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“We need New Zealand Schools on the Move programme”

Report and analysis how was the Finnish Schools on the Move programme accepted in New Zealand

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Bachelor’s Thesis
Degree Programme in Sports and Leisure Management
2016

Abstract

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ammattikorkeakoulu Oy

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Programme
Degree Programme in Sports and Leisure Management

Title of the thesis	**Number of pages and appendix pages**
”We need New Zealand Schools on the Move programme” Report and analysis how was the Finnish Schools on the Move programme accepted in New Zealand	70 + 7

Finland has been identified as one of the top countries of education. Finnish Schools on the Move programme is one of the governments’ priority programmes and established currently in 76% of the Finnish comprehensive schools. The goal of the programme is to provide an hour physical activity daily integrated in the school day. The programme has been established in comprehensive schools and recently in the second level of education.

“How the Finnish Schools on the Move programme would be implemented and accepted in other countries?” was the question that the thesis aimed to respond. Thesis is written for a use of the Board of Education and the Finnish Schools on the Move programme.

Actions based on the programme were implemented in Owairoa Primary School and Howick College in New Zealand. Three-month pilot was established in 2015, from September to December. The pilot included qualitative methods such as interviews, observations, diary, questionnaires and internet survey, which were used to estimate the acceptance towards the programme. In addition to New Zealand, the Finnish Schools on the Move programme has been trialed in Italy since 2015 mentored by the writer of the thesis. Experiences were used to combine the findings of New Zealand. Thesis is the first reported process including all planning, practical implementation, evaluation and suggested future directions regarding the establishment of the Finnish Schools on the Move in other countries.

The findings indicate that actions to activate the classroom time were feasible approaches in New Zealand. Active recesses were experienced as the area to focus on but it was challenged by the current structure of the school day. Commuting to school was identified a challenge to increase physical activity. Actions to increase physical activity were feasible to schools of New Zealand and Italy. However, by taking into account the core-principles of the Finnish Schools on the Move programme: given independency for schools and the schools have their own individual action plans. Identified challenges and success factors in implementation are compared between Finland, New Zealand and Italy.

Theory based on the findings suggest, that the Finnish Schools on the Move could be implemented in other countries by using same bottom-up approach as in Finland. Interest towards the programme has already occurred from several countries. Education of Finland is valued by foreign countries. Currently, actions to establish the Finnish education as an export business have been presented by the government. According to growing body of interest towards the Finnish Schools on the Move programme, possibilities of the programme as an export business are presented by the thesis. Benefits of exporting the programme are presented and as well as the suggestions for practical implementation.

Keywords
Physical activity, education, learning, intervention, export business

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1 Introduction

During the 20th century, Finnish school system was recognized by quite a few. In 2001, OECD published the first global PISA evaluation considering the academic performance of 15-year-old students. Finland performed in the top in mathematics, reading and scientific literacy: “It was a PISA miracle”. Published results were followed by policy makers and professionals visiting from all around the world learning about the education system of Finland. Though, in December 2013 the PISA results showed a decline in the achievement of Finnish standards. (Sahlgren 2015, 1-2.)

Nowadays physical activity is not necessary part of the everyday living for the youth (Aira, Kannas, Tynjälä, Villberg & Kokko 2013, 8). Majority of the school-aged children do not meet physical activity recommendations (Basch 2010, 4; Ekelund, Tomkinson & Armstrong 2011, 864). In Finland, during the past 20 years, school environment has been recognized as a place to develop physical activity opportunities for the youth. (Sosiaali- ja terveysministeriö & Opetus- ja kulttuuriministeriö 2013, 24). Finnish Schools on the Move is a national programme aiming to establish active school culture in Finnish comprehensive schools (Tammelin, Laine & Turpeinen 2012, 7). Finnish Schools on the Move programme uses bottom-up approach meaning that all schools have their own individual action plans to increase physical activity and no required actions are provided by the programme (Laine et al. 2011, 15; Haapala et al. 2014, 841). The approach is unique regarding the provided support and independency to implement actions that are seen suitable and successful for each school (Haapala et al. 2014, 850).

45 schools participated in the pilot phase of the programme in 2010 (Laine et al. 2011, 12). The number has increased during the six years to over 1700 schools and is currently been implemented by 76% of the comprehensive schools of Finland (Opetus- ja kulttuuriministeriö 2016b). During the year 2017, the Finnish Schools on the Move programme will spread to second level of education such as upper secondary school and vocational institutes (Valtioneuvosto 2016). The aim of the programme for the years 2016-2018 is that every comprehensive school student in Finland would achieve an hour physical activity during the school day (Opetus- ja kulttuuriministeriö 2016a).

The programme is currently established as one of the priority programmes of the Finnish government. The government plan for the period 2015-2019 aims to increase academic performance and reduce the growing gap considering the academic achievement. Atmosphere of the school, physical and mental wellbeing of the children and adolescents are under consideration. To achieve government’s goals one approach is to provide an hour

physical activity daily in comprehensive schools by spreading the Finnish Schools on the Move programme nationwide. (Valtioneuvoston kanslia 2015.)

Based on the fact, that Finland is known for its' quality in education, the goal for next 10 years is to break the barriers to Finnish education to become an export business. (Valtioneuvoston kanslia 2015.) As the Finnish Schools on the Move programme has been recognized nationwide as an initiative to address issues as well as health and academic area, the possibilities of the programme internationally were under consideration. "How the Finnish Schools on the Move programme would be implemented and accepted in other country?" was the question that the thesis aimed to respond. One primary school and one secondary school from Auckland, New Zealand, participated in the three-month pilot. Experiments based on the programme were implemented in New Zealand and the acceptance of the teachers, principals and students towards the actions were estimated by the writer of the thesis. The goal was to gather understanding and experiences. Thus, qualitative methods have been used to collect data of the thesis (Glenn 2010, 95).

In addition, the Finnish Schools on the Move programme has been implemented in Italy organized by the local teachers and mentored by the writer of the thesis. Eight schools in primary school and lower secondary school level are involved in the trial. Particular thesis is focusing on the pilot in New Zealand. Experiences based on the case Italy are presented in the discussion to compare the acceptance and implementations between two countries. Identified challenges and success factors of the Finnish Schools on the Move programme are compared between Finland, New Zealand and Italy.

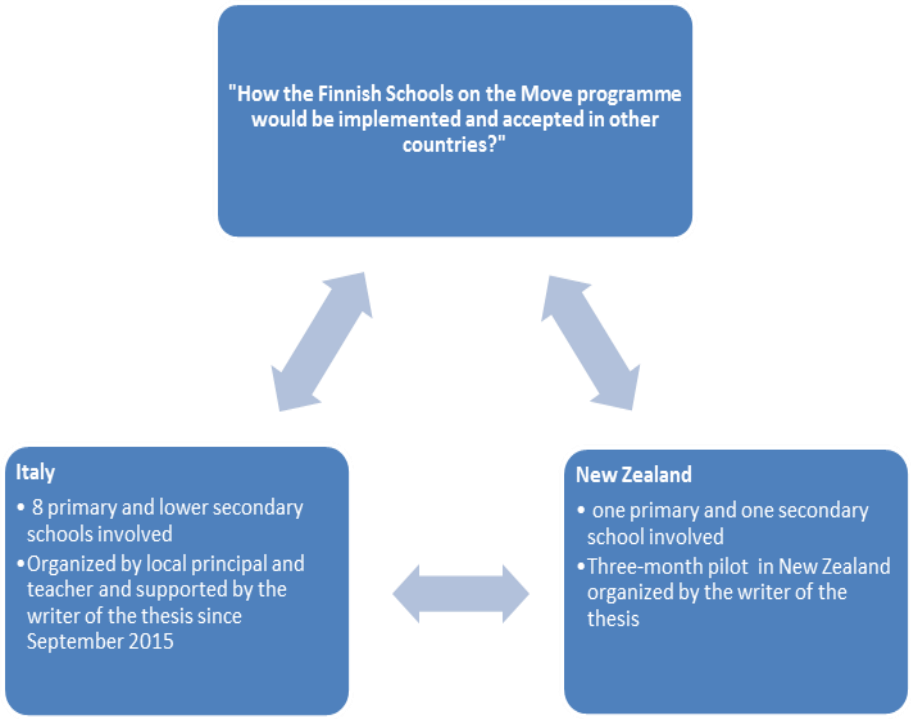


Figure 1. The purpose and the combined target groups of the thesis described in a figure

Thesis is written for a use of Finnish National Board of Education and the Finnish Schools on the Move programme. Purpose of the thesis was to provide data about the possibilities of the programme in foreign countries. Collected success factors and challenges that practical implementation might face is valuable information for the programme. According to international interest towards the programme, the possibilities of the Finnish Schools on the Move programme as an export business are presented in the thesis. Topic was current, considering that the programme was recently published as one of the priority initiatives of the Finnish government. Similar trial and evaluation were not established before. Thus, thesis provides new knowledge for the Finnish Schools on the Move programme and National Board of Education. The thesis is the first reported process including all planning, practical implementation, evaluation and suggested future directions regarding the establishment of the Finnish Schools on the Move in other countries. The headline of the thesis: “We need New Zealand Schools on the Move programme” was noted by a Physical Education teacher of the pilot school.

2 Finnish Schools on the Move programme

2.1 Background and purpose

Finnish physical activity recommendations suggest that all school-aged kids from age 7 to 18 should be physically active at least one to two hours daily. Physical activity should be suitable and various for certain age. Sedentary behavior and screen time should be limited less than two hours each day. (Opetusministeriö & Nuori Suomi 2008.)

Reducing physical activity and increasing sedentary behavior is a growing issue in Finland as well as all over the world. Finnish Schools on the Move is a national programme aiming to implement Finnish physical activity recommendations in school settings. The programme was launched in 2010 aiming to establish physically active school culture in Finnish comprehensive schools (grades 1 to 9) and to increase the physical activity levels during and immediately before and after the school day. (Tammelin et al. 2012, 7; McMullen et al. 2015, 387.) In addition, the Finnish Schools on the Move programme is focused on to decrease sedentary time during the school day (Liikkuva koulu 2012a). The aim is to integrate physical activity in school settings in general instead of focusing only the Physical Education lessons. The aim of the programme is to enhance health and well-being across the whole school including students, teachers and other staff. (Laine et al. 2011, 11.)

Finnish Schools on the Move programme uses bottom-up approach meaning that all schools have their own individual action plans to increase physical activity in school settings and no required actions are provided by the programme (Laine et al. 2011, 15; Haapala et al. 2014, 841). The approach is unique regarding the provided support and independency to implement actions that are seen suitable and successful for particular school (Haapala et al. 2014, 850). Given independency and individual action plan for each school are the core-principles of the Finnish Schools on the Move programme.

Finnish Schools on the Move has been part of the government programme since 2010 and funded by the Ministry of Education and Culture. Finnish Schools on the Move programme is organized in cooperation with various organizations. (Tammelin et al. 2012, 70.) Programme is coordinated by LIKES Research Centre for Physical Activity and Health and funded by state budget, lottery funds and other sources. (Liikkuva koulu ryhmien aset-tamispäätös OKM/29/040/2015.) The programme aims to provide objective evidence considering the effectiveness of the physical activity intervention in school set-

tings. The follow-up and evaluation is organized by LIKES. Research is included as a key part of the programme. (Tammelin et al. 2012, 7; Laine et al. 2011, 11.)

2.2 Pilot Phase (2010-2012)

The pilot phase of the programme (2010-2012) started with 21 regional projects including total 45 schools and approximately 10 000 students (Laine et al. 2011, 12). Students in grades 1-9 participated in the programme. Schools applied to the programme by introducing an individual project plan. The selection was made by the Ministry of Education. The quality of the plan, size and type of the school and geographical location were under consideration. (Haapala et al. 2014, 841.) All the selected schools had various backgrounds and environments to implement the project (Kämppi et al. 2013, 5).

All programme schools have an individual action plan to implement physically active school culture (Kämppi et al. 2013, 5). The programme has been implemented by e.g. hiring a coordinator to run the project, building a working group including teachers and principal and the administration of the municipality and in some case the coordinator has been one of the teachers or the principal. (Laine et al. 2011, 15.) Three components: "students' participation, learning and more movement -less sitting" were kept in mind in active schools (Liikkuva koulu 2012a). Based on the ethics of the Finnish Schools on the Move programme, students are playing a key role while building a more active school day. Planning, project implementation and decision-making are seen as students' right as well the right of the staff. (Karvinen 2014, 10.)

Aim of the research and follow-up was to gather information about the project implementation and physical activity habits of the Finnish comprehensive school kids. Special attention was paid how the programme affects the atmosphere of the school, social climate such as bullying and social relationships in the school. (Laine et al. 2011, 12-13; Tammelin et al. 2012, 13.)

2.3 Programme phase (2012-2015)

Aim of the programme phase was to establish the physically active school culture in Finnish comprehensive schools by providing an hour physical activity during the school day (Karvinen 2014, 10). Physical activity can be increased by using the recess time or intervals as in New Zealand terminology, commuting to school and time in the classroom wisely. Physical activity integrated in school settings can be implemented in various ways such as active breaks, physical education lessons, physically active academic lessons, school environment that offers physical activity opportunities, clubs and active commuting. Long

sitting periods can be reduced by using active studying positions such as standing or sitting on a gym ball, providing active breaks outside and using functional teaching methods. (Tammelin, Kulmala, Hakonen & Kallio 2016.)

Research during the programme phase aimed to find out how did the projects get started, how the projects improved to increase physical activity and how the actions effected to the students' physical activity levels and the school environment. Questionnaires and interviews were introduced for the students, project coordinators and teachers. Physical activity measurements by accelerometers and Move! –monitoring system for physical functional capacity were accomplished by the students. (Liikunnan ja kansanterveyden editämissäätiö LIKES 2016.)

2.4 Effectiveness of the programme

Finnish Schools on the Move programme has developed new approaches both administratively and functionally. Shared network has been created between various parties by the programme. (Tammelin et al. 2012, 72.) Finnish Schools on the Move programme has spread rapidly since the programme was launched in 2010. In 2015, 31% of the Finnish comprehensive schools were involved in the programme. In one year, after the programme was published as one of the government's priority programmes, the amount of participating schools has doubled (76%) and already 80% of the Finnish municipalities are part of the more active school approach. (Opetus- ja kulttuuriministeriö 2016b; Liikkuva koulu 2012c.) During the year 2017 Finnish Schools on the Move programme will be spread to second level of education such as upper secondary school and vocational institutes (Valtioneuvosto 2016). The aim of the programme during the years 2016-2018 is to offer an hour physical activity daily for every comprehensive school students in Finland. Programme is currently involved by more than 300 000 students. (Opetus- ja kulttuuriministeriö 2016a.)

After two years of programme, survey was sent to classroom teachers, principals, subject teachers and assistants and teachers for special education needs. Altogether survey was responded by 411 persons in 38 schools. The questionnaire included questions regarding physical activity recommendations, experiences about the programme and what is the role of the school in promotion of physical activity. (Kämppi et al. 2013, 5.) According to the results, nearly 90% of the respondents answered that physical activity during the school day increases satisfaction with the school. The same percentage of the respondents agreed that recesses spent outside might increase the peaceful learning environment. Three out of four respondents answered that the school is responsible to provide opportu-

nities to be physically active each day, motivate the inactive students and offer opportunities to join sports clubs. (Kämppi et al. 2013, 26.)

Students' are passive during the majority of the school day and sedentary time is increasing by the age (Tammelin et al. 2013, 75). In primary schools, students spend 65% and in secondary school 71% of waking hours being inactive. In Finland, students in primary schools are being sedentary 39 min/h and in secondary school 46 min/h which means that 47% of daily sedentary time is reached during the school day. (Tammelin et al. 2016.)

The acceptance among the staff and the students during the pilot phase of the programme was positive and successful. However, the level of physical activity did not increase significantly. A lot of work needs to be done considering the fact that only part of the students are achieving the physical activity recommendations (Tammelin et al. 2012, 54). Physical activity habits and student involvement in planning school activities were evaluated during the two-year period by the student questionnaires. The survey was responded by 2630 students. Evaluation suggests that physical activity among the students increased during the years 2013-2015. Considering the amount of students who do not meet physical activity recommendations, significant reduction was seen among inactive upper comprehensive school girls (15%->7%) and boys (14%->10%). (Tammelin et al. 2016.)

The main results of the evaluation were increased number of upper comprehensive students spending recesses outside and physical activity during the intervals increased especially among inactive upper comprehensive students. In addition, leisure time physical activity increased especially among inactive students. (Tammelin et al. 2016.) Other evaluation of the programme reported that organized recess activities, developed sport and recreation facilities and equipment, and student activators had a positive impact to physical activity of the students (Haapala et al. 2014, 849). Even though, students are encouraged to be involved with the planning, involvement is still minor (Tammelin et al. 2016). Cooperation between teachers, students and principals has experienced to have a positive impact to atmosphere of the school (Karvinen 2014, 10).

3 International physical activity intervention projects

3.1 Sport in Education-project

"Sport in Education-project is all about changing the way of teaching to the direction that students are learning the best." (Wood 16.11.2015)

Three-year project (2012-2015) Sport in Education (SiE) aimed to provide tools for the schools to use sport to advance academic, sporting and social outcomes. Sport was used to increase engagement of the students towards the classroom subjects in addition to, learn through sport and being physically active. (Boyd & Hipkins 2015, 6.) The goal was to increase participation in sport, improve academic performance and reduce negative and improve positive social outcomes (Sport New Zealand). During the three-year period aim was to develop, trial and evaluate the SiE-approach with eight secondary schools of New Zealand. The goal was to identify actions that could be made available for all schools. (Sport New Zealand 2016.) By five components, curriculum development, student leadership, secondary and primary connections, school values and culture and community links Sport in Education-project aims to enhance social, sporting and academic outcomes of the students. (Sport New Zealand 2012, 6.)

The project aimed to achieve improvement in following components: teacher's professional development, new teaching methods and resources, changes in the school culture, improved links between secondary schools, primary schools, local sport organizations and wider community including care-givers (Sport New Zealand 2012, 3; New Zealand Physical Educator 2013). During three years, the aim was to develop resources that would be available for all schools so the project could continue with no- or low-cost in the future. Research and evaluation are taken care of by Sport New Zealand organization and other several agencies. (Sport New Zealand 2012, 3.)

After three years of piloting the program, SIE-project has been recognized as powerful tool to influence on health and well-being of the students. SIE-project is currently established in one of the government's initiatives to address the issue of obesity among the children. In 2016 project will spread to 15 new schools around the country. The goal of 40 new schools during next three years was purposed by a long-term plan. (Sport New Zealand 2015.)

Influence of the Sport in Education project is found in several areas of learning: increased attendance rates and decrease in off behavior, improved academic achievement evaluat-

ed by NCEA results, higher rate of completed assignments and achieved credits. Overall engagement towards the subjects and schooling has been noted by the NZCER survey. (Boyd & Hipkins 2015, 6.) Especially Sport in Education approach has succeeded to improve learning and behavior among disengaged students (Sport New Zealand 2015).

3.2 Change4Life programme

"Would you or your family like to be healthier and happier? Would you like loads of ideas, recipes and games to help you do this? Then you already know why you should join Change4Life." (Change4Life)

In England, only 21% of the boys and 16% of the girls in the age of 5 to 15 achieved recommendation of an hour daily physical activity (Health Survey for England 2012, 1). One third of children and two thirds of adults in England are noted to be obese (Department of Health 2009, 5). The goal of Change4Life Primary School Sports Clubs programme is to enhance well-being and physical activity among less active children targeted in the age of seven to nine. The programme was launched in 2009 in England aiming to create an approach to prevent worldwide issue of obesity. (Department of Health 2011, 3.) By the Change4Life programme, several sports and healthy lifestyle activities were provided by the school-based clubs targeting for less active children (SPEAR 2015b, 6). By the programme various school-based sports clubs has been established since the year 2011. Programme is funded by the Department of Health and organized by Youth Sport Trust. (SPEAR 2015a, 1.)

