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**Norwegian PE-teachers' perception of
public health: a qualitative case study**

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Acknowledgements

This master journey is now at the end and I have reached one of my goals in this life. A process with a lot of thoughts, impressions, happiness, frustration and time to reflect will be a short summary of this writing process. I look back and see my personal development regarding academic understanding and hours of reading research. This has given me a lot of knowledge which will be held close with me the rest of my life.

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Abstract

In recent years there has been extensive interest in physical education's (PE) role in promoting healthy, active lifestyles. However, there has been little research on how PE-teachers' perceive their roles in public health terms. This study looks at how Norwegian PE-teachers perceive their roles in public health; in other words, what they think their role is. A total of 11 PE-teachers from three different secondary schools were interviewed in this study. The main research question in this study is: "How do Norwegian PE-teachers perceive their roles in public health terms?"

A qualitative approach has been used in the development of this study. This has been based on a *typical case study*, in which *grounded theory* is used as an analytical tool. In order to be able to understand how PE-teachers perceive their roles in public health terms, *semi-structure*, interviews have been conducted by having an interview guide.

The findings-chapter is divided into five main categories: (i) PE-teachers' understanding of the terms health and public health, (ii) PE-teachers' perceptions of the *role of PE* in public health, (iii) PE-teachers' perceptions of their *own roles* as teachers of PE in public health, (iv) PE-teachers' perceptions of health in the national curriculum and the Year Plan for PE and (v) PE-teachers' perceptions of the health of their students. Further on, the findings are discussed by including existing previous research and key concept in the Discussion-chapter.

The conclusion will highlight the significant outcomes of this study, as well as strengths, limitations and proposals for future research. This study shows that the PE-teachers were agreeing on the fact that PE could and should have a role in public health terms. It was therefore interesting that none of the PE-teachers seemed to use much or any time in PE to either talk about health or teaching PE with a public health meaning or in a health-promoting way. Even though around 80 % of the teachers were unsure about their knowledge of whether 'health' was mentioned in the national curriculum or not, they expressed the importance of including 'health' in PE. Still, the PE-teachers' perception considering their students health seemed to be participation, engagement and their sport-skills. As a final conclusion, this study will show, in accordance to other research, that the PE-teachers were attached by a sporting and/or fitness ideology.

Key words:

Physical education, PE-teachers, health, public health.

Norsk sammendrag

I tidligere år har det vært mye forskning rundt kroppsøvingfagets rolle igjennom fysisk aktivitet for å fremme helsen til elevene. Til tross for dette, har det vært lite forskning på kroppsøvingslærerens egen oppfatning av folkehelse. Denne studien ser på hvordan norske kroppsøvingslærere oppfatter sin rolle i et folkehelseperspektiv; med andre ord, hva de tenker at denne rollen er. Totalt 11 kroppsøvingslærere fra tre forskjellige ungdomsskoler ble intervjuet i denne studien. Problemstillingen var: «Hvordan oppfatter norske kroppsøvingslærere deres rolle i et folkehelseperspektiv?»

En kvalitativ tilnærming er blitt brukt i denne studien. Denne har vært basert på en *typical case studie*, hvor *grounded theory* er brukt som et analytisk verktøy. For å komme fram til forståelsen av hvordan kroppsøvingslærere oppfatter deres rolle i et folkehelseperspektiv ble *semi-strukturerte* intervjuer benyttet ved intervjuene av de 11 lærerne.

Resultatkapittelet er delt inn i fem hovedkategorier: (i) kroppsøvingslærerens forståelse av begrepene 'helse' og 'folkehelse', (ii) kroppsøvingslærerens oppfatning av rollen til kroppsøving i et folkehelseperspektiv, (iii) kroppsøvingslærerens oppfatning av deres egen rolle som lærer i kroppsøving i et folkehelseperspektiv, (iv) kroppsøvingslærerens oppfatning av helse i den nasjonale læreplanen og årsplanen for kroppsøving og (v) kroppsøvingslærerens oppfatning av helsen til deres studenter. Videre blir resultatene diskutert ved å inkludere tidligere forskning og nøkkel konsepter i diskusjonskapittelet.

Konklusjonskapittelet vil presentere de viktigste funnene i denne studien. Det vil også inkludere styrker, svakheter og forslag til videre forskning. Et signifikant funn i denne studien viste at kroppsøvingslærerne var enige om det faktum at kroppsøving kan og bør ha en rolle i et folkehelseperspektiv. Det var derfor interessant at ingen av kroppsøvingslærerne ga uttrykk for å hverken bruke mye eller noe tid på å snakke om 'helse' eller å undervise i kroppsøving med vekt på folkehelse og helsefremmende effekter. Selv om veldig mange av lærerne virket usikre på deres kunnskaper om ordet «helse» var nevnt i den nasjonale læreplanen eller ikke, uttrykte de viktigheten av å inkludere helse i kroppsøving. Likevel, kroppsøvingslærernes oppfatning med tanke på deres studenter helse så ut til å være basert på tanker om deltagelse, engasjement og sport-ferdigheter. Det kan derfor bli sett, i samsvar med tidligere forskning, at kroppsøvingslærere følger en sports- og/eller fitness-ideologi.

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1.0 Introduction: background and rationale

In recent years there has been extensive interest in physical education's (PE) role in promoting healthy, active lifestyles. This includes increasing academic, political and media interest on a global scale (Alfrey, Cale & Webb, 2012). Consider these interests; there is little or nothing previous research, to date, on the PE-teachers' perception of public health, still less their perceptions of their own role as PE-teachers in public health terms. According to the Norwegian national curriculum, PE should aim to inspire a physically active lifestyle and lifelong enjoyment in movement among the students (The Norwegian Directorate for Education and Training, 2012) and, in doing so, promote young people's health and the health of the wider population or public. Furthermore, the Norwegian Directorate for Education and Training (2012) makes clear its belief that physical activity is important in order to promote good health. The supposed link between PE and physical activity reflects the Directorate's view that schools in Norway in general and PE in particular, can help provide all children and young people with positive experiences of movement and physical activity (Ministry of Health and Care Services, 2013). The public health report states that PE teachers are well placed to help vulnerable students to develop good self-esteem and body satisfaction through healthy exercise (Ministry of Health and Care Services, 2013).

This study looked at how Norwegian physical education (PE) teachers perceive their roles in public health; in other words, what they think their role is, if anything, in the promotion of public health goals. Thus, the over-arching research question was: "How do Norwegian PE teachers perceive their roles in public health terms?" This was supplemented by subsidiary questions such "What do PE-teachers understand by 'public health'?" and "Do PE-teachers think they can contribute to public health in their work?", and "How and where do they think PE achieves public health goals?"

My interest in this topic is both personal and professional/academic. At a personal level, when I took my bachelor degree in PE, I experienced and observed a lot of health-related issues during the practicum at different schools. In particular, I noticed that some students did not participate very much in PE lessons with the consequence that they were not especially physically active during that time. Afterwards I reflected upon the experience of these students and, more specifically, the role of the PE teachers in (i) engaging the pupils in the lessons, and (ii) getting them physically active. This, in turn, led me to reflect upon what,

if anything, the PE-teachers' were trying to achieve in health terms during these lessons and how that impacted upon what they actually did in the lessons: i.e. the content (or activities) of the lessons as well as the ways in which the lessons were taught. As I reflected upon these issues I also began to reflect upon my impression that PE-teachers' are expected in Norway, as in very many other countries world-wide (Alfrey et al., 2012) - by the government, the public and the media, as well as each other's to have a huge influence on students' health. Despite this, it appears to be a tension between what PE-teachers appear' *obliged* to do in terms of health promotion through PE, what they *think* they should be doing and what they *actually* do in practice, as well as what they believe they do is the reason I have chosen to focus upon the public health role of PE teachers in my Master thesis.

In this thesis, it will be presented findings from interview of 11 PE-teachers regarding how they perceived their roles in a public health terms. The aim was to interview PE-teachers from several schools to establish what they understood health and public health to mean and how they believed it was delivered by PE, as well as any differences between secondary school and high school. This provided the perspectives of PE-teachers at these levels of Norwegian where PE is delivered by subject specialists. The intention was to use schools where the students move from the local secondary school and into the local high school, to see the differences between ages, type of schools and teachers. Considering lack of time and limitation of the thesis scope, the decision felled down to interview PE-teachers at three Norwegian secondary schools in one specific chosen municipality west in the country. 11 PE-teachers from three different schools participated.

2.0 Literature review

This chapter will refer to previous research and key concepts on the field. First category will present explanations and perceptions of health and public health. This part will also include definition of the terms health and public health. Further on, the next three categories are: (ii) the role of physical activity in promoting public health, (iii) the role of PE in promoting public health and (iv) the role of PE-teachers in promoting public health. Finally, this chapter will represent the research question for this study and key concepts.

2.1 Explaining perceptions of health and public health

2.1.1 Health

WHO (n.d.) defined health as: “Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (WHO, n.d.). To make sense of PE-teachers’ perceptions of health, Burrows and McCormack (2012) suggest that teachers’ perception of their students’ health needs, their understanding of the role that the schools have in connection to preventing health care and pedagogic choices that are done by teachers, is closely linked to the individual teacher’s own life experiences in connection with health, and their understanding of their own and other bodies and their personal conviction of what constitutes a healthy and good life (Burrows & McCormack, 2012). Burrows and McCormack (2012) article shows interviews of three teachers who worked at one public primary school. Further on, they consider how these teachers’ dispositions, beliefs and practices are connected to their own health values, experiences and understanding (Burrows & McCormack, 2012); in other words, illuminate the fact if teachers are ‘stuck’ with their own habitus and experiences, and how this affects their teaching. Alfrey et al.’s (2012) paper presented findings from a research project which studied English secondary PE-teachers’ experiences, views and understanding of health-related exercise and continuing professional development. In this paper, they claimed that there have been raised concerns and questions about PE-teachers’ professional knowledge of health (Alfrey et al., 2012). Survey questionnaire which 112 secondary PE-teachers were completed and semi-structured interviews with 12 teachers from the phase one sample were used as methods (Alfrey et al., 2012). In their study *Helse på norsk* (‘health on Norwegian’), Fugelli and Ingstad (2014)

concluded that the understanding of the term 'health' was described and was most likely the adaptation-model which they describe as the informants' perception of health occurring in a dynamic interaction between people and the environment, both biological and social. Some, but not many, of their informants, experienced the absence of disease as a major health condition. A masters-thesis by Løvli (2014) involved a study based on semi-structured interviews, with discourse analysis of the views of seven PE-teachers from different schools in Norway. The theoretical framework was based on a social constructionist perspective. Løvli's (2014) study showed that PE-teachers perceived the term 'health' in a way where individuals take their own decision when it comes to diet and to be physical activity, refraining from alcohol and tobacco, and avoiding obesity. Further on, the teachers claimed that 'health' is connected to what concerns how a person feels. The perception among the PE-teachers revealed that they took for granted that 'health' includes having a healthy body that functions, both physically, mentally and socially (Løvli, 2014). There were relatively few of the informants who spontaneously mentioned diet to the question 'what is important for your health?' (Fugelli & Ingstad, 2014). Among the PE-teachers, their expressions and understanding of 'health' seemed to be a result of their life experiences and interest, more than the knowledge that they possessed through their education (Løvli, 2014).

2.1.2 Public health

In defining the term public health, the WHO asserts that public health refers to all organized measures, whether public or private, to prevent disease, promote health and prolong life among the population as a whole. Its activities aim not to provide individual patients or diseases, but provide conditions in which people can be healthy and focus on entire populations. In Norway, Folkehelseloven ('the public health law', 2011) defines public health as: "the population's health and how health benefits a population" and defines public health work as: "a community's efforts to influence the factors that directly or indirectly promote the health and well-being, prevent mental and physical illness, injury or disease, or to protect against threats to health, and work for a more equitable distribution of factors that directly or indirectly affect health" (Folkehelseloven, 2011). The purpose of this law is to contribute to a society that promotes public health, including equalizing social inequalities. According to the law, public health work will promote the population health, well-being and good social and environmental conditions and help to prevent mental and physical illness, injury or suffering. The law should ensure that municipalities, counties and state health

authorities take measures and coordinate their efforts in health promotion in a proper manner. The law should facilitate a long-term and systematic public health (Folkehelseloven, 2011).

