

**STUDYING AUTONOMOUS MOTIVES IN PHYSICAL EDUCATION AND
LEISURE TIME CONTEXTS**

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ABSTRACT

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The aims of the present study were to adapt and translate six scales of autonomous motives in physical education and leisure time contexts to be studied in Finnish students and to investigate the validity and reliability of the scales. Other aims were to study if there are differences between genders in measured variables. In addition, the relationships between the variables were studied. Participants were 127 (72 males, 55 females) 14,3 year-old (sd = 0,49) students studying in 8th grade in Jyväskylä. The data was collected in three waves during five weeks.

The scales were translated and back translated from English to Finnish languages. The measures used in this study were: the scales of Perceived Autonomy Support in Physical Education Context (Hagger et al., 2003), Perceived Peer Autonomy Support in Leisure Time (Hagger et al., 2003), Perceived Parental Autonomy Support in Leisure Time (Hagger et al., 2003), Perceived Locus of Causality in Physical Education Context (Ryan & Connell, 1989) and Perceived Locus of Causality in Leisure Time Context (Mullan et al., 1997). All the concepts of Theory of Planned Behaviour (Ajzen and Madden, 1986, Courneya and McAuley 1994) were measured: behavioral intentions, attitudes, subjective norms and perceived behavioural control. The last measure was Self-Reported Physical Activity Behavior and Past Behavior (Hagger et al., 2003). Construct validity of the scales was analyzed by using exploratory factor analysis. Reliability of measures was examined with α of Cronbach. T-test of independent samples was used to estimate differences between genders. Relationships between the variables were examined by using Pearson product moment correlations.

The factor structures of the Finnish scales were similar to the original scales. However, some minor adjustments were made. Four items were eliminated from the measure of Perceived Locus of Causality in Physical Education Context and one item was removed from the measure of Perceived Locus of Causality in Leisure Time Context to improve the construct validity of the indicators. Reliability of all measures was on satisfactory level. There were significant differences between genders in three variables: perceived autonomy support in physical education (PE) context was higher in boys, external regulation in PE was higher in girls and relative autonomy index in PE (RAI-PE) was higher in boys. Correlations were studied separately in boys and girls. Perceived autonomy support in PE context did not correlate with RAI-PE and RAI-LT in the boys' group, but it correlated significantly and highly with RAI-PE in the girls' group. Intention and self-reported physical activity correlated significantly and positively with RAI-PE and RAI-LT in both groups. These relationships are meaningful and support the content validity of the scales. The translation and adaptation of the scales in Finnish was successful. These valid measures can be used in further studies.

Keywords: trans-contextual model, perceived autonomy support, physical education, leisure time, physical activity, gender differences

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1 INTRODUCTION

Obesity is one of the greatest public health challenges of the 21st century. Its prevalence has tripled in many countries in the World Health Organisation (WHO) European Region since the 1980s, and the numbers of those affected continue to rise at an alarming rate. (WHO, 2006) One way to reduce obesity with children is to accustom them with physical activity in an as early stage of growing up as possible. It is suggested that a physically active lifestyle in adulthood may originate from an active lifestyle in one's adolescent years. (Shephard & Trudeau, 2000). Stimulating children to be physically active in their free time during physical education classes at school can be a solution to the growing sedentary lifestyle in adolescents. One of the primary aims of physical education is to provide young people with the necessary skills, knowledge and competence to choose and participate in health-related physical activity in leisure-time (National Standards for Physical Education, 1996; Ntoumanis, 2001; Pate et al., 1995). With the still growing obesity among youth, as a result of too little physical activity, the importance of this aim seems to become more and more important.

Several studies have been conducted investigating the role of the teacher in motivating children to learn. It looks like being intrinsically motivated to learn improves the quality of learning and that those conditions that are autonomy supporting and informational will promote more effective learning as well as enhanced intrinsic motivation and self-esteem. In other words, autonomy-supportive teachers have more chance of motivating students than teachers with a more authoritative approach. Most of these studies have been conducted in regular school settings and have been investigating academic achievements and motivation. There is relatively little research outlining how physical education teachers or physical education programmes can effectively orient young people towards regular leisure-time physical activity outside school.

Physical education classes are very useful to promote physical activity since participants are diverse, young and captive. Because of the variety in physical activities, most pupils will have some positive experiences and these experiences may determine involvement in leisure-time physical activity. There has been quite some

research about the topic of perceived autonomy support in a physical education context, merely by Hagger and Chatzisarantis (2003, 2005). They constructed the trans-contextual model to explain in which way perceived autonomy support in a physical educational context influences motivation to be physically active in a leisure-time context. The trans-contextual model uses a unique multi-theory approach, adopting constructs from two social cognitive models of motivation: the self determination theory by Deci & Ryan (1985, 1995, 2000) and the theory of planned behaviour by Ajzen (1985, 1988, 1991). The model will contribute to present knowledge by establishing how perceived autonomy in physical education is translated into leisure-time physical activity intentions and behaviour. The trans-contextual model is shown in figure 1. The variables of the model are used in the present study. The aim of this study is to translate and adapt the scales in Finnish and study the factorial structure of the scales. In addition, Leemans (2006) tests in her thesis how the model works with the same Finnish data.

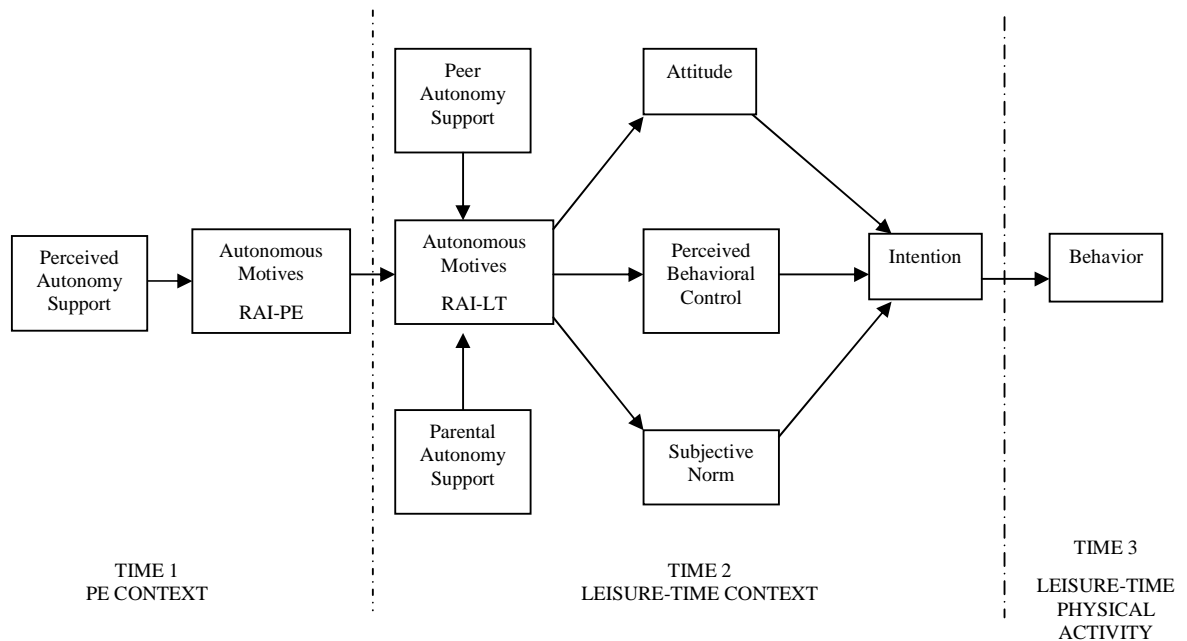


Figure 1. The trans-contextual model of autonomous motives in physical education and leisure time contexts.

RAI-PE = relative autonomy index in a physical education context; RAI-LT = relative autonomy index in a leisure-time context.

The trans-contextual model belongs to social cognitive approach and aims at investigating the motivational influences of young people's physical activity intentions and behaviour in physical education (PE) and leisure time (LT) contexts. The purpose of this model is to investigate whether promoting autonomous (intrinsic) forms of motivation in a PE context will influence autonomous motivation and intentions to engage in physical activity in an LT context (Hagger, 2006).

This research is part of a broader cross cultural study, and is based on earlier research by Hagger et al. (2003; 2005). The research will be conducted in different countries to search for possible cross cultural differences and to validate the model in a broader way.

In the present study we will examine how the indicators work after translation and adaptation to Finnish. In addition, we will look for differences between boys and girls in the perceived autonomy support, motives and the constructs of theory of planned behaviour and look if there are relationships between variables.

2 THEORETICAL BACKGROUND OF THE STUDY

2.1 Self-determination theory

Motivation is an important factor in getting people to participate in physical activity. Self-determination is a quality of human functioning that involves the experience of choice. Human organisms have needs for competence and self-determination. They relate to the experience of being competent and self-determining and to the emotions of interest and enjoyment. Self-determination is integral to intrinsically motivated behaviour and is also in evidence in some extrinsically motivated behaviour. Thus, it is the capacity to choose and to have choices, rather than reinforcement contingencies, drives, or any other forces or pressures, that are the determinants of one's actions. (Deci & Ryan, 1985.)

People can engage in any type of behaviour for many different reasons. According to the self-determination theory (SDT) behaviours can be characterized by an individual as lying at some point on an intrinsic-external continuum, also known as the perceived locus of causality (PLOC). Behaviours that are engaged in spontaneously, for enjoyment and interest alone, with no external regulation or reward, are called intrinsically motivated. People engage in this type of behaviour for the sole purpose of enjoyment of the action itself. Behaviours that are seen as positive, but are not necessarily enjoyed, are characterized as identified. Both types of regulation are next to each other on the internal side of the perceived locus of causality, with intrinsic motivation on the far most internal side. (Deci & Ryan, 1985.)

Many of the behaviours we engage in do not have any personal value. Therefore they are not intrinsically motivated and they are not on the internal end of the perceived locus of causality. Those activities are done because of the perceived demands or expectations of external forces. This is known as introjected regulation. They are done because people think they should be done, despite the lack of personal values towards that behaviour. The last type of regulation is on the far most external end of the continuum, and that is external regulation. People engage in this type of regulation because significant others are responsible for forcing the enactment of the behaviour.

A person's perception of the relative degree on autonomy for any activity can be located on this continuum. (Deci & Ryan, 1985.)

The self-determination theory is an approach to human motivation and personality that uses traditional empirical methods while employing an organismic meta-theory that highlights the importance of human's evolved inner resources for personality development and behavioural self-regulation (Ryan, Kuhl & Deci, 1997). It focuses on the degree to which human behaviours are volitional or self-determined. (Deci & Ryan, 1985.) So the aim of the SDT is to investigate people's inherent growth tendencies and innate psychological needs that are the basis for their self-motivation and personality integration, as well as the conditions that foster those positive processes (Leemans 2006).

Using the empirical process, Ryan and Deci (2000) identified three such needs: The need for competence, relatedness and autonomy. Those needs seem to be essential for facilitating optimal functioning of the natural tendencies for inner growth and integration, as well as for constructive social development and personal well-being. These nutrients are basic psychological needs, which are innate, universal, and essential for health and well-being. The social context can either support or thwart the natural tendencies. If motivation towards behaviour is thwarted, then the person will be in a negative emotional state, have a low motivation or even avoid the particular behaviour.

Although many specific undermining effects of self-motivation, social functioning and personal well-being have been investigated, researchers suggest that these factors can be best described in terms of thwarting the three basic psychological needs. Thus, SDT is not only concerned with the specific nature of positive developmental tendencies, but it also examines social environments that are antagonistic towards those tendencies. (Deci & Ryan, 1985)

To participate in physical activity in leisure time (LT), children need to be motivated in a right way, which means on the level of intrinsic motivation or identified regulation. So teachers should try to enhance such behaviour by adopting a motivational climate that will extract these kinds of motivation. Research showed that this climate should be

autonomy-supporting (Deci, Schwartz, Scheinman & Ryan, 1981). If an internal locus of causality can be reached, it is more likely that students will be physically active in leisure time situations.

Dowson, McInerney and Nelson (2006) studied students' motivational orientations in different schools and between genders. The result that they got showed that the gender has an effect on general motivation in school but it is not the most important force. School context differences were more salient than sex differences in determining students' motivational orientations. However, there are not previous studies about gender differences in this same setting that is used in our study.

Significant gender differences have been found in enjoyment in physical education factor in previous study. Boys reported a significantly higher level of enjoyment in physical education than girls (Carroll & Loumidis 2001.) This might indicate that boys are more intrinsically motivated than girls.