In practice, clubs run approximately 12 weeks typically during lunchtime or after school. Clubs are participated by 15 students and two young leaders. Various activities are offered in the clubs based on the kit provided by the programme. (SPEAR 2015a, 4.) Change4Life is established in both primary and secondary level in addition to sister brand Start4Life targeting families and adults in mid-life (Department of Health 2011, 5). Admission of Start4Life is to inform about diet, alcohol consumption and physical activity in pregnancy and provide advises for the early years of children (Department of Health 2011, 7).

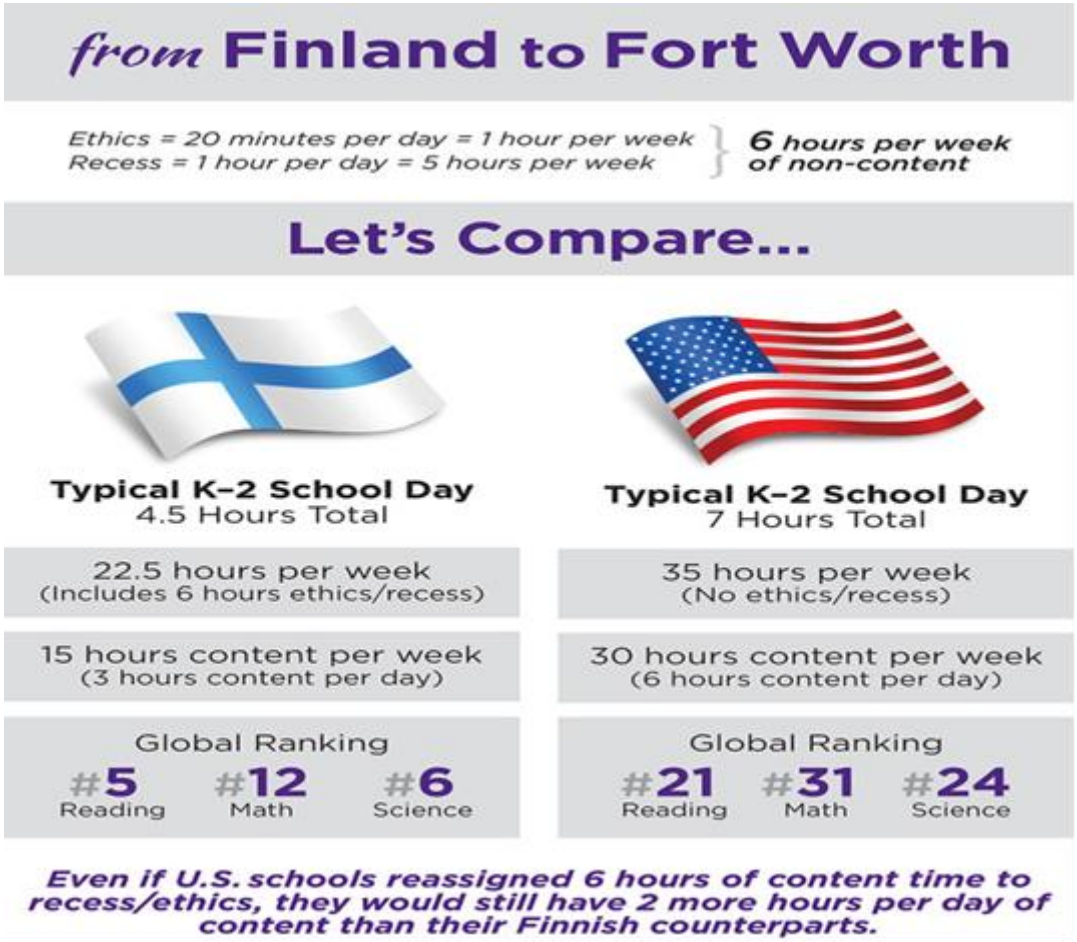
Change4Life has succeeded to increase physical activity among less active primary school kids (SPEAR 2015b, 6). Evaluation of the programme introduced that by the year 2015 more than 270 000 students were involved in the Change4Life clubs. During the years 2014-2015, more than 15 000 Young Leaders were trained and more than 7000 clubs were established in school settings. Number of children participating has increased

from the year 2011 to 2015 by 77%. (SPEAR 2015a, 1.) In four-year period number of students, achieving 60-minute physical activity daily has increased by 69% (Youth Sport Trust 2015). Change4Life has succeeded to target passive kids when 82% of the participating children were not achieving 60-minute physical activity daily and 69% were not achieving 30 minutes' physical activity each day. According to Children's Survey, less active kids who did not achieve 60 active minutes daily were positively benefitted by the engagement of the clubs. (SPEAR 2015a, 1-2.) Programme evaluation suggest that element of competition, possibility to impact project delivery and develop ideas were seen motivating by the participants (SPEAR 2015b, 3).

3.3 LiiNK-project

Based on the reduced involvement in Physical Education and declined achievement in reading, writing, math and science in United States, the LiiNK-project aims to change the way schools operate towards more physically active and creative school environment. The main steps were introduced by the LiiNK-project: increase the hours of physical activity, integrate recesses in the school day and focus more in the ethics and person's development. Project aims to change the school culture less classroom based learning, support creativity and passion to learn. Instead of focusing on standardized tests, focus is more in social relationships and improves the public school system to emphasize on health. (LiiNK-project 2016.) LiiNK-project is established in elementary schools of Texas. Two pilot schools participated in the project in 2014. In autumn 2016, 14 public schools and two private schools will be involved in the LiiNK-project. (LiiNK-project 2016.) The project is funded by several organizations and sponsors.

Interestingly, Finnish education has been a role model for LiiNK-project. Finnish schools were explored by a researcher during six-week period. Recesses and encouragement in creativity and spontaneous play were identified as suitable aspects to transfer from Finland in the schools of United States. (Rhea 2014, 8.)



Picture 1. Comparison of the school systems of Finland and United States (LiiNK-project 2016)

Actions for the first year of the project, included teachers' development, three 15 minutes recesses and three 15 minutes Positive Action lessons weekly added in the curriculum. After one year of project, evaluation found that recesses have positive impact on students' behavior such as concentration in the class, decreased misbehavior and off-task behavior. Test results in math and reading increased significantly compared last year's same age class. Recesses were seen to support student's social communication with peers. First, returning from the recesses was noted to be time-consuming. Time was evaluated and the time decreased in the process from three to four minutes to less than one minute. (Liink-project 2014.)

4 The power of physical activity

4.1 Physical activity among youth in 21st century in western countries

Nowadays physical activity is not necessary part of the everyday living for the youth (Aira, Kannas, Tynjälä, Villberg & Kokko 2013, 8). As indicated above, majority of school-aged children do not meet physical activity recommendations (Basch 2010, 4; Ekelund, Tomkinson & Armstrong 2011, 864). Physical activity among the youth and adolescents is declining and screen time activities are increasing. Both findings are seen to grow by the age. (Troiano et al. 2008, 186.) Already children who participate in the early childhood education are evaluated to spend 60% of the school day by being sedentary (Sosiaali- ja terveysministeriö & Opetus- ja kulttuuriministeriö 2013, 16). Today, all over the world physical inactivity is one of the leading causes of mortality (WHO 2009, 9).

In several countries and regions, decrease in physical activity has been especially noticed among the girls (Inchley 2016, 143; Aira et al. 2013, 21). In Finland, the difference between girls and boys regarding physical activity habits is remarkable. In all age groups, girls were noted to be less physically active compared to boys. (Sosiaali- ja terveysministeriö & Opetus- ja kulttuuriministeriö 2013, 16.)

Finnish national evaluation found that also participation in sports is declining by the age (Husu, Paronen, Suni & Vasankari 2011, 22). The huge decline in physical activity appears in the age of 15 when only 15% of the Finnish boys and 9% of the girls are achieving the physical activity recommendations. Decline in physical activity can be described by the terms drop-off and drop out. Drop-off means the decline in physical activity by the age and drop out describes leaving the sport hobby typically in the age of puberty. (Aira et al. 2013, 13.) In Finland, the decline is noted to be more dramatic compared to other countries (Sosiaali- ja terveysministeriö & Opetus- ja kulttuuriministeriö 2013, 16; Aira et al. 2013, 21). However, on the other hand, the amount of individuals participating physical activity over the recommendations has increased slightly in Finland (Sosiaali- ja terveysministeriö & Opetus- ja kulttuuriministeriö 2013, 17).

4.2 Association between physical activity and health

Health is a condition of balanced well-being of physical, social and emotional condition. Thus, health is not simply absence of sickness or disease. (World Health Organization 2003.) Physical activity includes any bodily movement produced by skeletal muscles so that increases energy expenditure is compulsory (WHO 2016).

“Healthier students are better learners” (Basch 2010, 4). The association between physical activity and physical condition to children’s life is undisputed (Syväoja et al. 2012, 23; Basch, 39). Regular moderate to vigorous physical activity has significant association with health. Based on the physical activity recommendations for children and youth (age 5-17 years) should achieve at least 60 minutes of moderate to vigorous physical activity daily, including major part of aerobic activities and at least three times physical activity that affects to muscle and bones. (World Health Organization 2010, 7.) However, majority of the school-aged kids does not meet the physical activity guidelines (Basch 2010, 4).

Review published by European Heart Journal, suggest that obesity in childhood is likely to lead obesity in adulthood. Thus, prevention should begin already in the phase of childhood. (Juonala et al. 2010, 1745-51.) Main reason for obesity is unhealthy diet and lack of physical activity. Amount of overweight youth has increased during the past decades. Risks of chronic diseases among children have seen to appear earlier than before. In addition, blood pressure has increased and symptoms of cardiovascular diseases have appeared by the childhood obesity. (Valtonen, Heinonen, Lakka & Tammelin 2013, 35.) Evidence based on four analyzed longitudinal cohort studies suggest that obesity in the phase of childhood is more likely to lead to the type of 2 diabetes, dyslipidemia, hypertension and risk of carotid intima-media thickness in adulthood. Even the child would be overweight but in the adulthood would reach normal weight; no increase appeared in of any indicated risks. (Juonala et al 2010, 1884.)

According to the research, certain amount of physical activity is effecting on physical condition (Centers for Disease Control and Prevention 2010, 5). Physical activity has a positive effect on young people’s physical condition in many aspects such as condition of bones, metabolic system, cardiovascular function and overall fitness (Howie & Pate 2012, 160). Especially, among passive children physical activity seem to prevent risk of cardiovascular disease (Andersen, Riddoch, Kriemler & Hills 2011, 871). In addition, physical activity associates positively with blood pressure and healthier lipid blood profile in children (Valtonen et al. 2013, 37).

Based on the research the strong connection is found between school based physical activity programs and increased physical condition and fitness (Basch 2010, 15). Studies suggest that over 40% of the students’ daily MVPA recommendations can be achieved during recess time (Ridgers, Stratton & Fairclough 2006, 365). Physical activity implemented in school settings seems to effect positively in student’s overall health (Basch 2010, 45).

4.3 Association between physical activity and learning

4.3.1 Academic achievement

The main purpose of the school is to provide education and support learning of the children. For many years, the connections between physical activity and learning have been evaluated (Centers for Disease Control and Prevention 2010, 5; Howie & Pate 2012, 160). Amount of the research considering the association between learning and physical activity in school aged-children has increased (Centers for Disease Control and Prevention 2010, 5; Syväoja et al. 2012, 5). However, learning is a complex process affected by many factors. In the following chapter, previous studies about the effectiveness of physical activity to different areas of learning will be presented. Association to academic achievement, cognitive functions, academic behaviors and atmosphere of the school will be presented.

In the current thesis, academic performance and academic achievement are described as similarities. Academic performance includes the school grades, standardized test results in various school subjects as a part of learning. (Centers for Disease Control and Prevention 2010, 8.) Learning is described as a key component of human growth and development. Change in behavior and gathered knowledge are results of learning. Learning is development in skills and emotional reactions. Learning is always an active process that occurs in various environments. Learning process is an opportunity to grow oneself but also others around in the society. (Syväoja et al. 2012, 9.) By being physically active, students can gather potential to achieve better also in academic subjects (Jaakkola, Liukkonen & Sääkslahti 2013, 262).

According to previous research physical activity may effect in academic performance in many different ways such as on task behavior, grades and concentration (Centers for Disease Control and Prevention 2010, 10). According to Grieco, Jowers & Bartholomew (2009, 1925) people are able to concentrate approximately 10 minutes before experiencing the decline in concentration. Review of studies concluded that if an hour of physical ac-tivity per school day would be provided instead of academic subjects the change would not harm the academic results (Trudeau & Shephard 2008, 1).

Donnelly & Lambourne (2011, S40) found during the three-year trial that increased activity in the classroom had an impact to students' academic achievement and body mass index (BMI). The research found that the students who had greater physical activity compared to the control school had improved significantly in reading, math and spelling. Trial was implemented by including 90 minutes of physically active academic lessons per week in the curriculum. Active methods were used in many subjects including mathematics, language,

geography, science and spelling. (Donnelly & Lambourne 2011, S38-S40.) Especially with boys, reading and arithmetic skills were seen to be influenced positively by developed motor performance. Therefore, students with better condition of cardiorespiratory fitness and motor performance seemed to achieve better in academic and cognitive skills. (Haapala 2015, 42.)

In the study of Vazou and Smiley-Oyen (2014, 483) the impact of more active lessons to achievement in mathematics was evaluated. The comparison was made between the traditional math lessons and active teaching methods. The enjoyment towards the subject increased when physical activity was integrated in math. Enjoyment towards the subject might also increase the students' motivation. (Vazou & Smiley-Oyen 2014, 483.) In addition, Have and the colleagues (2016, 3-5) evaluated the effectiveness of physically active teaching methods to math scores. 1st grade students received approximately six times 45 minutes interactive math lessons per week. The structure of a lesson consisted at least 15 minutes of physical activity and no more than 20 minutes of sedentary time. The study showed an impact of physical activity to math achievement, body mass index, creativity and change in executive function. (Have et al. 2016, 1-5.)

The study of Mullender-Wijnsma et al. (2015, 370) was implemented by providing 63 physically active academic math and language classes. Interesting aspect appeared in the study considering the academic achievement among third and second graders: the level of achievement in math and reading increased among third grades compared to the control group. However, among second graders the control group achieved significantly better in math and with no difference in reading. The explanation of a different impact was probably caused by difference in MVPA (moderate-to-vigorous physical activity). Second grade students' participation in MVPA was higher than third-graders. (Mullender-Wijnsma et al. 2015, 370.) Results of Mullender-Wijinsma are in accordance with the results of Donnelly & Lambourne (2011) who found that classroom based physical activity improved performance in reading, math and spelling. As a comparison, Kwak et al. (2009, 916) found that only vigorous level of physical activity was associated in academic achievement and the link was found only among the girls. For the future research it is important to aim the knowledge, is the MVPA integrated to academic subjects beneficial only with certain age students and is the MVPA necessary for academic achievement (Mullender-Wijnsma et al. 2015, 370).

In Sweden, the time for Physical Education has been reduced from the curriculum national wide (Käll et al. 2014, 473). The "School in Motion" intervention program aimed to promote physical activity culture among the school-aged children. Intervention was designed

to prove the hypothesis that physical activity intervention program would increase the grades in mathematics and English focusing on students in 5th grade. Intervention study was implemented by adding two physical activity classes weekly in cooperation with local sport clubs. The target group was compared in the reference group where the amount of physical activity was doubled less. 4-year long intervention study included 408 students from intervention school and 1557 students in reference school. (Käll et al. 2014, 474-475.) Results suggest that the program improved academic performance significantly. Based on the study the possible reasons of improved academic performance were such as enhanced concentration and classroom behavior, experienced joyousness and fellowship, which might have led to students' better mood with the schoolwork. (Käll et al. 2014, 476-477.)

In many countries integration for students with special needs, learning and behavioral challenges are becoming more popular. Often the issue towards the integration is the fear of different levels of academic performance. (Trudeau & Shephard 2008, 1.) Study of Demirci, Engin & Özmen (2012, 1575) suggest when students with learning difficulties were targeted, when physical activity levels increased the learning abilities increased as well. Käll and colleagues (2014, 473) were paying attention to the worldwide issue of reduced physical activity in school settings. Decline of hours of physical education should be taken into consideration based on the fact that less amount of activity might have a negative impact on ability to learn (Käll et al. 2014, 479). In addition, there is no evidence that increased hours of physical activity would affect negatively to academic performance (Donnelly & Lambourne 2011, S42; Basch 2010, 42).

4.3.2 Cognitive functions

Cognitive functions include reception, processing, memory, cognitive skills, concentration, thinking and verbal ability (Syväoja et al. 2012, 4). Cerebellum, motor cortex, prefrontal cortex and hippocampus are the brain structures that are positively affected by physical activity (Iacoboni 2001, 555). Based on the observational studies physical activity has an association to physical condition and mental health of the youth (Howie & Pate 2012, 161; Basch 2010, 39). Physical activity is seen to have a positive impact on humans learning and cognitive functions (Syväoja et al. 2012, 5). The most effecting influence of physical activity is to cognitive functions (Basch 2010, 40). Blood flow has seen to be the most beneficial influence of physical activity on the brain. Physical activity improves the cardiovascular system and its association to ability to circulate oxygen and blood has seen to influence on brain and cognition. (Tomporowski et al. 2015, 27.) Physical activity effects to person's brain and the memory which are the key components considering the ability to

learn (Basch 2010, 45). Chaddock et al. found that higher levels of fitness were associated with wider volume of hippocampus among children. Exercise was seen to promote development of new neurons in the areas of brain that effect on learning. (Chaddock et al. 2010, 177.)

Review written by Centers for Disease Control and Prevention presented results based on 43 international articles about the acknowledgement of physical activity and academic performance. Method of gathering data was to divide academic performance in three following categories: academic achievement, academic behavior and cognitive skills and attitudes. (Centers for Disease Control and Prevention 2010, 5.) Evaluation focused on effect of physical activity during the recesses, physical education lessons, time spent in the classroom and extracurricular activities. After summarizing the articles, 251 associations were found about indicators of physical activity and academic performance. The most significant connection was found in relation between cognitive skills and attitudes to physical activity. (Centers for Disease Control and Prevention 2010 14.) Even though the most significant association was found between cognitive skills and physical activity, Etnier et al. (2006, 124) noted that aerobic fitness and cognitive performance did not appear to have significant relation. Regarding to Etnier and the colleagues, absence of the association might be explained considering the wide scale of physiological changes that aerobic fitness includes. Thus, fitness may mediate the link between physical activity and cognitive performance. (Etnier et al. 2006, 125.)

Castelli et al. (2011, 4) evaluated the impact of after school physical activity program to children's cognitive functions. Students were provided by 120 minutes of sports every day after school from August to May. In the study, the effect of physical activity to cognitive skills was estimated by four cognitive assessments. The assessments required attention, memory and mental flexibility. Study found that the students who actively participated during the organized session accomplished the cognition task better. According to Castelli and colleagues, vigorous physical activity has an impact to cognitive tasks. (Castelli et al. 2011, 2-4). As a conclusion, cognition and brain functioning are positively influenced by physical activity (Bouchard et al. 2012, 328).

4.3.3 **Academic behaviors**

Academic behaviors include attendance, time on task, on task behavior and drop-off from school (Centers for Disease Control and Prevention 2010, 8). According to Basch (2010, 45) physical activity programs in school settings seem to have an impact to social skills such as connectedness and cooperation. Yuin & Moore (2004, 1453) found that for stu-

dents who participated in competitive sports the drop-off from school was significantly lower than students without sport background. The commitment to school has seen to increase through joining extracurricular activities. (Yuin & Moore 2004, 1453.)