Public health has been used, historically, in two ways; to signify collective actions and to describe the health of the population (Thurston, 2014). WHO refers to three main public health functions: (i) the assessment and monitoring of the health of communities and populations at risk to identify health problems and priorities, (ii) the formulation of public policies designed to solve identified local and national health problems and priorities, and (iii) to assure that all populations have access to appropriate and cost-effective care, including health promotion and disease prevention services (WHO, n.d.).

2.2 The role of physical activity in promoting public health

In light of the prevailing view that physical activity is said to be one of the most important factors when it comes to health, many people in the world of sport, and PE in particular believe that PE and sport is a particularly effective vehicle for promoting physical activity and, as a result, individual and public health (Green, 2010a). Green's article (2010a) discusses yardsticks and properties with what often called the health- and obesity-crisis. It also spotlights the possibly role that PE can have to deliver different health-related measures.

The Norwegian Government (2013) produced an article called 'Physical activity' where they accounted for professional recommendations, activity levels in the population and efforts to increase physical activity. The article claims that physical activity is a source of health and quality of life and that physical activity is necessary for normal growth and development in children and adolescents. Physical activity as a health promoting factor is a 'good' that must be maintained through daily movement and active use of the body (Government, 2013). McKenzie and Lounsbery (2013) claim that health benefits of physical activity are well documented and that sedentary living is a serious public health risk (McKenzie, 2007), which also is associated with numerous preventable diseases.

McKenzie and Lounsbery's (2013) article was the first to address PE-teacher effectiveness specifically within a public health context. The article focus

“primarily on the notion that PE teachers have prime responsibility for providing substantial amounts of health-enhancing physical activity during class time, especially in those activities that will lead to student physical fitness and motor skill development and serve them well into the future.” (p. 428)

It also provides a vision for the assessment of the effectiveness of PE-teachers as they move beyond the confines of the individual PE-class and into a broader context of being a leader in coordinating and creating comprehensive school physical activity programs (McKenzie & Lounsbery, 2013). Physical activity is believed to bring numerous physiological and psychosocial benefits. Reduced physical activity opportunities in multiple settings, including lifestyle changes, are said to have resulted in an escalation of overweight and obesity and related health problems (Hills, Dengel & Lubans, 2014). Hills et al. (2014) provide an overview of key issues and challenges which includes recommendations for PE and physical activity in the school system moving forward. They further on claim that foundations of physical activity behaviors are set early in life and the school can have an important role to play in shaping young people’s activity behaviors; were the PE-teachers can be the key drivers of physical and health literacy and behavior change to optimize physical activity of children and adolescents. In their last recommendation, Hills et al. (2014) claim that PE-teachers need to provide information regarding the benefits of physical activity to the students’ parents, and also encourage school staff to be more physically active.

2.3 The role of PE in promoting public health

On the face of it, there are a number of reasons for viewing PE as a suitable vehicle to promote health and fitness among young people (Green, 2008). PE can provide opportunities to be active, teaching about and through physical activity and PE can set the foundations for lifelong physical activity which can be seen as its role in public health (Harris, 2010). In this respect, Fox, Cooper and McKenna (2004) claim that PE’s key role is to stimulate interest, enjoyment, knowledge and expertise in physical activity and sport for health and well-being, and also provide an environment for expression and achievement. “Various government policies, strategies and responses in England over the years have highlighted schools and PE to be instrumental in addressing health and the focus on health has been strengthened within subsequent revisions of the National Curriculum” (Cale, Harris & Chen, 2014, p. 376); which can be seen in relation to Norway. McKenzie and Lounsbery (2013) assert that the important role that schools and PE can play in reducing sedentary behavior and contributing to population health has been identified. PE’s role should be to

stimulate interest, enjoyment, knowledge, understanding, competence and confidence in physical activity and sport for health and well-being (Cale & Harris, 2013). Cale and Harris (2013) attempt to provide an overview of some of the key 'facts' of the topic obesity. Issues, debates and concerns surrounding obesity and also critique considering the issue, driven by government policies, strategies and responses appears to be addressed in many schools (Cale & Harris, 2013). As a conclusion of this paper, they briefly summarize some of the formal guidance and recommendations available to schools on obesity, and then concluding with some practical recommendations for PE practice.

The purpose of Sallis et al. (2012) paper is to reflect on the rationale and goals of the 1991 (Sallis and McKenzie) paper and to highlight related developments in evidence, practice, and policy that are consistent or inconsistent with optimizing the public health impact of PE. This article reviews accomplishments in improving the health impact of PE and identifies areas lacking progress. "Additional work is needed to evaluate the uptake of evidence-based programmes, improve national surveillance of physical education quantity and quality, establish stronger policies supporting active physical education, and achieve wide acceptance of public health goals within the physical education field" (Sallis et al., 2012, p. 125). It is justified to continue studying programmes with an important public health impact, such as PE (Sallis et al., 2012), were the PE-teachers have to be the key drivers of physical and health literacy and behavior change to optimize the physical activity of children and adolescents (Hills et al., 2014). The schools can be in the position to be the most cost-effective public resource to combat inactivity (McKenzie, 2007); it seems that PE-teachers and the school can have an impact on the students' activity-level such as PE can be important in public health, according to these allegations. Further on, according to Hills et al. (2014), schools can embrace their role in public health by adopting a comprehensive school PA programme while PE-teachers should focus more on giving students the knowledge and skills to participate in a lifetime of PA (Hills et al, 2014). They further argue that a crowded school curriculum, which has an intense focus on academic achievement, lack of school leadership support, funding and resources and poor quality teaching are barriers to PA promotion in schools.

The traditional curriculum of PE that emphasizes competitive team sports over true lifetime activities, motor skills without behavioral skills and physical fitness instead of physical activity seem to eroded the public health impact of PE (Trost, 2004). Trost (2004) contributions in this article are his critique of what that can be seen as questionable

assumptions underlying PE programs internationally, and at the same time how a refocused teacher education program can and should promote physical activity as its important contribution to the public health agenda. Further on, Trost (2004) claim that promoting of lifelong physical activity must become school PE programs primary objective, if the programs are to make a significant contribution to public health, and to make this a reality, teacher PE programs must instill a greater appreciation of the public health burden of sedentary living and incorporate theory-based behavior-change strategies into the PE curriculum. School wellness programmes, Hills et al. (2014) claim, can contribute to the overall culture for physical activity at schools: “Investment in PE has traditionally been predicated on the notion that physical skills developed during the elementary school years and consolidated during high school, would provide the foundation for engagement in PA in adulthood” (Hills et al.,2014, p. 6).

PE is a school curricular subject that has a number of goals. This includes providing students with the knowledge, skills, abilities and confidence to be physically active throughout their lifetime (Sallis et al., 2012). It is widely assumed that PE not only *can* play a central role in health promotion among young people, but also that it *should* (Green, 2008). On the surface, there are a number of reasons to look at PE as a tool to promote health among young people. It is expected that PE can have an influence on health in two main ways: (i) increasing health-related physical activity during the school day and; (ii) it may increase the students’ knowledge about the health benefits of keeping on with sport and physical activity in a way that can lead to a lifelong habit (Green, 2010a).

School PE programmes have long been concerned with health and well-being when it comes to young people (Trost, 2006). Trost’s (2006) chapter in the ‘Handbook of Physical Education’ reviewed the research on physical activity and health in young people and discussed the contribution of school PE programs to public health. Trost (2006) refers to reports that came to the same conclusion when it comes to how PE programme can contribute to public health in the best way. This implies (i) providing frequent exposure to enjoyable and developmentally appropriate physical activity and (ii) preparing students for a lifetime of regular physical activity (Trost, 2006). There is a general perception that health and good physical condition largely depends on the quantity and quality of the school’s PE programme (Green, 2010a). Physical activity during PE is not only important for its current health implications, but also because students can become either physically skilled or physically fit during PE if they engage actively (McKenzie & Lounsbery, 2013). Further on,

McKenzie and Lounsbery (2013) claim that from a public health view, they believe that PE is a vital source of physical activity and its lifelong promotion. Additionally, in the absence of this public health focus, they believe the PE profession will continue to struggle for relevance in an ever-increasing high-stakes educational environment (McKenzie & Lounsbery, 2013); in other words, PE should and can have an important role in public health terms when it comes to physical activity and lifelong promotion, as mentioned earlier. PE can have important public health effects, and therefore Sallis et al. (2012) encourage the field to take responsibility for ensuring that it has optimal health effects.

Although, there is reason to believe that PE can mean far less for the level of participation in sports and physical activities than PE-teachers are inclined to believe (Green, 2010a). PE seems to play a limited role relating the total activity, at least at the elementary level. PE rarely takes up more than 1% of a child's waking time, and therefore, it cannot be expected that PE alone will solve the problem of low activity in children (Fox, 2004). It is indeed a basis for assessing parents and family as the great 'decisive factor' in young people's involvement in sport and physical activity (Green, 2010a). This simply meant that the time spent in PE is critical to creating positive and healthy experiences and attitudes for children regarding health-related activity (Fox, 2004). Sallis et al. (2012) mentioned that there is a failure of public health and education groups to work together sufficiently to implement increased physical activity within PE, further, this is hurting children's health. There is currently little evidence to suggest that physical activity in childhood can have an significant influence on health outcomes during adulthood (Troost, 2006) and it remains a research challenge to demonstrate which PE approaches are effective in increasing regular physical activity into adulthood (Sallis et al., 2012).

2.4 The role of PE-teachers in promoting public health

PE-teachers are positioned to be the strongest advocates of a healthy and active lifestyle in schools (McKenzie, 2007). Hills et al. (2014) claim that both primary and secondary PE-teachers are role models for students. Within a public health context, it is important to assess how teachers provide students with ample health-enhancing physical activity. This can help the students become physically fit and it can teach them generalizable movement and behavioral skills designed to promote physical activity and fitness outside of class time (McKenzie & Lounsbery, 2013). In order to carry out what many see as their public health

role, PE-teachers' cannot remain in their own «black box» (McKenzie, 2007); in other words, the PE-teachers should be reflexive – to critically reflect upon their own taken-for-granted assumptions in relation to, for example, 'health' and 'public health', and they may customize this, as a PE-teacher, into a professional mindset. It is suggested that PE-teachers tend not to recognize their needs in relation to health-related learning; this could be related to their sports science background (Harris, 2010). Green and Thurston (2002) study of PE-teachers perception of health promotion in schools vis-à-vis;

“In the absence of a more coherent and consensual policy regarding physical activity and sport in relation to 'healthy' and 'active' schools, there appears very little likelihood of influencing PE-teachers' thoughts and practices; strongly attached, as they often are, to a sporting ideology” (p. 122).

This can, further on, be illuminated in Burrows and McCormack's (2012) study;

“While not wishing to imply any one-to-one causal relation between teacher disposition and student experience, we maintain that throughout this study there is sufficient evidence to suggest that the personal and political aspirations of teachers inevitably impact what is taught in the name of health and/or physical education and how it is taught” (p. 732).

McKenzie and Lounsbery (2013) claim that effective teaching is ultimately judged by the achievement of learning outcomes. The effectiveness of PE-teachers in helping students reach public health outcomes has received little research attention at this point (McKenzie & Lounsbery, 2013). The PE-teachers were asked to rate their students health. A central finding from a study done by Green, Smith and Thurston (2009) suggest that PE-teachers' understandings of their students' lives are characterized by a blend of 'myth' and 'reality'. This study was based on focus groups with a total of 29 PE-teachers at six secondary schools in England (Green et al., 2009) were they were studying on PE-teachers understandings of young people's participation in leisure-sport and the implications of this. To summary PE and PE-teachers responsibility for their students' health, quotes from Trost (2004) will appear:

In summary, taking into consideration the lack of association between physical fitness and physical activity, the disadvantages of a fitness-based approach to outcome assessment, and the advantages of an activity-based approach to teaching physical education, it is evident that physical education's traditional emphasis on physical fitness and mass fitness testing (either performance related or health related) is not consistent with the public health goal of promoting lifelong physical activity in young people. (p. 333)

In other words, it may seem that PE can and should make an impact in public health, but there is a multitude of opinion relating this topic, whether there is discussion around lack of time or lack of professionals' mindset. It is suggest that PE-teachers have a responsibility to provide all young people with meaningful, relevant and positive PE and physical activity experiences (Cale & Harris, 2013); still, considering PE-teachers responsibility for public health promoting, it is important to explore their experiences, view and understandings of the most obvious vehicle which physical activity and health can be promoted within the curriculum (Alfrey et al., 2012).