2.2 Theory of planned behaviour

According to the theory of planned behaviour (TPB), intention is the strongest predictor of behaviour. The TPB proposes that intention is summarized by three key constructs, being the person's general affective and cognitive orientation towards the behaviour (attitude), the pressure placed on them by significant others to participate in the target behaviour (subjective norms, SN) and their competence-related evaluation of their faculties and capacities towards the behaviour (perceived behavioural control, PBC). In combination, attitude toward the behaviour, subjective norm, and perceived behavioural control form a behavioural intention. In the end people are expected to carry out their intentions when opportunity arises. This means that intention is assumed to be the immediate antecedent of behaviour. However, perceived behavioural control is considered to have a direct effect on behaviour, because behaviours pose difficulties of execution that may limit volitional control. (Ajzen, 1985, 1988, 1991)

Nevertheless, the theory of planned behaviour is not without its critics. It does not completely account for all the variance in intentions and behaviour (Hagger,

Chatzisarantis & Biddle, 2002b), and its long-range predictive validity is limited because of the situation-specific nature of its constructs (Chatzisarantis, Biddle & Meek, 1997). These limitations could be addressed by incorporating constructs from the SDT to explain the origins of its situation-specific constructs (Hagger et al, 2003).

There are results that gender does not have any significant effects on TPB constructs or indirect effects on intention and activity through theoretical constructs (Rhodes, Macdonald & McKay 2006). However, there are previous studies which show that girls are significantly less physically active outside school than boys (Carroll & Loumidis 2001, Vilhjalmsson, 2003). In Finland gender differences in leisure time physical activity are seldom found (Nupponen & Telama, 1998, Telama, Silvennoinen, Laakso & Kannas, 1989). It will be interesting to see if there is a difference in physical activity in this Finnish sample.

2.3 The trans-contextual model

Because both theories have some problems explaining several processes and because the processes they explain are complementary it is advantageous to integrate them. Constructs of the self-determination theory can help in explaining the quality of the relationships in the theory of planned behaviour (Chatzisarantis & Biddle, 1998). On the other hand the TPB provides a basis for the translation of general motives from the SDT (perceived locus of causality) into intentional action (Hagger et al, 2002a). There is growing evidence to indicate the strong influence autonomous motives from the SDT have on attitudes and to show the mediating role attitudes play between these motives and intentions (Hagger, Chatzisarantis & Biddle, 2002a; Hagger et al, 2003, Hagger et al, 2005).

The trans-contextual model is based on three premises. A first hypothesis says that motives related to fundamental psychological needs form the basis of social-cognitive constructs involved in action (Deci & Ryan, 2000). These constructs are the decision-making variables from the theory of planned behaviour: attitudes, subjective norms and perceived behavioural control. Thus, the influence of autonomous motives on intentions and behaviour is expected to be indirect. For example, research has shown

that also in a PE context the provision of choice, one of the defining characteristics of intrinsic motivation, influences attitude change (Hagger et al, 2005).

Secondly, it is expected that generalized, context-level motives from SDT serve as informational sources for the formation of more specific, situational-level evaluations of future behavioural engagement in the TPB. This premise is based on Vallerand's (1997) hierarchical model on motivation, which proposes that autonomous motives operate at different levels of generality. It is suggested that more generalized contextual-level constructs, such as autonomous motives from the SDT, will affect specific situational-level decision-making constructs from the TPB in a top-down fashion (Hagger et al, 2006).

Third, it is hypothesized that autonomous motives from the SDT reflect the subjective evaluation of whether behaviours in a particular domain, such as physical activity in LT, are internal or external (Deci & Ryan, 2000), whereas the constructs of the TPB, attitude, subjective norm and perceived behavioural control, focus on expectancies regarding future behavioural engagement.

Hagger et al. (2003) proposed the trans-contextual model using these premises as a basis. The model explains how young people's perceptions of the environment affect their motives in a PE context and their physical activity motives, intentions and behaviour in an LT physical activity context. The main findings of this study (Hagger et al., 2003) indicate that perceived autonomy support predicts an internal perceived locus of causality in a PE context, which affects LT physical activity intentions and behaviour through the mediation of the perceived locus of causality in an LT context. These results have important practical consequences because they suggest that facilitating physical activity in LT begins in schools. PE teachers should therefore try to enhance intrinsic motivation in students. Reeve et al. (1999) examined motivational style in terms of a teacher's disposition to control students or support their autonomy in learning settings. It turned out autonomy supportive teachers showed a distinctive motivating style. They listened more, held the instructional material less, asked more questions about what the student wanted to do and supported the intrinsic motivation and internalization.

3 AIMS OF THE STUDY

The aims of the present study were to adapt and translate scales of autonomous motives in physical education and leisure time contexts to be studied in Finnish students and to investigate the validity and reliability of the scales. Other aims were to study if there are differences between genders in measured variables. In addition, the relationships between the variables were studied.

The specific aims of the study are:

- 1) To translate and to adapt the scales of Perceived Autonomy Support in Physical Education Context (Hagger et al., 2003), Perceived Peer Autonomy Support During Leisure Time (Hagger et al., 2003), Perceived Parental Autonomy Support During Leisure Time (Hagger et al., 2003), Perceived Locus of Causality in Physical Education Context (Ryan & Connell, 1989), Perceived Locus of Causality in Leisure Time Context (Mullan et al., 1997), variables of Theory of Planned Behaviour: behavioural intentions, attitudes, subjective norms and perceived behavioural control (Ajzen and Madden, 1986, Courneya and McAuley 1994), Physical Activity Behaviour and Past Behaviour (Hagger et al., 2003) to be used in Finnish studies.
- 2) To investigate the construct validity and the internal reliability of the scales by using exploratory factor analysis and α of Cronbach.
- 3) To study if there are differences between genders.

Differences between boys and girls have seldom been studied earlier by using these instruments. We hypothesize that we will not find significant differences between genders in autonomous and controlling motives for exercise. More likely we expect that the girls and boys are motivated and perceiving autonomy support in physical activities in similar ways. On basis of previous research of Rhodes et al. (2006) we hypothesize that there are no differences in the variables of theory of planned behaviour.

4) To study if there are relationships between the variables studied by using Pearson's product moment correlations

4 METHOD

4.1 Translation Procedures

Standard back translation techniques (Brislin, 1986) were used to develop Finnish questionnaires. The original questionnaires (appendices 2, 3 & 4) had to be translated to Finnish because indicators have not been used in Finnish studies before. One of the aims of the study was to form valid questionnaires that can be used in Finland. To do this first we translated questionnaires to Finnish and then native English speaker back translated the forms. This had to be done to make sure that the content of the questionnaires had not been changed while translating process.

4.2 Participants

Participants were 158 (91 males, 67 females) students studying in 8th grade at a Finnish high school in Jyväskylä, situated in the central Finland. Some students did not fill in one or more questionnaires during the three wave data collection and consequently were excluded. The final sample size resulted in 127 participants (males $n = 72$, females $n = 55$, age $m = 14,3$ yr., $sd = 0,49$).

The questionnaires were handed out during health education classes. The seven different classes were taught by three different Physical Education (PE) teachers. The school principal granted initial consent for data to be collected in their schools (appendix 1). According to Finnish law, investigators do not need the consent from the children's parents, as long as the school grants the consent. Students were informed that they would be asked to complete a series of short questionnaires over the coming weeks as part of a survey on young people and that they could withdraw from the study at any phase if wanted.

4.3 Design and Procedure

A prospective design was employed with psychological variables being assessed at three points in time. In the first stage of the data collection, perceived autonomy support in physical education and the perceived locus of causality in a physical education context was assessed using self-report questionnaires (appendix 5). In the second stage of data collection, which took place approximately one week after the first stage, components of the theory of planned behaviour (Ajzen & Madden, 1986), perceived locus of causality in a leisure-time physical activity context (Mullan, Markland & Ingledew, 1997), and a frequency of physical activity in the past six months (Bagozzi & Kimmel, 1995) were measured (appendix 6). A one week delay was employed to avoid presenting similar measures in succession and prevent contamination of the data by the introduction of common method variance.

Approximately five weeks after the first stage, participation in physical activities was assessed (appendix 7) (Godin & Shephard, 1985). A five week inter-test period was employed to correspond with previous meta-analytic studies of the theory of planned behaviour that have classified proximal measurement of intentions and behaviour as 4 weeks or less and distal measures as greater than 4 weeks (Hagger et al., 2002b). The greater the time period, the more confident the researcher can be of the robustness of the long-range effects under scrutiny.

The children were told only about a practical matter. We also explained there were no right or wrong answers and that we were only interested in their own honest opinion. After the short instructions and some possible questions from the students the copies were distributed. The PE teacher was asked to stay in the background of the classroom during the time the students were filling in the questionnaires.

Three researchers conducted the data collection in quiet classroom conditions. Before each questionnaire the children received a short explanation in Finnish about the way they were supposed to complete the questions. The children were not allowed to copy or discuss responses. For practical matters, the questionnaires were not completed anonymously, but the children were assured that no-one outside the research group

would have access to the questionnaires and that the PE teachers would never have the opportunity to take a look at any of the completed questionnaires, in order to preserve confidentiality. Since only one of the three researchers present in the classroom spoke the Finnish language, questions asked by the children were handled by that person only.

4.4 Data analysis

SPSS 12.0 was used for the statistical analysis. To study the construct validity of the indicators of perceived autonomy support and perceived locus of causality in Finnish we used maximum likelihood factor analysis with Direct Oblim rotation. The reliability of the factors was examined with α of Cronbach for each different factor and for to the concepts of Theory of Planned Behaviour. T-test of independent samples was used to compare means between boys and girls. Correlations were calculated by using Pearson product moment correlation.

5 MEASURES

Perceived autonomy support in physical education context (appendix 5, page 1-2). The measure of perceived autonomy support (PAS) was developed in accordance with measures used in previous studies (Hagger et al, 2003). The original scale comprised 15 items (e.g., My PE teacher tries to understand how I see things before suggesting a new way to do things”), and responses were rated on a 7-point Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree).

Perceived peer autonomy support in leisure-time context (appendix 6, page 3-4). The perceived autonomy support concerning the students’ peers (PAS PEER) was measured. Both this scale and the parental autonomy support in LT (PAS LT) are based on the measures of perceived autonomy support in PE (Hagger et al., 2003). The indicator to measure perceived peer autonomy support consisted of 14 items (e.g. “My friends encourage me to do active sports and/or vigorous exercise in my free time”), and responses were recorded on a 7-point Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree).

Perceived parental autonomy support in leisure-time context (appendix 6, page 6-7). We measured also the perceived autonomy support concerning students’ parents and significant others, for example relatives (Hagger et al., 2003). This scale also has 14 items (e.g. “Other people who are important to me listen to me about my active sports and/or vigorous exercise in my free time”) and was measured on a 7-point Likert-type scale, ranging from 1 (strongly disagree) to 7 (strongly agree).

Perceived locus of causality in physical education and leisure time contexts (appendix 5, page 3-5 & appendix 6, page 5). The perceived locus of causality assesses domain-specific individual differences in motivation or regulation. The perceived locus of causality in a PE context (Ryan & Connell, 1989) is slightly different from the perceived locus of causality in an LT physical activity context (Mullan et al., 1997). Valkonen (1996) used the earlier version of the scale in her study. However, because of the further international development of the scale it had to be translated and validated again.

When the perceived locus of causality in a PE context was measured the students were presented with the question, “Why do I try hard in PE?” followed by 19 reasons. Five intrinsic motivated aspects (IM PE) (e.g., “Because it’s fun”), four identified regulated aspects (ID PE) (e.g., “Because I’ll value the benefits I get from my PE lessons”), four introjected regulated aspects (IJ PE) (e.g., “Because I’ll feel guilty if I don’t”) and six external regulated aspects (ER PE) (e.g., “Because I’ll be punished if I don’t”). Responses were measured on a 4-point Likert-type scale ranging from 1 (very true) to 4 (not true at all).

Later we measured the perceived locus of causality in an LT context. Again there was a sentence on the top of the page, “I exercise during my free time...” followed by 16 reasons, 4 for each regulation style: intrinsic motivation (IM LT) (e.g., “Because I enjoy my exercise sessions”), identified regulation (ID LT) (e.g., “Because it’s important to me to exercise regularly”), introjected regulation (IJ LT) (e.g., “Because I feel like a failure when I haven’t exercised in a while”) and external regulation (ER LT) (e.g. “Because my people important to me (parents, family etc.) say I should”). Responses here were also measured on a 7-point Likert-type scale ranging from 1 (very true) to 7 (not true at all).

