi/OPM/Koulutus/lukiokoulutus/?lang=en>). Teacher Training School's own curriculum was also used as a background model for the course's objectives (<http://www.enorssi.fi/ops-ja-oppilaan-tuki/opetussuunnitelmat-1>; <http://www.oph.fi/ops2016>). Because there was no previous curriculum for PST course one had to be made for this course. The lessons were conceptualized and organized to meet the teacher training schools criteria's (lesson plans for every class were made) and those were accepted by the school principal. Educational and didactic lesson plans were based on Teacher Training Schools lesson plan grid for teacher trainees but were modified to suit for this purpose.

In addition, the course was also planned to be studied independently. The independent or practical learning and practicing learned skills formed a major part of the course. For that purpose the material was modified to meet the criteria of the internet based learning environment. The course was planned to be taught in traditional way, by teacher centered lecturing or by using the independent way to do it without classroom borders or time limits in the net based learning environment. All the material, exercises and instructions can also be found on the net version.

In summary, in this PST course students participated in group lectures, paired work, applied new skills and techniques in practice and wrote in their individual learning logs of what they had learned in classes. Weinberg and Williams (2006) suggested that individual sessions and individualized training programs are needed to optimize the effectiveness of PST programs. An extra consultation and individual guidance was offered to participants after the six week program.

### 3.5.5 Main topics covered

The course curriculum included topics, objectives, methods, modes of study and evaluation. The main topics covered for the Psychological Skills Training's 6 classroom sessions for the University of Jyväskylä Teacher Training School, season 2014-2015, Spring 2015, 4<sup>th</sup> period were as followed: What is PST, Mastery and self-confidence, Goal-setting, Breathing, concentration and self-talk, Relaxation and arousal regulation and Imagery.

### 3.6 Methods of data collection

Data was collected from classroom observations, field notes, and student learning logs, their interviews, and final inquiry, follow-up questionnaire and from the researcher diaries.

In the pre-intervention phase, the content of the PST- program was agreed upon with the principal of the high school. Initial contact with the participants took place on the day the intervention started and the final interview took place two weeks after our last classroom session (in the beginning of March 2015). Data from the pre-intervention phase included the researcher diary about the planning of the course.

During the intervention the data was collected from the researcher diaries, videotaped lectures, field notes and student learning logs. Researcher kept the researcher diary during the whole six week period intervention period. This diary was written before and after every class and it included evaluation of every classroom session and reflections of the class by a practitioner and expressions of the participants. In addition, every session was videotaped and saved for later analysis.

Data collection from students during the course was conducted through their learning logs but also through questionnaires and in-class tests. Student learning logs were one of the main data sources in this course and those also helped me as a researcher to formulate the post intervention interviews by giving more insight knowledge of each participant. The final inquiry is presented in the APPENDIX 19.

In the post intervention phase, the researcher continued to write down his thoughts in the diary now focusing on self-evaluation. Videotaped material of each class was also extracted and analyzed by making notes from actions and emotions. That gave me as a researcher a chance to go back to the real life events after the course was over and done and see myself as a teacher executing the course. That way I did not have to recall what was actually done in each session. Data collection from the participants after the course was conducted through final interviews and follow-up questionnaires.

Next step to get data was to interview my participants. Interviews were held after the actual PST course. Students were informed about the interviews at the first meeting and they all agreed to participate in this by filling up an informed consent form (APPENDIX 20) which was given out at our first meeting. All interviews were audiotaped and field notes were made during these interviews. Each interview lasted approximately 30 minutes.

A general guide to the interview topics included how the students felt about the lessons, what they had learnt, what was good in our lessons and what they would have liked to change about the lesson, if they could. These interviews offered insights into students experience about this course. Interview questions are presented in the APPENDIX 21.

The last method to gather data was a follow-up questionnaire. The questionnaire (APPENDIX 22) was sent to participants two months after the end of the course. The reason for doing this was to get an idea if the participants had used some of the learned skills in their lives and what were those applied skills.

### 3.6.1 The researcher diaries

The researcher diaries were written from the planning phase (early November 2014) till the last interview session (executed in March, 2015). Before starting the writing process, it was useful to make a list of questions as a reminder of what I wanted to achieve with this certain project (see e.g. Edwards & Talbot, 2014). That list was completed during the process when I reflected and evaluated my actions. Here is a list of reflective diary questions from different sources I found beneficial for me when writing my researcher diaries:

- What I am trying to achieve?
- What actually happened?
- What events/conversations/ideas seemed particularly significant?
- What went well/ not so well?
- How did I feel about the experience?
- What did students feel about the experience?
- What should I do differently next time?

- What actions do I need to take now?

Data from the researcher diaries were collected pre-intervention, during the intervention and post-intervention phases using different types of collection methods. Data included field notes from discussions with the principal and senior students, reflection diaries from the planning phase and implementation phase, audiotaped interviews with participants and students written learning logs. Videotaped classroom material was used only as a visual recapping method what was done during the classroom sessions.

These diaries formed an inductive, data driven and longitudinal follow-up source to be used in analyzing the data. Data included researcher's observation and perception, thoughts and feelings, perceived strengths and weaknesses in various areas, as well as evaluation of the process. The diary reflects evaluation in time, from planning to implementation and from implementation to evaluation, how my feelings and thoughts changed or stayed the same during this process.

In this actual and practical phase, the researcher wrote down all thoughts, feelings and perceptions about the whole lesson immediately after each lesson but also before every session. That gave me an opportunity to reflect if the pre-session feelings were met in the class and after it. In addition, the students' questions and reactions were noted. I wrote my diary every day when I was doing something related to my action research study. Actually, I wrote about my feelings during the whole planning phase and then again in the implementation phase before the class and after classroom sessions. This procedure gave me much data to analyze and it gave a chance to revisit what was written because time and later experiences may modify those initial reactions.

The researcher diary in the planning phase had 6 pages, 2128 words in line spacing of 1.5. The implementation phase included 18 pages, 6652 words and the spacing of 1.5. The evaluation phase included 8 pages, 2839 words, in the spacing of 1.5. The total amount of researcher diaries consisted of 32 pages and 11 619 words. Students learning logs included 12 pages, 3561 words in spacing of 1.5. Students' interviews included 22 pages, 7703 words in spacing of 1.5. Total amount of

participant data contained 24 pages and 11 264 words and information from the final inquiry (2- paged and structured questionnaire).

### 3.7 Data analysis

The themes from interviews, learning logs and narrative researcher diaries were employed using inductive data driven and longitudinal follow up content analysis (e.g. Abusabha et al, 2003; Olsen, 2012). Student learning logs and interviews were transcribed in full and content analyzed using atlas.ti- program. This program allowed themes to emerge from the data. Student-athletes' quotations were used to depict the raw data themes that formed the first level of analysis of the data. Repetitive themes from all data were highlighted using bolding and multi colored pens. Following the recommendations of Olsen (2012) reliability check was conducted at this stage by asking an independent investigator, blind to the objectives of the study, to critically read the researcher diaries and themes that came up and to question the summary statements to ensure that they accurately reflected quotations.

### 3.8 Trustworthiness

According to Heikkinen et al. (2008, 149-160), action research can be evaluated by the principles of historical continuity, reflexivity, dialectics, workability and evocativeness. The principle of historical continuity means that the researcher is evaluating the history of the research object and the actual research. The principle of reflectivity refers to understanding that the research object is developing over time and the researcher is reflecting his own understanding, role, development and relationship with the participants. Principle of dialectics means that the researcher should state different voices and interpretations as authentic as possible; it is called as the verbatim principle (Stringer, 2014) and in this study it can be seen through quotations from the narratives. The principle of workability argues that the research should have an effect in practice and it should be useful; the student learning logs and interviews go under this matter. Any research should evaluate the pros and cons of the project, process, course or the program: this is the principle of evocativeness. All these points were followed in the present study.

In addition, member checking was used in result section in order to assess the accuracy with which a researcher has represented a participant's subjectivity (Koelzch, 2013; Stringer, 2014). Member checking or clearing improved the trustworthiness of this study. The results were sent for member checking to all participants. Participants agreed that the story written from the course was truthful and according to their remembering.

A number of other techniques presented in the literature were used in an attempt to ensure accurate and rigorous findings (e.g. Sharp et al., 2013). First, the primary researcher independently analyzed the data and in an attempt to avoid researcher bias, presented his analysis to the other researcher for discussion and verification of the concepts and categories. Secondly, an audit trail of all raw data quotes and interpretations were also carried out by this other researcher; this procedure established the confirmability of the study while an inquiry audit, which provided a detailed description of the procedures for external researcher, established the dependability of the study (Stringer, 2014). The transcribed interview data was sent to the participants to be checked. Finally, participant quotations were reported in the following results sections for readers to judge for themselves the accuracy and trustworthiness of conclusions.

In addition, all classroom sessions were videotaped. Student interviews were audiotaped, transcribed and accepted to use by the participants. The researcher's work is to tell the story as truthfully as possible as the result is only one possible truth of the subject (Heikkinen et al. 2008, 118-119). This was done in the results and the trustworthiness of the story is evaluated as one possible truth as it is told by the researcher and the participants.

In action research it is understood that the understanding of being a participant in a study can change the behavior of the participants and thus affect the results. This is seen as a natural part of the research and therefore it is understood that objective information cannot be collected, but instead perceptions of the students and the researcher can be obtained (Heikkinen et al. 2008, 72-73).



### 3.9 Ethical issues

Permission to execute this course had been granted from the principal of the high school. The consent process form was issued and signed by the participants but also by their parents because all participants were under aged students. This protocol ensured that individuals were voluntarily participating in the research with full knowledge of relevant risks and benefits (O' Mathúna, 2012). Informed consent form included information about the course; its purpose, aim, use of results and consequences of the study (Stringer, 2014). Participants were told their rights to decline to participate and to withdraw anytime from the research once it had started. Participating to each classroom session, exercise, inquiry or discussion was up to participants. Anonymity of the participants was secured so that recognizing individual participants would not be possible; names of the participants were not used in the study and their confidentiality was assured.

Students were told about the contents of the course in the first meeting. They were told about data collecting and coding and they got also informed that the course would be videotaped, and all the material produced in class, their learning logs, interviews and the recordings were only used for the research purposes. Disposal and archiving of data was told. Confidential data was stored in a secured and locked place and was destroyed when the study was completed. Researcher's contact information was given for further questions.

As suggested by Stringer (2014), in the first meeting, rules for the group and completion of the course were made explicit. The well-being of the participants and creating a safe and encouraging learning environment were the two main aspects of the intervention. Participants were recommended to make suggestions what kind of exercises they wanted to practice, amount of pauses and exercises and the balance between the theory and practice. Feedback from the participants was collected during the classroom sessions and after each meeting in their learning logs to make the course meet the needs of the participants.

## 4 RESULTS

### 4.1 The organization of the results

The results of this thesis are organized in two parts. The narrative description of the intervention is based on the researcher diaries which provide an understanding of all that was done before the course, during it and in the post-intervention phase. These narratives illustrate the researcher's point of view, expectations and feelings in the planning, implementation and evaluation phases of the PST course. The second part of the result section is focusing on students' expectations and experiences about the PST course. This part includes data from the student learning logs, audio recorded interviews with the participants, final inquiries and follow-up questionnaires. The data also provided the student-athletes evaluation of the course.

### 4.2 Researcher's expectations for the PST course

This study was my first contact to the world of action research. I did not have a lot of experience from qualitative research and to plan and implement this program was a challenge for me, not only as a researcher but also as a teacher. I was feeling fascinated and anticipatory at the same time. Reading the diaries gave me as a researcher an excellent view to see how I was thinking as a teacher, before, during and after the course; what expectations I had and how my thinking and actions changed along the way. First written diary paragraph actually reveals a lot: *"It was so easy and pleasant to contact the principal of the Teacher Training School. I am so excited and happy to start planning of this course"*. Even though I had not done anything yet, my thoughts were already in the implementing phase, and little did I know how much hard work it would take to plan, implement and evaluate this kind of entity on my own. But like I said, my enthusiasm was there and I think it was the supporting force that kept me going.

My second note for the diary was the first one where I was actually thinking about my expectations: *"I have never done anything like this before so I had no expectations, and it is a good thing. Someone told me that it takes at least one hundred hours to plan this course but I think I will do it faster."* I had a solid trust

in me and I had no expectations because I had not done anything like this before. It was just a vision in my head and a compelling urge to finish it.

After a few days, a week perhaps I started to realize the demands of this task. For me as a student the reading part was nothing new but as the researcher the *“Hardest part for me here is to read and read more. Nowadays there is quite a lot articles about PST so where do I start looking and what do I include?”* I had to make a change of plans and at this point I started asking my colleagues what they had been doing recently regarding this matter. Then *“I started writing notes about whatever and whenever something came to my mind, that’s my way to act. I need to put things on paper immediately, it gives me new ideas and makes me progress in my work”*. This notification cleared my expectations and now I was ready to concentrate all my energy and actions to these particular skills I wanted to include in my program.

The “endless” reading and planning phase forced my expectations to be cleared. When I had set my goals and objectives, it was easier to start planning what exercises to be included in the course.” *Finally my reading had come to the point where all the reading had turned to practical “*. I suggest that anyone who is doing an action research study or planning a PST course or program would spend a little time and effort to clarify his goals and expectations for what he is doing. I highly recommend anyone interested in qualitative study to read any handbook regarding an action research study, e.g. Stringer’s (2014) *Action research in education*, before conducting or even planning his own study. Doing this helps you to start planning the contents for the course because it makes you see the different phases and steps to be taken more clearly. Because I did it differently, this was a real learning experience for me. Do not try to start from the planning of actions, start from the theory!

My expectations grew along the way from the planning to the implementation of the program. I wanted everything to be arranged, planned and organized as well as possible, following the suggestions of Weinberg and Gould (2015). In this phase my teacher training education helped me a lot: *“I had a chance to use what I learned in my teacher education. Those skills, e.g. how to plan and implement a classroom session were so precious now”*.

I had a deadline for myself, I knew what I wanted to include on this course and I had a toolbox of different techniques and methods to be used in teaching these certain psychological skills for students. *“I want to give my students a lot of tools to be used in their own lives, their sports and in school. This is a nice phase, I like everything applied.”* It was like testing the contents or piloting the course. And it was beneficial for me. I was ready to go on and be proud of what I had done so far, without even teaching one minute: *“My feelings are full of excitement and I can’t wait for the course to start”*.

#### 4.3 The researcher diaries

As mentioned previously the researcher reflection diaries were written down prior to, during and after the intervention sessions. This reflecting and writing included one important part from the lesson plan grids that was left out there because of lack of space; the evaluation of the classroom sessions (see APPENDIX 3: The classroom lesson grids).

Data showed that feelings from the planning phase in most cases followed all the way through the whole intervention process, till the evaluation phase. If there were *feelings of excitement* while planning the course, most probably *joy and success* followed those feelings all the way through. Feeling of *flow* was something that could easily be seen in the researcher diaries; every time it was time to start planning the course or implement it, or evaluate how it went, it was always fun and rewarding. The other positive and transparent feelings were related for the PST itself; while implementing the course, new ideas of how to improve the course or what to include next time were exposed.

The contents of the reflection diaries are summarized in main and sub themes, as shown in Figure 2. Transparent arrow in the figure 2 describes the essence of the longitudinal diaries; how certain feelings and thoughts evolved from the planning phase till the evaluation phase and what aspects those feelings and thoughts had. Inside the arrow are placed the most important concepts regarding to the study.

<b><u>Planning</u></b>	<b><u>Implementation</u></b>	<b><u>Evaluation</u></b>
Need analysis	Assistance	Curriculum
Reading	Theory/ Practice	- success
- mixed feelings	- load	Balance
	- contents	- fallback
Theory	Cornerstone	Base
Practice	Valued	Need
- contents		
- duration		
- net course		
Enthusiasm/ excitement	Joy	Success
Flow	Flow	Flow
PST Teaching	Ideas	Experience
- net course		- extra value
High School	Students	Guidance
- new		- important
Supervision	Support	Development
- important		- life long

Figure 2: Researcher diaries; longitudinal follow up. Main and sub themes in different phases of the intervention.

#### 4.3.1 The planning phase

In the pre-intervention or planning phase, *enthusiasm and excitement* were major determinants of all actions. I clearly felt a *flow experience* (Csikszentmihalyi, Abuhamdeh & Nakamura, 2014; Matikka, 2013); everything seemed to work well, I spent hours in the *library reading and planning* the PST course, I kind of lost track of time and felt success of what I was doing. That feeling carried me all the way through the intervention and evaluation phases.

Though enthusiasm was one major character of my actions, I had also *mixed feelings* of exhaustion and desperation once in a while especially when planning the course. There was so much to read and learn just because I could not find any other similar study elsewhere. The topic was quite well documented in sports but from other settings there was no material to be found. This made me think “*how do I manage?*” but at the same time, because there was so little to be found, it gave an excellent opportunity to plan and implement a PST course that looked like my own. Hereby theory turned into practices and the needs of this audience were fulfilled in most ways.

*Theory* was an initial guide and cornerstone for me in the planning phase, naturally. But like in most cases, theory gave me some guidelines and the rest was up to me; I could use my own discretion together with my teacher education skills in planning and implementing this PST course. I had a chance to pick up exercises and *practices* I wanted to fill in. This freedom to plan and choose content gave me feelings of trust and it also built confidence in me; I knew everything from the start, what the course includes: “*I have been working hard to make this course look like me. I’m in charge of everything and actually this is most thrilling*”. That knowledge and confidence made it so pleasurable to start teaching.

One theme that guided the direction of actions was the *needs analysis* (e.g. Cornish and Ross, 2004; Weinberg & Williams, 2006). From that I got ideas and advice in what direction *teaching* of this course should be taken. The needs analysis also helped me to plan the *curriculum*, to meet the requirements and standards of high school education but also the needs of my audience, i.e. *high school students*’, my target group, to whom this *new* program was offered. *Supervision* had an *important* role in guiding my path. It gave me energy in a way that I had someone there that was accepting my job and gave me guidance when needed. It also gave me a boost as my plans were accepted and supported. Meetings with the principal and the supervisor were very important in regarding my own development as a sport psychologist.

The cyclical process idea of Look, think, act by Stringer (2009) was easy to see in the course. In the planning phase (Look), comprehensive reading and searching for information (data) to be able to execute the course was completed. After that it was

time to analyze (reflect) what information was deliberate to be included in the course (Think) and in the last step, it was time to start planning, implementing and eventually evaluate what and how it was learned (Act).

The planning phase was time consuming. I sat in the library for almost a month, from the morning hours when the doors opened till the evening when they closed the doors. I spent total of 18 days in reading and writing, sketching and planning the course and the total hours spent there was around 100. I had been teaching before but I never had a chance to plan my own course before and that made me feel a little bit insecure because at first it was uncertain what to include into my sessions and how these high school students would react to on me and this new discipline.

From my researcher's diary and kind of an introspective interview it is easy to see certain themes when planning the course. I often seemed to notice that there were no studies related to PST with regular high school students, only with student-athletes. It made me feel a little frustrated because I knew that these skills have been taught in other areas as well but not in high school: *"These psychological skills are said to be as life-skills and that way to be effective in other life areas as well so why we are not teaching them to all then?"* I can see as a psychologist an obvious connectivity of psychological skills from sports to school and everyday life; these are the skills that one can adopt into many situations, not just sports.

The second clear observational fact from my diary and interview concerns the material produced regarding sport psychology. When I was planning my course and its contents I found that *"there is almost nothing (material) in Finnish related to sport and exercise psychology"*. All of the studies and materials are in English but very little in Finnish. So *"when I am planning my course I first have to have a solid knowledge in psychology but also in sport psychology; I have to know the theories and the methods and then transcribe those in Finnish and it takes time"*. The amount of work to be done was something I could not understand but it got revealed very soon in the planning phase. *"I want to do this and when I once get started I will do this, no matter how much time and effort it takes"*. Afterwards it easy to say that it was worth it to plan this course. I felt that *"time really flew. When I sat down and started planning, I sat all day in the library and didn't even*

*know how fast time went by*". It was clearly something what Csikszentmihalyi et al. (2014) call a flow- experience.

The researcher diaries expose clearly that the *theory and practice* met in the class; the theory was the fountain or the *cornerstone* of the course but at the same time the course was planned in favor of practical issues, based on the needs analysis with students (they *valued* practical aspects) and with the *assistance and support* of the teaching staff: "*The organized planning with others helped me to imagine how the sessions would probably progress and I was ready for surprises, because there's always surprises when it comes to teaching. Planning ahead few possible ways to teach gave me trustful and relaxing feeling*".

Every classroom session included certain parts or *contents*. These contents included recapping what was taught and learnt in last session, introduction to the new topic, practical exercises related to the topic at hand, short summary of the day's topic and introducing day's homework assignment(s). In the classroom sessions students were not making any notes but "*students were advised to use all their concentration and energy to listening and learning by doing*". All the material used in sessions were after each session downloaded in the net based learning environment (peda.net). It was like an extra source for the course. That site was used in returning homework assignments. It also included discussion, help and link areas but "*the net site did not work as I expected; students' effort in there was not enough*".

#### 4.3.2 The implementation phase

In the second, implementing phase the real action started. This was the actual act-phase, according to Stringer (2009; 2014). The main themes from the researcher diaries can be categorized as *joy and flow* in this phase. I had other positive feelings and lots of *ideas* on my mind but I also had feelings of insecurity: "*I hope my planning is enough and theory and practice is well balanced so there will be no setbacks*". I knew I could rely on my theoretical knowledge but each one of these sessions was kept for the very first time and it made it even more exciting. What helped me in concentrating and preparing for the classes was a certain routine; before every session I checked my previous notes from the diary. I also wrote few



lines how I felt today and what were my expectations for the class to come. And of course I went through my slides, the material I was going to teach for my students. That way I kind of “*got in the mood*”.

In a word, this six week’s intervention phase went by so fast. I felt some kind of flow experience also in this phase like what I felt in the planning phase. It was noted in my diary like this: “*Obviously when you do something you really like, time seems to speed up. Sometimes I hoped that certain moments would never end*”. These feelings and findings were quite similar what Csikszentmihalyi et al. (2014) reported in their study. Total amount of spent hours in this phase were over 100.

Next I will split up all six classroom sessions and present what was done during this 6 week action research intervention study. As previously mentioned, all the exercises used in the classroom environment can be found from the APPENDIXES 5-18.

#### 4.3.2.1 The first classroom session

My pre class expectations for session number one clearly showed that I was quite unsure what was going to happen. I was thinking: “*Did I do a good job? Was my planning enough?*” Despite that I had put lots of effort for making a timetable for every class, and I knew what to do, I did not know if it was going to work or not and what to expect from the first session.

The atmosphere at the beginning was quite anticipating and I as a teacher tried to lighten it up by acting casually. The participants who attended did not know each other beforehand so we had a short get-together- phase and after that the course contents were introduced. In a way this did not open up the atmosphere and throughout the session, students stayed quite passive and silent. Unluckily, there had been some kind of misunderstanding with the place and two of the registered participants did not show up on this first class because of that.

There were supposed to be 6 participants but only two of them showed up in the first session. I was a little disappointed because I had made a lot of work and my course had only two students. I was thinking that: “*What went wrong in marketing? We were promoting this course in advance so students had a lot of time to decide*

*if they wanted to participate or not. Maybe this period was not the best for this course*". This was something that needed to be evaluated with the principal later because it has impact on when this course will be offered next time. But that was another case and something I had to put aside and deal with it later; now I had to concentrate and put all my energy and effort to teaching this program.

I think that the first impression is important in creating interaction. I clearly showed my enthusiasm and I did all I could to create an open and spontaneous atmosphere. The students seemed to be pleased with that and the atmosphere loosened a little when the session progressed. I was so excited to start this course and this quote from the researcher diary tells it all: *"Finally the theory turned into practice and that was awesome!"*

#### 4.3.2.2 The second classroom session

The second classroom session was held in a different place. I wanted to have a quiet room where we could practice in peace and concentrate on our own doing and that was not possible in the previous classroom that was near the gym.

My pre class thoughts were mainly concentrating on how many participants would show up. We tried to promote the course after that first week session again and I was hoping it worked though I tried to convince myself that; *"It doesn't make a difference to me as a researcher how many participants I have but I have put quite a lot effort to build up this course so it would be nice to have at least few more participants"*.

The atmosphere in this session was still quite anticipatory, probably partly because of these new members, partly because of the changed premise or the topic. At first students were quite passive and that was one of the reasons why the questionnaires were used; to open up the concepts of the session.

In the after class reflection I wrote that *"the second classroom session went quite ok, but it was not super good"*. We had two new members and I knew one more was going to attend next time but on the other hand, one participant from the first session did not show up. The new group was not so active and what I was thinking after this class was if I should involve these students to participate more or how

could I do it? I noticed students were quiet and nobody was eager to play the part of the leader in the class so I was thinking *“Is there a way to get these students more activated and teach these things by doing? I will definitely try to make them more independent/ active in the next session (goal- setting)”*. My goal was to make a practical and conversational course but it seemed that I was talking by myself in front of the class. Maybe the silence was related to the thing that I had put too much theoretical information in my presentation for this session and like one participant pointed it out: *“I think we had too many slides and questionnaires to fill up in class. Maybe you should have given those as a home work. Time was not enough”*.

My problem was to get students activated and excited about the topic and it was my duty to help them to be more communicative. The key here was: *“I think we are doing most of the exercises in class from now on”*. I had to also concentrate on timing and what is the core of every topic that I wanted to present. After this notion I decided to present themes in a way which included more classroom participation, simultaneously participating. It was the real look, think, act- model by Stringer (2009) in action. Despite of above, I had a good feeling about the course: *“My feelings about the course are quite strong. I planned it, I’m implementing it alone and doing my action research study at the same time. It seems like I’m having a nice package here”*. Students were also more and more receptive and it helped my job as a teacher a lot.

#### 4.3.2.3 The third classroom session

My pre class thoughts were like *“I’m anxious about this next topic, goal setting. I am sure they all have goals in different life areas (school, sports, relationships etc.) but what are their main goals? It will be interesting to know?”* So I had these expectations but I was not interpreting or guessing anything; I wanted to let these youngsters let me know what they were dreaming of.

My post class reflections pointed out that it was mostly a successful session but something needed to be developed: *“I could have asked these participants in advance to think of their goals in school, their sports and in life. It could have been a nice bridge to the topic, how to set proper short and long term goals”*.

Students were not too active in this class when it was about the teaching or educational part. I tried to lure them into discussion but it seemed that setting one's goals is very personal thing and it is not easy to talk about it in front of other people. What was learned was that I should have given a short glimpse of what is coming and think ahead as a researcher or a teacher, to see the forthcoming, not just the present. After all, the acquisition and application phases (DeWiggins et al., 2010) of the class were success and the students did their classroom drills with passion. This passionate working with their own goals in class was also a good starting point for students' homework assignments and therefore I expected to read personal and meaningful learning logs after this classroom session.

#### 4.3.2.4 The fourth classroom session

This time my pre class reflections focused on putting more effort on recapping the last week's topic; *"I want to do this (recap) because this information is useful to all but especially those who could not make it last time. Recapping is like having a pop-quiz"*. Last time two participants could not make it to the class because they had school camp at the same time. I wanted to give everyone the chance to learn and by recapping it was a good way to recall and process what was taught and hopefully learnt.

The exercises in this session included short and longer breathing techniques. Student-athletes had previously applied breathing exercises but they had never been doing this kind of exercises in organized or supervised situations. I felt that *"proper organization and provision of tools to these students to apply later on was a success"*. And students' responses in their learning logs supported my thoughts: *"this was something I somehow knew already but after the class I feel like I really learned a lot! My day had been very stressful so far but after breathing exercises I felt totally calm and peaceful"*. If proper breathing is a key to relaxation like Weinberg and Gould (2015) claim, this is a "must" skill to be learned like one participant noted: *"I learned to understand the meaning of proper breathing; this is very important skill and I've added these exercises to my weekly schedule"*.

