

**Physical education at secondary school: Does teaching  
style affect students' motivation towards physical  
activity?**

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## ABSTRACT

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The purpose of this study is to investigate whether the physical education teachers' teaching styles affect the students' motivation towards physical activity in secondary school. The focus is on the teacher students' and sport pedagogy students' experiences with regard to physical education classes. Thus, the target group includes students from both the Teacher Education Department and Sport and Health Sciences Department.

The study was implemented using qualitative research methods. The data was collected using the survey software, webropol. The data collection began in March 2019 and lasted for two weeks. Altogether 44 (n=44) answers to the short questions and 43 (n=43) answers to the open-ended questions were received. Using a theme-based qualitative content analysis the data was analyzed in order to reach a deeper understanding whether the teaching styles affect students' motivation towards physical education at the secondary school.

The results indicate that the most common teaching style experienced during secondary school was the practice style. However, in the open-ended questions the command style was the most common teaching style used at the physical education classes among the other styles, as eighteen (n=18) of the participants told so. The most motivating teaching style according to the participants was a mixture of various teaching styles. Twenty-three (n=23) participants mentioned that a mixture of various teaching styles would have been the most motivating style at the physical education classes at secondary school. Based on this study it is possible to conclude that teaching styles have some effect on the students' motivation.

Keywords: experiences, motivation, physical education, physical activity, secondary school, teaching styles

## TIIVISTELMÄ

**Murto, Siiri. 2019. Physical education at secondary school: Does teaching style affect students' motivation towards physical activity? Kasvatustieteen maisterintutkielma. Jyväskylän yliopisto. Opettajankoulutuslaitos. 84 sivua.**

Tämä tutkimuksen tarkoitus on selvittää vaikuttavatko liikunnanopettajan opetustyyli oppilaiden liikuntamotivaatioon yläasteella. Painopiste on opettajaopiskelijoiden ja liikuntapedagogiikan opiskelijoiden yläasteen liikuntatuntien kokemuksissa. Täten kohderyhmänä toimivat opiskelijat sekä opettajankoululaitokselta että liikuntatieteellisen tiedekunnan opiskelijat.

Tutkimus toteutettiin käyttäen laadullisia tutkimusmetodeja. Aineisto kerättiin käyttäen webropol-kyselyohjelmistoa. Aineiston keruu alkoi maaliskuussa 2019 ja kesti kaksi viikkoa. Tutkimusaineistoon vastaanotettiin yhteensä 44 (n=44) vastausta lyhyisiin kysymyksiin ja 43 (n=43) vastausta avoimiin kysymyksiin. Aineisto analysoitiin käyttämällä teemoihin pohjautuvaa sisällönanalyysiä tavoitteena saavuttaa syvällisempi ymmärrys vaikuttavatko opetustyyli oppilaiden liikuntamotivaatioon yläasteella.

Tulokset osoittavat, että yleisimmin käytetty opetustyyli yläasteella osallistujien kokemusten mukaan oli harjoitustyyli. Kuitenkin avoimissa kysymyksissä komentotyyli oli suhteessa kaikista yleisin opetustyyli yläasteen liikuntatunneilla, sillä kahdeksantoista (n=18) osallistujista kertoi niin. Osallistujien mukaan kaikista motivoivin opetustyyli oli erilaisten opetustyylien sekoitus. Kaksikymmentäkolme (n=23) osallistujaa mainitsi, että erilaisten opetustyylien sekoitus olisi motivoinut heitä parhaiten yläasteen liikuntatunneilla. Tämän tutkimuksen perusteella on mahdollista päätellä, että opetustyyliellä on jonkin verran vaikutusta oppilaiden motivaatioon.

Asiasanat: kokemukset, koululiikunta, liikunta, motivaatio, opetustyyli, yläaste

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# 1 INTRODUCTION

It seems that the decrease of physical activity is one of the most threatening trends since the 21st century. Many studies show that youth are becoming more passive at the secondary school level and the situation typically degenerates when they grow older (Rikard & Banville 2006; Kalaja 2012; Pentikäinen, Palomäki & Heikinaro-Johansson 2016). One of the reasons behind this might be the physical education classes that the youth have experienced at the primary school, which have affected negatively in the motivation and attitudes towards physical education and sports in general (Lauritsalo 2014). Thus, physical education classes at school have an extremely important role in the development of the children and the youth, as they should offer enough tools to build a strong motivation for a lifelong physical activity.

In physical education classes at school, the students have various backgrounds, including students competing at the professional level or team sports and students, who have only little experience of physical activity. The challenge is to provide every student with appropriate practices, which will develop each skill level. People tend believe in a fallacy, that the least experienced students are the least motivated, and on the other hand the students who are regularly exposed to physical activity are the most enthusiastic (Ntoumanis 2010). However, the problem itself might be the fact that the active students are not experiencing enough challenge during the physical education classes so they become bored and loose the motivation (Graham 2013).

The question is how do the physical education classes affect in youth's motivation towards physical activity? Does the new Finnish curriculum (Finnish National Core Curriculum 2014) provide everyone with enough challenges and

motivation to develop oneself? The purpose of this study is to investigate whether teaching style affects students' motivation towards physical education at secondary school. Some themes that stood out from participants' answers in the question form will be covered in a way that helps every teacher understand how to adjust physical education classes so that they support the positive development of every student.

In Finland the values of physical education reflect the general education policies of the Finnish society and many sports pedagogues visions. The Finnish national core curriculum, which is designed by the national board of education, creates a framework for the physical education classes (Finnish National Core Curriculum 2014). There has been a firm social control and normative regulation for several decades in physical education policies (Ilmanen 2013, 50). Along Ilmanen (2013), the background idea is to encourage the students to maintain a physically active life style in order to improve the health of the society and general values of Finnish culture.

Ever since the 19<sup>th</sup> century the concept of health has been one of the most crucial values of physical education. Additionally, the aims of recreation, joy, order and discipline have always had a significant impact on physical education classes at school even over thirty years ago (Koivusalo 1982). These are the factors that not only pass on enjoyment and happiness, but also help students to develop their attentiveness, social skills and behavior. When we compare older (Finnish National Core Curriculum 1994 and 2004) and newer curricula (Finnish National Core Curriculum 2014) together there are certainly some similarities that can still be noted at today's physical education classes. After the reform of the Finnish curriculum in 1994 joy of physical activity, positive experiences, healthy way of living and strong self-confidence have been the most important values that continue carrying out the positive message of physical education (Ilmanen 2013, 54).

The central concepts of this study are physical education at school (koululiikunta), relationship to physical activity (liikuntasuhde), teaching physical education (liikunnan opetus) and motivation to physical activity (liikuntamotivaatio). Because the very first exposures in physical education classes can lead to certain attitudes towards physical education (Palomäki & Heikinaro-Johansson 2011; Lauritsalo 2014; Luonassalo ym. 2018), the teacher should take into account all the dimension of physical education classes and its effects on general well-being. Physical education has a huge role in determining the attitudes towards physical activity in adulthood as it creates the basis for the lifelong relationship to participating in different sports.

The relationship to physical activity consists of earlier experiences that have formed when a person has participated in physical activity (Koski 2013). Thus, it has a decisive effect determining youth's feelings and attitudes towards physical education at school. The focus in this study is to investigate from the students' perspective, how different factors at the physical education classes have affected their feelings and attitudes. One of the most influential factors at the physical education classes are different teaching styles (Mosston & Ashworth 2008). This is an important theme in this study, as the pedagogy of the teacher can either increase or decrease the motivation towards physical activity. Along with teaching styles, motivation is an important part of the theoretic framework of this study. Motivation has a strong influence on both students' enjoyment and learning at the physical education classes (Jaakkola & Watt 2011). These concepts create a firm theoretic frame of reference, which supports the analysis and the reportage of the results.

The reason why I chose this topic for my study arose from my own experiences considering physical education classes. Since primary school I have heard several strong comments and opinions, mainly negative, about physical education at comprehensive school and I wanted to find out is the situation still the same in today's school culture. My own experiences about physical education classes are

very positive, which is why I felt sorry for the students who had negative imaginations about physical activity in general. I am seriously concerned about the decrease of physical activity among the youth and eager to find out what are the factors behind this.

My goal is to reach deeper understanding of youth's feelings and attitudes towards physical education classes to become a better teacher and prevent inactive lifestyles. This is also one reason why I chose the teacher education students and sports pedagogy students to be the target group of this study. They are very likely going to become physical education teachers in the future, so it is crucial to be aware of their own experiences about physical education classes. I also want to provide useful information about various teaching styles and make people realize what some possible consequences are when certain teaching styles at the physical education classes are used. Well-being and health have always been close to my heart so I hope finding out more information about the factors of physical education will help me to support the overall well-being of the youth.



## **2 PHYSICAL EDUCATION AT SECONDARY SCHOOL**

The first part of the theory is concentrating on the physical education at the secondary school and creating a common thread for the study. The theory forms a framework for the research problems and implementation of the study and helps to analyze the results. At first, I am going to explain how physical education at the secondary school works along the newest Finnish National Core Curriculum (Finnish National Core Curriculum for Basic Education 2014). Then, I will establish the important themes of this study, pedagogy and motivation in physical education. Additionally, in the first theory part I am going to write about one of the most important theories of this study, the Mosston and Ashworth's spectrum for teaching styles in physical education (Mosston & Ashworth, 2008). Lastly, I am going to focus on several motivation theories to support my study and analysis of the results ((Ryan & Deci 2000; Weinberg & Gould 2014)

### **2.1 Physical education and the curriculum**

According to Graham (2013, 4) "the purpose of quality program of physical education is to guide youngsters in the process of becoming physically active for a lifetime". Even though Graham's original idea is nearly thirty years old, as the first edition of his book "Children moving: A Reflective Approach to Teaching Physical Education" was published in 1980, the same vision of physical education classes can be seen in the today's curriculum (Finnish National Core Curriculum for Basic Education 2014). Along to the Finnish National Core Curriculum (2014), pedagogical tools in teaching physical education, students' earlier experiences, attitudes and motivation, are some of the factors, which have a great influence on the adoption of healthy lifestyles.

Physical education at secondary school is a goal-directed school subject (Jaakkola, Liukkonen & Sääkslahti 2013, 659), which covers all the physical

activity at the physical education classes. Along WHO (2017), the official definition for physical activity is “a bodily produced movement by skeletal muscles that requires energy expenditure”. On the other hand, physical inactivity has been identified as the fourth leading risk factor for mortality (6 % of death globally) (WHO 2017). There are many social, mental, biological, environmental and cultural variables, especially during adolescence, that affect the amount and quality of physical activity (Kalaja 2012, 11). Recommendations for physical activity, that define how much and what kind of physical activity people in different age groups should participate in (Jaakkola 2013, 660), create an ideal framework for physical well-being. Many international researchers have proven that children should engage in moderate to vigorous physical activity at least 60 minutes a day. However, these recommendations are rarely put into effect, which is an ominous trend for the health of the youth in the future (Kalaja 2012).

According to the Finnish National Core Curriculum (2014, 273), physical education should affect students’ well-being by supporting their physical, social and mental performance. Regular physical exercise prevents obesity, promotes motor skill development and physical fitness. When planning a healthy lifestyle, we need to be aware of the factors that could affect our health in a positive way. Thus, the teachers need to create a quality program of physical education that provides opportunities for goal setting, making new friends and stress reduction (Graham 2007). The aim is to maintain students’ positive attitude towards their own body and qualities. The Finnish National Core Curriculum (2014) highlights the significance of single positive experiences and enjoyment at the physical education classes, which support the holistic physically active lifestyle. Working together, being active and using body in different ways should be the main elements at the physical education classes (The Finnish National Core Curriculum for Basic Education 2014).

Along with physical education, another term that is related to the study is physical activity at school. This differs from the physical education in a way that

it can be defined as any physical activity outside the physical education classes being still a meaningful part of the school day (Jaakkola 2013). This can be identified e.g. as walking to school, physical activity during the recess, sports clubs and other subjects' classes and trips that are integrated to physical education (Jaakkola 2013, 659).

Today the amount of physical activity outside the physical education classes has decreased considerably (Palomäki & Heikinaro-Johansson 2011). One of the reasons might be that the use of various technology and social media have become more general and a natural part of students' everyday life. The major negative effect can be seen especially among the youth. Physical education at school should implement the contents of the curriculum in a way, which focuses more on the enjoyment and recreation activities. The factors that help maintaining physically active lifestyle, like specific knowledge, skills, motor abilities, attitudes, behavior and self-confidence should be effectively supported at school (Weinberg & Gould 2014, 435). According to Lauritsalo (2014), teachers should take into account every students' earlier experiences, background and attitudes to develop the quality of physical education at school.

For some youth physical education at school may be the only way of engaging in physical activity during a normal school week, which highlights the value of teaching physical education even more. As the physical education classes are organized by the teacher, she/he should ensure that the objectives of the curriculum are met according to the skill level of the students (Finnish National Core Curriculum for Basic Education 2014). Every student should be offered a chance to develop their knowledge and skills in a way that the motivation to physical activity increases. Regular moderate to vigorous physical activity, like walking and riding a bike, has significant health benefits. It prevents many typical public diseases like respiratory and vascular diseases, diabetes, breast cancer, irritable bowel syndrome and mental disorders (WHO 2017). Additionally, frequent physical activity has several other positive side effects,

like effective metabolism, better quality of sleep, exuberance and weight management (Healey 2013). Thus, learning to attain a physically active life style in the early years of youth would be extremely important.

According to the Finnish National Core Curriculum (2014) the main purpose of the physical education classes at school is to affect positively to the physical, mental and social well-being and performance of students. In addition, the goal of physical education is to guide youngsters to understand the health benefits of physical activity. (Finnish National Core Curriculum for Basic Education 2014, 248.) In other words, the most crucial values of the pedagogy of physical education are the adoption of physically active life style, responsibility and communality. The latest curricula reflect the values of post-modern welfare state, which focus more on the reinforcement of physical, motor, mental and social development of the youth. The values do not necessarily disclose the emphasized role of competition, effectiveness and the neoliberalism aims of economic growth that both unconsciously and consciously affect the youth these days (Ilmanen 2013, 55).

## **2.2 Pedagogy and motivation in physical education**

Physical education is a school subject, which evokes plenty of different emotions amongst people. It can be defined as a culturally developed social dimension, where every individual has an own perspective of various phenomena (Koski 2013). The combination of individual perspectives and attitudes towards physical activity is called a relationship to physical activity (Koski 2013, 96). It is based on individual's earlier experiences, which explains our attitudes towards physical education. As the aspiration of comprehensive schools' physical education is to teach the youth how a physically active lifestyle is maintained, it is crucial to be aware of different relationships to physical activity, attitudes and motivators. In addition to those factors, focusing on skill-based teaching and sharing knowledge are the warp and woof of physical education and support a strong

relationship to physical activity. (Koski 2013). These earlier mentioned factors are one of the most important tools in maintaining a lifelong physically active way of life and encouraging to have a positive attitude towards physical activity.