The theory of planned behaviour. The development of the questionnaire to measure constructs of theory of planned behaviour followed the procedures recommended by Ajzen and Madden (1986) and Courneya and McAuley (1994). Attitudes were assessed in response to the following question: “Me doing active sports and or/vigorous exercise, for at least 20 minutes, 3 days per week over the next 4 weeks during my free time is ...”. Responses were measured on 7-point semantic differential scales with the following bipolar adjectives: not enjoyable – enjoyable, bad – good, useless – useful, boring – interesting and harmful – beneficial (appendix 6, page 8)

Four items measured subjective norms (SN) (appendix 6, page 9-10). Two of these (e.g., “Most people who are important to me would want me to do active sports and/or vigorous exercise for at least 20 minutes, 3 days per week during my free time over the next 4 weeks”) were measured on a 7-point Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree). One item was rated at a 7-point Likert scale (“People who are important to me would ... of me doing active sports and/or vigorous exercise

for at least 20 minutes, 3 days per week during my free time over the next 4 weeks”), ranging from “strongly disapprove” (1) to “strongly approve” (7). The last item was also measured on a 7-point Likert-type scale (“Most people close to me expect me to do active sports and/or vigorous exercise for at least 20 minutes, 3 days per week during my free time over the next 4 weeks”), ranging from “extremely unlikely” (1) to “extremely likely” (7).

Perceived behavioural control (PBC) was assessed with three items (appendix 6, page 8-9). The first one (“How much control do I have over doing active sports and/or vigorous exercise for at least 20 minutes, 3 days per week during your free time in the next 4 weeks”) was measured on a 7-point Likert-type scale ranging from 1 (very little control) to 7 (complete control). The second one (“If I wanted to I could do active sports and/or vigorous exercise for at least 20 minutes, 3 days per week during your free time in the next 4 weeks”) was measured on a 7-point Likert-type scale ranging from “strongly agree” (1) to “strongly disagree” (7). The last one (“I feel in complete control over whether I will do active sports and/or vigorous exercise for at least 20 minutes, 3 days per week during your free time in the next 4 weeks”) was measured on a 7-point Likert-type scale ranging from “completely false” (1) to “completely true” (7).

Three items were used to measure behavioral intentions (appendix 6, page 1-2). One item was rated on a 7-point Likert-type scale (“I intend to do active sports and/or vigorous exercise, for at least 20 minutes, 3 days per week during my free time, over the next 4 weeks”), anchored by “unlikely” (1) to “very likely” (7). One item was measured on a 7-point continuous-closed scale (“I intend to do active sports and/or vigorous exercise, for at least 20 minutes, 3 days per week during my free time, over the next 4 weeks with the following regularity”), ranging from “not at all” (1) to “every day” (7). One item was rated on a 7-point scale (“I intend to do active sport and/or vigorous exercise for at least 30 minutes, ... times per week over the next 4 weeks”).

Self-reported physical activity behaviour and past behaviour (appendix 7, page 1 & appendix 6, page 1). Past behaviour was assessed during the second wave of data collection through one item and on a 6-point scale, ranging from “not at all” (1) to

“most of the days” (6). The participants were asked how often they had been doing active sports and/or vigorous exercise during the last six months.

Physical activity behaviour in LT was assessed at the third wave of data collection through an adaptation of Godin and Shephard’s (1985) Leisure-Time Exercise Questionnaire. The students were asked to consider an average week (7 days) and to report how many times per week they engaged in vigorous physical activity for at least 20 minutes at a time during the last 4 weeks. The instructions made it clear that we requested them to report LT activities and not activities in a PE context. It was also explained which kind of activities vigorous physical activity includes and which ones do not. Two items measured physical activity behavior on a 7-point scale ranging from “almost never” (1) to “everyday” (7).

6 RESULTS

To reduce the data, the relative autonomy index (RAI), also known as the self-determination index, was calculated from the perceived locus of causality constructs (internal motivation, identified regulation, introjected regulation, external regulation) (Guay, Mageau & Vallerand, 2003). Weights were assigned to each individual's intrinsic motivation (+2), identified regulation (+1), introjected regulation (-1) and extrinsic regulation (-2) score, and the RAI was the composite of these weighted scores (Hagger et al., 2003, 2005). Therefore it reflects participants' level of autonomous motivation in a physical activity context.

6.1 Validity and reliability of the measures

Perceived autonomy support in physical education context. The questionnaire to measure PAS in PE context was workable also after the translation process. In the table 1 are factor loadings and communalities. Factor explained 51% of variance. Two items did not have very high loadings and communalities but were kept in this factor solution. Item number 13 was the only statement which was in the negative in the questionnaire. This may have an effect on students' answers to this question.

Table 1. Perceived autonomy support in physical education context. Factor loadings and communalities. Reliability of measure: α of Cronbach. The original item number in brackets.

Variable	PAS PE	h^2	α if item deleted
My PE teacher conveyed confidence in my ability to do well in the course (4)	.85	.77	.91
I feel that my PE teacher accepts me (5)	.81	.70	.91
I feel understood by my PE teacher (2)	.80	.71	.91
My PE teacher listens to how I would like to do things (10)	.80	.68	.91
I feel a lot of trust in my PE teacher (8)	.78	.67	.91
I feel that my PE teacher cares about me as a person (12)	.74	.59	.91
I feel that my PE teacher provides me choices and options (1)	.70	.60	.91
My PE teacher handles people's emotions very well (11)	.70	.59	.91
I am able to be open with my PE teacher during class (3)	.67	.56	.91
My PE teacher tries to understand how I see things before suggesting a new way to do things (14)	.63	.48	.91
My PE teacher answers my questions fully and carefully (9)	.62	.50	.91
My PE teacher made sure I really understood the goals of the course and what I need to do (6)	.62	.48	.91
My PE teacher encouraged me to ask questions (7)	.57	.48	.91
I feel able to share my feelings with my PE teacher (15)	.36	.34	.92
I don't feel very good about the way my PE teacher talks to me (13)	.33	.20	.93
Eigenvalue	6.95		$\alpha = .92$
Explained variance	46 %		

PAS PE = Perceived autonomy support in physical education context.

The internal reliability (α of Cronbach) for this scale was high (.92). In table 1 is also presented α if item deleted. Removing any item would not remarkable change the reliability of this scale.

Perceived peer autonomy support in leisure time context. Items were loaded on one factor (table2). All the loadings were quite high (0.83 – 0.56) as were communalities (0.71 – 0.53). Factor explained 50% of variance.

Table 2. Perceived peer autonomy support in leisure time context. Factor loadings and communalities. Reliability of measure: α of Cronbach. The original item number in brackets.

Variable	PAS PEER	h^2	α if item deleted
My friends support me (7)	.83	.71	.92
My friends care (12)	.82	.70	.92
I feel I am able to share my experiences (13)	.82	.77	.92
I am able to talk with my friends (9)	.73	.63	.93
My friends provide me with positive feedback (8)	.72	.59	.93
My friends answer my questions (11)	.72	.55	.93
My friends display confidence in my ability (3)	.71	.57	.93
My friends help me (6)	.70	.64	.93
I feel a lot of trust in the beliefs of my friends (14)	.69	.68	.93
My friends encourage me (4)	.68	.58	.93
My friends listen to me (5)	.67	.56	.93
My friends make sure I understand why I need (10)	.64	.51	.93
I feel that my friends provide me with choices, options, and opportunities (1)	.59	.52	.93
I think that my friends understand why (2)	.56	.53	.93
Eigenvalue	7.05		$\alpha = .93$
Explained variance	50 %		

PAS PEER = Perceived peer autonomy support in leisure time context.

The internal consistency was .93, which is high. Removing any item would not raise the reliability of the indicator. Overall this questionnaire worked very well and can be used to measure influence of age mates.

Perceived parental autonomy support in leisure time context. All the items were loaded to one factor (table3). Both the loadings and the communalities were high. Factor explained 71% of variance.

Table 3. Perceived parental autonomy support in leisure time context. Factor loadings and communalities. Reliability of measure: α of Cronbach. (The original item number in brackets.)

Variable	PAS- LT	h^2	α if item deleted
I am able to share my experiences (13)	.91	.84	.97
Support me (7)	.90	.86	.97
Help me (6)	.89	.84	.97
Listen to me (5)	.89	.82	.97
I feel a lot of trust (14)	.87	.82	.97
Provide me with positive feedback (8)	.86	.78	.97
Answer my questions (11)	.86	.79	.97
Encourage me (4)	.86	.78	.97
Care about (12)	.84	.78	.97
I am able to talk (9)	.84	.74	.97
Understand why I choose to do active sports (2)	.81	.76	.97
Provide me with choices, options, and opportunities (1)	.80	.70	.97
Display confidence in my ability (3)	.79	.77	.97
Make sure I understand why I need to do active sports (10)	.65	.55	.97
Eigenvalue	9.98		$\alpha = .97$
Explained variance	71 %		

PAS LT = Perceived parental autonomy support in leisure time context.

The internal consistency (α of Cronbach) was extremely high (.97). Removing any item would not change α of Cronbach. The structure of indicator seems to work extremely well and no changes were needed.

Perceived locus of causality in physical education context. In this study four items were eliminated for the factors would be in accordance with the theory. This way we got reasonable solution of four factors (table 4). Item “because it’s important to me to do PE” (question number 8/id2) was removed because it measured intrinsic motivation instead of identified motivation. Three items “Because I want the PE teacher to think that I’m good student”(1/er1), “Because that’s what I’m supposed to do” (6/er3) and “Because my PE teacher says I should” (13/er5) that were supposed to measure

extrinsic motivation according to theory and previous studies were eliminated because they loaded on different factors. This factor solution explained 57% of variance.

Table 4. Perceived locus of causality in physical education context. Oblimin direct rotated factor matrix of four factors. Reliability of measure: α of Cronbach. After variable in brackets the original item.

Variable	IM PE	ID PE	ER PE	IJ PE	h^2	α	α if item deleted
Because it's fun (im1)	.83	-.03	.03	.07	.60		.83
Because I find PE a pleasurable lesson (im3)	.79	-.01	.03	.08	.57		.84
Because I enjoy doing PE (im2)	.78	-.06	.02	-.10	.68		.83
Because I get pleasure and satisfaction from my PE lessons (im4)	.68	-.05	.03	-.04	.50		.85
Because PE is a very interesting lesson (im5)	.58	-.01	-.09	-.14	.47		.86
						.87	
Because I'll value the benefits I get from my PE lessons (id3)	.04	-1.00	.01	.06	.59		.80
Because PE helps me to learn and progress (id4)	.34	-.41	-.07	-.11	.57		.57
Because I want to do well in PE (id1)	.29	-.30	-.03	-.23	.49		.72
						.78	
Because I'll be punished if I don't (er4)	.11	.08	.81	.11	.45		.68
Because I'll get in trouble if I don't (er2)	-.04	.01	.65	-.15	.43		.69
Because I'll get in trouble if I don't (er6)	-.06	.01	.65	-.15	.44		.71
						.78	
Because I'll feel guilty if I don't (ij2)	-.11	-.10	.07	-.73	.47		.70
Because I'll feel like a failure if I don't (ij3)	.14	.09	.02	-.69	.44		.71
Because I will feel bad about myself if I don't (ij1)	.18	.02	-.07	-.63	.42		.74

Because I'll feel ashamed if I don't do it (ij4)	-0.09	-.04	.06	-.63	.34	.75
						.77
Eigenvalue	3.26	2.31	2.07	.95		
Explained variance	22 %	15 %	13 %	6 %		

IM PE = internal regulation in physical education context, ID PE = identified regulation in physical education context, IJ PE = introjected regulation in physical education context, ER PE = external regulation in physical education context

The internal reliability for intrinsic motivation, identified regulation, introjected regulation and extrinsic regulation were satisfactory (α 's = .87, .78, .77 and .78 respectively). In table 4 is presented also α if items deleted. Removing any item from any factors would not remarkable improve the reliability of the measure.

Correlations between factors are in table 5. There are moderately high correlation between IM PE and ID PE (-.59) and ID PE and IJ PE (.39). Because of correlations it was sensible to use oblique rotation instead of orthogonal rotations.

Table 5. Correlation matrix between factors of PLOC in PE context

Factor	IM PE	ID PE	ER PE	IJ PE
IM PE	1.00			
ID PE	-.59	1.00		
ER PE	-.15	.06	1.00	
IJ PE	-.36	.39	-.23	1.00

PLOC = perceived locus of causality, IM PE = internal regulation in physical education context, ID PE = identified regulation in physical education context, IJ PE = introjected regulation in physical education context, ER PE = external regulation in physical education context

Perceived locus of causality in leisure time context. Item number 15 "...Because I get restless if I don't exercise" related to identified regulation was removed from this indicator. Otherwise the content would not be meaningful. Now we got reasonable solution with four factors (table 6). These four factors explained 69% of variance.

Table 6. Perceived locus of causality in leisure time context. Oblimin direct rotated factor matrix of four factors. Reliability of measure: α of Cronbach. After variable in brackets the original item.