The post class reflection concentrated mainly on my performance and students feelings about the class. I had made a presentation where I could choose which

teaching methods (videos, lecturing or independent or group work) to use. *“I decided to mix these methods in this class so first I used an old fashioned or teacher oriented way in introducing topics, but in doing so I had in mind that this will lead to more individualized phase where students are learning by doing (Dewey-style)”*.

Students were more and more relaxed in a sense that now they seemed to enjoy being a part of this group more than before and they participated in discussions without asking them to do so. It was more practical, like Lesgold (2007) suggested and students' reactions were more positive during and after this class, mainly because we used a lot of time to practicing these techniques and skills: *“Students' reactions were permissive. I mean they responded very well to exercises and obviously practical parts seem to tickle them more than lecturing”* even though on participant wanted more lecturing after all.

One interesting thing in sport and exercise psychology is that most of the material available is in English. That made me think about this whole Sport and Exercise Psychology domain; we do not have material in Finnish and it is something that needed updating. And it led me to this idea: *“Is it really so, that there is no teaching material in Finnish about psychological skills training? Maybe I should start making it. We need to make presentations about psychological skills and different techniques used in the field for the public, in Finnish”*.

Watching videos was not the only thing we did in class. We also practiced these skills through individual reading and doing and through the teacher as a facilitator-way. After class I asked the students which way was suitable for them and they said that those two where they did not have to read themselves. I guess that *“in the skills learning phase it is good for the students to just follow examples and repeat or do as they are told (using suggestive or top-down teaching style)”*. Taking responsibility of one's own actions takes time and lots of rehearsal and the students seemed to understand that and they were participating more and more with each session.

In this course we were just rehearsing and exercising different skills to be used in real life events and situations later. I pointed out that *“whatever the technique you*

want to use, you have to practice to use it on daily basis, weeks or months for the skill to be automated and requiring not so much attention”. It was also pointed out that practices or some other safe environments, e.g. students’ homes are good places to rehearse to use these techniques, not competitions.

#### 4.3.2.5 The fifth classroom session

The pre class feelings about the fifth class, relaxation were anticipatory. I had put maybe most of my effort on this topic because of the familiarity of it. Or that was the case and my expectations. *“I’m waiting for this class with eagerness because this might be the session I’ve put the most effort on. I mean I think that I’ve been using more time to plan and implement this particular class than the others”*. I had found new ideas to develop this topic from our professional development course and from exercises we used there so this was a real life participatory action research in action, in deed.

Our practices included shorter and longer relaxation exercises. I wanted more and more to offer to these participants learning tools so *“they could pick the ones from the exercises they like and work for them”*. As one participant put it: *“We did lots and lots of exercises. It was actually nice to try different techniques, short and longer ones because now I have where to choose from”*. What was remarkable in this session was the fact that students really participated. *“They (students) seemed to hunger for more; they were more than ever ready to practice different relaxation techniques and they focused all their energy in action”*.

My post class reflection handled the success of this session. Even though there were only two participants present, I felt that this was the best class so far because we used a lot of different methods and *“students had a real chance to pick up ones that they felt were useful and those in which we practiced together. I think that in a small group as teacher you can pay attention to every single student-athlete’s situation and e.g. make examples regarding to their sports”*.

One thing that bothered me afterwards was the note that *“I should have asked students to pick up different breathing, concentration and self-talk exercises for this class and then we could have combined those to relaxation”*. That way we could have learned that these individual skills are related to each other, at least in

some point. Previous home works should have been something that could have been shared with everyone in the class, like a presentation. That is the way for cooperative learning and participatory teaching.

#### 4.3.2.6 The sixth classroom session

My pre class feelings were very different before the last classroom session: *“Somehow it feels weird and sad that this course will be ending. Now I have to focus my energy on evaluating the course and how to make it better next time”*. I was not thinking about the last topic so much but the course as a whole in this phase. The ending of the course released my resources just to evaluate what had been done but it also gave me feelings of success. Although classroom sessions were done, we still had those interview sessions left.

*“I was extremely anxious to know how students felt throughout this entity”* since the course was build regarding their needs (needs analysis). On the other hand, feedback received from this group will be used as one part of the needs analysis for the next course, so it was not just important for my development but also for the development of this course. In this class, anonymous feedback was requested about the course, its contents, modes of study and teaching. There was a clear reason for doing it like this: *“I wanted to receive honest feedback, not just students to try to please the teacher”*.

Same observation than from the fifth session described this one; student were active and ready to learn. Their concentration was totally focused on topic and task at hand and it was very easy to lead the way, so to say: *“Students actively listened the lecturing and asked questions related to the use of this skill”*. Two of the participants named this technique especially the one that fascinates them. They had been using imagery as a notable technique but they did not know the scientific background of the skill. They were told by the coaches that *“You can use imagery to enhance your performance”* but no one ever told them how to execute it properly.

Thoughts of Simons (2000, 78) who said that *“powerful teachable moments will arise with specific situations, needs, feedback, and experiences using the imagery”* gave this last session its agenda. Simple introduction to imagery training was given and from that we went deeper and deeper, towards everyone’s own situations.

Following the guidelines or rules presented by Kataja (2012) it was easier for students to get ready for imagery training. One participant said that *“it was good that we started from simple exercises because I had not used this method before. That way I got the nice feeling. This way of teaching encouraged me to fully join and jump in”*. A good description for the use of imagery came from one participant who answered in the final inquiry to the question “what and why of these skills you are going to use in the future”: *“Definitely imagery. I’ve been using it before and through it you can see beforehand how the movement should be done. It is especially good and useful tool in learning new skills and techniques”*.

The practice that seemed to work best in this class was an imagery training which prepared students to some of their own upcoming performance. They liked the idea and the drill was made up a certain way to make it easy for them to “dive in”; like suggested by Vealey and Greenleaf (2006). In this exercise students’ first thought of something nice, sun shining, wind whispering and smelling the sea, hearing the birds flying up there. That way they were lured to relax and when they felt relaxed, they had to imagine some of the previous situation where they felt success, how they got into that situation and feeling, imagine as accurate as possible what they did in that situation and gain confidence from that feeling.

We also tried a technique called anchoring. In anchoring some intrinsic or extrinsic stimulus is attached subconscious to some certain emotion or action (Kataja, 2012). This anchoring seemed to be the key in many of the cases and one quote revealed the importance of imagery, in real life setting: *“I really liked this topic, it reminded me about how big influence imagery can be”*. Imagery has scientific evidence to support its value in learning and performing especially motor skills and that was something that was experienced during exercises: *“this topic was nice and exercises great and useful because I think I really could get into that imagery situation and see me doing my movements in right order”*.

After the final classroom session my thoughts were overwhelmed: *“Wow, it was a nice journey for me and hopefully for students also”*. I had a chance to plan, implement and evaluate this kind of entity and I also managed to modify the course during the six week ride and make it more and more interactive and easy to



participate along the way by reading and writing my diaries, evaluating my actions and observing my participants behavior and writings.

#### 4.3.3 The program evaluation phase

The overview for the evaluation phase includes brief explanation on what was done and how I felt during this project. This section also presents the course evaluation themes which were as follows: *curriculum, success, balance, fallback, base, need, flow, experience, extra value, guidance, development, important, development and life-long* as shown in the figure 2, page 53.

The program or the course evaluation was done from the planning phase till the last interview. In the implementation phase, the evaluation was done before and after each classroom session. The basic rules of an action research [AR] (e.g. Patterson et al., 2010; Stringer, 2014) and Kolb's learning style (Kolb, 1984; Malinen, 2014) in mind, the researcher evaluated his performance by writing and reading his diaries, and by watching his lecturing from the videotapes. The basic principle for evaluation was about to find out what was good and what needed to be reconsidered or improved next time.

##### 4.3.3.1 The planning phase

The first notes and thoughts about the course were written immediately after the discussion with the principal of the high school, in the beginning of November, 2014. The perfect phrase to describe my thoughts would be *"like a child on Christmas morning."* I was totally happy and full of enthusiasm, ready to start something that had never been done there and it gave me a lot of energy. It was not a bad thing that I could not find proper model to execute the course; it was also a great opportunity and a chance to use my own ideas and build up a course that looked like me. This quote said it all: *"This is challenging for me because there's no ready-to-use model for me to follow but now I have a chance to test my planning and teaching skills"*.

There was a clear difference in diaries regarding the planning and the implementation phases. It was kind of easier to reflect on my actions in the implementation phase because there I had something concrete to reflect about: *"It*

*seems that when I have planned something it takes action to evaluate how I did. I can't possibly know if something works or not in the paper, even though everything seems to be alright; the real live situation will show me if my planning works and makes the difference".* It was obvious that this kind of course must be planned carefully and there has to be plenty of options for classroom sessions.

#### 4.3.3.2 The implementation phase

In the implementation phase I wrote notes before and after each of the six class. The notes revealed how I felt before and after each session. Perfect quote from one of the sessions that kind of sums everything up was: *"It is always nice to be in front of students. Before the class I really can't tell how it's going to be. Their participation, expressions and feedback gives me what I need to improve my teaching if something was not good and when it works, to keep up the good work".* These notes helped me to focus on task at hand and memorize what happened in each session. Videotaped classroom sessions were of great help here but this written evaluation could also be seen as feedback from me to me and it helped me arrange the next week's material, especially exercises and apply the feedback if something worked well or needed to be practiced better before teaching it to the students.

The evaluation proceeded in formal order from class one till class number six. I arranged my diaries in a way that I wrote a separate paragraph for each classroom session where I evaluated what went good and what needed to improvement. The good part in overall evaluation was the actual doing after reading and planning, getting into business so to say. What was not so good was the fact that we had only six registered students on this course and eventually four of them completed the course: *"Why there are only 4 participants in my course? Is this something that is not interesting for them or is there some other reason for the small group size?"*

Something obviously went wrong in promoting the course and that is something that will be discussed with the principal before the next course, to be the lesson learned. As one participant said: *"probably many other students would have participated if there could have been more information and time before the course started".* After the first classroom session we still tried to get few more participants

but it seems that the timing was incorrect and promoting too mild. These ideas formed a theme called *improvement* and was also one of my main themes here, and can be categorized under *improvements* or *future implications*.

Classes' two till six offered a lot of in- class activities as well homework assignments. Students seemed to like practical parts more than theoretical ones. Every session included a short introduction to the topic, maximum of 30 minutes and after that we practiced to learn the skill at hand by using different techniques. Although students' responses expressed the fitted balance between the theory and practice, it seemed that they enjoyed more of practical parts: "*What was noted, students seemed to concentrate on drills well. They were very receptive. They e.g. closed their eyes while doing different breathing, concentration and relaxation exercises without any instruction to point that*". These answers can be categorized under the themes of *success* or *strengths*.

From the researcher diaries can be seen the fact that the action in this study really changed during the teaching process. For example when the first two sessions started with lecturing and students seemed to be quite passive I decided to start and end every session from that point with practical parts: "*I need to take more applied material already for the starters. I need to activate these students to participate*". Field notes and reflective diaries also revealed these changes: "*Short notice what's to come next was like a teaser to keep students interest alive but before that it was useful to recap what had been done; that gave them the sense of mastery and they were more confident to try new techniques, that is what I understood from their learning logs*". This theme can be called *improvement*.

Sometimes I forgot that I was working with high school students. And because it was a high school course, it needed to be graded and evaluated: "*I found out that it is very important to remind students about homework, and their duties, give those deadlines. Maybe it's even more important than recapping the previous issues*". Although all actions were planned ahead using lesson plan grids, there was always the surprise element like in teaching. Even the best planned and tested timetables cannot hold every time: you need to be prepared for anything: some things take more time to be taught and learnt, while other stuff may hit the target at once: "*I thought these skills are all equal to participants but I was wrong. They clearly knew*

*something ahead and were more interested in some skills than others*". That was a good lesson for me, not to make interpretations on my own.

Through the notes and diaries it was also much easier to find out what parts of the session they liked and what needed edging. Students were really concentrating on tasks and techniques they liked, it was quite easy to observe those moments. Actually, it was interesting to compare my observations with student learning logs, whether they matched. For example if a student mentioned she liked imagery training the best, her learning log was covering that topic more quantifiable than some other skill she was not fond of so much. In addition, during the course I learned to sense students' moods or how receptive they were: *"Today students seemed to be more active from the start than week ago. Was it because of the topic or what, I don't know but this time it was much easier to make them participate on actions"*.

Because these classroom sessions happened after their normal school day, and before their own practices it took a lot of extra energy for them to participate. That was one thing that I was thinking when planning this course, to make it more practical than theoretical: *"It is quite obvious that these students like to learn by doing, not by listening and being passive. I need to concentrate on that side more"* And I think I succeeded in this task very well. These answers can be categorized under *strength or success- themes*.

#### 4.3.3.3 The evaluation of the net based learning environment and program

The net based learning environment gave some *extra value* to the course. It gave me as a teacher ideas for the future *development* and *life-long learning*. Even so, it seemed that the net based learning environment did not work as well as I planned. Despite of students' knowledge of the e-based learning (the school uses it in various subjects), students' activity in that site was minimal. Students seemed to be shy on that e-learning environment. Maybe my instructions were too scarce or the students did only what they needed to pass the course; they did not put any extra effort in writing or commenting to the questions I as a teacher and partly as a researcher, put there. So, that way the usage of the net environment and my operating instructions were something that needs to be improved before the next course.

The goal of this program was to plan and implement a PST course for the high school environment. The planning of the course was time consuming but rewarding; the PST course seemed to fit in nicely in the high school context and students were eagerly learning these new skills. Interviews with the participants showed that this kind of PST course in high school setting is welcomed. The principal of the school announced that this course will be offered next year again and now we are already planning that (when to offer, how to promote etc.). Feedbacks from the final inquiry showed clear positive impact the intervention had on these participants. All participants said that they would take this course again and they are going to promote this to other students so the overall evaluation showed that the course was successful and reached its goals.

The *success* that I felt after the course, in the course evaluation phase, clearly derived from the feelings of enthusiasm, excitement and joy that I felt during the journey. After the course all the reading what had been done in the planning phase, struggles between theory and practice within classroom sessions seemed to be nicely *balanced*. What I learned along the way, was that the teacher should always have a *fallback*; be prepared to anything and it is good to have some kind of a “tool box” from where to pick up ideas and practical exercises when needed. When I was planning this PST course, I did not know how many ideas would come up along the ride. After the course it was easy to say that this was an excellent ride and *experience* for me. Theory must be the foundation and *base* of a course like this even though practicing these psychological skills in the real is very important.

In the evaluation phase and through student learning logs it was easy to notice that especially *practical parts* of the course were something what was wanted and *valued*. The theoretical parts were also appreciated and that was something I invested in planning the course a lot. “Lots of practices, less of lecturing” seemed to work well with these student- athletes and the participatory teaching style (see e.g. Stringer, 2009) was experienced as suitable for this program and the course obviously answered to the *need* the students and other personnel set for the course. The *needs analysis* in planning phase is something that should be done before planning further; by *assistance* of more experienced personnel or the target group, the planning is easier and the school *curriculum* is easier to understand.

There were a few setbacks to be considered regarding this PST program. One thing and probably the most evaluated thing must be the *duration or timing* of the course. Something went wrong with the promotion and that is a thing that must be corrected next time. Students have to have enough time to make up their minds if they want to attend or not in course like this and they have to be told exactly about the contents and objectives of a course like this. They need better *guidance* for this and the course needs to be promoted better ahead. That was one of the main *developmental* issues in this course for me.

Another issue to be considered which was not successful was the usage of the net based learning environment (peda.net). In the future implications it will be one of my main concerns to be improved and project of *development*. Anyhow, overall experience from the course was highly positive. The feelings of *flow* during the whole process were something that described my feelings all through this 3 month journey and I am ready to improve the program for the next round.

I am so grateful to the high school principal of Teacher Training School, Kirsti Koski, for this great journey she offered me to travel. Six weeks was maybe too short period to teach and learn these skills but like one of the participant said, it was enough in a way that *“this course showed the different methods and gave me a chance to use these learned skills later”*.

#### 4.4 Student expectations for the PST course

The second part of the results is dedicated to students' expectations and views about the course. Student expectations were asked in the first classroom session and later within the interview. At first all students had few expectations towards this PST course but because the subject was not too familiar with them, these expectations were quite moderate; *“I don't know what to expect. This is so new to me”*. Some of them were interested in sport psychology, someone wanted to learn more about herself, someone to enhance her self-confidence and someone participated to become a better athlete: *“I want to study this field in the future. But I want to learn to use these skills in other occasions, not just in my sports”*; *“I participated because I wanted to learn how to relax and use breathing exercises”*; *“I*

*participated because I wanted to enhance my self-confidence”; “I want to be as good in my sports as I ever can and I believe this course can help me in that”.*

Nevertheless, every single one of these students participated to gain something out of it. According to Sharp et al. (2013), sometimes client expectations of sport psychology sessions remain unclear, which in turn impacts on the individual’s ability to commit to participating in PST. This did not happen in my course because participating was optional and open to all students. Objectives, aims and everything related to this program was introduced at the first meeting and students also exposed their expectations for the program after the first session in their learning logs.

The feedback that was collected after course revealed more than the starting inquiry. Student responses highlighted two major themes in participating to this course. First, to gain understanding of psychological skills and techniques to be used to practice these skills: *“Now I know how to learn to use these skills. I got so many tips from the course”; “I am sure that I will use these techniques from now on”.* The other response described the meaning of practice: *“This course went by so fast that I really couldn’t learn properly these techniques. But I will continue to learn these skills in my own time”; “Now it’s time to start practicing and using these taught techniques; it’s up to me if I learn these skills or not”.*

#### 4.5 Student learning logs

Student learning logs formed one important data base. Learning logs described the learning process; it was a reflective learning tool where students engaged in focused, concise and analytical reviews of their own learning (Baker, 2003; Burns & Sinfield, 2004; Mezirow & Taylor, 2011). As an interesting observation and result, it could be argued that when it comes to high school students, writing a learning log seems to be relatively new learning method. Though a learning log should be seen as supportive tool for learning, it was obvious that writing their feelings in a reflective manner should be soundly taught first.

At first the students learning logs were quite scarce and most of them lacked deeper personal meaning. Along the intervention, these logs developed a little and the students started to reflect what was learned and how they could benefit from it but

the learning logs were more like homework assignments, scanty writings without subjective deliberation, something that was top-down given from the teacher and needed to be replied in order to pass that particular lesson.

The learning logs were also content analyzed and main themes were formulated out of those. Themes followed a clear and direct line with the themes and contents used in the teaching. Themes were as follows:

- Psychological coaching,
- Self-confidence,
- Goal setting,
- Breathing,
- Self-talk,
- Concentration,
- Relaxation, and
- Imagery.

Psychological coaching was seen as something new but an interesting area. After the first classroom session two participants actually wrote in their learning logs that *“I want to be a Sport Psychologist some day”* and *“this is something I’ve been interested in for a long time”*. One important cause for participating was to gain knowledge *“how to pull myself together when I’m facing a tough situation, especially in sports”*. The expectation they had can best be described in this sentence: *“I participated in this course because I want to enhance my self-confidence. Through self-confidence it is probably much easier for me to try to overcome and win some issues than just leave them alone”*. But what particularly pleased me was that students took this course because they thought that these learned skills would help them also in other life areas than just sports, e.g. in school: *“I think these skills are beneficial in every life situations, e.g. in exams, not just in my sports”*.

The second classroom session was about mastery and self-confidence. The students introspectively thought of their strengths and weaknesses and especially something they were good at. Through this procedure I thought it could be easier for these students to think about their own components to build up self-confidence. The



students named certain psychological skills as supportive skills for a good performance such as conscientiousness, patience and persistence, intrinsic motivation, ability to tolerate disappointments, resilience, attitude (*“I want to learn from my mistakes”*) concentration and focusing on task at hand, all similar what has been found in sport psychology studies (Birrer & Morgan, 2010; DeWiggins et al., 2010; Weinberg & Gould, 2015). A good self-confidence was named as the core of success: *“If you feel confident, you will probably perform better in your tasks”*.

After using these skills in their own time, students reported that they succeeded better and felt also more self-confident in competitive situations. *“When I had done my preparations for the competition well, I felt confident that I could do it. I did my stretching well, I had eaten well and I thought I’m in charge of what I do. And I did my best performance then”*. Another important notion about the importance of good preparation and its meaning to the outcome came from the other participant: *“What enhanced my self-confidence was the knowledge I did my preparation well and that led me to perform well and feel the success in what I did”*.

The third class themes assembled around goal-setting. What was learned was that goals needed to be written down and evaluated every now and then: *“Goals are something that motivate us and direct our actions. Now I understand that I need to write them down, even small parts of it. It helps me to gain from the goal I have set and learn more from it”*. What I am proud of is that the students understood the basic assumptions of goal setting: *“Goals have to be something you really want to achieve. They have to be your goals not someone else’s goals. That way you can make a commitment to reach it”*. These results replicate the findings from previous studies regarding to goal-setting (e.g. Birrer & Morgan, 2010; David et al., 2013; Gill & Williams, 2008; Gould, 2006; Weinberg & Williams, 2006; Weinberg & Gould, 2015).

In addition, students understood that goals direct their attention and proceedings, and also includes more than just outcomes. They understood that one can set goals in any area of life, not just in sports. *“I have set my matriculation exam expectations*

*high and I know I need to concentrate on my own doing, not what others are doing. I have also set for myself the process goals, to be able to focus on important issues and spend more time on the preparation phase. This goal setting seems to be useful for me especially regarding my school issues because I tend to leave everything (reading for exams) for the last minute”.*

Class number four was dedicated to breathe control, concentration and self-talk. All these can be seen as supportive to each other and they have been nominated as beneficial skills in enhancing sport performance (Abernathy et al., 2007; Hamilton et al., 2006; Hatzigeorgiadis et al., 2011; Pineschi & DiPietro, 2013; Wilson et al., 2006). Now it was time to see if those skills could be beneficial in school setting also. Breath control seemed to be quite new skill in an organized way for the participants: *“I learned to understand the meaning of proper breathing; this is very important skill and I’ve added these exercises to my weekly schedule”.* One response described this skill as: *“this was something I somehow knew already but after the class I felt like I really learned a lot! My school day had been very stressful so far but after breathing exercises I felt totally calm and peaceful”.*

The advantage students got from these skills seemed in most cases to be related to their competitive situations. *“I will try to use different breathing drills during my competitive season to support my performance but first I need to find proper exercises, ones that work for me”.* Another student was thinking if some other skill could be beneficial and used with concentration. She understood the nature and connections between different skills: *“Concentration exercises were good in a sense that I had to think ahead of what kind of distractions I might confront in my competitions. And there are always distractions I just have to know how to handle them, maybe through my breathing?”* Another student described the connection between drills and skills like this: *“you almost never think of your breathing and how you can calm yourself down with it. At the same time you can go into your own world, this is something like combining all different techniques, breathing, concentration and relaxation at the same time”.*

Reading the student learning logs was a great learning opportunity for me. The logs gave me some aspects and ideas to my future PST course planning. An interesting

example and practical advice came from one of the students: *“At home I use ear plugs to help me to concentrate. I haven’t tried it at school because I don’t know if it’s allowed but if it is, I will use it there too”*. Maybe it could be a useful and complementary method e.g. in breathing, relaxation and imagery practices as well.

At this point, the student answers started to also reveal deeper thinking and understanding about the meaning of these skills in the applied field. This was the case when one participant thought about some possible distractions in regards to her final matriculation exams this way: *“Most distractions will be external, I think. Maybe someone is coughing, walking pass me to the toilet, eating their snacks and so on. But I might face some internal distractions as well, like feeling hungry, the urge to go to toilet and panic attack if something will not come to my mind immediately”*. This was also the part of the classroom session where self-talk was employed and as a response she continued: *“By using self-talk I might get back to the right mood, psych myself up if something distracting happens. I have to remember to breathe smoothly and be calm”*. After she said that all, there was a big smile on her face.

The other response about self-talk combined it with concentration and self-confidence: *“Self-talk can help me focus. Phrases like “I can do it, “I know this because I’ve practiced this” gives me extra energy and self-confidence”*. So it all comes back to self-confidence which seems to be the key to success, in sports and in school settings. By reading these logs I was fully convinced that psychological skills have requisition for education and it seemed that the lessons were learned and at least basic ideas on how to apply these skills in the real world settings were noted.

The fifth class’s topic, relaxation, seemed to be one of the most expected. Relaxation exercises were seen as “the real sport psychology” and students’ the responses after each exercise were positive and more informative than with the previous drills: *“It was so nice, just to notice after a long tape that I felt so calm and relaxed”*. When it was about self-paced or instructed practices students preferred latter ones, suggestive exercises: *“Best exercises were the ones, where I had a chance just to focus on tape, just to listen to the instructions. It worked for me”*. This answer underlined what Pineschi and DiPietro (2013) were studying

with relaxation; to give athletes a chance to reduce or increase their level of arousal efficiently, using different techniques and vary the pace of a drill. There was of course some disagreements and not everything was on consensus in this matter: *"Short exercises were useful in a sense that I can use those before my performance"* and *"long exercises made me drowsy"*.

What was noted was that students clearly understood the meaning of whole body relaxation for their sport but also for other occasions: *"If you can relax yourself, it definitely helps to recover from the exercise strain"*; *"You shouldn't use relaxation exercises just before a competition or an exam but maybe a day before, e.g. if you feel anxious, stressed or over energetic"*. Other aspects were also considered and one objective, especially with this muscle to mind exercise was to make difference between two body functions: *"it was nice to notice the difference between tension and relaxation; it helped me to listen to my body"*.

Also other purposes were named where one could apply these different relaxation techniques: *"Most of the exercises I tried were quite simple. That's why I think I can use them anywhere and it won't take too much time"*. Someone had been suffering from insomnia and certain exercises partly helped her in that matter: *"I've been suffering from insomnia. Relaxation exercises helped me to fall in sleep but obviously they didn't remove the cause"*.

The sixth and the last class theme was about imagery. Two participants had been using it before but not in an organized way. This skill was seen what psychological coaching is all about: *"I really liked this topic. This is something that I understand is psychological coaching"*. The other girl pointed out the core of the training: *"I will think of some past experience where I succeeded well, it will be beneficial for me"* and *"Past, positive experiences could enhance the effectiveness of imagery"*. These answers proved previous findings about imagery to be true; it is very useful in enhancing performance by using all the senses to re-create or create an experience in the mind (e.g. Omar-Fauzee et al., 2009; Sadeghi et al., 2010; Williams et al., 2013).

The essence of imagery was noticed here but like the other responses expressed: *"Imagery can be useful in learning new techniques and skills. It has clearly positive"*

*effects on my performance*”; *“I can probably use imagery in many exciting and important situations, especially in those ones where I can prepare in advance; when I’m preparing for my final exams, going to a job interview etc.”* Confluence to other psychological skills was also noted in one answer: *“Imagery is quite hard to execute. It demands concentration and a certain state of mind, a relaxed mind”*.

Looking back at their perceptions before participating in this PST course, students indicated to have had a lack of understanding of what is PST. With an uncertainty of what would be involved in the program, one student said, *“I did not have any expectations just simply because I didn’t know what the psychological skills are”*. Considering the lack of PST experience of the students participating in this PST program, this kind of responses were unsurprising. Students commented that the psychological components of their performance was something they had not been considering on a larger scale before. Like in Sharp et al. (2013) study, participants also indicated that they viewed the program as an opportunity to learn more about PST; *“I thought it was going to be interesting”*, *“I thought it was an opportunity to learn something new about myself”*.

#### 4.6 Evaluation of the intervention by participants – final inquiry

Evaluating psychological skills development is an important part of PST programs (Weinberg & Gould, 2015). Evaluation does not directly mean effectiveness but it can be discussed as to what effectiveness is in PST. Martindale & Collins (2007) lift up indicators of effectiveness that must be directly related to client specific objectives framed by the practitioner at the initiation of the intervention. They claim that when an intervention has achieved what it was set out to do, e.g. a participant says that she learned new techniques, PST can be seen as effective. Generic aims and indicators can only represent the starting point of such a process.