The relationship to physical activity is dynamic and formed after a long process of different thoughts and decisions (Koski 2013, 97). According to Koski (2013), there are many variables, like the personality, roles defined by the context, external factors and earlier assimilations, that affect the process. For instance, motivation can vary a lot during a short period of time, but the relationship to physical activity is very stable. The aspect of relationship to physical activity consists of a strong cultural framework, which can be seen in the daily life in the Western culture. Galtung (1991) states that sports is one of the most powerful mechanisms to spread the culture amongst the people. Even though Galtung's (1991) work is an older reference, it describes how physical education is a well-established tool for spreading cultural traditions at school. Typical examples of this process are our everyday language, certain mindsets, ideal body image and valuing esthetical matters in general. The purpose of physical education at school should be focusing on transmitting the youth a positive and accepting body image and culturally tolerant attitudes. Physical education classes should guide the youth to attain a healthy way of living and finding their own tools to preserve it (Finnish National Core Curriculum for Basic Education 2014).

There are many strategies that can help in maintaining positive experiences and motivation in physical activity. Weinberg and Gould (2014) have introduced six different approaches that a teacher can use to support a positive learning environment at school. These are called behavior modification, reinforcement, cognitive-behavioral, decision-making, social support and intrinsic approaches. Each approach has its own focus, so it would be preferable to utilize them all depending on the circumstances (Weinberg & Gould 2014). The next section outlines each of these strategies in more detail.

The behavior modification approach has been proved to be very effective especially in maintaining a physically active lifestyle (Dishman & Buckworth 1996). Even though the theory of behavior modification is old, it can be still used as an excellent pedagogical tool at the physical education classes. The approach is based on the cues that come from the external environment and affect our behavior and thinking. A concrete example of this act would be a smell of a food, which tells us to eat it, or a television in front of the sofa, which suggests us to sit back and relax (Weinberg & Gould 2014, 36). Using this approach in the physical education classes would mean placing some motivating posters on the walls, making sure that the learning environment is safe and cozy, using quality sports equipment and building a positive atmosphere between the teacher and the students. Many studies show that most of the time the negative experiences of the physical education classes are arising because of the unmotivating environment, bad quality of the equipment and negative atmosphere at the school (Havinen & Kinnunen 1997; Lauritsalo 2014; Pietilä 2015). This is one reason why the teacher and the students should try to build together an ideal atmosphere for the physical education classes that supports students' physical, social and mental well-being. Behavior can be modified both consciously and unconsciously sending various stimuli and cues to encourage developing a desirable behavior (Dishman & Buckworth 1996). According to Dishman and Buckworth (1996) to maintain a certain kind of desirable behavior, the exposure of the cues and stimuli has to be regular and repeated many times.

Reinforcement is an extremely powerful and determinative approach for different actions. The commitment and engagement in physical activity at school can be reinforced with different external rewards, inducements, reportage of the participants and feedback (Weinberg & Gould 2014). Especially the meaning of the feedback has a huge impact on the motivation of the participants. The more precise and individualized the feedback is, the better the students are able to assimilate it (Weinberg & Gould 2014, 438). In addition to behavior modification approach, there are also other tools to support the motivation towards physical

education. The next two approaches are called reinforcement approach and cognitive-behavioral approach. Along to Weinberg and Gould (2014), the reinforcement approach consists of many external variables that regulate our behavior and attitudes towards physical activity. By contrast, cognitive-behavioral approach highlights the influence of neural actions and brain functions (Weinberg & Gould 2014). This approach presumes that changes in behavior are due to various conscious and unconscious thinking processes in the brain. The strategy can be used at the physical education classes, when we set different goals for ourselves and focus on willpower. Cognitive-behavioral technique, which includes both associations and dissociations from the environment (Weinberg & Gould 2014), can help students finding their own way of enjoying physical activity and sticking to a healthy lifestyle.

However, making lifestyle changes and maintaining them can be a very challenging act for youth. Psychologists have developed several methods that can help decision making and realizing the actual consequences. One brilliant example of these methods is the decision balance sheet (Hoyt & Janis 1975). This method is designed to help people recognizing their own recourses, benefits of physical activity and other positive effects. The decision balance sheet might not be the most effective or current at the primary school, but when the children grow older this can be a great tool defining the needs and the objectives. It would a great practice at the secondary school to let the students write about their own thoughts about physical activity, tell about their own goals and how they want to achieve them. According to Weinberg and Gould (2014) decision balance sheet is an effective way of finding out the background and motives of the students' and describing what are the reasons behind their attitudes towards physical education. This method can prevent inactivity and disliking sports, as it defines the positive effects of physical activity and encourages everyone to stay active.

When individual's thoughts and behavior are dependent of others' participation and attitudes, the strategy of social support steps in (Weinberg & Gould 2014).

Studies show that social relationships, family and vicinity have a meaningful impact on the attitudes towards physical education at school and the maintenance of physically activity lifestyle (Jaakkola 2013). Thus, the activity of the family and friends affects considerably the physical activity of the youth and later on in the adulthood.

In addition to behavior modification, reinforcement, cognitive-behavioral, decision-making, social support approach there is a last approach, which helps maintaining positive experiences and motivation in physical activity. It is called intrinsic approach. Along to Weinberg & Gould (2014) the difference between this and the other approaches mentioned earlier is that the focus is on the physical experience itself. The purpose is to develop the quality of the physical activity and concentrate on the overall process of the movement and feeling (Weinberg & Gould 2014, 442). The highlight is on the bodily sensations and positive feelings that are accomplished with physical exercises. The intrinsic approach is a key factor in finding especially the inner motivation towards physical activity.

Creating positive experiences at the physical education classes requires a special expertise from the teacher. There should be encouraging cues, like motivating posters, enough space, proper equipment and music around the environment to motivate the student more effectively. Additionally customized intensity and duration for each class, plenty of different options, rewards, individual feedback and the possibility to share the joy of physical activity increase the students' motivation (Weinberg & Gould 2014, 443). The positive experiences at the physical education classes are the most powerful ways to stay active and healthy for a lifetime. The teacher can encourage students to do sports together with friends and family and benefit from the social support of the closest people in their lives. The students should learn to reward themselves from the great effort and focus more on the positive environmental factors, like cooperation and social



interactions, than their own bodily features (Jaakkola 2013). A healthy body comes with a balanced and healthy mind.

Even though there are many great tools to motivate the students and strengthen the pedagogy at the physical education classes, there can be factors that might prevent teachers from implementing them. More importantly, the teacher must consider whether the students all respond in the same way to these strategies. The behavior modification strategy demands a lot of effort from the teacher. As Weinberg & Gould 2014 suggest, behavior modification strategy can be seen as making the environment more motivating and creating a supportive atmosphere. The risks in this approach would perhaps be that the school would not have enough resources to fulfill a better learning environment and motivate the students with quality equipment. In the reinforcement approach the teacher has to be aware what are the right instructions and appropriate feedback for the students to motivate them effectively. In cognitive-behavioral approach the has to know the students better to be able to motivate them with this strategy. Using intrinsic approach would be perhaps more suitable for older students.

### **2.2.1 Teaching Styles in Physical Education**

The quality of pedagogy at physical education classes is a significant factor that drives students' attitudes towards physical activity. Physical education at school is defined as "physical activity that is implemented by the teacher" (Jaakkola 2013). As far as physical education is concerned, learning different motor skills is described as an internal event in one's body that is caused by various bodily movements that lead to potential long-term changes and development (Jaakkola 2013, 660). For several children and youngsters physical education at school might be the only source of physical activity, which creates different attitudes that affect their lifestyle and decisions related to their health. Some of the youth might face life-long traumas based on physical education at school, which has very negative effects on their health in the future (Lauritsalo 2014).

There are several, both internal and external factors, that affect the quality of physical education; grade level, environment, atmosphere, skill levels, attitudes, motivation and the competence of the teacher to mention a few. (Jaakkola 2013). Teaching itself is defined as an interaction that supports educational objectives, or in other words the aims for learning, and enhances learning outcomes that are affected by the Finnish National Core Curriculum (Hirsjärvi 1990; Finnish National Core Curriculum for Basic Education 2014). Especially the interaction between the student and the teacher is highlighted in the definition, as the studies show that dynamic communication guarantees great learning results (Jaakkola & Sääkslahti 2013). Thus, the relationship of benefits is mutual; the interaction in the teaching processes is multilateral and complementary, as all the participants, both the teacher and the students, will profit from it.

Hirsjärvi (1990) emphasizes that the most important objective of teaching is to generate learning experiences. Along this statement, reaching the desirable learning outcomes requires versatile teaching methods and strategies. As far as the definition of teaching is concerned, we must be aware of the concept of learning. The process of learning consists of neurology, cognition, social environment, emotions, personal history and earlier life experiences among other factors, which makes the concept very interdisciplinary. According to the definition that has been originally written by Heikkurinen (1994) and edited by Uusikylä and Atjonen (2007), learning is described with the following words:

Learning happens due to the changes of brain's neural circuit in the cortex that an individual can sense through his or hers psychological interpretations. Even though learning is based on brain functions, the process is always environmentally bound. We experience the world through our own subjective consciousness and there is no one who is able to 'see' how it actually looks for us. The circulation of life creates every individual the basis of their own thinking processes. (Heikkurinen 1994, Uusikylä & Atjonen 2007, 21.)

The aim of studies in physical education didactics is to search for qualified models of teaching physical education (Jaakkola & Sääkslahti 2013). Thus, the focus is on teaching the goal-directed learning objectives and the means of reaching them. As the students have different learning styles, levels of motivation

and characters, the teacher must be able to utilize as many teaching strategies as possible. The framework for teaching physical education is made of the spectrum of various styles of pedagogy. Mosston and Ashworth (2008) have developed a spectrum of different teaching styles that represent a continuum beginning with student-focused teaching styles and moving on to more teacher-centered teaching. The spectrum (Mosston & Ashworth, 2008) provides theoretical knowledge about creating different learning environments, which support reaching the learning objectives and motivation. Exploiting various teaching styles facilitates anticipation, application, providing options and analyzing the content of each physical education class. The spectrum consists of ten different teaching styles: command, practice, reciprocal, self-check, inclusion, guided discovery, divergent, individual, learner initiated and self-teach. (Mosston & Ashworth 2008.)

The *command* style is very teacher-lead, meaning that the students' are completely dependent on the commands and actions of the teacher. Students' opinions do not have any impact on the planning or the course of the physical education classes. The teacher instructs all the exercises, demonstrates an example and divides the objectives of the lesson in small parts. Usually the evaluation is received as an overall feedback for the whole class, excluding any personal feedback. This style might be suitable for physical education classes where there is not that much space, the teacher doesn't know the students beforehand or there are some safety risks in the environment. (Mosston & Ashworth 2008.)

In turn, the *practice style* concentrates more on the students' own motor skills and allows everyone to perform the teacher-lead activities at their own pace. In physical education classes, the practice style is the most common way of teaching (Jaakkola & Watt 2011). In this style teacher is also the one, who decides the structure of the class and evaluates the students in a same way as in command style. However, the feedback is slightly more personal as it is easier to receive, when the students are performing the activities at their own pace. This allows the

teacher to focus more on the individual performances and motivating the students more efficiently. (Mosston & Ashworth 2008.)

The third teaching style of the spectrum is called *reciprocal*. In this style communication and co-operation skills are highlighted. The teachers divides the students into pairs, which allows the teacher to evaluate two students at the same time as they perform the planned activities together. The students are meant to switch their roles and give each other some feedback and peer evaluate the concrete physical exercises. Reciprocal teaching style is suitable especially for learning more specific motor skills, when the significance of the individualized feedback is emphasized. By contrast, the opposite for reciprocal teaching style would be self-check or self-evaluation. (Mosston & Ashworth 2008.)

*Self-check* teaching style underlines the student's own actions, self-evaluation process and development. Again, the teacher has designed the content and objectives of the class, but the students are allowed to perform the activities independently and evaluate their own progression. This reinforces the students' perception of their body image, control, sense of responsibility and internal feedback. Self-check can be applied for older students, who are able to take responsibility of their own progress in physical activities. Using this teaching style the teacher is able to observe the students' motivation and activity during the physical education classes, which helps to form a better picture of the different skill levels. (Mosston & Ashworth 2008.)

When the practices are designed regarding to the variation of skill levels, stages in development and other physical and biological factors, *individualized* teaching style is concerned. The teacher pays attention to different skill levels and applied practices when she/he is planning the lesson. She/he observes the students and makes conclusions how effectively they are able to apply the activities. The most important matter is that the activities must be able to ease or make more complicate. (Mosston & Ashworth 2008.) The evaluation is based

on the fact how well the students can recognize their own skill level and develop.

When it comes to *guided discovery*, teacher is the one who defines the aim of the actions and the students will perform the given activities based on their own skills. This teaching style in question reinforces students' self-efficacy and the sense of competence. The teacher asks different questions, which are guiding and encouraging the students to try out various problem solving skills and higher level thinking. The questions can be also used as a form of feedback and evaluation. (Mosston & Ashworth 2008.)

*Divergent* teaching style, also called as problem solving, represents a more complicated way of learning where the students are being active operators. The teacher presents several problems or tasks for the students they have to solve on their own. The feedback is given based on the functionality of the problem solving skills and ways of performing the physical exercises. When the emphasis is on creativity, open-mindedness and courage, divergent teaching style is the most effective tool at the physical education classes. (Mosston & Ashworth 2008.)

There are several ways to implement *individual* teaching style in teaching physical education, but typically it represents a student centered approach, where the teacher has designed a theme and structure for the class. The students are allowed to perform the exercises in her/his own way and use both creativity and problem solving skills. Teacher can also let the students design their own practices and have an influence on the structure of the physical education classes. (Mosston & Ashworth 2008.)

When students are given more decision making power we are talking about *learner initiated* teaching style. The specific teaching style motivates the students to work independently and their responsibility on their own health. Teacher supports the students with individual feedback and additional instructions. In these teaching strategies both the students and the teacher are evaluating the progression of skills and physical performances. The independence and inner

motivation of the students is highlighted in especially in learner initiated teaching style as the purpose of the class is to let the students find out what is the best way to perform physical activities by themselves. Teacher will decide how much freedom she/he will give for the students depending on the developmental stage and skill level. (Mosston & Ashworth 2008.)

*Self-teach* is the most student centered teaching style in the physical education classes. Older students, who are already aware of their own physical abilities, would best implement this approach. Working methods, implementation, evaluation and success in physical activities in completely dependent on student's own decisions and actions. In self-teach approach the student is also the one who decides how much the teacher can be part of the progression. (Mosston & Ashworth 2008.)

The range of instructional styles is crucial, as there is an endless amount of various students and learning styles. Every student is different and needs a customized teaching style to support her/his learning in an effective way. Before deciding what an appropriate teaching style is, we need to know some background variables. According to Graham (2013), a quality physical education program is created when the teacher is aware of the age group, skill level, developmental stage, resources and the students' personal factors. Being aware of the various styles above that represent the Mosston and Ashworth's (2008) spectrum, different students might respond in a diverse manner. This means that a teacher has to know her/his students well and provide the right conditions for everyone to be able to learn (Graham 2013).