Variable	ID LT	ER LT	IM LT	IJ LT	h^2	α	α if item deleted
Because it's important to me to exercise regularly (id2)	.98	.04	.06	.08	.77		.70
Because I value the benefits of exercise (id1)	.62	.04	.15	-.03	.60		.83
Because I think it's important to make the effort to exercise regularly (id3)	.54	-.08	.09	-.36	.62		.83
						.85	
Because my people important to me (parents, family etc.) say I should (er2)	.07	.90	-.01	.08	.58		.75
Because other people say I should (er1)	.01	.70	-.04	-.04	.54		.79
Because I feel under pressure from my friends/family to exercise (er4)	-.03	.63	-.11	-.12	.56		.78
Because other people will not be pleased with me if I do not exercise (er3)	-.18	.53	.16	-.25	.50		.81
						.83	
Because I think it's important to make the effort to exercise regularly (im3)	-.02	-.01	.94	.09	.82		.90
Because it is fun (im1)	-.03	.00	.87	.04	.69		.93
Because I enjoy my exercise sessions (im2)	.12	-.01	.86	-.05	.87		.89
Because I get pleasure and satisfaction from participating in exercise (im4)	.15	-.06	.68	-.17	.76		.93
Because I feel like a failure when I haven't exercised in a while (ij3)	.00	-.08	.02	-.90	.63	.93	.85

Because feel guilty when I don't exercise (ij1)	-.03	.21	.06	-.64	.64	.84
Because I will feel bad about myself when I don't exercise (ij4)	.07	.20	.01	-.63	.62	.85
Because I feel ashamed when I miss and exercise session (ij2)	.14	.21	-.08	-.60	.62	.85
						.88
Eigenvalues	4.12	4.15	1.59	.44		
% of variance	27	28	11	3		

IM LT = internal regulation in leisure time context, ID LT = identified regulation in leisure time context, IJ LT = introjected regulation in leisure time context, ER LT = external regulation in leisure time context

These four factors explained 69 % of variance. The internal reliabilities here were all satisfactory (α 's = .93, .85, .88 and .83, respectively). In table 6 is also presented how α would change if any item deleted. Eliminating any item would not raise the reliability of the measure.

In table 7 are correlations between factors of PLOC in LT context. We found high correlations between some factors: IM LT and ID LT (.68), IJ LT and ER LT (-.68). Because of high correlations the use of oblique rotation in factor analysis was well-grounded.

Table 7. Correlations between factors of PLOC in LT context

Factor	ID LT	ER LT	IM LT	IJ LT
ID LT	1.00			
ER LT	.05	1.00		
IM LT	.68	-.10	1.00	
IJ LT	-.34	-.68	-.25	1.00

PLOC = perceived locus of causality, IM LT = internal regulation in leisure time context, ID LT = identified regulation in leisure time context, IJ LT = introjected regulation in leisure time context, ER LT = external regulation in leisure time context

The measures of the theory of planned behaviour. The reliability of the measures of theory of planned behaviour was estimated with Cronbach's α . Reliability of measures was satisfactory for all the variables: attitudes, subjective norms, perceived behavioural control, intentions and behaviour (α 's = .91, .77, .88, .94 and .82, respectively).

6.2 Differences between genders

Descriptive statistics for the whole sample and both genders are presented in table 8. We can see that the perceived autonomy support among boys is highest in PE context and the lowest support that they feel is the support by the peers. Girls instead perceived highest support by the parents and the significant others. The lowest support they perceived was in PE context which is totally opposite the boys and PAS in PE context is the only autonomy support where we can find a statistically significant difference between genders ($p < .01$).

In both PE and LT context internal and identified regulations were the highest. Identified regulation is slightly higher than internal regulation in PE context in girls group but otherwise internal regulation is the most notable. External regulation is clearly lowest of all types of regulations in both groups and in both contexts.

Differences in regulation styles between girls and boys are more considerable in PE context than in LT context. When RAI in PE is calculated we can notice statistical difference between groups ($p = .02$). Only statistically significant difference in diverse regulation styles is in external regulation in PE context when girls are more externally motivated ($p = .02$). Also introjected regulation is more considerable motivational factor in girls than boys group in PE context even though not significant ($p = .09$).

Table 8. Descriptive statistics. Differences between boys and girls: t- and p-values from independent samples t-test.

	All n=127		Boys n=72		Girls n=55		t-value	p-value
	M	SD	M	SD	M	SD		
IM PE	3.31	.54	3.37	.59	3.24	.46	1.35	.18
ID PE	3.31	.56	3.27	.63	3.36	.47	-.88	.38
IJ PE	2.57	.62	2.48	.68	2.67	.53	-1.72	.09
ER PE	1.82	.59	1.71	.53	1.96	.65	-2.38	.02
RAI-PE	3.72	2.00	4.09	1.80	3.23	2.16	2.44	.02
IM LT	5.75	1.31	5.89	1.28	5.58	1.33	1.30	.20
ID LT	5.06	1.48	5.08	1.51	5.04	1.45	.14	.89
IJ LT	2.86	1.58	2.91	1.68	2.79	1.46	.46	.65
ER LT	2.47	1.20	2.60	1.26	2.30	1.11	1.37	.18
RAI-LT	8.77	4.88	8.78	4.81	8.81	5.02	-.08	.94
PAS PE	4.89	.90	5.11	.74	4.60	1.01	3.27	.00
PAS PEER	4.84	1.06	4.74	1.05	4.98	1.05	-1.29	.20
PAS LT	5.08	1.30	5.03	1.31	5.16	1.29	-.57	.57
Attitudes	5.99	1.08	5.92	1.23	6.09	.84	-.85	.40
SN	5.53	1.04	5.53	1.03	5.51	1.07	.09	.93
PBC	6.05	1.14	6.00	1.26	6.11	.96	-.51	.61
Intentions	5.27	1.65	5.36	1.76	5.16	1.49	.66	.51
Activity	4.60	1.27	4.70	1.33	4.46	1.81	1.06	.29

IM PE = internal regulation in physical education context, ID PE = identified regulation in physical education context, IJ PE = introjected regulation in physical education context, ER PE = external regulation in physical education context, IM LT = internal regulation in leisure time context, ID LT = identified regulation in leisure time context, IJ LT = introjected regulation in leisure time context, ER LT = external regulation in leisure time context, PAS PE = perceived autonomy support in physical education context, PAS PEER = perceived peer autonomy support in leisure time context, PAS LT = perceived parental autonomy support in leisure time context, SN = subjective norms, PBC = perceived behavioural control, RAI-PE = relative autonomy index in physical education context, RAI-LT = relative autonomy index in leisure time context

6.3 Relationships between variables

When we compare the correlations between factors of boys (table 9) and girls (table 10) separately, there are some differences. Significant correlations between RAI and its four perceived locus of causality constructs (internal motivation, identified regulation, introjected regulation and external regulation) was expected. Also, there should be a positive correlation between RAI and internal motivation and identified regulation on the one hand since those two constructs weighted positively in the calculation of RAI, and negative correlation between RAI and introjected regulation and extrinsic regulation on the other hand, since those two constructs weighted negatively in the calculation of RAI.

With the girls this was actually the case for RAI-PE, with introjected regulation correlation being slightly lower (.27) and the other constructs correlations being at the level of .61 – .83. With the boys, RAI-PE showed no correlation with introjected regulation (-.01). Otherwise RAI-PE correlated with its constructs as it should at level of .60 – .67. In RAI-LT, all constructs correlated as they should in both groups, at the level of -.32 – .76.

In both groups attitude correlates with almost all the other variables. In the girls' group, attitude correlates at the level higher than .29 with all constructs except not with introjected regulation in both PE and LT contexts, external regulation in LT contexts and perceived autonomy support in PE contexts. In the boys' group, attitude does not have a high correlation with external regulation in both PE and LT contexts, but it correlates highly with the other three perceived locus of causality constructs in both contexts. Attitude correlates also with perceived autonomy support in both LT and PE contexts. Also, with the girls' external regulation correlates with almost all factors when with the boys external regulation correlates with almost none of the factors.

Perceived autonomy support in PE does not correlate with RAI-PE and RAI-LT in the boys' group, but it does correlate with RAI-PE in the girls' group. Perceived autonomy support LT correlates with RAI-PE and RAI-LT in the girls' group, but only with RAI-PE in the boys' group. However, perceived peer autonomy support has a positive correlation with both RAI-PE and RAI-LT in both groups.

Intention and self-reported physical activity have positive correlation with RAI-PE and RAI-LT in both groups. With the girls, intention and self-reported activity do not correlate well with perceived autonomy support in PE, but they correlate highly with perceived autonomy support LT and with perceived peer autonomy support. With the boys, intention and activity correlates only with perceived peer autonomy support and neither with PAS PE nor PAS LT. Intention and self-reported activity correlate very well for boys and for girls.

Table 9. Correlations between factors; boys

Factors	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1 IM PE	1																	
2 ID PE	.74**	1																
3 IJ PE	.50**	.54**	1															
4 ER PE	.10	.06	.25*	1														
5 IM LT	.48**	.33**	.34**	-.16	1													
6 ID LT	.51**	.45**	.45**	-.03	.72**	1												
7 IJ LT	.12	.21	.41**	.22	.36**	.49**	1											
8 ER LT	-.09	-.04	.07	.39**	-.06	.09	.61**	1										
9 PAS PE	.20	.20	.15	-.15	.25*	.32**	.22	-.02	1									
10 PEER LT	.29*	.15	.09	-.17	.55**	.49**	.23*	.07	.34*	1								
11 PAS LT	.33**	.17	.18	-.23	.45**	.47**	.29*	.20	.34**	.66**	1							
12 ATTITUDE	.49**	.36**	.27*	-.10	.82**	.62**	.34**	.09	.27*	.52**	.51**	1						
13 PCB	.34**	.23*	.15	-.21	.64**	.40**	.19	-.03	.15	.52**	.37**	.65**	1					
14 SN	.20	.12	.05	-.14	.46**	.43**	.34**	.28*	.14	.56**	.71**	.56**	.47**	1				
15 INTENTION	.41**	.26*	.24*	.02	.64**	.59**	.19	-.07	.08	.46**	.19	.57**	.50**	.36**	1			
16 ACTIVITY	.43**	.27*	.27*	.05	.57**	.53**	.11	-.12	.08	.44**	.16	.53**	.31**	.17	.69**	1		
17 RAI PE	.67**	.60**	-.01	-.60**	.40**	.34**	-.13	-.33**	.23	.30**	.34**	.40**	.37**	.24*	.26*	.24*	1	
18 RAI LT	.42**	.27*	.14	-.37**	.67**	.48**	-.32**	-.74**	.17	.33**	.19	.47**	.41**	.11	.50**	.50**	.53**	1

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed).

IM PE = internal regulation in physical education context, ID PE = identified regulation in physical education context, IJ PE = introjected regulation in physical education context, ER PE = external regulation in physical education context, IM LT = internal regulation in leisure time context, ID LT = identified regulation in leisure time context, IJ LT = introjected regulation in leisure time context, ER LT = external regulation in leisure time context, PAS PE = perceived autonomy support in physical education context, PAS PEER = perceived peer autonomy support in leisure time context, PAS LT = perceived parental autonomy support in leisure time context, SN = subjective norms, PBC = perceived behavioural control, RAI PE = relative autonomy index in physical education context, RAI LT = relative autonomy index in leisure time context

Table 10. Correlations between factors; girls

Factors	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1 IM PE	1																	
2 ID PE	.67**	1																
3 IJ PE	.12	.19	1															
4 ER PE	-.28*	-.26	.20*	1														
5 IM LT	.60**	.38**	-.09	-.40**	1													
6 ID LT	.56**	.43**	.21	-.32*	.71**	1												
7 IJ LT	.01	.11	.48**	.02	.08	.30*	1											
8 ER LT	-.09	.10	.42**	.10	-.10	.17	.80**	1										
9 PAS PE	.43**	.38**	.13	-.42**	.19	.25	.00	.00	1									
10 PEER LT	.46**	.49**	.02	-.39**	.55**	.62**	.09	-.00	.31*	1								
11 PAS LT	.45**	.45**	.13	-.40**	.48**	.58**	.18	.12	.25	.70**	1							
12 ATTITUDE	.40**	.36**	-.20	-.46**	.74**	.49**	.07	-.13	.21	.57**	.45**	1						
13 PCB	.25	.17	.02	-.22	.39**	.21	-.12	-.13	.09	.23	.30*	.40**	1					
14 SN	.39**	.30*	.15	-.39**	.25	.41**	.19	.17	.40**	.34*	.66**	.29*	.34*	1				
15 INTENTION	.54**	.32*	.04	-.33*	.64**	.62**	.10	-.03	.20	.60**	.56**	.49**	.33**	.33*	1			
16 ACTIVITY	.47**	.37**	.18	-.32*	.44**	.51**	.14	.04	.22	.55**	.40**	.35**	.27	.21	.74**	1		
17 RAI PE	.71**	.61**	-.27*	-.83**	.60**	.47**	-.10	-.18	.49**	.54**	.50**	.58**	.27*	.43**	.49**	.43**	1	
18 RAI LT	.52**	.25	-.31*	-.35**	.76**	.51**	-.52**	-.68**	.17	.45**	.32*	.57**	.36**	.12	.50**	.32*	.56**	1