2.5 Research question

The overarching research question for the study was: "How do Norwegian PE teachers perceive their roles in public health terms?" The specific subsidiary questions that allowed me to answer the overarching request were: "What do PE teachers understand by 'public health'?" and "Do PE teachers think they can contribute to public health in their work?" Follow up question were, for example: "If so, how do they think they contribute to health?"; "Do they believe they make an impact?"; and "What does that impact look like in practice?". Referring to other studies, where PE-teachers' perception of 'health' was study, there was hard to find research with the same research question as in this thesis.

2.6 Key concepts

Habitus and socialization

A person's habitus is the body and mind inland takes care of habits, through impact. This will determine how the individual act, think, perceive and evaluate the world around them (Engström, 2010). It can therefore been claimed that the significance of early life socialization lies in the impact it has on people's habitus (Green, 2010b). The individual takes therefore the knowledge and habits both consciously and unconsciously. Habitus can easily be compared to individual socialization, although habitus is on a deeper level in terms of how individual orients itself in everyday life, how it thinks and how the individual fails to act even in entirely new and unpredictable situations (Engström, 2010).

Socialization has been defined in different ways through the years. Central to all of the definitions is the idea that it is *people* who shape and form *other people* (Thurston, 2014).

Socialization can be explained in a way were people learning the culture or ways of life of the networks into which they are born and live (Green, 2010b). The term refers to the processes through which people are taught and internalize the values, beliefs, expectations, knowledge, skills, habits and practices prevalent in their groups and societies (Green, 2010b); in other words, how people get affected by external factors. The primary socialization of a child is expected to be their parents, and secondary socialization refers to processes beyond the family, such as school, friends, through social media and workplace (Thurston, 2014). It can be seen that family and school are key settings for socialization, considering how comprised they are of networks of people; and further on, parents, teachers and friends as key agents of socialization (Thurston, 2014).

It is a tendency towards conservatism among PE-teachers and a skills-oriented and sport-dominated focus in the curricula, which can be understood in the light of their socialization into sport and PE (Green, 2008); in other words, young people's sporting habituses tend to stem from their socialization (Green, 2010b) . The longer the PE-teachers remain at a particular school, the more conservative in their 'philosophies' and practices PE-teachers are likely to become (Green, 2008). On the other hand, PE is a process with room for changes, and development is inevitably. This is because (i) newly qualified teachers are never completely identical to their predecessors and their minimal differences that could be in, for example, their sport experiences and their academic background and (ii) changes in context which can be teaching in different schools, taking new roles and implementing new legislation. This could constrain teachers to change their practices and beliefs. PE is almost bound to develop, albeit incrementally over some time (Green, 2008).

Discourse

It is no easy task to getting grips with what 'discourse' it and it is a concept that is now widely (Penney & Evans, 2009). Penney and Evans (2009) utilize the concept the way in which people communicate their ideological positions to further on shed light upon the ideas or ideologies that can be hidden or visible, implicit or explicit in policy texts.

Ideology

Ideology is a holistic mindset of political or philosophical theories about how society should be governed. Questions about how society should be governed are viewed in light of a few basic ideas, and there must be a logical connection between them. Most ideologies try to provide answers to key questions about how society is and should be, and what tools you

must use in order to change society or ideology. Different ideologies focus on different things, and not everyone answers the same questions (Ideologi, n.d.).

Healthism

Green (2008) addresses the ideology of healthism. He explains healthism as an ideology in which (young) people are viewed as responsible for their own health. Further on, healthism is described in the meaning that young people not only can, but should make necessary lifestyle choices to improve their own health (Green, 2008; Quennerstedt, 2008). “A corollary of the presumption of individualism built into the ideology of healthism is the moral condemnation of those who fail to adopt active, healthy lifestyles” (Green, 2008, p. 111). There is far more to health than lifestyle variables, and because of that, the ideology of healthism falls into the trap of perceiving as a private problem, which can be better understood as a ‘public issue’ (Green, 2008).

3.0 Methodology and Methods

This chapter will describe the method used in this study. In this study, there will be used a qualitative approach, based on a case study design as methodological tools, where grounded theory were used as an analytical tool. Furthermore, this study conducted semi-structured interview.

In broad terms, there are two general approaches to conducting research: quantitative and qualitative. This study will adopt a qualitative approach to answering the research question. Thagaard (2009) points that a qualitative method seeks to delve into and emphasize importance, while a quantitative method focuses upon the distribution and significance of things that can be measured in numbers. Bryman (2012) claims that qualitative research differs from quantitative research in several ways, where qualitative research tends to be concerned with words rather than numbers (Bryman, 2012). Roberts (2012) describes a qualitative research as a ‘minimally structured’ method: “The aim is always to allow the subjects to guide the collection of information and its interpretation” (Roberts, 2012, p. 125). A qualitative method aims to capture the meaning and experiences that cannot be measured or quantified (Dalland, 2012). In other words, by using interviews, it can be easier for the interviewer to get the subject’s meaning that cannot be measured using a quantitative method.

In qualitative research, the situations, groups and individuals who are studied are never large in number. On that basis, the answers and findings can never be guaranteed to be representative of larger populations (Roberts, 2012) because it is rarely possible to repeat a qualitative investigation (Roberts, 2009). In qualitative research the researcher does not try to answer “How many?” questions. Its strengths are in revealing how particular actors perceive and feel about their situations and themselves (Roberts, 2012); how, in other words, they interpret or understood their circumstances. In this study I wanted to research PE teachers’ perceptions and understandings. By using a qualitative approach, the aim was to get specific and ‘deeper’ answers relative to a quantitative approach.

3.1 Grounded Theory

Grounded theory is a method increasingly used in qualitative research in various science areas (Hjälmhult, Giske & Satinovic, 2014). Grounded theory was originally developed by Barney Glaser and Anselm Strauss (Strauss & Corbin, 1998) and Strauss and Corbin described grounded theory as a means of generating, analysing and subsequently theorising data “in close relationship to one another” (Strauss & Corbin, 1998, p. 23). There are two central features of grounded theory. First, a grounded theory approach is iterative or recursive data collection and analysis proceed in tandem, repeatedly referring back to each other (Bryman, 2012). In this respect, grounded theory is a theory of methods rather than a sociological theory as such. This is the second feature of grounded theory – it is concerned with the development of theory out of data (Bryman, 2012). Grounded theory is characterized as an approach to research that requires the researcher to be consciously open-minded to the interpretation of the data collected. The researcher is confident that what is essential for the participants will emerge from the data (Hjälmhult et al., 2014). In the light of grounded theory, the researcher does not begin with a theory, then try to prove it, but; begins with an area of study and what is relevant to that area is allowed to emerge (Strauss & Corbin, 1998): in other words, using grounded theory as an analytical tool, the researcher is not aimed to test an existing theory, but to develop a theory inductively (Strauss and Corbin, 1998; Kvale & Brinkmann, 2009). Regarding this study, while interviewing the teachers there were no assumptions relating what would appear in their answers, and this is done in the light of grounded theory. The method is regarded as particularly suitable when it will be implemented research in fields where there is little research (Charmaz, 2006; Thorèn-Jönsson, 2008). Therefore, this method was used in this thesis.

3.2 Design

In both qualitative and quantitative studies, research can be designed in several different ways (Bryman, 2012), including experimental design, cross-sectional design, longitudinal design, case-study design and comparative design. In this masters-thesis a case-study design was used. Roberts (2009) claims that a case-study is a detailed examination of a single case that is undertaken in order to clarify more widespread events or social patterns. A case-study is appropriate to use if the research question begins with ‘how’ or ‘when’, and if the

researcher has little control over the event and when the focus is a phenomenon in a real context (Andersen, 2013). In a case-study the aim is always to gain insights into processes, meanings and motivations. This may enable us to understand and explain more widespread instances in a better way (Roberts, 2009). In this study, the case will be how the PE-teachers perceive their role in public health terms. This current case showed that this is highly appropriate regarding guidelines and the answer that appeared while interviewing the teachers.

Andersen (2013) describes case-study design as investigating a contemporary phenomenon within its real context; when the boundaries between the phenomenon and context are not clearly evident, and in which multiple sources of evidence are used. When using a qualitative research method the typical form for a case-study seems to be: “The intensive study by ethnography or qualitative interviewing of a single case, which may be an organization, life, family, or community” (Bryman, 2012, p. 76). This thesis will use what Bryman (2012) refers to as a ‘typical’ case-study. With this kind of case, ‘the objective is to capture the circumstances and conditions of an everyday or commonplace situation’ (Yin, cited in Bryman, 2012, p. 70); which in this case will be PE-teachers perception of public health. The reason for using this kind of case may be because it exemplifies a broader category of which it is a member. This implies that cases are often chosen not because they are extreme or unusual, but because either they epitomize a broader category of cases or they will provide a suitable context for certain research questions to be answered (Bryman, 2012).

3.3 Choice of method

The most widely used social science data-gathering technique is survey (Neuman, 2011), but interviewing is probably the most employed method in qualitative research (Bryman, 2012). Interviewing in qualitative methods is meant to be flexible and to seek out the so-called “world-views” of research participants (Bryman, 2012). The interviewer can depart significantly from any schedule or guide that is being used and it will also be acceptable to ask new questions that follow up interviewees replies and can vary the order and even the wording of questions (Bryman, 2012). This method gives several options when it comes to ask follow-up question, which gave this study a deeper understanding of the teachers’ perceptions.

3.4 Instruments

Bryman (2012) mentioned two major types of qualitative interviews: *unstructured interview* and *semi-structured interview*. In an *unstructured interview* the researcher use a brief set of prompts to himself to deal with a certain range of topics, which makes it flexible. Just a single question may be asked by the interviewer. The interviewer is then allowed to respond freely, with the interviewer simply responding to points that seem worthy of being followed up (Bryman, 2012). Burges (1984, as cited in Bryman, 2012) claims that unstructured interviewing tends to be very similar in character to a conversation. *Semi-structured interviews* are also flexible, but in this case the researcher has a list of questions, often referred as an *interview guide*. This type of interview was used in this thesis because this correlated the topic in this thesis. The researcher has a great deal of leeway in how to reply, so questions may not follow on exactly in the way outlined on the interview guide (Bryman, 2012). In this case, I asked the PE-teachers the same question from the interview guide, sometimes in different order. When the PE-teachers gave answer which was interesting, the possibility to ask a follow-up question to get deeper in the answers was used. Some answers that appeared was not something that could be foreseen. For example, although the interview guide did not include a question about the teachers 'time-pressure', it was noticeable that the teachers in the first three interviews talked about time, and the significance of time, and they said things like: 'I cannot focus on health in PE because I have no time, and the students want to be in activity'. As a consequence, a question about time, was included in the remaining eight interviews, however, just one of the remaining teachers considers time to be an issue, relative to the first three. This was one of the benefits with a semi-structured interview that helped me to get more answers from the PE-teachers. This refers to Bryman (2012) which claim that: if the interviewer picks up on things said in the interview, questions that are not included in the guide may be asked. But basically, all the questions will be asked and a similar wording will be used from interviewee to interviewee (Bryman, 2012). In this thesis the interviews were tape-recorded. This was used because the researcher got the permission of the respondent (Roberts, 2009). To remain engaged with the respondent and to reproduce verbatim quotations, tape-recording is a good tool to use (Roberts, 2009). While tape-recording the interviews, the opportunity to focus on the PE-teachers and take notes during the interviews appeared. Two tape-recorders were used for each interview, considering one of them could fall out or be broken. The probability was therefore higher while talking in consideration that one of the recorders could be broken

during the interviews. Both of the tape-recorders recorded all of the interviews. In backup, extra batteries were brought and it was talking notes during the interviews. Observation on the 'red light' on the recorders was done at regular intervals, discretely, in a way that did not, hopefully, disturb the PE-teachers.

3.5 Data collection

In quantitative research, the discussion of sampling revolves around probability sampling. Purposive sampling, on the other hand, is used in qualitative research (Bryman, 2012). In the light of grounded theory, all procedures are aimed at identifying, developing, and relating concepts (Strauss & Corbin, 1998) and *theoretical sampling* is a term used mainly in relation to grounded theory (Bryman, 2012). Theoretical sampling is one form of One form of purposive sampling, which is defined by Strauss and Corbin (1998) as '... sampling on the basis of concepts that have proven theoretical relevance to the evolving theory' (p. 176). Glaser and Strauss (1967) describe theoretical sampling as

“the process of data collection for generating theory whereby the analyst jointly collects, codes, and analyzes his data and decides what data to collect next and where to find them, in order to develop his theory as it emerges. The process of data collection is *controlled* by the emerging theory, whether substantive or formal” (as cited in Bryman, 2012, p. 419).