### 2.2.2 Levels of Motivation in Physical Education

Motivation at the physical education classes is one of the central factors that maintains positive attitudes and creates favorable experiences (Sage 1977). The word "motivation" itself comes from the old Latin term "movere" (move), which explains that the definition has a long historical background. In the beginning, the motivation theory was based only on the external behavior that is visible for

everyone in the close environment. However, nowadays the studies of motivation refer to several various psychological phenomena that are a lot more complicated than we are able to recognize from the visible behavior. (Liukkonen & Jaakkola 2013.)

Along Sage (1977), motivation directs individual's drives and defines the intensity of the effort. The official definition is rather old, but sums up perfectly the purpose of motivation. Especially in sports psychology, motivation has several perspectives that divide motivation in specific areas. Those areas include internal and external motivation, achievement based motivation and motivation under competitive pressure (Weinberg & Gould 2014). Similar forms of motivation can be recognized also in other school subjects than physical education, but the ones mentioned earlier are specifically emerging in sports psychology.

Weinberg and Gould (2014) present several indicators for motivation that include personal, situational and interactive variables, for instance. The personal variables, which affect individual's motivation, are personality, needs, passion and aims. In turn, situational factors consist of environment and changes in the milieu, other people's behavior and other external variables that can have an impact on our motivation in both positive and negative way. The most preferred form of motivation especially in physical education is the interactive perspective. In this approach, all the indicators for motivation, both internal and external, are in interaction with each other. While planning the physical education classes, the teacher should be aware of the various factors that direct the students' motivation and pay attention to individual qualities to reach a deeper level of motivation. This is a strong way to maintain internal motivation towards physical education at school and passion to move (Weinberg & Gould 2014).

Motivation towards physical activity can be demonstrated as a continuum, which starts from internal motivation and ends with amotivation (Ryan & Deci 2000).

The continuum can be divided into even eight different fields, which represent various levels of motivation. The lowest level of motivation is called amotivation, which means that the level of motivation is ground zero. In sport psychology this indicates that an individual is not able to see any reason to take part in physical activity. The individual doesn't recognize the benefits of physical activity and has no interest, neither internal nor external reasons, in participating in it. In physical education classes this phenomenon could be seen as some students, who act phlegmatically and reluctant and show no respect towards the teacher or fellow classmates (Ryan & Deci 2000).

The next level of motivation is external regulation, when the physical performance is happening under certain kind of pressure. At this level, external rewards or punishments function as motivation regulators. There can be both concrete and more abstract rewards and punishments depending on the teaching style and the teacher herself/himself. Concrete examples would be giving students some treats after the class or for instance organizing fun activities together after the students have reached a certain goal at the physical education classes. Abstract examples can be praises, compliments, cheering or on the contrary giving the students negative feedback or using reverse psychology. At this level of motivation, the students are searching for compliance and need a lot of external encouragement to keep up their physical activity. (Ryan & Deci 2000.)

Introjected regulation is the following level of external motivation, representing ego-involvement. When the students are at the level of introjected regulation, they are trying to seek for approval and acceptance from others. The meaning of others' thoughts, behavior and attitudes are significantly important. This phenomenon could be typically seen at the phase of puberty, as many youngsters face some kind of identity crisis in their life. Knowing the fact, physical education teachers should act as a role models for the students and encourage them to find their own passion to move and be active for a life time. (Ryan & Deci 2000.)



Identified regulation is defined to be somewhat internal motivation and describes a higher level of motivation after introjected regulation. At this level the students begin to value the activities and understand the purpose of physical education classes. This level of motivation demands already more mature thinking skills and independence. In identified regulation, the endorsement of goals is highlighted and the trust in the teacher has strengthened. (Ryan & Deci 2000.)

Next level of motivation, integrated regulation, represents an internal level of commitment in physical education classes. The student has achieved a congruence and deeper understanding of the benefits of physical activity. At this level, an individual has reached a synthesis with self and high self-confidence. These students might need more challenging activities at the physical education classes and more higher level thinking activities to keep up their motivation. (Ryan & Deci 2000). Last representative of the continuum is called intrinsic regulation. This is the highest level of internal motivation, being the most self-determined and long lasting. Deep interest, natural enjoyment and inherent satisfaction are the motivation regulators at this level. (Ryan & Deci 2000.)

Self-determination theory is one of the latest inventions that represents the framework of motivation studies (Deci & Ryan 2000). Along Deci and Ryan (2000), the three most important dimensions of the theory are perceived competence, relatedness and autonomy. These factors describe people's psychological basic needs, which lead our daily behavior and habits. Thus, physical education classes have an impact on these basic needs. When students' psychological needs become satisfied, usually the nature of motivation is positive and likelihood to achieve intrinsic motivation is high (Deci & Ryan 2000). In turn this strengthens students' experiences of their own competence and correlates with putting more effort at the physical education classes and enjoying the studying. Additionally, Liukkonen and Jaakkola (2013) state that intrinsic motivation enhance the students' overall well-being and health effectively.

If the amount of motivation is little at the physical education classes, it usually reflects on the students' experiences about perceived autonomy, competence and relatedness. When the level of motivation is low, the motivation towards the activities becomes external and does not support the learning effectively (Deci & Ryan 2000). As a result, the student might become distressed, stop trying or protest against the teacher (Hagger & Chatzisarantis 2007). The same kind of effects can also be seen in the data analysis of this study.

Perceived competence describes the person's experiences about their own capability and sufficiency in different tasks and challenges (Deci & Ryan 1985). Individual's overall self-valuation consists of different sub-competence dimensions, which are for example physical, social, intellectual and emotional competencies (Liukkonen & Jaakkola 2013). The perceived physical competence represents personal experiences about physical qualities, like fitness, body image and motor skills. The factors above have a great influence on the enjoyment at the physical education classes (Kalaja 2012). They control where the students pay attention when they move and participate in different kind of activities. In turn, social competence is manifested in various interaction and communication situations. Social competence defines how the individual is able to get along with others and make friends and other social relationships. This dimension of competence has a huge effect on individual's self-esteem and comfort. (Deci & Ryan 1985.)

The intellectual competence benefits the individual especially in succeeding in studies and gathering knowledge about useful skills in life. In physical education, the intellectual competence represents the theoretical knowledge about how to perform different activities or movement patterns, how physical activity affects the body and which muscles and bones are used in certain movements (Deci & Ryan 1985.) As such, the physical competence does not ensure the correct performance or great motor skills at the physical education classes. Compared to

intellectual competence the emotional competence is very different and diversified.

Perceived emotional competence describes the individual's abilities to understand and process their feelings and emotions. Emotional competence defines also how likely a person is able to identify with others and experience compassion and sympathy (Deci & Ryan 1985). When it comes to physical education, this dimension of competence is very significant, as physical education classes awoke various feelings amongst the students, both positive and negative. Thus, it would be very important to be able to accept one's own and other people's feelings. (Deci & Ryan 1985.)

The different dimensions of competence can be divided even in subcategories that are more specific. In physical competence the abilities can be measured for example only in motor skills, own body and looks or performing one specific sport bound activity. Self-valuation is built over these different dimensions of competence forming a hierarchy for each individual, where some parts are emphasized more than others. The experiences of success, positive feedback and good spirit are factors that can strengthen some specific dimension in the competence hierarchy and have a strong effect on individual's self-esteem and self-respect. (Jaakkola & Liukkonen, 2013).

By contrast, the negative feedback and experiences of failure can have a debilitating effect on the self-competence and in the worst case can leave long-term traumas or negative image about physical education (Lauritsalo 2014). Thus, especially the role of physical education at school is highlighted, as it supports the development of a healthy self-esteem. According to Wallhead and Buckworth (2004), the feeling of self-competence is one of the most important factors maintaining a lifelong physically active lifestyle. When it comes to the physical education classes, teacher should offer various activities and stimuli so that the students are able to experience the feeling of self-competence in different

sports related skills, accepting their own body and developing physical endurance.

The feeling of belonging to a group, safety and acceptance form the feeling of social relatedness (Ryan & Deci, 2007). The feelings above are extremely important sources of motivation. Relatedness represents the basic need to be apart of a group, look for proximity and attachment and generate positive emotions (Deci & Ryan, 2002). The physical education classes at school have a great value maintaining social acceptance and overall motivation. Studies show that relatedness has proven to have a correlation with students' efforts and presence at the physical education activities (Taylor et. al 2010). We may also suppose that the acceptance of friends and relatives supports the interest towards physical education and physically active lifestyle.

Reis and colleagues (2000) introduce six factors that are believed to enhance social relatedness at the physical education classes. Those factors link to the Deci and Ryan's (2000) self-determination theory, as they support an individual's competence, relatedness and autonomy and help maintaining an intrinsic motivation at the physical education classes. The first factor is that the students and the teacher should be able to share and discuss about personal issues at school. This can strengthen the team spirit in appositive way and adapt the atmosphere so that is more easy-going. The second factor is that the students should be working in small groups and dividing the tasks together. Then the collaboration skills, minding and respecting the others are important skills to practice. Students spending more time together is the third very important factor, which can affect the student relationships in favorable way. However, this is something the teacher should not take for granted, as the students will decide themselves how they want to spend their spare time and the time after school does not belong to the school administration. (Reis et. al 2000.)

The fourth factor is being able to become understood, accepted and valuable in a group. If we think about the hierarchy, this might be the most important factor along the enjoyment and motivation at the physical education classes. As a fifth factor, Reis et. al (2000) emphasize that the participation in a group or class should be meaningful and enjoyable. Then we can also assume that there is a high likelihood that the level of motivation is high. The last factor, which enhances social relatedness at the physical education classes, is the behavior at the school that strives for excluding all the things that might affect the atmosphere in a negative way. For example if the students start to alienate, experience egoistic or insecure feelings or bully each other can create a negative atmosphere, which affects the motivation towards physical education. Thus, it would be useful for the teacher to pay attention to these six factors to ensure the social relatedness is supported. (Reis et. al 2000.)

Autonomy represent individual's possibilities to affect her/his own decisions and regulate the behavior (Deci & Ryan, 1985). Thus, the genuine experiences of autonomy are born, when the individual has a feeling that she/he has the decision power and freedom. Along to the newest curriculum there are more autonomy and authority give both for the teacher and the students, which leads to different contents of the classes and teaching methods (Finnish National Core Curriculum for Basic Education 2014). Even though the role of the teacher is very important for effective working, it is advisable to let the students participate in planning the lessons. When the students can affect the contents and implementation of the classes frequently, they experience more autonomy, trust and freedom. These factors are crucial, as they guide the motivation and change it either intrinsic or extrinsic motivation. (Deci & Ryan 2000.)

The teacher can affect the physical education classes with many autonomous ways in inspiring and motivating the students. For example giving more responsibility, guiding to independent work and activating the class are proven to be very effective ways to enhance the autonomy at the physical education

classes, also unconsciously (Deci & Ryan, 1985). Additionally strong autonomy correlates with physical competence, active participation in both school and spare time activities and a formation of intrinsic motivation (Jaakkola & Liukkonen, 2013).

Deci and Ryan's (1985) theory of motivation must be also critically considered as motivation has many dimensions and interpretations. The reality is that a teacher is not able to classify her/his students into the levels of motivation, as motivation is varying continuously. It is good to be aware of the long history of motivation and how it is formed but the physical education teacher has to accept the fact that some students might not never reach the internal level of motivation if they do not really want it themselves. Again, getting to know the students and finding out what are their interests helps the teacher to develop a better relationship between the students and motivate them effectively (Jaakkola & Liukkonen 2013).

### **3 EARLIER STUDIES OF PHYSICAL EDUCATION AT SCHOOL**

This section begins by some earlier studies about physical education at school and considers some general factors that need more attention when teaching physical education. The first section is focused on studies about motivation in the physical education classes. This is a very important background knowledge considering this study. The second section gathers studies that have investigated the effects of physical education on youth, which offers valuable information for physical education teachers. Especially the benefits of physical education and physical activity can be seen as great motivating tools at the secondary school.

#### **3.1 Motivation in the physical education classes**

Amusement is defined in Kalaja's (2012, 20-21) study as a multidimensional concept, which consists of enthusiasm, care, competence, attitude and cognition. Studies show that enjoyment at the physical education classes correlates strongly with participating in physical activity after school (Kalaja 2012). Therefore, the teacher should be able to create an atmosphere, which supports students' physical activity by emphasizing the meaning of amusement and joy.

According to several studies, nowadays most of the students enjoy physical education at school (Carlson 1995; Pentikäinen, Palomäki & Heikinaro-Johansson 2016). However, those studies do not always guarantee that all of the experiences would be purely positive. In Lauritsalo's (2014) study the target group was found from the internet forums and the focus was on their opinions about physical education classes in Finnish schools. The results showed that most of the experiences, opinions and attitudes towards the physical education classes were

negative (Lauritsalo 2014). According to the study material, 64 percent of the answers were negative and only 12 percent were completely positive. In conclusion, this distribution represents a typical paradigm that threatens the overall well-being and healthy lifestyles in the future. In other words, it looks as though the self-fulfilling prophecy becomes true and the motivation towards physical education might be decreasing.

Considering the differences between the genders in the physical education classes, girls at the secondary school level have more positive attitudes than boys at the same age (Todaro 2014). However, Todaro's (2014) article states that girls experience more negative feelings at the physical education classes. In turn, Kalaja (2012) explored seventh graders fundamental locomotion, physical activity and overall motivation towards physical education at school. His study indicates that self-competence is the most significant factor, which affect individual's motivation and commitment. The more the students could have an influence on the content of the classes, the more they enjoyed the activities at the physical education classes (Kalaja 2012, 52-53). Similar results have been identified in Rikard and Banville's (2006) intervention, where the teacher's role and example was emphasized. If the teacher pays attention to the students' desires, it is more likely that they participate in the activities and reach a higher level of motivation (Rikard & Banville 2006).

Amusement at the physical education classes is mainly based on the atmosphere and pedagogy of the class. Generally, physical education at school consists of bigger groups with different individuals and backgrounds. When the aim is to pass on the tools to a lifelong physical active lifestyle, the recognition of each individual is extremely important. It is also a key factor in maintaining the intrinsic motivation. (Jaakkola, Liukkonen & Sääkslahti 2013.)

Positive experiences in physical activities enhance achieving a physically active way of life and maintaining a positive attitude towards physical activity



(Hirvensalo, Lintunen & Rantanen 2000; Huotari 2012.) The general activity in childhood has a strong effect on the activity in adulthood, which is why the importance of physical education at school as a guide to healthy lifestyle is emphasized. (Hirvensalo, Lintunen & Rantanen 2000; Huotari 2012.)

Students' physical performance and motor skills vary a lot even in early childhood (Huotari 2012). Along Huotari (2012), the physical activity in the childhood, hobbies, parents' physical activity and attitudes towards sports are important factors that affect the childrens' motivation. Thus, the differences become bigger as the children grow up and when they reach the secondary level of basic education there are already many challenges amongst the students caused by the possible inactivity in early childhood. This should be taken into account when the teachers are planning the physical education classes.