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

IM PE = internal regulation in physical education context, ID PE = identified regulation in physical education context, IJ PE = introjected regulation in physical education context, ER PE = external regulation in physical education context, IM LT = internal regulation in leisure time context, ID LT = identified regulation in leisure time context, IJ LT = introjected regulation in leisure time context, ER LT = external regulation in leisure time context, PAS PE = perceived autonomy support in physical education context, PAS PEER = perceived peer autonomy support in leisure time context, PAS LT = perceived parental autonomy support in leisure time context, SN = subjective norms, PBC = perceived behavioural control, RAI PE = relative autonomy index in physical education context, RAI LT = relative autonomy index in leisure time context

7 DISCUSSION

The aims of the present study were to adapt and translate scales of autonomous motives in physical education and leisure time contexts to be studied in Finnish students and to investigate the validity and reliability of the scales. Other aims were to study if there are differences between genders in measured variables. In addition, the relationships between the variables were studied. The purpose of this study was to examine if the scales used to measure the trans-contextual model (Hagger et al., 2003) are useable and reliable in Finnish. None of the indicators used in this study had been translated in Finnish, consequently, it was an important part of our research to do this translation properly and with care. This part of study was important because it effects all the results that we are presenting in this paper. Carefully done translation also make possible to do cross-cultural comparisons.

The trans-contextual model was created to adopt hypotheses from the self-determination theory and the theory of planned behaviour to explain how young people's perceptions of an autonomy supportive environment affects their motives in a physical education context, and their physical activity motives, intentions and behaviour in a leisure time physical activity context (Hagger et al., 2003). In another study with this Finnish sample, this model was tested and provided support for the trans-contextual model, although with some adjustments. Despite these adjustments, the main findings concerning the trans-contextual model still indicated that perceived autonomy support from the PE teacher predicts an internal perceived locus of causality in a PE context, which affects LT physical activity intentions and behaviour via the mediation of the perceived locus of causality in LT. (Leemans, 2006.)

With the study of Hagger (2003) providing support for the trans-contextual model, the main findings indicate that perceived autonomy support predicts an internal perceived locus of causality in a physical education context, which affects leisure-time physical activity intentions and behaviour via the mediation of the perceived locus of causality in a leisure-time context. This suggests that a large part of intrinsically motivating youth to be physically active in their free time may be achieved during physical education classes with an autonomous approach from the teacher. Teachers who adopt an appropriate motivational teaching style and provide appropriate task-related

feedback may actually enhance intrinsic motives for the adolescents. Specific behaviours exhibited by the teacher that will support this autonomy supportive environment include motivational strategies, such as providing students with choice in their PE tasks (Hagger, 2002a), avoiding competition and external references for success (Deci & Ryan, 1985; Vallerand, 1997) and providing informational and competence-related feedback (Deci et al., 1994).

The measures of parental autonomy support and peer autonomy support worked extremely well. We can suppose that translation procedure was successful and there is no need to change any items of these indicators. The measure of perceived autonomy support in physical education context had few items which did not work so well. In future these items in this form should be used with consider. The whole indicator included only one item which was in the negative. Even though it is recommended that questionnaires have items in the positive and in the negative the use of negative here may have affect on reliability in this case. That is because there was only one item in the negative (*I don't feel very good about the way my PE teacher talks to me*). It might have had an effect on student's answers. The other item (*I feel able to share my feelings with my PE teacher*) could be more specific. The question could relate more in feelings during the PE class. We think that this way we would get more information about teacher-student relationship.

In this study four items from the measure of perceived locus of causality in physical education context were eliminated so the factors would be in accordance with the theory. Because three removed items measured extrinsic motivation in previous study we were left only with two different question measuring external regulation. That is why in the future studies it would be necessary to develop more items that would measure external regulation.

From the indicator of perceived locus of causality in leisure time context only one item was eliminated. This item "Because I get restless if I don't exercise regularly" originally measured identified motivation. We believe that translation was successful and the meaning of this item was not changed when translated. Instead we think that it could be more difficult for students to recognize and evaluate the feeling of restless

than for example estimate the feeling of fun. This naturally affects to their competence to answer to this question logically.

Because the scales for the measures of PLOC were different in PE and LT contexts it is not possible to do comparisons between contexts about the level of internal-external regulation. In future studies it might be recommended to fix the scales that it would be same in both contexts.

Over all the measures are reliable and can be used in future studies to evaluate Finnish students perceived autonomy support, motivation towards sport and exercise and the constructs of the theory of planned behaviour, attitude, subjective norm, perceived behavioural control, intention and behaviour. Few proposals to improve measures are presented above and they can be used when developing indicators furthermore.

We found significant difference in perceived autonomy support in PE between genders. Many things can have an effect on how students experience autonomy support, for example, teachers teaching style and personality. The other differences were in relative autonomy index in PE and specifically in external regulation. Because data in this study did not cover enough teachers to make comparisons we can not be sure if the differences that we found between girls and boys are purely occurred by gender or if these differences are related on teachers. It would be interesting to study in the future with bigger sample of teachers if these differences are real and if so why girls then feel more externally regulated.

On basis of previous studies it was expected that we might find some differences between genders in motivational orientation. In previous studies differences have not been strong and also in our study we found a difference only in extrinsic motivation in PE. The other seven motivation factors did not have difference between genders. We found conflicting previous studies related on gender differences in physical activity. Our results give support to the results of Rhodes et al. (2006), Nupponen & Telama (1998) and Telama et al. (1989). In our sample there were no differences between genders in physical activity.

RAI in LT context is the same between genders ($p = .94$) but when we review different regulations we can see minor margins between boys and girls. In LT context boys are slightly more intrinsically and externally motivated ($p = .20$ and $p = .18$). As we can see these differences are not statistically significant. However, calculation of RAI may weaken discrimination validity.

While examining correlations we found that there was not relationship between RAI-PE and PAS PE in boys group when there was a significant connection in girls group. This could mean that PAS PE influence more considerable to motivation among girls. In both groups we can find strong relationship between intentions and activity. Also both relative autonomy indexes were related to intentions and activity. These correlations get support from previous studies and theory.

In this study we were studying one aspect that can promote people to be more physical active. This is important field to study because nowadays people do not exercise enough. Now we focused to understand the ways to support young people's physical activity. When we focus to youngsters we hope we can achieve long term influences. Physically active adolescent predicts physically active adulthood even though association appears to be moderate. Adolescent physical activity seems to provide long-term health benefits and there is also studies that show relationship between leisure-time physical activity in adolescence and psychological well-being in age of 30 years (Hallal et al 2006, Sacker & Cable, 2006).

It is important to teachers to understand the things that are crucial for example to the students' attitudes, intentions and motivations towards physical activity. First reason is that teacher can have a positive or negative effect on students LT physical activity. Secondly PE teachers are the group that reach all students from the age group. Teachers also encounter the students who do not exercise in their leisure time and do not have own coach or sport team. PE teacher is then the person who supports and encourages exercising outside school context.

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APPENDICES

Appendix 1. Permission from school principal

Tutkimus oppilaiden liikuntaharrastuneisuudesta

Olemme tekemässä tutkimusta oppilaiden kokemuksista liikuntatunneilla ja liikuntaharrastuksista vapaa-ajalla. Tarkoituksemme on selvittää liikuntaharrastuksen taustalla olevia tekijöitä. Olemme kiinnostuneita muun muassa muiden ihmisten vaikutuksesta nuorten liikunnan harrastamiseen. Erityisen kiinnostuneita olemme liikunnanopettajan vaikutuksesta oppilaiden autonomian kokemiseen ja siten opettajan vaikutuksesta oppilaiden motivaatioon liikkua. Tärkeä osa työtämme on myös tutkia englantilaisen tutkijan Martin Haggerin kehittämän mittarin sopivuutta suomalaisten oppilaiden autonomian kokemusten mittaamiseen.

Aineiston keruu tapahtuu kolmella eri kyselylomakkeella ja aineistoa kerätään kolmena eri ajankohtana. Toinen kysely suoritetaan viikon kuluttua ensimmäisestä kyselystä ja kolmas kysely neljän viikon kuluttua toisesta kyselystä. Aineisto kerätään oppilailta koulupäivien aikana. Tutkimusaineistoa käsitellään luottamuksellisesti siten, ettei yksittäisen oppilaan tai koulun tiedot ole tunnistettavissa.

Tutkimukseen liittyvät kysymykset voi osoittaa tutkimuksen johtajalle professori Taru Lintuselle

Taru.Lintunen@sport.jyu.fi

tai

Suvi Monoselle

suaikymo@cc.jyu.fi

Tutkimuslupa

Yläpuolella kuvattu tutkimus voidaan toteuttaa

_____ koulun liikuntatunneilla.

Päiväys: _____

Allekirjoitus

7. My PE teacher encouraged me to ask questions.

1	2	3	4	5	6	7
strongly disagree			neutral		strongly agree	

8. I feel a lot of trust in my PE teacher.

1	2	3	4	5	6	7
strongly disagree			neutral		strongly agree	

9. My PE teacher answers my questions fully and carefully.

1	2	3	4	5	6	7
strongly disagree			neutral		strongly agree	

10. My PE teacher listens to how I would like to do things.

1	2	3	4	5	6	7
strongly disagree			neutral		strongly agree	

11. My PE teacher handles people's emotions very well.

1	2	3	4	5	6	7
strongly disagree			neutral		strongly agree	

12. I feel that my PE teacher cares about me as a person.

1	2	3	4	5	6	7
strongly disagree			neutral		strongly agree	

13. I don't feel very good about the way my PE teacher talks to me.

1	2	3	4	5	6	7
strongly disagree			neutral		strongly agree	

14. My PE teacher tries to understand how I see things before suggesting a new way to do things.

1	2	3	4	5	6	7
strongly disagree			neutral		strongly agree	

15. I feel able to share my feelings with my PE teacher.

1	2	3	4	5	6	7
strongly disagree			neutral		strongly agree	

WHY I DO THINGS

PAGE 3

This part of the questionnaire asks questions about why you do PE and try hard in PE lessons. There are not right or wrong answers so please answer the questions honestly. Circle the number below each question to give your answer. All responses are strictly confidential, and please answer all the questions.

Why do I try hard in PE?

1. Because I want the PE teacher to think I'm a good student.

1	2	3	4
Very true	Sort of true	Not very true	Not at all true

2. Because I'll get in trouble if I don't.

1	2	3	4
Very true	Sort of true	Not very true	Not at all true

3. Because it's fun.

1	2	3	4
Very true	Sort of true	Not very true	Not at all true

4. Because I will feel bad about myself if I don't.

1	2	3	4
Very true	Sort of true	Not very true	Not at all true

5. Because I want to do well in PE.

1	2	3	4
Very true	Sort of true	Not very true	Not at all true

6. Because that's what I'm supposed to do.

1	2	3	4
Very true	Sort of true	Not very true	Not at all true

7. Because I enjoy doing PE.

1	2	3	4
Very true	Sort of true	Not very true	Not at all true

8. Because it's important to me to do PE.

1	2	3	4
Very true	Sort of true	Not very true	Not at all true

PLEASE TURN TO PAGE 4

9. Because I'll be punished if I don't.

1	2	3	4
Very true	Sort of true	Not very true	Not at all true

10. Because I find PE a pleasurable lesson.

1	2	3	4
Very true	Sort of true	Not very true	Not at all true

11. Because I'll feel guilty if I don't.

1	2	3	4
Very true	Sort of true	Not very true	Not at all true

12. Because I'll value the benefits I get from my PE lessons.

1	2	3	4
Very true	Sort of true	Not very true	Not at all true

13. Because my PE teacher says I should.

1	2	3	4
Very true	Sort of true	Not very true	Not at all true

14. Because I get pleasure and satisfaction from my PE lessons.

1	2	3	4
Very true	Sort of true	Not very true	Not at all true

15. Because I'll feel like a failure if I don't.

1	2	3	4
Very true	Sort of true	Not very true	Not at all true

16. Because PE is a very interesting lesson.

1	2	3	4
Very true	Sort of true	Not very true	Not at all true

17. Because I'll get in trouble if I don't.

1	2	3	4
Very true	Sort of true	Not very true	Not at all true

18. Because PE helps me to learn and progress.

1	2	3	4
Very true	Sort of true	Not very true	Not at all true

19. Because I'll feel ashamed if I don't do it.

1	2	3	4
Very true	Sort of true	Not very true	Not at all true

Thank you very much for your co-operation

Appendix 3. Original questionnaire 2

Questionnaire

This questionnaire is about the exercise you do during your free time. Exercising during your free time includes all sports and physical activities that make your heart beat fast and make you out of breath for at least 20 minutes at a time, 3 days per week. It DOES NOT include street play or the activities you do in Physical Education (PE) classes, but it does include school sports clubs you might do AFTER school. We are only interested in physical activities that you do outside of normal school hours. There are no right or wrong answers so please answer the questionnaire as honestly as you can. The information you give will not be shown to anyone else, and please answer all the questions.