Grieco and the colleagues (2009, 1924) evaluated the effectiveness of more active classroom lessons to time on task behavior. The study provided information that after inactive class the decrease in time on task was significant. After physically active lesson, the on-task behavior increased. Physical activity has an impact to concentration and the capability to focus on the task was noted by the evaluation of Centers for Disease Control and Prevention (2010, 32).

Physical education and Health studies can affect students' inactivity and reduce the off behavior in the school (Hernandez 2014, 8). Integrated physical activity in school settings have shown a positive impact to absenteeism, engagement towards the school and reduced risk of dropping out (Basch 2010, 40). Sport in Education-project has found that using sport as context to address academic, social and sporting outcomes of the students have had a positive influence of the students' behavior. Year level nine students were targeted and evaluated. The class had zero detention during the project as a comparison to over 120 detentions last year. Student engagement was significantly better compared to the comparison class: Engagement was evaluated with the question such as "I have fun" and "I am always on time and organized". 81% of the Sport in Education class responded to have fun in the class compared to 23% of the comparison class. The evaluation of Sport in Education project reported that average attendance in 2013 of the school was 75.5% compared to Sport in Education class 85.9%. (Sport New Zealand.)

4.3.4 **Atmosphere of the school**

Supporting students' well-being is a key role of the school. Safe school environment is more likely to lead the students with positive health behaviors. (Inchley et al. 2016, 8.) If the climate of the school is not safe, it will probably lead to absenteeism of unengaged students (Basch 2010, 5). Safe school environment is seen more likely to promote physical activity (Basch 2010, 43).

In the viewpoint published in the Journal of Physical Education, Recreation and Dance, Barbara L. M. Hernandez (2014, 8) states that schools, teachers, parents and communities are playing the key factors of children's development in physical education, health and learning. School satisfaction and positive atmosphere of the school are proved to have an association to learning (Trudeau & Shephard 2008, 5). Active Minds and Active kids

(AKAM) programme aimed to implement an hour physical activity during the school day. Intervention suggest that physical activity increased the students' enjoyment. Physical activity sessions were experienced to help the students to settle in the class. (Macdonald, Abbott, lisahunter, Hay & McCuaig 2012, 446.) In addition, according to Grieco et al. (2009, 1952) physically active lessons seem to decrease off behavior during the school day.

Physical activity during the school day might affect the experience of the enjoyment in the school. One possible effect of physical activity was reduced boredom. Reduced boredom may increase student's attention and concentration in the class. Active school day may build a motivating school atmosphere which will lead to engaging students. (Käll et al. 2014, 477-478.) Physically active school culture might affect also the teachers in a positive way (Käll et al. 2014, 477; Donnelly & Lambourne 2011, S40). Classroom-based physical activity is considered as an enjoyable activity for both teachers and students (Donnelly & Lambourne 2011, S38-S40). Increased amount of movement during the school day might build the expectations of the teachers towards the students' learning capacity. Donnelly and Lambourne (2011, S40) found that the participation of the teacher was directly related to students' physical activity levels and participation. "Teachers are recognized as a key to quality in education" is noted by Ministry of Education of Culture et al. (2012, 26).

5 School system

5.1 Finland

In Finland, education is compulsory from the age 7 to 16. Basic education last nine years and it is provided with a single structure instead of separating the time in primary and lower secondary schools. After nine years of basic education student will receive a certificate to apply higher studies. (Ministry of Education and Culture 2016.)

In the age of six children are provided by the optional pre-primary education. Aim of the pre-primary school is to develop children's learning abilities. (Ministry of Education and Culture 2016.) In the Finnish system children are offered the school close to their home (Ministry of Education and Culture, Finnish National Board of Education & Cimo 2012, 15). Education in Finland is free from early childhood education to higher education. There is no cost for caregivers regarding transportation, books and a daily healthy lunch. (Ministry of Education and Culture et al. 2012, 6.) Principle of the Finnish education is that everyone from all circumstances and all places are provided by the equal high level education (Sahlberg 2011, 45).

Ministry of Education and Culture is the responsible of the educational policy and the National Board of Education is the responsible of implementing the policy. The municipalities and local administration are the decision makers when it comes to funding and local curriculum. Decision-making can be delegated to the schools when the principal of the school is the head of decisions. The schools are funded by public funding and it is organized between state and local authorities. Autonomy is wide in all levels in the Finnish schools. The way of providing education is optional for the schools and teachers as long it is based on the law and national core curriculum. Materials and the methods of teaching are decided by the teacher. The public funding for comprehensive schools is dependent on the number of school-aged kids living in municipality. For upper secondary school and vocational school funding is depending on the number of students in the school. (Ministry of Education and Culture et al. 2012, 11-13.)

School year contains 190 days starting from August and finishing in beginning of June. In the five-day school week subjects and timetable are decided by the schools. In the basic education, national evaluations of learning outcomes regarding mathematics, mother tongue and literature and other subjects are done regularly during the school year. The aim of the evaluation is to follow how the standards have been achieved nationally instead of ranking the schools based on the results. National test are not part of the Finnish edu-

cation. Assessments based on the national curriculum are made by teachers. In the end of grade 9 students will receive a certificate which will be evaluated when applying for further studies. (Ministry of Education and Culture et al. 2012, 13-15.)

After the compulsory basic education, more than 90% of the students are noted to continue studying straight to upper secondary school or vocational school. (Ministry of Education and Culture et al. 2012, 18-21). General upper secondary school includes general education and offers possibilities for students to continue further studies. Upper secondary school is for students in the age from 16 to 19. Upper secondary school is based on the courses. Matriculation exams are required to accomplish in the end of a school. Exams are nationwide and a key to further studies in university, polytechnics and vocational institutes. (Ministry of Education and Culture 2016.) General upper secondary education is completed approximately in three years. In the last year of studies students will complete a final national examination including at least four compulsory tests. (Ministry of Education and Culture et al. 2012, 18-21.)

Upper secondary school can be accomplished in combination with vocational school. Vocational school gathers three years and is a school in cooperation with real working experiences. (Ministry of Education and Culture et al. 2012, 18-21.) Vocational education is aiming to provide skills to working life and support lifelong learning. Students will accomplish qualification and have a permission to work in the field or continue in the higher studies. (Ministry of Education and Culture 2016.)

5.2 New Zealand

Flexibility of the three pathways of education: early childhood education, school education and tertiary education is allowed by the New Zealand education (Ministry of Education 2015, 8). School year starts at the end of January and finish at mid-December. National Curriculum appears in all state schools of New Zealand. Teaching is based on the National Curriculum in all years of schooling. Schools of New Zealand are categorized by the socio-economic status. Decile system is developed to support schools that are attended by students from low socio-economic communities. The lower the decile rate is the more school receives funding from the government. (New Zealand Ministry of Education 2016.)

Early childhood education is provided for the children in the years from birth to age of five. Early childhood education is not compulsory. (Ministry of Education, 14.) Second level of education is provided by the state schools for free of charge to permanent New Zealand citizens. 85% of the school-aged children participate in more than 2500 state schools in

New Zealand. Number of students attending in the schools varies between of 10 to 2000. Zoning system appears in New Zealand meaning that the most of the students attend the school which is nearby their homes. Education system of New Zealand gathers 13 Year levels when students are between the ages of five and 19. School is compulsory for students from ages six to 16 but most of the students start school at age of five. School is compulsory only until the Year level 11 but the majority of the students continue their studies all the way to Year 13. (Ministry of Education, 15.)

Primary school education comprises 8 Year levels. Year level 1 is the first class attended by the students. 8 Year levels are provided by the primary education, with Years 7 and 8 are offered by primary or a separate intermediate school. Numeracy and literacy are in the center focus during primary education. (Ministry of Education, 15.) During the primary education from Year 1 to Year 8, students' skills in reading, writing and mathematics are evaluated by the National Standards (Ministry of Education, 21).

Year levels between 9 and 13 are provided by the secondary education. Age of students during the secondary school is from 13 to 19. Secondary school students are provided by the curriculum subjects and a possibility of specialization during the Year 11 to 13. Flexibility for the teachers is provided by the curriculum in terms of eight core subjects: English, Arts, Health and Physical Education, Technology, Mathematics and Statistics, Science, Social Sciences and Languages. (Ministry of Education, 20). During the last three years of secondary education, students aim to achieve 80 credits to accomplish the national senior secondary school qualification (NCEA). NCEA can be achieved in three levels in various subjects and courses. NCEA must be accomplished to entry to University. (Ministry of Education, 29.)

Tertiary education is the third level of education including higher and vocation education. 30 per cent of the cost of the studies is paid by the students and the other part is funded by the government. (Ministry of Education, 24.)

5.3 Role of the school in promotion of physical activity

According to professionals of the field of physical activity, school has been considered as place where physical activity recommendations should be provided for the youth (Howie & Pate 2012, 160; Ministry of Education 2007, 13). School environment is seen as a great possibility to provide physical activity for millions of school-aged kids. Growing body of evidence is suggesting that integrated physical activity in school settings have either no impact or positive impact to academic performance (Basch 2010, 42; Donnelly & Lam-

bourne 2011). However, the structure of a school day is cutting of the time from physical activity and physical education. (Centers for Disease Control and Prevention 2010, 5.) More and more the schools are focused on the academic performance and Physical Education is increasingly eliminated off the curriculum (Howie & Pate 2012, 160; Basch 2010, 42). Teachers are under the pressure to achieve the academic standards (Vazou & Smiley-Oyen 2014, 482).

Policy makers and teachers often fear that movement in the class will decrease the student's ability to learn and cut time off the instructions (Vazou & Smiley-Oyen 2014, 482). To implement physical activity inside the school day it needs to be sold to school administration. To establish physically active school culture, board of trustees, the school management team, the school community recreation team, classroom teachers, physical education teachers, parents, students, student leaders, sport department and school-community are required to be on board (Ministry of Education 2007, 42). If the scientific research proves the association between physical activity and academic achievement the approach will most likely receive the better acceptance (Howie & Pate 2012, 160). Establishing the whole school approach, the responsibilities need to be shared. (Ministry of Edu-cation 2007, 42).

Schools may address many health issues and in addition improve learning by relating physical activity to a classroom subjects (Donnelly &Lambourne 2011, S42). Schools have an opportunity and even the responsibility to provide health promotion programs in the school. Schools can set guidelines to promote physical activity and health. Active and healthy school environment should be fundamental value considering how the well-being of a student impact to achievement in academic subjects and life in general. (Hernandez 2014, 9.) School administration is encouraged to support their staff to include physical activity in the academic subjects (Mullender-Wijnsma et al. 2015, 370). To fill daily physical activity recommendations of the youth, Physical Education subject is only providing one part of the recommendations (Sallis et al. 1997, 1331).

Even though, schools have an important role of providing physical activity experiences, school is not the one and only place to implement physical activity recommendations. School is part of the society which affects the most on children's attitudes and choices. Schools are recommended to have a strong links to communities to ensure that students are aware of the physical activity opportunities during the leisure time. (Ministry of Education 2007, 13.)
Physical activity can be implemented by offering activities such as after and before school sports clubs, active transportation, physical education and activities during the recess

time. (Centers for Disease Control and Prevention 2010, 32; Jaakkola et al. 2013, 267.) Schools are encouraged to provide activity breaks during the school day, extracurricular opportunities to practice sports and especially to enhance non-competitive sports for inactive students (Centers for Disease Control and Prevention 2010, 32). Walking from class to class, making assembly more active and getting movement by cleaning the classroom are mentioned as ways to increase students' physical activity levels (Ministry of Education 2007, 19).

6 Pilot

6.1 Aims and purpose

Three-month pilot aiming to trial the feasibility of the experiments based on the Finnish Schools on the Move programme in New Zealand secondary and primary school is presented by the thesis. Thesis is written for a use of Finnish National Board of Education and Finnish Schools on the Move programme. Aims of the thesis were set in cooperation with the coordinator of the Finnish Schools on the Move, Antti Blom. The main goal was to investigate how the programme would be implemented in the school settings of New Zealand and to evaluate the acceptance towards the actions. According to Blom, in the center was to gather experiences of the teachers, students and principals towards the programme. The focus of the thesis will be in the pilot established in Howick College and Owairoa Primary School based in New Zealand. To combine the findings, the acceptance of the Finnish Schools on the Move programme in Italy will be presented. As a conclusion for the pilot, based on gathered experiences, theory about the possibilities of the programme in other countries could be presented.

It was hypothesized, that depending on the school system the experiments would be implemented and accepted differently compared to Finland. The meaning of the pilot was to evaluate which experiments based on the Finnish programme are capable to transfer from Finnish system to New Zealand's one and which are facing challenges. Writer of the thesis worked as a coordinator of the project and was present in New Zealand. In the following chapters, term coordinator is used while meaning writer of the thesis. The purpose was to observe the school system and activate the school day as ways as seen appropriate and suitable for the schools. The pilot included elements of qualitative research methods, specifically ethnographic research.

The secondary purpose of the thesis was to introduce the school system of New Zealand, as a comparison to the Finnish school system. Finnish National Board of Education was keen to gather knowledge about school systems of different countries. It is believed, that systems can be improved by learning from each other. Thesis is the first reported process including all planning, practical implementation, evaluation and suggested future directions regarding the establishment of the Finnish Schools on the Move in other countries. Finnish Schools on the Move programme has been implemented in Spain as a registered programme school, but the evaluation considering the process has not been made (Haapala 30.8.2016).

6.2 Planning

Traditionally, ethnographic researcher travelled all the way to the target of the research that was typically located far away (Kananen 2014, 42). In the current thesis, the tradition was taken probably too literally when the target country, New Zealand, was located in the opposite side of the world compared to Finland. New Zealand was chosen as the target environment in terms of writer's previous experiences and already established network. Experiences of Italy are presented in discussion and used to provide contrast to the findings of New Zealand.

Considering the effectiveness of the Finnish Schools on the Move in Finland, searching the possibilities of the programme in foreign countries felt natural. The coordinator of the Finnish Schools on the Move programme; Antti Blom was contacted and the idea of the pilot in New Zealand was presented by the writer of the thesis. After the confirmation of the interest, primary schools of New Zealand located in Auckland were approached by email. In addition to primary schools, one secondary school was approached. In 2014, secondary school called Howick College was visited by the writer of the thesis. Aim of the visit was to explore physical activity intervention called Sport in Education-project as comparison to the Finnish Schools on the Move programme. Thus, the link was already made with Howick College. To understand the enthusiasm of the writer of the thesis towards the topic, wider description of the process of spreading the programme internationally is presented (Attachment 1). Howick College and Owairoa Primary School responded the email where the interest to be part of the three-month pilot was inquired. Owairoa Primary School was located nearby Howick College. Observing acceptance of both primary and secondary schools was seen to provide wider knowledge of the acceptance.

The project planning began by exploring the materials of the Finnish Schools on the Move programme. Writer of the thesis had knowledge about school system of New Zealand based on the school visits in four secondary schools in 2014. In addition, information of New Zealand education was provided New Zealand Ministry of Education (Ministry of Education). The profiles of the both pilot schools were explored on the websites.

The goals of the pilot were set in cooperation with the coordinator of the Finnish Schools of the Move programme. Qualitative methods were decided to use as methods in terms of the aim was to investigate and gather understanding of human behavior and the reasons leading to that behavior (Glenn 2010, 95). Interviews, questionnaire and observations collected in the diary by the writer of the thesis were decided to be the methods to evaluate the acceptance towards the programme. In addition, according to Blom, physical activity

measurements by five Polar activity trackers were mentioned to provide a detail of physical activity habits of the youth in pilot schools. Polar activity trackers were given by LIKES Research Centre. During the pilot contacts were kept with Blom to ensure the right direction of a work.

In ethnographic research and often in all qualitative research the specific plan can't be set beforehand because the evaluated phenomenon is unfamiliar (Kananen 2014, 47). Intervention sharing the same agenda as particular thesis wasn't established before. Previous models to evaluate the acceptance in similar situation were not provided. However, the draft project plan was made before the three-month pilot in New Zealand. The plan was based on the knowledge of the pilot phase of the Finnish Schools on the Move programme (Tammelin et al. 2012). Information regarding the project implementation and first steps of pilot phase were provided by the material (Tammelin et al. 2012, 17-27). The frame of pre-planning was based on the report and adapted in New Zealand school settings. However, in the Finnish Schools on the Move programme all schools have their own individual action plans to increase physical activity in school settings and no required actions are provided by the programme (Laine et al. 2011, 15; Haapala et al. 2014, 841). Thus, even the draft plan was considered in advance by the coordinator, the plan was decided to be flexible. If the implementation would be set before taking into account the point of views of the pilot schools, the pilot would not follow the core-principles of the Finnish Schools on the Move programme. The actual plan of the pilot and which experiments would be trialed, were set upon the arrival in cooperation with contact persons of both pilot schools to ensure actions would be suitable for each school.

Before the arrival in New Zealand, the planning was made in the stage of discussion with the contact persons. The specific timetable and experiments to make school day more active were decided to put into action upon the arrival. The pre-plan made by the coordinator included conversation with contact persons about the aims during the pilot, period of observation in typical school day, implement experiments to activate the school day which would be observed and discussed to be suitable for the schools and estimate the acceptance towards the actions by the qualitative methods. The frame existed before the pilot but the experiments that would be implemented were unknown.

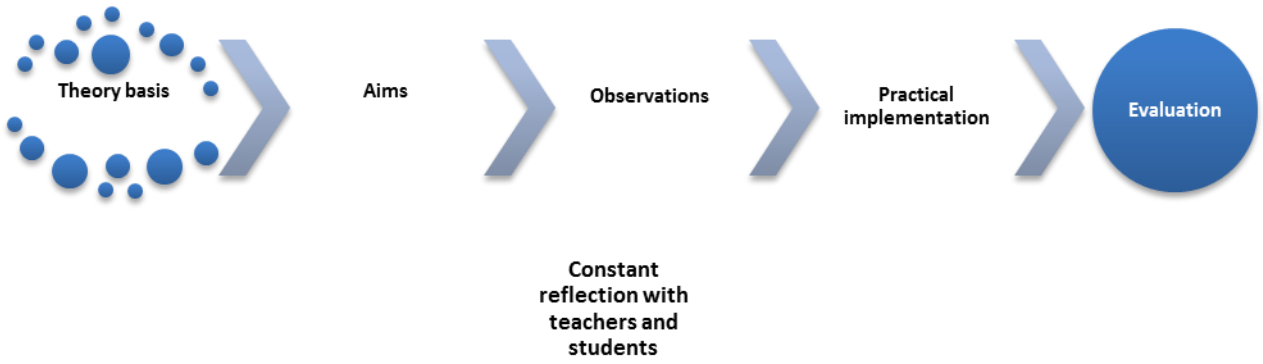


Figure 2. Draft plan of the pilot

In the pre-plan, the schedules and business of the school day was not taken into consideration enough. Planning and implementations were dependent on the schedules of the teachers. Frame of the plan (Figure 2) was dependent on the timetables of the teachers. Theory basis, discussed aims and observations were accomplished as pre-planned. Project implementation was dependent on the teachers' schedules.

6.3 Description of the target schools

Owairoa Primary School caters the Year levels (grades) from one to six, offered for the students in the age from 5 to 11. Owairoa Primary School is joined by 800 students and 70 staff members. The length of the typical school day is 6 hours 15 minutes starting at 8.45 am and finishing 3 pm. Students are provided by one 20-minute recess and an hour lunch break. Decile of the school is nine, meaning that the socio economic status the school is high. In New Zealand, schools are rated based on the socio-economic status of the students' families and caregivers. Decile number varies between 1-10. State schools and state-integrated schools are provided by the funding based on the decile rate to support schools with economic barriers. (New Zealand Ministry of Education 2016.)