Especially in physical education, the age group and skill levels should be noted and the activities should be designed carefully (Nupponen ym. 2010). Along Nupponen et. al (2010), there are big differences in the quality and amount of physical activity among the children and the youth, as some of the children develop a great motivation towards physical activity in early age and for others the level of motivation and interest vary a lot. Additionally, several studies show that approximately every fifth student in basic education has a need for some level of special support because of different disabilities and conditions (Huovinen & Rintala 2013). This again has a strong influence on the motivation and amusement at the physical education classes.

### **3.2 The effects of physical education on the youth**

Including motor skills and physical qualities, physical education at school has several other benefits considering the development of the youth. Studies show, that physical education has a positive effect especially on the mathematical skills

and reading comprehension (Kohl III & Cook 2013). Kohl III and Cook (2013) state that there are certain areas in the brain that activate more efficiently with the students, who have a better physical condition. Additionally, physical exercises have positive effects on students' concentration skills, brain health and general well-being. Among other things, we should highlight these factors at the physical education classes so that the students would be aware of the many positive effects of physical activity.

Physical activity supports individual's mental health, prevents alienation and strengthens the quality of life (Weinberg & Gould 2014). According to Weinberg and Gould (2014), physical education classes have a huge role in the development of students' social skills. Communication, co-operation skills, following the rules, respecting and helping the others, self-acceptance and confidence belong to the crucial objectives of physical education at school. Sharing knowledge of the benefits of physical activity we are able to reach a higher level of motivation at the physical education classes and make the students realize the true purpose of physical education at the secondary school.

Rikard and Banville (2006) detected in their study, that the students' perceived physical education classes beneficial, when they were divided into different groups considering their own skill level. This way the students were able to perform the optimal practices and experience success. When physical education at school is implemented respecting students' perspectives, it has an apparent connection with increased physical activity in spare time outside school (Pentikäinen, Palomäki & Heikinaro-Johansson 2016).

Yli-Piipari (2011) made also interesting observations in his longitudinal study, which focused on sixth till ninth graders' physical activity and motivation towards physical education at school. He studied secondary school aged students' beliefs according to their expectations, task-orientation, motivation regulation and general physical activity during the physical education classes.

The results show that the amount of physical activity decreased considerably when the youngster started the secondary school. Even though task-orientation was increased in the physical education classes, the students' beliefs according to their expectations and motivation had decreased remarkably much after moving on to secondary school. In conclusion, we could say that the research group in question had had an unmotivational atmosphere at the physical education classes, which had affected negatively their experiences and attitudes towards physical education and physical activity in general. (Yli-Piipari 2011, 37.)

Looking at similar cases, Havinen and Kinnunen (1997) discovered in their study some negative effects that physical education at school has caused. They interviewed seven (n=7) different people representing various age groups. The results indicated that the negative experiences at school had had a strong influence on the behavior related to physical activity and daily routines. The physical education classes had caused revulsion and agony towards physical education at school (Havinen & Kinnunen 1997, 59). Also in this study, the teacher's role had a clear connection in the amusement and enjoyment at the physical education classes. The interviewees mentioned that the reasons for the negative experiences were bad organization skills, competitive atmosphere, injustice and the teacher's poor attitude towards physical activity and sports. Unpleasant exercises, inadequate sports equipment and lacking motor skills had some serious influences on the physical education experiences as well. (Havinen & Kinnunen 1997.)

Pietilä's (2015) study supports the same observations that were introduced in the studies mentioned earlier. According to Pietilä (2015), physical education correlates positively with the attitudes towards physical activity. This means, that positive experiences at physical education classes contribute to positive thoughts and behavior related to physical activity. Like other studies, the results indicate that a positive experience about the pedagogy of the class links to the physical activity in the adulthood. In other words, the role of the teacher is again

emphasized. In turn, the perceived autonomy during the physical education classes strengthens students' positive feelings about the teacher. (Pietilä 2015, 34.)

According to Women's Sport Foundation (2009), girls who do not participate in physical activity before the age of ten have less than ten percent chance of doing so at the age of twenty-five. This is a crucial finding considering the youth at the secondary school and their chances to develop internal motivation towards physical education. According to Lopiano (2009) the former chief executive officer of the women's sports foundation, youth at the secondary school are in a position where their motivation towards physical activity should be reinforced and supported with various teaching methods and prevent the sedentary behavior. Thus, being aware of the different teaching styles and their effects would be one solution to increase the amount of physical activity among youth.

The 1996 Surgeon General's report concludes that people of all ages and genders, who are physically active, can attain several health benefits. Significant health benefits can be obtained by participating in moderate amount of physical activity (e.g., 30 minutes of brisk walking, 15 minutes of running, or 45 minutes moderate to vigorous sports) on most days of the week. Through a modest increase in daily physical activity, people can improve their overall health and quality of life. Obviously, additional health benefits can be reached through greater amounts of physical activity. Report shows, that regular physical activity reduces the risk of premature mortality in general and of coronary heart disease, hypertension, colon cancer, and diabetes mellitus in particular. In addition, physical activity improves mental health and strengthens muscles, bones and joints. Consistent influences on physical activity patterns among young people include enjoyment of physical activity, confidence in one's ability to engage in regular physical exercise (e.g., self-efficacy), positive beliefs concerning the health benefits and lack of perceived barriers to physical education classes. (U.S. Department of Health and Human Services [USDHHS], 1996.)

## 4 RESEARCH PROBLEMS

The purpose of this study is to find out whether the teaching styles affect the students' motivation towards physical activity at the secondary school. There are certain themes that can be seen in the data and my focus is to explain, how those factors are related to the experiences and motivation towards physical activity. One of the most important themes in this study are the teaching styles at the physical education classes. I am interested in finding the link between the teaching styles and the amount of motivation towards physical activity. This study will offer useful information for the teachers in the future as obesity and sedentary behavior are becoming more common (Palomäki & Heikinaro-Johansson 2011). As physical education is proved to have a strong effect on maintaining a physically active and healthy lifestyle, it is crucial that the physical education teachers learn how to constantly challenge and encourage the students to be active (Lauritsalo 2014).

The research questions are:

1. What were the most common teaching styles at the physical education classes at the secondary school for the teacher education and sports pedagogy students?
2. How did the different teaching styles affect the students' motivation towards physical activity at the secondary school?
3. What is the participants' motivation towards physical activity now? How has the motivation towards physical activity changed after finishing secondary school?

## 5 IMPLEMENTATION OF THE STUDY

The implementation of the study is usually the most time-consuming part of the study, which is why the whole process must be well planned. As I am using qualitative methods in my study, the qualitative approach must be visible in every step of the data collection and analysis (Patton 2002). Considering the topic of this study, I chose to use phenomenological hermeneutics approach, as it helps me to really understand the experiences of the students (Tuomi & Sarajärvi 2009). First, I will share some parts of the study that did not lead to the actual results that are in the chapter six, because I had to change the data collection method. Due to the new General Data Protection Regulation (GDPR 2018) the initial plan to gather data from online forums was changed to a more reliable data collection method that would support the ethical considerations of this study. Thus, the webropol.fi was used as the tool to gather participant responses.

### 5.1 The research topic and approach

The topic of the research focused on the teaching styles in physical education classes in the secondary school. The purpose of this study was to find out whether the teaching styles affect the students' motivation towards physical education. My research approach in this study is phenomenological hermeneutics approach, which focuses is on experiences, communality and significance (Tuomi & Sarajärvi 2009, 34). According to Tuomi and Sarajärvi (2009), the characteristics of phenomenological hermeneutics consist of philosophically exploratory view and a will to find a deeper understanding of various phenomena. With this approach, my goal is to gain a better comprehension of people's feelings and motivation towards physical education and some solutions to build a better education system in the future.

In phenomenological analysis, the purpose is to approach the research subject without an exact theoretical framework or expectations. Phenomenological approach allows the data to be examined through the lens of the participants, when the focus is on their own experiences and interpretations. (Patton 2002.) Instead, hermeneutical analysis refers typically to human agencies, culture or the interpretation of literature and texts. The conception of hermeneutical ring represents a process, where the interpretation of the details of the study guide the perception of the entirety and generates broader understanding of the research topic. (Metsämuuronen 2006.) The combination of these two research approaches, phenomenological hermeneutics, builds a firm aspect, which offers various conclusions of the data respecting phenomenological approach's heritage and interpretative analysis' principles (Patton 2002).

The subjects of this study are the students who are majoring either in teacher education or in physical education. Thus, the phenomenological hermeneutics approach helps me to understand some of the reasons behind people's attitudes towards physical education at secondary school. Additionally, this approach helps me to analyze how the experiences have affected the participants' motivation towards physical activity after the secondary school. I chose the phenomenological hermeneutics approach as the focus of the data is on the experiences, communality and significance (Tuomi & Sarajärvi 2009, 34) and the concepts are easy to apply in various school environments.

## **5.2 The first attempt for the data collection**

Before starting to collect my data, I orientated myself with the theoretical framework, gathering several resources and developing my knowledge about the dimensions of physical education. After the orientation, I defined my research problems and focus of the study. At first, I decided that I want to collect my data on the internet discussion forums as I found it very eye-opening while writing my Bachelor's thesis. Typically, people on the discussion forums are more open-

mindful, honest, straightforward and active when it comes to the topics that awaken several questions and are divisive – so-called taboos (Ranson et. al 2010). One of the biggest reasons for people being so open and honest could be the fact that they can write anonymously on the forums without anybody knowing who they are and questioning their behavior. This is why I decided to approach people via discussion forums.

My first try to collect my data was in August 2018. First, I began to search for different websites and forums that would offer me suitable data. I typed "koululiikunta" ("physical education at school") in Google and eventually I found seven different discussion forums that would fit my study. After finding the discussion forums, I formed an appropriate and accurate research question, which I was going to post on the discussion forums. I decided to wait for the answers for one month. I went through all the forums at least once a week, but even after four weeks, there were not any considerable answers. My conclusion was that the timing was bad and the conversation opening was not interesting enough. I had to make another research plan.

I began to investigate the former comments of the discussion forums and eventually I ended up in Vauva.fi internet forum. This internet forum in question is known to be very divisive both positive and negative ways. Again, I used "physical education at school" as a keyword and found dozens of conversations about the topic. As there were so many great comments in the former discussions at Vauva.fi website, I thought I could have utilized them in my own study. Then I started to find out more information about the new General Data Protection Regulation.

The most challenging factor considering my research and data collection was the new General Data Protection Regulation (GDPR), which became applicable as of May 25<sup>th</sup> in 2018 (General Data Protection Regulation (GDPR) 2018). The GDPR is stated to be the most important change in the data privacy regulation in the



last twenty years (The EU General Data Protection Regulation (GDPR) 2018). According to Eugdpr.org (2018), “the aim of GDPR is to protect all EU citizens from privacy and data breaches in today’s data-driven world”, which means that in my case I need to make sure all my research participators know the terms and conditions of the research process and I have to receive their consent before using the data. In other words, I am not allowed to use the data from the internet discussion forums without getting a permission and understanding from each participant.

Even though GDPR is supposed to create a better protection for personal data and offer more ways to control data processing, having chosen internet discussion forums as my source of data collection, the regulations only caused extra work and problems. Along Tietosuoja.fi (Dataprotection.fi) (2018) every private person is allowed to know, which kind of information organizations have about them, how the personal data is processed, ask for removing, limiting or changing their personal data and have the rights not to be the target of automatic decision making from somebody else’s half.

As a researcher I need to be aware that after the new GDPR became applicable, all the personal data that I collect, must be processed legally, duly and transparently respecting the registered people (EU:n tietosuoja-asetus 2018) (European Union’s General Data Protection Regulation 2018). The personal data must be processed confidentially and safely and used specifically for legitimate purposes. I am allowed to collect only the data that I need according to my research and remove all the possible incorrect information. The personal data must be stored in the form, where the research participator can be recognized only as long as needed to process the information. (EU:n tietosuoja-asetus, 2018.)

After orientating myself with the GDPR, I decided to try one more time to start a new conversation in the Vauva.fi-forum. The new conversation worked a lot better than the first tries. I decided I would let the conversation go on for exactly

two weeks after I started it and then begin to look for the results. In the end, I gathered altogether 14 answers.

This kind of data collection method brought again many problems considering the General Data Protection Regulation. Along the GDPR policy (EU:n tietosuojasetus, 2018), the terms for using this kind of method in research are that the researcher has to be able to prove that she/he has the permission of each individual in the study. This meant that I would have had to ask every single person a permission whether I can use his/her answer in my study. Most of the people, who answered my question in the forum, didn't have a username so basically it would have been impossible to reach all the people and make sure there are different individual behind every answer. I also faced the fact that fourteen answers is not an appropriate amount of answers in Master's Thesis research. Overall, I needed to find another way of collecting my data

### **5.3 The participants and research process**

Using an internet survey with the University of Jyväskylä's webropol program, I began to draft my question form keeping in mind the focus of the study, which was based on the theory. Thus, I wanted to have the teaching styles and motivation in the center of the question form. To strengthen the validity and reliability of the study I chose two target groups, class room teacher students and sport pedagogy students, which were going to receive the questionnaire. This would support my idea of increasing the awareness of future teachers and discussing about the meaning of various teaching styles in physical education classes.

The questionnaire first asks participants to provide the background information such as the major (either education, department of teacher education or sports pedagogy), gender and age. However, before the participants were able to answers those questions I needed to get a confirmation of each student that

she/he accepts the policies of the study and allows the fact that his/her answers are used in the research. There was a data protection letter attached in the e-mail every participant received explaining all the terms of the study. After finding out the background variables, I wanted to investigate how much different teaching styles were utilized at the participants' physical education classes at secondary school. I used the Mosston and Ashworth's (2008) spectrum of teaching styles as a framework for the question and created a scale from 1 to 5 for each teaching style (1=not at all, 2=very little, 3=I can't tell, 4=rather much, 5=all the time). I also typed short explanations for each teaching style, as we are not supposed to assume that the participants are familiar with Mosston and Ashworth's (2008) spectrum. They can be seen in the attachment 1.

The reason why I chose teacher education students and sports pedagogy students as participants in this study is that I wanted to provide meaningful data for both the participants and other readers of my study. We may suggest, that many of the participants will be physical education teachers in the future so this is why I wanted to know whether there are any reasons that might affect their own teaching styles. I am especially interested in finding out whether there are some significant factors that might affect the participants to teach or not to teach physical education. Additionally, I want to investigate the participants motivation and the physical education classes in secondary school had an impact on it.

As this is a qualitative study, I wanted to collect some broader answers from the participants so there were three open-ended questions in the end of the questionnaire. The questions were:

6. Describe even with your own words, which kind of teaching style did your physical education teacher/ teachers have at secondary school. (For example: My teacher gave me lots of responsibility/ practiced pair activities/ had a lot teacher-lead activities etc.)

7. When you think about the teaching styles above, what do you think which kind of teaching style would have motivated you the most at secondary school? Justify with couple of phrases.

8. How is your motivation towards physical activity right now? Has your motivation towards physical activity changed after secondary school? Justify with couple of phrases.