Although the indicators identified are important, it is suggested that they do not represent the full picture of what can indicate effectiveness in applied sport psychology practice (Martindale & Collins, 2007). For me as a researcher and teacher of this course, the evaluation which was done through the interviews and the critical content analysis from the students learning logs, interviews and the researcher diaries also provided feedback about the effectiveness of the program.

Individuals were asked to suggest changes in how the intervention could be conducted anonymously and within interviews. This helped to judge whether the program was successful and if it achieved its goals.

In relation to the perceived effectiveness of the PST program, students' were asked a few questions related to the contents, attractiveness, teaching and methods used in this intervention study (the questionnaire is shown in Finnish in the APPENDIX 21). This final inquiry was anonymously executed at the end of the last classroom session. The responses of these student- athletes were positive in nature as participants believed the program to be valuable for them now and in the future. The participants' answers were always positive in a way that they all were going to use at least some of the taught and learned techniques when preparing for their exams or competitions. Imagery and relaxation were the two most popular techniques but all other were also named in their questionnaires and interviews.

Two out of three categories that were shown in Sharp et al. (2013) study emerged, highlighting the indicators of the effectiveness of this program. These categories were: interactive, well-planned program and increased athlete knowledge of PST skills and techniques; all aspects of a good PST program as stated by Weinberg and Gould (2015). The students' answers showed great satisfaction with all of the categories measured. The students' were asked to rate four different aspects of the program in numbers (4= poor, 10= excellent, table 4 below). This numeric evaluation of the PST program is shown in the table 1.

Table 1: Numeric evaluation of the PST course by participants, scale 4-10/ poor-excellent.

	<u>Contents</u>	<u>Attractiveness</u>	<u>Teaching</u>	<u>Methods</u>
Range	8-9	8-9	9-10	8-9
Average	8.5	8.5	9.25	8.75

After the short numeric part of the questionnaire, the student expectations for the course were inquired. Before the course they expected to learn basics of psychological skills, how to concentrate and what techniques to use in different

situations, not just sports but also to other exciting events, like exams even though sport was named as the main reason for attending this course. One participant crystalized her expectations like this: *“so that I could learn new ways to improve my performance. I wanted to get hints how to relax, and to improve my self-confidence”*.

Students' thoughts regarding skills being taught was inquired next. The thoughts about all separate sessions were asked and the quotes from these will be presented next. The first session, the introduction to PST seemed to be something really new and awaited: *“I really didn't have any expectations about this. I am interested in psychological issues and I'm an athlete so this seemed something I wanted to experience”*. The second session, self-confidence and mastery showed that students did not know that e.g. self-confidence is a skill that can be learned through practice: *“I realized that I can learn to be more self-confident, it won't come by itself”*. Another response pondered the transferability behind the newly taught skill: *“I wish I could learn to use that positive self-talk we trained on, which encourages and makes me work harder and do things which I normally would quit, for example when I'm applying for the next study place after high school”*. The third session, goal-setting was understood as an important part of all actions, not just in enhancing sport performance: *“this session showed how to set goals in a proper way; this session inspired me to set lots of goals and write them down”*. The fourth session, breath control, concentration and self-talk showed the meaning of practicing these skills: *“These drills were useful to me. It was important to practice these together, now I know what to do to learn more”*. The fifth session, relaxation was received with enthusiasm: *“Especially long exercises were so good. Afterwards I felt great”* and *“I practiced this at home and relaxation had positive effects on my concentration”*. The sixth and last session, imagery seemed to be most awaited: *“I loved this session. It clearly showed how important imagery can be for me”* and *“all practices were good and would be beneficial for me in the future”*.

Next students were asked if the course met their expectations. All participants answered “yes” to this question. Teaching methods were acknowledged and the practical exercises were praised. *“This course gave me practical tools for my own*

*psychological training and it motivated me to learn more out of these skills*". One participant did not have any great expectations but she felt satisfied for attending the course.

Next, the students were asked about their learning experiences in this course. The answers showed the importance of PST and all the trained skills were mentioned. Goal setting, relaxation and imagery were the most often mentioned skills here.

*"Attending to this course made me realize how important it is for me as an athlete to learn psychological skills too. Practical exercises gave me lots of tools to use on my own"*.

*"Now I know that I need to write down my goals – they give me direction, extra energy and effort to gain what I want to achieve"*.

*"Especially relaxation and imagery exercises gave me a lot. I find them very useful for me"*.

The students were next asked what they found was good in the course. The practical parts were nominated in every paper as the most useful and best part of the course. *"It was very good that we did lots of exercises in the classroom. If it was just lecturing it would have been boring even though the theory is interesting"*. When planning a course like this and especially when it is offered to a group of beginners, it is wise to make the course as practical as possible, it keeps the interest on: *"We had a lot of exercises in every class and I liked it. I learn better when I'm doing by myself, not just listening to the teacher"*.

The students were asked to share their ideas about the contents and if they had a chance to change something, what would it be and how they would develop and improve the course. Overall satisfaction for the course and especially participatory and student centered teaching was appreciated: *"In this course I liked especially the fact that this was not so much of a formal course. We had a chance to affect what was taught, even though we did not do it much"*. Students were also asked if the program met their expectations or if there was something they did not like. Critics concentrated mainly on the teaching methods. *"Maybe we could have discussed more about the exercises with student colleagues"*. This is an important



point and to my defense, because of the small amount of participants per classroom session (varied between two and four) it was hard to make a group discussion but in every class this opportunity was offered.

Another critique concerned my teaching aids: *“Some of the slides (used in teaching) included too much information, and therefore it was hard to follow them”*. These results are similar with the findings of Wakefield and Adie (2012) who were teaching sport psychology for 43 second year Undergraduate students. This kind of critique was appreciated, noted and most welcomed; it will help me in future, especially in the planning phase of the next program. The improvements and critique were kindly requested, without it is hard to improve any actions.

The next question concerned the timing of the course (period and the time of the day). Our first aim was to offer this program to the senior students but none of them registered. When asked, they had their calendars already fully booked and they wanted to use all their free time for preparing for their final exams (this course was held in the afternoon). The participants' answers were divided here in a way that it almost felt that everyone thought that this timing was okay, even though they all had their practices after school hours. One participant said that *“the period was ok but time of the day was not good because all my classmates went home and I have some other things in this certain day of the week”*. One participant saw that this course was in perfect period for her because *“my sport happens in the summertime and the season has not yet started and now I can practice these learned skills before the season starts”*.

The students' had a chance to give overall feedback about the course in the next question. The answers were mainly positive: *“This course was really interesting and it is not offered in most schools. The content of this course was useful to me for my future studies, so it gave me a solid base for my future education”*. The other participant said that *“the course was very beneficial and comprehensive.”* One thing that seemed to disturb one participant here was the use of net based learning environment (peda.net). She felt that *“there was too much information and in so many places that it confused me a little”*. One other student was sorry that *“there were so small amount of participants and it irritated me a little”*.

The above mentioned results and thoughts are clearly parallel to the written and oral answers collected during this interventional action research study. All answers present the individual truth and are open to further examination as Stringer (2009) suggested. The course filled its expectations. Both the researcher and the participants were satisfied with the outcome. In a word, the course was useful for all attended and the expectations of the participants and the researcher were met.

#### 4.7 Student interviews

The students' interviews were something I really waited for. They gave me a chance to really see, if my students learnt and how they felt about the program. First I made a pilot questionnaire which was tested with one of the senior student and from this questionnaire I formulated the final questions for the forthcoming interview sessions. I had some questions ready to use but doing a pilot gave me a chance to modify and ask certain questions that suited better in this occasion. These interviews moved me closer to participants. The informal situation, in one of school's most convenient rooms made the event not too official and semi-structured interview questions gave me a chance to change my questions when needed.

Interviews were recorded and content analyzed using atlas.ti- program. Transcribed interviews were sent to participants by email to be member checked and accepted. This is normally the protocol in doing an interview study (Olsen, 2012; Stringer, 2014). Trustworthiness is better when doing this and ethical issues were met. The independent researcher read all the transcribed interviews and after that we compared our themes. The main themes were formed from the data and are shown in the table 2. These themes were Expectations, Learning, Transferrable skills, Exploitation and Promotion (of the course), Course duration, Theory vs. practice, Timing, Transferability and Reference. The interview questions (in Finnish) are presented in the APPENDIX 21.

Table 2: Main themes from student interviews.

Expectations	Course duration
Learning	Theory vs. practice
Transferrable skills	Timing (period)
Exploitation	Transferability
Promotion	Reference

#### 4.7.1 Main themes of the student interviews

Content analysis showed that *expectations* for participation in this program were mainly to learn more about sport psychology. An answer like “*I am very interested in sport psychology*” best describe these ideas. The used techniques and methods were not too familiar for the participants but their interest in learning more made them participate into this course. One interesting reason to participate was the future work: “*My dream is to study sport psychology or something sport related subject and this course was like a boost to it*” Two out of four participants named sport psychology as their goal in working life in the future. Almost all participants were student-athletes and their goal for this course was to enhance their own performance by learning more about this psychological side. “*I exercise myself so this felt natural*”.

The next main theme was *learning*. Learning outcomes were mentioned often as something what they wanted from the course. All participants said they had learned new techniques and skills during this program. The outcome of these skills, whether it is mental toughness or better psychological functioning in threatening situations, has been showed to associate with performance and also with the behavior in the classroom (DeWiggins et al., 2010; St Claire-Thompson et al, 2014; Strycharczyk, 2014). One answer was very detailed in this question: “*I participated to learn to use different psychological techniques. At first I didn’t realize these were skills we were learning but now I understand it. I learned a lot during the course; how to relax, use proper breathing and to enhance my self-confidence*”. These results replicate and demonstrate the fact that there is indeed a positive relationship between confidence and performance enhancement programs like PST

(Machida et al., 2012; Hays et al., 2010). Other answer pointed out the meaning of preparation: *“I want to learn to use these skills to enhance my confidence and performance, so that I wouldn’t be so nervous in the field”*. Someone was pleased with all offered sessions: *“Every session was beneficial, and gave me tools to work with”*.

When students were asked if there was a balance or imbalance between the theory and practical parts, answers were alike: *“It was good that classroom sessions included lots of exercises”*; *“I liked the course because we had so many exercises. Without those, the theory could have been boring”*. This result was no surprising as practical parts have been nominated to be in the core of an action research study (Wakefield & Adie, 2012). All of the sessions were useful but the answers were divided in a way that no single technique or skill got more than half of the nominations when asked about what was learned.

The next main theme was about *transferability of skills*. When asked if these taught skills would be useful and transferrable to other situations than sports in the future, all the participants answered yes. All the participants said that they could and would use these learned skills later in their lives in different situations. *“Definitely these skills are transferrable and I will use at least some exercises later because I believe this works”*. This finding supports Burton and Raedeke’s (2008), Vealey’s (2007) and Weinberg and Gould’s (2015) belief that PST might work in other settings than in sports too. An important finding here was also that students are going to use learned skills in situations where one is excited and anxious, to help them to relax by proper breathing and by proper breathing to concentrate on task at hand: *“E.g. breathing exercises will help me definitely in the future because I’m so nervous when I have to perform before class or give speeches”*. This is an important finding and supports the core idea of this planned program; to give students tools to handle the stressors in their lives. It seems that the program succeeded in this goal well.

*Exploitation* was the next big theme here. When asked if students would use and what they would use these skills later on the answers varied a little. Relaxation was something that seemed to appeal all these students: *“I loved especially those long relaxation exercises; I could totally let go while listening to those tapes and relax”*. Imagery seemed to be the next popular skill to be learned; three answers were in

favor of imagery: *"It is best known to me, I have used it before and it feels like my thing"* describes best these two answers. All other skills also got nominations; students' clearly understood the idea of psychological skills transferability and the connection to each other. *"I will regularly start using breathing and relaxation drills, that's for sure. I think I will try goal- setting and imagery also"*. *"I will not exclude anything, I will try all these"*.

One very interesting theme was the *promotion*. Almost all answers said that the information about the course was insufficient. All students received the information about the program but it was not as appealing as it should have been. Students received a message through the school administrative system called WILMA, with no course contents or information about where to get additional information was issued there: *"The information given about the course was quite insufficient. Only a WILMA- message and one public notice through school's audio system and nothing else"*. The course was assembled in short notice and the students did not clearly have a chance to explore the idea beforehand. It was partly a planning mistake, partly a timing error. But now it is known how and when this kind of program has to be promoted and advertised; way ahead before the starting point, in school boards, in their administrative system (electronic mails) and by actually going to school and giving a short promotion of it for the students and teachers.

It is obvious that next time guidance counselors need to know more about the course, the contents, objectives, methods and timetables to be able to ask students questions regarding the program. *"Because of the scarce promotion, many of our school's students didn't know what this course was all about. Maybe that's why they didn't register for the course"*. One answer covered not just promotion but also the expectation theme: *"I didn't know what to expect from the course because the registration came so fast and we didn't get any good information about the course until the first class"*. The students also gave valuable tips on how this course could be advertised next time: *"This course could have been good to senior students also. They have their final exams coming and I think this could be useful for them but I guess because of the timing they couldn't take it"*. These answers need and will be taken into account seriously when promoting the next course.

From the categorical themes, *duration of the course* was something that raised discussion. Was it good to have a six week intervention, two hours every week or what was wanted? Three out of four gave me some modification ideas. Two of them were in favor of this one period system but gave me ideas how to modify the contents: “*six weeks was ok but I couldn’t learn these skills in this time. Maybe we could have had full course, i.e. six classroom hours every week?*”; “*Six weeks was enough but maybe there should have been more classroom hours every week, maybe double, i.e. 4 hours per week because there was so much material in every session and the material could be the same but taught in 4 hours instead of two*”. One response was in favor of longer intervention or *timing*: “*Maybe this could have been arranged in every other week, two hours per week during two periods. That way we could try to learn these skills in real life situations better*”. And like usual, there is always participants who are ok with what they got: “*The course was ok like this. I wouldn’t change anything*”. This diversity of wanted and offered classroom hours can be seen as a discussion opener with the principal; how long and when will the course be organized next time?

The next theme, *theory vs. practice* showed consensus among students. All of them thought that there was a suitable amount of both in every session; these two were in balance. It was obvious that practices were felt as “the main course” of the classroom session; while teaching and observing students’ reactions, they seemed to enjoy practical exercises much more than just listening to lecturing: “*Practical parts were the best! I wanted to find tools which I can use on my own and that wish was fulfilled*”. This finding has also been stated in another action research study related to sport psychology by Wakefield and Adie (2012).

Another interesting theme found from the interviews was *transferability* of these learned skills. All participants agreed the fact that they will definitely use these learned skills in their lives, not just in their sports but also in other life domains, especially in challenging and exciting situations where stressors are around (exams, competitions, work). This result verifies the findings of Burton and Raedeke (2008) and Weinberg and Gould (2015). Students’ answers reflected different techniques to be used and dispersion was seen between all techniques: “*I will definitely use imagery and relaxation but probably I will try them all*”. The last notable theme

concerned the *references*. For me as an organizer and teacher it is a final fact that everyone who participated into this course are going to recommend the course to their friends: *“Highly recommended!”*

#### 4.8 Students post- intervention/ follow-up answers

In April 2015, two months after the course ended, an informal follow up inquiry (APPENDIX 22) was sent by email to all participants. Students were asked whether they had used learned techniques and skills or if not/ why not. Students were also asked in what kind of situations they had exploited those certain skills. 3 out of 4 participants replied and all of them had been using newly learned skills in favor of enhancing their performance. The participants described their overall experiences and effects as moderate. This result differs a little but is almost similar what analysis of other interventions have indicated (moderate to large positive effects) on performance for PST interventions (e.g. Birrer & Morgan, 2010; Massey et al., 2015; Weinberg & Williams, 2006; Weinberg & Gould, 2015).

Most used techniques and skills were imagery, breath control and relaxation but also concentration exercises were applied. This result is similar to previous studies; all these techniques and skills have been in the core of previous studies in the field (e.g. Birrer & Morgan, 2010; Vealey, 2007; Weinberg & Gould, 2015). Imagery training had been used in learning new techniques and movements in sports and it was nominated as the most effective skill learned in the course by one participant: *“I’ve been using imagery training a lot and it is really effective for me. I will definitely use it as well as the breathing exercises from now on in my life”*. The other participant had used imagery while she was in her vacation and was not able to practice in physical level. Breath control had been used when participants felt anxious and stressed, to prevent a situation from escalating. Concentration exercises were used when the student had spare time and wanted to practice it. Breath control seemed to be integrated in relaxation exercises as well as concentration to imagery and relaxation drills. Mixed breath control and relaxation practices were used before some exciting events like presentations or seeing a doctor. One participant said that she got lots of tips for her life from the course: *“somehow my sense of coherence is now better than before the course because of these exercises and the newly learned skills”*.

Even though goal setting is one of the most popular motivational techniques for enhancing performance and productivity (e.g. Rovio et al., 2011; Jaakkola & Rovio, 2012; Weinberg & Gould, 2015), here it was only nominated in one answer. This is not surprising if compared to what e.g. Gould (2006) and Weinberg and Gould (2015) have presented; people set goals but do not follow those goals or they forget about those goals in time. The advantage of goal setting was presented in that one answer as: *“I wish that my written goals help me to achieve my goals so as to put effort on it but also to clarify my goals to me”*.

Self-talk was not nominated at all in the students' answers. This finding is surprising in a way because previous studies have stated it e.g. to help to focus and enhance concentration for the task at hand and enhance motivation, and to increase confidence and self-esteem (Hamilton et al., 2006; Hatzigeorgiadis et al., 2011; Weinberg & Gould, 2015). On the other hand it is probably the most used strategy in the field. Maybe it was not used because of the nature of self-talk; it is something that people do not think of doing although they are applying it on something (Hamilton et al., 2007).

These findings were alike with the answers of the final inquiry and student interviews (see chapter 4.6, Evaluation of the intervention by participants – final inquiry, pp. 77-82 and chapter 4.7.1 Main themes of the student interviews, pp. 83-87). In the final inquiry and the interviews, students named relaxation and imagery as the two most popular techniques that were taught and learned and to be applied in their own settings at the moment and this similar tendency seemed to continue after the course.



## 5 DISCUSSION AND CONCLUSIONS

### 5.1 Background and the results of the study

The aim of this study was to plan, implement and evaluate a psychological skills training program for the use of high school of University of Jyväskylä, Teacher Training School. PST had been given to coaches (Olusoga, Maynard, Butt & Hays, 2014), performing artists (Clark & Williamon, 2010) and soldiers (DeWiggins et al., 2010) but I could not find any single study of this topic in the academic literature regarding high school students and context the way I planned. The aim in planning was to build up a PST program that could answer to the requests of the new functional and practical high school curriculum, which will be initialized in the year 2016. Another important aim for the program was to teach these student-athletes, how to cope effectively with stressors they face in their lives, because the failure to cope can lead to decreased performance in any life areas (McKenna & Dunstan-Lewis, 2004; Reeves, Nicholls, McKenna, 2011). Surujlal, Van Zyl, Y & Nolan (2013) found that student-athletes are expected to cope with their studies and participation in sport simultaneously as well as to satisfy the expectations of coaches, teammates, friends, and family. Once student-athlete perceived the situation as stressful and struggled to cope with the situation, their satisfaction with life was negatively influenced.

According to Weinberg and Gould (2015), psychological skills training [PST] interventions should be systematic, well designed, planned and executed. How the course was planned, implemented and experienced by the participants can be evaluated from the narrative stories (i.e. diaries, learning logs & interviews) written about the course previously in this work. The PST course was executed using a careful planning, making lesson grids, dividing class room sessions in parts and using exercises that were based on the previous studies and programs in the field. The primary aim of the intervention was to teach psychological skills to high school students but also to evoke discussion about psychological skills training in non-sport situations and about the transferability of these skills from one situation to other. It has been said that effective interventions which concentrate on teaching

and learning specific skills, are long term in nature and promote the transferability and use of skills outside the intervention context (Lintunen, 2006). Learning new techniques and skills takes time and through homework assignments, related to the topic at hand, students were executing the real learning by doing while training on these new skills and this practical knowledge was most valued aspect of the program by students.

There were no exact models for a psychological skills training [PST] program or course like this in the literature. Basically, everything had to be planned from the scratch. In the planning phase, the skills and methods from previous PST studies and programs, which were documented to be most used and effective, were applied (e.g. Weinberg & Gould, 2015). Familiarizing with the high school curriculum and modeling or comparing contents of other subjects, was my starting point in planning the course, from the educational point of view. On the other hand, my teacher and study counselor work experience helped me take students into account in a level which can only be gained through work experience. The preliminary slogan for the planning of this course describes the essence of it: “Lots of practices, less of lecturing”. In the implementation phase of the course, the dual role as a teacher-researcher gave me a chance to observe student learning in class but also through their learning logs. The evaluation of the program was executed through researcher diaries, student learning logs and interviews, final feedback inquiry and follow-up questionnaire. The researcher diary was written from the planning phase till the end of intervention and used as one of the main data and evaluation source.

The results from all data sources revealed that psychological skills have to be explicitly taught, modelled and practiced in order for mastery to occur. Planning, implementing and evaluating a PST course is time consuming but rewarding; there one can see the “brain work”, i.e. looking, thinking and planning turn into action. Through careful planning, I as the researcher gained self-confidence and mastery and that made the implementation of the course easy to accomplish. Throughout the planning and the teaching processes, the flow experience was experienced. The results also showed that psychological skills are most welcomed to be taught in high school. All the psychological skills taught were named as useful and most of them were also applied after the program.

The students liked especially the practical parts of the intervention and appreciated the student-centered teaching style which was in the core of teaching. The other school community, teachers and principals, also oversaw the value of these skills in educational setting and if the management supports something new, then the ideas and customs most likely spread through the environment as Hopkins (2014) and Mezirow and Taylor (2011) claimed. The principal of the University of Jyväskylä Teacher Training School said: *“learning these skills is most probably very useful to students at the age of 16-18; they need to know how to relax when feeling stressed and someone has to teach them how to do it”*. It has also to be remembered that teaching psychological skills in high school setting in Finland is a new research area.

The results showed that high school students aged 16-18 were not very familiar with the concepts and methods used in the field of sport and exercise psychology. The learning log which was used as a teaching and learning method did not work as I as the teacher wanted. It was obvious that the students needed practical examples how to write their logs and more experience to describe their feelings and emotions in learning logs.

## 5.2 Assessing the impact and the importance of a PST program

It has been shown that psychological skills training have a positive impact on performance (Weinberg & Williams, 2006). According to Howland (2006) and Weinberg and Gould (2015), positive performance has been shown to improve a person's self-esteem, self-confidence, and general sense of well-being. The researcher and students reported in their diaries, learning logs and interviews similar findings; they understood the meaning of training and transferability of these skills to other settings than school and sports. Interesting finding was also the researcher's realization about his own personal development in teaching these skills to high school students. The planning phase built confidence and it was clearly showed in the next, the implementation phase. This finding is similar what Paquette and Sullivan (2102) claimed; PST improves competence and connection in specific contexts.

According to McNamara et al. (2010) psychological factors play a crucial role in determining the developmental capacity of an individual, to successfully realize his potential. These newly learned psychological skills probably have transition into students post high school careers like McKenna and Dunstan-Lewis (2004) suggested. Students had a chance to develop their skills in a safe classroom environment, where the distinction between the researcher and participants could be called a collaborative relationship, and apply those learned skills into their practices and situations through homework assignments. Even though this transition from sports to academic achievement has been shown (McKenna & Dunstan-Lewis, 2004), it requires a high investment of time, staff and resources, and a willingness to work collaboratively with students to improve their experience.

The importance of psychological skills training [PST] has been recognized, and the number of athletes using psychological training strategies has increased (Birrer & Morgan, 2010). Still, PST is often neglected by coaches, policy makers and other parties but also by professionals in psychology and education. The common problems in implementing a PST course or program are lack of conviction, time, knowledge and follow-up (Gee, 2010; Weinberg & Gould, 2015). In this case I did not have to convince the principal; on the contrary she was very pleased and enthusiastic about the program but the next common problem, lack of time was something tangible; how to get enough time to implement the course because students had so many courses at the same time and they said that after school hours it was tough to concentrate and focus their attention to something very new. This lack of time was also seen in another way in the participants' learning log answers and feedback; they wanted to have a longer course, i.e. more teaching and learning hours which would have given them more time to reflect learned skills better. This time aspect is also supported by the studies of Lintunen (2006), and needs to be considered more carefully when planning programs like this.

Despite the advantages of PST many people still think that psychological skills are innate and cannot be taught, winners are born, not made (Weinberg & Gould, 2015). The majority of research investigating the influence of PST on athletic performance have centered on senior athletes competing at elite levels. These

previously mentioned aspects may be the reasons why teaching psychological skills to other people than athletes is still quite non-studied area. Psychological intervention programs are effective in increasing self-confidence, focusing attention, energizing effort, and enhancing performance as previously said (e.g. DeWiggins et al., 2010; Weinberg & Gould, 2015). If we think about sports competitions and preparing for one's school exams (e.g. final exams), we could assume that the pressures student-athlete feel is quite the same in both cases. So if these psychological skills can be learned and used in sport settings they should work in other life areas as well. When practicing in real life situations these psychological skills can be used in most life settings. What seems to be the case is that the time is right for these inventions and interventions to be shared for all interested, especially to be used in good for education.

All previously mentioned aspects support the fact that we should also teach these skills to non-athletes. We could start teaching in basic school and that way the importance and effectiveness of these skills could spread wider and our future makers, today's youngsters, could better understand the meaning of PST (Blank et al., 2014; Burton & Raedeke, 2008; Sharp et al., 2013; St Claire-Thompson et al., 2014). With small adjustments, like shorter training sessions (because of the nature of duration of classroom session) and through a year round program students could benefit from psychological skills training in high school. That was something students also emphasized in their final inquiries.

Many coaches or practitioners do not understand or have the knowledge how to teach these skills. To achieve the mastery, psychological skills training should be seen as an important part of training, not detached part of physical training. Coaches should take priority of psychological skills training, not to take time away from it but they do not have enough time to teach these skills; they barely have time to teach and practice physical skills. PST should continue throughout an athlete's sport participation (Weinberg & Gould, 2015) thus it should continue throughout the educational career as well. Psychological skill training and the outcomes of it can be transferrable to school and other life settings, not just been used in sports (e.g. Burton & Raedeke, 2008; Clement et al., 2012; Sharp et al., 2013; St Claire- Thompson et al., 2014; Vealey, 2007).

Not all researchers are in favor of teaching psychological skills to young individuals. McCarthy et al. (2010, 158) argue that *“the value of psychological skills training for young athletes is questionable because of the qualitative and quantitative differences between children and adults in their understanding of abstract concepts such as mental skills”*. Massey, Meyer and Hatch (2011) claim that offering an action-oriented PST program to athletes with no previous exposure to sport psychology consultant, may be problematic. These are important findings and anyone who is implementing a PST program should consider adapting interventions and psychoeducational programs to match young athletes' age and developmental level, their readiness.

Despite of what was mentioned previously, Sharp et al. (2013) pointed out that it is also important to provide these skills to younger and unexperienced individuals. A well-planned PST programs is an opportunity to positively encourage the psychological development of youth athletes within the competitive sport environment, which in turn can aid personal growth in other areas of their life (e.g., school) by transferring the use of psychological skills and techniques they have acquired. The literature has also acknowledged the need to nurture youth athletes through positive support and training opportunities in order for them to reach their full potential with PST (Sharp et al., 2013; Vealey, 2007).