Physical activity and sports were valued in Owairoa Primary School. School has educated Physical Education teacher, which is unusual for New Zealand primary school. School is focusing on promotion of physical activity by morning fitness. 15 minutes physically active session lead by the teachers or student leaders occurs three times a week. Schoolyard promotes physical activity by a fitness trail. Activities were organized by the teachers dur-

ing lunch break. Sport equipment was available during the recess. Use of equipment was monitored by a group of students. Events and campaigns appeared in the regular basis such as track and field and cross-country competitions. Physical Education lessons were provided for each class once a week. The length of a lesson varies between 35 minutes to 45 minutes.

Howick College caters the Years 9-15 when students are 13-18 years of age. The roll of Howick College is approximately 2000 students and 200 staff members. Decile of the school is eight. Length of the school day is 6 hours 30 minutes from 8.40 am to 3.20 pm. Timetable conduct 30-minute recess and 40-minute lunch break. Year 9 and 10 students were provided by two hours of Physical Education and two hours of Health studies weekly. After the junior years (Year 9 & 10), Physical Education is optional. Howick College is one of the trial schools of the Sport in Education-project. Sport in Education-project aims to improve academic, social and sporting outcomes by integrating sport in to school settings. Sport is used as a context with academic subjects. (Sport New Zealand 2016.) Leadership opportunities have been offered for the students. Howick College has put a lot of effort to outdoor sports and sports teams offered by the schools.

Howick College and Owairoa Primary School are located in Auckland, in the suburb of Howick. Auckland is the biggest city of New Zealand.

6.4 Project implementation and evaluation

First, ideas based on the Finnish Schools on the Move programme such as active breaks and active intervals were implemented in Howick College and Owairoa Primary School. Second, the acceptance towards the actions were evaluated by recorded interviews (n=11), questionnaire about interval time habits (n=5 secondary school girls, n=20 secondary school boys), reported conversations about the acceptance towards the experiments to activate the school day (n=15 secondary school students, n=38 primary school students), feedback about active breaks (n=10 secondary school students, n=27 primary school students), feedback about given coaching opportunity (n=8 secondary school students), survey for the staff of the secondary school (n=36 responds), observations and the diary (p. 84) kept by the coordinator. Implemented actions to increase physical activity during the school day are presented in following chapter in chronological order. The results of the current study are the responds of the teachers, students and principals and observations of the coordinator how was the Finnish Schools on the Move experienced in New Zealand.

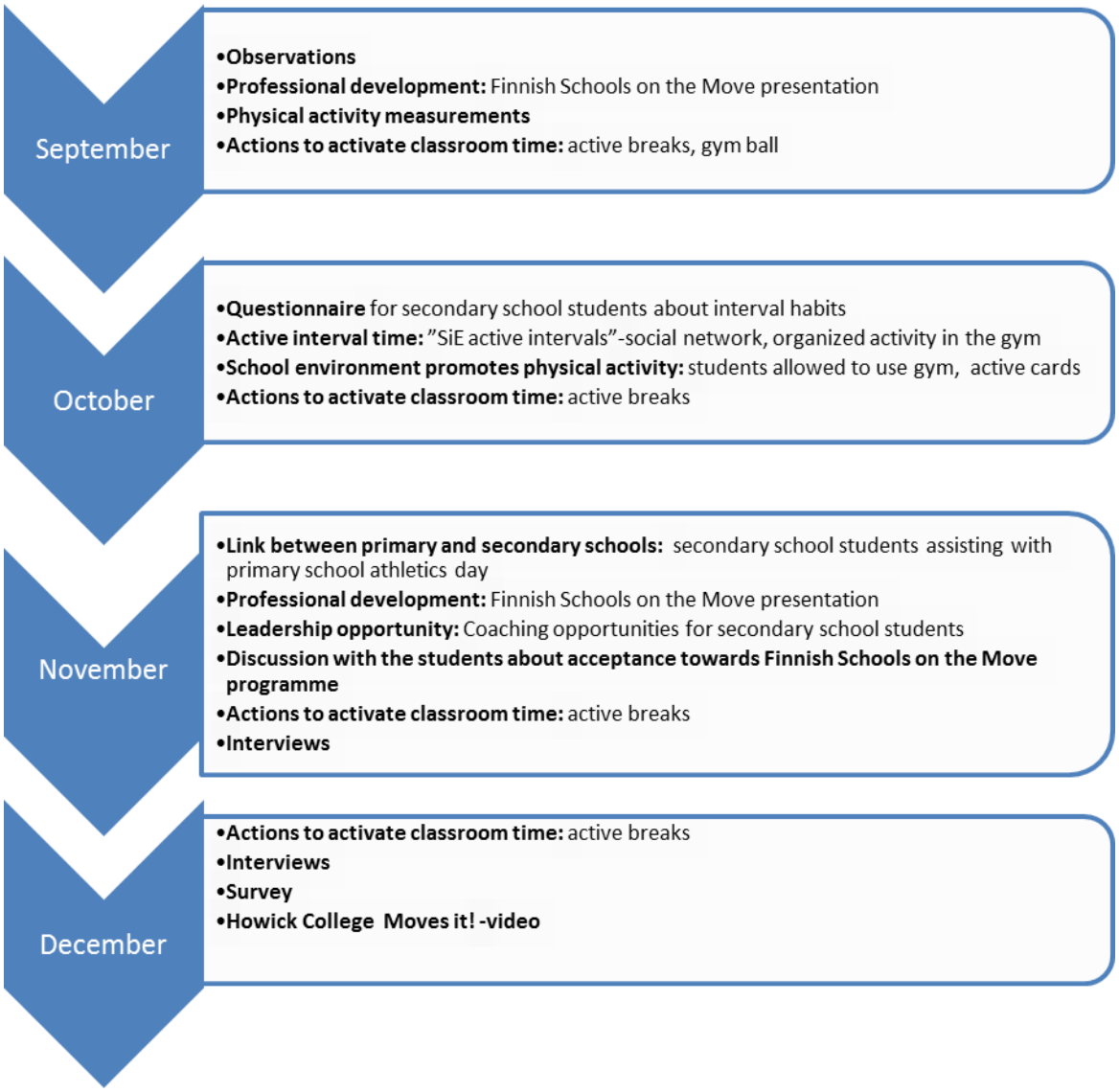


Figure 3. Implemented actions in chronological order

6.4.1 Implementation

The communication before the pilot was made by emails with the contact persons. The pilot started on 7th of September by discussion considering the aims of the three-month period. The timetable was decided to be flexible between two schools. Monday and Tuesday was spent in the primary school and the rest of the week in secondary school. Pilot in New Zealand was organized and coordinated by Elsa Havas in cooperation with Head of Physical Education Department of Howick College and Physical Education teacher of Owairoa Primary School.

The pilot began by observing the typical school day of New Zealand. Observations were made during the first week of the pilot in primary and secondary schools. The aim of the observations was to explore the current situation in physical activity opportunities during

the school day. Observation period provided an opportunity to consider how physical activity could be integrated in New Zealand school settings. In addition to first week, observations were made during the entire pilot. Observations of the coordinator were filled each day in the diary. Observations were used to contrast of interviews and perspectives of teachers, students and principals.

The first action was planned to be a presentation mainly to inform the staff what is the meaning of the pilot. Information about the Finnish Schools on the Move programme would be shared by the coordinator followed by offering an opportunity for teachers to participate to trial active breaks in the classroom.

In secondary school, professional development was provided for the staff by the presentation of the Finnish Schools on the Move. Presentation was held at the beginning of the pilot for the group of 21 Sport in Education- teachers in Howick College. Information of the pro-gramme, associations between physical activity and learning and examples to make school day more active were discussed in the presentation. Especially the negative impact of the sedentary behavior was not familiar for the participants. Activation tool based on the Finnish Schools on the Move program called X-break was provided by the presentation. Finnish Schools on the Move programme and X-break was also introduced for 12 new leaders of Sport in Education-project. The presentation aroused interest among the staff.

According to Tammelin et al. (2012, 22) typical school day in Finland is hectic. Same finding was identified in New Zealand. Thus, administrators of the primary school were concerned about the time consuming of the pilot. At the beginning of the period the misunderstanding regarding the aims of the pilot appeared. During the pre-contacting the goals and requirements of the pilot were not described clearly enough. The school did not assume that during the three months a project would take place in the school. The vision of the school was to have one assistant teacher in Physical Education lessons. Discussions were made and the pilot continued as much as possible not to cause any extra work for the teachers.

Actions in the classroom were the first implemented experiments of the pilot. Five teachers from primary and secondary school were involved in the “active breaks pilot”. All involved teachers were approached by the coordinator either by the recommendation of the contact persons or if the teacher showed interest by himself. The purpose of the pilot was to introduce idea of short physically active sessions in the middle of the lesson. The original plan was to support the teachers by suggested ideas and keep the first sessions continued by the teachers independently instructed sessions. Aim was that teachers would

instruct active breaks by themselves instead of providing temporary instructor. Finally, independent instructions by the teachers did not establish. Instead, active breaks were organized by the coordinator. During the three months, altogether 17 active breaks were instructed. Year 10 class from secondary school was involved in the pilot with teachers of Mathematics and English. Year 10 boy class was selected as the most appropriate target group in secondary school to be influenced by active breaks. Challenges and off-behavior were faced among the particular class. By using sport as a context in the academic subjects was already trialed to motivate the boys. With the boys' class three teachers in Mathematics, English and Physical Education and Health were working closely together. Situation was seen as an opportunity work with a same group to integrate physical activity in the subjects. Year levels of 1, 4 and 5/6 participated in the primary school.

Picture 2. Pencil aerobics based on the Finnish Schools on the Move in action in New Zealand ©Elsa Havas

Classroom time was activated in secondary school by provided gym ball. The target class used the gym ball as a chair during the lessons. Primary school was introduced by the active cards. Active cards included various movements for students to accomplish by themselves. The cards were located around the basketball court nearby the classrooms.

Cards were developed to encourage teachers to activate students during intervals or middle of the lesson.

Picture 2. Active cards were provided for the pilot school to increase physical activity ©Elsa Havas

Polar-accelerometers were used during seven days by five secondary and five primary school students. The aim was to gather data about physical activity levels of New Zealand students and compare the results to Finnish findings. The results of the measurement are not discussed in particular thesis because of the small target group.

According to Tomporowski et al. (2015, 27) recess and breaks during the school day were seen as a source to improve mental functioning and academic performance among students. In the secondary school, the idea of active intervals was introduced for the Head of Physical Education Department. The idea of the active intervals was introduced for the Year 10 Sport in Education classes. Students were asked about their interest towards physical activity during the intervals. The questionnaire was made nameless and questions were answered in the paper. 23 out of 25 responded that they would be keen to participate in the activities during the intervals. 21 out of 25 responded to be interested in to be a student activator during the intervals. Based on the aroused interest of the students active intervals were decided to be next implementation based on the Finnish Schools on the Move programme.

The gym was made available for the students during the pilot. Intervals were organized on Friday during the first interval in secondary school. The “SiE active group 2015” was established in the Schoology as a network for the students. As a summary, the first few times the activities were held in the gym such as badminton and cricket. During the rest of the pilot no students appeared in the active intervals program.

Picture 4. Active intervals in Howick College ©Elsa Havas

Based on the observations in the primary school, students were significantly active during the interval time. In that case, effort was not put in to increase activities during the intervals. In primary school teachers were already on duties to supervise and instruct games for children during the intervals.

Improved links between local primary and secondary schools was the main goal of the pilot introduced by the New Zealand secondary school. Collaboration was improved with Cockle Bay Primary School and Owairoa Primary School during the pilot. Cooperation was made in earlier years with Cockle Bay but connection to Owairoa was a cause of the current pilot. For the secondary school point of view, co-operation enabled leadership opportunities for the Year 10 and 9 students. Basketball was coached three times in the pri-

mary school by eight secondary school boys. In addition, athletics day of the primary school was assisted by 16 secondary school students.

Picture 5. A secondary school student coaching basketball for primary school students ©Elsa Havas

At the end of the school year the “Howick College Moves it!” video was introduced by the Year 10 boy class, English teacher and the coordinator. Video presented the idea of more active lessons based on the actions of the Finnish Schools on the Move programme. The purpose of the video was to describe actions in the classroom established during the pilot and to share it for the other teachers. At the beginning of the next school year the film was presented to all new teachers as an example to increase physical activity in the classroom. In addition, Howick College Moves it! video was shared for Sport New Zealand organization and for Youth Sport Trust based in United Kingdom.

6.4.2 **Evaluation**

The pilot was a trial aiming to evaluate the acceptance of the Finnish Schools on the Move programme in New Zealand. The trial included several methods of qualitative research especially methods of ethnographic research. In ethnographic research, researcher aims to understand the target of the research by being part of the community. Involve-

ment of the researcher and consideration of the culture of the target group are in the center of ethnographic research. (Ojasalo, Moilanen & Ritalahti 2014, 42.) Process in ethnographic research is from practice to theory (Kananen 2014, 22). Qualitative research methods in general were decided to use since the beginning. However, several criteria of ethnographic research were used in the current pilot: the phenomenon wasn't been under investigation before and earlier research did not appear, aim was to gather deep insight of the phenomenon, create new theories and hypothesis, mixed triangulation is used evaluation strategy and phenomenon is described and reported specifically. (Kananen 2014, 26.)

Interviews, surveys, observations and the knowledge based on the documents are the typical methods of qualitative research. Interviews and surveys are used to collect information when person's opinion and actions are into consideration. (Tuomi & Sarajärvi 2009, 71.) In the current pilot, qualitative research methods such as interviews, observations, questionnaires and internet survey were used to evaluate the acceptance towards the Finnish Schools on the Move programme.

Target group that particular study focused on was the school environment of New Zealand, individuals participating in the school and the community which effects on how the school operates. Interviews for students, teachers and the principals were made for providing deeper insights into participant's experiences. Interviews gathered perspectives of the participants and understanding about the three-month pilot. Interviews were decided to arrange for individuals presenting as many perspectives of the school community. Interviews were held at the conclusion of the three-month pilot to ascertain students', teachers' and principals' experiences and understanding about the pilot.

In semi-structured interviews, themes and questions are decided beforehand (Tuomi & Sarajärvi 2009, 75). Themes of the interviews were divided by the actions based on the Finnish Schools on the Move programme (Liikkuva koulu 2012b). Decided themes were discussed and approved by Blom. According to Tuomi and Sarajärvi (2009, 71) the aim of the interview is to collect as much information about the set of topic as possible. To achieve the aim, questions are recommended to send to respondents in advance. The topic of the interview was discussed beforehand and for most of the respondents, questions were sent before the interview. Interviews were recorded and were led by the coordinator. Interviews for teachers and principal were made as one-on-one interviews. Same general areas of information were aimed to collect from each interviewee. The approach was conversational and allowed adaptability during the interview. Interviewed person was presented by an idea to activate school day based on the Finnish Schools on the Move programme. Interviewed was encouraged to respond: could the idea be transferred to

schools of New Zealand and if not, what would be the barriers against it. Interviews were open and intent to allow discussion and opinions. Interviews were analyzed by dividing answers of the respondents in themes (Kanala 2014, 113).

If development is the goal of the process, observation is recommended to use as evaluation method. Observations are systematical if the notes have been filled in the dairy during the whole process. (Ojasalo et al. 2014, 42.) The field observations and the daily diary kept by the coordinator were used to reflect the responds of the students, teachers and principals. Development suggestions, limitations and strengths presented in the discussion are collected from the diary kept by the coordinator.

Acceptance of the primary school students towards the Finnish Schools on the Move programme was inquired by the group conversations. Secondary school students were introduced by same questions but filled the answers by computer. Experiments to activate the school day such as active commuting and active breaks were presented by the coordinator. 38 primary school students from all Year levels and 15 secondary school students (Year 9&10) were invited to share their experiences and to evaluate the number between one to five considering the interest towards the experiment (1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree). Altogether 14 approaches to activate the school day were presented by the coordinator and students estimated the acceptance towards teach idea. (Attachment 2.)

The idea of active intervals was introduced for the Year 10 Sport in Education classes. Students were asked about their typical interval time habits and current interest to participate in activities during the intervals. The questionnaire was made nameless and questions were answered in the paper. Year 10 girls (n=5) and Year 10 boys (n=20) responded the questions. (Attachment 3.)

At the end of the pilot, Year 5/6 students' (n=27) opinion towards the active breaks and physical activity integrated to school in general was estimated. Evaluation was held similarly as the X-break based on the Finnish Schools on the Move programme. In secondary school, Year 10 boy class was influenced by active breaks during the pilot. Feedback was given by boys (n=10) considering active breaks and physical activity integrated to school in general. In addition, eight Year 10 boys gave feedback how did they experience coaching opportunities in Owairoa Primary School and how the collaboration could improve for next years. Secondary school students gave the feedback either by paper or by the conversation. Conversational feedback was reported in the diary of the coordinator.

At the end of the pilot, survey about the attitudes towards physical activity in school were responded by the staff of Howick College (Attachment 4). Questions of the survey were based on the evaluation of pilot phase of the Finnish Schools on the Move (Kämppi et al. 2013, 27). Survey was sent to all teachers (n=150) by email link and received 36 responds. Survey was developed by Survey Monkey (Survey Monkey 2016). According to the principal of Howick College, 70 persons of the staff were noted to be typical amount of answers for the surveys send by him. 36 answers was experienced as good amount by the principal, considering the time of the year and that questionnaire came from someone who is not permanent staff member.

The data of this paper was collected from students in the grades 1-10. Students from age 5 to 14 were participated in this study. The certain number of students and teachers that were influenced by the pilot is challenging to evaluate. For instance, active cards were provided for the whole primary school and the use is challenging to estimate. Altogether 11 teachers were interviewed and the survey received 36 responds. However, several important conversations were made off the record that were either collected in the dairy or based on the conversation a new point of view to evaluation might have appeared. Certain target group was not decided in any phase of the pilot even though; some classes were involved more in the pilot.

In the particular thesis, many qualitative methods were used to gather acceptance of New Zealander towards the physical activity intervention. The issue of reliability of qualitative research methods was taken into consideration (Silverman 2005, 6; Glenn 2010, 98). To avoid the personal perspectives affecting to the study the diary was kept by the coordinator during the pilot. Diary included the attitudes and mindset of the coordinator during the project. Self-observations were used to avoid the own perspectives of the coordinator to effect to the results. (Grönfors 2001, 156.)

7 Results

See the summary of the results in attachment 6.

7.1 An hour physical activity integrated in each school day

"If the hour would spread out during the day, it would be good. If one hour should fit in each day, it might take away from the core subjects. But if it would be spread out from 20 minutes, three blocks of 20 minutes I think that would be perfect." (A primary school teacher)

The approach of integrating an hour physical activity in the school settings was introduced for the interviewed individuals. Benefits of having an hour physical activity in each school day was experienced by several respondents. Channeling the extra energy of the students' trough sports was noted to might have positive impact on students learning. Following comment concluded the responds:

> I think it should be compulsory because New Zealand is one of the high risk countries for obesity and the introduction of Ipads and sitting down activities. At home means that parents are not doing enough, not getting children involved enough activities at home so I think that should be compulsory at school for every child at least get one hour physical activity. (A primary school teacher)

Based on the questionnaire, one hour daily physical activity received positive acceptance among both primary and secondary school students (Attachment 2. Question 14, Average 4,4/5,0 and 4,0/5,0).

However, the approach also faced doubts. According to a secondary school teacher, physical activity should be relevant for students to avoid negative attitudes against it among "none sporty kids". For instance, active commuting was mentioned to increase physical activity without students noticing it. Similarly, if an hour would be spread out during the whole school day it was experienced to become more as a school culture and way of teaching as separated sports. That was noted to be easier also for teachers who are not confident in teaching Physical Education.