With these questions, I wanted to go deeper in the participants' experiences about physical education classes and find out if there were some particular reasons that had affected their motivation towards physical education classes at secondary school. In these open-ended questions, the characteristics of phenomenal hermeneutics approach will be highlighted, focusing especially on experiences, communality and significance (Tuomi & Sarajärvi 2009, 34).

To continue my data collection I had to contact two subject associations, the Teacher Education Department and Sport and Health Sciences Department, which would send my question form to the student mailing lists. The mailing lists cover all the students from the first year students till the students who are finishing their studies and going to graduate soon. I sent a cover letter along with the link to the question form on the 15<sup>th</sup> of March 2019. The questionnaire link was open for two weeks so that the participants would have enough time to answer.

Eventually, I received altogether 43 answers to the short answer questions and 44 answers both to the short answer questions and to the open-ended questions. As in qualitative research, the aim is not to find statistical generalizations; the research group must be small enough to be able to create theoretically meaningful interpretations of various phenomena (Tuomi & Sarajärvi 2009, 85). Thus, my data was suitable for qualitative study. The results show that 68 percent (n=30) of the participants were majoring in Teacher Education and 32 percent (n=14) of the participants were majoring in Sport and Health Sciences. There were answers from all the genders, as 89 percent (n=39) of the participants were women, 9 percent (n=4) were men and 2 percent (n=1) answered, "Something else/I don't want to tell".

## 5.4 Data analysis

The analysis of the data was performed using the content analysis method (Patton 2002). In qualitative research, the content analysis can work as a separate method or as a broad theoretical framework, which combines several dictions of analysis (Tuomi & Sarajärvi 2009, 91). There is a great four phase outline for qualitative research analysis presented in Tuomi and Sarajärvi's (2009, 92) book. The process begins from the researcher's vision of the data. The researcher decides what is interesting in the data and defines the focus of the study. After defining the focus of the data, the researcher goes through the data and classifies all the potential factors that are interesting relative to the study. Everything else will be left out of the study. The potential factors of the data will be collected and separated from the rest. In the third phase the data is classified and divided into themes and types. In the last phase of the data analysis the researcher will write the conclusion and reflect over the possible further studies. (Tuomi & Sarajärvi 2009, 92.)

When I collected the answers from the question forms, I decided to analyze the data using the experimental learning perspective (Räty 2011). Along Räty (2011), the theory of experimental learning the focus is on the people itself and their physical, emotional, mental and social feelings. As there are only 44 (n=44) open-ended answers in this study I chose to divide the answers into different themes using the Mosston and Ashworth's (2008) spectrum for teaching styles as a framework. I used a qualitative research analysis technique, where the aim is to classify the answers according to the different subject matters (Eskola & Suoranta 2008). Along Eskola and Suoranta (2008) grouping helps finding specific themes and perspectives in the data and drawing different conclusions about participants' experiences.

When I was analyzing the data, I used the logic of phenomenological and inductive deduction, as the purpose is to first make an interpretation of a single

case and after that make a possible common assumption (Tuomi & Sarajärvi 2009, 95). This is the most typical logic for a qualitative study. In my study, this means that I reflected on the experiences of each student and mirrored them with the national core curriculum, which sets the standards for the physical education classes at the secondary school (Finnish National Core Curriculum for Basic Education 2014). The theoretical framework creates an introductory hypothesis for the results. It explains how the physical education classes at the secondary school are supposed to be leading to some sort of presumptions of the findings. Along the tradition of phenomenal hermeneutics, I utilized data based analysis, which outsources earlier findings, knowledge and theory and bases the results only on the new conclusions. Thus, the theory in the thesis is mostly linked with the data analysis and does not guide the results of the study or the interpretation of the data. (Tuomi & Sarajärvi 2009, 95–96).

After collecting the data, I divided the answers into different themes. The first open-ended question was divided into four (n=4) themes: Teacher-lead command style, teacher-lead practice style, reciprocal style and a mixture of various teaching styles. The Mosston and Ashworth's (2008) theory of the teaching styles' spectrum worked as a framework and helped me to categorize the answers. The next open-ended question included seven (n=7) themes: Teacher-lead command style, teacher-lead practice style, reciprocal style, inclusion style, guided discovery, convergent discovery (problem solving) and a mixture of various teaching styles. The last question of the questionnaire was considering motivation and I found three (n=3) different themes that would describe the results. Thinking about the questions, the themes were: motivation has changed, motivation has not changed and something in-between.

When I had divided the answers into different themes, randomly picked some of the answers that represented the theme in each question. There were many great answers, but I wanted to provide a clear picture of the idea behind the themes by

picking just some of the answers. As this study is written in English I needed to translate the answers from Finnish to English. However, I wanted to keep the original tone in every comment and save the same meanings as good as possible. In order to maintain the validity and reliability as much as possible it is crucial to respect the original answers (Tuomi & Sarajärvi 2009).

## **5.5 Reliability and ethical solutions**

When the reliability and ethical solutions are considered, the means how the information and data are collected and utilized must be considered (Eskola & Suoranta 2008, 52). This is why I wanted to choose the data collection method very carefully. The webropol survey software guarantees that all the collected material is anonymous preserving the participants' identities (Webropol surveys.com 2019).

Especially discussing about the students in the basic education level and their experiences, we have to be extremely careful and respect their privacy and human dignity (Eskola & Suoranta 2008), which is why anonymity of the data is support ethicalness of the study. The researcher does not have any close relationships with the participants and is not able to recognize the students and their answers. However, to guarantee the validity of the study the study group consisted of teacher students and sports pedagogy students from the University of Jyväskylä. Thus, the researcher had some kind of idea how the students might think.

The study was implemented objectively using straight quotations of the data, so the collected material is original. As the data was collected from Finnish students, the question form was in Finnish. Thus, I needed to translate the answers in English. The reason why I wanted to translate the answers by myself was that I designed the question form and knew the aims of the study. I wanted to make

sure the original tone in the answers stays as it is and translate the data so that it respects the initial thoughts and ideas of the participant. Tuomi and Sarajärvi (2009, 124) state that the more informal the means of data collection are, the more they reflect authentic interaction of people's everyday life. This is why I felt the question form online was the most natural way of collecting the data.

If the ethical solutions for choosing a certain topic for the study are considered, the fact that every branch of science and researcher have their own basis for values, objectives and knowledge of human nature must be taken into account (Tuomi & Sarajärvi 2009, 130). Thus, the research topic is most likely determined along one's interests, specialization and other personal factors. In this case, the researcher should be very careful that he/she does not pick the research topic to the detriment of ethicalness. In my study, I chose to learn more about teaching physical education and motivation towards physical activity as it will be a significant topic in my future career as a teacher. These topics were both guiding and supporting the process of the data collection and analysis, which might have had an effect in paying my attention in some answers more than other.

The guidelines for research ethics of the Suomen Akatemia (Finnish academy) (2008) cover crucial parts that must be taken into account when participating in a study process. Along to the guidelines (Suomen Akatemia, 2008) (Finnish Academy 2008), the researcher should follow the procedure that is characteristic to a certain scientific community or institute and foster responsibility, accuracy and meticulousness when handling and presenting the data. According to good scientific research procedures, it is favorable to apply ethical data acquisition, evaluation and presentation considering and respecting other researchers' work and accomplishments. For my side, I am trying to bring out reverence and interest towards earlier studies so that the reader is able to find the connection with the theoretical framework and concrete research processes.



Because the intention is to acquire clear understanding of the participants' experiences about physical education classes, it is important that the specific target group is taken into account in the data collection, respecting each participant's rights. Along Tuomi and Sarajärvi (2009, 86), the research report must explain the criteria for choosing each individual subject. The aim of this data collection method is to find out how what are the people's attitudes towards physical education classes and what are the reasons behind them. This information is at least as important as the theoretical knowledge and the national curriculum about physical education. Only accepting and noticing the facts, we are able to develop our education system and avoid the increase of sedentary people and passivity.

## 6 RESULTS

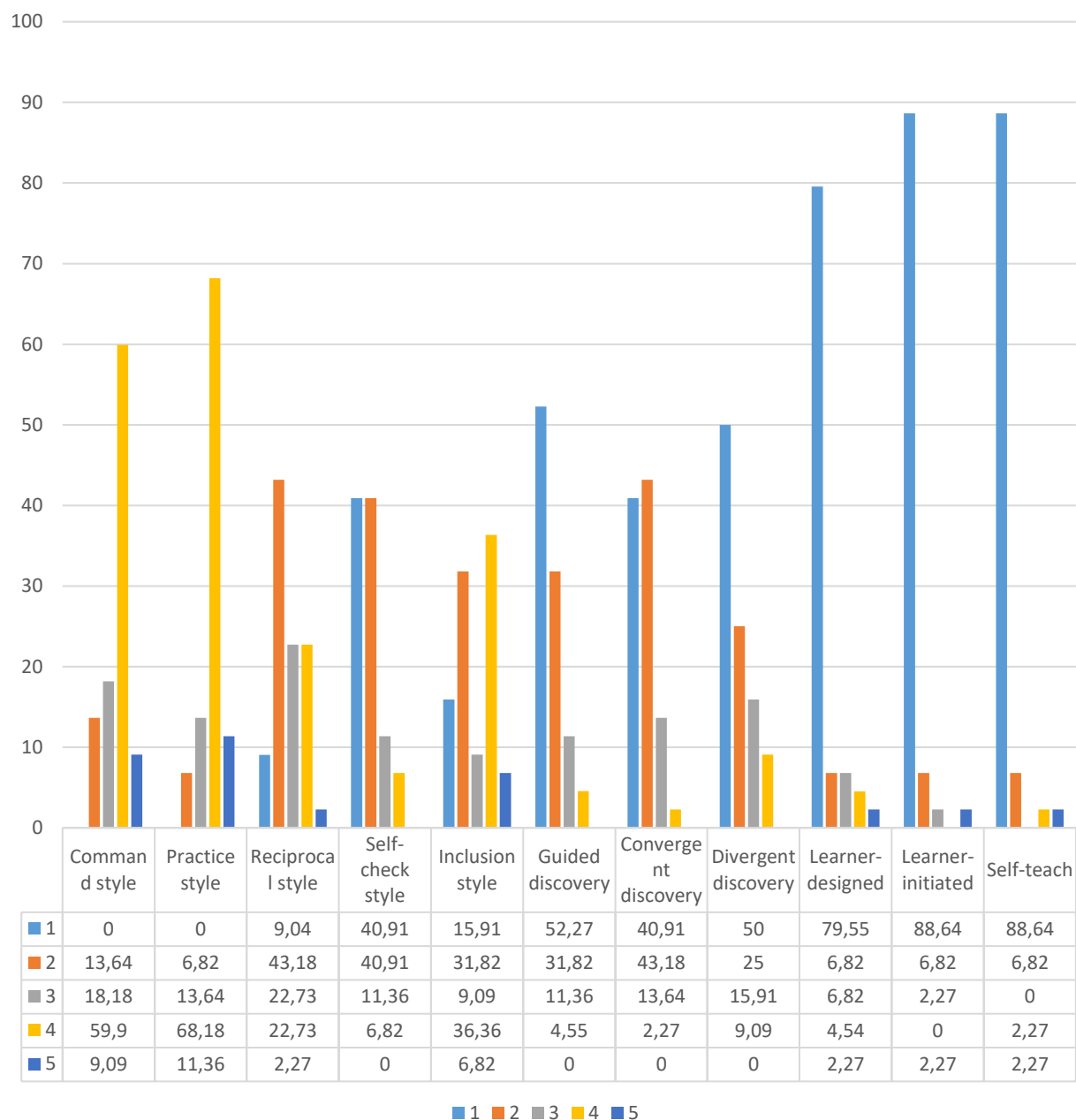
In this chapter, the results indicate which kind of teaching styles were the most common at the participants' physical education classes at secondary school. Mosston and Ashworth's (2008) spectrum for different teaching styles is going to be the framework defining the most typical methods.

I received altogether 44 answers (n=44), which consisted of 30 (n=30) classroom teacher students and 14 (n=14) sports pedagogy students. When we look at the distribution of genders, 89 percent of the participants were women (n=39), 9 percent men (n=4) and 2 percent (n=1) was classified as other. These are important variables to take into account when interpreting the results. The average age of the participants was 23, where the minimum value was 20, median 23 and maximum value 37. This means that there has been used two different curricula, from the year 1994 and 2004 (Finnish National Core Curriculum for Basic Education 1994; Finnish National Core Curriculum for Basic Education 2004) when the participants have been at the secondary school. This factor might also reflect on the answers.

### 6.1 What are the most common teaching styles at the physical education classes?

After gathering the background variables (major, gender and age), the first question was stated as follows: "Below you can see a list of different teaching styles (Mosston & Ashworth 2008) and short explanations. Answer along your own experiences on the scale of 1-5, how much did your physical education teacher/teachers use these styles at secondary school. 1=not at all, 2=very little, 3=I can't tell, 4=rather much, 5=all the time." With this question I used a numeral scale as a quantity method to define the distribution of various teaching styles.

FIGURE 1. The use (%) of different teaching styles at the secondary school.



The participants (n=44) answered on the scale of 1 to 5 to how much their physical education teacher or teachers used the Mosston and Ashworth's (2008) spectrum's classified teaching styles. 1=not at all, 2=very little, 3=I can't tell, 4=rather much, 5=all the time.

As it is visible in the figure 1 “The use (%) of different teaching styles at the secondary school”, there are certain styles that typically dominate the physical education classes at the secondary school. Before starting to collect the data, my hypothesis was that the command style would be the most common teaching style. When we interpret the chart, we can see that command style and practice style are the most frequently used teaching styles at the participants’ physical education classes at the secondary school. What is interesting, practice style was actually more commonly used style compared to the other ones. It is also intriguing that inclusion style was more common than reciprocal or self-check style.

The results show that the self-teaching style, learner initiated style and learner-designed individual program style were the most unfrequently used styles at the participants’ physical education classes. The answers are somewhat dispersed but principally it looks like the more responsibility the students have, the less the teaching style in question is used.

As a follow-up question, there was an open-ended question after the chart. The question was “Describe even with your own words, which kind of teaching style did your physical education teacher/ teachers have at secondary school. (For example: My teacher gave me lots of responsibility/ practiced pair activities/ had a lot teacher-lead activities etc.)” The purpose of this question was to define how the actual teaching styles looked like in practice.

There were altogether 43 answers (n=43) that are analyzed in the open-ended questions. Through the analysis, the answers were divided into four (n=4) themes: Teacher-lead command style, teacher-lead practice style, reciprocal style and a mixture of various teaching styles. The Mosston and Ashworth’s (2008) theory of the teaching styles’ spectrum works as a framework.

The first theme that became very visible in the results was the *teacher-lead command style*. Altogether eighteen (n=18) participants of forty-three (n=43) mentioned the command style in their answer. The qualities that describe the teacher-lead command style along the participants were that the teacher had all

the decision power during the classes, she/he had planned every activity, she/had high authority and the teaching style was very strict and demanding.