Assessing the impact of PST interventions occurring in real-world settings like in high school is challenging. There are many problems and obstacles to overcome as mentioned previously but also because the science community is keen on how to measure the use, frequency, and effectiveness of techniques/interventions used by students. Patterson et al. (2010) suggest that the Look, Think, Act cycle by Stringer (presented in the figure 1, p. 30) is a concrete manifestation of this kind of learning. When planning a PST course, it must be directed to certain group of people to be effective, e.g. in high school settings one must know the demands of the curriculum and the needs and expectations of the participants to evaluate possible antecedents, cultural and theoretical assumptions, ideologies, influences, consequences and potential actions. By doing these things, the student learns or finds the importance of psychological skills training for her own situation or moves on in the other direction.

This experience was precious for the PST courses or programs to come. Enough time has to be spent in planning the course, to get to know your audience and carefully think when to implement the course to your participants. The course has to be offered in the right period of the school year. The lack of (sport) knowledge is something that has to be taken seriously. If you as an instructor, teacher, consultant or coach do not know the principles of your clients' sports or situations, it is hard to be a trusted and appreciated in front of them (Weinberg & Gould, 2015). So, do your homework, familiarize with the client, prepare your classes carefully, search for information and be prepared for the unexpected (make an action plan, plan every session carefully, include extra practices into your classes etc.) that is what teaching is.

One notable and problematic fact behind PST is that most programs require members to attend in favor of their free time; to meet informally, to meet with the program coordinator on a one-to-one basis, as well as participate in interviews and discussions (McKenna & Dunstan-Lewis, 2004). The extra time is required in the program to practice psychological skills, to complete homework assignments and exercises adds to time pressures. Participants need to perceive that the benefits outweigh the sacrifices. When asked from my participants, the common answer to the question "Would you recommend this course to your colleagues" was, yes, despite the fact that the course was held after school hours. One answer describes it nicely: *"I will definitely recommend this course to all my friends who are interested in these things. I am really happy that I joined to this course. The course was held after regular school hours and it was something that bugged me at first and but when I noticed that the skills taught were really useful I did not mind the timing or any other minor things anymore"*.

### 5.3 Implementing, conducting and promoting a PST program

One point that has to be critically assessed in this study is the timing. According to Weinberg and Williams (2006) and Weinberg and Gould (2015), the ideal time for implementing psychological skills training would be when the individuals are beginning to participate in sport. The best time to implement a PST program would be during the off-season or preseason. At those times there is more time to learn new skills and the participants are not so pressured, e.g. about winning. According

to these same authors the worst time to implement a PST program is after the season has started (in this case when school has started). In this particular case where all actions happened in the high school context, few challenges were faced when planning and implementing the PST course. We started the course at the beginning of a new semester, in the middle of the school year. It seems that our timing went wrong and therefore we asked from the participants when should this kind of entity be offered and all of them said that it does not matter in which period the course was initiated but: *“It would not be good to arrange this course in the first period if there is new comers (freshmen) in class because they do not have a clue what high school studies are like”*.

Maybe the start of the course in school environment should happen in the beginning of the school year in August. Another possibility to start a program like this could be in the second part of the first high school year or in the beginning of the second year. At that time all high school students are familiar with their educational level and its demands and they understand what studying in high school requires. On the other hand, the off-season idea presented previously by Weinberg and Gould (2015) is impossible to execute just because schools are closed during holidays, the off- season.

Weinberg and Williams (2006) consider who should conduct a PST- program. In most of the cases this skills training is given by a licensed sport psychologist. Even though I am not yet a licensed sport psychologist I am on my way there and it can be questioned if what was done here was the best that could be done. My own educational background, willingness, enthusiasm and work experience gave me a solid trust to execute this course. My psychological knowledgebase and Master’s degree, my teacher and study counselor certifications and also my years of work experience among adolescents as a psychologist, career counselor, guidance counselor and psychology teacher made me trust in myself in planning and implementing this PST program to the high school students. I love this subject and developing it further is one of my main goals in the field of sport psychology in the future.



Another important issue to be considered is promotion of the program. This particular intervention lacked participants, partly because of timing but most probably because of improper promotion. The practitioner should use time and effort in promoting the PST course and perhaps it would be wise to use previous participants, those who positively experienced the program, in promoting the forthcoming and new course. These students could come and tell other students their experiences about the course. In addition we should use time in promoting the course well ahead in school, for both teachers and students. Maybe a short introduction to all who are thinking of applying could be good, and advertisement through school's administrative system (WILMA etc.) or sending emails about the course to all students.

#### 5.4 Winds of change in teaching and learning

In the year 2016 Finland's educational system faces its biggest changes in decades. The basic school and upper secondary (i.e. high) schools are renewing their curricula and many things will change (<http://www.oph.fi/ops2016>). As an example, guidance counselling will have an extra compulsory course and the number of free and elective courses will increase. It is a common fact that innovative teaching practices are more likely to flourish when supportive conditions are in place and Shear, Gallagher and Patel (2011) argued that it is an accepted truth that education systems must evolve to meet the needs of the students and societies they serve, changing their mission from knowledge transmission to preparation for future learning. That was one of the main reasons to start the new OPS2016- process.

When having discussions with the principal of Teacher Training School, most probably this PST course will be left in their curriculum for good, as an optional, elective course and because it can be accomplished individually there is also a change that my output in this intervention meets the curriculum criteria for the years to come. In academic cultures stability will always be a challenge but this challenge also offered an opportunity to experience the action research approach which made a positive difference, similar what Klemola (2009) experienced in her thesis about teacher training and education.

High school and especially teacher training school is an environment where new ideas and techniques will be tested (Hopkins, 2014). In the future more and more of teaching will happen using computer aided programs and sites so it is very important to also to take PST to that environment as was organized in this study. Present day students are born into using computers and net based programs. But when doing so, one cannot forget the real face to face relationship between teacher and student. In teaching and learning to use psychological skills it is important to get immediate feedback and encouragement, especially in the learning phase. Net is a good aid in teaching and learning but it cannot replace old-fashioned teaching completely.

One transparent theme I wanted as a teacher to bring to this course was that only practice makes perfect. The other idea that I wanted students to realize was that practically all the taught skills were related to each other. For example to learn to relax, one needs to concentrate and focus, use appropriate breathing and get into some imagery. Self-talk can be used to get in the mood, so to say. An educator who wants to encourage critical thinking skills in classroom is to think of his students as users of information, not as receivers of it. *“Learning environments that actively engage students in the investigation of information and the application of knowledge will promote students’ critical thinking skills”* (Gueldenzoph Snyder & Snyder, 2008, 97). Despite of one’s enthusiasm and perfect lesson plans, it might happen that the students in classes are still waiting for a knowledge transmission or top- down teaching as Stringer (2014) noted.

According to Weinberg and Williams (2006) homework assignments should be trained in class or practice, under supervision, especially if it is a new skill or technique to be learned. Homework assignments for this course were made in a way that they should be learned in student-athletes home or in their practices with their coaches. That was recommended in the literature and it is known as a progressive method of practice; i.e. to integrate learned psychological skills with physical skills practice (Weinberg & Williams, 2006).

In this program we had six meetings, once a week. It meant that after every class participants had one week to try to adopt new skills in practice. They were given advice to use these skills and techniques on daily basis, every day, in practice

situations or when they are at home. After trying them, participants wrote in their learning logs about that particular skill and technique, if it was helpful and easy to adopt and apply. The learning log was as a notebook for learning; it also gave information for the teacher and insights into a student's awareness of and skill at identifying strengths and weaknesses as a learner. The teacher used learning logs in observing and evaluating student's metacognitive skills and learning but also his own teaching as Baker (2002) suggested. Participants got feedback from their learning logs after every week and at the same time the teacher got valuable insight how his teaching was understood. According to Weinberg and Williams (2006), verbal or written reminders are very important for integrating psychological skills practice with physical practice.

The researcher should write his reflective research diary when he wishes to explore his experiences during planning, conducting or reflecting phases of the research. The reflective research diary should be written to help the researcher to understand his role in shaping the research process and ways forward with data collection and interpretation (Edwards & Talbot, 2014). I found it beneficial for me to write diaries before and after the classroom sessions. It gave me a chance to observe this program as a holistic unit where every part was linked to another. That was something the course was aiming for; to make participants understand the transferability and compatibility of these learned skills.

According to Edwards & Talbot (2014), the researcher diary is the most important prop in in the research process when used well. Researcher diary could also be called a learning log; these both have similarities and the aim in both in this particular study was to analyze and reflect what had been done, what I felt and how to improve something. A research diary was an excellent tool for me as a researcher; it helped me to monitor the course, see what topics had been covered adequately or inadequately, what material had been understood and what parts needed improvement (Burns & Sinfield, 2004). Keeping a diary of more personal responses towards the research process helped me to become more conscious of how those initial ideas and feelings about this research subject and process influenced the way of collecting and interpreting data.

Supervision helped me to develop myself to be competent and it especially helped me to think of ethical aspects. I also learned that supervision is a career-long process like Van Raalte and Andersen (2000) stated. If you want to develop and grow in doing sport psychology, you need to keep learning, evaluate and share your thoughts with other skilled persons. I remember many good teachers along my way, but also few not so enthusiastic and dedicated ones too. I have kept in mind my own teacher trainer's words, *"There is no right or wrong way to teach. Try what works for you and pick up methods and influences around your environment. Many teaching styles are effective and what works in one situation may not suit another class. Development as a teacher is a life-long journey, and I guarantee you will like the ride"*.

Finally, it is time to sum up few extra notifications. At first, the place where the program is held, really matters. Classroom or the space used for the course needs to be quiet, easy to access and with all equipment needed (e.g. computer and internet connection and exercise mats). Secondly, students were excited about the PST course, so there is a clear need for a course like this in high school setting. Students' answers revealed that in the future these skills are important to them (in occasion where they face challenges they can apply these skills). Thirdly, the implementation phase was enjoyable; there the hard work of what was done to plan the course finally blossomed. Fourthly, it is quite a probable argument that these same learning effects could be seen in other groups than just athletes, soldiers, performing artists and students; in workers, teachers, leaders etc. and it is something that future research will have to concentrate on.

The effectiveness of this intervention was evaluated frequently during the intervention process within the cycle of action research: planning, acting and reflecting (Heikkinen et al., 2008; Stringer, 2014).

### 5.5 Limitations

This study used a qualitative action research as a research design and method. It can be argued by the quantitative researchers that in using this method there is the absence of distance between the researcher and the object of study, and results will be distorted (Abusabha & Woelfel, 2003). Therefore it is recommended to use

mixed-method models. Abusabha and Woelfel (2003, 568) provide three reasons for combining qualitative and quantitative methods: *“First, and most notably, all data have both objective and subjective components... Second, using different methods to answer the same question allows researchers to cross validate results... Third, mixing the two methods cancels out, somewhat, their corresponding weaknesses...”*

There are always some aspects that limit the knowledge collected in a single qualitative study (Olsen, 2012). Questions like how to present the collected data, how to leave out individual opinions and thoughts, and what information to report. This report may only reflect the experiences of researcher and student-athletes who felt sufficiently motivated to join the squad. Senior students, both students-athletes and non-athletes, were expected to join as participants but in the end, the participants were all student-athletes’ and none of senior students participated, which further limits the generalizability of the experiences that were told (McKenna & Dunstan-Lewis, 2004). It would have been important to compare ideas, feelings, and thoughts of these two high school students groups. Generic aims and indicators can only represent the starting point of a process (Martindale & Collins, 2007).

One important aspect to be noted in an action research like this is the dual role of a teacher and researcher. When doing an action research there is always an interesting dilemma inside the study; how to avoid the role of a teacher when doing an action research study but take the role of a researcher. An action research approach provided specific guidance for many of the skills that may be required for the different contexts and problems to which these skills can be applied (school, sports, work interviews etc.). In this case, the knowledge base of the researcher, regarding to PST, was limited in the beginning of the program and that must also keep in mind when reading the narratives and the results of this story.

This study wanted to reveal the “effectiveness” of a PST in a way that what mattered was how the participants experienced the program, and if it was beneficial for them. It remained unclear if the program actually helped the participants to deal with stressors they face in their everyday lives, which was one theoretical

foundation of this study. Therefore although the indicators identified are important, it is suggested that they do not represent the full picture of what can indicate effectiveness in applied sport psychology practice (Martindale & Collins, 2007).

One limitation in this study was the timeline. The course should have been promoted properly in the beginning of the semester and maybe I as a researcher and teacher should have gone there and introduce the program and its contents ahead for the group of students. The program had only 4 participants and it can be seen as a setback but I am sure there will be more participants in the next course as one participants said: *“I will definitely spread the word to other students; this course was really good and beneficial to me”*. This kind of experience is the best promotion for the future courses.

A grand limitation that must be pointed out is that this was my first independently planned high school course. My inexperience in planning a complete course was obvious as well as in implementing a PST; I need more real life experience in psychological skills teaching to overcome certain shortages. There should have been more material in the “teacher’s toolbox” when something sudden happened, for example when there was some extra time left to use. My own inexperience in using these taught skills was one other shortcoming. I need to learn how to apply these skills in my own life, to be able to teach them properly for students. I had a good theoretical background with concepts used but I lacked practical know-how. It is the students right to get a good service.

The previously mentioned material bank or toolbox should have been inclusive because in the school environment every lesson is different despite the fact that you are teaching the same students. It might happen that the computer or some other electric device is not working so it is good to have a fallback. I tried to plan every lesson way ahead but still, surprises were sometimes on their way. To overcome this previously mentioned limitation (inexperience), it would have been wise to read e.g. Stringer’s (2014) guidebook, *Action Research in Education* before even starting the planning of this particular PST program. I read the book completely just after I had finished most of my theoretical and practical work but it would have

benefited me mostly in the beginning of the process of planning, implementing and evaluating this PST program.

Action research like other dynamically objective approaches is much harder to generalize than quantitative work, requiring new standards of validity, reliability, and trustworthiness (Reason & Bradbury, 2008). This is even truer in participatory action research, where the validity of the research is defined by the context of researchers or participants, as opposed to an independent group of scientists. In this case, abstract generalizability was de-emphasized while other criteria such as the generation of usable knowledge that generalized to a growing proportion of an individual's life was offered in its place (Gee, 2010, 386).

The last problem or limitation toward my program was a follow-up. According to Weinberg and Gould (2015) problems could be faced when you are implementing a PST program but you are not going to follow-up what was learned and used in the field. My duty and contract as a teacher ended at the same time this course ended and grades had been given. My initial plan and idea as a practitioner was to keep in touch with my participants and they were asked to contact me anytime they felt like it, also after the classroom sessions were over. The nature of this intervention made it a little challenging because we were not in a student-athlete-coach relationship but as a student- teacher and a student- researcher relationship. This is something that was an undisputed limitation in my program.

#### 5.6 Implications for the research

It would be important for the future research in the field of sport and exercise psychology and especially in PST to combine different research designs. Psychological skills training in high school context need to be studied in the future more closely by using both quantitative and qualitative approaches to explore the effectiveness of it. Abusabha and Woelfel (2003) argue for integrating qualitative and quantitative methodologies despite their differing philosophical underpinnings. Using a mixed-methods approach is not new to any science and in sport psychology it would be a beneficial tool for understanding the real essence and effectiveness of psychological skills training. Also, Edwards and Talbot (2014) suggest that a mixed design is often the most appropriate approach; the researcher

should avoid labelling methods as quantitative or qualitative, better or worse. By combining effects the research could get more useful knowledge from the field.

The future applications should also provide opportunities to measure the efficacy and the generalizability of the PST course. It is an unknown fact how long the effects of PST last and how often training would need to be refreshed to maximize preservation (DeWiggins et al., 2010). Future applications and research should as well explore whether the PST is equally effective with other contexts, e.g. in different educational levels; high schools, vocational upper secondary schools, universities of applied sciences and universities.

### 5.7 Implications for the teachers, educators and consultants

In future stages the program aims will need to be more effectively disseminated within the high school. It is important to develop two different booklets to disseminate PST programs like this; one for the teachers, to be used as a manual and one for the students to be used as a course book. Students need to know what is meant by a PST program when they make their decisions of attending or not to it and teachers have to have the knowledge of the basics of psychological skills training. Proper promotion and clear clarification of the course contents are therefore required. The registration period for the course must be long enough and all the people that this concerns have to be familiar with the course and its contents. It could be beneficial to use one of the previous course's student's in promoting the PST program. The participants from the previous program could come and tell other students their own experiences about the course, both pros and cons. In addition, time should be used in promoting the program well ahead in school, for both teachers and students but also to policy makers, principals. Maybe a short introduction to all who are thinking of applying to the course would be good. Advertising through school administrative system (WILMA etc.), posters on the school walls or sending emails to all students can be used in promoting the course. Promoting seems to be the key element in participation.

In the future sport psychology consultants must place a greater emphasis on, and must become more effective in, educating and informing coaches and athletes about the mechanisms by which sport psychology can influence performance (Gee,



2010). That way the attitudes may change into a positive direction and sport psychological techniques, methods and agents are seen as important as physiological coaching. What is important to notice is the value of learning through active engagement with clients to apply psychological models, deliver evidence-based services, and practice psychological skills. Teaching a PST program or course does not need a teaching diploma or sport psychologist training but it may be optimized by learning from the experiences of clinical and counseling psychologists like McEvan and Tod (2015) suggested. DeWiggins et al. (2010) claim that the feasibility and efficacy of a train the trainer approach should be explored. Effective approach to educate psychological coaches or as in informant terms, mental coaches, would substantially increase the number of individuals who also receive psychological skills training.

We have clear limitations to the number of performance enhancement consultants (e.g. teachers, coaches, psychologists) available (McEvan & Tod, 2015). The most effective strategies for moving sport psychology further and not just into the athletic domain involve helping coaches, teachers and policymakers better understand how these services can help all individuals to improve their overall performance (Gee, 2010). Schools should request external instructors from the Sport psychology educators, supervisors, and trainees; they may wish to consider multiple, diverse opportunities for experiential and reflective learning, similar to what action research holds for (Heikkinen et al., 2008; Stringer, 2014). This could include regular supervision, and networking with peers to develop services for a range of clients, like for schools.

Supervisors and educators may consider how the provision of work experience through active partnerships with sports organizations can help trainees gain necessary applied experience while allowing supervisors to maintain connections in the real-world sport for applied practice or research purposes (McEvan & Tod, 2015). With this in mind school psychologists, study counselors and physical education teachers could also be the possible groups conducting a PST program. They possess the knowledge of students' strengths and weaknesses so PST programs could be easily arranged for previously mentioned experts and for other interested who have the applicable educational or work based background. An

interesting real life story comes from Canada where curling coaches at all levels have the opportunity to gain basic training on the practical application of psychological skills, which has been deemed a primary obstacle for coaches in previous research (Paquette & Sullivan, 2012).

There is one very important aspect remaining to be discussed; school as a context. To be able to offer this kind of courses and programs in school settings one has also think how to measure the learning outcomes and evaluate participants which is made complex by the wide array of knowledge and skills that comprise the curriculum (Stringer, 2014). Stringer (2009, 6) argues that some people act as if learning is just an act of memorization and retrieval, remembering pieces of knowledge and retrieving them in response to appropriate questions or to acquire a correct answer. But knowing requires much more than merely being able to remember a specific piece of knowledge. Knowing requires the ability to use what was learned; knowing is related to understanding and understanding indicates the ability a person acquires to apply and use that piece of knowledge, e.g. to link it to other pieces of information, or to use it to solve problems (Patterson et al., 2010).

High schools do not normally have this kind of programs in their curriculum (yet). However it has been stated that PST courses could also be useful if arranged in school settings (e.g. Blank, Sylvia, Garza & Wade, 2014; Burton & Raedeke, 2008; Sharp et al., 2013 & St. Claire et al., 2014). The aim of this pilot-like study was also to be the head opener, and by doing this, the researcher hoped to open up discussion about this kind of programs to be available for high school students, not only for the athletes, which has been the case so far. Students who are preparing for their high school tasks and especially their final exams, which affect their future careers, have to have possibilities to fully prepare for the future. These students experience stress and anxiety while balancing with school and other life issues. And as noted, this kind of psychological skills or as could be said, life skills training would give them better tools to handle the stressful events and situations; this knowledge should be considered in educating teachers and coaches on the use of sport psychological techniques (Tenenbaum & Driscall, 2005). This study showed the need for adequate support in teachers' pedagogical knowledge, resources and training in carrying out a PST curriculum appropriately and effectively.

In addition, it would be good to have leaders (principals etc.) and fellow teachers present at meetings and training sessions. That would provide more opportunities to guide psychological skills learning and acquisition both in the classroom and out in the field (DeWiggins et al., 2010). This field of psychology needs to be taken closer to the public, not just for athletes. There may be benefits to conducting classroom sessions covering psychological tools that may require more practice or a more detailed explanation in order for individuals to adequately understand and utilize them (e.g., imagery). The terms used in the field need to be clarified and turned into a common language that the great audience understands.

The first classroom session should totally be used in team building and giving instructions how all things work (net sites etc.). Starting a new course should be fun and something to wait upon. When the practitioner has launched a cozy and safe learning environment, the atmosphere should be receptive and eager. After that, practical information and rules or instructions are easier to present and accept.

Student learning log is something where PST teachers and high school educators should pay attention to in the future. As an interesting observation, it can be argued that for high school students, writing a learning log seemed to be a relatively new tool. In this intervention, the student learning logs were mainly quite scarce and mostly lacked deeper personal meaning. The learning logs were more like homework assignments, without subjective deliberation, something that was top-down given from the teacher and it needed to be replied to in order to pass that particular lesson. It would be important to teach high school students how to reflect their learning by writing learning logs. Students need guidance how to reflect their actions because a learning log can be seen as a supportive learning tool.

As Burns and Sinfield (2004) argued, the basics of how to write learning log should be introduced in the first classroom session. Baker (2003) suggested that the teacher should prepare and deliver a brief lecture on the concept and present advantages of a learning log. A valuable tip to do this in practice is to put a sample learning log on the network and give a hard copy to each participant during the class. In this particular program, way too little time and effort was put on this topic mostly because the researcher assumed these high school students knew the concept and meaning of a learning log. But it was an educational lesson, never assume and take

anything for granted. If you do not know, ask but do not make interpretations without asking. Students do not automatically know what you as a teacher want from them or what you mean; they need to know what you want and mean!

A learning log is also a beneficial tool in giving feedback (Baker, 2003). When students understand the meaning of a learning log for their own learning that it is not just a vehicle of assessment, and when they receive feedback out of their logs, their learning becomes more conscious and analytical and this will improve both quality and quantity of their learning. In helping students to adopt the principles of a learning log some recommendation should be given on how to write the log. Clear structure should include assistance questions, e.g. what, why, reaction learned, issues, goals for each session. These questions help students to understand the meaning of a learning log. As a good example, it could be wise to show students a sample log or homework assignment, how it looks like and what issues should be covered (Burns & Sinfield, 2004). My personal instructions were too hasty and results from the learning logs must be evaluated with this in mind. My advice for you is to use time for doing all above mentioned carefully; do not hurry in teaching skills before the ground is solid!

The need for learning material in Finnish in the field of psychological skills training is flagrant/ harsh. There is little or no learning material at all in the field in Finnish (or Swedish) which could take into account the needs of this target group as a whole. Because most of the literature and teaching in the field of sport and exercise psychology is done in English, there is also a huge and urge need for domestic PST programs and instructions in native tongues. The main issue here in teaching is how to make sure that students who are participating in PST programs fully understand foreign-language instructions. This was something I had to struggle with when planning and implementing the course. I wanted to use video clips to invigorate the teaching and learning but practically all instructions and videos were in English. On the other hand that gave me an idea of producing those instructions from different psychological skills by myself to be broadcasted in social media. I am sure there is also a need for some material in Finnish or any other language than English, regarding these skills. When psychological skills can be learned and understood in person's own native language, it is probably easier to learn to apply

them in real life settings so that these skills could bring mental strength for life (DeWiggins et al., 2010).

Schools and teachers but also teacher education in wider perspective have to face the fact that the world has changed (Hopkins, 2014). Students need to be directed to the world of knowledge by making them look, think, and act (Patterson et al., 2010; Stringer, 2014) and one excellent way to do it is by using an action research approach (Norton, 2009; Patterson et al., 2010; Stringer, 2009; 2014). The results of this study can be used in planning, implementing and evaluating a PST program for high school context.

## REFERENCES

- Abernethy, B., Maxwell, J.P., Masters, R.S.W., Van Der Kamp, J. & Jackson, R.C. (2007). Attentional processes in skill learning and expert performance. In G. Tenenbaum & R.C. Eklund (Eds.) *Handbook of Sport Psychology*, 3<sup>rd</sup> Ed. John Wiley & Sons. pp. 245–263.
- Abusabha, R. & Woelfel, M.L. (2003). Qualitative vs. quantitative methods: Two opposites that make a perfect match. American Dietetic Association. *Journal of the American Dietetic Association* 103(5), 566–569.
- Allen, G., Rhind, D. & Koshy, V. (2014). Enablers and barriers for male students transferring life skills from the sports hall into the classroom. *Qualitative Research in Sport, Exercise and Health* 7(1), 53–67.
- American Psychological Association. (2015, 02.02). Public Description of Sport Psychology, Retrieved from <http://www.apa.org/ed/graduate/specialize/sports.aspx>.
- American Psychological Association. (2015, 02.19). Five principles for research ethics. Retrieved from <http://www.apa.org/monitor/jan03/principles.aspx> & <http://www.apa.org/ethics/code/index.aspx>.
- AL- Haliq, M.A., Khasawneh, A.S. & Al-Akor, A.A. (2013). The effect of mental training program related to skills teaching on learning the volleyball basic skills. *International Journal of Academic Research* 5(2), 308–312.
- Baker, J.H. (2003). Teaching tip: The learning log. *Journal of Information Systems Education*, 14(1), 11-15.
- Bandura, A. & Locke, E. (2003). Negative self-efficacy and goal effects revisited. *Journal of Applied Psychology* 88(1), 87–99.
- Birrer, D & Morgan, G. (2010). Psychological skills training as a way to enhance an athlete's performance in high-intensity sports. *Scandinavian Journal of Medicine and Science in Sports* 20(2), 78–87.
- Blank, M., Sylvia, B.G., Garza, J.G. & Wade, B.R. (2014). Sapper-Athlete-Warrior Program: An integrated approach to periodized warrior fitness. *Journal of Sport Psychology in Action* 5, 73–87.
- Botvin, G.J. & Griffin, K.W. (2014). Life skills training: Preventing substance misuse by enhancing individual and social competence. *New Directions for Youth Development* 141, 57–65.
- Burns, T. & Sinfield, S. (2004). *Teaching, Learning and Study Skills: A Guide for Tutors*. SAGE Study Skills Series.

Burton, D. & Raedeke, T.D. (2008). *Sport Psychology for Coaches*. Champaign, IL: Human Kinetics.

Butt, J., Weinberg, R. & Culp, B. (2010). Exploring mental toughness in NCAA athletes. *Journal of Intercollegiate Sport* 3, 316–332.

Csikszentmihalyi, M. Abuhamdeh, S. & Nakamura, J. (2014). Flow: The Psychology of Optimal Performance. In M. Csikszentmihalyi, *Flow and Foundations of Positive Psychology: The Collected Works of Mihaly Csikszentmihalyi*. Springer Netherlands. pp. 227–238.

Clark, T. & Williamon, A. (2011). Evaluation of a mental skills training program for musicians. *Journal of Applied Sport Psychology* 23, 342–359.

Clement, D. Shannon, V.R. & Connole, I.J. (2012). Performance enhancement groups for injured athletes, Part I: Preparation and development. *International Journal of Athletic therapy & training* 17(3), 34–36.

Collaborative for Academic, Social, and Emotional Learning (CASEL). (2015.06.23). What is social and emotional learning? Retrieved from <http://www.casel.org/social-and-emotional-learning/>.

Connaughton, D., Hanton, S. & Jones, G. (2010). The development and maintenance of mental toughness in the world's best performers. *The Sport Psychologist* 24, 168–193.