Personal Information

Name: _____ Age: _____

Grade: _____ Are you a Boy or Girl (tick box) Teacher: _____

Date of Birth: Day: _____ Month: _____ Year: _____

We are interested to know how much exercise you did during your free time the past six months. Please remember that we are interested in how frequently you did exercised during your free time (outside of school) and not during PE.

During the last six months, I have been done active sports and/or vigorous exercise.... (Tick the box that best describes your answer)

Not at all	Once per week	A couple of days per week	Several days per week	Many days per week	Most of the days per week
1	2	3	4	5	6

Now we are interested to know about your intentions to exercise over the next 4 weeks during your free time outside of school hours. Please answer all of the following questions by ticking the box that best describes your answer.

I intend to do active sports and/or vigorous exercise, for at least 20 minutes, 3 days per week during my free time, over the next 4 weeks. (Tick the box that best describes your answer)

Unlikely						Very likely
1	2	3	4	5	6	7

I intend to do active sports and/or vigorous exercise, for at least 20 minutes, 3 days per week during my free time, over the next 4 weeks with the following regularity. (Tick the box that best describes your answer)

Not at all						Every day
1	2	3	4	5	6	7

PLEASE TURN TO PAGE 2

I intend to do active sports and/or vigorous exercise, for at least 20 minutes, 3 days per week during my free time, over the next 4 weeks. (Tick the box that best describes your answer)

Definitely not							Definitely
1	2	3	4	5	6	7	

<p>These questions are about <u>your friends</u>. Your friends sometimes encourage or support you when you do everyday activities. We would like to know more about if and how your friends encourage you to do exercise and sport. By exercise and sport we mean vigorous physical activities that <u>make your heart beat fast and make you out of breath</u> for at least 20 minutes at a time, 3 days per week. We are talking about exercise during your free time and <u>outside of normal school hours</u>. Think about how much your friends are likely to support you over the next 4 weeks.</p>							
<p>1) <i>I feel that my friends provide me with choices, options, and opportunities about whether to do active sports and/or vigorous exercise in my free time</i></p>							
<p>Please circle a number 1 2 3 4 5 6 7</p> <p style="text-align: center;">Strongly disagree Neutral Strongly agree</p>							
<p>2) <i>I think that my friends understand why I choose to do active sports and/or vigorous exercise in my free time</i></p>							
<p>Please circle a number 1 2 3 4 5 6 7</p> <p style="text-align: center;">Strongly disagree Neutral Strongly agree</p>							
<p>3) <i>My friends display confidence in my ability to do active sports and/or vigorous exercise in my free time</i></p>							
<p>Please circle a number 1 2 3 4 5 6 7</p> <p style="text-align: center;">Strongly disagree Neutral Strongly agree</p>							
<p>4) <i>My friends encourage me to do active sports and/or vigorous exercise in my free time</i></p>							
<p>Please circle a number 1 2 3 4 5 6 7</p> <p style="text-align: center;">Strongly disagree Neutral Strongly agree</p>							
<p>5) <i>My friends listen to me about my active sports and/or vigorous exercise in my free time</i></p>							
<p>Please circle a number 1 2 3 4 5 6 7</p> <p style="text-align: center;">Strongly disagree Neutral Strongly agree</p>							
<p>6) <i>My friends help me to do active sports and/or vigorous exercise in my free time</i></p>							
<p>Please circle a number 1 2 3 4 5 6 7</p> <p style="text-align: center;">Strongly disagree Neutral Strongly agree</p>							

PLEASE TURN TO PAGE 3

7) <i>My friends support me when I do active sports and/or vigorous exercise in my free time</i>							
Please circle a number	1	2	3	4	5	6	7
	Strongly disagree			Neutral		Strongly agree	
8) <i>My friends provide me with positive feedback when I do active sports and/or vigorous exercise in my free time</i>							
Please circle a number	1	2	3	4	5	6	7
	Strongly disagree			Neutral		Strongly agree	
9) <i>I am able to talk with my friends about the active sports and/or vigorous exercise I do in my free time</i>							
Please circle a number	1	2	3	4	5	6	7
	Strongly disagree			Neutral		Strongly agree	
10) <i>My friends make sure I understand why I need to do active sports and/or vigorous exercise in my free time</i>							
Please circle a number	1	2	3	4	5	6	7
	Strongly disagree			Neutral		Strongly agree	
11) <i>My friends answer my questions about doing active sports and/or vigorous exercise in my free time</i>							
Please circle a number	1	2	3	4	5	6	7
	Strongly disagree			Neutral		Strongly agree	
12) <i>My friends care about the active sports and/or vigorous exercise I do in my free time</i>							
Please circle a number	1	2	3	4	5	6	7
	Strongly disagree			Neutral		Strongly agree	
13) <i>I feel I am able to share my experiences of active sports and/or vigorous exercise with my friends</i>							
Please circle a number	1	2	3	4	5	6	7
	Strongly disagree			Neutral		Strongly agree	
14) <i>I feel a lot of trust in the beliefs of my friends about the active sports and/or vigorous exercise I do in my free time</i>							
Please circle a number	1	2	3	4	5	6	7
	Strongly disagree			Neutral		Strongly agree	

PLEASE TURN TO PAGE 4

Here we would like to know why you exercise during your free time. Using the scales below, please circle a number to show why you exercise.

I exercise during my free time...	Not true for me		Sometimes true for me			Very true for me	
	1	2	3	4	5	6	7
1. ...Because other people say I should	1	2	3	4	5	6	7
2. ...Because feel guilty when I don't exercise	1	2	3	4	5	6	7
3. ...Because I value the benefits of exercise	1	2	3	4	5	6	7
4. ...Because it is fun	1	2	3	4	5	6	7
5. ...Because my people important to me (parents, family etc.) say I should	1	2	3	4	5	6	7
6. ...Because I feel ashamed when I miss and exercise session	1	2	3	4	5	6	7
7. ...Because it's important to me to exercise regularly	1	2	3	4	5	6	7
8. ...Because I enjoy my exercise sessions	1	2	3	4	5	6	7
9. ...Because other people will not be pleased with me if I do not exercise	1	2	3	4	5	6	7
10. ...Because I feel like a failure when I haven't exercised in a while	1	2	3	4	5	6	7
11. ...Because I think it's important to make the effort to exercise regularly	1	2	3	4	5	6	7
12. ...Because I find exercise a pleasurable activity	1	2	3	4	5	6	7
13. ...Because I feel under pressure from my friends/family to exercise	1	2	3	4	5	6	7
14. ...Because I will feel bad about myself when I don't exercise	1	2	3	4	5	6	7
15. ...Because I get restless if I don't exercise regularly	1	2	3	4	5	6	7
16. ...Because I get pleasure and satisfaction from participating in exercise	1	2	3	4	5	6	7

PLEASE TURN TO PAGE 5

These questions are about to your experience with people who are most important to you like your **parents and relatives** but **not** your friends. Important others may have different ways asking you to do certain things. We would like to know more about if and how these important people ask you to do exercise and sport. By exercise and sport we mean vigorous physical activities that **make your heart beat fast and make you out of breath** for at least 20 minutes at a time, 3 days per week. We are talking about exercise during your free time and **outside of normal school hours**. Think about how much these important people are likely to support you over the next 4 weeks.

1) *I feel that other people who are important to me provide me with choices, options, and opportunities about whether to do active sports and/or vigorous exercise in my free time*

Please circle a number

1	2	3	4	5	6	7
Strongly disagree			Neutral		Strongly agree	

2) *I think that other people who are important to me understand why I choose to do active sports and/or vigorous exercise in my free time*

Please circle a number

1	2	3	4	5	6	7
Strongly disagree			Neutral		Strongly agree	

3) *Other people who are important to me display confidence in my ability to do active sports and/or vigorous exercise in my free time*

Please circle a number

1	2	3	4	5	6	7
Strongly disagree			Neutral		Strongly agree	

4) *Other people who are important to me encourage me to do active sports and/or vigorous exercise in my free time*

Please circle a number

1	2	3	4	5	6	7
Strongly disagree			Neutral		Strongly agree	

5) *Other people who are important to me listen to me about my active sports and/or vigorous exercise in my free time*

Please circle a number

1	2	3	4	5	6	7
Strongly disagree			Neutral		Strongly agree	

6) *Other people who are important to me help me to do active sports and/or vigorous exercise in my free time*

Please circle a number

1	2	3	4	5	6	7
Strongly disagree			Neutral		Strongly agree	

7) *Other people who are important to me support me when I do active sports and/or vigorous exercise in my free time*

Please circle a number

1	2	3	4	5	6	7
Strongly disagree			Neutral		Strongly agree	

PLEASE TURN TO PAGE 6

8) <i>Other people who are important to me provide me with positive feedback when I do active sports and/or vigorous exercise in my free time</i>							
Please circle a number	1	2	3	4	5	6	7
	Strongly disagree			Neutral			Strongly agree
9) <i>I am able to talk with other people who are important to about the active sports and/or vigorous exercise I do in my free time</i>							
Please circle a number	1	2	3	4	5	6	7
	Strongly disagree			Neutral			Strongly agree
10) <i>Other people who are important to me make sure I understand why I need to do active sports and/or vigorous exercise in my free time</i>							
Please circle a number	1	2	3	4	5	6	7
	Strongly disagree			Neutral			Strongly agree
11) <i>Other people who are important to me answer my questions about doing active sports and/or vigorous exercise in my free time</i>							
Please circle a number	1	2	3	4	5	6	7
	Strongly disagree			Neutral			Strongly agree
12) <i>Other people who are important to me care about the active sports and/or vigorous exercise I do in my free time</i>							
Please circle a number	1	2	3	4	5	6	7
	Strongly disagree			Neutral			Strongly agree
13) <i>I feel I am able to share my experiences of active sports and/or vigorous exercise with other people who are important to me</i>							
Please circle a number	1	2	3	4	5	6	7
	Strongly disagree			Neutral			Strongly agree
14) <i>I feel a lot of trust in the beliefs of other people who are important to me about the active sports and/or vigorous exercise I do in my free time</i>							
Please circle a number	1	2	3	4	5	6	7
	Strongly disagree			Neutral			Strongly agree

PLEASE TURN TO PAGE 7

In the next part, we are interested to know about your attitudes toward exercise in your free time. Circle the number that best describes your answer.

My doing active sports and/or vigorous exercise, for at least 20 minutes, 3 days per week over the next 4 weeks during my free time is... (circle the number that best describes your answer and circle ONE number on EACH line).

Unenjoyable	1	2	3	4	5	6	7	Enjoyable
Bad	1	2	3	4	5	6	7	Good
Useless	1	2	3	4	5	6	7	Useful
Boring	1	2	3	4	5	6	7	Interesting
Harmful	1	2	3	4	5	6	7	Beneficial

In this next part, we are interested in how much control you have over your exercise during your free time, in the next 4 weeks.

How much control do you have over doing active sports and/or vigorous exercise for at least 20 minutes, 3 days per week during your free time in the next 4 weeks. (Tick the box that best describes your answer)

Very little control							Complete control
1	2	3	4	5	6	7	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If I wanted to I could do active sports and/or vigorous exercise for at least 20 minutes, 3 days per week during my free time over the next 4 weeks. (Tick the box that best describes your answer)

Strongly disagree							Strongly agree
1	2	3	4	5	6	7	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

I feel in complete control over whether I will do active sports and/or vigorous exercise for at least 20 minutes, 3 days per week during my free time over the next 4 weeks. (Tick the box that best describes your answer)

Completely false							Completely true
1	2	3	4	5	6	7	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PLEASE TURN TO PAGE 8

Now we would like to know about the thoughts and beliefs of other people who are important to you about your exercise during your free time. These people may include friends, parents, and other family members.