7.2 More active lessons

7.2.1 Active breaks

" I love the idea of reinforcing the learning by some type of movement." (A secondary school principal)

Five to ten minute active breaks as part of the lessons received a positive acceptance among teachers, students and principals of both participating schools. The principal of the Howick College could see real benefits of being active in the classroom. Referring to principal, link back to be able to demonstrate learning by movement was seen as a good learning strategy.

However, also the fear that active breaks would distract the learning appeared in several conversations among the teachers especially in secondary school. According to teacher, activity is required to accomplish in right amount of time as well as appropriate time of the lesson. The issue mentioned by the teacher is to find the right time to implement physical activity: "Sometime it is good but sometimes you might not need to do it." (A secondary school teacher) Active breaks had to be structured and the task afterwards had to continue immediately commented secondary school teacher: "Otherwise it just becomes a play way thing that they enjoy doing. Of course they like doing out of what they call real work." Worry mentioned by the secondary school principal was that the flow might be interrupt: "Teachers spent lot of time in the beginning to try to settle the students and breaking that time to be active again might interrupt the flow of a lesson."

Active breaks were positively experienced among the students: "It made class more interactive and interesting." (A secondary school student) "Kids really loved it. They loved doing it and getting up and doing something different. It made an impact to them and when kids are happy they learn better" was noted by a primary school teacher. Primary school class which was experiencing the active breaks gave feedback. All students (n=27) of the class evaluated that physical activity related to the subject made learning more enjoyable.

Some of the respondents experienced that focus of the students towards the topic was seen to improve afterwards the physically active break:

> I saw a bit more focused students afterwards. They looked forward to doing it as well and I think they calmed down a bit. Because I think when they have been sitting down for a long time they start to get fidgety, they start playing with things or talking

> to each other but when they had that break for four or five minutes they got back to it and they seemed better. (A primary school teacher)
>
> Starting any subject that requires sitting down for a long period of time and using concentration benefits from having first of physical activity before we do it. (A primary school teacher)

According to interviewed teachers and students, physical activity integrated in the subject was seen to support learning. Following quotes highlighted the comments:

> I think learning then through exercise and trough those games that involved that movement I am sure they will remember things much easily, instead of sitting there and writing things down. That is the fact actually, they do. They learn through doing. (A secondary school teacher)
>
> During the pilot, I learned that physical activity integrated to subject is good rather than leaving the room for separated Physical Education. (A primary school teacher)
>
> We did heaps of exercises related to our learning. It made us more engaged to subject rather than sitting there and writing. (A secondary school student)

"Activities made us more enthusiastic about the topic." (A secondary school student) Based on the observations and secondary school students' own comments when a challenge or competitions were integrated in to active breaks, motivation increased: "competition is good. Competition motivates us." (A secondary school student) Same conclusion was made by a teacher: "They love competition, definitely." "According to students active breaks had also positive effect to atmosphere in the class: "We communicated more with each other", "It has bonding side effect" commented secondary school students. Competition and team building were seen as a motivation strategy also with the primary school students. (A primary school teacher)

7.2.2 **Active cards and gym ball as a chair**

"What a great initiative! I really look forward to using the cards with my class after testing has been completed, and will make myself familiar with them before then. Thanks for providing me (us) with some fresh activity ideas. It is really easy to refer to the 'same old' exercises and games." (A primary school teacher)

In addition to active breaks, active cards were developed to encourage teachers to increase physical activity during the school day or as part of the lesson. Active Cards received positive feedback from the primary school teachers:

> I took our classes out this morning to try the Active Cards during our fitness time and the children loved them. Some of my students said they are going to try them again at morning tea and lunch. (A primary school teacher)

Active cards received doubts among staff. Some of the teachers were concerned about the noise caused by the action. Students were not like to be seen without supervision.

Gym ball was used as a chair with the secondary school class. Gym ball was experienced well by the secondary school students, as illustrated in the following quote: “I feel that the ball makes me sit straight and effects to my posture.” According to the principal of the primary school, standing desks and gym balls could be trialed in Owairoa Primary School.

7.2.3 **Sedentary time**

“All teachers do not understand that physical activity does not always have to mean that heart rate raises to 170, it is mainly important to sometimes just get up from the chair and walk around in the classroom.” (A Physical Education teacher)

The knowledge of the teachers about the negative influence of too long sitting periods was minor: “I don’t know really too much about that.” (A secondary school teacher) According to a secondary school teacher, students as well as teachers spend too much time sitting in Howick College and probably in other New Zealand schools. Students were mentioned spend far too much time sitting rather than learning actively. (A secondary school teacher) Based on the observations, standing was unusual position for students and teachers. At the beginning, when students were asked to stand instead of sitting, standing was mentioned to be uncomfortable. Same phenomenon appeared among the teachers during the presentation of the Finnish Schools on the Move programme

However, the idea of reducing sedentary time was well accepted and assimilated among the staff during the three months: “Now I am doing it without even thinking like: “okay let’s all stand up while we are talking.”

> The best thing that I learned during the pilot was that it is not that difficult and quite simple things like standing when you are answering, simple games that helps them

> to reflect what they just learned and yes, just standing actually is often just as good as moving. Standing rather than sitting is so important. (A secondary school teacher)

Also student's attitudes were mostly positive considering the reduced sedentary time: "I think it is good because it makes us more active. You know, not just sitting down. We are having fun as well." (A secondary school student)

According to a primary school teacher, teachers are more focused on the way they are teaching instead of the position students' are studying. According to coordinator's observations, sitting was seen one of the teaching methods either in the classroom or Physical Education lessons. Finding was in accordance with a primary school student: "Why do I always have to sit down, I like more standing!" However, referring to the teachers especially boys in both primary and secondary schools were experienced to have admission to move all the time in the classroom. According to respondents of the both pilot schools, searching methods aiming to reduce the sedentary time in the class and providing physically active breaks were seen important, especially among the boys.

7.3 Active intervals

"I think what we need to concentrate in our school is actually getting our kids moving during recess, interval and lunch time and for some before school maybe." (A secondary school teacher)

Idea to activate the recess time was seen valuable and interesting initiative to try on among several respondents including, in terms of the intervals that current school structure is providing. Referring to a primary school teacher when students are provided by an hour lunch someone can say that students are being one hour physically active during that time but not all of them are: "We don't know what they are doing at lunch time."

Observations and responds of the teachers were consistent with the finding that physical activity during the recess time is decreasing by the age. For some reason the culture changes from primary school to secondary school was noted by Head of Sports Department and Head of Physical Education Department. According to Head of Sports Department, for primary schools of New Zealand, active intervals would be the easiest part of the Finnish Schools on the Move programme to implement:

> I think active intervals are probably the easiest one to do and would be buying by primary schools. I think they would see the value of it and expanding energy if those wild kids and then they re-focus because when they are getting something what they

> like doing…But I think primary schools are much more open to those kinds of ideas. (A head of Sports Department)

According to a respondent, shorter break was experienced have positive impact on concentration in the classroom compared to longer one: “Definitely after morning tea, because it is not as long it is only 20 minutes. After lunch break, they have been running for an hour. Everyone is tired after running for an hour.”

Currently, intervals are not spent being active in secondary school was noted by several teachers:

> I think what happens here Elsa, is the interval they don’t do lot of physical activity. One of our problems that we have been highlighting is we don’t have enough activities going on at school and they just hang about. You can just walk around and seeing them just hanging around. Too much time for devises and just sitting and looking on what happens in Youtube or Facebook whatever they do…” (A secondary school teacher)

Secondary school staff received a survey considering the attitudes towards physical activity during the school day. Staff responded to a question: “In your experience physical activity during the intervals could improve student’s concentration in the classroom?” Question received various opinions:

> Yes, those who have run around (especially the boys who are the main group who do this) can settle more easily and focus as they have released some of that energy that then has to be “contained” in class. Boys have such a limited capacity for concentration that they need to move. (A respondent of the survey)

On the other hand: “Often if the physical activity is too vigorous, the students come back to class more unsettled, hot and tired.” and “Exercise during breaks would require a longer break time and showers for the students –not practical. There is a body odour problem already!”

7.4 Active commuting

“Cycling in New Zealand or at least in our suburb is too dangerous.” (A Physical Education teacher)

Based on the observations, the current situation of number of students coming to the school by active way is significantly low: “It is a massive issue.” (A secondary school principal) Safety and “stranger dangers” were mentioned barriers to use active transportation by several teachers and principal: “People just don’t ride bikes in the city because it is not safe.” According to teachers, parents are concerned about the safety. Thus, even students noted that they would not like to have walking campaign in terms of too many accidents would appear: “Too many accidents. Students don’t know how to cross the road safely.” and “Every teacher would spend a moment to teach how to cross a road” was suggested by the students. Referring to the Physical Education teacher, lack of time is one of the reason why active commuting is not typical: “I think it is our society. I think we do things as quick and soon as we can.”

In primary school, only older students have permission to come to school by bikes. “School used to have a bike rack down there but not many people use that anymore.” (A primary school principal) Reason why student were not encouraged to ride bikes is that school is responsible of the students. The admission for the next years is that one class would be taught every year how to ride a bike, was mentioned by Physical Education teacher. According to a secondary school principal, the number of students who walk or cycle to the school is very low. In the school of 2000 students, no more than six bikes can be seen in a bike rack was estimated by the principal. However, regarding to the principal, over the half of the students are living in a walking or biking distance.

Despite the current situation, the idea of promoting active commuting was well accepted in both schools. Competition or campaign to increase physically active commuting received interest. “I think it is a really good idea that I would like to know more about. That is something that I feel I could do next year.” (A Physical Education teacher) According to secondary school principal, competition for the students and partnership with a bike distribution were ways to increase active commuting. Primary school principal agreed that the school is responsible to encourage in active transportation and the “active school bus” has been under consideration lately. The principal experienced that by dropping kids few hundred meters before the school could be a good initiative for Owairoa Primary School. In secondary school, the idea of dropping teens one kilometer away from school was believed to face a lot of resistance. Based on the survey for secondary school teachers, “Encourage students to come to the school by foot or bike” and “Encourage parents to drop students 500 meters away from school and let them walk” were indicated ways to promote physical activity by several teachers. Though, barriers were mentioned: “Transport ideas are weather dependent” and “Bus idea not feasible at our school. We have too many buses and local streets are not suitable.”

7.5 School environment promotes physical activity

"Maybe when it is fine weather we should actually shut the doors and say no, you go outside. … I think we should more encourage that and other kids should encourage the other students." (A secondary school teacher)

In Howick College, gym was not available for the students before the pilot. Students weren't allowed to use facilities because of a lack of supervision. Gym was made available for the students during the pilot.

Environment in many secondary schools of New Zealand does not promote physical activity was noted by the principal. According to secondary school principal, sports equipment and the environment that promotes physical activity are common in primary schools but the more students move up to secondary school the less equipment that promotes to be active appear in the school yard. Opinions of teachers and principal were in consistent: "Environment does not promote activity and breaks during the school day should be benefitted for the kids." (A secondary school teacher) Survey included a comment: "Our school doesn't provide a lot of equipment for students use during break times. We provide limited space and fields are unavailable during winter. Student balls are confiscated when used in courtyards."

In Owairoa Primary School, schoolyard is available for the whole community during and after school. At that time, inside facilities were not available for the students. However, according to a principal, the gym could be open for the students during the interval time. Mentioned issue is a lack of supervision.

7.6 Students' involvement and collaboration

"I think it is a really good idea because we would like our teachers to join us not just tell what to do." (A primary school student)

Students of the both schools were asked about their interest to be part of decision-making. Interest appeared among majority of the respondents: "I like the idea that we could make the school day more enjoyable together" and "You feel more confident when they listen to you" was commented by a primary school student.

Students' involvement was seen as positive area to focus on among both secondary and primary school teachers: "Taking it away from the teachers and getting the students to

decide actually and do it. I think it would be really successful." (A secondary school teacher) By the survey for secondary school, the staff was presented by ideas to promote physical activity during the school day. "Student leaders could organize activities for the students" was indicated the most times by the staff. Comment was included: "Great ideas and the more that is student-driven the better as they own it." Principal of the secondary school shared the mindset when older students as supervisors during the intervals activities were seen as an idea to trial.

When students' opinions were taken into account in New Zealand innovative ideas to promote physical activity occurred: "We could have a ring bell between reading and writing. Ring bell would be a sign for an activity" and "you could play in the playground and count numbers or practice alphabets."

Student activator programme is one of the implementation of Finnish Schools on the Move. In New Zealand, Year 6 students work as "cool school mediators". Duty of a cool school mediator is to make sure that no one is bullied during the intervals. Coordinator asked from two cool school mediators if they would like to instruct games for junior during the breaks. Both said yes. Even though only two girls were approached, responds were consistent with answers of other primary school students. Average of 38 primary school students was 4,4/5,0 when students were asked about their interest to instruct games for each other during intervals. (Attachment 2. Question 8.) In addition, 21 out of 25 secondary school respondents would like to be a student activator (Attachment 3. Question 5.)

The collaboration between Howick College and Owairoa Primary School was positively experienced by the both schools and will be continued in the future: "We definitely see it valuable for the school and the kids" was mentioned by a principal of the primary school. "I think building those community links with Howick College is been valuable this year and it is something that I am going to continue. I never knew that is available." (A Physical Education teacher) According to secondary school students who instructed basketball in Owairoa Primary School, leadership opportunity provided new knowledge: "I learned that they listen better more they like you. Difference between the first and second lesson was huge. In the second lesson they were fully focused when they knew us."

7.7 Events and clubs

"If you can build a good links between the school and clubs it helps to bring the school part of the community." (A Head of Sports Department)

Attitudes of the secondary school students varied towards the idea of morning and afternoon clubs (Attachment 2. Question 11, average 3,2/5,0). Before and after school clubs have been trialed before in Howick College. According to a Physical Education teacher, clubs were not participated by many students and activities were organized by few volunteered teachers.

Among primary school students, organized activities after school such as games while waiting the parents to pick students up from school, received the most positive acceptance. (Attachment 2. Question 3, Average 4,8/5,0).

Opportunity to trial different sports in clubs was positively accepted by primary school students (Attachment 2. Question 12. Average of 4,7/5,0).

7.8 School lunch

"I think that is one thing we are lacking, we are definitely lacking of the children's knowledge what is actually good food to eat. What is does and why it does it." (A Physical Education teacher)

"We are talking about the exercise; I think our thing is diet" was noted by a Head of Physical Education Department. According to secondary school respondents, unhealthy eating habits including energy drinks might be affecting on concentration of the students: "Honestly on of the other things is that the kids are not eating properly. You know, their eating habits don't help their concentration." (A secondary school teacher)

General advices of healthy eating habits are not shared by teachers. According to a Head of Physical Education Department "no one worries". However, 34 out of 35 respondents of the staff of secondary school agreed or strongly agreed to the statement: "In your experience should Howick College develop a school environment that supports good, healthy eating habits?" Comments included:

> Yes, a shared responsibility with parents. As teachers, we are often the significant adults in the lives of the student and have such a strong influence on what they learn that we must do this. (A respondent of the survey)

> So stop sticking your head in the sand and stop ignoring it and we need to something about it. This is a whole school thing because now is it becoming the whole society's problem and we as a school we are the reflection of society and our values. So if we value healthy people it doesn't mean that you have to go and run 10

> km every day. Just what we do in the school, things like that. Just little things are making difference. But it needs to be a whole school thing. (A Head of Sports Department)

According to a principal of the Owairoa Primary School, school is pressured more and more to focus on the healthy eating. School is taking care of that lunch offered by the school is providing healthy food. Principal admitted that school is not putting so much effort on that. “I think they could do better” was noted by the teacher considering the quality of the lunch orders that school provides. In addition, a lack of healthy options in school lunch was mentioned by the students: “They should have more fruits in a lunch order” and “In school lunch order there is not any healthy stuff.”

Students of the primary school were presented by the idea that all students would be provided by same school lunch. Similar school lunch for all students faced either positive and negative responds: “I think cafeteria would be a good idea in the school. Then students would know how to eat healthy when we are old.” (A primary school student) (Attachment 2. Question 13, Average 3,0/5,0 and 3,9/5,0).

7.9 Challenges

7.9.1 Time

“It is about fitting physical activity into curriculum, not doing something extra. It is something that you fit in to mathematics, reading and writing.” (A Physical Education teacher)

Busyness of the school day and limited time for each subject was mentioned issue by several respondents: “We do have already very busy timetable. Government is giving the pressure on to reading, writing and mathematics” was noted by a principal and teachers of the primary school. All subjects are important but parents are reported only by the results of reading, writing and math. “To be honest the curriculum in New Zealand, even we feel is quite open is more and more packed.” (A Physical Education teacher)

Concern that providing physical activity opportunities would lean on only school’s shoulders appeared in the survey:

> What concerns me is that the school is having to take the lead. The parents/caregivers do not seem to feature here. Without their support and involvement, we run risk of not achieving our aims. Without the community seeing this idea of activity as something worthwhile, then

little will change and teachers start to resent having to force students into activity. (A respondent of the survey)

Extra duties (teachers involved in interval time activities) received concerns:

> "Extra load on teachers in terms of planning activities during interval/lunchtime and running these activities would need to be supported with time allowance/remuneration, or count towards school duty and would not be likely to work" (A respondent of the survey)

7.9.2 Structure of a school day

"Some of things you are talking about require an impact to structure of a school wide picture and timetable. For those big structural changes you need to have people on the top." (A Head of Physical Education Department)

"In education of New Zealand, we are trying to do new things but with the same system. School day is still from 9am to 3pm and we are trying to squeeze all the new and creative things in that timeframe and it is never gonna work. We have to look beyond that system issue which is our timetable and the structure of our days." (A secondary school principal) To implement more intervals and provide time to be active, the timetable should be more flexible. One option mentioned by a principal is that school day would start earlier and finish later. According to a principal, the length of the school day is definitely possible to extend but what is need is a lot of courage. Home care arrangements, parents, schools, busses, employment contracts of the staff are only few things that the change would affect. Already the school is moving towards the flexible timetable especially in the senior school.

Finnish timetable was presented for the interviewed. Lessons followed by a short interval aroused interest among the teachers: "I would prefer the 45 minutes lessons. Keep it short so you can't go over." (A primary school teacher) According to a principal of the primary school, New Zealand education does allow the flexibility of the timetable. The structure of the school day could be changed to provide short recesses between the lessons, was mentioned by a principal.

According to respondents, teachers plan their own lessons and they are allowed to keep the break if it is necessary for students. Responsibility and flexibility are given for the teachers by education system of New Zealand: "As a teacher I could decide okay guys, let's make sure that we will have PE on Monday, Tuesday and Wednesday even for a ten

minutes. I have the right, I can choose that." However, referring to teacher the effort put into physical activity is dependent on the teacher.

7.9.3 **Knowledge**

Coordinator: How would you promote physical activity in school? A teacher of the secondary school: "How would it promote it…well, I don't know"

According to a principal what school and the community needs is the evidence: "we need evidence that Physical Education is not just good for the body but also to the mind." Regarding to respondents the knowledge about PE should be given more during the teacher training: "I think they should spend more time on teaching us, one month like three lessons a week and that is and you are done. That's not enough."

According to several teachers, no education considering the association between physical activity and learning were appeared during the training to become a teacher However, 32 out of 35 respondents of the survey answered agreed or strongly agreed to a question: "Are you aware that physical activity has positive effect on academic achievement, cognitive functions and schooling?" Still comment was included: "But it is not necessary that this take place at school."