Here are some answers that represent this theme:

My teacher acted in a teacher-lead style all the time. the students didn't have any say in the contents of the teaching. the teacher preferred also the sporty and skinny students.(participant 6.40)

Opettaja toimi koko ajan opettajajohtoisesti. oppilaille ei ollut mitään sananvaltaa opetuksen sisältöihin. opettaja myös suosi urheilullisia ja hoikkia oppilaita.

The teacher acted in a very teacher-lead style. - - In the beginning of the class, the teacher told us what to do and then we did it. She/he was continuously observing and supervising that everyone would do what they were supposed to and paid all the attention to the students who didn't do (e.g. others were waiting that one of the student does the pushups) (participant 6.19)

Opettaja toimi hyvin opettajajohtoisesti. - - Tunneilla opettaja kertoi tunnin alussa, mitä tehdään, ja sitten tehtiin. Hän myös tarkkaili ja valvoi jatkuvasti, että kaikki tekisivät mitä piti, ja kiinnitti kaikkien huomion niihin oppilaisiin, jotka eivät tehneet (esim. muut odottavat, että yksi oppilas tekee punnerruksia).

My teacher's behavior was predominantly teacher-lead. I don't remember moments, when I would have had a chance to affect my behavior. Regardless of the skill level I remember everyone doing to same activities/games/actions. (participant 6.2)

Opettajani toiminta oli valtaosin opettajajohtoista. En muista hetkiä, jolloin olisin saanut itse vaikuttaa toimintaani. Taitotasosta riippumatta muistan kaikkien aina toimivan saman harjoitteen/pelin/toiminnan parissa.

The second theme that stood out from the answers was the *teacher-lead practice style*. From all of the participants fifteen (n=15) mentioned practice style in their answer. This differs from the first theme in a way that the students had a little responsibility and the teaching methods were different. Although, the teacher-lead teaching style was mentioned several times. According to the participants' answers, the qualities that represent this theme were teacher-lead and laid-pack teaching, a little responsibility and some decision power for the students and good interaction between the teacher and the students. Here are some examples:

Mainly we practiced first some kind of skill. like throwing a basketball and after that we played. So practice style mostly. (participant 6.10)

Pääasiassa harjoittelimme ensin jotain taitoa esim. Koripallon heittoa, jonka jälkeen pelasimme. Tehtäväopetusta siis pääasiassa.

The teacher gave us the activities and the students performed at their own pace. (participant 6.13)

Opettaja antoi harjoitteet ja oppilaat toteuttivat näitä omaan tahtiin.

My physical education teacher was very cheerful and encouraging and kind. She/he appreciated trying more than skills. We did a lot teacher-lead activities, but we also evaluated a little our own and others' performances. She/he gave options for different skill levels and asked what we would like to do at the classes. (participant 6.1)

Liikunnanopettajani oli tsemppaava ja kannustava, ja mukava. Hän arvosti yrittämistä enemmän kuin taitoja. Teimme paljon opettajajohtoisesti, mutta arvioimme myös jonkin verran toisten toimintaa sekä omaa. Hän antoi myös vaihtoehtoja eri taitotasoille ja kyseli mitä haluaisimme tehdä tunnilla.

The third theme that was visible more or less in several answers was the *reciprocal style*. Only four (n=4) participants said that especially reciprocal style was the most common teaching style at their physical education classes at secondary school. Along to Mosston and Ashworth (2008) in reciprocal style student pairs work together so that one is observing and the other is performing the activities. Giving feedback is typically outsourced for the students, who have a little responsibility during the classes. In the participants' answers, the qualities that describe the reciprocal style at the physical education classes were pair or group works, a little responsibility for the students, more freedom and independence.

The teacher had just graduated and for this matter, there was some trial of various teaching styles perceptible. We did pair work and the teacher guided us to independent work and self-evaluation with a conversational touch. She/he had a skill to individualize the teaching along to each skill level and motivation. The teaching was teacher-lead but the students were heard and their thoughts were taken into account. (participant 6.22)

Opettaja oli juuri valmistunut ja tämän vuoksi opetuksessa oli havaittavissa eri opetusryhmien kokeilua. Teimme parityöskentelyä ja opettaja ohjasi meitä itsenäiseen toimintaan ja omaan arviointiin keskustelevalle otteella. Hänellä oli taito eriyttää opetusta jokaisen taitotason ja motivaation mukaan. Opetus oli opettajajohtoista jossa oppilaita kuitenkin kuunneltiin ja heidän ajatuksensa otettiin huomioon.

The teaching was mainly teacher-lead. However, we practiced rather much pair work. The teacher was clearly more in charge of the learning than the students were. (participant 6.37)

Opetus oli pääsääntöisesti opettajajohtoista. Harjoitimme kuitenkin jonkin verran myös parityöskentelyä. Vastuu oppimisesta oli selvästikin opettajalla enemmän kuin oppilaalla.

The last theme was formed along the answers, which included several teaching styles and alternating qualities. I chose to create an own category for the answers that represented *a mixture of various teaching styles*. Nine (n=9) of the participants mentioned several teaching styles in their answer so I decided to divide in the same group. We can see some qualities of each Mosston and

Ashworth's (2008) spectrum, mainly focusing on command, practice, reciprocal and inclusion style, but also divergent discovery. Some examples of the answers:

She/he worked in a fairly teacher-lead way, but used also quite diversely different styles. So not only teacher commanding, but also freedom and responsibility for the students. (The teacher) tried to be a modern teacher (was pretty young, quite freshly graduated physical education teacher). Sometimes more teacher-lead and sometimes more versatile methods. (participant 6.34)

Hän toimi aika opettajajohtoisesti, mutta käytti myös aika monipuolisesti eri tyylejä. Eli ei pelkkää opettajan komentoa, vaan myös vapautta ja vastuuta oppilaille. Yritti ainakin olla ehkä uudenaikainen opettaja (oli aika nuori, suht vastavalmistunut liikunnanopettaja). Välillä enemmän opettajajohtoista ja välillä taas monipuolisempia menetelmiä.

-- There were also classes, where students could decide themselves what to do and how to implement it. Often if the students got to decide the agenda of the class many girls wanted to go out for a walk. It was okay for the teacher but in repetitive occasions, she/he asked for more diverse ideas. There was pair work pretty often at the classes (e.g. orienteering, training at the gym, conditioning). (participant 6.31)

-- Oli myös tunteja, joilla oppilaat saivat itse päättää mitä tehdään ja miten toteutus. Usein jos oppilaat saivat itse päättää tunnin agendan niin moni tyttö halusi lähteä ulos kävelemään. Se oli ok opettajalle mutta toistuvissa tapauksissa hän pyysi vähän monipuolisempia ideoita. Tunneilla tehtiin paritöitä aika usein (esim. suunnistus, saliharjoittelu, lihaskunto).

What is interesting to notice, the figure and the open-ended questions do not directly correlate with each other, as there are lot of references to other teaching styles like reciprocal style and divergent discovery. Thus, it is crucial to have the open-ended questions after the first question about the different teaching styles, because then participants' own voice and experiences about the teaching can be heard. In the figure 1, the most common teaching styles were the practice style, command style and inclusion style. However, the reciprocal style was mentioned several times in the participants' open-ended answers, even though any particular participant did not highlight it.

Many of the answers show that perhaps the participants were not completely aware of the qualities of the various teaching styles and found it difficult to name certain teaching styles their teacher used when they were at the secondary school. It can be assumed that the sport pedagogy students are more familiar with the Mosston and Ashworth's spectrum of various teaching styles and it is visible in the results. Before starting to collect the data, I thought that

maybe the teacher education students would not be that familiar with the theory of teaching styles in physical education. Thus, it is important for them to learn more about the various theories behind the teaching styles, as they can be applied to other school settings too.

## **6.2 How do the different teaching styles at the physical education classes affect students' motivation towards physical activity?**

The second research problem in this study is to find out whether there is a connection between the teaching styles and students' motivation at the physical education classes. The next open-ended question gathered information about which kind of teaching styles the participants would have preferred at the secondary school, especially thinking about the motivation. The questions was: "When you think about the teaching styles above, what do you think which kind of teaching style would have motivated you the most at secondary school? Justify with couple of phrases."

There were many similar themes visible in the different answers. Through the analysis the answers divided into seven (n=7) themes: Teacher-lead command style, teacher-lead practice style, reciprocal style, inclusion style, guided discovery, convergent discovery (problem solving) and a mixture of various teaching styles. Again, the Mosston and Ashworth's (2008) theory of the teaching styles' spectrum works as a framework.

There was a lot of similar themes and qualities between the answers, even though the participants mentioned various teaching styles. Some common themes that the participants believed would have motivated them at the physical education classes were: more freedom, decision power and responsibility for the students, pair activities, group work, versatile teaching methods and more self-evaluation. It is interesting to notice that these teaching methods and themes are highlighted in the participants' answers, as they are also preferred in the newest curriculum



(Finnish National Core Curriculum for Basic Education 2014). The next seven (n=7) themes helps the reader to understand the participants' insights.

The *teacher-lead command style* was mentioned to be one of the most popular and motivating teaching style at the secondary school. Altogether six (n=6) participants described purely the command style when they were asked which teaching style would motivate them the most. The participants had well justified arguments why they thought the command style would be the most motivating style. For instance, there was mentioned that command style was considered useful because the physical education classes were always safe. In the next examples, the participants told that command style was great, as the lessons were safe, students did not have to worry about the activities and it helped the students to control their body and learn to function better.

In my opinion the teacher-lead teaching was fairly nice, as the classes were very safe. (participant 7.8)

Minusta opettajajohtoinen opetus oli ihan mukavaa, sillä tunnit olivat erittäin turvallisia.

I become motivated in physical activity easily, so for me the teacher-lead style fits as good as other teaching styles. Sometimes it was comfortable that someone would be ready to tell you what to do and we could just perform. - - (participant 7.31)

Motivoidun kaikesta liikkumisesta helposti joten minulle sopi opettajajohtoinen tyyli siinä missä muutkin opetustyyli. Joskus oli mukavuutta, että joku kertoi valmiiksi mitä tulee tehdä ja sai suorittaa. Toisinaan oli kiva kuitenkin itse päättää, että miltä nyt tuntuu ja mitä lähtisin tekemään. Usein päädyin pallopelien pariin muiden oppilaiden kanssa, joita samat lajit kiinnostivat.

I was fairly motivated at the physical education classes. In the teacher-lead teaching, I liked that the teacher instructed the movements well and how to use the body. I was pretty bad at perceiving how to use my body, so the teacher's instructions helped. Of course, I would have certainly learned better to evaluate the use of my own body if the teacher would have guided me for example using questions. (participant 7.38)

Olin kyllä liikuntatunneilla melko motivoitunut. Pidin opettajajohtoisessa opetuksessa siitä, että opettaja ohjeisti hyvin liikkeitä ja kehon käyttöä. Itse olin aika huono hahmottamaan kehoani ja kehon käyttöä, joten opettajan neuvominen auttoi. Tietysti olisin varmasti oppinut paremmin arvioimaan omaa kehon käyttöä, jos opettaja olisi johdatellut paremmin siihen esimerkiksi kysymysten avulla.

Also in the second open-ended question, *the teacher-lead practice style* was one of the most common themes. Five (n=5) mentioned the practice style when they

thought about a teaching style that would motivate them the best. The participants described that the benefits of the practice style were the fact that the students can perform at their own pace, the students do not have to worry about planning the activities and the possibility to challenge oneself. The practice style was mentioned in several answers among other teaching styles, as it is very common method at the physical education classes. Here are some examples of this theme.

The practice style. I like the fact that there is a given task one can perform and do her/his best trying to win herself/himself. (participant 7.9)

Tehtäväopetus. Pidän siitä että on annettu tehtävä jota saa suorittaa ja tehdä aina parhaansa yrittäen voittaa itsensä.

The practice style because one can perform at own pace. -- (participant 7.10)

Tehtäväopetus, koska saa tehdä omaan tahtiin.

-- Also practice style was nice, as we could perform at our own pace. Inclusion was typically included in practice style, which motivated me. (participant 7.11)

-- Myös tehtäväopetus oli mieleistä, kun sai suorittaa omaan tahtiin. Tehtäväopetukseen sisältyi myös useimmiten eriyttämistä, mikä motivoi.

The third theme that was visible in the participants' answers was *the reciprocal style*. The arguments that supported this theme represented again student's responsibility, peer- and self-evaluation and motivation towards the activities. The reciprocal style was mentioned in seven (n=7) answers as a notable motivating factor because many participants felt that pair or group work supports their own development.

The reciprocal style or lots of responsibility for the students. We would have been able to use our strengths better or the weaknesses wouldn't have appeared so easily e.g. in pair work. -- (participant 7.16)

Parityöskentely tai vastuuta paljon oppilaalla. Olisi sanut käyttää omia vahvuuksia paremmin tai heikkoudet ei olisi tulleet niin esiin esim parityöskentelyssä. Olisi ollut kiinnostavaa kokeilla esimerkiksi muitakin lajeja kuin pesäpalloa, jalkapalloa tai yleisurheilua, jotain itseään motivoivampaa tai kiinnostavampaa, milloin olisi voinut innostua liikkumaan muutenkin esim vapaa-ajalla.

Maybe a style were one would have had more responsibility for herself/himself and would have been able to work more alone or with a partner for example at different stations etc. -- (participant 7.17)

Varmaan sellainen missä olisi saanut vastuuta itselle enemmän ja olisi saanut toimia enemmän yksin/parin kanssa esimerkiksi eri pisteillä tms. Olisin kaivannut myös kannustavampaa ja positiivisempaa palautetta opettajalta.

Maybe reciprocal style and giving more responsibility for us students (participant 7.21)

Varmaankin parityöskentely ja vastuun antaminen meille oppilaille

It was interesting to notice that *the inclusion style* was also very popular among the participants' answers. Especially the teacher education student felt that inclusion style would have been motivating for them. The inclusion style was mentioned in seven (n=7) answers and it was referred to be an effective way to activate students at every skill level.

The inclusion style was motivating, as everyone was able to get the successful experiences. -- (participant 7.1)

Eriytävä opetus oli motivoivaa, sillä siinä kaikki sai onnistumisen kokemuksia. --

Myself I was motivated by inclusion style. I was physically talented and the teacher would invent me more challenging tasks e.g. in gymnastics. I had fun at the classes and I felt that I learned a lot just because of the inclusion style. -- (participant 7.11)

Itseäni motivoi juurikin eriyttäminen. Olin liikunnallisesti lahjakas, ja opettaja keksi minulle haastavampia tehtäviä esim. telinevoimistelussa. Tunneilla oli hauskaa, ja koin oppivani paljon uutta juuri eriyttämisen ansiosta. --

The teaching, which would have paid attention to the students' different strengths, offered possibilities to tasks at various skill levels and lighten everyone's spark towards physical activity. So maybe the inclusion and student activating style. Even though I was sporty, it became very clear at the physical education classes, who was good at which sport and who was not. And in those weaker sports I didn't really get the teacher's supports, although there I would have needed it the most. (participant 7.26)

Opetus, joka olisi huomioinut oppijoiden erilaiset vahvuudet, tarjonnut mahdollisuuksia eritasoisiin tehtäviin ja sytyttänyt näin kaikkien kipinän liikkumiseen. Eli ehkä eriytyvä ja oppilaita osallistava opetustyyli. Vaikka olin itse liikunnallinen, tuli liikuntatunneilla hyvin selvästi esille, kuka on missäkin lajeissa on hyvä ja missä taas ei. Ja niissä heikommissa lajeissa ei saanut juurikaan opettajan tukea, vaikka niissähän sitä eniten olisi tarvinnut.