Most people who are important to me would *want* me to do active sports and/or vigorous exercise for at least 20 minutes, 3 days per week during my free time over the next 4 weeks. (Tick the box that best describes your answer)

Strongly disagree 1	2	3	4	5	6	Strongly agree 7

Most people I know would *approve* of me doing active sports and/or vigorous exercise for at least 20 minutes, 3 days per week during my free time over the next 4 weeks. (Tick the box that best describes your answer)

Strongly disagree 1	2	3	4	5	6	Strongly agree 7

People who are important to me would... (Tick the box that best describes your answer)

Strongly disapprove 1	2	3	4	5	6	Strongly approve 7

...of me doing active sports and/or vigorous exercise for at least 20 minutes, 3 days per week during my free time over the next 4 weeks.

Most people close to me expect me to do active sports and/or vigorous exercise for at least 20 minutes, 3 days per week during my free time over the next 4 weeks. (Tick the box that best describes your answer)

Extremely unlikely 1	2	3	4	5	6	Extremely likely 7

Thank you for your co-operation

Appendix 4. Original questionnaire 3.

Questionnaire

PAGE 1

Personal Information

Name: _____ Age: _____

Grade: _____ Are you a Boy or Girl (tick box) Teacher: _____

Date of Birth: Day: _____ Month: _____ Year: _____

This part of the questionnaire is about the exercise you do during your free time. Exercising during your free time includes all sports and physical activities that make your heart beat fast and make you out of breath for at least 20 minutes at a time, 3 days per week. It DOES NOT include street play or the activities you do in Physical Education (PE) classes, but it does include school sports clubs you might do AFTER school. We are only interested in physical activities that you do outside of normal school hours. There are no right or wrong answers so please answer the questionnaire as honestly as you can. The information you give will not be shown to anyone else, and please answer all the questions.

In the course of the past 4 weeks, how often have you participated in active sports and/or vigorous exercise for 20 minutes at a time? (Tick the box that best describes your answer)

Almost never 1	A few times 2	A few times, but less than half 3	On about half the days 4	Most days 5	Almost everyday 6	Everyday 7

I engaged in active sports and/or vigorous exercise for 20 minutes at a time the past 4 weeks with the following regularity: (Tick the box that best describes your answer)

Everyday 1	Most days 2	Some days 3	Occasionally 4	Very seldom 5	Hardly ever 6	Never 7

PLEASE TURN TO PAGE 2

ABOUT YOU AND YOUR RELATIONSHIPS

PAGE 2

This part of the questionnaire asks you about your opinions about your personal relationships. Please respond to the questions below by circling the number which is most like you. Everyone feels differently about this so there are no right or wrong answers, we are interested in your opinions. Do not spend too long on any one statement and give the answer that best describes your feelings. All responses are strictly confidential, and please answer all the questions.

1. I would rather make an important decision by myself than discuss it with my friends.

1	2	3	4	5	6	7
not at all						very much

2. One should be as independent of others as much as possible.

1	2	3	4	5	6	7
not at all						very much

3. When faced with difficult personal decision it is better to decide yourself rather than follow the advice of friends or relatives.

1	2	3	4	5	6	7
not at all						very much

4. If the group is slowing me down, it is better to leave it and work alone.

1	2	3	4	5	6	7
not at all						very much

5. Aging parents should live at their children's home.

1	2	3	4	5	6	7
not at all						very much

6. Children should live at their parents' home until they are old enough to get married.

1	2	3	4	5	6	7
not at all						very much

7. I can count on my relatives for help if I find myself in any kind of trouble.

1	2	3	4	5	6	7
not at all						very much

8. I feel it is all right to depend on family and friends for many important things.

1	2	3	4	5	6	7
not at all						very much

9. I would help within my means if a relative told me that he (she) is in financial difficulty.

1	2	3	4	5	6	7
not at all						very much

**What is your father's
occupation?** _____

(Please describe your father's main job or occupation in detail on the line above)

Thank you very much for your co-operation

Appendix 5. Questionnaire 1 in Finnish

1. KYSELYLOMAKE

1(5)

Henkilötiedot

Nimi: _____ Ikä: _____

Luokka-aste: _____

Oletko tyttö poika (rastita)

Opettaja: _____

Syntymäaika: päivä _____ kuukausi _____ vuosi _____

Tämä kyselylomake käsittelee sinun kokemuksiasi liikunnanopettajastasi koulun liikuntatunneilla. Opettajilla on eri tyylejä suhtautua oppilaisiin ja nyt me haluaisimme tietää enemmän sinun tuntemuksistasi liikunnanopettajaasi liittyen. Ole rehellinen ja suora vastauksissasi. Kaikki vastaukset ovat luottamuksellisia. Vastaa kaikkiin kysymyksiin.

1. Koen että liikunnanopettajani tarjoaa minulle valinnanvaraa ja vaihtoehtoja.

1 2 3 4 5 6 7
täysin erimieltä ei samaa eikä eri mieltä täysin samaa mieltä

2. Koen, että liikunnanopettajani ymmärtää minua.

1 2 3 4 5 6 7
täysin erimieltä ei samaa eikä eri mieltä täysin samaa mieltä

3. Pystyn olemaan avoin liikunnanopettajalleni liikuntatunnin aikana.

1 2 3 4 5 6 7
täysin erimieltä ei samaa eikä eri mieltä täysin samaa mieltä

4. Liikunnanopettajani osoittaa luottamusta kykyyni suoriutua hyvin liikuntatunnilla.

1 2 3 4 5 6 7
täysin erimieltä ei samaa eikä eri mieltä täysin samaa mieltä

5. Tunnen, että liikunnanopettajani hyväksyy minut

1 2 3 4 5 6 7
täysin erimieltä ei samaa eikä eri mieltä täysin samaa mieltä

6. Liikunnanopettajani varmistaa, että olen todella ymmärtänyt tunnin tavoitteet ja sen, mitä minun täytyy tehdä.

1 2 3 4 5 6 7
täysin erimieltä ei samaa eikä eri mieltä täysin samaa mieltä

7. Liikunnanopettajani rohkaisee minua tekemään kysymyksiä.

1 2 3 4 5 6 7
täysin erimieltä ei samaa eikä eri mieltä täysin samaa mieltä

8. Luotan paljon liikunnanopettajaani.

1	2	3	4	5	6	7
täysin erimieltä			ei samaa eikä eri mieltä			täysin samaa mieltä

9. Liikunnanopettajani vastaa kysymyksiini huolellisesti ja perusteellisesti.

1	2	3	4	5	6	7
täysin erimieltä			ei samaa eikä eri mieltä			täysin samaa mieltä

10. Liikunnanopettajani kuuntelee, kuinka haluaisin tehdä asioita.

1	2	3	4	5	6	7
täysin erimieltä			ei samaa eikä eri mieltä			täysin samaa mieltä

11. Liikunnanopettajani käsittelee oppilaiden tunteita hyvin.

1	2	3	4	5	6	7
täysin erimieltä			ei samaa eikä eri mieltä			täysin samaa mieltä

12. Tunnen, että liikunnanopettajani välittää minusta ihmisenä.

1	2	3	4	5	6	7
täysin erimieltä			ei samaa eikä eri mieltä			täysin samaa mieltä

13. En oikein pidä tavasta, jolla liikunnanopettajani puhuu minulle.

1	2	3	4	5	6	7
täysin erimieltä			ei samaa eikä eri mieltä			täysin samaa mieltä

14. Liikunnanopettajani yrittää ymmärtää minun näkökulmani, ennen kun hän ehdottaa muita toimintatapoja.

1	2	3	4	5	6	7
täysin erimieltä			ei samaa eikä eri mieltä			täysin samaa mieltä

15. Koen, että pystyn jakamaan tunteitani liikunnanopettajani kanssa.

1	2	3	4	5	6	7
täysin erimieltä			ei samaa eikä eri mieltä			täysin samaa mieltä

MIKSI TEEN ASIOITA?

3(5)

Tässä osassa kyselyä kysytään, miksi harrastat liikuntaa ja yrität tehdä parhaasi liikuntatunneilla. Ei ole olemassa oikeita vastauksia, joten vastaa kysymyksiin rehellisesti. Ympyröi numero, joka on sinun vastauksesi kysymykseen. Kaikki vastaukset ovat luottamuksellisia. Vastaa kaikkiin kysymyksiin.

Miksi yritän kovasti liikuntatunneilla?

1. Koska haluan, että liikunnanopettajani ajattelee minun olevan hyvä oppilas.

1	2	3	4
pitää täysin paikkaansa	pitää osittain paikkaansa	ei pidä paikkaansa	ei pidä lainkaan paikkaansa

2. Koska joudun vaikeuksiin, jos en yritä.

1	2	3	4
pitää täysin paikkaansa	pitää osittain paikkaansa	ei pidä paikkaansa	ei pidä lainkaan paikkaansa

3. Koska se on hauskaa.

1	2	3	4
pitää täysin paikkaansa	pitää osittain paikkaansa	ei pidä paikkaansa	ei pidä lainkaan paikkaansa

4. Koska minusta tuntuu kurjalta, jos en yritä.

1	2	3	4
pitää täysin paikkaansa	pitää osittain paikkaansa	ei pidä paikkaansa	ei pidä lainkaan paikkaansa

5. Koska haluan pärjätä liikunnassa.

1	2	3	4
pitää täysin paikkaansa	pitää osittain paikkaansa	ei pidä paikkaansa	ei pidä lainkaan paikkaansa

6. Koska niin minun odotetaan tekevän.

1	2	3	4
pitää täysin paikkaansa	pitää osittain paikkaansa	ei pidä paikkaansa	ei pidä lainkaan paikkaansa

7. Koska nautin liikunnasta.

1	2	3	4
pitää täysin paikkaansa	pitää osittain paikkaansa	ei pidä paikkaansa	ei pidä lainkaan paikkaansa

8. Koska minulle on tärkeää harrastaa liikuntaa.

1	2	3	4
pitää täysin paikkaansa	pitää osittain paikkaansa	ei pidä paikkaansa	ei pidä lainkaan paikkaansa

9. Koska minua rangaistaan, jos en tee.

1	2	3	4
pitää täysin paikkaansa	pitää osittain paikkaansa	ei pidä paikkaansa	ei pidä lainkaan paikkaansa

10. Koska minusta liikuntatunnit ovat mukavia.

1	2	3	4
pitää täysin paikkaansa	pitää osittain paikkaansa	ei pidä paikkaansa	ei pidä lainkaan paikkaansa

11. Koska tunnen syyllisyyttä, jos en yritä.

1	2	3	4
pitää täysin paikkaansa	pitää osittain paikkaansa	ei pidä paikkaansa	ei pidä lainkaan paikkaansa

12. Koska arvostan liikuntatunneista saamaani hyötyä.

1	2	3	4
pitää täysin paikkaansa	pitää osittain paikkaansa	ei pidä paikkaansa	ei pidä lainkaan paikkaansa

13. Koska liikunnanopettajani sanoo, että pitää yrittää kovasti.

1	2	3	4
pitää täysin paikkaansa	pitää osittain paikkaansa	ei pidä paikkaansa	ei pidä lainkaan paikkaansa

14. Koska saan nautintoa ja tyytyväisyyden tunnetta liikuntatunneilta.

1	2	3	4
pitää täysin paikkaansa	pitää osittain paikkaansa	ei pidä paikkaansa	ei pidä lainkaan paikkaansa

15. Koska tunnen itseni häviäjäksi, jos en yritä.

1	2	3	4
pitää täysin paikkaansa	pitää osittain paikkaansa	ei pidä paikkaansa	ei pidä lainkaan paikkaansa

16. Koska liikuntatunnit ovat erittäin mielenkiintoisia.

1	2	3	4
pitää täysin paikkaansa	pitää osittain paikkaansa	ei pidä paikkaansa	ei pidä lainkaan paikkaansa

17. Koska joudun vaikeuksiin, jos en yritä.

5(5)

1	2	3	4
pitää täysin paikkaansa	pitää osittain paikkaansa	ei pidä paikkaansa	ei pidä lainkaan paikkaansa

18. Koska liikunta auttaa minua oppimaan ja edistymään.

1	2	3	4
pitää täysin paikkaansa	pitää osittain paikkaansa	ei pidä paikkaansa	ei pidä lainkaan paikkaansa

19. Koska minua hävettää jos en yritä.

1	2	3	4
pitää täysin paikkaansa	pitää osittain paikkaansa	ei pidä paikkaansa	ei pidä lainkaan paikkaansa

Kiitokset yhteistyöstä

Appendix 6. Questionnaire 2 in Finnish

1(10)

Kyselylomake 2

Tämä kyselylomake käsittelee vapaa-ajallasi harrastamaasi liikuntaa. Vapaa-ajan liikunta käsittää kaiken liikunnan ja fyysisen aktiivisuuden, joka saa sykkeen nousemaan ja saa sinut hengästymään vähintään 20 minuuttia kerrallaan. Meitä kiinnostaa ainoastaan koulutuntien ja koululiikunnan ulkopuolella tapahtuva aktiivinen liikunta. Koulun järjestämät liikuntakerhot, jotka järjestetään kouluajan ulkopuolella, lasketaan mukaan vapaa-ajan liikuntaan.