"How much teachers are putting effort in the physical activity is depending on the teacher's interest. Some classes are getting a lot of physical activity and some classes very little." (A primary school principal) Same finding was noted by a primary school teacher: "Not everyone does it, because they are not active by themselves." Sometimes the resistance comes from the teachers and parents instead of students, was noted by a Physical Education teacher.

8 Discussion

This is the first report to analyze the feasibility and acceptance of the Finnish Schools on the Move programme in other countries. Topic of the thesis was current, considering the programme was recently published as one of the priority initiatives of the Finnish government. Thesis will be published in the website of the Finnish Schools on the Move programme and the main findings will be published as an article (Blom 23.9.2016). Practical work in New Zealand enabled knowledge about the challenges that implementation might face and aspects that need to take into consideration while planning similar intervention. In addition to New Zealand, school days have been activated based on the Finnish Schools on the Move programme in eight primary and lower secondary schools in Italy. Identified challenges and success factors of the programme are compared between Finland, New Zealand and Italy. Evidence based on two separated pilots in New Zealand and Italy suggested that if the core principles of the Finnish Schools on the Move programme are kept in mind, programme could be implemented in foreign countries. During the process, interest towards the Finnish Schools on the Move programme occurred from several countries during such as India, United Kingdom, United States, Netherlands and Italy. Suggestions how to spread the programme internationally are provided by the thesis.

8.1 Findings

In New Zealand, implemented actions to activate classroom time, cooperation with other schools and students' involvement were well accepted approaches to increase activity during the school day. Actions to active classroom time such as active breaks, gym ball and active cards were transferrable straight from Finnish system to New Zealand's one. In the primary school, environment promoted physical activity whereas in secondary school the facilities weren't focused on that much. Some sporty events and campaigns were already established in both schools. Before and after school activities did not appear in either school in regular basis. The main goal of the Finnish Schools on the Move programme "one hour of physical activity daily" was introduced in New Zealand. The approach received positive acceptance among the interviewed in terms of the time would be divided in small sections trough out the school day. The biggest challenges to promote physical activity during the school day and immediately before and after appeared in commuting. Active commuting was seen as an aspect to focus on but was mentioned to affect to the whole society. See collected results in attachment 6.

To summarize, not all actions were capable to transfer as similarities. For instance, active interval time was seen a valuable approach to increase physical activity and improve stu-

dents' classroom behavior but in terms of the two intervals that the school structure is currently providing. According to many respondents, the structure of the school day is packed up and not providing enough recess time. Increased amount of recesses would require changes in the length of the school day which would have an impact to whole community. A lack of knowledge in healthy eating and the negative impact of sedentary time were noticed in both schools. Even though, eating habits is not one of the aspects of the Finnish Schools on the Move programme, unhealthy eating such as energy drinks and fast-food was experienced to reflect students' behavior in school such as restless and off-behavior. Active breaks, cooperation between Owairoa Primary School and Howick College and actions to activate interval time were noted to continue in the future in New Zealand. Small changes such as in the secondary school gym hall was made available for the students during the intervals, developed active cards, provided gym ball and the Howick College Moves it! video were permanent marks of the pilot. According to contact persons, ideas how to increase physical activity during the school day were the most valuable knowledge of the pilot.

Considering the structure of the day in the pilot schools, students were provided by one short break and one longer break throughout the school day. Taken into account only few opportunities to be physically active during the day, academic classes should be implemented actively. Physical activity integrated in to subject has seen to associate to student performance and classroom environment (Centers for Disease Control and Prevention 2010, 7). In New Zealand, actions such as gym balls and active breaks were experienced as possible approach among the teachers of the right mindset but to appear as an isolated phenomenon rather than school wide approach: "when you go and challenge those traditional ways of doing things will always get some resistance" (Head of Physical Education Department). Finding was consistent with the finding of the pilot phase in Finland: personal engagement of the teachers varies a lot (Tammelin et al. 2012, 22).

Teachers of the both pilot schools noted that to keep up the concentration, students were required to have a break. Experiences of the teachers were consistent with finding of Grieco and colleagues (2009, 1925): person is able to concentrate only 10 minutes in a row. Even though, the need for a break was identified, a concern that physical activity might interrupt classroom behavior occurred in New Zealand. After the pilot phase of the Finnish Schools on the Move in Finland similar concern was faced among some teachers (Tammelin et al. 2012, 24).

Physical activity integrated in the academic subjects was noted to continue in the future in both pilot schools: "I will certainly use it for next year and I have a new job next year when

I take care of supporting guidance for the new teachers. So I certainly will talk them about that." (A secondary school teacher) Positive acceptance towards the active breaks was recognized also in Italy: "Richardo is obsessed with the Schools on the Move. If I sometimes don't have the energy to do active breaks Richardo insist me to do it" (A teacher from Italy). However, also barriers to be active in the classroom appeared in Italy. Classrooms were mentioned to be full and activities were challenging to repeat in that space. By only changing position of studying and reducing the long sitting periods activity levels can be increased. According to research (Bouchard, Blair & Haskell 2012, 54; Sosiaali- ja terveysministeriö & UKK-instituutti 2015, 15) sedentary behavior has negative impact to human's health. Based on the conversations with several teachers and students from New Zealand and Italy, the knowledge about the negative impact of the sedentary time is minor. Physical activity has an impact to learning but the challenge was to transfer that knowledge into practice. The knowledge how to use physical activity as a tool to improve student's mental functions and academic achievement is not well known by the educators. (Tomporowski et al. 2015, 27.) Practical tools to increase physical activity and reduce sedentary time in class should be provided for the teachers.

Based on the observations of the coordinator, physical activity during the recesses seemed to decrease by the age in all considered countries Finland, New Zealand and Italy. Involvement in physically active games is significantly reducing from primary to secondary school (Likes, Jyväskylän yliopisto & Liikkuva koulu 2014, 20). In New Zealand, facilities and the school environment in secondary level does not promote physical activity similarly as in primary schools. In Italy, spreading the programme in high school level from primary and lower secondary school was mentioned as challenge. Thus, new approaches to increase physical activity among secondary school students should be found. According to the Centers for Disease Control and Prevention (2010, 7) schools can feel confident by providing recesses for students in regular basis regarding the positive impact to academic behavior, social context and overall health and physical activity. In addition, physical activity during the intervals seems to have an impact to children's academic achievement such as reading and arithmetic skills (Haapala 2015, 42). Involving students in decision-making and enabling students to be proactive about their own recreation and activity might motivate especially adolescents in phase of independency (Haapala et al. 2014, 850).

"Honestly one of the other things is that the kids are not eating properly. You know, their eating habits don't help their concentration" (A secondary school teacher). Evidence suggests that eating attitudes seem to predict challenges in concentration in school (Lindblad, Backman, Lundin & Akerstedt 2011, 142-146). Even though, the aim of the Finnish

Schools on the Move programme is to increase physical activity in school settings (Tammelin et al. 2012, 7). However, one of the involved schools called Costa Blanca is putting effort on healthy school lunch and offered fruits by the school (Liikkuva koulu 2012d). In New Zealand, based on the observations and responds of the teachers, eating habits is one aspect that should be taken into consideration and advised in school.

Surprisingly, active commuting can be mentioned as one of the biggest challenges to increase physical activity in school settings in New Zealand. During the years 2010-2014, 11% of the primary school students used public transportation, 57% were car passengers and only 29% walked and 2% cycled to school (Ministry of Transport 2015, 29-31). Over the past 25 years, cycling to school among secondary school students dropped from 20% to 5% (Ministry of Transport 2015, 7). When for primary school kids popular way to transport is as a car passenger (57%) and for secondary school students to use public transport (30%) (Ministry of Transport 2015, 29-31) new approaches should be developed to either reduce travelling by a vehicle or shorten the time spent passive by letting students to walk part of the journey. Based on the responds, the pilot schools don't advice parents to let students commute actively to school. Even though, similarly as in Finland, all children joining to state school are located geographically close to their home (Immigration New Zealand 2016). As a contrast, also in Italy active commuting was experienced a challenge to increase physical activity. According to a teacher, traffic problems and location of students home are the barriers in active commuting. Evidence suggests that commuting to school is a segment to target on. Students who used the active transportation had a higher physical activity levels and better cardiovascular condition compared to the students who did not walk or bicycle to the school (Davidson et al. 2008, 1). In addition, high physical activity levels during active commuting seemed to have relation in academic performance among the primary school boys (Haapala 2015, 43).

Finnish National Board of Education was keen to gather knowledge about school systems of different countries as a comparison to Finnish one. It was believed, that systems can improve by learning from each other. In Finland, majority of the school aged children travel actively to school. More than 90% of the youth commuted to school actively when the distance to school was not more than one kilometer. When the distance was 1-3 km 74% children reported to use active transportation. (Gråsten, Liukkonen, Jaakkola & Tammelin 2014, 12.) In a comparison with other countries, reports indicate that active commuting is as common as in Finland only in Mosambik and in Nigeria (Liikkuva koulu 2014). Finland has been able to develop a culture where active commuting is typical for youth. Tools should be shared to address that issue in New Zealand and Italy. However, aspects that Finland could learn from New Zealand and Italy appeared during the process. The popula-

tion of New Zealand is multicultural. The education has faced the issue to achieve the educational outcomes for all students with different backgrounds. Increased immigration in Finland was indicated as a possible reason of the decline in PISA results on 2014. Achievement of the immigrants has been identified to be lower than natives. (Sahlgren 2015, 49.) In 2014, only 5,7% (310 306) of the population in Finland spoke foreign language (Väestöliitto 2016). In 2016, according to Finnish Immigration Service the number of immigrants living in reception units has increased in one year by 25 000 adults and 2350 minors (Finnish Immigration Service 2016). “Thing is that reality is the world is becoming a lot more multicultural. So I think, if that’s the way the future is going I have to find a way to work with it” (A primary school teacher) One topic that Finland could be advised from is the Italy’s skills of integrating students with special needs to the basic education.

Lack of time, challenges with timetables and issue when project coordinator is often working without a whole school support, were identified challenges after the pilot phase in Finland. (Tammelin et al. 2012, 23-24.) Similar challenges were identified as well as in New Zealand and Italy. Several times lack of time and already increased amount of duties during recess time and after school were mentioned as barriers in New Zealand. Even though, time and structure of the school day were seen as challenges to increase physical activity in New Zealand, the situation is still positive. Considering the given autonomy for schools and teachers, small changes in the structure of the day are possible. Italian teachers who visited Finland and experienced the Finnish Schools on the Move in action have mentioned to face challenge in convincing other teachers. Suspicious have occurred that actions can’t be transferred from the Nordic country to Italy “The tuff thing is to convince the teachers. The typical comment is: “Yes but that is in Finland.” (A teacher from Italy)

The pilot succeeded to provide new knowledge for the schools but continuous whole school approach did not establish during the three months in New Zealand. In Italy, the programme has been established continuously during one year without funding by the effort of Italian teachers and principals. Implementation of the programme in Italy has been noted to be more fluent in the school where the principal saw the value of more active school day compared when the classroom teacher has been coordinating the prgramme. By the process of the Finnish Schools on the Move has been found that when the aim is to increase physical activity in school, the role of the principal is crucial (Kämppi 2015, 48). Without principal’s effort, the changes in the school culture might not be sustainable (Karjalainen 2013, 70). Sustainability of the programme seemed significantly

higher in Italy when the approach was organized by the school staff rather than separated pilot in New Zealand.

In Helsinki, involved schools in the Finnish Schools on the Move programme are advised by the model how to start the journey of more active school day. The model is based on the structure of Finnish schools on how the schools are operating in Finland. At first, schools are encouraged to identify the easiest aspect to start with: recess time and to provide equipment and train student activators to organize physically active games for others. Next step is to develop before and after school clubs and organize campaign which promote active commuting. Third, by active breaks academic lessons would be activated. Mentioned actions were only examples and all the “stairs” can be mixed and implemented at the same time.

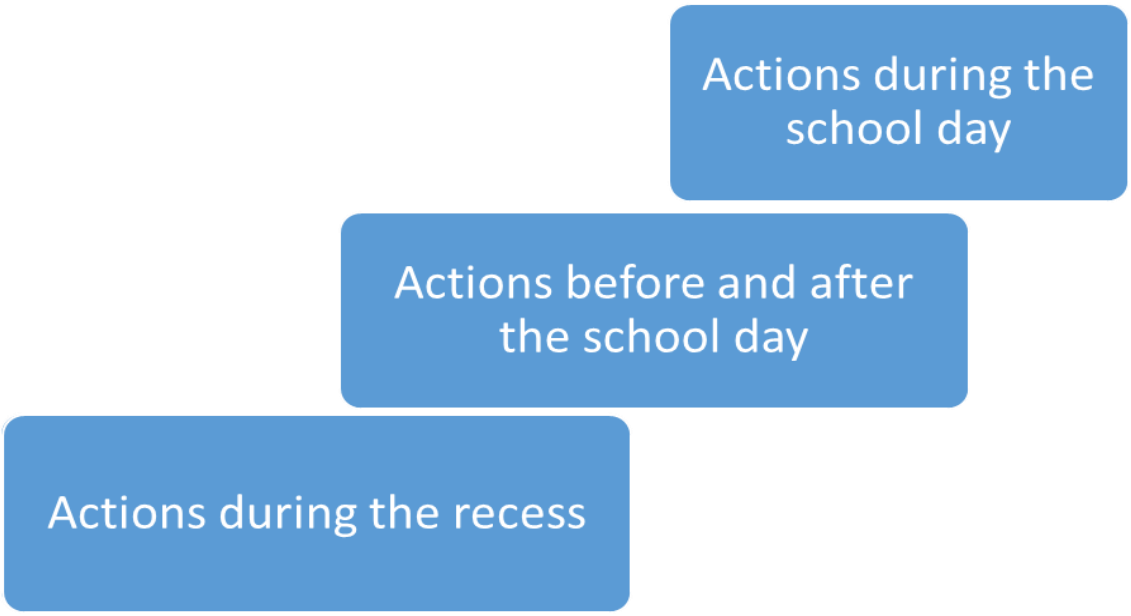


Figure 4. The first steps to promote physical activity during the school day in Finland. Modified from the original version (Liikkuva koulu., Liikuntavirasto Helsinki & Opetusvirasto Helsingin kaupunki 2015)

Similar models are created for the schools of Italy and New Zealand based on the collected experiences about the challenges and chances to implement physical activity. Models of Finland, New Zealand and Italy varied from each other.

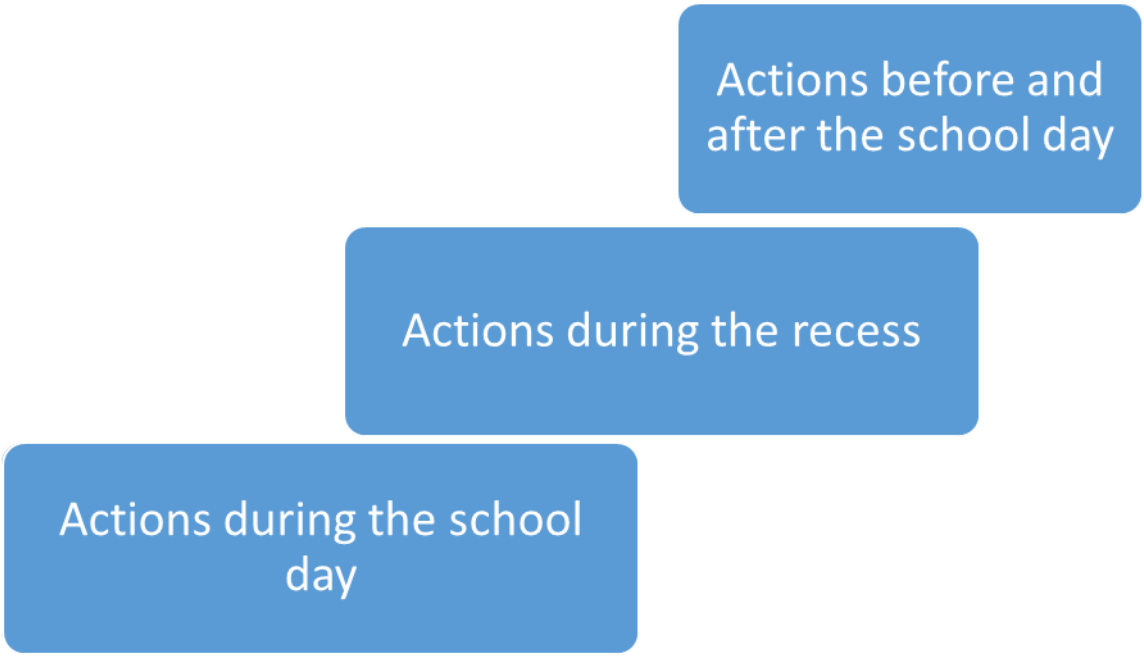


Figure 5. The first steps to promote physical activity during the school day in New Zealand

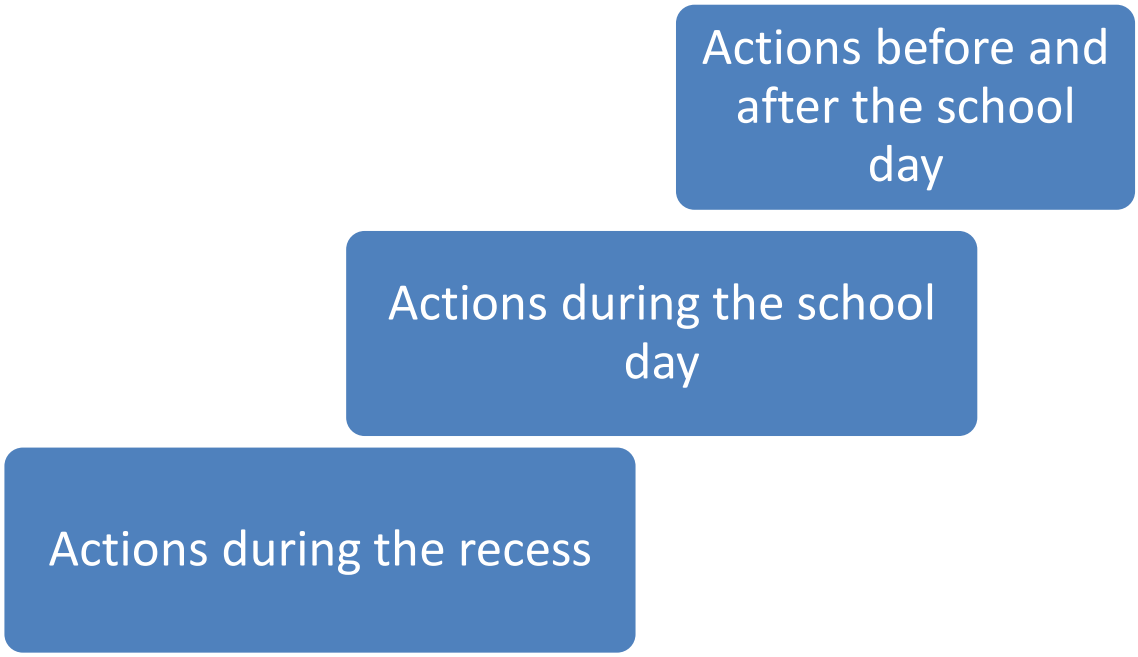


Figure 6. The first steps to promote physical activity during the school day in Italy

Structure of the school day, traditions, size of the school, location, general mindset towards physical activity are only the few aspects that have the influence on the process to integrate physical activity in school settings. A method how to identify the process model for each country without time-consuming pilot where the researcher is present in current environment, should be developed.