Cornish, U. & Ross, F. (2004). Social Skills Training for Adolescents with General Moderate Learning Difficulties. Retrieved from <http://web.b.ebscohost.com/ehost/ebookviewer/ebook/bmxlYmtfXzEwMDcxN19fQU41?sid=8c342d11-10e4-4394-a42c-51a417c5b823@sessionmgr112&vid=0&format=EB&rid=1>.

Creed, P.A., Conlon, E.G. & Dhaliwal, K. (2013). Revisiting the Academic Hardiness Scale. *Journal of Career Assessment*, 21(4), 537–554.

Cutri, R.M., P.C. Rogers & Montero, F. (2007). *Understanding the Whole Student: Holistic Multicultural Education*. Rowman & Littlefield Education.

David, S.A., Megginson, D. & Clutterbuck, D. (2013). *Beyond Goals: Effective Strategies For Coaching And Mentoring*. Farnham, Surrey: Gower Publishing Limited.

DeWiggins, S., Hite, B. & Alston, V. (2010). Personal performance plan: Application of mental skills training to real-world military tasks. *Journal of Applied Sport Psychology* 22, 458–473.

Duda, J.L., Cumming, J. & Balaguer, I. (2005). Enhancing athletes' self-regulation, task involvement, and self-determination via psychological skills training. In D. Hackfort, J.L. Duda & R. Lidor (Eds.). *Handbook of research in applied sport and*

*exercise psychology: International perspectives*. Morgantown, WV: Fitness Information Technology. pp. 159–181.

e-Norssi. (2015, April 20). *eNorssi - Opettajankouluttajien yhteistyöverkosto*. Retrieved from <http://www.enorssi.fi/>.

Edwards, A. & Talbot, R. (2014). *The Hard-pressed Researcher: A research handbook for the caring professions*. 2<sup>nd</sup> Ed. London: Routledge.

Forbes, S.H. & Martin, R.A. (2004). What holistic education claims about itself: An analysis of holistic schools' literature. *American Education Research Association Annual Conference*.

Forsblom K., Konttinen N. & Lintunen T. (2015). Kollektiiviset tavoitteet naisten palloilujoukkueissa kilpailukauden alussa. *Liikunta & Tiede* 52(1), 87–92.

Gee, G. (2010). How does sport psychology actually improve athletic performance? A framework to facilitate athletes' and coaches' understanding. *Behavior Modification* 34(5), 386–402.

General Upper Secondary education in Finland. (2015, June 23). Retrieved from <http://www.minedu.fi/OPM/Koulutus/lukiokoulutus/?lang=en>.

Geven, K. & Attard, A. (2012). Time for student-centered learning? In A. Curaj, P. Scott, L. Vlasceanu & L. Wilson (Eds.), *European Higher Education at the Crossroads*. Springer Science & Business Media. pp. 153–172.

Gill, D.L. & Williams, L. (2008). *Psychological Dynamics of Sport and Exercise*, 3<sup>rd</sup> ed., Champaign, Illinois: Human Kinetics.

Gould, D. (2006). Goal Setting for Peak Performance. In J.M. Williams (Ed.), *Applied Sport Psychology*, 5<sup>th</sup> edn. Mountain View, CA: Mayfield. pp. 240–259.

Gucciardi, D. (2011). The relationship between developmental experiences and mental toughness in adolescent cricketers. *Journal of Sport & Exercise Psychology* 33, 370–393.

Gucciardi, D.F., Gordon, S. & Dimmock, J.A. (2009). Advancing mental toughness research and theory using personal construct psychology. *International Review of Sport and Exercise Psychology* 2(1), 54–72.

Gueldenzoph- Snyder, L. & Snyder, M.J. (2008). Teaching critical thinking and problem solving skills, *The Delta Pi Epsilon Journal* 2, 90–99.

Hamilton, R.A., Scott, D. & MacDougall, M.P. (2007). Assessing the effectiveness of self-talk interventions on endurance performance. *Journal of Applied Sport Psychology* 19, 226–239.



- Hatzigeorgiadis, A., Zourbanos, N., Galanis, E. & Theodorakis, Y. (2011). Self-talk and sports performance: A meta-analysis. *Perspectives On Psychological Science* 6(4), 348–356.
- Hays, K.F. (2000). Breaking out: Doing sport psychology with performing artists. In M.E. Andersen (Ed.). *Doing Sport Psychology*. Champaign (IL.): Human Kinetics. pp. 261–274.
- Hays, K.F., Thomas, O., Maynard, I. & Butt, J. (2010). The role of confidence profiling in cognitive-behavioral interventions in sport. *The Sport Psychologist* 18, 393-414.
- Heikkinen, H.L.T., Rovio, E. & Syrjälä, L. (2008). *Toiminnasta tietoon: toimintatutkimuksen menetelmät ja lähestymistavat*. Helsinki : Kansanvalistusseura.
- Hopkins, D. (2014). *A Teacher's Guide to Classroom Research*, 5<sup>th</sup> Ed. McGraw-Hill Education.
- Howland, J.M. (2006). Mental skills training for coaches to help athletes focus their attention, manage arousal, and improve performance in sport. *Journal of Education* 187(1), 49–66.
- Jaakkola, M. & Rovio, E. (2012). Tavoitteiden asettaminen. In a L. Matikka & M. Roos-Salmi (Eds.) *Urheilupsykologian perusteet*, Helsinki: Liikuntatieteellinen seura. pp. 137–148.
- Kataja, J. (2012). Rentoutuminen. In a L. Matikka & M. Roos-Salmi (Eds.), *Urheilupsykologian perusteet*. Helsinki: Liikuntatieteellinen seura. pp. 181–198.
- Kingston, K., Lane, A., & Thomas, O. (2010). A temporal examination of elite performers sources of sport-confidence. *The Sport Psychologist* 18, 313–332.
- Kemmis, S., McTaggart, R. & Nixon, R. 2014. *The Action Research Planner: Doing Critical Participatory Action Research*. Singapore: Springer.
- Klemola, U. (2009). *Opettajaksi opiskelevien vuorovaikutustaitojen kehittäminen liikunnan aineenopettajankoulutuksessa*. Jyväskylän Yliopisto. Studies in Sport, Education and Health, 139.
- Koelch, L.E. (2013). Reconceptualizing the member check interview. *International journal of qualitative methods* 12, 168.
- Kolb, D. (1984). *Experiential Learning: Experience as the source of learning and development*. New Jersey: Prentice-Hall, Inc.
- Landers, D.M. & Arent, S.M. (2006). Arousal-performance relationship. In a J.M. Williams (Ed.), *Applied Sport Psychology* 5<sup>th</sup> edn. Mountain View, CA: Mayfield. pp. 260–284.

- Laukka, P. & Quick, L. (2011). Emotional and motivational uses of music in sports and exercise: A questionnaire study among athletes. *Psychology of Music* 41(2), 198–215.
- Lavallee, D., Kremer, J., Moran, A.P. & Williams, M. (2003). *Sport Psychology: Contemporary Themes*. Palgrave MacMillan.
- Lazarus, R.S. (2006). Emotions and interpersonal relationships: Toward a person-centered conceptualization of emotions and coping, *Journal of Personality* 74(1), 9–46.
- Lesgold, A.M. (2001). The nature and methods of learning by doing. *American Psychologist* 56(11), 964–973.
- Lesyk, J. (2010). Nine mental skills. *Journal of the American Chiropractic Association* 47(9), 2–6.
- Lintunen, T. (2006). Social and emotional learning in the school physical education context. In: F. Boen, F. B. De Cuyper, & J. Opdenacker, (Eds.) *Current Research Topics in Exercise and Sport Psychology in Europe*. Leuven, Belgium: LannooCampus, pp. 25–33.
- Lintunen, T. & Gould, D. (2014). Developing social and emotional skills. In A. Papaioannou & D. Hackfort (Eds.). *Global perspectives and Fundamental Concepts in Sport and Exercise Psychology*. London: Routledge: 621-635.
- Lintunen, T., & Kuusela, M. (2007). Social and emotional learning in physical education. In J. Liukkonen, Vanden Auweele, W., Vereijken, B., Alfermann, D., & Theodorakis, Y., (Eds.). *Psychology for Physical Educators*. Champaign, IL: Human Kinetics, pp. 75-83.
- Lintunen, T., Rovio, E., Haarala, S., Orava, M., Westerlund, E. & Ruiz, M. (2012). Urheilopsykologia, liikuntapsykologia ja valmennuksen psykologia. In a L. Matikka & M. Roos-Salmi (Eds.) *Urheilopsykologian perusteet*. Helsinki: Liikuntatieteellinen seura. pp. 30–39.
- Locke, E.A. & Latham, G.P. (2002). Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. *American Psychologist* 57(9), 705–17.
- Locke, E.A. & Latham, G.P. (2006). New directions in goal-setting theory. *Current Directions in Psychological Science* 15(5), 265–268.
- McNamara, A., Button, A. & Collins, D. (2010). The role of psychological characteristics in facilitating the pathway to elite performance, Part 1: Identifying mental skills and behaviors. *The Sport Psychologist* 24, 52–73.
- Martin, G.L., Vause, T & Schwartzman, L. (2005). Experimental studies of psychological interventions with athletes in competitions. *Behavioral Modification* 29(4), 616–641.

- Merrell, G.W. & Gueldner, B.A. (2010). *Social and Emotional Learning in the Classroom: Promoting Mental Health and Academic Success*. Guilford Press.
- Mezirow, J. & Taylor, E.W. (2011). *Transformative Learning in Practice: Insights from Community, Workplace, and Higher Education*. San Francisco: Jossey-Bass.
- Moran, A. (2005). Training attention and concentration skills in athletes. In D. Hackfort, J.L. Duda & R. Lidor (Eds.) *Handbook of Research in Applied Sport and Exercise Psychology: International Perspectives*. Morgantown, WV: Fitness Information Technology, 61–74.
- Kindon, S. Pain, R. & Kesby, M. (2007). *Participatory Action Research Approaches and Methods: Connecting People, Participation and Place*. London: Routledge.
- Machida, M., Ward, R.M. & Vealey, R.S. (2012). Predictors of sources of self-confidence in collegiate athletes. *International Journal of Sport and Exercise Psychology*, 10(3), 172–185.
- Malinen, A. (2014). *Towards the Essence of Adult Experiential Learning: a Reading of the Theories of Knowles, Kolb, Mezirow, Revans and Schön*. Jyväskylä : University of Jyväskylä, 2000.
- Marchant, D.B. (2000). Targeting futures: Goal setting for professional sports. In M.B.Andersen (Ed.), *Doing Sport Psychology*, Champaign (IL.): Human Kinetics pp. 93–103.
- Martindale, A. & Collins, D. (2007). Enhancing the evaluation of effectiveness with professional judgment and decision making. *The Sport Psychologist* 21, 458–474.
- Massey, W.V., Meyer, B.B. & Mullen, S.P. (2015). Initial development and validity evidence for the processes of change in psychological skills training questionnaire. *Psychology of Sport and Exercise* 16, 79–87.
- Massey, W.V., Meyer, B.B. & Hatch, S.J. (2011). The transtheoretical model: Examining readiness for psychological skills training. *The Journal of Performance Psychology* 2, 1-23.
- Matikka, L. (2013). *Flow: anna mennä ja onnistu*. Jyväskylä: Docendo.
- Matikka, L. (2012). Keskittyminen, fokuointi ja tarkkaavaisuus. In L. Matikka & M. Roos-Salmi (Eds.) *Urheilupsykologian perusteet*. Helsinki: Liikuntatieteellinen seura. pp. 95–104.
- McCarthy, P.J., Jones, M.V., Harwood, C.G. & Olivier, S. (2010). What do young athletes implicitly understand about psychological skills? *Journal of Clinical Sport Psychology* 4, 158–172.

McCrorry, P., Cobley, S. & Marchant, P. (2013). The effect of psychological skills training (PST) on self-regulation behavior, self-efficacy, and psychological skill use in military pilot-trainees. *Military Psychology*, 25(2), pp. 136-147. <http://dx.doi.org/10.1037/h0094955>

McEvan, H. E. & Tod, D. (2015). Learning experiences contributing to service-delivery competence in applied psychologists: Lessons for sport psychologists. *Journal of Applied Sport Psychology* 27(1), 79–93.

McKenna, J. & Dunstan-Lewis, N. (2004). An action research approach to supporting elite student-athletes in higher education. *European Physical Education Review* 10(2), 179–198.

McKeown, R. (2011). *Into the Classroom: A Practical Guide for Starting Student Teaching*. Knoxville: University of Tennessee Press.

Metsämuuronen, J. (2000). *Laadullisen tutkimuksen perusteet*. Metodologia – sarja 4.

Mezirow, J. & Taylor, E.W. (2011). *Transformative Learning in Practice: Insights from Community, Workplace, and Higher Education*. San Francisco: Jossey-Bass.

Minkkinen, J., Pylvänen, I. & Airaksinen, A. (2015). *Mental training workbook*. Skills Finland. Retrieved from [http://www.skillsfinland.com/julkiset/valmennus/Huki\\_tuotteet/Skills\\_Mental\\_Training\\_Workbook\\_B5\\_lores.pdf](http://www.skillsfinland.com/julkiset/valmennus/Huki_tuotteet/Skills_Mental_Training_Workbook_B5_lores.pdf).

Nicholls, A.R., Perry, J.L. & Calmeiro, L. (2014). Precompetitive achievement goals, stress appraisals, emotions, and coping among athletes. *Journal of Sport & Exercise Psychology* 36, 433–445.

Nicholls, A.R., Polman, R.C.J., Levy, A.R. & Backhouse, S.H. (2008). Mental toughness, optimism, pessimism, and coping among athletes. *Personality and Individuality Differences* 44, 1182–1192.

Nideffer, R., and Sagal, M.S. (2006). Concentration and attention control training. In J.M. Williams (Ed.) *Applied Sport Psychology*, 5<sup>th</sup> ed. Mountain View, CA: Mayfield. pp. 382–403.

Norton, L.S. (2009). *Action Research in Teaching & Learning. A Practical Guide to Conducting Pedagogical Research in Universities*. London and New York: Routledge.

O' Mathúna, D.P. (2012). Ethical considerations in designing intervention studies. In B. Mazurek Melnyk & D. Morrison-Beedy (Eds.), *Intervention Research: Designing, Conducting, Analyzing, and Funding*. New York: Springer. pp. 75–89.

Olsen, W.K. (2012). *Data Collection: Key Debates and Methods in Social Research*. London: SAGE Publications Ltd.

Olusoga, P., Maynard, I, Butt, J & Hays, K. (2014). Coaching under Pressure: Mental skills training for sports coaches. *Sport & Exercise Psychology Review* 10(3), 31–44.

Omar-Fauzee, M.S., Sadeghi, H.S., Jamal, M. & Abd-Latif, R. (2010). The mental skills training of university soccer players. *International Education Studies* 3(2), 81–90.

Omar-Fauzee, M.S., Wan Daud, W.R.B., Abdullah, R. & Rashid, S.A. (2009). The effectiveness of imagery and coping strategies in sport performance. *European Journal of Social Sciences* 9(1), 97–108.

*Opettajankoulutuksen toimintakäsikirja*. (2015, January 3). Retrieved from <https://www.jyu.fi/edu/laitokset/okl/laadunvarmistus/okltoimintakäsikirja.pdf>. Read 17.2.2015.

*Opetussuunnitelman perusteet*. (2015, January 3). Retrieved from <http://www.oph.fi/ops2016>; & [http://www.oph.fi/english/curricula\\_and\\_qualifications/general\\_upper\\_secondary\\_education](http://www.oph.fi/english/curricula_and_qualifications/general_upper_secondary_education) & [http://www.ops2016.fi/ops2016/aineistot/Curriculum\\_Design\\_2016.pdf](http://www.ops2016.fi/ops2016/aineistot/Curriculum_Design_2016.pdf).

Paquette, K.J. & Sullivan, P. (2012). Canadian curling coaches' use of psychological skills training. *The Sport Psychologist* 26, 29–42.

Patterson, L., Baldwin, S., Araujo, J., Shearer, R. & Steward, M.A. (2010). Look, think, act: Using critical action research to sustain reform in complex teaching/learning ecologies. *Journal of Inquiry and Action in Education* 3(3), 139–157.

Petitpas, A.J. (2000). Managing stress on and off the field: The Littlefoot approach to learned resourcefulness. In M. B. Andersen (Ed.), *Doing Sport Psychology*. Champaign (IL.): Human Kinetics. pp. 33-43.

Philips, R.S. (2011). Toward authentic student centered practices: voices of alternative school students. *Education and Urban Society* 45(6), 668–699.

Pineschi, G. & DiPietro, A. (2013). Anxiety management through psychophysiological techniques: Relaxation and psyching-up in sport. *Journal of Sport Psychology in Action* 4, 181–190.

Ramsey, R., Cumming, J. & Edwards, M.G. 2008. Exploring a modified conceptualization of imagery direction and golf putting performance. *International Journal of Sport and Exercise Psychology* 6(2), 207–224.

Reason, P., & Bradbury, H. (2008). *The Handbook of Action Research: Participative Inquiry and Practice*. 2<sup>nd</sup> Ed. Thousand Oaks, CA: Sage.

Reeves, C.W., Nicholls, A.R. & McKenna, J. (2011). The effects of a coping intervention on coping self-efficacy, coping effectiveness, and subjective performance among adolescent soccer players. *International Journal of Sport and Exercise Psychology* 9(2), 126–142.

*Research Diary*: SAGE Research Methods. (2015, January 3). Retrieved from <http://srmo.sagepub.com/view/keywords-in-qualitative-methods/n79.xml>.

Roos-Salmi, M. (2012). Itseluottamus. In a L. Matikka & M. Roos-Salmi (Eds.) *Urheilupsykologian perusteet*. Helsinki: Liikuntatieteellinen seura. pp. 149–163.

Roos-Salmi, M. (2012). Itsepuhe. In a L. Matikka & M. Roos-Salmi (Eds.) *Urheilupsykologian perusteet*. Helsinki: Liikuntatieteellinen seura. pp. 164–169.

Rovio, E., Eskola, J., Gould, D. & Lintunen, T. (2011). Linking Theory to Practice – Lessons Learned in Setting Specific Goals in a Junior Ice Hockey Team. In R.D. Schinke (Ed.), *Introduction to Sport Psychology: Training, Competition and Coping*, Nova Science Publishers, Inc. pp. 21–37

Sadeghi, H., Omar-Fausee, M-S., Jamalis, M., Ab-Latif, R. & Cheric, M.C. (2010). The Mental skills training of university soccer players, *International Education Studies* 3(2), 81–90.

Schack, T. & Hackfort, D. (2007). Action-theory Approach to Applied Sport Psychology. In G. Tenenbaum & R.C. Eklund, (Eds.), *Handbook of Sport Psychology*, 3<sup>rd</sup> ed. Hoboken, N.J: John Wiley & Sons. pp. 332–351.

Schuijers, H. H. P. M. (2002). *Effects of mental training consultancy in elite sports: theoretical considerations and field studies on mental skills, mental concepts and sport performance of international level elite athletes and national level juvenile ten-pin bowlers*. Deutsche Sporthochschule.

Sharp, L-A., Woodcock, C., Holland, J.G., Cumming, J. & Duda, J.L. (2013). A qualitative evaluation of the effectiveness of a mental skills training program for youth athletes. *The Sport Psychologist* 27, 219–232.

Shear, L., Gallagher, L. & Patel, D. (2015, January 12). *ITL research 2011 findings: evolving educational ecosystems*. Retrieved from <http://www.itlresearch.com/images/stories/reports/ITL%20Research%202011%20Findings%20and%20Implications%20-%20Final.pdf>.

Sherman, C.P. & Poczwadowski, A. (2000). Relax! It ain't easy (or is it?). In M.B. Andersen (ed.), *Doing Sport Psychology*. Champaign (IL.): Human Kinetics. pp. 47–60.

Shitrit, D. (2001). *The effect of mental training using biofeedback on adolescents engaging in sport*. Anglia Polytechnic University.

Simons, J. (2000). Doing Imagery in the Field. In M.B. Andersen (Ed.), *Doing Sport Psychology*. Champaign (IL.): Human Kinetics. pp. 77–92.

Slattery, P. (2013). *Curriculum Development in the Postmodern Era: Teaching and Learning in an Age of Accountability*, 3<sup>rd</sup> Ed. New York: Routledge.

Smith, C.M. (2011). Scripts: A tool for cognitive rehearsal. *The Journal of Continuing Education in Nursing* 42(12), 535–536.

Smith-Stoner, M. & Molle, M.E. (2010). Collaborative action research: Implementation of cooperative learning. *Journal of Nursing Education* 49(6), 312–318.

Smoll, F.L & Smith, R.E. (2006). Development and implementation of coach-training programs. In a J.M.Williams (Ed.), *Applied Sport Psychology*, 5<sup>th</sup> edn. Mountain View, CA: Mayfield. pp. 458–476.

St Claire-Thompson, H., Bugler, M., Robinson, J., Clough, P., McGeown, S. & Perry, J.L. (2014). Mental toughness in education: Exploring relationships with attainment, attendance, behaviour and peer relationships. *Educational Psychology*. doi:10.1080/01443410.2014.895294, 1-22.

Ste-Marie, D.M. (2013). Self-as-a-model interventions situated within an applied model for the use of observation. *Movement & Sport Sciences – Science & Motricité* 79, 33–41.

Stringer, E.T. (2014). *Action Research in Education*, 2<sup>nd</sup> edition. Harlow: Pearson Education.

Stringer, E. T. (2009). Action Research in Teaching and Learning. In E.T.Stringer, L. McFadyen Christensen & S.C. Baldwin (Eds.). *Integrating Teaching, Learning, and Action Research: Enhancing Instruction in the K-12 Classroom*. SAGE Publications, pp. 1–14.

Strycharczyk, D. (2014). What is mental toughness? In P. Clough & D. Strycharczyk (Eds.) *Developing Mental Toughness in Young People: Approaches to Achievement, Well-being and Positive Behaviour*. Karnac Books. pp. 3–9.

Surujlal, J., Van Zyl, Y. & Nolan, V.T. (2013). Perceived stress and coping skills of university student-athletes and the relationship with life satisfaction. *African Journal for Physical, Health Education, Recreation and Dance* 19(4), 1047–1059.

Teacher Training School, University of Jyväskylä (2015, April 20). *Info*. Retrieved from <https://www.norssi.jyu.fi/info-1/info>.

Teacher Training School, University of Jyväskylä (2015, March 12). *Psyykkinen valmentautuminen*. Retrieved from <https://peda.net/jyu/normaalikoulu/oppiaineet/pv>.

Tenenbaum, G. & Driscoll, M.P. (2005). *Methods of Research in Sport Sciences: Quantitative and Qualitative Approaches*. Oxford: Meyer & Meyer Sport.

The Finnish Psychological Association. (2015, March 12). *Info*. Retrieved from <http://www.psyli.fi/inenglish>.

Van Raalte, J.L. & Andersen, M.B. (2000). Supervision I: from models to doing. In M.B. Andersen (Ed.), *Doing Sport Psychology*. Champaign (IL.): Human Kinetics pp. 153–165.

Vealey, R.S. (2007). Mental skills training in sport. In G. Tenenbaum & R.C. Eklund (Eds.) *Handbook of Sport Psychology*, 3<sup>rd</sup> edn. Hoboken, New Jersey: John Wiley & Sons, pp. 287–309.

Vealey, R.S. & Greenleaf, C.A. (2006). Seeing is believing: understanding and using imagery in sport. In J.M. Williams (Ed.), *Applied Sport Psychology*, 5<sup>th</sup> edn. Mountain View, CA: Mayfield. pp. 306–348.

Wakefield, C.J. & Adie, J.W. (2012). Evaluating sport psychology teaching through action research. *Journal of Hospitality, Leisure, Sport & Tourism Education* 11, 125–130.

Weinberg, R.S. & Gould, D. (2015). *Foundations of Sport and Exercise Psychology*, 6<sup>th</sup> edn. Champaign, IL: Human Kinetics.

Weinberg, R. S., & Williams, J. M. (2006). Integrating and implementing a psychological skills training program. In J. M. Williams (Ed.), *Applied Sport Psychology*, 5<sup>th</sup> edn. Mountain View, CA: Mayfield. pp. 425–457.

Williams, S.E., Cooley, S.J., Newell, E., Weibull, F. & Cumming, J. (2013). Seeing the difference: Developing effective imagery scripts for athletes. *Journal of Sport Psychology in Action* 4, 109–121.

Williams, S.E. & Cumming, J. (2011). Measuring athlete imagery ability: The sport imagery ability questionnaire. *Journal of Sport & Exercise Psychology* 33, 416–440.

Williams, J.M. & Harris, D.V. (2006). Relaxation and energizing techniques for regulation of arousal. In J.M. Williams (Ed.), *Applied Sport Psychology*, 5<sup>th</sup> edn. Mountain View, CA: Mayfield. pp. 285–305.

Wilson, V.E., Peper, E. & Schmid, A. 2006. Strategies for training concentration. In J.M. Williams (Ed.), *Applied Sport Psychology*, 5<sup>th</sup> edn. Mountain View, CA: Mayfield. pp. 404–422.

Wright, G.B. 2011. Student-centered learning in higher education. *International Journal of Teaching and Learning in Higher Education*, 23, 1, 92–97.

Zinsser, N., Bunker, L. & Williams, J.M. 2006. Cognitive techniques for building confidence and enhancing performance. In J.M. Williams (Ed.), *Applied Sport Psychology*, 5<sup>th</sup> edn. Mountain View, CA: Mayfield. pp. 349–381.



Zinsser, N., Perkins, L.D., Gervais, P.D & Burbelo, G.A. (2004). Military application of performance-enhancement psychology. *Military Review* , 84( 5), 62-65.

# APPENDIXES

## APPENDIX 1: Curriculum for the Psychological Skills Training program

What is Psychological Skills Training?

Purpose of the psychological skills training (PST) is to develop individual's mental capacities and strengthen his or her competitive qualities. This developmental work is usually done in co-operation with coaches, athletes and sport psychologists but in the school environment it can be done with the co-operation of teacher and student.

The aim of PST is to help a student- athlete beforehand to practice these certain psychological skills (e.g. relaxation and imagery) that can be used in different sports and life situations.

How to accomplish the course?

The program includes contact lectures 6x 2 hours, 24 hours of independent work and exercises, and 2 hour individual feedback and interview session with the teacher (38 hours of work = 1 high school course). There is homework in every class and writing a learning log is mandatory during the course. The learning log will form half of the course evaluation.

Course will be evaluated as Pass, completed or fail.

Contents:

### 1) **What is PST?**

Objective:

A student recognizes basic principles and techniques of psychological coaching and will be able to use those in his/ her own development as a student-athlete.

Methods:

Lecture, pair work, discussions about the topic. Home work. Learning log.

### 2) **Mastery and self-confidence**

Objective:

The aim is to recognize one's own strengths and possible improvements as a student and as an athlete.

Methods:

Lecture, individual and pair work. Self-confidence scale, optimal performance inventory. Home work. Learning log.

### 3) **Goal-setting**

Objective:

Student understands the importance of proper goal-setting. Student learns how to set proper short and long-term goals (smart- model).

Methods:

Lecture, individual and pair work. Home work. Learning log.

4) **Breathing, concentration and self-talk**

Objective:

Student learns to use different breathing techniques to calm him/ herself down. Student understands the meaning of a smooth breathing and learns to focus and concentrate on his/ her performance. Through positive self-talk a student learns to optimize his/ her functionality in different situations (school, sports). Stress management.

Methods:

Lecture, individual, pair and group work. Home work. Learning log.

5) **Relaxation and arousal regulation**

Objective:

Student knows how to use different relaxation techniques in different situations, especially before stressful situations (exams, competitions). Stress management.

Methods:

Lecture, individual, pair and group work. Home work. Learning log.