The difference between theoretical sampling from other sampling approaches is the emphasis on the selection of cases and units with reference to the quest for the generation of a theoretical understanding (Bryman, 2012).

3.5.1 Selection of the sample

The selection of PE-teachers was delimited to one municipality within one county in Norway. Three secondary schools were chosen on the basis that they were in the same municipality. The reason for using teachers from secondary school is because this age for the students seems to be a 'critical' period when it comes to apostasy in physical activity and sports. Also because the teachers most likely were trained to teach PE. Criteria to participate in this study were that the person was a teacher who was teaching in PE. To recruit interviewees, I found contact information to the three chosen schools. The contact took place by telephone and email. At one of the schools, the communication with the PE-teachers was via email and telephone with one contact person who conveyed the message on to the other

teachers. The communication with the two other schools was done by email and telephone, directly between me and the PE-teachers who wanted to participate. After the recruitment period, remained 15 of 30 PE-teachers to be interviewed. The remainder did not respond and therefore, there was decided to stick with the 15 who had said 'yes', also considering the scope of this thesis. The challenge was to get answer from all of the PE-teachers. I contacted them on email and got no response. Because of the anonymity of the study, I choose to not contact the principal at each school to get the PE-teachers phone number. While thinking of this afterwards, I could have tried to get their phone number from one of their colleague.

Information-sheet with details about the thesis and the process was sent to all of the PE-teachers before the interviews where they got the opportunity to determine the time and place to be interviewed. Two pilot-interviews were conducted before the interview period started. After these two interviews, I experienced that I had to ask more follow-up questions so I would get more information because I got through the interviews a more quickly than expected. To ask follow-up question, I had a box with quotes on a single sheet that helped me to formulate my follow-up questions in a good and correct way. In that spirit, I used these quotes: 'Can you tell me what you mean by...?', 'Can you tell me more about...?', 'Can you explain...?', 'Can you give me an example of...?', 'Can you tell me why you think this...?', 'Can you tell me how this came about...?' and 'What if I said to you "...” What do you think about that? (Government policies / previous interview said / research). These quotes helped me to not ask leading question so I avoid getting the PE-teachers' in one determined direction. While asking the PE-teachers these questions they were understandable for them, and they also had an open ending. I experienced that I used quote one, two and three in most of the interviews.

The process lasted two weeks, and by this time, 11 PE-teachers of these 15 had the possibility to meet for interviewing over the course of two week in January, 2015. The remaining PE-teachers were not interviewed, considering lack of time. 10 of 11 PE-teachers choose to meet at their own school for interviews. Considering that the PE-teachers names are anonymous, the most essential was to meet outside school, but since they choose this by themselves, it was the right way to conduct the interviews. The teachers was informed and urged to keep their participation confidential. The committee consists of four female and seven men. The background to the skewed distribution of gender was the response from teachers about who would attend. The average age was 41 years.

3.6 Data analysis

One of the central processes in grounded theory is *coding*. Coding is when data are broken down into component parts, which are given names. “It entails reviewing transcripts and/or field notes and giving labels (names) to component parts that seem to be of potential theoretical significance and/or that appear to be particularly salient within the social worlds of those being studied” (Bryman, 2012, p. 568). In grounded theory it is suggested that the researcher starts coding as soon as possible and begins transcription at a relatively early stage. Advantage by doing this can be the understanding the researcher has of the data and be helpful considering the theoretical sampling (Bryman, 2012). My best option appeared to be conducting the transcripts. Malterud (2011) recommended and confirmed this by claiming that knowing what happened with the text as it is told and processed, is an important prerequisite to assess reliability and validity of the material under analysis.

3.6.1 Coding

Grounded theory coding generates the bones of the analysis. Coding shapes an analytic frame from which the analysis is build. “Coding is the pivotal link between collecting data and developing an emergent theory to explain these data. Through coding, you define what is happening in the data and begin to grapple with what it means” (Charmaz, 2006, p. 46). The coding process yields concepts, which later will be grouped and turned into own categories (Bryman, 2012). The first step in the coding process is ‘open coding’. Open coding is the analytical process where the text ‘opens up’. The data material will then be broken down into a large amount of codes (Thorèn-Jönsson, 2012). ‘Axial coding’ is the second step. Axial coding is done by linking codes to contexts, to consequences, to patterns of interaction, and to causes (Bryman, 2012). The last step in the coding process is ‘selective coding’. This is the process where the analysis leads to a core category (Thorèn-Jönsson, 2012).

In this case, the answers from the PE-teachers were inserted into tables. First, it started with the whole sentences and secondly, these were reduced to smaller sentences, which further were minimalized and lead to categories. One examples of this can be M1b answers on the question: what do you understand by the term ‘health’?

Quote	Open coding	Axial coding	Selective coding: core categories
<p>M1b: <i>“The concepts of health? Then I think of, eh, that the students, do you think from a student perspective or, it does not have so much to say. I think to have a body that you can use to the challenges you can meet in everyday life. Both physically, mentally and socially. And that health more or likely get defined as absence, or absence of disease so I think to be healthy, that also is an important factor, but basically do I think of good health in a way were you’re body have the prerequisites, or that the body is in shape to meet the challenges that you face in everyday life”.</i></p>	<p>Body you can use to meet challenges.</p> <p>Manage challenges in everyday life, both physically, mentally and socially.</p> <p>Absence of disease.</p> <p>Be healthy.</p> <p>Good health.</p>	<p>Manage everyday life</p> <p>Physically, mentally and socially</p> <p>Be health.</p>	<p>Manage everyday life, physically, mentally and socially = to be healthy.</p>

3.7 Ethical considerations

Discussion about ethical principles in social research, and perhaps more specifically transgressions of them, tend to revolve around certain issues that recur in different guises. Diener and Crandall (1978, as cited in Bryman, 2012) have broken them down into four main areas:

- Whether there is *harm to participants*;
- Whether there is a *lack of informed consent*;
- Whether there is an *invasion of privacy*;
- Whether deception is *involved*.

An application was sent to NSD (Norwegian social science data services) which needed to be approved before starting the interviews. The PE-teachers received an information sheet that informed them about the project, the interviews and the researcher. In the information sheet, the teachers got knowledge about this study as voluntary and that they only chose by them self if they wanted to participate. Even if they said ‘yes’ to participate by email or

phone, they could choose to 'go out' of this study even before, during and after the interviews has taken place. They were informed that the interviews would be anonymous and the teachers could chose to tell other if they participated in this study of not. It would not be possible to find out which teachers or at which school they work on that was examined. In the project, the only thing that appeared was their profession as PE-teachers and that they work on a secondary school in east, west, south or north of Norway.

3.8 Review of the methodsprocess

10 of the 11 interviews were conducted in a quiet and secluded office space at the chosen schools, decided by the teachers themselves. The remaining one teacher chose to be interviewed in its own house. The interviews were audio-recorded and transcribed as soon as possible after each interview was completed. The data gathered from the interview was analyzed using the principles of grounded theory. In other words, the analysis involved the systematic collection and analysis of data, the coding of transcribed data and finally the construction of a credible theory from the data. In grounded theory, the coding of texts is iterative in the sense that key incidents within the text are identified and categorized based on comparison with what had already been grouped (Roberts, 2009). The sub-headings in the Discussion-chapter express the themes that emerged from the data. The individual teachers will be identified by their role and a number reflecting their position in the sequence of interviews.

4.0 Findings

In this chapter I will introduce the key findings from the interviews with 11 PE-teachers and try to connect this to the research question. The answers that appear from the teachers helped me to get insight in how they understood the terms ‘health’ and ‘public health’, how they perceived their roles in public health terms and if they had this in their minds when they taught PE. The chapter is divided into five categories: (i) PE-teachers’ understanding of the terms health and public health, (ii) PE-teachers’ perceptions of the *role of PE* in public health, (iii) PE-teachers’ perceptions of their *own roles* as teachers of PE in public health, (iv) PE-teachers’ perceptions of health in the national curriculum and the Year Plan for PE and (v) PE-teachers’ perceptions of the health of their students. The first category contains how the PE-teachers understood and relate the terms ‘health’ and ‘public health’. The second category contains the PE-teachers’ thoughts about if PE can have a role in public health, and if the subject is relevant to increase public health. The third category contains, on the other hand, how the PE-teachers perceived their *own role* as a teachers in PE in public health terms and if they have thought about this before. The two last categories examined whether the PE-teachers know if the word ‘health’ is mentioned in the national and school curriculum and how they rated their students’ health. The categories were divided as a result of the questions order in the interview-guide. The interview-guide is attached as an appendix.

The 11 PE-teachers are coded in three categories: Sex, school and number in order of when they were interviewed. M or F indicate the sex (male or female), 1-11 to indicate the number order in which they were interviewed and the letters represent the schools: a, b and c. School a: seven teachers, school b: three teachers’ and school c: one teacher. As mentioned earlier, there were seven male and four females who were interviewed. To describe the number of statements from the teachers’, this is categorized into six points: none, few, some, most, very many and all. The number of teachers who had the similar state will be ranged like this: none = 0, few = 1-3, some = 4-5, most = 6-7, very many = 8-10 and all = 11. While referring to sentence from the PE-teachers, I will use “...” when part of the answer before the next statement is not included. There was some dimension to the findings: sex and age which I will describe under the appropriate points.

4.1 PE-teachers' understanding of the terms health and public health

4.1.1 Health

When the PE-teachers spoke about 'health' they all talked about good health and what they mean with that concept. The overall understanding on the part of the teachers was: how to manage everyday life, physical and mental health, the body's condition and to feel well. *"I think health is that you have a body that can manage the physically, mentally and socially challenges you can meet in everyday life...and I think to be healthy"* (M1b.). This reflects very many of the other answers and M11a explained this when said: *"I think that is a very broad term and it includes physically and mentally health would I like to say, and they are related to each other, so, to feel well, physically and mentally."*

On the other hand, one PE-teacher experienced the absence of disease as a major health condition, while M4a and very many of the teachers mentioned 'health' as in an individualistic way, where each person had their own health and responsibility. *"Health is more about every single person, the individual's health and I think that it becomes more individually for each person"* (M4a). Answers like 'how a person lives, exercise etc.' appeared from very many teachers, and F6c is probably clear about her thought around the term health:

"Oh. I think about health in overall terms, not just professionally in relation to work and professionalism, but perhaps how a person lives, how a person eats, how a person exercise and work-out and how a person thinks of their own lifestyle." (F6c)

M10a commented that your own health is your own responsibility and, therefore: *"the outermost consequence is that you only have yourself to blame, you stand back with yourself, your health and there is nothing to discuss, in a way."* All of the PE-teachers talked about health in individualistic terms and it seemed that they were aware about 'health' as one person's responsibility.

4.1.2 Public health

The question about how they understood 'public health' seemed to confuse all of the PE-teachers, and a speculation around this appeared to me because very many of them were aware of the superficial understanding and perception of 'public health'. Their understanding

seemed to consist of a mix of: people's overall health, health-condition, the state's responsibility, inactivity and statistics. M2b said: *"I think the general condition of the people. Many students are in a poor condition, I think."* General condition of the people recurs in answers.

"... how the health of a nation is... how the average health of a country is, perhaps. General health" (F5a).

"I think of people's general health. How the health status is in one place, a community, a class. That it includes more people" (F6c).

It seemed to me that the PE-teachers linked the words 'public' and 'health' to each other and explained it in this way. Example: The general public health, the health of the public. Like M1b explained it: *"Public health. This is not a concept that I use myself, but I think, public health, hm, I will give some thought and say people... and general health"*. Although it seemed like a confusing question, some of the PE-teachers did appear aware of other concepts that are current in public health. *"I envision an overall concept. If you, for example, study the health of a large population or, it may be the entire country, or there may be smaller groups such as municipalities and stuff, that you have an overview of the health situation there"* (F3b). Statistics of the public health were mentioned by few of the teachers, and seemed to be a target device to conclude with people's overall health condition.

"Public health seems to be to be an aim for, in a way that... an average of the population, where they are on a scale from good health to ill-health perhaps, and then being reflected various statistics for disability benefits, sick leave, income etc." (M11a).