8.2 Limitations and strengths

Pre-plan of the pilot in New Zealand was required to modify upon the arrival. First, the lack of structured planning was seen as a limitation by the writer of the thesis. In the end, considering the establishing an intervention in foreign country, country's traditions and ways of working need to be taking account carefully. Thus, instead of following unsuitable pre-plan, the ability to adapt to New Zealand norms can be mentioned as the strength of the pilot. The finding was in accordance with the ethnographic research: the phases of the qualitative research process can't be set beforehand. Researcher might even have to modify research problem, evaluation and methods of collecting data during the process. (Kananen 2014, 45-46.) To implement the Finnish programme in New Zealand settings the implementation is required to modify. Thus, for the future similar approaches the pre-planning is not identified as a main key. According to core-principles of Finnish Schools on the Move programme, schools have the independency to implement the programme as suitable for each school. In the current study, goals were set in cooperation with pilot schools. However, to establish sustainable programme, fact that goals should become straight from the school point of view can't be highlighted enough.

Pilot was implemented in New Zealand during the hectic time of the year. Last period before the summer vacation including time-consuming NCEA tests caused challenges in timetable and planning. Results of NCEA tests are taken into account while applying for further studies and jobs (New Zealand Qualifications Authority 2013). For instance, interviews were considered to organize at the beginning and at the end of the pilot. For the future interventions careful consideration of the suitable time of the school year is suggested. School vacations and special traditions need to be considered beforehand. The school year and special holidays are dependent of each country.

Limitation of the pilot was that decision-makers of the school were not approached. Implementation of the pilot varied between the secondary and primary schools in New Zealand. The pilot was more fluent in the secondary school considering the authority of the contact person. To be able to affect to school wide picture, decision-makers of the school are suggested to approach.

New Zealand as a target country can be mentioned as well as the strength and limitation. Education of Finland and New Zealand are similar. If the pilot school would have located in developing country that might have provided even more knowledge of the feasibility of the programme. However, the target environment was possible to explore in wider perspective by already existing network. Network in the field of sport spread and new collabo-

rative partners such as Youth Sport Trust existed by opportunities provided by the contact persons.

The pilot schools had high-rated socio economic status. According to teachers physical and also mental environment to implement and trial new approaches were considered as unique environment compared to lower economic schools. In addition, some of the New Zealand schools were noted to be much more traditional compared to target schools. Implementation of a new initiative was noted to be challenging in traditional schools. In this case, the target schools were only ones who responded the email and were keen to participate in the pilot. For the future research, the impact of the programme to low socio-economic schools and schools presenting various backgrounds is suggested to evaluate.

The fact, that thesis provided unique information about the acceptance of the programme in New Zealand and Italy, for the Board of Education and the Finnish Schools on the Move programme can be mentioned as a strength. Including opinions of all principals, teachers and students in a report was experienced positively.

Strength of this thesis was gathered acceptance among both primary and secondary level. Acceptance of the primary school can be compared to already existing experiences of the Finnish Schools on the Move programme among the same age group in Finland. Acceptance of the secondary school is providing knowledge of the age group that the programme has recently spread in Finland. Experiments that were well accepted in New Zealand secondary school could be trialed among the same age group in Finland. However, the pilot not included students in the intermediate level which can be compared to grades of last years of basic education in Finland. As a limitation to pilot, students in the intermediate level instead of secondary school, could have been more suitable as target group.

Students from age 5 to 14 participated in this pilot. The certain number of students and teachers that were influenced by the pilot is challenging to evaluate. Certain target group was not decided in any phase of the pilot even though; some classes were involved more in the pilot. The aim for the current pilot was to gather acceptance of students, teachers and principals towards the programme. The flexible target group was not a challenge for the pilot and the acceptance was collected from various points of views. For future research, target group should be decided depending on the aim.

8.3 Reliability

Feasibility and reliability of qualitative research is constantly under discussion. Qualitative research aims to understand a real life phenomenon. (Kananen 2014, 19.) Referring to Kananen (2014, 19) every research is based on real life situations. Thus, without qualitative research, quantitative research would not exist (Kananen 2014, 19). For the future similar approaches, qualitative methods such as field observations and interviews are recommended to use at the beginning followed by quantitative research. Even the current thesis included several methods of qualitative research it can't be described as a valid qualitative research. However, evaluation of the reliability is "monitoring the quality of the study" (Kananen 2014, 139). No structured instructions are provided for estimating the reliability of the qualitative methods (Tuomi & Sarajärvi 2009, 134). In this report, trustworthiness and transferability were used to estimate the reliability of the pilot.

8.3.1 Trustworthiness

In qualitative research, when reliability is under consideration estimating of trustworthiness is necessary (Golafshani 2003, 601). In the current pilot, practical implementation was decided by the coordinator. When decision-making and judgment is dependent on the coordinator the issue of subjectivity is required to take into consideration (Kanala 2014, 23; Tuomi & Sarajärvi 2009, 136). Only the observations that were reported in the dairy were used in the thesis. During the analyzing, writer of the thesis returned back to the notes from the period of the pilot. Time between the practical pilot and writing process was several months. Thus, the diary was written to avoid the time affecting to the evaluation. Attitudes towards the target environment were reported in the diary to avoid subjectivity. Specific description of the all phases of the pilot improves the reliability (Tuomi & Sarajärvi 2009, 141). The length of the practical pilot was three months which is suggested to extend for the future similar approaches. The reliability of the pilot would increase in terms of extending the term of evaluation.

Overall positive acceptance towards the Finnish Schools on the Move programme in New Zealand might have lead from particular interviewed teachers: "the teachers you have been observing are the ones who are confident and active to try new ideas" (A primary school teacher). Same finding was noted by the principal from Italy: "teachers who are involved they are very creative and active." Considering the acceptance towards the active breaks pilot in New Zealand, positive acceptance was likely caused by the group of enthusiastic teachers who were involved and fostered by that actions did not require major changes in typical teaching and timetable of the teachers. In the future studies, the target group is suggested to present various backgrounds and attitudes towards physical activi-

ty. The fact, that both principals in New Zealand saw the value of sports, might have affected positively to overall acceptance. In addition, primary school students gave feedback about active breaks. Feedback was given actively, similarly as X-break. Positive attitudes among majority of the respondents might have caused by the evaluation method.

Triangulation means combining and analyzing different research methods, theories and researchers in the report. Triangulation might improve the quality of the study. (Tuomi & Sarajärvi 2009, 143.) Results of the current thesis, has been collected from the interviews, observations, internet survey and questionnaires. Thus, evaluation methods were combined as well as the target group. Findings from Italy were used to provide comparison to findings of New Zealand. Data was collected from the participants presenting a various status in the school: principals, teachers and students. In addition, thesis was sent to the contact persons and one interviewed teacher from New Zealand. Contact persons and the teacher were asked to give comments and feedback about the text to make sure that no misunderstandings appeared in the text. Unfortunately, responds were not received in time before the seminar of the thesis. With Italian contacts, the information shared in this paper is confirmed by the teachers.

A lack of experience in research and lack of knowledge in research methods affected in the pilot. The planning, implementation and evaluation would probably be more systematical if the writer of the thesis would have got more experience. For instance, as mentioned, the interview questions were sent beforehand only for the some of the respondents. One group of primary school students were presented by the questions about the Finnish Schools on the Move programme. At first, respond of the students was yes, no or maybe until the coordinator realized that deciding number from 1 to 5 would be better indicator (Attachment 2). The ones who used the previous indicator weren't included in data collection. However, the main point of the pilot was not to know what is required to do to achieve the goals but instead to know how to do it.

8.3.2 **Transferability**

Instead of generalizing the phenomenon, the aim of the ethnographic research is to provide deep understanding (Kananen 2014, 27). In qualitative research, theory based on the results can be developed. Trustworthiness of the theory can be estimated by other research. Theory gathered from New Zealand and Italy suggested that the Finnish Schools on the Move programme could be implemented in any school if the core-principles of the programme are kept in mind. Thus, the theory of the current thesis is that if the schools have the independency and own action plan developed by the school, the Finnish Schools

on the Move programme can be implemented in any school of any country. In general, if the school day includes time in the classroom, recesses, academic lessons or transport to school, physical activity can be integrated in all mentioned aspects. Theory should be investigated in the future. The method how to identify the process model (Figure 5&6) for each country without time-consuming pilot where the researcher is present in current environment should be developed.

One factor why the programme was transferrable to New Zealand schools might be the similarity between the education of Finland and New Zealand. Similarities were found especially in autonomy provided for the schools and the teachers. In both countries, a principal is the head of decisions.

Transferability of the pilot is dependent of the target environment. Thesis suggest that if each school is presented by the ideas to activate the school day based on the Finnish Schools on the Move programme followed by developing school's own way of implementing the programme, the findings of the thesis are transferable. General advices to contact the schools (Attachment 5) and suggested first steps of the pilot can be used in the future with any target environment. Valuable finding of the pilot was the identified barriers and success factor that appeared during the practical implementation. Findings could be collected as a material for the ones in similar position.

8.4 Finnish Schools on the Move programme as an export business

"Product with a competence today can be already way too behind tomorrow" (Vahvaselkä 2009, 108).

At first, the aim of the thesis was to provide a report for the Board of Education and the Finnish Schools on the Move programme about the acceptance of the programme in New Zealand and Italy. Particular paper could be shared to provide experiences of implementation of the programme abroad. During the process, interest from several countries appeared aiming to investigate the Finnish Schools on the Move programme such as United Kingdom, Italy, Netherlands, India and United States. Question appeared: why should we give the idea away and what do we get return? Cooperation with international partners is seen valuable but at the moment Finland is mentioned to be much more a giver than a receiving one (Sahlberg 2011, 138). According to Valtioneuvoston kanslia (2015, 7) in Finland, people are encouraged in regeneration, creativity and curiosity. Mistakes are allowed because we learn from mistakes. If the regeneration, creativity and curiosity are highlighted values in strategy plan of the government, trial of the Finnish Schools on the

Move programme in other countries should be supported by the government. The following chapter is presenting hypothetical situation why and how, the Finnish Schools on the Move programme should become an export business. Suggestions are based on the previous literature, experience of the writer and brainstorming session with marketing specialist of Haaga-Helia University of Applied Sciences, Outi Kangas-Korhonen (Kangas-Korhonen 19.9.2016).

8.4.1 Why the Finnish Schools on the Move programme should become an export business?

Finnish economy is dependent of the export business (Vahvaselkä 2009, 38). Finnish education has real possibilities in export business considering the brand and targeted interest from other countries. Education is constantly under inquiries by the foreign visitors. (Mykkänen 10.8.2016.) In general, education export has been taken seriously in the current government of Finland. Marianne Huusko is the first person as an education export ambassador. Full-time job of Huusko is to look for an answer to a question: "How to develop a successful export business about Finnish education?" (Opetus- ja kulttuuriministeriö 2016c.) In addition, recently Finnish delegation made agreements in Saudi Arabia to co-operate and share knowledge about Finnish education. For instance, students from Saudi Arabia will travel to Finland and estimate which aspect would be feasible to education of Saudi Arabia. According to The Minister of Education and Culture, Ms. Sanni Grahn-Laasonen, Finnish education has multiple possibilities. (Opetus- ja kulttuuriministeriö 2016d.)

Strengths of Finland in international markets were described in the publication of Vahvaselkä (2012, 137):

> Finnish companies have a great baseline in export business. Finland is quite a small country without tough competitors in the world. Finland has no burden by colonies. Our status is good. Finnish culture is respected by it honesty. Finnish are experienced as straight, talented and hardworking nationality. Talents in technology has brought positive reputation to Finland. By achieving permanent customer relationships Finnish people are likely to create long term friendship. (Finnvera 2001,118.)

Finland is a role model in education for several countries. Strength of the Finnish Schools on the Move programme is definitely already existing interest towards Finnish education and increased issue with obesity all over the world. If the programme would be sold as an educational strategy as well as an health strategy, who could refuse? For instance, professionals from Youth Sport Trust and Sport NZ were keen to learn how the programme

was able to spread all over the Finland? How are the schools funded, how do they deliver the programme, how do you help them to deliver the all the ways they can get kids active through the school day were mentioned aspects that professional from Youth Sport Trust would like to gather knowledge (Wright 1.2.2016). In addition, under inquires have been how the programme has been recognized as valuable initiative and supported by the Finnish government. At the moment, already 76% if the Finnish comprehensive schools and 80% of municipalities are participating in the Finnish Schools on the Move programme (Opetus- ja kulttuuriministeriö 2016b). Number of involved schools in Finland is valuable result which demonstrate the effectiveness of the programme. For instance, Sport in Education-project based in New Zealand was established by eight secondary schools in 2012. Currently, during the year 2016 project will spread to 15 new schools around the country. The goal of 40 new schools during next three years was purposed by a long-term plan. (Sport New Zealand 2015.) In New Zealand, there are approximately 2500 state schools (Ministry of Education, 15). In 2015, in Finland there were 2500 schools that provided basic education (Tilastokeskus 2015). Considering the similarity in the size, New Zealand and Finland can be well compared. Thus, the long-term plan for Sport in Education-project is 40 involved secondary schools even the programme is one of the government's initiatives (Sport New Zealand 2015). The Finnish Schools on the Move programme is involved by over 1700 schools and the programme is the priority programme of the government (Opetus- ja kulttuuriministeriö 2016b). How the programme has earned its' place in the Finnish government and how it has spread rapidly all over the country are the "business secrets" that all the other programmes are interested to solve.

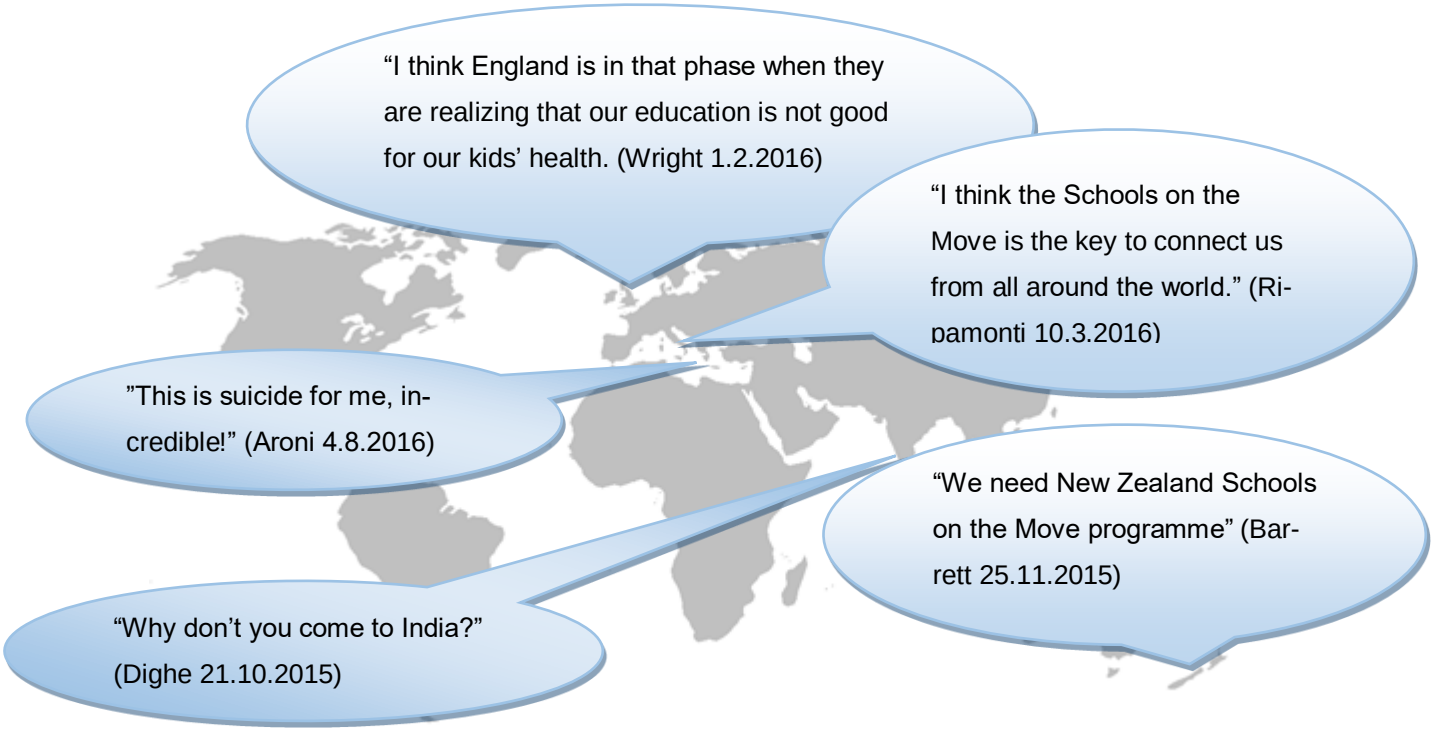
As indicated, Finnish education is a role model for several countries. While searching for material for the thesis interesting physical activity intervention based in United States called Liink-project introduced in the home page: "It was clear from the work in Finland and research from many neuroscientists that outdoor play is beneficial to learning" (Liink-project 2016). Ideas to activate schools in Texas were based in Finnish schools. Researcher from America spent six weeks in Finland identifying aspects that could be implemented in schools in United States. Project in Texas has shown positive results on students' academic achievement and emotional well-being. (Rhea 2014, 8.)

If the Finnish Schools on the Move programme would spread to other countries that would strengthen the position of the Finland as one of the top countries in education. Finland would gather more research opportunities by the implemented programme in foreign countries. Published academic reviews would increase the reliability towards Finnish research. According to LIKES Research Centre for Physical Activity and Health the mission of the Centre is to promote physical activity and health in addition to, provide and support

the research of the field in Finland and abroad (LIKES 2016). By the collaboration with foreign countries the wide network would be established. As mentioned, Finland is often the country which is in the giving position instead of receiving one. Based on the experiences from Italy and New Zealand, Finland has several aspects to gain new knowledge such as Italian world leading skills of integration and New Zealand multicultural aspect in teaching. Contacts inside the Europe would increase the status of Finland in European Union. Hypothetically, the funding of the programme could be applied from European Union.

Following rates indicate why Italy should be interested in the Finnish Schools on the Move programme. Survey of HBSC 2013/2014 introduced daily MVPA rates of 42 countries. Considering Finland and Italy, significant difference was seen in the physical activity habits of children and adolescents. Among the 11-year-olds students (girls and boys) the difference was major: 34% of Finnish girl respondents and 47% of the boys reported to have at least 60 minutes of MVPA daily. 8% of the Italian girl respondents and 17% of boys reported to achieve the physical activity recommendations. (Inchley et al. 2016, 140.) Regarding to the report of HBSC, MVPA levels are generally low and even declining by increasing sedentary behavior and screen time. Thus, intervention programs aiming to address issues with physical activity and sedentary behavior and meeting the interests of certain age groups should be found. (Inchley et al. 2016, 143.)

To assume that programme would be established in the country such as Italy. Collaboration would enable working experiences placements for Finnish students, leading for the interesting topics of thesis. Again, academic reviews would be published by the Finnish students. The situation would allow and even require collaboration over the certain subject areas: knowledge in education, sports, business and law are only few mentioned majors that the phenomenon would require. Students of several subject areas could be trained to work in the field of the Finnish Schools on the Move programme. Graduated students would have already existing knowledge and profession to continue work for the programme. For instance, sports instructor students of Haaga-Helia of University of Applied Sciences have been successfully trialed such a project in Italy. First, students were educated about the Finnish Schools on the Move programme. Second, action plan for the schools of Italy were made. Third, one-month practical working experience was accomplished in Italy including implementing actions based on the programme in schools. Report was written after the pilot. The trial will continue year by year because of the established collaborative partners. Similar concept could be used with other subject areas.