6) **Imagery**

Objective:

Student learns how to use imagery in supportive way in his/ her learning. Stress management.

Methods:

Lecture, individual and group work. Home work. Learning log.



APPENDIX 3: A sample grid and all realized lesson plan grids and classroom sessions in brief for the classes I-VI

A sample lesson plan grid.

<u>Time/ Duration</u>	<u>Content</u>	<u>Description of procedures + reflections</u> (key points/ materials used)	<u>Evaluation</u> (this was not fully covered in lesson plan grids but was written in researcher diaries, pp. 52-70)
<b>Explanation</b>	<b>Explanation</b>	<b>Explanation</b>	<b>Explanation</b>
How much time was spent on different tasks	Recapping previous session's topic and homework assignments  Introduction to the topic at hand	How the teaching was executed  Brief reflections of how the lesson went and what were my observations as a teacher were written in classroom lesson plan grids	After every session following aspects were analyzed and evaluated: What was done, How it went, What was good, What needs to be improved, How the session is assessed
Measured in minutes; 0-5, 5-30 etc.	Aims of the topic/ The learning objectives	Lectures, Discussions , Videos, Questionnaires, Individual, pair or group work, Interviews, Homework assignments, Learning logs	Students were asked their opinions of classes What was ok; What were their expectations for the next session
Videotaped sessions were analyzed after each class (how much time spent on each section of the class, researcher's reactions)	Students were given the course syllabus beforehand (where the contents, requirements and objectives were explained)	Students were informed what methods are used and why (e.g. Master's thesis study, trustworthiness, ethical issues etc.)	Researcher's diary was written pre class (what feelings last session lift up) and after class (how the session went, what needs to be done to improve the teaching and learning)

1. Classroom session, 13.1.2015, PST in general.

Time/ Duration	Content	Description of procedures + reflections
0-15 minutes	Introductions both practitioner and participants	First we went through the following protocol: privacy policy/ trustworthiness, agreement that everything is confidential, consent form, safe and warm atmosphere, agreement how to continue/ how to get the course done, net course (peda.net).  Students' were quite tensed, there were only two of them present and they did not know each other. I tried to open up the atmosphere any way I could, to make the situation and event pleasant for the participants.
15-45 minutes	Course Contents  Net based learning environment	After introducing it was time to present the course themes, objective, and curriculum, learning outcomes, methods and modes of study.  Students were not familiar with most of these things so it seemed that the course was needed.
45-85 minutes	First topic Objective was to learn what is PST	Lecturing, discussions, filling up the questionnaires.  At first students talked about this topic in pairs, then we put all together as a group and discussed about the general aspects of PST.  Students' had nice ideas about PST and they were clearly interested in this course.
85-90 minutes	Recap, peda.net- introduction, next week's topic, short recap, reminding about the homework.	Wrapping up this first meeting, reminder of the next meeting and homework.  Students seemed interested and enthusiastic and I was happy to have this opportunity with them.

The idea of the class was to introduce the topics to students, make an agreement that everything is confidential, and make an agreement how to continue the course. PST seemed to be a new thing to these athlete-students.

The first intervention session was organized on January 13<sup>th</sup>, 2015. Students had just finished their Christmas vacation and started their 4<sup>th</sup> high school period so the timing to start the PST course seemed to be perfect. We met at the Norssi's gym where we were pointed a stage. At first it sounded like a nice idea to have the course there because all the exercise mats were there (to be used e.g. in relaxation exercises) but after a while it was not that luxurious anymore; some kind of an afternoon school physical education course started behind the curtain and they made a lot of noise. According to Weinberg and Gould (2015), it matters where the program is held; it requires a quiet and spacious room. That way the participants can focus on learning and teaching without distractions.

The first classroom session was an introduction to psychological skills training. This session started with a short introduction round and after that the main themes, aims and objectives as well as the rules for the group and how to complete the course were introduced and ensured that everyone understood. The net based learning environment was shown and the ways to operate there were demonstrated. I gave a short historical lecture of PST to students and their knowledge in the field was tested. Students discussed about the topic with each other and after that we summed up what we meant about psychological skills training.

After that a short psychological skills drill related to breathing and relaxation was held. This activity's goal was to make an open and enjoyable atmosphere for all participants. After the practical part, the course contents, learning outcomes, modes of study (lecturing, exercises, homework assignments, learning log, participating in classroom sessions) and the course evaluation were recapped.

Students' optimal performance levels in different situations were surveyed by completing questionnaires in class and also as a homework assignment. Optimal functioning can be seen as an important part of one's self-confidence. For example, when students were thinking about their best performances they had to focus their minds in certain situations; how did they feel and think in that situation. They were given a checklist of performance states, similar to Weinberg and Gould's (2015, 274) examples. They put their feelings and thoughts in paper and saw a concrete list of how they felt in that positive event.

Questionnaires and exercises presented in the APPENDIXES 5 and 6 were applied in this classroom session.

2. Classroom session, 20.1.2015, Self-confidence & mastery.

Time/ Duration	Content	Description of procedures + reflections
0-10 minutes	Recapping and introducing new themes	Last week's topic was recalled briefly and homework was discussed. The course themes were recapped again because there were new members joining this time; they needed to know what will be taught and learned. After that was time to introduce the new topic.  Students were quite silent but clearly interested in these topics.
10-30 minutes	Short relaxation tape, after that today's topic and timeline	This session was about personal strengths/ development. Exercises (questionnaires open ended) were used to find out participants strengths and improvements.  Relaxation tape was used to get the participants in the mood, so to say.
30-80 minutes	Objective in this class was to make a needs analysis/ assessment; what were participants strengths, do they have self-confidence, how to measure their own self-confidence, with questions "where I'm good at, what to develop etc."	Lecturing, discussions, filling up the questionnaires; enhancing ones confidence.  Students were receptive and more active than last time.
80-90 minutes	Recap, next week's topic, short recap, reminding about the home	Homework + instructions; what was required from the learning log.  It was clear that students needed help in writing their learning logs. I tried to open up what is meant with a learning log.

The course and the group were forming so I followed the first meetings guidelines in this class too.

The second classroom session was organized on January 20<sup>th</sup>, 2015. The session was dedicated to self-confidence and mastery. The objective was to teach that these concepts are in the core of one's psychological well-being and those can be learnt; they are not innate but can be built through practice and planning (Weinberg and Gould, 2015).



The amount of 6 registered students had turned to four young ladies. One original member left out and two new members joined in this second class. They knew each other well but not the original one. This second session started with a short summary or recap about the last week's topic, the course themes, aims and objectives. It also included recapping the net based learning environment and its contents. This was not just because we had two new members but because I thought it was a good way to remind them of what had been taught and activate the students' towards to the new topic. This worked like a quiz and reminded the participants that homework needs to be done to get the credits. Homework assignments were checked every week before the new session was held and if those were not done, a reminder was given at the beginning of every class.

We discussed about these concepts and then students were given a few questionnaires to be filled up. The questionnaires included questions about self-confidence, students' strengths and weaknesses and how they deal with stressful events and situations. The questionnaires were used as a head opener but the students answers were also taken into account in their final interviews, which took place after the course. In this part students also discussed about their own skills in these areas and they also had to write down some of the key concepts they found from their own actions (a list of key psychological skills were given as a discussion opener).

According to many studies, positive relationship between confidence and performance is well supported by the literature (Kingston et al., 2010; Hays et al, 2010; Machida et al., 2012). Weinberg and Gould (2015) claim that self-confidence in sports includes certain specific sources, e.g. mastery, developing and improving ones skills, ability to focus on goals and to give all you got, approving oneself as you are, getting successful performances (model learning), and feeling comfortable in the environment. Means to increase self-confidence in the session included above mentioned specific strategies, e.g. promoting mastery, modeling confidence from the past experiences, and the use of rewarding statements, all suggested by the studies of Paquette and Sullivan (2012).

In their homework assignments, the students shared their reflections about the events where they succeeded; competitions, exams or other situations. In these assignments, the participants wrote down how they felt, prepared and what were the flashbacks of the situation. The students had to think of the key psychological skills that made them succeed in that particular situation. The participants also had to think of how to enhance their own self-confidence in the future.

Exercises and questionnaires presented in the APPENDIXES 7, 8 and 9 were applied in this classroom session.

3. Classroom session 27.1.2015, Goal-setting.

Time/Duration	Content	Description of procedures + reflections
0-5 minutes	Recapping last week's topic	Short recap of what was done, general feedback from the home works.
5-20 minutes	Short relaxation tape was played before today's topic; objective with this was to help students to get in the zone.	Discussions with students showed that every meeting should include relaxation tapes, shorter and longer ones.  From this lesson on, every session started and ended with a relaxation exercise. Students' reactions on practical parts showed the need for it.
20-25 minutes	Today's topic	Short introduction to topic; after a short intro, it was easier to get in to topic at hand.
25-70 minutes	Goal- setting  Objective was to recognize students dreams and goals and make short and long-term goals, using SMARTS- model in assistance.	Lecture and practical exercises about the proper goal-setting. Short YouTube- video examples were used to illustrate this topic and especially the need for setting both short and long- term goals.  Students' feelings were positive; i.e. they had not done any written goal- setting yet/ before; now they understood the meaning of writing down one's goals.
70-80 minutes	Relaxation	Active relaxation was applied this time; students liked it, they answered that it is helping them to focus and lessen anxiety.  This exercise was brought to class regarding students wishes. They enjoyed it a lot.
80-90 minutes	Recap Home work	Recapping the topic, giving instructions for the homework and especially for the learning log.  Students said they understood what needed to be done.

The lesson plan grid started to change its shape and description included also informal reflections from the class. From this class on, short exercise, previously known or a new one was applied to start the class and to end it.

The third classroom session was organized on 27<sup>th</sup> of January, 2015. This class and the classes to come were held in the same room as the week before because the room well suited to our purposes; it was quiet and included all the equipment we needed. I started this session by chitchatting, to make the students feel themselves relaxed and most welcomed. I used this technique based on my observations and reflections from the previous classes; by doing this the students were more active and participatory than before and real discussions took place in the class. This phenomena can also be seen in students learning logs in a way that they reflected their actions more openly and widely than before.

At first a short recap about the previous week's topic was held and the homework assignments were checked. After recapping, the new topic was presented. This session was dedicated to goal setting. At first there was a short lecture about the topic. After that we started to set our own goals by using formal but empty forms. This theme

was somewhat familiar with students but none of them had used it in organized way before. The objective was to learn to use it in proper way because goals direct attention, effort, and action toward goal-relevant actions at the expense of non-relevant actions (Locke & Latham, 2006). Basic principles of goal-setting in the class followed the SMARTS- model (Gould, 2006; Weinberg & Gould, 2015). In class students set specific (S), measurable (M), action oriented (A), realistic (R), timely (T) and self-determined (S) goals. That way I thought it was easier for the participants to set their short term (day, week, and monthly) goals as well as their long term goals.

In the classroom, goal setting focused on participants' strengths but also took into account their limitations and issues that needed to be improved. Short and long-term goals were set, step by step. Focus was on both indirect and direct aspects. Goal setting included daily and weekly based tasks, but also monthly, yearly and dream level goals. Students practiced to set objective and subjective goals.

In our class goals were set in an accurate manner, taking into account particularly the rules of Locke and Latham (2002) and Gould (2006). At first students thought of their dreams and wrote them down. It was like a warming up for them. Next they wrote down their specific and important, realistic but challenging goals for this year, season, month, week and this present day. Students got a formula where goals were divided in short and long-term parts. By doing this in very concrete way, students learned the importance of specific and measurable goals and it is the key to reach for those goals. According to Weinberg and Gould (2015), setting goals one can make the invisible visible and maybe that way it is easier to reach for that goal and gain it later.

In their homework assignments, the students' had to set their own goals not only for their high school career but also for their sports. This was done by setting the process, performance and outcome goals. Instructions were given in the class and they could be seen in the net based learning environment after class, like any other content. In the assignment, the students also had to think possible challenges or problems in gaining their goals, and how to solve those problems. The participants had to evaluate how realistic it is to achieve those set goals and in what time and how to measure if the goals were achieved or not; this way the entire goal setting procedure followed an action orientation.

Exercises used in this session are presented in the APPENDIXES 10 and 11.

4. Classroom session 3.2.2015, Breathe control, concentration & self-talk.

Time/ Duration	Content	Description of procedures + reflections
0-15 minutes	Recapping last week's topic, review home works, orientation to topic, short breathing exercise	Checking that everything was understood, short feedback from the homework's.  It seemed that it was still quite hard to write a learning log but improvement from previous sessions had happened.
15-25 minutes	Introducing the new topic and having discussions in pairs about the topic	Breathing, concentration and self-talk exercises; the meaning of those for personal development.  Students seemed not so keen on these topics but they were receptive.
25-85 minutes	Breathing and concentration exercises, self- talk examples.  Objective was to give students a chance to learn to apply these skills in safe learning environment, to show that these skills are mostly connected to each other.	Practical exercises in order to learn to use these skills in real life situations.  Exercises were always something students were waiting for as those were this time. They really focused on executing these exercises.
85-90 minutes	Recapping the topic, reminder of a home work	Short recapping and asking participants feelings about exercises, re-checking that everything is ok. Homework instructions were given in order to help students to write their learning logs.  Students were quite silent but seemed that they understood what needed to be done.

The group was finalized and all four members who completed the course were at present, at the same time. More time in the class room was spent in practicing these skills than before.

The fourth meeting was organized on February 3<sup>rd</sup>, 2015. Like in all sessions, the session started with a casual chitchatting and after that it was time to recap the previous week's topic. After the recapping phase, we continued to the topic at hand, this time it was about breath control, concentration, and self-talk. Breath control as method of arousal regulation, like relaxation, was the main theme here but relaxation was cut off from this class because it deserved its own session on my mind, partly because arousal regulation does not only mean reducing your anxiety or stress; you can also try to pump yourself up and raise arousal state closer to the optimal level (Pineschi & DiPietro, 2013) and to learn to do this takes time.

The objective of this session was to learn to discover the benefits of these techniques and how to use those in e.g. stressful and attentional situations. In this class students learned to use proper breathing and see the difference in their heart beat and rate when beating is fast and heavy compared to deep and smooth. We applied lots of short exercises related to breathing and concentration but also to self-talk.

Breathing exercises, how to breathe smoothly and calmly, were trained in order to calm students' down when feeling e.g. stressed (before competitions, exams). The reason for putting effort on this was because proper breathing is the foundation of psychological skills training (Minkkinen et al., 2015). Concentration practices were focusing on trying to concentrate one task at hand, keeping the focus on one thing at a time, like staring at a spot on the wall, calculating numbers downwards.

Weinberg and Gould's (2015, 398-399) and Wilson et al.'s (2006, 414-415) tips how to help an individual improve concentration (principles of effective concentration), were used in the class. These included grid-alike exercises, focus training, and one pointing; e.g. participants calculated the numbers (backwards), focused their concentration on certain things, spot, mark on the wall etc. and we also combined breathing and concentration in our exercises. When participants felt concentrated, next step was to focus on the present, how they were feeling, what they were hearing and seeing at the moment. Authors say that this is the way to keep ones concentration and not to lose it (pay attention to the present) (Moran, 2005).

Techniques for improving self-talk were taught by using Weinberg and Gould's instructions (2015, 390). Authors gave six rules to follow; phrases should be short and specific, use the first person and present tense, construct positive phrases, say your phrases with meaning and attention speak kindly to yourself and repeat your phrases often. Self-talk focused on positive aspects; instructional and motivational cue words were invented to psych us up when extra energy was needed or to focus on relevant issues on task at hand. Students had to make a manual or guidebook out of these rules and everyone has it now in their material or tool box. As a reminder for the self-talk we used Zinsser et al. (2006, 357) rules for self-talk: "what, when, and how to think".

In this classroom session we watched a lot of YouTube- videos about topics at hand. It seems that almost all audiovisual material are in English, at least I could not find any Finnish videos regarding these topics at hand. This was something that prompted me write to my diary and I will open it up later. In students' homework assignments, they had to find different breathing exercises from the net and share those with each other. A biofeedback drill was also given as an optional exercise. The third assignment in this class included thinking of what might interrupt a person's performance and concentration and how to deal with it. The last assignment in this class was to make up few self-talk cue words to be used in different life situations, e.g. in sports and school.

Exercises presented in the APPENDIXES 12, 13, 14 and 15 were applied in this classroom session.

5. Classroom session 10.2.2015, Relaxation

Time/ Duration	Content	Description of procedures + reflections
0-5 minutes	Recapping last week's topic, homework question round	Recapping was applied to make sure last week's topic was understood.  Today there were only two attendants; Homework were not done completely
5-10 minutes	Short introduction to topic and relaxation's relatedness to previous classes.  Objective with the exercise was get in the zone.	This was applied to make sure students' attention is in the class, here and now.  This exercise was something I decided to do as an extra, to make students to notice the connection between breathing, concentration and relaxation
10-60 minutes	Introducing the topic. Different techniques were used; PMR to mind relaxation, both sitting and lying down. Me as a practitioner taped exercises that were used.  Objective in this class was to teach and show different relaxation techniques, short and longer ones and make students aware of the advantages of relaxation exercises before and after their performances.	Introduction explained why it was worthy to learn to relax but also to make the topic familiar and give examples where and how to use it in their own time.  I think this session was something my participants really waited and wanted. They concentrated on exercises well and were focused. Students were receptive and I was doing the exercises with them like a good action researcher does ☺
60-85 minutes	Taped relaxation exercise; how to succeed in exam	Deepen the knowledge of this skill and give different tools to work with in their own time.  Students were lying down during this exercise because of its timing (around 30mins). The purpose of the exercise was to increase and enhance self-confidence and if it worked, it will be seen in my interviews perhaps?
85-90 minutes	Recapping and reminding of the homework, short notice of next week's topic	Summary is always ok, to make sure that students understood all and there was nothing unclear in using relaxation.  I wanted to be sure that students finish their homework assignments in time therefore I reminded once again about it.  It is important to shortly recap what was done and why. That way students learn to repeat exercises alone, one cannot learn these techniques in class but doing those themselves. Short notice what's to come was like a teaser to keep students interest alive...

After the fifth class room session I started to reflect my feelings instead of actions directly in the lesson plan grid. I wanted to try to approach my researcher role from another perspective in this, not just explain what was done, but how it felt what was done.

The fifth meeting was organized on 10<sup>th</sup> of February, 2015. After recapping the previous week's topics it was time to introduce the next skill; the whole classroom session was dedicated to relaxation which is one of the most used stress and anxiety reduction techniques (Sherman & Poczwardowski, 2000; Weinberg & Gould, 2015). What was notable, students participated actively. Relaxation exercises were somewhat known but in this case not much used. This was the first time ever for the participants that they used different relaxation techniques in an organized way.

Relaxation is a method of arousal regulation (e.g. Landers & Arent, 2006; Weinberg & Gould, 2015) but in was not taught at the same time with breath control, another technique to be used in regulating arousal. On my mind relaxation needed more time to be taught and practiced, and that was the main reason for this decision. The aim of the class was to increase the benefits of relaxation exercises among students' and to use it to deal with stressors. The drills used in teaching relaxation started with short breathing exercises and continued from shorter to longer muscle to mind- typed exercises following and in favor of Jacobson's Progressive Muscle Relaxation (PMR) method (e.g. Weinberg & Gould, 2015; Williams & Harris, 2006). The objective for this session was to make students recognize the difference between relaxation and tension, to identify positive effects that happened during the relaxation phase; e.g. slower and deeper breathing, decrease in activation and tension, increase in concentration, resources and vitality and calming oneself down. We used targeted relaxation practices which were directed to the school environment.

Some exercises came from the tape and some of the instructions were given by the teacher. Every practice started with a breathing exercise. In the class, two 15-30 minutes progressive muscle relaxation drills, and numerous short tension release exercises were executed. In shorter ones participants e.g. shook their hands in order to get the tension released (for more information, see Minkkinen et al., 2015, 21). In teaching this and the last skill, imagery, Kataja's examples (2012) of relaxation were used as a guideline; e.g. shorter practices were taught before imagery training and longer exercises before learning how to recover from the strain. Students were taught to recognize positive effects that happen during the relaxation phase; e.g. slower and deeper breathing, decrease in activation and tension, increase in concentration, resources and vitality and calming themselves down. In longer drills, orders were given by the teacher and the students executed them as instructed.

As homework assignment students had to find out new exercises from the net and share those with others and they also had to execute few drills at home and write about their feelings in the learning logs.

Exercises presented in the APPENDIXES 16 and 17 were applied in this classroom session.

6. Classroom session 17.2.2015, Imagery

Time/ Duration	Content	Description of procedures + reflections
0-5 minutes	Recapping last week's topic & homeworks	<p>"Waking up" the students and welcome them in the class.</p> <p>Students liked last week's exercises, they had not used those back home but I encouraged them to do so</p>
5-45 minutes	<p>Introduction to imagery, exercises.</p> <p>Objective was to teach students to recognize different imagery techniques and to apply those in various settings.</p>	<p>Introducing the meaning and usefulness of imagery, to make them familiar with the concept and ready to use it in real life situations.</p> <p>This was a teacher driven section, discussions were made by asking students about their own experience in these skills. Exercises were used and students wanted me to read them, they really wanted to focus on imagery.</p>
45-55 minutes	Imagery picturing	<p>Transfer the learned skill from class room to real life events</p> <p>Students went on halls to take pictures from different situations they will be confronting in the future; homework is to use imagery and "live those situations beforehand"</p>
55-75 minutes	<p>Students filled up the final inquiry; how was the course?</p> <p>Objective with this final inquiry was to get a real view of how this course was experienced and how it was organized.</p>	<p>Purpose was to get students' real feelings and thoughts about the course, to develop this course further, and to learn from feedback.</p> <p>Feedback is the key to develop this course. That was why I collected this data anonymously, to get an honest feedback.</p>
75-85 minutes	Recapping the session, reminding of the learning log and the evaluation of the course	<p>In order to make sure everything was ok and taught was understood, to make sure students were aware of their responsibilities as students.</p> <p>I went through all sections (1-6) and showed once again where to find slides, homework assignments and exercises. There had been some technical problems regarding the access to this course material (in peda.net); I needed to fix it immediately.</p>
85-90 minutes	Relaxation tape to end up the course	<p>Course ending with something they could use in their everyday lives.</p> <p>Short PMR and setting the dates for personal interview sessions.</p>

The last class room session where all exercises practiced were present; imagery needs those other skills to be executed, one way or another. Students loved to do the exercises.

The sixth and last classroom was organized on 17<sup>th</sup> of February, 2015. Normal routines (recapping and discussion about the homework assignments) were used before an introduction to the last skill, imagery. Imagery has



scientific evidence to support its value in learning and performing especially motor skills (e.g. Kataja, 2012; Weinberg & Gould, 2015) but also other skills. The objective in imagery training in this class was to prepare students to meet some of their own upcoming performances by looking back but also to the future.

Simple introduction to imagery training was given first and from that we went deeper and deeper, towards everyone's own situations. First we followed the instruction of relaxing before starting to use imagery. Then, when relaxed, we tried to find a safe and pleasant memory and empathize into it with all our senses. Breathing and relaxation exercises learnt before were in great use here. When students learnt to see the vivid images inside their minds, we transferred those experienced emotions and feelings into some other situations. Focus and aim was to relive some nice memory and get energy out of it. Self-talking as "I can do this" was used as a cue phrase to get into that feeling and once they got there, they were asked to focus on some forthcoming situation where they could use that positive energy they just uploaded into themselves. The students were asked to continue with this theme in their homework assignments.

This last classroom session included imagery training also in a slightly different way; students' had to go out from the class and take pictures from the situations they are living on daily basis and will be dealing with later on when preparing for their final exams. These pictures were analyzed in their homework assignments; they had to share their feelings and visions what will be happening in the picture when they are in it someday. We also tried a technique called anchoring. In anchoring some intrinsic or extrinsic stimulus are attached subconscious to some certain emotion or action (Kataja, 2012) and using these stimuli in e.g. the time of executing ones drill may improve that performance.

As homework assignments students' had to continue the process where they thought of situation where they had succeeded. They were asked to write down what they felt in those situations and how long that feeling lasted. In addition, the students were asked to think of their forthcoming matriculation exams or some other school related events which are important to them. The participants were asked to describe the situation in detail; what do they see there, how will they most probably react in that situation and if the situation is stressful, how to calm themselves down and do their best at that moment.

Exercises presented in the APPENDIXES 18 and 19 were applied in this classroom session.

## APPENDIX 4: Instructions for the personal learning log

### **OHJEET PÄIVÄKIRJAN KOKOAMISEKSI:**

- TEE JOKAISESTA KERRASTA (1-6) ITSELLESI WORD:LLA OPPIMISPÄIVÄKIRJA
- ➔ OPPIMISPÄIVÄKIRJA TARKOITTAÄ SIIS SITÄ, MITEN SINÄ KOIT TUNNILLA KÄSITELLYT ASIAT JA MITÄ SIELLÄ OPIT TAI MITÄ ASIOITA HALUAISIT NOSTAA TUNNIN SISÄLLÖSTÄ ESILLE.

ESIMERKIKSI ”PSYKKISEN VALMENNUKSEN EKA TUNNILLA KÄYTIIN KÄSITTEITÄ LÄPI. ITSELLENI SUURIN OSA OLII ENNESTÄÄN TUNTEMATTOMIA, MUTTA TUNNIN JÄLKEEN OSAAN KERTOA MUILLE, MITÄ TARKOITTAÄ PSYKKISET TAIDOT JA MITEN NIITÄ VOI HARJOITTAÄ”

- KUN OLET SAANUT KAIKKIEN KUUDEN TUNNIN TEHTÄVÄT KIRJOITETTUA, LIITÄ NE YHDEKSI TIEDOSTOKSI JA LÄHETÄ SÄHKÖPOSTILLA KURSSIN OPETTAJALLE,
  - [antti23@gmail.com](mailto:antti23@gmail.com)
- JOKAISEN OSALISTUJAN KANSSA KÄYDÄÄN LISÄKSI LÄPI OMAKOHTAINEN KESKUSTELU, JOSSA JOKAINEN SAA HENKILÖKOHTAISTA PALAUTETTA JA NEUVONTAA OMAAN TILANTEESEENSA JA ITSEENSÄ/ LAJIINSA LIITTYEN.

## APPENDIX 5: First classroom session: General knowledge of PST

Millaisia taitovaatimuksia oma tilanteesi/ lajisi sisältää (fyysisiä, henkisiä/ psykologisia)?

- kirjaa nämä vaatimukset ylös vihkoosi
- On hyvä oppia huomaamaan omia, toistuvia, mutta kenties suoritukseen vaikuttavia ajatuksia ja tunteuksia!
- **PIDÄ PÄIVÄKIRJAA OMISTA FIILIKSISTÄSI TÄMÄN KURSSIN AJAN VÄHINTÄÄN JOKAISEN TAPAAMISEN JÄLKEEN, MUTTA MYÖS AINA, KUN KOET JOTAIN MIELTÄ ASKARRUTTAVAA HARJOITUKSISSA, KOULUSSA, VAPAA-AJALLA, MISSÄ TAHANSA OLETKAAN!**

Video clips used in the 1<sup>st</sup> class:

Veikkaus. (2014.4.15). Urheilijan henkinen valmennus. Retrieved from <https://www.youtube.com/watch?v=4xzD5VojyV0>

YleAreena. (2014.2.13). Paljonko urheilusuoritus on kiinni korvien välistä? Retrieved from <http://areena.yle.fi/tv/2175651>

## APPENDIX 6: Assessing psychological skills (ACSI)

Ohjeet: Ole hyvä ja lue jokainen väittämä huolella läpi. Vastaa rehellisesti! Ympyröi se kohta, jonka koet itsellesi ajankohtaiseksi.