Some of them expressed the view that the Norwegian 'state' and 'government' has a responsibility, and also health-campaign's, were, for example, commercial with pictures of congestion to person who smoke and not smoke, can give the population more knowledge. F7a expressed that:

"Public health? I think somehow that the state enters and are topical. That 'we will make sure that everyone is concerned about their health' and that we should all have such good health as possible and prevent diseases and avoid, yes all the negative consequences of ill-health. And the state has to give the people knowledge of the factors in which can give them good health"

Even though some of the PE-teachers were talking about the states responsibility in relation to public health, some of them also mentioned their skeptical view of the states and

governments health-campaign and commercials. *“If you think of campaigns that the state performs with this and that and what they emphasize, I think the affects is small... each one must take responsibility for their own health”* (M8a).

4.1.3 Relating health to public health

When the PE-teachers were asked how they related the terms health and public health their overall understanding was that public health was the result of people’s health. Nevertheless, this question seemed to be unclear for some of the teachers. *“I don’t know what you mean by public health and health. It has to be a context there... I think you have to take it in your own hands with the person if he or she will get better health”* (M8a); *“Eh, yes, it is, I will claim that. But I think more that public health is municipal-medical workers, no, I’m not sure how. Health is health to me”* (M9a).

But some of the PE-teachers did appear aware of the link between individual health and the public dimension to health to be found in the academic conception of *public health*, like F7a: *“With public health there is the state which in a way goes in and tries to take responsibility for that the citizens should be concerned with their health”*. F6c is also in the academic conception direction: *“I think that health could be personally, and like a said before, how you live in relation to food, activity and things like that. The public health public health will further affect the society.”* M10a split ‘health’ and ‘public health’ into categories as private responsibility and public responsibility. *“Health is one person’s own responsibility, and the state or the government should have an overarching responsibility... there is a distinction between private responsibility and public responsibility”*. This categorizing can compare and correlate to the other teachers’ opinion of what was the relation between health and public health.

4.1.4 Health and ill-health

On the question regarding what they thought was the main reason for health and ill-health, very many of the PE-teachers’ seemed agree in the understanding of diet and physical activity as the two main factors. Other factors were mentioned by some of the teachers, like attitudes from home and influence from others in their social environment. As mentioned, the PE-teachers’ were almost unanimously agreed that physical activity is one of the main factors for good health. This pattern shows that the PE-teachers explored their perception of ‘good health’ in a way were they explained this by mention the physical body. *“That you*

stays physical active so you're body do not get destroyed in the way that could leads to negative things" (M4a). It appeared different understandings considering physical activity. Physical activity was mentioned in several points and explanations such as: exercise, fitness, work-out and hike.

I think about the things that everyone knows is good for your health, whether it is fitness, taking a hike in fresh air, doing different sports or going to the gym. Thus, do some kind of physical activity. In addition to eat normal food with advantages and disadvantages during the week. Yes, and to be concerned about being in activity in one way or another" (F6c).

Sedentary behaviors were only mentioned by few of the PE-teachers, which M11a explained: *"Ill-health is sedentary behaviors and everything that get people to just sit down. Everything that can get you 'up' from the sofa can give you good health."*

There was a gender dimension to the findings. 3 of 4 women mentioned upbringing as a factor for the health of students, while 1 of 7 men mentioned this. *"Yes, I feel that this comes back to the people who are around you. You get very affected of these people"* (F6c). It seemed important for the women who mentioned this, and they also claimed that this is something they had experienced from their own childhood. Since this was not included in the interview-guide, the difference between male and female were not measured in terms of their different view of, for example upbringing and childhood.

4.2 PE-teachers' perceptions of the *role of PE* in public health

On the question of whether the PE-teachers thought that PE could have a role in public health, all of the teachers answered 'yes'. Even though, one teacher said that PE has an important role, but: *"...at the same time, public health should not be the primary focus in PE... I mean that PE should facilitate that the students can experience many things and having fun"* (M1b). This quote differed from the other PE-teachers, and even though M1b expressed that PE should have a role in public health, it seemed like he had reflect around this focus and made up a mind on public health in PE.

Some of the PE-teachers mentioned that they have to give their students good attitude and described their role to 'be a motivator' with the aim to increase physical activity among their students. A point that seemed important for most of the teachers was that PE is the only

activity for some students, and because of it, can be vital for these students. This was mentioned in several quotes:

“Yes, at least for those who are not in physical activity in their free-time” (F7a).

“... PE is the only activity for some students. Help the student to get good attitudes when it comes to exercise” (F5a).

“The condition of the students is getting worse. ... PE is the only activity for some students” (M2b).

It seemed important for the teachers to motivate the students who didn't participate, on the other hand, some of them mentioned that it is hard to make every student to participate, and that this sometimes end to the fact that these students still not participating in PE. Some also mentioned that the PE-teachers can give the student an introduction to different activities and sports. *“We can give the students an introduction to different kinds of activities, and this can lead to good health. We have to inspire them” (F6c).*

On the other hand, even though they all seemed agree and answer 'yes' immediately, it appear that few of the PE-teachers' saw themselves as 'a little piece' when it comes to the health responsibility of their students. M8a was the only one of the PE-teachers who mentioned the limitation to PE in relation to the promotion of public health:

“I point out all the time how important it is to stay in good shape and eat right... I hope my words are helping a little, but if it affects public health? In a small way, I hope, otherwise it would have been pointless... but I'm just a small peace in this 'game', but I hope my work is helping”

4.3 PE-teachers' perceptions of their *own roles* as teachers' of PE in public health

Very many of the PE-teachers perceptions of their own roles as teachers of PE in public health was that they have an important role. *“Yes, I do, absolutely... a part of my job is to motivate students to like outdoor-life or other sport activities” (M4a).* The answers were somehow different nevertheless: *'in a way', 'to be a motivator for physical activity is important for public health', 'I do not think of it every day'* and *'no, I only think about health and exercise'* appeared. The conclusion of this can lead to: *'yes, but not primarily'*. Two of the three oldest male teachers mentioned gendered PE as the best solution to keep the student physical active in PE.

“I had thought of a way, that I would like to go back to a model that we used before, where the girls had PE together and the boys had PE together... The boys are very dominant and the others feel in a way that they cannot participating, so therefore it is a bit like that for me, I think it was more activity in PE among both boys and girls when it was gendered PE” (M4a).

Also M8a said that: *“In recent years we had girls and boys together in PE. The girls are suffering of course when we have ball games, contact sports and everything that goes on physics.”*

Some PE-teachers mentioned that they spend little time to give students knowledge about health and public health. *“I think when it comes to PE the students have hopes and expectations to be physical active... I think it is difficult to take some minutes to talk about what we are doing and why we are doing it” (M1b).* M11a claimed that he could use some more time to talk about health: *“I ought to surely spoke more about health, explained what we are doing and that this are health promoting”*. It seemed that the teachers either felt lack of time telling about health-benefits in PE or that their focus was to keep the students physical active, instead of using time to talk about health in PE.

Even though the society is embraced by technology such as TV, computer, games etc. only few of the teachers mentioned ‘gaming’ and TV looking as a negative developments among students health. *“... many of them are using their free-time on ‘gaming’” (M2b).* F3b mentioned gaming, but also the technology problems the adolescence meets now a day:

“I bet that the technology has slowed down the activity to quite a few, or very many, the way I know and I have students’ myself that says they are not participating any kind of sport, they only doing ‘gaming’ all the time when they are at home”.

As F3b mentioned, she appeared that the technology is a problem and will continue be a problem for the students’ health. An interview that stood out, considering this topic, was M8a. He mentioned among others that it is important to get students away from their computers, such as apps, digital tools and get them engaged, active and doing outdoor-life and not necessary doing sports at a high level. He further on said that: *“Boys that are playing computer games all the time is scary, very scary I think. They are starting already in 5 years of age, so this is a bad development” (M8a).* Considering the development of technologic tools, M8a mentioned an evolving problem when the students have free-time during the school day:

"I cannot get my students outside in their free-time, I say: 'you all have to go out and take a hike so get some fresh air in your mind', but nobody does this. They all sitting ... now they are sitting in a row, sitting down ... and I see that they have fun, but they are playing on their own separate Ipad or Iphone without talking to each other"

This implies the development perspective from this PE-teacher view, which can also correlate to the focus on technology now a day.

4.4 PE-teachers' perceptions of health in the national curriculum and the Year Plan for PE

On the question of whether the word 'health' is mentioned in the national curriculum for PE, the teachers gave mixed responses. Some said 'yes' or 'I'm pretty sure', while others said 'I don't know'. Whether they said 'yes' or 'don't know' only one of them could state where and what the curriculum said about health. When M1b got the question: "Do you how 'health' is mentioned?" He answered: *"There is something about that the students should have knowledge about the relationship between physical activity and health"*. While this PE-teacher was on right direction, the other PE-teachers had answers like: *"Something about health activity in a positive way."* (F7a).

Some answers that appeared seemed to be uncertain like: *"Yes, don't know if the word is there, but there is a thought behind"* (M9a). It appeared to me, like an intuition, that very many of the teachers wanted to answer 'yes' considering that the question was on the agenda, although, some of them seemed afraid to answer wrong. This reflected on the answer from M2b: *"I know, if I answer wrong, I think so. But I have not read it"* and F3b:

"I'm not sure if it is there verbatim, but it probably does for sure. So it will be a little obvious that it does. Maybe that 'health' stands together with skills and diet, and values for the future. Yes, it says it surely without that I can say exactly what the word says. So it got to be quite natural that it stands there I think"

A follow-up question to the remaining 10 PE-teachers who were not able to answer this correctly was: "What have influenced you to think about the health to the student in PE?" (Considering almost all were not affected by the curriculum) Answers like: 'naturally thought', 'naturally in the subject', 'it situated behind', 'it's a natural part of moving', 'because of own experiences' and 'it's obviously' appeared. *"I am interested in this and I want students to be that to, that they get knowledge about this 'little by little', and that it will*

be a natural part of their everyday life” (F5a). M4a followed up by saying: “In schools subject, physical education is probably the subject that can affect the students’ health the most”.

In the question if ‘health’ is mentioned in the Year Plan of PE at their school there were 6 that answered ‘yes’ and 5 that answered ‘no’. It appeared that this plan, more likely, was an ‘overall plan’ for activities and sports, and that the focus was not points like ‘health’. *“This plan is not extensive, it’s including topics ... It’s about different sports like football, handball, bandy, swimming, but not ‘health’ as a point” (F6c).*

Few of the teachers mentioned that they are not following the national curriculum or the Year Plan ‘to the letter’ or as M11a mentioned: *“I do not follow the curriculum a 100 percent, I have to say that. I follow the students’ interests so they will be active and participate... I want the students’ to think of PE as something fun and positively”.* M1b talked of the Year Plan as a small plan where the teachers develop this together. *“It is the teachers who develop this by them self, but I’m not following this plan all the way, I have my own opinions. But it’s probably to keep PE in progression”.*

4.5 PE-teachers’ perceptions of the health of their students

The PE-teachers were asked if they could rate their student on a scale of 1 to 5, where 1 represent very unhealthy and 5 represent very healthy. Virtually, very many (10 of 11) of the PE-teachers rated their students’ health with the number: 4. This could seem a bit surprising when thinking of the media focusing on ‘obese’ adolescence and sedentary behaviors among kids and young adult these days. *“All students encounter in gym clothes and everyone participates” (M9a).* Some of the arguments for rating their students in this way were good participation, strong class and engaged. *“They are very positive and active, independent by nature” (M10a).* Some PE-teachers mentioned that they had a ‘special good class.’ *“The class that I have in physical education now is a very strong group. I have seldom had a collected class that has been so engaged” (F6c).* M2b said this by:

“The class that I have is good in PE. They are engaged and many of the students are physical active and are doing sports in their free-time...but so long as they remain active then I will say that, for example, if you compare those with another class at the same stage in PE, this class is much better than the others” (M2b).

F7a started to rate her students with the number 3, but after reflecting and justify the reasons; she changed her answer and rated them to the number 4. At the beginning of the 'reflection process', she argued that her students didn't eat well and that she know when they are eating unhealthy food. While talking about participation in her class, she gave them a much higher score than thinking of their eating habits. She concluded them with giving them the number 4. It seemed confusing, but still clearly that the PE-teachers 'wanted' to give their students a high rate because of the fact that the teachers were satisfied with their own class, and their thought about their class as better than others. This is only a speculation, but considering that 10 of 11 gave their students the number 4, it seemed more likely as a fact.