Picture 6. International acceptance towards the Finnish Schools on the Move programme

However, even the Finnish Schools on the Move programme is seen to have real possibilities in export business, going international should be considered carefully. Expanding the action in international markets is a huge financial and time-consuming investment. Thus, it needs to be considered that action brings enough value for the company. Decision can be supported by evaluating five steps: decide whether to expand to international markets, decide the targeted markets, decide market-entry strategies, decide marketing frame and decide actions to implement, coordinate and control the international programme. (Hollensen 2000, 382.) “Indeed, it is easier to walk the paths that others have paved, than to be in the lead. But the future requires new ways of thinking.” (Sahlberg 2011, 124).

8.4.2 **How the process could be implemented?**

First, when you think about a successful brand few obstacles need to be under consideration inside the company: is the product special enough to compete with all the other similar approaches, what is the value for the customer, is exporting part of the wide mission of the company and does the company have competent staff, competent product and competent technology. Process of export business begins by evaluating the competence of the company as well as the brand. The story of the company including history, develop-

ment in home country, success factors and challenges should be identified. To reach the markets unique product and well implemented marketing is required. To develop a successful product, client of the target country is required to investigate. The product needs to respond to particular needs. (Vahvaselkä 2009, 107-108.) In international business, the company is dependent of the foreign cultures. Situation of the new marketing area is required to adapt. (Vahvaselkä 2009, 136.)

While exporting a business, size of a target country, trends and competition are required to investigate in advance. For each country, PESTEL-analysis is recommended to use as a tool to discover political, economic, sociocultural, technological, ecological, ethical and legal situation of a target country. Followed by PESTEL-analysis, SWOT-analysis can be used to summary the opportunities and threats. Strengths and weaknesses of a both company and a target country are included in the SWOT-analysis. (Vahvaselkä 2009, 112.)

While considering the exporting the company, network and collaboration are required. By existing partners exporting to other countries does not require as much effort. (Vahvaselkä 2009, 104.) Referring to research, export business typically begins in the markets nearby. In case of Finland, Scandinavian countries, Baltic and St. Petersburg were mentioned as options followed by spreading export in Europe. (Vahvaselkä 2009, 111.) Considering exporting Finnish Schools on the Move programme, the natural process would be already existing partners. For instance, Italy would be a considerable country to start with. In addition, earlier mentioned LiinK-project in United States can be seen as a possibility for the Finnish Schools on the Move programme. Schools and the countries that were already convinced by Finnish education would more likely buy into Finnish national initiative.

Global network should be developed and the knowledge should be shared. According to Sahlberg (2011, 138) new global collaboration for the leadership of educational change is required. The collaboration should be working towards future education by good practices, innovative ideas and proven success. (Sahlberg 2011, 138.) By the Finnish Schools on the Move programme shared and closed network could be developed between the collaborative schools and countries. Hypothetically, Italy would be buying into the programme. The whole province of Lombardi would be part of the Schools on the Move. There would be a shared network for Italian schools. Knowledge about success and challenges inside the current country would be shared.

Based on the experiences of the thesis it is important to aim to get familiar with the culture and the traditions that the population have: “First of all, I think it is important that you put

all in the context of the New Zealand way" was noted by Head of Physical Education Department during the pilot in New Zealand. Referring to respondent, New Zealand as a country is an isolated place compared to Europe. Kiwis' have their own way of doing things and a lot of traditions. According to Head of Sports Department, the main key as well as the time consuming one is to get familiar how the schools operate in foreign country. In New Zealand, discussions were made with several participants regarding the implementation of the Finnish Schools on the Move programme in other countries. While considering the implementation of the programme in foreign country one aspect appeared: "The programme could be separated in small modules and country could choose the ones that work for them" (Head of Sports Department). Mentioned model by respondents from New Zealand was actually a description how the Finnish Schools on the Move programme operates. Thus, the approach would be modified to respond the needs of each country and each school.

Practically, process of an export business would be starting with already existing partners. Current environment would be explored. Decision-makers in municipality, province and schools would be approached. Finnish Schools on the Move programme would be presented as an initiative to respond to particularly in the needs of certain country and certain school. According to Baroness Sue Campbell, very often we are eager to tell others about our own world changing ideas. Still the most important key is to listen. When you are keen to push your idea forward, remember to listen what are persons in the other side willing to achieve. After figuring out the need you are in the position to convince that by your approach you have an answer to their needs. (Campbell 7.12.2015.)

Thus, the programme would be modified in the current environment. Respondents would be offered by different packages such as bronze, silver and golden package in terms of how much the school would require support while implementing a programme. If the client would be keen to buy into a programme, first step of any package would be professionals flying into target country with world-changing marketing preparation. When client is convinced by research results, video clips and enthusiastic comments about the programme, the next step would be inviting few clients to Finland to explore the Finnish Schools on the Move programme in practice. In this phase, just to remind, working with other cultures misunderstandings are typical. Contracts are suggested to prepare with care and always on paper. (Vahvaselkä 2012, 134.) Followed by the organized visit in Finland, client schools would receive practical help by implementing the programme. During few week periods, the programme would be launched in client schools in cooperation with professional from Finland and coordinator of the local schools. After the beginning, schools would be implementing to programme independently followed by support and follow-up.

As mentioned, Finnish students could be recruited to assist practical implementation in the client schools. Knowledge about the requirements of the practical implementation of the programme has been already gathered by the pilots of New Zealand and Italy. Advices to the practical implementation are collected in (Attachment 5). A material about the practical implementation should be collected based on the pilot. The material would be shared for the students exporting the programme.

Considering the sold package, programme is required to divide in sections when the information is shared by piece by piece. All information and success factors can't be shared at the time. To ensure the sustainability of the programme in foreign countries, marketing is the key (Vahvaselkä 2012, 239). Locals are required to get familiar with the programme and enthusiastic by the approach. Local media, newspaper, local academic publications, workshops and seminars are vehicles to spread the knowledge. Marketing can be implemented either from Finland or target country. (Vahvaselkä 2012, 239.)

Obviously, this straight worded chapter why and how the Finnish Schools on the Move should become an export business arouses doubts and disagreement. Kotter and Whitehead (2010, 134) identified 24 typical responds when approaching by a new idea that require change. "Your idea is not following our main values" was the typical answer towards a new idea. Suggested respond to that answer was: "this plan is necessary if we want to get hold on to our traditional values." Again, if the Finnish Schools on the Move is under consideration, the main goal of the programme is to establish physically active school culture in Finnish schools (Tammelin et al. 2012, 7). Finnish Schools on the Move is part of the government programme and funded by the Ministry of Education and Culture (Tammelin, et al. 2012, 70). To ensure the sustainability of the programme in Finland, interest towards the programme from foreign countries, possibly leading to an income to Finland, would more likely to ensure the extension of the programme also in Finland. So, the respond: this plan (Finnish Schools on the Move as an export business) is necessary if we want to get hold on to our traditional values (the sustainability of the programme in Finland) would be an excellent respond to someone's doubts.

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Attachments

Attachment 1. The background of the thesis

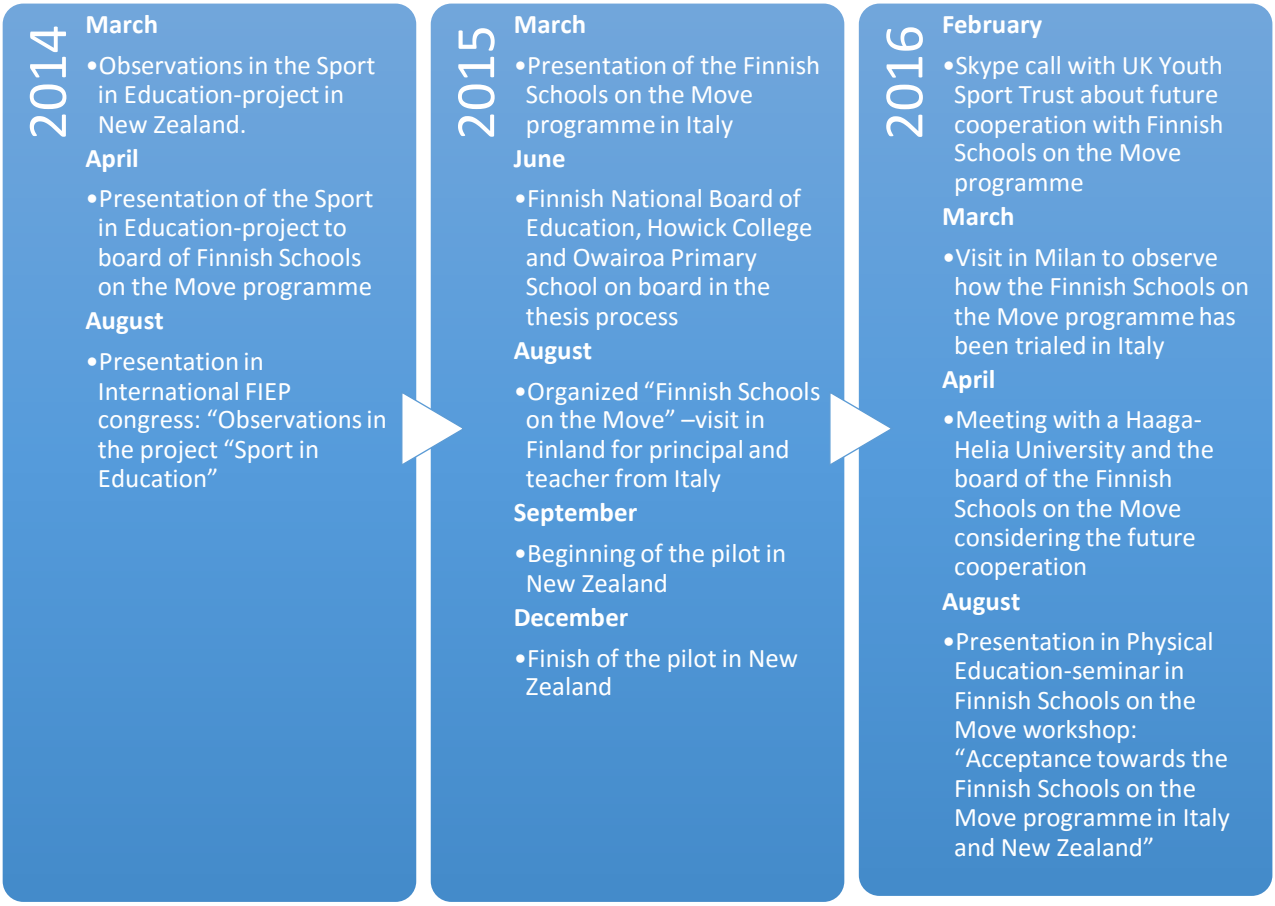
Personally, the thesis has been at least a process of two years. The interest of spreading the Finnish Schools on the Move approach to other countries already appeared in 2014. First, during my around the world trip I observed New Zealander intervention project called "Sport in Education" as a comparison to the Finnish Schools on the Move programme. I shared gathered understanding about Sport in Education-project to the board of the Finnish Schools on the Move programme in addition to written report for the use of LIKES Research Centre for Physical Activity and Health and Sport New Zealand organization.

Second, in 2015 I presented and shared the knowledge of the Finnish Schools on the Move programme in Italy for the principal of the school that I work for. In September 2015, I organized a three-day visit for particular principal and English teacher. Aim of the visit was to explore the opportunities of Finnish Schools on the Move programme. Ladies have been coordinating the Schools on the Move approach in Italy since the visit in Finland. In Italy, more active school day approach has been implemented by eight schools in lower secondary and primary school levels.

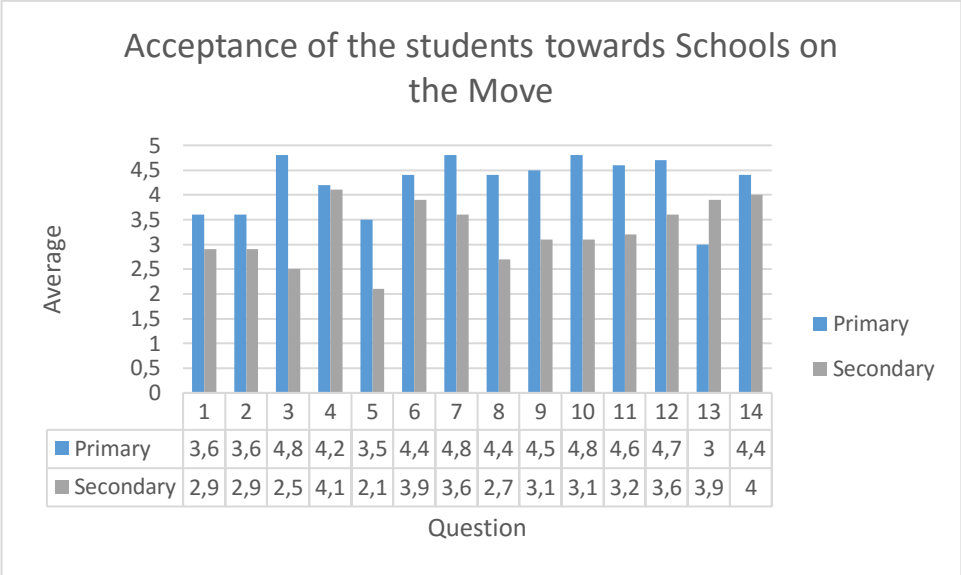
Third, in autumn 2015, I organized and coordinated three-month pilot aiming to establish the Finnish Schools on the Move programme in one primary and one secondary school in New Zealand and evaluate the acceptance towards the actions. During the pilot in New Zealand, teachers in Italy have spread the approach of more active school day independently in Italy. The process has been mentored by the writer of the thesis and contacts were kept during the pilot in New Zealand.

Personally, the development and knowledge that the thesis process has provided is not measureable. I have gathered opportunities to present my international experiences in FIEP congress and International Physical Education Seminar in 2014 and 2016. By mentioned opportunities, I have got a chance to share my knowledge and to build the network between the professionals in the field of physical activity. By the process, I have got contacts from several countries to co-operate with. After the pilot in New Zealand, I got a chance to travel in Italy and to visit the schools that are involved in the "Schools on the Move" and see to process in action. In the future, one description of my work duties is developing the collaboration with Haaga-Helia University of Applied Sciences with Italian schools.

New perspectives and open-minded way of thinking that I have gathered from foreign countries is the leading cause of my enthusiasm to collaborate with other countries. I believe that Finland has succeeded building a well working framework to make education healthier and enjoyable for the youth and the staff as well. We have lot to give, but also a lot to receive. In my opinion, Finnish Schools on the Move could be the next internationally recognized educational “miracle”.



Attachment 2. Acceptance of the students towards the actions based on the Finnish Schools on the Move programme



	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Primary	3,6	3,6	4,8	4,2	3,5	4,4	4,8	4,4	4,5	4,8	4,6	4,7	3	4,4
Secondary	2,9	2,9	2,5	4,1	2,1	3,9	3,6	2,7	3,1	3,1	3,2	3,6	3,9	4

Number of respondents: primary school n=38 and secondary school student n=15

1. Active commuting. Walking campaign?

2. Active commuting. Bus and parents would leave you few hundred meters before the school and everyone could walk part of the journey 3

3. Clubs. Organized activities during the waiting time before parents or bus pick you up?

4. Active lessons. Exercise ball as a chair?

5. Active lessons. Standing desks in the class?

6. Intervals. Gym and sport equipment available for the students during intervals?

7. Active lessons. Student or teacher would instruct 5 to10 minutes activities as part of the lesson?

8. Intervals. Students would instruct activities to each other during break time?

9. Clubs. Every student would have another student as a personal trainer?

10. Co-operation. Students involved in planning with teachers?

11.Clubs. Before and after school sports clubs?

12. Co-operation. Co-operation with local sport clubs. Students would get hobby pass to trial different kind of sports?

13. School lunch. School lunch would be similar for all of you?

14. One hour daily physical activity. If every school day would include an hour physical activity?

Attachment 3. Questionnaire about the interval time habits

1. How do you typically spent the interval time?
2. What would you like to do during the intervals? Ideas?
3. Mention three sports that you would like to do during the intervals.
4. Would you like to participate in organized activities?
5. What would motivate you to be active during the interval time?
6. Would you like to participate in the group who would organize activities during the interval time?

Questionnaire was responded by Year 10 boys (n=20) and girls (n=5).

Attachment 4. Internet survey for the staff of Howick College

"Finnish Schools on the Move" has helped me to see that schools in America—and around the world—can increase the physical activity of children by nudging all students to take ownership of their active lifestyles and encouraging teachers to come up with creative ways of getting kids to move inside their classrooms." -Tim Walker

1. Howick College should be taking responsibility encouraging students to be physically active?

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

Comments

2. Howick College is responsible to encourage students to be active during the interval time?

- Strongly agree
- Agree
- Neutral

- Disagree
- Strongly disagree

Comments

3. All staff not only Physical Education teachers are responsible to promote student's physically active lifestyle?

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

Comments

4. In your experience physical activity during the intervals could improve student's concentration in the classroom?

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

Comments

5. School facilities at Howick College promote students to be active during interval time?

- Strongly agree

- Agree
- Neutral
- Disagree
- Strongly disagree

Comments

6. Are you aware that physical activity has positive effect on academic achievement, cognitive functions and schooling?

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

Comments

7. In your experience which time of the day students are the less focused?

- Tutor
- Period 1
- Period 2
- Period 3
- Period 4
- Period 5

Comments

8. In your experience should Howick College develop a school environment that supports good, healthy eating habits?

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

Comments

9. Indicate which ideas the school could use to promote physical activity during the school day?

- Activities during the intervals
- Morning fitness sessions
- More P.E lessons
- Encourage students to come to the school by foot or by bike
- Use more activity-based methods during classes
- Provide active brain breaks in the classroom
- Morning and afternoon activities
- Sports equipment and the gym available for the students during the intervals
- Teachers could organize activities for the students
- Student leaders could organize activities for the other students
- Co-operation with local sport clubs
- Reduce sedentary time in the classroom
- Encourage parents to drop students 500 meters away from school and let them walk
- Bus could drop students few stops before the school and let them walk

Ideas?

Thank you! I appreciate your time

Attachment 5. Advices for practical implementation of the programme in foreign countries

Advises for practical implementation of the Finnish Schools on the Move programme are based on the findings collected during the pilot. Each school and especially each country have probably different traditions and ways of operating. Explore the current school system beforehand. Approach the decision-makers of the school. The project is required to be supported by the principal and management team of the school. In practical work, one of the teachers can be recruited as contact person. If interest appears, contact person could be trained as future coordinator of the school. Confirm that before the arrival to target country, all participants are aware of the goals of the pilot. If possible, Skype call or prepared information letter are recommended.

Pre-planning is not identified as a main key but make a draft plan before the arrival to the target country based on the current knowledge (Figure 2). At the beginning, the key is to present a question: what are the aims of the school for the pilot? For instance, if the school experience that students are often restless in the class, when concentration seems to decrease physically active breaks could be an approach to trial on. Followed by first conversations, intervention is suggested to begin with the field observations of typical school day. During the observation the main key is to identify what are the components that physical activity could be integrated and what would be the easiest component to start with. Typical school day is recommended to observe by the person who is not yet influenced by the traditions of the school. Often schools are used to do things similarly for year to year. Implementation based on only the ideas of the person who is already part of the school culture should be avoided.

Even the school day is hectic, deep conversation with staff members is suggested to require in the early stage of the intervention. Confirm that participants actually are aware what is the Finnish Schools on the Move programme. Various experiments to increase physical activity during the school day could be presented and the school would decide the methods that are seen useful for them. Ideal situation would be starting with a small group of enthusiastic teachers. By gathering positive experiences, other staff can be convinced and the approach can be spread. When the goals are set by the staff of the school and goals are made suitable for the particular school the programme will be more likely establish as part of the school culture: “The hardest thing is to change something that has been always been the same. Once you are in, you are in.” (A Physical Education teacher)

Attachment 6. Results in a nutshell