*Guided discovery style* was mentioned in two (n=2) different participants' answers, but the qualities of the teaching style were visible in many other interpretations.

When it comes to this style in question, the participants preferred again the students' freedom to teacher's control. In guided discovery style, it is very common that the teacher proposes several logical questions for the students, who are supposed to find the answer to the problem (Mosston and Ashworth 2008). As the name of the style suggests, the teacher guides the students with her/his questions giving students more responsibility in finding the correct solutions.

I believe that the guided discovery style would have been an effective style. People like freedom anyway, but understandably in the school world guiding and also certain rules belong to everything.

Uskon että ohjattu oivaltaminen olisi ollut toimiva tyyli. Ihmiset pitävät kuitenkin vapaudesta, mutta ymmärrettävästi koulumaailmassa myös ohjaaminen ja tietyt säännöt kuuluvat kaikkeen.

*The convergent discovery*, or in other words the problem solving teaching style, was also mentioned in several answers as a teaching tool, which motivates and challenges the students in a different way. Altogether eight (n=8) participants would have preferred this style at their physical education classes at the secondary school.

I can't say anything specific, it would be good that all of them (teaching styles) would be used in an alternating way. The convergent discovery would have been a fairly good teaching style, as the student has to ponder what is the right solution and doesn't get any straight answers from the teacher. (participant 7.12)

En osaa sanoa mitään tiettyä, olisi hyvä että kaikkia käytettäisiin vaihtelevasti. Ongelmanratkaisu olisi voinut olla melko hyvä opetustyyli, koska siinä oppilas joutuu pohtimaan oikeaa ratkaisua eikä saa opettajalta suoraa vastausta toimintaan.

- - Also convergent discovery would have been motivating, as the joy of success in problem solving motivates me in many things. (participant 7.18)

Uskoisin, että vaihtelu eri tyylien välillä olisi ollut kaikista motivoivimpaa. Eriytetty opetus olisi varmasti ollut monien liikuntataitojen kohdalla motivoivaa, kun olisi voinut arvioida omaa osaamista ja kokea sopivan tasoisten tehtävien kohdalla onnistumista. Myös ongelmanratkaisu olisi voinut olla motivoivaa, sillä ongelmanratkaisusta johtuva onnistumisen ilo motivoi minua monissa asioissa.

Convergent discovery or similar, where students would have had more decision power. (participant 7.29)

Ongelmanratkaisu tai vastaava, jossa oppilaalla olisi ollut enemmän valtaa vaikuttaa.

The convergent discovery and the divergent discovery style. Then we would have learned more about human body's and mind's functions and developed as human beings, not only obeying the rules. (participant 7.33)

Ongelmanratkaisu ja erilaisten ratkaisujen keksiminen. Siinä olisi oppinut enemmän ihmiskehon ja mielen toiminnasta ja kehittynyt ihmisenä, ei ainoastaan käskyjen noudattamisessa.

Lastly, the results show there were many answers that described many teaching styles. Thus, the last theme concentrates of defining what *a mixture of teaching styles* stands for. Twenty-three (n=23) participants described that the mixture of various teaching styles would motivate them the best.

I would believe that alternating different styles would be the most motivating. Individualized teaching would maybe have been the most motivating in many motor skills, as we would have been able to evaluate our own skills and experience the success in activities that have appropriate skill-level. -- (participant 7.18)

Uskoisin, että vaihtelu eri tyylien välillä olisi ollut kaikista motivoivimpaa. Eriytetty opetus olisi varmasti ollut monien liikuntataitojen kohdalla motivoivaa, kun olisi voinut arvioida omaa osaamista ja kokea sopivan tasoisten tehtävien kohdalla onnistumista. Myös ongelmanratkaisu olisi voinut olla motivoivaa, sillä ongelmanratkaisusta johtuva onnistumisen ilo motivoi minua monissa asioissa.

I remember enjoying the change a lot. I am a very adaptable person, so I liked all of the teaching styles. (participant 7.28)

Muistan itse nauttineeni vaihtelusta todella paljon. Olen hyvin sopeutuvainen ihminen, joten tykkäsin kaikista opetustyyleistä.

I would believe that versatile teaching styles would have motivated my own learning. To learn some of the things, we need more teacher-lead teaching, for example in the beginning of learning a skill, so that we understand the central points. However, when the skills and learning develop, the responsibility could have been moved to the students. (participant 7.37)

Uskon, että omaa oppimistani olisi motivoinut monipuoliset opetustyyli. Joidenkin asioiden oppimiseen vaaditaan opettajajohtoista opetusta esimerkiksi taidon oppimisen alkuvaiheessa, jotta ymmärretään ydinkohdat. Kuitenkin taidon ja oppimisen kehittyessä vastuu olisi voinut siirtyä enemmän oppilaalle.

In the second open-ended question, many participants' pointed out that there are no single correct teaching styles. Most of the participants state that alternating the teaching styles would be the best option to maintain the motivation. Many of the participants perceived responsibility for the students, freedom and pair-work as the best motivating factors. It is interesting to see that

the teaching styles in the first and the second open-ended question are different and find out what are the factors that the participants would have needed in their physical education classes. Perhaps these factors will reflect on the participants own teaching styles in the future.

### **6.3 What is the participants' motivation towards physical activity now?**

The last questions of the study surveyed the participants' current motivation towards physical education. The interesting aspect was also to know if the participants' motivation towards physical education has changed after secondary school and how.

The questions were: "How is your motivation towards physical activity right now? Has your motivation towards physical activity changed after secondary school? Justify with couple of phrases." Altogether 43 answers (n=43) were received. The open-ended questions make more space for the participants' own experiences, so there were very different kind of answers. I chose to divide the answers in three (n=3) different themes that would describe the results. Thinking about the questions, the themes were: motivation has changed, motivation has not changed and something in-between.

First theme that was chosen along the answers was "motivation has changed towards physical activity". From all the answers altogether twenty (n=20) participants answered that their motivation has changed. There were several reasons behind the amount of motivation how it has changed after secondary school. Only three participants (n=3) out of twenty (n=20) answered that their motivation towards physical activity has decreased. However, most of the participants of this theme (n=17) answered that their amount of motivation has increased.

At the secondary school my motivation towards physical activity was very weak, and I didn't participate in any physical activities in my spare time apart from way to school. -- Nowadays I like physical activity and I regularly ride a bike and walk/jog. I do casually different workouts at home and in the summer I go hiking. When I did physical activities at the physical education classes at the secondary school, I often felt dizzy and I felt I was bad and unsuccessful. I hated physical activity. Nowadays I feel mentally bad especially then, when I don't get to do any physical activities. So my motivation has changed a lot better. (participant 8.19)

Yläasteella ja lukiossa motivaationi oli heikko, enkä liikkunut vapaa-ajalla juuri ollenkaan koulumatkoja lukuunottamatta. -- Nykyään pidän liikunnasta ja harrastan säännöllisesti pyöräilyä ja kävelyä/lenkkeilyä. Teen kotona satunnaisesti erilaisia jumppia ja kesällä patikoin. Kun liikuin ylästeen liikuntatunneilla, minua usein heikotti ja koin itseni huonoksi tai epäonnistuneeksi. Vihasin liikuntaa. Nykyään minulle tulee henkisesti huono olo nimenomaan silloin, kun en pääse liikkumaan. Motivaationi on siis muuttunut paljon paremmaksi. 8.19

It has changed. I have got a lot more positive experiences about physical activity after secondary school. I have inter alia realized that physical activity doesn't always mean doing sports with the taste of the blood in mouth or pressure about whether I am skillful enough. 8.23

On muuttunut. Olen saanut paljon positiivisempia kokemuksia liikunnasta ylästeen jälkeen. Olen mm. oivaltanut, ettei liikunta aina tarkoita verenmaku suussa urheilua tai suorituspainetta siitä olenko riittävän taitava. 8.23

I love physical activity and I feel that my teacher has affected it a lot both at the secondary school and high school. I feel that physical activity is a way to relieve stress and anxiety, which also balances the schoolwork. My motivation has changed towards physical activity in a positive way along the years. (participant 8.30)

Rakastan liikuntaa ja koen opettajani vaikuttaneen tähän erityisen paljon sekä yläasteella että lukiossa. Koen liikunnan olevan keino purkaa stressiä ja ahdistusta, mikä tasapainoittaa koulutyöskentelyä. Motivaationi on muuttunut liikunnan suhteen entistä positiivisemmaksi vuosien varrella. 8.30

Perhaps my motivation for exercise has decreased a bit. At the moment, I am motivated to move with a dog that has to be trained daily as well as to take care of my own body, not so much that I get some pleasure from exercise. On the other hand, I didn't do any physical activities in the leisure time at the secondary school, but now it is especially in my spare time. I think my motivation for exercise is a bit low because I haven't found myself a motivational sport. The physical education was therefore motivational, as the sports were constantly changing, so there was no way to get tired of anything at the physical education classes. (participant 8.38)

Ehkä motivaationi liikuntaa kohtaan on vähän laskenut. Tällä hetkellä minua motivoi liikkumaan koira, jota on ulkoilutettava päivittäin sekä se, että omasta kehosta kannattaa pitää huolta, ei niinkään se, että saisin jotain nautintoa liikunnasta. Toisaalta yläasteella en juuri liikkunut vapaa-ajalla, mutta nyt liikkuminen tapahtuu nimenomaan vapaa-ajalla. Luulen, että motivaationi liikuntaa kohtaan on hieman alhainen siksi, että en ole löytänyt itselleni motivoivaa lajia. Liikunnanopetus oli siksi motivoivaa, että lajit muuttuivat jatkuvasti, joten liikunnanopetuksessa ei ehtinyt kyllästyä mihinkään. 8.38

The second theme that stood out from the answers was "the motivation hasn't changed". From all the answers fifteen (n=15) participants told that their motivation has not changed. All the answers were positive as the participants

described that their level of motivation has always been high. This was a surprise that there were not that many negative answers nor some participants, who had felt that their motivation towards physical education has always been low. Here the conclusive factor was the major. All of the sports pedagogy students, who told that their motivation has not changed agreed that their motivation has always been high.

Exercising still motivates me in almost any form. I don't feel the motivation changed. 8.2

Liikkuminen motivoi minua edelleen melkein missä tahansa muodossa. En koe, että motivaatio olisi muuttunut. 8.2

My motivation is mainly related to my own appearance and health. So practically I exercise just because I would be happy with my appearance and that in the future I can work and I can live a long life. I do not really feel good about physical activity, etc. My own motivation hasn't really changed much since physical activity has never produced more joy which I would have wished. A little like we would have been forced to eat cookies, always and surely will be. 8.16

Oma motivaatio liittyy pääasiassa omaan ulkonäköön sekä terveyteen. Liikun siis käytännössä vaan siksi että olisin tyytyväinen ulkonäkööni sekä että tulevaisuudessa jaksan tehdä töitä ja voin elää pitkän elämän. En saa liikunnasta oikeastaan erityisemmin hyvää mieltä tms. Oma motivaatio ei ole oikeastaan kovinkaan muuttunut sillä liikunta ei ole koskaan tuottanut erityisemmin iloa, mitä olisin toivonut. Vähän sellaista pakkopullaa aina ja varmaan tulee olemaan myös. 8.16

Motivation for exercise has remained as high as at that time in the teenage years. The most important things to stay motivated are the dear hobbies and the friends that have come through them. Physical education classes enabled me to enjoy a variety of activities and try out new sports. Physical education classes gave more motivation to exercise in a playful and positive atmosphere. -- The teacher gave us the space to fulfill ourselves, and at the same time our class gave themselves the opportunity to get excited about the sport because everybody in the classroom was just what it was. Our teacher was eager to try out new sports that really motivated us. 8.22

Motivaatio liikuntaa kohtaan on säilynyt yhtä korkealla kuin tuolloin teini-iässä. Tärkein motivaation säilymiseen on vaikuttanut rakkaat harrastukset ja niiden kautta tulleet ystävät. Liikunta tunniti mahdollistivat monipuolisen harrastamisen ja uusien lajien kokeilun. Liikuntatunnit antoivat lisää motivaatiota liikunta kohtaan leikkimielinen ja positiivinen ilmapiiri. -- Opettaja antoi meille tilan toteuttaa itseämme ja samalla luokkamme muut antoivat itselleen mahdollisuuden innostua liikunnasta sillä liikuntatunneilla jokainen sai olla juuri sitä mitä oli. Opettajamme oli innokas kokeilemaan uusia lajeja joka todellakin motivoi meitä. 8.22

The last theme was again a mixture of various thoughts when it comes to the level of motivation towards physical activity. The theme is called "something in-between". The similarities between the answers were that the participants



were not that strongly identifying their motivation as high or very low. Eight (n=8) participants were categorized in this theme.

The motivation for physical activity is currently difficult to find, has not changed much. Maybe in the last few years there has been a little motivation for exercise through staying healthy and noticing that old age is no longer a daily life if you do not exercise, ie exercise is a bit like "forced" if you want to be well. 8.24

Motivaatiota liikuntaan on tällä hetkellä vaikeaa löytää, ei ole juurikaan muuttunut. Ehkä viime vuosina on tullut vähän motivaatiota liikuntaan sen kautta, että haluaa pysyä terveenä ja huomaa, ettei näin vanhana jaksa enää arkea jos ei harrasta mitään liikuntaa, eli liikunta on vähän niinkuin "pakko", jos haluaa voida hyvin. 8.24

Shifty, sometimes I move a lot and sometimes not at all. When I was younger I was really active and talented in sports. 8.29

Vaihteleva, joskus liikun paljon ja joskus en ollenkaan. Nuorempana oli todella aktiivinen ja lahjakas liikunnassa. 8.29

Nowadays I exercise very irregularly, but I've learned to look for more forms of sports, which I genuinely like. During the secondary school, I did competitive sports and my physical activity was only about accomplishing something, but nowadays I do it also because it's nice. 8.42

Nykyään urheilen hyvin epäsäännöllisesti, mutta olen oppinut etsimään aiempaa enemmän niitä liikuntamuotoja joista aidosti pidän. Yläkoulun aikana kilpaurheilin ja urheiluni oli suorittamista, mutta nykyään teen sitä myös siksi että se on mukavaa. 8.42

The range of the answers was somewhat wide noting the fact that most of the participants are likely to become physical education teachers and be keen on exercising. However, I wanted to find out whether there is a clear distribution between the teacher education and sports pedagogy students and their experiences. In the end, the major was not a significant factor in the results.

Age of the participants did not really have an effect on the answers so we may assume that the different curriculums have not directly affected the teaching styles. However, couple of the older participants pointed out that they could not remember that well how the physical education classes at the secondary school were. Typically, the older participants referred to "more traditional" teaching styles when they were talking about their teacher's teaching style.