5.0 Discussion

This chapter will explore the significant findings that appeared in this study. Many findings could be discussed in several directions. However, according to the research question, it will basically refer to the findings that can be seen as significant to the topic of this thesis. The chapter is divided into six main categories: (i) PE-teachers' perception of health and public health, (ii) PE-teachers' perception of the role of PE in public health, which include two under categories; (i) PE-teachers' perception of 'health' in the national curriculum of PE and (ii) Gender dimension among the PE-teachers, and (iii) PE-teachers' perception of their students' health. PE-teachers' perceptions of public health is basically the answer to my overarching research question. On the other hand, their answers to the questions "Does PE have a role in public health?" and "Do you think you, as a teacher, can have a role in public health?", and their rates on their students health, were significant to the research question when it comes to see the relevance to the topics. The reason for including the last category is the interesting quotes that the teachers came up with. The findings will now be present together with earlier research and key concepts and discussed further. In spite of the statement from the teachers, it will still be use six categorized points: none, few, some, most, very many and all, to describe how many of the teachers who claimed this, referring to 4.0.

5.1 Previous research and findings

In line of the topic of this thesis, I will discuss my findings in the context of previous research. To this date, there is little or nothing previous research on the PE-teachers' perception of public health, and even less about their perceptions' of their own role as PE-teachers in terms of public health. In the concluding chapter, 6.4, I will recommend how this topic might be taken further in future research.

5.2 PE-teachers' perceptions of health and public health

The PE-teachers' overall understandings were more likely the same as WHO (n.d.) definition of health and findings from Løvli (2014) study; where 'health' is related to a healthy body, and a state of complete physical, mental and social well-being. Still, they were all focusing and talking basically about 'health' as physical health. It have been claimed that there have

been raised concerns and questions about PE-teachers' professional knowledge of health (Alfrey et al., 2012); which can be related to the understandings in this study, considering their overall focus on physical health. Thus, one teacher mentioned the absence of diseases which can correlates to the study done by Fugelli and Ingstad (2014) where some, but not many, of their informants experienced the absence of disease as a major health condition. Very many of the PE-teachers in this thesis mentioned 'health' in an individualistic way, where each person had their own health and responsibility and that it depends on for example: 'how a person eats, how a person lives and how a person exercise'. When talking about health in individualistic terms, PE-teachers' were rehearsing the PE discourse; they were, in other words, expressing what sociologists would call an 'ideology of healthism'. Green (2008) explains healthism as an ideology in which (young) people are viewed as responsible for their own health. Relate to healthism, it seemed that many of the PE-teachers had a perception of 'health' in a way where their students should make 'necessary lifestyle choices to improve their own health' (Green, 2008; Quennerstedt, 2008). It can therefore be claimed that the expressions from the PE-teachers were more likely in a 'healthism' way, where individuals are assumed to have a moral responsibility, even duty, to take responsibility for their own health. This includes not only regarding being unhealthy or sick as undesirable, but also as something they can and should overcome by their best efforts (Green, 2008). It can therefore been seen that the PE-teachers' perception of health was focusing on physical health and private problems, without considering the social, economic and cultural factors effecting young people's health.

On the face of it, Burrows and McCormack (2012) explanation in their article, including Løvli (2014) findings, showed that the PE-teachers' perception of 'health' seemed to be a result from their own life, above their knowledge that they possessed through their education. This can be related to their habitus; which are related to their earlier experiences (Engström, 2010). Also, their habitus can lead the teachers into how they act, how they think and how they perceive and evaluate situations (Engström, 2010); which in this case can be that they were still thinking what they did before starting their education to become a PE-teacher. It has been highlighted by several researcher that PE-teachers' knowledge and understanding of health and health promotion to be narrow, limited and approximately flawed (Harris, 2010; Alfrey et al., 2012). Still, the PE-teachers appeared to be clear and direct in their statement of their perceptions of 'health' by expressing their own explanation of the term.

While answering the question of what they understood by the term ‘public health’, there were contrasting perceptions from the explanation to WHO (n.d.), even though some parts of their answers were similar to the understanding to Folkehelseloven (2011) which define public health as ‘the population’s health and how health benefits is in a population’ (Folkehelseloven, 2011); which are also described in Thurston (2014). An interesting view was that none of the teachers mentioned the concept ‘preventing health’ which are an important public health vehicle, as well as it is mentioned in WHO (n.d.) and Folkehelseloven (2011) explanation and definition of public health. They demonstrated, in other words, a lack of an academic understanding of the concept of public health. In defining public health, very many of the teachers provided conceptions that resembled professional or academic definition of the term. This is, perhaps, unsurprising given that PE-teachers are practitioners and not academics. This apparent inability to conceptualize public health in other than everyday terms does contrast, nevertheless, with the teachers’ later assertions that PE had an important role in public health. It seemed, in other words, that the teachers believed PE to be essential to their own idiosyncratic conceptions of public health. This will be discussed in the next point: the role of PE in public health.

Although they all seemed to see the lines between health and public health, some of them, on the other hand, did appear aware of the link between individual health and the public dimension to health to be found in the academic conception of public health. Some of the teachers’ mentioned that the Norwegian state and government have a responsibility, where few of them mentioned health statistics as an aid to have an overview of the populations health. This perception can be linked to the Folkehelseloven (2011) explanation of public health work. Connecting the explanations and definitions of public health (see WHO n.d., Folkehelseloven, 2011) to the teachers’ answers, it may seem that the PE-teachers are known about this term before and that they had given this some thought, although, they had limited knowledge about this.

Very many of the PE-teachers suggested that the causes of health and ill-health were physical activity and diet. Physical activity is well documented to be one of the most important factors when it comes to health (Green, 2010a; McKenzie & Lounsbury, 2013), and is a source of health and quality of life (Government, 2013). It is also believed that physical activity can bring numerous physiological and psychosocial benefits (Hills et al, 2014). It seemed that the PE-teachers were concerned about physical activity in a way to promote health. People in PE believe that PE and sport are particularly effective vehicles for

promoting physical activity which can improve individual and public health (Green, 2010a). To take a look in another direction, few of the teachers mentioned sedentary behaviors as a factor to ill-health which McKenzie (2007) mentioned as a serious public health problem which can develop numerous preventable diseases. Since the PE-teachers mentioned physical activity as an important vehicle for good health, it can be seen in the light of ‘to not be sedentary’, which can be one of the reason for them to focusing on this. Thus, few of the teachers mentioned technologic factors as a negative development considering the students’ health, which also can be seen in light of ‘sedentary behavior’. In the eye of the PE-teachers’ answering diet as a main factor for good health, this do not correlate to the findings to Fugelli and Ingstad (2014); where relatively few of their informants spontaneously mentioned diet on the same question. As this thesis included interview of PE-teachers, versus ‘people on the street’ in Fugelli and Ingstad (2014), a possibly thought can be that this is a focus since they actually are teaching PE.

5.3 PE-teachers’ perception of the role of PE and their role as PE-teachers in public health

When the PE-teachers’ were asked if they thought PE had a role in public health, they all answered ‘yes’. Very many of them did so immediately and enthusiastically. Green (2010a) claim that there are number of reasons for viewing PE as a suitable vehicle to promote health, while McKenzie and Lounsbery (2013) highlights that PE can play an important role in reducing sedentary behavior and contributing to a population’s health. As the teachers mentioned, PE can have an important public health impact (Sallis et al., 2012) and this is widely assumed (Green, 2010a). PE-teachers themselves are positioned to be the strongest advocated of a healthy and active lifestyle in schools (McKenzie, 2007) and to be role models for their students (Hills et al., 2014).

However, when asked directly what that role was, very many had difficulty providing coherent answers; in other words, they had difficulty saying exactly what that role was. The PE-teachers’ appeared to be unclear about the role of either PE as a subject or themselves as PE-teachers, but especially ‘their own role in public health’ seemed to be unclear. PE-teachers have an ideology of sport which is penetrated deeply into the core assumptions in relation to promoting health through PE, according to Green and Thurston (2002) findings, which can be seen in relation to the findings in this study. It appeared as if the teachers felt

obliged to say yes, because they thought PE *should* (Green, 2008) have a role in public health promotion, even though they didn't know what that role was. Still, the PE-teachers' seemed highly engaged while talking about it. This can be seen in the light of findings and concerns expressed in the literature (Cale et al., 2014) that health tends to be generally absent from PE-teachers' professional development (Harris, 2010; Alfrey et al., 2012).

The PE-teachers were focused on individualistic solutions such as physical activity and their role as motivators. It is expected that PE can influence the health of the students with increasing health-related physical activity during the school day and it may increase the students' knowledge about the health benefits of keeping on with sport and physical activity, which can lead to a lifelong habit (Green, 2010a). Since the teachers were talking about physical activity as a vehicle in public health terms, they indirectly tried to justify this when they explained their role in public health as PE-teachers. This can also be related to their thought that the 'health problem' is an individualistic one, for example lifestyle choices, and that the solution involves being physical active, without taking consideration of factors like diet, environment, social-factors and mental-health. This can also be understood by heading thoughts about the PE-teachers' own health experiences, such as their habitus and socialization. Socialization in early life can be seen as the significant impact in people's habitus (Green, 2010b), which can, further on be seen in light of the teachers' perception of their role in public health terms. Perhaps their socialization process from earlier year and to date are surrounded by the fact that physical activity is the best vehicle to promote health, which aren't that surprisingly considering the expected health benefits of physical activity which are well documented (McKenzie & Lounsbery, 2013). Though, this was mentioned while answering questions about what they understood by the term 'health' and 'public health', but as soon as the questions involved PE's role in public health and their own role as an PE-teachers in public health, they seemed to, mostly, be focusing on individual solution; whereby, physical activity.

Unsurprisingly, the PE-teachers use little or no time on talking about 'health' in PE. Still, some of them mentioned that they had to give their students 'good attitude', 'introduction to different sports and activities' and they described their role as 'a motivator' in PE. Indirectly, this could be associated with their thoughts around 'inspire their students to be healthy and physical active'. The teachers' pronounced that they think 'health' is an important part of PE. On the other hand; they seem to not doing this in practice, even though they claimed that they were focus on 'health' and that this was a 'natural part' in PE. It seemed that they were

‘hoping’ to inspire their students to be physical active, without giving health-related exercise any thoughts. It can be that the PE-teachers tend to not recognize their needs related to health-related learning, which can be seen in the light of their sport background (Harris, 2010). It seemed that they didn’t know enough about ‘public health’ or ‘health-related’ PE; even though it can be assumed that they want to. Still, it appeared that they consequently choose not to prioritize it over other aspects of their work as a teacher, which is also similar to Harris (2010) suggest.

On the other hand, very many of the teachers perceive their role as important, and they came up with different arguments for this. Most of the teachers mention that PE is the only activity for some students, and therefore can be vital for these students; through this, it seemed that they perceive, in lines with McKenzie and Lounsbery (2013), PE as a vehicle who could contribute the students to become physically skilled or physically fit during PE, if they engage actively and also prepare the students for a lifetime of regular physical activity (Troost, 2006), which Troost (2004) claims that should be PE’s primary objective. It is widespread that policies promote physical activities in schools as a suitable means of combating the supposed ‘obesity and health crisis’ (Green, 2008). It appears that the teachers had a perception about these students, who had PE as their only activity, in a way that PE could promote physical activity and fitness outside of class time, which also is mentioned as a behavior teachers can provide in PE by McKenzie and Lounsbery (2013).

Despite the fact that the teachers claimed that they were using little or no time talking about ‘health’ in PE, few of the teachers mentioned episodes with their students where they, indirectly, encourage their students to for example: ‘get some fresh air’ in their free-time. This can be seen in public health terms, even though the teachers weren’t aware of this. PE-teachers’ should focus more on giving students knowledge and skills to participate in a lifetime of physical activity (Hills et al., 2014) and from a public health view, McKenzie and Lounsbery (2013) see PE as a vital source of physical activity and its lifelong promotion. At the same time, however, some of the teachers mentioned outdoor-life as a good way to promote health, and that they are using this in PE, without explaining this further.