		0	1	2	3
1	Asetan päivittäin itselleni erityisiä tavoitteita, jotka ohjaavat toimintaani	En juuri koskaan	Joskus	Usein	Lähes aina
2	Saan itsestäni ja kyvyistäni suurimman osan irti	En juuri koskaan	Joskus	Usein	Lähes aina
3	Kun opettaja (tai valmentaja) sanoo minulle, kuinka korjaisin tekemäni virheen, otan sen henkilökohtaisena loukkauksena	En juuri koskaan	Joskus	Usein	Lähes aina
4	Kun opiskelen (harjoittelen), pystyn keskittymään täysillä ja sulkemaan häiriötekijät pois	En juuri koskaa	Joskus	Usein	Lähes aina
5	Pysyn positiivisena ja innokkaana, vaikka asiat ei aina sujuisikaan haluamallani tavalla	En juuri koskaan	Joskus	Usein	Lähes aina
6	Suoriudun paremmin paineen alla koska pystyn ajattelemaan selkeästi	En juuri koskaan	Joskus	Usein	Lähes aina
7	Se, mitä toiset ajattelee suorituksistani huolestuttaa minua aika paljon	Ei juuri koskaan	Joskus	Usein	Lähes aina
8	Suunnittelen paljon etukäteen, kuinka saavuttaisin tavoitteeni	En juuri koskaan	Joskus	Usein	Lähes aina
9	Olen luottavainen, että suoriudun hyvin (kokeesta, pelistä tms.)	En juuri koskaan	Joskus	Usein	Lähes aina
10	Kun opettaja (valmentaja) kritisoi minua, suutun pikemmin kuin koen tulleeeni autetuksi	En juuri koskaan	Joskus	Usein	Lähes aina
11	Kun katselen tai kuuntelen jotain, minun on helppo pitää häiriötekijät loitolla	Ei juuri koskaan	Joskus	Usein	Lähes aina
12	Asetan itselleni paljon paineita omista suorituksistani	En juuri koskaan	Joskus	Usein	Lähes aina
13	Asetan itselleni suoritustavoitteita jokaiseen kokeeseen (tai harjoitukseen)	En juuri koskaan	Joskus	Usein	Lähes aina
14	Minua ei tarvitse pakottaa harjoittelemaan, annan aina 100%	Ei juuri koskaan	Joskus	Usein	Lähes aina
15	Jos opettaja tai valmentaja huutaa minulle, korjaan virheen suuttumatta	En juuri koskaan	Joskus	Usein	Lähes aina
16	Suoriudun odottamattomista tilanteista hyvin	En juuri koskaan	Joskus	Usein	Lähes aina
17	Kun asiat menee huonosti, pystyn rauhoittamaan itseni	En juuri koskaan	Joskus	Usein	Lähes aina
18	Mitä enemmän paineita, sitä enemmän nautin tilanteesta	En juuri koskaan	Joskus	Usein	Lähes aina
19	Kun luen kokeeseen/ kilpailen, pohdin epäonnistunko	En juuri koskaan	Joskus	Usein	Lähes aina
20	Minulla on "pelisuunnitelma" selvillä hyvissä ajoin ennen koetta tai kilpailua päässäni	Ei juuri koskaan	Joskus	Usein	Lähes aina
21	Kun tunnen itseni kireäksi, osaan nopeasti rauhoittaa ja rentouttaa itseni	En juuri koskaan	Joskus	Usein	Lähes aina
22	Paineiset tilanteet ovat minulle haasteita, joista pidän	Ei juuri koskaan	Joskus	Usein	Lähes aina
23	Ajattelen mielessäni jo etukäteen, mitä tapahtuu, jos epäonnistun suorituksessani	En juuri koskaan	Joskus	Usein	Lähes aina
24	Pystyn olemaan rauhallinen ja tyyni, siitä huolimatta mikä tilanne on	En juuri koskaan	Joskus	Usein	Lähes aina
25	Minun on helppo keskittyä yhteen asiaan kerrallaan	Ei juuri koskaan	Joskus	Usein	Lähes aina
26	Kun en saavuta tavoitteitani, se saa minut yrittämään jatkossa yhä enemmän	Ei juuri koskaan	Joskus	Usein	Lähes aina
27	Kehitän taitojani kuuntelemalla tarkasti opettajien (valmentajien) neuvoja ja ohjeita	En juuri koskaan	Joskus	Usein	Lähes aina
28	Teen vähemmän virheitä paineen alla, koska pystyn silloin keskittymään paremmin	En juuri koskaan	Joskus	Usein	Lähes aina

## APPENDIX 7: Second classroom session: Self-confidence & mastery

### 1) Pohdi tilanteita joissa olet onnistunut hyvin

- miten valmistauduit?
- millaisia tunteita sinulla oli kilpailun, kokeen, harjoituksen tms. aikana?
- mikä tilanteessa kohotti itsetuntoasi?
- kauan positiivinen vaikutus tuntui?

### 2) Mitkä ovat mielestäsi menestymiseesi vaadittavia henkisiä ominaisuuksia?

### 3) Miten voit parantaa itseluottamustasi ennen Ylioppilaskirjoituksia/ tärkeitä kokeita/ kilpailuja tms?

- kirjaa vastauksesi jälleen oppimispäiväkirjaasi

## APPENDIX 8: Optimal performance level

### Optimaalisen (kilpailu)mielialan arviointi -lomake

Nimi: \_\_\_\_\_

Ajattele mielessäsi aikaisempia **parhaita kilpailujasi tai muita tilanteita, jossa olet kokenut onnistumisen tunteita.** Merkitse tämän jälkeen kunkin tunnetilan osalta se numero, joka parhaiten vastaa tunnetilaasi **juuri ennen kilpailun tai tuon muun tapahtuman alkua.**

1= ei ollenkaan

2= jonkin verran

3= kohtalaisesti

4= pitää tarkalleen paikkansa

Ennen onnistunutta ottelua olen yleensä:

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<b>1. Itsevarma</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	—
2. Masentunut	1	2	3	4	—
<b>3. Iloinen</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	—
4. Murheellinen	1	2	3	4	—
<b>5. Rentoutunut</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	—
6. Hermostunut	1	2	3	4	—
<b>7. Luottavainen</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	—
8. Vetämätön	1	2	3	4	—
<b>9. Peloton</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	—
10. Ahdistunut	1	2	3	4	—
<b>11. Rauhallinen</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	—
12. Jännittynyt	1	2	3	4	—
<b>13. Pirteä</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	—
14. Pettynyt	1	2	3	4	—
<b>15. Helpottunut</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	—
16. Vihainen	1	2	3	4	—
17. Tyytyväinen	1	2	3	4	—
18. Huolestunut	1	2	3	4	—
<b>19. Keskittynyt</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	—
20. Epävarma	1	2	3	4	—

Itsearviointilomake – toimintatapani vaikeissa ja stressaavissa tilanteissa

On monenlaisia tapoja toimia vaikeissa tai stressaavassa tilanteessa. Ole hyvä ja arvioi miten sinä tavallisesti toimit tai mitä tunteet vaikeissa / stressaavissa tilanteissa.

4 Käytän paljon 3 Käytän kohtalaisesti 2 Käytän vähän 1 En käytä lainkaan	1	2	3	4
Teen aktiivisesti jotakin selvittääkseni tilanteesta				
Yritän tehdä asian suhteen jotain				
Teen mitä pitääkin tehdä, asia kerrallaan				
Toimin aktiivisesti päästäkseni tilanteen herraksi				
Juon enemmän alkoholia kuin tavallisesti unohtaakseni tilanteen				
Tupakoin enemmän kuin tavallisesti unohtaakseni tilanteen				
Syön enemmän kuin tavallisesti unohtaakseni tilanteen				
Yritän miettiä toimintamallia, jonka mukaan toimin				
Teen toimintasuunnitelmia				
Mietin tarkkaan, miten kannattaa toimia				
Mietin, miten voisin parhaiten selviytyä tilanteesta				
Keskittän huomioni työn tekemiseen tai muihin korvaaviin toimintoihin ollakseni ajattelematta asiaa				
Menen elokuvaan tai katselen tv:tä ajatellakseni asiaa vähemmän				
Unelmoin muista asioista kuin tästä				
Nukun enemmän kuin tavallisesti				
Siirrän muita toimia keskittyäkseni vain tähän ongelmaan				
Keskityn käsittelemään tätä ongelmaa ja jos tarvitaan voin laiminlyödä tilapäisesti muita asioita				
En anna muiden ajatusten ja toimien häiritä yrityksiäni selvittää tästä tilanteesta				
Luovun yrityksistäni saada mitä haluan				
Luovun tavoitteisiini pyrkimisestä				
Myönnän itselleni etten pysty käsittelemään asiaa ja lopetan yritykseni				
Vähennän yrityksiäni selvittääkseni tilanteesta				
<b>1 2 3 4</b>				
Pakotan itseni odottamaan oikeaa hetkeä toimia				
En tee mitään ennen kuin tilanne sallii sen				
Pidän huolta siitä, etten hosumisellani pahenna tilannetta				
Hillitsen itseni, jotta toimisi liian hätäisesti				
Kieltäydyn uskomasta sitä, mitä on tapahtunut				
Teeskentelen, ettei sitä tapahtunutkaan				
Käyttäydyn ikään kuin se ei olisikaan tapahtunut				
Sanon itselleni, että tämä ei ole totta				
Kysyn ihmisiltä, joilla on samanlaisia kokemuksia, miten he toimivat vastaavanlaisessa tilanteessa				
Yritän kysyä neuvoa joltakin toiselta ihmiseltä				
Juttelen jonkun kanssa saadakseni tilanteesta lisää tietoa				
Keskustelen jonkun sellaisen kanssa, joka voisi tehdä jotain konkreettista asian hyväksi				
Kiihdyn ja annan tunteideni purkautua				
Annan tunteilleni vallan				
Olen erittäin ahdistunut ja väsynyt ja huomaan ilmaisevani myös näitä tunteita paljon				
Hermostun helposti ja tiedostan sen myös itse				
Kerron tunteistani jollekin				
Yritän saada tunneperäistä tukea ystäviltä ja sukulaisilta				
Keskustelen tunteistani jonkun kanssa				
Saan myötätuntoa ja ymmärrystä joltakin				
Etsin apua Jumalasta tai henkisistä asioista				
Uskon Jumalaan				
Yritän etsiä lohdutusta uskonnostani tai henkisistä asioista				
Rukoilen ja/tai mietiskelen enemmän kuin normaalista				
Etsin jotain hyvää siitä, mitä on tapahtunut				
Yritän katsoa tilannetta eri näkökulmista ja saada sen näyttämään myönteisemmältä				
Opin jotakin tästäkin kokemuksesta				
Yritän kasvaa ihmisenä tämän kokemuksen ansiosta				
Opettelen elämään asian kanssa				
Hyväksyn, että asia on tapahtunut ja etten voi muuttaa tilannetta				
Totun siihen ajatukseen, että asia tapahtui				
Hyväksyn todeksi sen että asia tapahtui				

## Itseluottamukseen liittyvien asioiden kehittäminen

Ymmärrä ja hyväksy ajatusten ja tekojen välinen yhteys. Realistisen positiiviset ajatukset johtavat myönteiseen lopputulokseen. Tulet sellaiseksi kuin ajattelet tulevasi. Sinun tulee analysoida ajatuksiasi niin harjoittelussa, kouluasioissa kuin kilpailuissakin tyyliin: ”Ajattelenko sillä tavalla, millä minun on mahdollisuus päästä parhaaseen mahdolliseen suoritukseen?”

Pohdi tilanteita joissa olet onnistunut hyvin.

- \* miten valmistauduit?
- \* millaisia tuntemuksia sinulla oli kilpailun aikana?

Tilanne ja siihen liittyvät kokemukset	Mistä onnistuminen johtui

Mitä voin oppia näistä kokemuksista	Miten varmistan onnistuneen suorituksen jatkossa

Mitä käyttäytymisen piirteitä (ajatuksia tai toimia) havaitset itsessäsi?

Hyvä itseluottamus	Vajaa itseluottamus
Teet mitä koet oikeaksi, silloinkin kun toiset kritisoivat tai väheksyvät sinua sen vuoksi.	Säädät toimintasi toisten odotusten mukaisesti.
Haluat ottaa riskejä ja teet enemmän töitä saavuttaaksesi parempia asioita.	Pysyttelet mukavalla alueella, pelkääät epäonnistumista, ja vältät riskejä.
Myönnät virheesi ja haluat oppia niistä.	Näet paljon vaivaa peitelläksesi virheet ja toivot ettei kukaan huomaa.
Odotat että muut onnittelevat ja kehuvat sinua saavutuksistasi.	Tuot itse omia saavutuksiasi esille mahdollisimman usein ja mahdollisimman monelle
Hyväksyt positiivisen palautteen ylpeänä ”kiitos, olen tehnyt kovasti töitä saavutukseni eteen” tai ”kiitos, olen hyvilläni että huomasi saavutukseni”.	Kuitaat positiivisen palautteen yliolokaisesti ”kuka tahansa olisi siihen pystynyt” tai ”eipä tuo nyt niin kummoista



## APPENDIX 9: Self- confidence & mastery

Itsearviointilomake – toimintatapani vaikeissa ja stressaavissa tilanteissa

On monenlaisia tapoja toimia vaikeissa tai stressaavassa tilanteessa. Ole hyvä ja arvioi miten sinä tavallisesti toimit tai mitä tunnet vaikeissa / stressaavissa tilanteissa.

4 Käytän paljon 3 Käytän kohtalaisesti 2 Käytän vähän 1 En käytä lainkaan	1	2	3	4
Teen aktiivisesti jotakin selvittääkseni tilanteesta				
Yritän tehdä asian suhteen jotain				
Teen mitä pitääkin tehdä, asia kerrallaan				
Toimin aktiivisesti päästäkseni tilanteen herraksi				
Juon enemmän alkoholia kuin tavallisesti unohtaakseni tilanteen				
Tupakoin enemmän kuin tavallisesti unohtaakseni tilanteen				
Syön enemmän kuin tavallisesti unohtaakseni tilanteen				
Yritän miettiä toimintamallia, jonka mukaan toimin				
Teen toimintasuunnitelmia				
Mietin tarkkaan, miten kannattaa toimia				
Mietin, miten voisin parhaiten selviytyä tilanteesta				
Keskittän huomioni työn tekemiseen tai muihin korvaaviin toimintoihin ollakseni ajattelematta asiaa				
Menen elokuviin tai katselen tv:tä ajatellakseni asiaa vähemmän				
Unelmoin muista asioista kuin tästä				
Nukun enemmän kuin tavallisesti				
Siirrän muita toimia keskittyäkseni vain tähän ongelmaan				
Keskityn käsittelemään tätä ongelmaa ja jos tarvitaan voin laiminlyödä tilapäisesti muita asioita				
En anna muiden ajatusten ja toimien häiritä yrityksiani selvittää tästä tilanteesta				
Luovun yrityksistäni saada mitä haluan				
Luovun tavoitteisiini pyrkimisestä				
Myönnän itselleni etten pysty käsittelemään asiaa ja lopetan yritykseni				
Vähennän yrityksiani selvittääkseni tilanteesta				
<b>1 2 3 4</b>				
Pakotan itseni odottamaan oikeaa hetkeä toimia				
En tee mitään ennen kuin tilanne sallii sen				
Pidän huolta siitä, etten hosumisellani pahenna tilannetta				
Hillitsen itseni, jotta toimin liian hätäisesti				
Kieltäydyn uskomasta sitä, mitä on tapahtunut				
Teeskentelen, ettei sitä tapahtunutkaan				
Käyttäydyn ikään kuin se ei olisikaan tapahtunut				
Sanon itselleni, että tämä ei ole totta				
Kysyn ihmisiltä, joilla on samanlaisia kokemuksia, miten he toimivat vastaavanlaisessa tilanteessa				
Yritän kysyä neuvoa joltakin toiselta ihmiseltä				
Juttelen jonkun kanssa saadakseni tilanteesta lisää tietoa				
Keskustelen jonkun sellaisen kanssa, joka voisi tehdä jotain konkreettista asian hyväksi				
Kiihdyn ja annan tunteideni purkautua				
Annan tunteilleni vallan				
Olen erittäin ahdistunut ja väsynyt ja huomaan ilmaisevani myös näitä tuntemuksia paljon				
Hermostun helposti ja tiedostan sen myös itse				
Kerron tunteistani jollekin				
Yritän saada tunneperäistä tukea ystäviltä ja sukulaisilta				
Keskustelen tunteistani jonkun kanssa				
Saan myötätuntoa ja ymmärrystä joltakin				
Etsin apua Jumalasta tai henkisistä asioista				
Uskon Jumalaan				
Yritän etsiä lohdutusta uskonnostani tai henkisistä asioista				
Rukoilen ja/tai mietiskelen enemmän kuin normaalista				
Etsin jotain hyvää siitä, mitä on tapahtunut				
Yritän katsoa tilannetta eri näkökulmista ja saada sen näyttämään myönteisemmältä				
Opin jotakin tästäkin kokemuksesta				
Yritän kasvaa ihmisenä tämän kokemuksen ansiosta				
Opettelen elämään asian kanssa				
Hyväksyn, että asia on tapahtunut ja etten voi muuttaa tilannetta				
Totun siihen ajatukseen, että asia tapahtui				
Hyväksyn todeksi sen että asia tapahtui				

## Itseluottamukseen liittyvien asioiden kehittäminen

Ymmärrä ja hyväksy ajatusten ja tekojen välinen yhteys. Realistisen positiiviset ajatukset johtavat myönteiseen lopputulokseen. Tulet sellaiseksi kuin ajattelet tulevasi. Sinun tulee analysoida ajatuksiasi niin harjoittelussa, kouluasioissa kuin kilpailuissakin tyyliin: ”Ajattelenko sillä tavalla, millä minun on mahdollisuus päästä parhaaseen mahdolliseen suoritukseen?”

Pohdi tilanteita joissa olet onnistunut hyvin.

\* miten valmistauduit?

\* millaisia tuntemuksia sinulla oli kilpailun aikana?

Tilanne ja siihen liittyvät kokemukset	Mistä onnistuminen johtui

Mitä voin oppia näistä kokemuksista	Miten varmistan onnistuneen suorituksen jatkossa

Mitä käyttäytymisen piirteitä (ajatuksia tai toimia) havaitset itsessäsi?

Hyvä itseluottamus	Vajaa itseluottamus
Teet mitä koet oikeaksi, silloinkin kun toiset kritisoivat tai väheksyvät sinua sen vuoksi.	Säädät toimintasi toisten odotusten mukaisesti.
Haluat ottaa riskejä ja teet enemmän töitä saavuttaaksesi parempia asioita.	Pysyttelet mukavalla alueella, pelkääät epäonnistumista, ja vältät riskejä.
Myönnät virheesi ja haluat oppia niistä.	Näet paljon vaivaa peitelläksesi virheet ja toivot ettei kukaan huomaa.
Odotat että muut onnittelevat ja kehuvat sinua saavutuksistasi.	Tuot itse omia saavutuksiasi esille mahdollisimman usein ja mahdollisimman monelle
Hyväksyt positiivisen palautteen ylpeänä ”kiitos, olen tehnyt kovasti töitä saavutukseni eteen” tai ”kiitos, olen hyvilläni että huomasi saavutukseni”.	Kuitaat positiivisen palautteen yliolokaisesti ”kuka tahansa olisi siihen pystynyt” tai ”eipä tuo nyt niin kummoista

## APPENDIX 10: Third classroom session: Goal-setting

Aseta omat henkilökohtaiset tavoitteesi yo-kirjoituksiin/ harjoituksiin/ kilpailuihin.

**OLE NIIN TARKKA, KUIN MAHDOLLISTA** (ajankäyttö, tarvittava lukeminen jne.)

### **KIRJAA TAVOITTEESI YLÖS OPPIMISPÄIVÄKIRJAASI!**

- \* Alkutilanne (arvosanat/ panostaminen oppiaineeseen, oma ennätys, osaaminen nyt eli lähtötaso)
- \* Lopputulostavoite (kirjoitan E:n matematiikasta, tämän kauden jälkeinen ennätys, mestaruuden saavuttaminen, kilpailun voitto tms.)
- \* Suoritustavoite (esim. kirjoituksissa pystyn keskittymään käsillä olevaan asiaan ja vain siihen, laadukkaammat heitot, uusien lyöntien oppiminen, tarkemmat laukaukset, parempi ylämäkitekniikka jne.)
- \* Prosessitavoite (esim. teen kotiläksyt ajoissa/ panostan kokeisiin lukemiseen entistä enemmän aikaa, heitto-lyönti- tai laukaisuasennon tarkkailu, kehon asento ylämäessä jne.)

#### Video clips used in the 3<sup>rd</sup> class:

McMasterUTV. (2014.3.15). Setting goals. Retrieved from <https://www.youtube.com/watch?v=FFT6uP1fIFI>

CartooningGenious. (2013.1.14). One-step-at-a-time - goal achieving cartoon doodle video. Retrieved from <https://www.youtube.com/watch?v=8cCiqbSJ9fg>

## APPENDIX 11: Goal -setting

### HENKILÖKOHTAISET KEHITTÄMISHAASTEENI

Nimi:

Merkitse alla olevaan luetteloon oman kehittymisesi kannalta tärkeät tavoitteet (kuntotekijöissä, tekniikassa, psyykkisissä taidoissa, ihmissuhteissa, elämäntavoissa...) ja anna kullekin tavoitteelle numero 1-10 sen mukaan, miten hyvin tavoite on tällä hetkellä hallinnassasi.

Tee sovituin välein uusi arvio (1-10) ja lisää/poista tarvittaessa tavoitealueita. Kirjaa keinot kunkin tavoitteen osalta, kuinka pyrit ko. aluetta kehittämään. Tarkista kuukausittain, kuinka nämä keinot ovat toteutuneet ja pohdi, miten keinoja voisi tehostaa.

<i>Tavoitealue</i>	<i>Arvio (1-10) pvm</i>	<i>Arvio (1-10) pvm</i>	<i>Arvio (1-10) pvm</i>	<i>Arvio (1-10) pvm</i>

Keinot, joiden avulla tulen kehittämään edellä kuvaamiani kehittämishaasteita.

<b>Tavoite (nro)</b>	<b>Kehittämiskeinot</b>

## APPENDIX 12: Fourth classroom session: Breathe control, concentration & self-talk

Tehtäviä: (kaikki fiilikset Oppimispäiväkirjaan!!!)

1) HENGITYS: etsi netistä erilaisia hengitysharjoituksia ja tee niitä kotona (harjoittele niitä myös harjoituksia tai kilpailua ennen). Kirjaa oppimispäiväkirjaasi ylös sivusto, josta harjoitukset löysit.

2) BIOPALAUDE- harjoitus; kokeile kotona lämpömittarilla. Laita mittari sormenpäähän teipillä kiinni, huomaat lämpötilaeron, kun kehosi rentoutuu ja rauhoittuu, verrattuna alkutilanteeseen (stressaava tilanne, kilpailu edeltävä jännitys tms. saa aikaan sen, että ihon pintalämpötila alenee, rentoutuneessa tilassa lämpötila nousee)

-> apuna voit käyttää myös sykemittaria

3) KESKITTÄMINEN: mieti omaa keskittymistä mahdollisesti häiritseviä tekijöitä, kirjaa ylös esimerkkejä tilanteista, jotka saattavat häiritä suoritustasi esim. YO- kirjoituksissa – kirjaa ylös myös ratkaisuehdotuksesi oppimispäiväkirjaasi, miten pystyt keskittymään omaan suoritukseesi tässä tilanteessa

4) ITSEPUHE: KEKSI OMIA SISÄISEN PUHEEN APUSANOJA SUORITUKSESI TUEKSI, kirjaa ne ylös oppimispäiväkirjaasi

Video clips used in the 4<sup>th</sup> class:

### **Breathe control:**

Pietikäinen, A. (2014.2.15). Hengähdystauko. Retrieved from <https://www.youtube.com/watch?v=FGTDkDScKI0>

Samsaraa Tasapaino- koulutukset. (2013.9.3). Rentoutumisharjoitukset - Hengitysharjoituksia seisten. Retrieved from <https://www.youtube.com/watch?v=OZ-a-op3gJM>

### **Concentration:**

heritagecollegevideo. (2010.7.21). Memory and Concentration Techniques. Retrieved from

<https://www.youtube.com/watch?v=mGFE8GtcMms>

### **Self-talk:**

Huntington University Exercise Science Program. (2013.12.6). Sport Psychology Video Project #11 - Self-Talk II. Retrieved from <https://www.youtube.com/watch?v=NhAKZVIj2io>

Huntington University Exercise Science Program. (2013.10.14). Sport Psychology Video Project #4 - Self-Talk. Retrieved from <https://www.youtube.com/watch?v=OIItuyvqviA>

## APPENDIX 13: Breath control

### Perushengitysharjoitus

- \* Ota mukava istuma- tai makuuasento
- \* Hengitä kevyesti ulos, pidätä henkeä ja vedä vatsalihakset tiukasti sisäänpäin kohti selkärankaa
- \* Anna vatsan laueta ja pallean pompahtaa pyöreäksi. Toista 4–6 kertaa

### **”Kahden minuutin hengitysharjoitus”**

- \* Ota mukava istuma- tai makuuasento. Löysää kiristävät vaatteesi
- \* Hengitä rauhallista perushengitystä. Vedä henkeä muutaman kerran syvään sisään ja pidätä niiden välissä hengitystä. Tarkkaile ja mieti, miten se vaikuttaa oloosi. Huomaat, että hengityksen tasaaminen rauhoittaa ja nopea hengitys aktivoi
- \* Vedä nyt muutama rauhallinen ja pitkä sisään hengitys ja huomaat, kuinka koko kehosi rauhoittuu ja rentoutuu.
- \* Anna sen tapahtua ja rentoudu
- \* Nyt voit sulkea silmäsi, jos et ole jo tehnyt niin. Voit jälleen keskittyä hengittämään sisään ja ulos
- \* Toista sisäänhengityksen aikana ”minä olen” ja uloshengityksen aikana ”täysin rento”
- \* Tee tätä hetken aikaa ja rentoudu
- \* Laske mielessäsi neljään, jonka jälkeen voit avata silmäsi. Tunne itsesi energiseksi ja olosi hyväksi

## APPENDIX 14: Concentration & Breath control

### Harjoitus 1

Laita silmät kiinni. Hengitä rauhallisesti ja varsin syvään. Laske samalla mielessäsi numeroita alaspäin (200, 199, 198, jne.). Aloittelija voi aloittaa vaikka 150:stä. Kun pääset noltaan, on treeni ohi.

### Harjoitus 2

Laita silmät kiinni. Hengitä rauhallisesti ja varsin syvään. Toista mielessäsi rauhalliseen tahtiin jotain pitkää sanaa. Tätä jatketaan, kunnes etukäteen valittu aika on täynnä, aloittelijalle hyvä aika on vaikkapa 5-10 minuuttia.

### Harjoitus 3

Valitse parin metrin päästä jokin kohde (vaikkapa likatäplä tapetissa) ja keskity katselemaan sitä. Hengitä rauhallisesti, älä mieti mitään, katsele vain kohdetta.