The genders did not have a strong effect on the results, as the answers were somewhat neutral. There was only one answer where a gender was mentioned.

However, the genders did not have a direct effect on how the teaching styles at the secondary school were perceived.

Returning to the main topic of this study (“Does the teaching style affect students’ motivation towards physical activity?”), the participants’ answers approach this theme from different perspectives. Some of the participants told that their teacher and her/his teaching style at the secondary school has been one of the reasons why they are or are not still motivated towards physical education. Some told that the teaching methods were not motivating enough and caused to a lack of motivation.

As a conclusion, we can say that the teaching styles have some correlation with the students’ motivation. As it was mentioned in the theory part, the internal motivation is achieved then, when an individual feels that she/he benefits and enjoys what she/he is doing (Ryan & Deci 2000). Thus, the physical education teacher should really know her/his students and find the right tools to motivate the youngsters.

## 7 DISCUSSION

Physical activity at the secondary school can be perceived as an enjoyable school subject, if only the teachers are able to use the right methods. In Gråstén's (2014) study both physically active secondary school girls and boys valued physical education classes more motivating than less active students, who valued classes as less motivating. This proves the fact if students do well and believe they are competent on the tasks, they consider physical education classes more useful, enjoyable and motivating (Gråstén 2014). To be able to reach that goal, the teacher has to use the appropriate teaching methods of the spectrum (Mosston & Ashworth 2008). Nowadays the real threatening question is why so many people perceive physical education at school as a menace. Unfortunately, physical education tends to have this negative connotation, which provokes even more bad attitudes towards the school subject in question (Capel & Piotrowski 2000). This creates a pattern, which decreases the motivation towards physical education at school and threatens the idea of lifelong physically active lifestyle (Graham 2007). Thus the most important people, who are in charge of the education, teachers, should pay attention to the methods they are using at the lessons. Quality physical education classes are the key in improving the students' motivation towards an active way of life (Graham 2007).

### 7.1 Analysis of the results and conclusions

The results show that the practice style was the most common teaching style at the participants' physical education classes. The second most used style was the command style. Keeping in mind the focus of my study, I needed to have a particular lens when analyzing the results. The real question is, whether the teaching styles at the physical education classes have affected the participants' motivation in the future. Overall, there were 44 (n=44) answers in the first five questions that were describing the background variables, such as the major, age

and the gender. As there were 43 (n=43) answers in the three open-ended questions, it means that one of the participants did not answer the rest of the questions. All these background variables have some effect on the results.

The most popular style among the participants was the teacher-lead command style. Eighteen (n=18) participants told that the command style was the most common teaching style at their physical education classes at the secondary school. My hypothesis in the beginning of the data collection was that command style would perhaps be the most traditional teaching style at the basic education level along the answer. However, in this study below half of the participants told that the command style was the most common style when they were at the secondary school. This may suggest that the trend of the traditional command style is decreasing and other more student-lead styles are stepping in.

The second most answers were focusing on the teacher-lead practice style. From all of the participants fifteen (n=15) told that practice style was the most frequently used style at the secondary school. The mixture of various teaching style was one of the four themes and nine (n=9) of the participants mentioned several teaching styles in their answer so I decided to divide in the same group. The last theme of the first open-ended question was the reciprocal style and only four (n=4) participants said this style in question was the most common teaching style at their physical education classes at secondary school.

The discrepancy between the tick box answers and written descriptions may suggest that the teaching styles of physical education teachers varies more than the participants were consciously aware. This can be explained by the fact that perhaps not all of the participants were aware of the theories behind the different teaching styles. In many questions, the participants started to describe how their teacher was as a person and list some kind of qualities of personality. However, this was not the purpose of the study. The purpose of the study was to investigate

whether there is a connection between the teaching styles and the students' motivation.

In most of the answers, the participants mentioned that freedom and decision power for the students was perceived as a big motivator at the physical education classes. Also in earlier studies, it is stated that if the teacher pays attention to the students' wishes and interests, it is more likely that the students are more motivated and they participate in the activities very actively (Havinen & Kinnunen 1997; Rikard & Banville 2006; Pietilä 2015). Thus, the teachers should be encouraged to give more responsibility for the students and let them decide some parts of the physical education classes. This is also related to the self-determination, as by giving more freedom and decision power for the students, the teacher strengthens students' competence, relatedness and autonomy (Deci & Ryan 2000).

The participants in this study appeared to favor the styles, where the teacher had most of the decision power and responsibility along the results. It was interesting to notice, that some of the participants preferred the command style to the other styles and some participants perceived the command style as a negative and unmotivating teaching method. All the participants, who answered that command style would have been the most motivating teaching style at the secondary school were sports pedagogy students. This is an interesting finding, as many sports psychologists consider that athletes prefer a coaching style that has some similar qualities with the command style (Geranto 2011). The teacher education students preferred more freedom and inclusion at the physical education classes at the secondary school. In turn, this finding might also show that the teacher education students might be more aware of the new Finnish National Core Curriculum and the latest trends in teaching styles.

Overall, the reason for the difference in the participants' answers is not the major, but the motivating experience might explain the choice of major. As the

university studies came after secondary school, the experiences at the secondary school were formed along the perspectives of youth. Many sports pedagogy students told that they were motivated already in school. The reason behind this might be also that the sports pedagogy students have been internally motivated in physical activity already before secondary school, maybe because of their hobbies, so the teaching style did not that big effect on their motivation anymore.

The purpose of the last question in the questionnaire was to find out what kind of motivation the participants have right now towards physical activity. There was also an additional question, where the participants needed to explain whether their motivation towards physical activity has changed. Many of the participants mentioned that their teachers at the secondary school and also upper secondary school have been important motivators for them. Thus, the participants' relationship to physical activity, which is defined as a combination of individual perspectives and attitudes towards physical activity (Koski 2013), was formed partly along the actions of their teacher. Along Koski (2013), there are also many other factors that affect the relationship to physical activity, like the study environment, friends and the atmosphere at the classes.

All in all the answers were somewhat positive as there were not that many negative experiences amongst the participants' answers. However, in some themes there were more negative feelings that were similar between the participants. The negative factors that the participants mentioned were the lack of freedom, peer-pressure and participating in unmotivating activities at the physical education classes. Other similar studies show that some of the reasons behind the lack of motivation at the physical education classes are unmotivating environment, bad quality of equipment and learning spaces and negative atmosphere at the school (Havinen & Kinnunen 1997; Lauritsalo 2014; Pietilä 2015).

Thinking about the motivation theories (Deci & Ryan 2000; Weinberg & Gould 2014), this study suggests along the answers that part of the participants were externally motivated towards physical education. Some of the participants of this study told that they only exercised to look good or because of the teacher told them to. Along Weinberg and Gould's (2014) motivation theory, situational factors, like environment, its changes and other people's thoughts and behavior controlled the actions of the externally motivated participants. Because many of the participants experiences peer-pressure, also achievement motivation was visible in many answers. As a conclusion, I believe that most of the participants would have been more motivated if their teacher would have used more student-centered methods and features of guided discovery and convergent discovery respecting the Mosston and Ashworth's (2008) spectrum.

Even though most of the students like physical education nowadays (Palomäki & Heikinaro-Johansson 2016), the findings of this study suggest that the participants' experiences were somewhat neutral. However, it was delightful to find out that some of the participants had experienced very positive feelings towards physical education at the secondary school. Some of them still think that their physical education at the secondary school has had an impact on their motivation towards physical activity.

While analyzing the results, it was useful to read about the concrete factors that had affected the participants' motivation both in a positive and negative way. As the newest Finnish National Core Curriculum (2014) states that the teaching should be more student- and phenomenon-centered, these results support the same idea. Especially at the secondary school, the physical education teachers should give more responsibility for the students, as they are growing up and need to find a physically active lifestyle that supports their general well-being.

## 7.2 Evaluation of the research and further studies

When evaluating the study, it is essential that the reliability of the study can be linked with the approach and the topic of the study (Tuomi & Sarajärvi 2004). My goal is to describe the data in a rich way, so that the reader understands, that the study can be applied in various settings and environments. Along Patton (2002), it is very important to pay attention to perceiving the researcher's own perspectives' strengths and restrictions when reporting the results. This demands a skill to be aware of all the manners and let all the thoughts come out (Patton 2002).

With regard to the limitations of this study, one point is that most of the participants were women. As it was mentioned in the results, 89 percent of the participants were women (n=39), 9 percent men (n=4) and 2 percent (n=1) was classified as other. This obviously has an effect on the results. However, it is great that I collected answers from various ages and there were also participants from all the three different gender options.

The strengths of this study are the adequate amount of answers and the reliability of the data collection method, which respects the General Data Protection Regulation (The EU General Data Protection Regulation (GDPR) 2018). I collected answers from both teacher education students and sports pedagogy students so the data consists of various aspects about physical education at the secondary school and supports the reliability.

Usually the quality of the study is described with the validity and reliability of the study (Metsämuuronen 2006). Along Metsämuuronen (2006), the validity represents a measure for competence, so in other words it explains whether the study measures the desirable factors. Validity describes if the study can be used in the generalization of the topic. In my opinion, validity can be actualized when the researcher finds appropriate data, which represents the target group. While



making the study, the researcher has to be aware of explicit methods and separate the essential details from the trivia. This strengthens the validity of the study. (Patton 2002, 260–261.)

When we are evaluating the truthfulness of the study, we can state that the results describe the present situation of physical education quite well. There are several earlier studies that list the same kind of factors that affect the students' experiences about physical education classes (Havinen & Kinnunen 1997; Lauritsalo 2014; Pietilä 2015). The data consisted of an appropriate amount of answers, which respects the qualities of qualitative study. The credibility has remained the same from the beginning of the study as the researcher has had a neutral position. Even though the conclusions are somewhat subjective, the analysis of the results has been as objective as possible and respecting the contributions, different experiences and identities of the participants. This supports the ethicalness of the study. (Eskola & Suoranta 2008.)

The challenges in the future for physical education classes will be the developing environment and the use of electronic devices and study materials. Today the influence of social media is remarkable and it is the most common medium especially among the youth. Thus, it is extremely important for the teachers to be aware of the various sources that offer information about the students' behavior and experiences, especially related to the physical education at school (Lauritsalo 2014). The more the students are engaged with sedentary behavior, like sitting in front of the laptop, playing video games and using their cell phone, they need to be encouraged to be physically active and develop their motor skills. Using suitable teaching styles at the physical education classes will help the teacher to support a life-long physically active lifestyle. Some follow-up research could consider trying out various teaching styles at the secondary school, respecting the principles of the newest curriculum (Finnish National Core Curriculum for Basic Education 2014), and trying to reach a deeper level of motivation with the students.

The main reason for this study was to find out the reasons behind the negative experiences at the physical education classes and figure out whether the teachers' teaching styles are the amplifiers behind the students' motivation. According to several studies, the experiences at the physical education classes can affect significantly the youngsters' physical activity after the basic school and in the worst case lead to a passive lifestyle (Carlson 1995; Rikard & Banville 2006; Pentikäinen, Palomäki & Heikinaro-Johansson 2016). Thus, the teacher's role is crucial in order to maintain habits that create a life-long pattern that supports the overall well-being. The increasing inactivity and sedentary behavior is a huge threat in the future, so I wish that we teachers could prevent the health risks by promoting healthy lifestyles in a motivating way. Being aware of the appropriate teaching styles and pedagogical tools helps to achieve this goal.

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## APPENDICES

### Appendice 1. Question form.

Physical education at secondary school: how does teaching style affect students' motivation towards physical education?

Welcome to answer a study which measures the amount of different teaching styles and motivation at physical education classes. It takes about 5-15 minutes to fill in the survey. Thank you for being part of the research!

I have been asked to participate in a study, which investigates classroom teacher students. and sports pedagogy students' experiences about teaching styles' impact on motivation at physical education classes. I have orientated myself with the briefing considering the study (data protection announcement) ja received enough knowledge about the study and its implementation. I am familiar with the content of the study and I have received appropriate answers to all of my questions considering the study. I understand that the participation in this study is voluntary. I have the rights to quit or cancel my participation in this study anytime and without telling a reason for it. Quitting or cancelling my participation in this study doesn't lead to any negative consequences. I have orientated myself with rights and limitations in the data protection announcement. The data protection announcement is attached to the e-mail. Choosing "Yes" in this approval form I acknowledge that my information is used as it is described in the data protection announcement of this study.

Yes

Please choose a correct answer by clicking the mouse or write an answer in the right place.

2. I am

A classroom teacher student (Majoring in education /Department of Teacher Education)

A sports pedagogy student (Majoring in sports pedagogy/ Physical education)

3. Gender

Female

Male

I do not want to tell/ Other

4. How old are you? This question maps which possible curriculum has been used, when you have attended in secondary school.

5. Below you can see a list of different teaching styles (Mosston & Ashworth 2008) and short explanations. Answer along your own experiences on the scale of 1-5 how much did you physical education teacher/teachers use these styles at secondary school. 1=not at all, 2=very little, 3=I can't tell, 4=rather much, 5=all the time.

Command style (The teacher has all the decision power during the classes. The students' passive time is minimized. Students don't have any own responsibility.)

Practice style (The teacher decides the activities, students perform independently. Students have very little responsibility.)

The reciprocal style (Student pairs work together such as one is observing and the other is performing the activities. Giving feedback is outsourced for the students. Students have a little responsibility.)

The self-check style (The students perform the activities the teacher has chosen and evaluate themselves independently. Discussions with the teacher and reflections of the activities guide the students. Students have a little responsibility.)

The inclusion style (The teacher chooses activities for different skill levels and students. The students pick the activities along their own skill level. Students have a little responsibility.)

The guided discovery style (The teacher creates logically proceeding questions that lead the students to a desirable problem solving. The leading questions let the students to be in charge of their own performance. Students have somewhat much responsibility.)

The convergent discovery style (The teacher states a problem and students have to solve it independently. The students produce different solutions and questions. The students have a lot responsibility.)

The divergent discovery style (The teacher gives a subject and the students have to make up different solutions to solve a problem that represents the subject. There are no correct ways to perform this activity. Students have a lot responsibility.)

The learner-designed individual program style (The teacher gives a field of subject and the students design different activities and solution models for them. The interaction between the

teacher and the student is continuing and the students are in charge of their own progression. Students have nearly all of the responsibility.)

The learner-initiated style (Nearly the same as the above, but the biggest difference is that the students define the content of the activities, methods and the amount of support they need from the teacher. The students have nearly all of the responsibility.)

The self-teaching style (The students are in charge of their own learning as they make all the decision in their own teaching and learning process. The students have all of the responsibility.)

6. Describe even with your own words, which kind of teaching style did your physical education teacher/ teachers have at secondary school. (For example: My teacher gave me lots of responsibility/ practiced pair activities/ had a lot teacher-lead activities etc.)

7. When you think about the teaching styles above, what do you think which kind of teaching style would have motivated you the most at secondary school? Justify with couple of phrases.

8. How is your motivation towards physical activity right now? Has your motivation towards physical activity changed after secondary school? Justify with couple of phrases.