On the face of it, few of the PE-teachers perceived their role in public health terms as limited. Regarding Fox’s (2004) statement of PE’s limited role relating to the total activity considering the time spent in PE and Green’s (2010a) reflections considering the parents and family as the ‘decisive factor’ to young people’s involvement in physical activity, the PE-

teachers saw themselves as a ‘little piece in a huge case’ when it comes to the health of their students. Even though the limitations of PE considering promoting health have been discussed (see Green, 2010a) in several research, only one of the PE-teachers’ were aware of this and mentioned it. This can be understandable in a way that PE has traditionally been predicated to believe that physical skills developed during adolescence would provide the foundation for engagement in physical activity in adulthood (Hills et al., 2014). Still, it remained an extensive understanding considering the discussed limitations. Considering this, limitation in PE relating to health promotion didn’t seem to occupy the teachers thought. It remains a research challenge to see if physical activity in childhood or PE can have a significant influence on health outcomes during adulthood (Troost, 2006; Sallis et al., 2012).

An overall observation was that very many of the PE-teachers’ seemed uncertain when they answered questions regarding the term ‘public health’. A perception, considering observations, was that teachers answered what they think ‘the researcher would like hear’, without having further arguments for this. From my perspective, it seemed like the teachers wanted to ‘please me’ by answering the ‘right answer’, but this appeared primarily at the beginning of the interviews. Beyond the interviews, the PE-teachers seemed to answer more honestly and concrete on what their actual opinion was.

5.3.1 PE-teachers perception of ‘health’ in the national curriculum of PE

When discussion turned to more formal references to health in, for example, Folkehelseloven (2011) or even the national curriculum of PE, it became clear that the teachers’ knew little or nothing about which references such documents made towards health. Considering the Public health message from 2013, none of the teachers spoke about nor appeared aware of this. This can be discussed as this was not included in the interview questions, but it could have been a natural part to talk about if the teachers were aware of it. On the other hand, even though the public health message (2013) is an important statement from the Government, it says little about PE or PE-teachers’ responsibility. It can then be understandable that the teachers did not mention this at all.

Looking at the question of the national curriculum, and whether they knew if the term ‘health’ was mentioned, there were limited knowledge about this. Indeed, all of the teachers, except one, had trouble explaining what is in the curriculum. Another thought, the one teacher who answered this in a correct way was new educated and he started his work as a

PE-teacher six months before the interview. This can show, perhaps, that he had knowledge about this since it was a 'fresh knowledge' from his education. In this direction, it can be discussed if PE-teachers should have some kind of courses when new and important knowledge about PE are on the agenda. In the whole study, there were little differences between newly educated teachers and experienced teachers. On the other hand, two or three of the oldest male teachers were talking about gendered PE, which will be discussed in the next point, 5.5.

Further on, they were asked the same question, only regarding the local school plan (called the Year Plan for PE). The teachers find it difficult explaining this, even though some of them had written it. It came up from very many of the teachers that this plan was basically used considering the activities and sports that they had to conduct through the year.

Few of the teachers claimed that they do not follow the general PE curriculum because it does not fit their teaching style. This was mentioned in different terms. An example was to teach in dance. Dance lessons are one of the aims in the curriculum of PE. While talking about this, the teacher argued that it would not be good for his students to have him teaching in dance, considering his bad skills. This could be related to what Alfrey et al. (2012) explain as the sporting and fitness ideologies which can dominate the PE-teachers' teaching, which the teachers' habitus can be expressed when they make sporting choices (Green, 2010b). The fact that few of the teachers 'admit' their limits to follow the curriculum of PE; this could be linked to their habitus and socialization. Habitus can be seen as a way a person thinks, influenced through impact (Engström, 2010) and can therefore be seen as a vehicle that manages the teacher's perception and action so the teacher's personal aspiration inevitably impacts what is taught and how it is taught in PE (Burrows & McCormack, 2012). PE-teachers can also be strongly attached to a sporting ideology (Green & Thurston, 2002), which can lead them to prioritize content of their teaching.

The PE-teachers appeared to view health-promotion via sport and physical activity as 'naturally part of PE irrespective of what the National curriculum said'. The traditional curriculum of PE which emphasizes competitive team sport and motor skills seen to erode the public health impact of PE (Troost, 2004), but considering the teachers' view of 'health' as a natural part of PE, it seemed that they do not get affected by the curriculum in a 'health-related' way, but rather their thoughts about 'health' as a natural part of PE. In the light of

the teachers' socialization, they could have been affected by other people (Thurston, 2014) earlier in life.

5.3.2 Gender dimension among the PE-teachers

In the study, it appeared a gender dimension among the PE-teachers. First of all, three of four female in the study mentioned upbringing as a factor for the health of students, and one of seven men mentioned this. It seemed that the female were more attached to a family-affiliation than the male. Another dimension that appeared was the allegations from two of the three oldest male teachers who mentioned gendered PE as the best solution. According to Opplæringslova (1998) § 8-2, the teachers' are allowed to have gendered PE, but not as a solution through the whole semester. Research relative to gendered segregation is not clear on what students prefer and previous research supports both shared and gendered teaching (Klomsten, 2012). Sex differences is evident in, especially sport, where differences are wider than in any other area of young people's leisure (Green, 2008), which those two teachers mentioned in the context of 'girls are suffering' in classes when having PE with boys. PE still remains gendered in terms of organization, content and delivery (Green, 2008). Thinking of the earlier 'solution' to gendered PE, it can be understandable that these two teachers' see the difference of girls' participation in coeducation than what they were doing earlier and this could also be affected by their socialization and habitus, thinking of earlier impacts (Engström, 2010) in PE. On the other hand, exclusion can only occur if and when boys and girls want to take part but cannot (Green, 2008); which are not the case in this connection.

5.4 PE-teachers' perception of their students' health

The PE-teachers tended to view their students as healthy. On a scale of 1 to 5 (where one represents very unhealthy and five represents very healthy), very many of the teachers rated their students' health with the number: 4. Interestingly, almost all of the teachers who rated their students' health as high, commented that their class was exceptional in health terms and far from typical. Some also said that they are lucky to have such a good class. It was therefore noticeable that the teachers' overall perception of the 'health' to their student was reasoned by their focus on sport and participation, instead of health benefits. In this regard, few of the teachers mentioned obesity as a public and individual student health issue, but *not*

as a problem with their students. Government policies, strategies and responses appear to be addressing the obesity-issue in many schools (Cale & Harris, 2013). Concerning the growing 'problem' of obesity among youngsters and the possible consequences of this for children's current and future health (Cale & Harris, 2013) which are highlighted approximately every day from government, media, messages and scientific, none of the teachers felt this as a problem with their students, which can be viewed as surprisingly.

The PE-teachers appeared to equate the health of their students with taking part in PE, behaving well and being good at sport. Considering the findings from the teachers' rating of their students health, as well as the study of Cale et al., (2014) confirm, previous claims that 'performance', 'fitness' and a 'fitness for performance' discourse dominate the delivery of health (Green & Thurston, 2002; Harris, 2010; Alfrey et al., 2012). PE-teachers are often strongly attached to a sporting ideology (Green & Thurston, 2002) and it has been suggested that PE-teachers' understanding of their students' lives are characterized by a blend of 'myth' and 'reality' (Green et al., 2009). The teachers in this study seemed to be more likely a mix perception of 'myth' and 'reality'. Considering 'myth', most of the PE-teachers' claimed that they didn't know what their students eat, while on the other hand, some of the teachers knew that they were eating for example 'fast food' and still, they rated their students health with the number 4. Looking back at the teachers' suggestions of the causes of health and ill-health (see 5.2) very many of them did mentioned *diet*. At this point, *diet* seemed not to be a main reason while ratings their students health and their perception of 'health' seemed to disappear at this point. It can be suggested that their 'sport-ideology' in promoting health seemed clearer considering this point.

The research shows that pupils' fitness tends are good in sports. The teachers' 'reality' in their understanding of their students' health seemed to be their focus on participation, engagement and their sport-skills. It is evident that PE traditional emphasis on physical fitness which is not consistent with the public health goal for promoting lifelong physical activity (Troost, 2004). The teachers who spoke about health-related exercise in Green and Thurston's (2002) study seemed to see sport as the main vehicle for health promoting in PE, where exercise was equated with fitness and fitness was frequently equated with sport. The sporting ideology to the PE-teachers can be seen as resistant to change (Green & Thurston, 2002). This study seemed to show a similar process with PE-teachers, in other words, very many of the PE-teachers viewed sport as the best vehicle for health promotion, and by

implication viewed health as being the same thing as physical health, with no mention of mental health.

6.0 Conclusion

This conclusion chapter will introduce four main categories: (i) conclusion of the research, (ii) strengths of the study, (iii) limitations of the study and (iv) proposals to future research.

6.1 Conclusion of the study

Through this study, the PE-teachers' perceptions of health and public health appeared, including their perception of PE and their own role as PE-teachers in public health terms. A significance from this study showed that the PE-teachers were, certainly, agreeing the fact that PE could and should have a role in public health terms. It appeared that all of the PE-teachers honestly felt drawn to the conclusion that PE and their position as a PE-teacher had a huge responsibility when it comes to the students' health and that PE should, and certainly was obliged to, make an important role in public health terms. It was therefore interesting that very many of the PE-teachers did not seem to use much or any time in PE to either talk about health or teaching PE with a public health meaning or in a health-promoting way. Although, it appeared clearly that all of the PE-teachers suggested that 'health' and 'public health' is a focus area which was a natural part considering PE. It can be assumed that the teachers do not do this in practice considering their lack of understanding of especially 'public health'. Even though very many of the teachers were unsure about their knowledge whether 'health' was mentioned in the national curriculum or not, they expressed the importance of thinking of 'health' in PE. Still, the PE-teachers' perceptions considering their students health seemed to be participation, engagement and their sport-skills. It can therefore be seen, in the light of previous research (see Green and Thurston, 2002; Trost, 2004; Harris, 2010; Alfrey et al., 2012; Cale et al., 2014) that the PE-teachers were attached by a sporting and/or fitness ideology.

A concluding comment involves that it was clearly that the teachers were engaged while talking about health and public health. It can therefore be highlighted that this seemed to be an interesting topic for these teachers, which could have been develop through PE with the right guidance.

6.2 Strengths of the study

While sending out the information-sheet about the study, it was attempted to be aware to not illuminate the term 'public health'. One reason for this was that the optimum was to meet the teachers unprepared in order to limit the risk of teachers to 'study' and prepare on this topic before the interviews. One of the schools made contact before the interview-period and asked if they could get some more information about the questions that would be asked before the meeting. A polite answer was sent which included suggestion considering encourage them to not be prepared, which will give the best result of this study. It was also highlighted that I wasn't expecting any kind of preparation from the teachers' side. Therefore, one of the strengths to this study was that the PE-teachers knew approximately only the basics of the study's topic, which hopefully strengthened the interviews and it then became a reason to assume that they would answer without having some predetermined thoughts about this.

It was important to derogating from earlier experiences and knowledge about the topic while interviewing the teachers. Preparation in order to have an 'objective view' was done ahead of the interviews. Each teacher was informed, before the interview that I would only ask questions in a normal way, without showing what I actually thought about it. They were also informed in advance that 'no answer is wrong and every thought is useful for this study'.

In the light of qualitative research, the study was aimed to get voluntary participants. Techniques to recruit the participants were done by a polite approach that made, hopefully, PE-teachers who thought this study was interesting to participate, without feeling any further pressure.

6.3 Limitations of the study

After the interview period, reflections have appeared around this experience. As an inexperienced interviewer, preparation and testing the interview was the best vehicle in this process. Still, some things went well while interviewing and on the other hand, however, there was a good deal of potential for improvement to become a better interviewer. When it comes to improvement, asking more follow-up questions could appear, and considering lack of experiences, this hopefully got better each time doing so.

One PE-teacher had to go earlier than expected; therefore, this interview was shorter than what I was hoping for. The fact that all of the teachers, except one, wanted to meet on the school they worked on was not optimal for the study. This can be argued by claiming that their colleagues, principals or school leaders could see both the researcher and the teachers themselves, which gave the other teachers at their school knowledge about their participation in this study. It seemed, on the other hand, that the teachers who chose this didn't perceive this in a complicated way. Since it were clear in the information sheet they received before participate, this seemed to not be a problem.

Considering lack of time and limitations for this study, it would be optimal to interview a greater number of PE-teachers in the chosen area, and also to have longer interviews with them, to get deeper in the topic for this thesis.