### Harjoitus 4

- \* istu hyvässä asennossa
- \* sulje silmäsi
- \* kuuntele ulkopuolisia ääniä – kuuntele vain niitä
- \* äänet elävät omaa elämäänsä koko harjoituksen ajan, ne eivät häiritse sinua, vaan auttavat sinua rentoutumaan entistä paremmin
- \* anna käsien olla vartalon sivulla - aseta ne sitten kevyesti vatsalle vähän navan yläpuolelle kuin helläksi suojaksi
- \* tarkista, ettei kehossa ole jännityksiä
- \* tunnista, miltä tuntuu päässä ja niskassa, käsivarsissa, vartalossa, säärissä
  - jos ne ovat jännittyneitä, rentouta ne
- \* koe, kuinka painavia ne ovat
- \* tarkkaile hengitystäsi kymmenen hengityskerran ajan
- \* älä tee mitään, tarkkaile vain hengitystäsi, tapaasi hengittää sisään ja ulos
- \* hengitä syvään – sisäänhengityksen aikana varmista, että hengitys kulkee vatsaan asti
- \* tehokkaasti hengitettäessä vatsan päällä olevat kädet kohoavat, koska vatsa laajenee sisäänhengityksessä
- \* uloshengityksessä vatsan seutu supistuu ja kädet vajoavat alaspäin
- \* hengitä kymmenen kertaa syvään, niin että tunnet hengityksen vatsassa asti
  - tasaisesti ja tietoisesti
- \* pidätä hengitystä hengityskertojen välillä - laske rauhallisesti viiteen
  - ja vedä ilmaa sisään
- \* maailmassa ei ole muuta kiinnostavaa kuin täydellinen hengityksesi
- \* palaa takaisin tavanomaiseen hengitystapaasi ja – rytmiisi
- \* jännitä vielä lempeästi hetkeksi jokainen lihas kaikkialta ja laukaise jännitys selkeällä uloshengityksellä
- \* avaa silmäsi – edessäsi on uusi alku

## APPENDIX 15: Self-talk

Minäpuhe - harjoituksia

**Harjoitus 1:** negatiivisten ajatusten poistaminen mielestä

1. Kuvaile itselleni tilanne, jossa usein huomaat ajattevasi/ puhut itsellesi negatiiviseen sävyyn
2. Kirjoita ylös negatiivinen lausahdus, jonka itsellesi sanot
3. Määrittele ne sanat tai ajatukset, joilla voit päästä negatiivisesta ajattelusta eroon
4. Listaa/ kirjaa ylös positiivisia ja hyödyllisiä sanontoja, joilla voit korvata negatiiviset ajatukset
5. Harjoittele! Harjoittele! Harjoittele! Harjoittele tätä harjoitellessasi.

**Harjoitus 2:** tämän harjoitteen avulla pyritään osoittamaan, mitä kaikkea sitä itselleen sanookaan, monesti jopa huomaamattaan. Kirjaa ylös seuraavia asioita:

Ajatuksia, joita päässäsi liikkuu harjoituksissa (negatiivisia & positiivisia)

Ajatuksia, joita sinulla on ennen harjoituksia/ kilpailuja/ kokeita (negatiivisia & positiivisia)

Ajatuksia, joita sinulla on harjoituksissa/ kilpailuissa/ koulussa (negatiivisia & positiivisia)

**Harjoitus 3:** opettaa käyttämään hyödyksi vihjesanoja, esimerkiksi pelisuunnitelman tukena.

Positiiviset vihjesanat voivat auttaa kontrolloimaan minäpuhetta. Jos jo ennalta tiedä, mitä aiot sanoa tietyissä kohdissa, mahdollisuus negatiiviseen minäpuheeseen pienenee! Kirjaa sanoja ylös, ota se mukaasi, minne menetkin. Voit myös hyödyntää mielikuvia tässä.

Tee vihjesanoja:

tiettyihin pelin/ ottelun/ tms. hetkeen, kuten viimeiselle minuutille, ottelupalloon, ottelun alkuun, otteluun valmistautumiseen, suorituksen keskivaiheille.

**Harjoitus 4** minäpuheen taulu:

Ajattele jotain viimeaikaista tapahtumaa, jossa epäonnistuit toiminnassasi.

Muistele, mitä sanoit itsellesi.

Kirjaa nämä ajatukset ylös, jotta voit päästä niistä eroon -> positiivinen minäpuhe!



## APPENDIX 16: Fifth classroom session: Relaxation

- Harjoittele kotona tunnilla opittuja asioita
- kokeile lyhyitä harjoituksia sopivissa tilanteissa, esim. harjoituksissa
- kokeile pidempiä rentoutusharjoituksia vaikkapa ennen nukkumaan menoa
- kokeile lihasrentoutusta
- kokeile mielentason rentoutusta
- etsi netistä itsellesi sopivia muita vastaavia harjoituksia ja testaa niitä
- jos löydät sopivia harjoituksia, laita niistä vinkkejä muillekin (Pedanetin kautta)
- *kirjaa fiiliksesi tunnista/ harjoituksista/ rentoutumisesta jälleen oppimispäiväkirjaasi!*

### Video clips used in the 5<sup>th</sup> class:

Vuorovaikuttamo. (2012.02.08). Rentoutus. Retrieved from  
<https://www.youtube.com/watch?v=CctRh4qCQCw>

MindfulChairYoga. (2013.02.07). 6 Minute Mindful Progressive Muscle Relaxation. Retrieved from  
<https://www.youtube.com/watch?v=9x3tl81NW3w>

## APPENDIX 17: Relaxation

### Progressive Muscle Relaxation (PMR)

- **Apply Tension**
- Focus your mind on a particular muscle group like, e.g. the muscles in your left hand
  - ➔ Apply tension to this muscle group for about eight seconds (e.g. make a fist)
  - ➔ Inhale as you apply and hold the muscle tension
  - ➔ Try not to simultaneously apply tension to other muscle groups. It may be difficult to completely focus on one muscle group at first. If the appropriate amount of tension is applied, you should feel the muscle group begin to quiver or shake. It is also normal to feel some pain if the exercise is done correctly.
- **Releasing the Tension**
- After eight seconds has passed, quickly release the tension
  - ➔ Exhale as the tension releases and the pain subsides
  - ➔ Many people also use a cue word or phrase as they exhale, like "relax" or "let it go" to learn to associate with feelings of relaxation
  - ➔ Remain focused on the difference you feel between the tension and release, and you should imagine the shift as a flowing process like water from a faucet
  - ➔ Remain relaxed for 15 seconds before repeating the process
- **Suggestions**
- Practice PMR in a calm, quiet place, and wear loose-fitting, comfortable clothing. Schedule your practice times away from meal times, and do not smoke or use intoxicants while practicing PMR. You may sit or lie down while practicing PMR, but sitting may be preferable as lying down can cause drowsiness.

### Suggestions for Practice

- It is recommended that you practice full PMR twice a day for about a week before moving on to the shortened form. Of course, the time needed to master the full PMR procedure varies from person to person.
  - Always practice full PMR in a quiet place, alone, with no electronic distractions, not even background music.
  - Remove your shoes and wear loose clothing.
  - Avoid eating, smoking, or drinking. It's best to practice before meals rather than after, for the sake of your digestive processes.
  - Never practice after using any intoxicants.
  - Sit in a comfortable chair if possible. You may practice lying down, but this increases the likelihood of falling asleep.
  - If you fall asleep, give yourself credit for the work you did up to the point of sleep.
  - If you practice in bed at night, plan on falling asleep before you complete your cycle. Therefore, consider a practice session at night, in bed, to be in addition to your basic practice.
  - When you finish a session, relax with your eyes closed for a few seconds, and then get up slowly. Some people like to count backwards from 5 to 1, timed to slow, deep breathing, and then say, "Eyes open. Supremely calm. Fully alert."

### Relaxation continues

Basic relaxation exercise:

- \* Asetu selinmakuulle, jalat & kädet alaspäin

- \* Sulje silmäsi kevyesti
- \* Hengitä sisään ja pidätä hengitystä samalla, kun jännität voimakkaasti ohjeen mukaista kehon osaa
- \* 3-6 sekunnin kuluttua:
- \* rentouta kyseinen kehon osa hengittäen samalla voimakkaasti ulos
- \* Koko keho käydään läpi esim. jännittäen ensin oikeaa kättä, vasenta kättä, vatsaa, selkää, oikeaa jalkaa ja lopuksi vasenta jalkaa
- \* Ennen kuin seuraavaa kehon osaa jännitetään, anna opiskelijoiden hengittää rauhallista ja tasaista hengitystä muutaman hengityksen ajan
- \* Lopuksi anna opiskelijoille lupa nauttia rentoutuneesta olosta muutaman minuutin ajan
- \* Viimeiseksi ohjeista piristymisvaihe, jossa opiskelijat alkavat keskittyä sisäänhengitykseen, joista jokaisella yksi kehonosa toisensa jälkeen piristyvät samassa järjestyksessä, kuin rentoutuivat
- \* Viimeisenä tunnustetaan pirteä ja iloinen mieli sekä toimintavalmis keho
- \* Lopuksi keskustelua, miltä harjoitus tuntui, miten siitä voi hyötyä ja miten harjoittelu johtaa yhä parempaan rentoutumiseen

Release the tension exercise:

### **Harjoitus 1**

- \* rauhoitu pienellä hengityssarjalla – laske hengittäessäsi neljään
- \* seuraa ilmavirran liikettä niin tarkkaan, että koet näkeväsi sen kulun kehossasi – nenästä nieluun, keuhkoputkeen, keuhkoon ja takaisin
- \* hengitä neljä kertaa: neljään laskien sisään, neljään laskien ulos
- \* tee itsellesi hyvä olo
- \* kohenna ryhtiäsi – ajattele, miten niska pitenee kuin joku vetäisi sinua hiuksista ylöspäin
- \* aseta hartiasi vartalosi rinnalle, ei eteen eikä taakse
- \* keskitä ajatuksesi taas painopisteeseesi navan seutuville
- \* puhu nyt itsellesi rauhoittavasti
- \* kaikki sujuu hyvin – minä onnistun
- \* nautin seuraavasta haasteesta ja teen huippusuorituksen
- \* hallitsen tilanteen – osaan reagoida oikein sen eri käännteisiin
- \* nauti siitä jännityksen kutkutuksesta, joka saa sinut toimimaan vielä paremmin, kuin olet uskaltanut toivoa

### Relaxation continues

Short tension release exercises:

### **Harjoitus 2**

- \* Pareittain tai peilin edessä jännitetään kasvat noin viideksi sekunniksi, jonka jälkeen ne rentoutetaan. Toistetaan kuusi kertaa.

### **Harjoitus 3**

- \* Peukalosta kiinni toisella kädellä ja ravistellaan.

### **Harjoitus 4**

- \* Ravistellaan käsiä kuin yritettäisiin saada vesi niistä pois.

### **Harjoitus 5**

- \* Otetaan hiuskiehkura peukalon ja etusormen väliin ja nykäistään pienin nykäyksin koko päänahka.
- \* Taivutetaan pää eteen ja asetetaan erillään olevat sormet ohimoille. Hierotaan kevyesti pyörittäen kohti päälakea. Niskan osalta painetaan peukalot korvien yläpuolelle ja hierotaan muilla sormilla edeten ylöspäin
- \* Aivotutkijoiden mukaan molempien aivopuoliskojen aktivoimiseksi ja toiminnan tehostamiseksi liikunta ennen oppimistilannetta tai sen aikana parantaa suoritusta
- \* Liikkumisessa aaltomaiset liikkeet sekä liikkeet, joissa vasen- ja oikea aivopuolisko vuorotellen tekevät työtä ovat tehokkaimmat

Video clip used in 5<sup>th</sup> class:

aggiementalhealth. (2013.03.07). Progressive Muscle Relaxation (PMR). Retrieved from

<https://www.youtube.com/watch?v=wGIWXiu4vLA>

## APPENDIX 18: Sixth classroom session: Imagery

### **Tee itsellesi toimintasuunnitelma eri tilanteisiin ja kirjaa ne oppimispäiväkirjaasi**

#### **Käytä mielikuvia pohtiessasi vaikkapa seuraavia asioita:**

- 1) Ennen koetta/kilpailuja tms. huomioitavia asioita
  - miten valmistaudun ja teen kaiken huolella
  - älä jätä lukemista tai muuta valmistautumista viime tippaan
  
- 2) Valmistautumispäivä tapahtumapaikalla, suoritus
  - Kuvittele, miten valmistaudut suoritukseesi
  - mitä rutineja sinulla on, mitä näet, kuulet tai haistat siellä
  - mitä mahdollisia häiriötekijöitä kohtaat?
  - Mene ajoissa paikalle, jotta ehdit hieman rauhoittua ja tasata hengitystä/ rentoutua
  
- 3) Koetilanteen, kisojen, ottelun, esityksen tms. jälkiarviointi
  - Kuvittele itsesi tuohon hetkeen, jolloin suoritus on jo tehty
  - Menikö kaikki, kuten olin suunnitellut, tuliko yllätyksiä?
  - Teinkö sen hetkisen parhaani?

#### **Video clip used in the 6<sup>th</sup> class:**

BrainCraft. (2014.02.06). How Brain Training Improves Sports Performance. Retrieved from <https://www.youtube.com/watch?v=h7TSf1kHRf4>

## Imagery (continues)

Orientation exercises:

### ”Tuttuun ympäristöön eläytyminen”

- Sulje silmäsi kevyesti. Kuvittele, että astut sisään tuttuun työtilaan. Näet edessäsi kaikki siellä olevat koneet ja laitteet. Aistit koko tutun ympäristön
- Näitkö vanhan tutun ympäristön?
- Olitko siellä sisällä vai olitko ”ulkopuolinen”?
- Näitkö värit?
- Tunsitko hajun?

### ”Valkopilviharjoitus”

- \* Sulje silmäsi kevyesti. Voit nähdä mielessäsi sinisen taivaan ja siellä pienen pyöreän cumulus-pilven. Nouse pilveen asti ja tunnet, että muutut pilveksi. Olet pehmeä, rentoutunut ja harva. Muutut kevyeksi ja harvaksi. Lämmin tuuli leijuu hiljalleen lävitsesi. Mieleesi on täysin tyyni. Sinulla on hyvä ja onnellinen olo. Lasken kahteen, jonka jälkeen avaat silmäsi tyynenä ja onnellisena– yksi, kaksi. Avaa silmäsi.

### ”Kissa”

- \* Sulje silmäsi. Kuvittele, että olet nukkuma tiikeri, aivan velto ja painava. Heräät. Muistele, mitä kissa tekee herätessään. Se venyttelee oikeaa etukäpäälää, vasenta etukäpäälää, oikeaa takakäpäälää, vasenta takakäpäälää. Se venyttelee oikein kovasti. Olet nyt tiikeri, kissaa monta kertaa isompi. Oiot kissaa voimakkaammin kaikkia raajojasi vuorotellen. Olosi on rento ja rauhallinen.

Preparing for the final exam:

TEHTÄVÄ: YO-kirjoitukset (Laitan musiikin soimaan)

- a) Kuvittele itsesi ylioppilaskirjoituksiin, Norssin juhlasaliin. Miltä siellä näyttää? Miltä tuoksuu? Mitä ääniä kuulet? Mene kirjoitustilanteeseen; tarkastelet koepaperia, mitä tuntemuksia tunnet?
- b) Huomaa jokin seikka, joka ei heti tule mieleen; miten reagoit? Hätiinnytkö? Miten saat itsesi tilanteessa rennoksi ja takaisin hyvään ja rentoon kirjoitustilaan?
- c) Ympäriä kuuluu ääniä; annatko niiden häiritä sinua vai pystytkö keskittymään ja keskittämään huomiosi vain ja ainoastaan omaan suoritukseesi?
- d) Nyt tuli itselle vessahätä; juuri kun oli hyvä fiilis kirjoittaa ja antaa palaa, miten selvitän tämän tilanteen?
- e) Mene eteenpäin, olet kohta saanut suoritukseesi valmiiksi; miltä nyt tuntuu? Aikaakin vielä olisi; joko lähdän pois vai huolella tarkastan, mitä olen tuottanut? Mihin minulla on kiire?
- f) Koeaika lähenee loppua; minulla olisi vielä paljon kirjoitettavaa; miten toimin? Menenkö paniikkiin vai saanko asiat järjestymään niin, että voin hyvällä mielellä jättää paperin?
- g) Kuvittele käveleväsi kohti ykkösvalvojaa valmis tuotoksesi kädessäsi; mitkä ovat fiilikset? Mitä ääniä kuulet tai tilanteessa näet?
- h) Avaa silmäsi kun olet Norssin käytävällä, salin ulkopuolella. Hymyile ja venyttele raajojasi hiukan. Olet päässyt maaliin!

## Imagery continues:

### Successful performance:

hengitä syvään ja rauhallisesti

- \* uloshengityksen aikana lihaksesi laukeavat ja sinun on hyvä olla
- \* laske kymmenestä yhteen rauhallisessa tahdissa 10...1
- \* keskity rentouttamaan mielesi
- \* kuvittele itsesi paikkaan, jossa mielelläsi rentoudut – esimerkiksi luontoon
- \* perehdy paikkaan yksityiskohtia myöten – mitä kasveja siellä kasvaa
- \* näe vettä: meri, järvi tai joki
- \* näe aurinkoinen taivas
- \* näe suuri turvallinen puu – mene sen luo – asetu nojaamaan sitä vasten
- \* kuule lintujen äänet – tuulen kevyt suhina
- \* tunne maa jalkojesi alla – tunne olevasi mielimaaisemassasi
- \* laske jälleen alaspäin 10...1
- \* olet entistä rentoutuneempi...

Keskity nyt ajattelemaan omaan suoritukseesi liittyviä asioita

- \* luo mahdollisimman eläviä mielikuvia eri tilanteista, joita suorituksen aikana tapahtuu
- \* eläydy toteuttamaan nuo tilanteet parhaalla mahdollisella tavalla
- \* nauti onnistumisen tunteesta ja omasta osaamisestasi, voimista tietoisesti tuota tunnetta ”minä osaan tämän todella hyvin”
- \* siirrä ajatuksesi nyt tuleviin kokeisiin ja siirrä henkistä energiaasi niihin tietoisena siitä, että pystyt tekemään niissä suorituksesi samalla tunteella ja samalla tavalla kuin nytkin, rentoutuneena, riippumatta ympäristötekijöistä
- \* nauti vielä jonkin aikaa ja valmistaudu vähitellen siirtymään takaisin puun juurelle entistäkin rentoutuneempana ja itsevarmempana
- \* koet lämmön ja kauniin kesäpäivän luoman tunteen
- \* laske nyt ylöspäin 1...10 – tunnet virkistyväsi joka numeron jälkeen
- \* kun olet saapunut 8 kohdalle, niin alat venytellä itseäsi ja tunnet olosi virkistyneeksi
- \* ... 9 kohdalla olet täysin tietoinen ulkomaailman tapahtumista ja tunnet hyvántahtoista
- \* toimintatarmoa ja 10 kohdalla avaat silmäsi ja olet valmis toimintaan

## Imagery continues

The circle of success:

- \* seiso lattialla valitsemassasi paikassa - edessäsi pitää olla runsaasti tilaa
- \* kuvittele eteesi ympyrä – määrittele sen koko – mitä materiaalia se on – minkä värinen
- \* kuvittele ympyrän sisälle sellainen tilanne, jossa tunsit olevasi onnistunut jossakin asiassa
- koit esimerkiksi tehneesi työsi oikein hyvin tai tunsit olevasi arvostettu sillä hetkellä – tapahtuman ei tarvitse olla suuri, vain hetki, sinulle merkityksellinen muisto
- ajattele vain itseäsi, omia tuntemuksiasi
- kuvittele itsesi ympyrän sisälle, äsken valitsemaasi tilanteeseen ja eläydy tuohon onnistumisen tunteeseen - kun huomaat kokemuksesi voimistuvan, astu ympyrän sisälle
- elä uudelleen tuo onnistumisen tilanne ja tuntemukset - rekisteröi oma tunnetilasi ja nautiskele jokaisesta yksityiskohdasta erikseen – anna kokemuksen vaikuttaa itseesi
- \* kun olet valmis, hyvillä mielin muistoissa ja tuntemuksissa, tule ulos ympyrästäsi
- katso ympyrääsi ja mieti kokemustasi olla ympyrästäsi, jonka loit itsellesi
- \* muistat varmasti muitakin onnistumisen kokemuksiasi, joista haluat nauttia uudelleen
- voit tehdä niillekin tilaa ympyrästäsi – siirrä miellyttävät kokemuksesi mielikuvituksen siivin ympyrään
- \* astu itse ympyrään - ota vastaan kokemuksesi entistä vahvempana nautiskellen
- \* kun olet saanut riittävästi ilon piristystä, astu ulos ympyrästä
- \* tarkastele ympyrääsi, johon on nyt ankkuroitu paljon hyvää tekeviä itsetunnon rakennusaineita
- \* anna ympyrällesi nimi, jonka mainitsemalla voit nopeasti muistuttaa itseäsi onnistumisen mukavista kokemuksista
- \* astu jälleen ympyräsi sisälle – sano ympyräsi nimi – havaitse, kuinka tuntemukset tulvahtavat mieleesi - kun tunnet itsesi tyytyväiseksi ja rauhalliseksi, olet valmis – milloin ikinä haluat, voit astua ulos ympyrästäsi
- \* tästä lähtien sinulla on oma onnistumisen ympyräsi, mielikuvituksen tuottama tila, johon on arkistoitu paljon onnistumisen iloa
- \* katso vielä kerran ympyrääsi – pienennä se mielessäsi avaimenrenkaaksi, sormukseksi, kaulanauhaksi - hanki sille materiaallinen vastike – nimeä se onnistumisen ympyräsi nimellä
- \* näin voit aina pitää mukana itsetuntoa vahvistavaa, selviytymisen voimaa antavaa ympyrää ja astua siihen milloin haluat



## APPENDIX 19: The final inquiry

### LOPPUKYSELY PSYKKISEN VALMENNUKSEN KURSSISTA

Miten arvioisit kurssia arvosanalla 4-10 (4 huono, 10 loistava) seuraavissa asioissa:

Kurssin sisältö \_\_\_\_\_

Kurssilla käsiteltyjen aiheiden kiinnostavuus \_\_\_\_\_

Opettajan ammattitaito \_\_\_\_\_

Käytetyt menetelmät (luennot, nauhat, videot jne.) \_\_\_\_\_

Seuraavaksi pyydän sinua muutamalla sanalla arvioimaan kurssia.

Mitä odotuksia sinulla oli kurssin suhteen?

Vastasiko kurssi odotuksiasi?

Mitä opit kurssilla?

Mikä oli kurssilla hyvää/ mitä muuttaisit? Kehittämisehdotuksia kurssin suhteen!

Kurssin ajankohta (sopivassa jaksossa, kellonaika tms.)

Vapaa sana kurssista

Aihealueet/ mitä ajatuksia:

luento 1: Mitä psyykinen valmennus on?

luento 2: Oman suorituksen hallintataidot/ itseluottamus

luento 3: Tavoitteenasettelu

luento 4: Keskittyminen, hengitys ja minä-puhe

luento 5: Rentoutuminen

luento 6: Mielikuvaharjoittelu

## APPENDIX 20: Informed consent form

SUOSTUMUS TUTKIMUKSEEN OSALLISTUMISEKSI

Jyväskylässä 10.1.2015

Morjehdus!

Olen ensimmäisen vuosikurssin Liikuntapsykologian opiskelija Jyväskylän yliopistosta. Olen aloittelemassa Liikuntapsykologista tutkimusta, aiheena ”Psyykkisten taitojen opettaminen lukiossa”. Tutkimus tapahtuu kurssimuotoisen opetuksen ohessa. Aikeenani on saada tietoa psyykkisten taitojen opettamisesta, oppimisesta ja niiden mahdollisista vaikutuksista lukio-opiskelijan elämään. Tutkimuksen kohdejoukkona ovat Jyväskylän yliopiston Normaalikoulun lukion opiskelijat.

Kurssilla tehdään psyykkisten taitojen harjoitusten lisäksi kyselylomakkeiden kautta tutkimusta opiskelijoiden elämänhallintaan, ja psykologisiin taitoihin liittyvistä asioista. Opiskelijat pitävät kurssin ajan oppimispäiväkirjaa opetetuista asioista ja sen avulla peilaavat oppimaansa. Oppitunnit videoidaan kurssin myöhempää analysointia tukemaan (kamera kuvaa vain opettajaa). Opiskelijan haastattelu nauhoitetaan, puretaan tekstiksi ja lähetetään opiskelijalle tarkastettavaksi ennen tutkimuskäyttöä. Kyselyt mahdollisesti toistetaan ylioppilaskirjoitusten jälkeen ja tuloksia verrataan alkuvaiheeseen.

Pyydänkin suostumustanne kyseisen tutkimuksen suorittamiseksi ja tutkimukseen osallistumiseksi. Kurssille osallistuminen on vapaaehtoista. Voit milloin tahansa kurssin aikana lopettaa osallistumisen tai pyytää sinua koskevien tietojen hävittämistä. Tulokset säilytetään lukitussa tilassa, jonne ulkopuolisilla ei ole sisäänpääsyä. Saadut tulokset käsitellään luottamuksellisesti, eikä kenenkään yksityisiä tietoja luovuteta kolmansille osapuolille. Tutkimushaastattelut ja opiskelijoiden tuotokset (oppimispäiväkirjat) hävitetään tutkimuksen raportoinnin jälkeen. Tuloksista tehdään yhteenvedo, josta ketään yksittäistä opiskelijaa ei pysty tunnistamaan. Kurssin suoritettuaan opiskelija saa siitä yhden vapaavalintaisen lukiokurssi- merkinnän Jos sinulla tai teillä on kysyttävää tutkimukseen liittyen, vastaan mielelläni. Yhteystiedot löydät sivun lopusta.

Annan suostumukseni tutkimuksen suorittamiseksi:

päiväys & paikka

opiskelijan allekirjoitus

vanhemman allekirjoitus (alle 18v.)

Tutkimuksen suorittaa,

Antti Järvinen  
Psykologi, opettaja, opinto-ohjaaja  
p. 040 – 557 4523  
antti23@gmail.com

## APPENDIX 21: The interview questions

### **HAASTATTELUKYSYMYKSET**

#### **Psyykinen valmennus**

Mitä odotuksia sinulla oli kurssin suhteen?

Miksi valitsit tämän kurssin?

Mitä opit kurssilla?

Mitkä opitut taidot voivat hyödyttää sinua jatkossa (omassa elämässä, muussakin kuin urheilussa)?

Miten kurssista informoitiin? Oliko informaatio riittävä?

Oliko 6 viikkoa riittävä aika kurssin läpikäymiseen? Pitäisikö olla pidempi ajanjakso?

Oliko kurssilla liikaa, liian vähän vai sopivasti teoriaa/ käytännön harjoituksia?

Missä jaksossa kurssi olisi hyvä tarjota? Milloin olisi ollut sinulle paras ajankohta?

Mitä kaipasit kurssisisältöihin lisää?

Aiotko käyttää oppimiasi taitoja jatkossa hyödyksi? Ja jos kyllä, niin erityisesti mitä?

## APPENDIX 22: The follow-up questionnaire

Morjehdus!

Olit mukana psyykkisen valmennuksen kurssilla Norssilla lukuvuonna 2014-2015. Haluaisin kysyä sinulta muutamia asioita kurssiin liittyen.

- 1) Oletko käyttänyt hyödyksesi kurssilla harjoiteltuja ja oppimiasi taitoja?
- 2) Jos vastasit kyllä, mitä kurssilla läpikäytyjä tekniikoita ja taitoja olet hyödyntänyt arjessasi kurssin jälkeen?
- 3) Millaisissa tilanteissa olet taitoja hyödyntänyt (e. kilpailut, koulun esitelmät, kokeet jne.)
- 4) Jos vastasit en, voisitko lyhyesti kuvailla, miksi et ole taitoja hyödyntänyt?

Kyselyyn vastaaminen on täysin vapaaehtoista. Voit missä tahansa vaiheessa pyytää sinua koskevien tulosten poistamista tutkimuksesta ennen tulosten julkaisua. Kyselyn vastauksia käytetään Urheilupsykologian gradutyössä yhtenä osana prosessimallia. Kaikki vastaukset käsitellään luottamuksellisesti ja henkilökohtaisia tietoja ei luovuteta ulkopuolisille. Tutkimusraportissa ei käytetä henkilöiden nimiä. Vastaukset hävitetään tutkimuksen lopuksi.

Jos sinulla on kysyttävää tutkimukseen tai tähän kyselyyn liittyen, ota rohkeasti yhteyttä.

T:Antti Järvinen, Psykologian maisteri, opinto-ohjaaja, opettaja

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