While contacting the teachers, I decided to not ask them of their education or education-level before the interviews. After ended interview-period, I noticed that none of the PE-teachers had bachelor in PE and that they all were elementary school teachers where one of their subjects was PE. Having finished the study, I have reflected upon the teachers' education, and optimally, it would have been interesting to interview PE-teachers with different education program. Considering my own education from bachelor in PE, I would have preferred to interview kinds of both professionals. This could have given me more different answers, or perhaps, it wouldn't make a difference. Also a better balance of the number of men and women could have given me some other answers. As mentioned, seven teachers were from school 'a', three from schools 'b' and one from school 'c'. In another situation and time, I would have tried to get the same number of PE-teachers from each school. An idea would then be to compare the schools and see if teachers would give the same or different answers. This could also show further similarities or different units between school management.

When the meeting took place with the teachers, it started with a review talking about the information-sheet, to be sure that they were aware of their rights and the guidelines considering the records and transcription, as well as their rights to be anonymous. Still, it appeared that almost all of them had just 'read this in a hurry' and they weren't quite sure of what this information-sheet was all about. Some of them also mentioned that it was 'so long time ago' since they received it, and therefore, it was hard to remember. Even though it was a lack of knowledge about the study, none of the teachers were arguing about their thoughts

around it, and it seemed that they were heedless about it. Afterwards, some reflections appeared and were thought through: (i) bring this sheet to every teacher so they could have read this before getting interviewed. On the other hand, this would cost more time from the teachers, which could give negative consequences for the interview-time, and (ii) send the information-sheet one day before interview, while informing them of the meeting the next day.

While working with the findings-chapter, one of the limitation with this study seemed to be the translation of the PE-teachers' answers. Since they all were Norwegians, the interviews were done in the Norwegian language. Considering the Norwegian language, I found it difficult to translate everyday-used sentences, which are not that common to the English language. I tried in my best way to make their quotes in the right meaning of what they said, but still, this was not the correct translation for the PE-teachers' quotes and answers.

A last comment which is necessary to include is, from my point of view, the perception of the PE-teachers contradictory opinions. The process of analyzing and discussing the quotes from the PE-teachers were challenging at times considering their answers. It appeared to me that the PE-teachers were contradictory in some of their statements, which was highlighted for me while reading the transcripts and coding all of the interviews. It can therefore be some gap in their opinions perhaps because they all seemed confused to some extent during the interviews, but this was basically in the starting time of the interviews.

6.4 Proposals for future research

After ended research period, many thoughts appeared considering future research. Due to the lack of time it would be interesting to probably expand the scope of this study. As mentioned in the limitation section, it could and probably would be interesting to interview teachers who had studied and achieved a bachelor-grade in PE along with PE-teachers with other educational backgrounds. Reflections and grounds for this are that it may be a variation of the different type of teachers' education, which could, perhaps, appear significant, considering the teachers' knowledge around the topic 'health' and 'public health'.

Considering experiences from my time as a student, I would especially be interested to try to conduct an intervention taking inspiration from this study. This could be done in several

ways. An example can be to contact four schools who were participating for a programme called: 'PE and public health terms'. Two of the schools were offered a period programme where the PE-teachers went to courses to learn different techniques in a public health context. The other two schools would then be control schools; in other words, a school that participate without taking part in the public health programme. These schools would then only be observed and perhaps some interviews and survey would be conducted in this period. The time of the period would settle the outcome in which the intervention had time to get the best result. After ended period, four schools would be compare to each other in a way where they perhaps would show a difference in PE considering having a public health focus.

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Appendix

Appendix 1: NSD Document

Appendix 2: Letter of information

Appendix 3: Interview guide



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Vår dato: 15.12.2014

Vår ref: 40976 / 3 / MSS

Deres dato:

Deres ref:

TILBAKEMELDING PÅ MELDING OM BEHANDLING AV PERSONOPPLYSNINGER

Vi viser til melding om behandling av personopplysninger, mottatt 28.11.2014. Meldingen gjelder prosjektet:

40976	<i>How do Norwegian PE teachers perceive their roles in public health terms?</i>
Behandlingsansvarlig	<i>Høgskolen i Hedmark, ved institusjonens øverste leder</i>
Daglig ansvarlig	<i>Ken Green</i>
Student	<i>Ingrid Dahl</i>

Personvernombudet har vurdert prosjektet og finner at behandlingen av personopplysninger er meldepliktig i henhold til personopplysningsloven § 31. Behandlingen tilfredsstiller kravene i personopplysningsloven.

Personvernombudets vurdering forutsetter at prosjektet gjennomføres i tråd med opplysningene gitt i meldeskjemaet, korrespondanse med ombudet, ombudets kommentarer samt personopplysningsloven og helseregisterloven med forskrifter. Behandlingen av personopplysninger kan settes i gang.

Det gjøres oppmerksom på at det skal gis ny melding dersom behandlingen endres i forhold til de opplysninger som ligger til grunn for personvernombudets vurdering. Endringsmeldinger gis via et eget skjema, <http://www.nsd.uib.no/personvern/meldeplikt/skjema.html>. Det skal også gis melding etter tre år dersom prosjektet fortsatt pågår. Meldinger skal skje skriftlig til ombudet.

Personvernombudet har lagt ut opplysninger om prosjektet i en offentlig database, <http://pvo.nsd.no/prosjekt>.

Personvernombudet vil ved prosjektets avslutning, 31.05.2015, rette en henvendelse angående status for behandlingen av personopplysninger.

Vennlig hilsen

Katrine Utaaker Segadal

Marie Strand Schildmann

Kontaktperson: Marie Strand Schildmann tlf: 55 58 31 52

Vedlegg: Prosjektvurdering

Kopi: Ingrid Dahl ingrid.sonstebj.dahl@gmail.com

Dokumentet er elektronisk produsert og godkjent ved NSDs rutiner for elektronisk godkjenning.

Avdelingskontorer / District Offices:

OSLO: NSD, Universitetet i Oslo, Postboks 1055 Blindern, 0316 Oslo. Tel: +47-22 85 52 11. nsd@uio.no

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Forespørsel om deltakelse i forskningsprosjekt

Forespørsel om å delta i intervju i forbindelse med masteroppgave.

Jeg vil være takknemlig om du vil ta et par minutter av din tid til å lese dette informasjonsbrevet om et forskningsprosjekt som du blir invitert til å delta på.

Jeg er utdannet med en bachelorgrad i kroppsøving og studerer for tiden master i folkehelse ved Høgskolen i Hedmark, avdeling Elverum. I min masteroppgave ønsker jeg å gjennomføre en studie som omhandler kroppsøving og folkehelse.

Deltakelse i studien vil innebære et intervju som varer omtrent i 30 minutter. Intervjuet vil bli gjennomført på en dato og tid som du selv velger, og vil finne sted på en arena som er mest praktisk for deg. Det er ønsket at intervjuene blir tatt opp på båndopptaker. Alt av innsamlede data fra intervjuet vil bli behandlet konfidensielt - den eneste andre personen som kan se dataene vil være Professor Ken Green (veileder ved Høgskolen). I tillegg vil navn og sted bli anonymisert i den ferdige masteroppgaven for at det ikke skal være mulig å gjenkjenne enkeltpersoner i avhandlingen. Alle personopplysninger vil bli kodet og anonymisert ved leveringsdato: 31.mai, 2015. Alle data vil bli ødelagt 12 måneder etter at prosjektet er fullført.

Det er frivillig å delta i studien, og du har mulighet til å trekke deg fra prosjektet når som helst uten å måtte begrunne dette nærmere. Hvis du velger å trekke deg, vil all innsamlede data om deg bli slettet.

Hvis du har noen spørsmål om forskningsprosjektet, ta kontakt med Ingrid Dahl på telefon: xx xx xx xx eller på e-post: -. Du kan også ta kontakt med min veileder for prosjektet, Ken Green, på e-post: -.

Studien er meldt til Personvernombudet for forskning, Norsk samfunnsvitenskapelig datatjeneste. Hvis du er villig til å delta i studien vil jeg være takknemlig om du kunne bekrefte dette via e-post så snart som mulig, samt at du gir dine kontaktdetaljer og potensiell dato(er) for intervjuet. Ideelt sett vil intervjuene foregå i uke 3 og 4, mellom 12. – 23. januar, 2015.

Med vennlig hilsen

Ingrid Dahl

Informasjon til deltakere

Du er invitert til å ta del i en forskningsstudie. Før du bestemmer deg for om du ønsker å delta, er det viktig for deg å forstå hvorfor denne forskningen blir gjort og hva det vil innebære. Vennligst ta deg tid til å lese følgende informasjon nøye. Du kan kontakte forsker hvis det er noe som er uklart eller hvis du ønsker mer informasjon.

Hva er hensikten med studien?

Formålet med studien er å undersøke sammenhengen mellom helse, folkehelse og kroppsøving.

Hvorfor har jeg blitt valgt?

Du har blitt invitert til å delta fordi du er en kroppsøvingslærer i den valgte regionen for studien.

Hva vil studien innebære?

Studien vil innebære et intervju av deg selv. Intervjuet vil vare i omtrent 30. minutter. Intervjuet vil bli gjennomført på en tid og dato som du selv velger, og vil finne sted på en arena mest praktisk for deg. Intervjuene vil bli registrert og en anonymisert avskrift vil bli gjort tilgjengelig for deg hvis du ønsker å ha en.

Må jeg ta del?

Det er opp til deg å bestemme om du vil ta del i studien. Hvis du bestemmer deg for å delta er du fortsatt fri til å trekke seg når som helst uten å oppgi noen grunn.

Hva er de mulige ulemper og risikoen ved å ta del?

Det er ingen ulemper eller risiko ved å ta del i studien.

Hva er de mulige fordelene ved å ta del?

Ved å delta i studien vil du være med på å bidra til vår forståelse av forholdet mellom kroppsøving, folkehelse og helse.

Hva om noe går galt?

Hvis du ønsker å klage eller har noen bekymringer angående måten du har blitt kontaktet eller behandlet på i løpet av perioden, ta kontakt med: Professor Eivind Skille, avdelingsleder for Folkehelse, Høgskolen i Hedmark, Terningen Arena, Elverum: xx@hihm.no

Vil min deltagelse i studien være konfidensiell?

All informasjon som samles inn om / fra deg i løpet av forskningsperioden vil bli behandlet konfidensielt. Bare forskeren (Ingrid Dahl) og forskerens veileder (Professor Ken Green) vil ha tilgang til informasjonen.

Hva vil skje med resultatene av studien?

Resultatene vil bli skrevet opp i studentens masteroppgave og potensielt en rekke forskningsrapporter som vil bli sendt til akademiske tidsskrifter. Alle deltakere, deres skoler og regioner vil anonymiseres i enhver publikasjon.

Hvem kan jeg kontakte for ytterligere informasjon?

Hvis du ønsker mer informasjon om forskningsprosjektet før du bestemmer deg for om du ønsker å delta, ta kontakt med forsker: Ingrid Dahl

Interview guide:

The role of Norwegian physical education and physical education teachers in public health: A case study.

Theme 1.0: PE teachers' conceptions of health/public health

- 1.1 What do you understand by the term 'health'?
- 1.2 What do you understand by the term 'public health'?
- 1.3 Are the terms 'health' and 'public health' related in any way?

Theme 2.0: PE teachers' perceptions of the *causes* of health/ill-health

- 2.1 What do you think are the causes of health and ill-health?

Theme 3.0: PE teachers' perceptions of the *role of PE* in public health

- 3.1 Does PE have a role in public health?
- 3.2 (If yes) What is that role?

(If no) Why do you think that?

- 3.3 How does/can PE promote public health?

Theme 4.0: PE teachers' perceptions of their *own roles* as teachers of PE in public health

- 4.1 Do you think that PE-teachers themselves have a role in a public health context?
- 4.2 How do PE-teachers do this?

Theme 5.0: PE teachers' perceptions of health in the national/regional and school curricula for PE

- 5.1 Is health mentioned in the *national* curriculum for PE?

-- Where and how (what it says?)

-- If 'don't know', what have inspired you to think of health in PE?

5.2 Is health mentioned in the *school* curriculum for PE?

-- Where and how (what it says?)

Theme 6.0: Perception of health.

6.1 On a scale of 1-5, where one represents very unhealthy and five represents very healthy, how healthy do you think pupils at this school are?

6.2 Can you tell me why you have rated their health in that way?

Background

Age	
Sex	
Professional on this school	
Education, qualifications	
Years as PE-teacher	
Years as PE-teacher at this school	
Possibly other professional/jobs (biography)	