Oikeita tai vääriä vastauksia ei ole, joten ole hyvä ja vastaa kyselyyn mahdollisimman rehellisesti. Tietoja ei näytetä ulkopuolisille. Ole ystävällinen ja vastaa kaikkiin kysymyksiin.

Henkilötiedot

Nimi: _____ Ikä: _____

Luokka-aste: _____

Oletko tyttö poika (rastita)

Opettaja: _____

Syntymäaika: päivä _____ kuukausi _____ vuosi _____

Kuinka paljon liikuntaa olet harrastanut vapaa-aikanasi viimeisen puolen vuoden aikana? Muistathan, että meitä kiinnostaa, kuinka usein olet liikkunut vapaa-aikanasi koululiikunnan ulkopuolella.

Viimeisen 6 kuukauden aikana olen harrastanut aktiivista liikuntaa (laita rasti ruutuun, joka parhaiten kuvaa sinua)

En ollenkaan	Kerran viikossa	Parina päivänä viikossa	Useana päivänä viikossa	Monena päivänä viikossa	Useimpina päivinä viikossa
1	2	3	4	5	6

Aiotko harrastaa liikuntaa seuraavien 4 viikon aikana vapaa-aikanasi koululiikunnan ulkopuolella? Ole hyvä ja vastaa kaikkiin seuraaviin kysymyksiin laitamalla rasti ruutuun, joka parhaiten kuvaa sinua.

2(10)

Aion harrastaa aktiivista liikuntaa vähintään 20 minuuttia kerrallaan ainakin 3 kertaa viikossa seuraavien 4 viikon aikana. (laita rasti ruutuun, joka parhaiten kuvaa sinua)

Epä-todennäköistä						Erittäin todennäköistä
1	2	3	4	5	6	7

Aion harrastaa aktiivista liikuntaa vähintään 20 minuuttia kerrallaan seuraavien 4 viikon aikana seuraavalla säännöllisyydellä. (laita rasti ruutuun, joka parhaiten kuvaa sinua)

En ollenkaan						Joka päivä
1	2	3	4	5	6	7

Aion harrastaa aktiivista liikuntaa vähintään 20 minuuttia kerrallaan ainakin 3 kertaa viikossa seuraavien 4 viikon aikana. (laita rasti ruutuun, joka parhaiten kuvaa sinua)

Ehdottomasti en						Ehdottomasti kyllä
1	2	3	4	5	6	7

3(10)

Seuraavat kysymykset koskevat ystäviäsi. Joskus ystäväsi rohkaisevat ja tukevat sinua jokapäiväisissä toiminnoissasi. Haluaisimme tietää rohkaisevatko ystäväsi sinua harrastamaan liikuntaa ja miten he sen tekevät. Aktiivisella liikunnalla tarkoitamme raskasta fyysistä aktiivisuutta, joka saa sykkeen nousemaan ja saa sinut hengästymään vähintään 20 min kerrallaan. Kyse on vapaa-ajan liikunnastasi, joka tapahtuu koululiikunnan ulkopuolella. Mieti kuinka paljon ystäväsi tulevat todennäköisesti tukemaan sinua seuraavien 4 viikon aikana.

Ympyröi sopiva numero

1) Koen, että ystäväni järjestävät minulle vaihtoehtoja, mahdollisuuksia ja tilaisuuksia harrastaa aktiivista liikuntaa vapaa-ajallani.

1	2	3	4	5	6	7
Täysin erimieltä		Ei erimieltä eikä samaa mieltä			Täysin samaa mieltä	

2) Luulen, että ystäväni ymmärtävät, miksi minä päätän harrastaa aktiivista liikuntaa vapaa-ajallani.

1	2	3	4	5	6	7
Täysin erimieltä		Ei erimieltä eikä samaa mieltä			Täysin samaa mieltä	

3) Ystäväni luottavat minun kykyyni harrastaa aktiivista liikuntaa vapaa-ajallani.

1	2	3	4	5	6	7
Täysin erimieltä		Ei erimieltä eikä samaa mieltä			Täysin samaa mieltä	

4) Ystäväni rohkaisevat minua harrastamaan aktiivista liikuntaa vapaa-ajallani.

1	2	3	4	5	6	7
Täysin erimieltä		Ei erimieltä eikä samaa mieltä			Täysin samaa mieltä	

5) Ystäväni kuuntelevat minua, kun kerron vapaa-ajan liikunnan harrastuksistani.

1	2	3	4	5	6	7
Täysin erimieltä		Ei erimieltä eikä samaa mieltä			Täysin samaa mieltä	

6) Ystäväni auttavat minua harrastamaan aktiivista liikuntaa vapaa-ajallani.

1	2	3	4	5	6	7
Täysin erimieltä		Ei erimieltä eikä samaa mieltä			Täysin samaa mieltä	

7) Ystäväni tukevat minua, kun harrastan aktiivista liikuntaa vapaa-ajallani.

1	2	3	4	5	6	7
Täysin erimieltä		Ei erimieltä eikä samaa mieltä			Täysin samaa mieltä	

4(10)

8) Ystäväni antavat minulle myönteistä palautetta, kun harrastan aktiivista liikuntaa vapaa-ajallani.

1	2	3	4	5	6	7
Täysin erimielistä		Ei erimielistä eikä samaa mieltä			Täysin samaa mieltä	

9) Voin puhua ystäväieni kanssa vapaa-ajan liikunnan harrastuksistani.

1	2	3	4	5	6	7
Täysin erimielistä		Ei erimielistä eikä samaa mieltä			Täysin samaa mieltä	

10) Ystäväni varmistavat, että ymmärrän, miksi minun tarvitsee harrastaa aktiivista liikuntaa vapaa-ajallani.

1	2	3	4	5	6	7
Täysin erimielistä		Ei erimielistä eikä samaa mieltä			Täysin samaa mieltä	

11) Ystäväni vastaavat kysymyksiini, jotka liittyvät aktiivisen liikunnan harrastamiseen vapaa-ajallani.

1	2	3	4	5	6	7
Täysin erimielistä		Ei erimielistä eikä samaa mieltä			Täysin samaa mieltä	

12) Ystäväni ovat kiinnostuneet vapaa-ajallani harrastamastani aktiivisesta liikunnasta.

1	2	3	4	5	6	7
Täysin erimielistä		Ei erimielistä eikä samaa mieltä			Täysin samaa mieltä	

13) Minusta tuntuu, että pystyn kertomaan ystäväilleni kokemuksistani, jotka liittyvät aktiivisen liikunnan harrastamiseen vapaa-ajallani.

1	2	3	4	5	6	7
Täysin erimielistä		Ei erimielistä eikä samaa mieltä			Täysin samaa mieltä	

14) Luotan ystäväieni uskomuksiin, jotka liittyvät vapaa-ajan liikunnan harrastuksiini.

1	2	3	4	5	6	7
Täysin erimielistä		Ei erimielistä eikä samaa mieltä			Täysin samaa mieltä	

5(10)

Miksi harrastat liikuntaa vapaa-aikanasi? Ympyröi sinuun sopiva vastaus.

Harrastan vapaa-ajan liikuntaa...	Ei pidä lainkaan paikkaansa			Pitää osittain paikkansa		Pitää täysin paikkansa	
1. ...koska muut ihmiset sanovat, että minun pitäisi harrastaa.	1	2	3	4	5	6	7
2. ...koska tunnen syyllisyyttä, jos en harrasta.	1	2	3	4	5	6	7
3. ...koska arvostan liikunnasta saamaani hyötyä.	1	2	3	4	5	6	7
4. ...koska se on hauskaa.	1	2	3	4	5	6	7
5. ...koska minulle tärkeät ihmiset (vanhemmat, perhe ym.) sanovat, että minun pitäisi harrastaa.	1	2	3	4	5	6	7
6. ...koska minua hävettää, kun jää liikuntakerta väliin.	1	2	3	4	5	6	7
7. ...koska minulle on tärkeä liikkua säännöllisesti.	1	2	3	4	5	6	7
8. ...koska nautin liikuntahetkestä.	1	2	3	4	5	6	7
9. ...koska muut ihmiset ovat tyytymättömiä minuun, jos en harrasta liikuntaa.	1	2	3	4	5	6	7
10. ...koska tunnen epäonnistuneeni, jos en ole harrastanut liikuntaa vähään aikaan.	1	2	3	4	5	6	7
11. ...koska minusta on tärkeää nähdä vaivaa säännöllisen liikuntaharrastuksen eteen.	1	2	3	4	5	6	7
12. ...koska liikunnan harrastaminen on mukavaa.	1	2	3	4	5	6	7
13. ...koska ystäväni ja perheeni painostavat minua harrastamaan liikuntaa.	1	2	3	4	5	6	7
14. ...koska tunnen itseni huonoksi, jos en harrasta liikuntaa.	1	2	3	4	5	6	7
15. ...koska muutun rauhattomaksi, jos en harrasta liikuntaa säännöllisesti.	1	2	3	4	5	6	7
16. ...koska saan iloa ja tullen tyytyväiseksi, kun harrastan liikuntaa.	1	2	3	4	5	6	7

6(10)

Seuraavat kysymykset koskevat sinulle tärkeitä ihmisiä kuten vanhempiasi ja sukulaisiasi, mutta eivät kavereitasi. Sinulle tärkeillä ihmisillä saattaa olla erilaisia tapoja pyytää sinua tekemään eri asioita. Me haluaisimme tietää enemmän, kuinka sinulle tärkeät ihmiset kehottavat sinua liikkumaan. Aktiivisella liikunnalla tarkoitamme raskasta fyysistä aktiivisuutta, joka saa sykkeen nousemaan ja saa sinut hengästymään vähintään 20 min kerrallaan. Kyse on vapaa-ajan liikunnastasi joka tapahtuu koululiikunnan ulkopuolella. Mieti, kuinka paljon sinulle tärkeät ihmiset tulevat todennäköisesti tukemaan sinua seuraavien 4 viikon aikana.

Ympyröi sopiva numero

1) Koen, että minulle tärkeät ihmiset järjestävät minulle vaihtoehtoja, mahdollisuuksia ja tilaisuuksia harrastaa aktiivista liikuntaa vapaa-ajallani.

1	2	3	4	5	6	7
Täysin erimieltä		Ei erimieltä eikä samaa mieltä			Täysin samaa mieltä	

2) Luulen, että minulle tärkeät ihmiset ymmärtävät, miksi minä päätän harrastaa aktiivista liikuntaa vapaa-ajallani.

1	2	3	4	5	6	7
Täysin erimieltä		Ei erimieltä eikä samaa mieltä			Täysin samaa mieltä	

3) Minulle tärkeät ihmiset luottavat minun kykyyni harrastaa aktiivista liikuntaa vapaa-ajallani.

1	2	3	4	5	6	7
Täysin erimieltä		Ei erimieltä eikä samaa mieltä			Täysin samaa mieltä	

4) Minulle tärkeät ihmiset rohkaisevat minua harrastamaan aktiivista liikuntaa vapaa-ajallani.

1	2	3	4	5	6	7
Täysin erimieltä		Ei erimieltä eikä samaa mieltä			Täysin samaa mieltä	

5) Minulle tärkeät ihmiset kuuntelevat minua, kun kerron vapaa-ajan liikunnan harrastuksistani

1	2	3	4	5	6	7
Täysin erimieltä		Ei erimieltä eikä samaa mieltä			Täysin samaa mieltä	

6) Minulle tärkeät ihmiset auttavat minua harrastamaan aktiivista liikuntaa vapaa-ajallani.

1	2	3	4	5	6	7
Täysin erimieltä		Ei erimieltä eikä samaa mieltä			Täysin samaa mieltä	

7(10)

7) Minulle tärkeät ihmiset tukevat minua, kun harrastan aktiivista liikuntaa vapaa-ajallani.

1	2	3	4	5	6	7
Täysin erimieltä		Ei erimieltä eikä samaa mieltä			Täysin samaa mieltä	

8) Minulle tärkeät ihmiset antavat minulle myönteistä palautetta, kun harrastan aktiivista liikuntaa vapaa-ajallani.

1	2	3	4	5	6	7
Täysin erimieltä		Ei erimieltä eikä samaa mieltä			Täysin samaa mieltä	

9) Voin puhua minulle tärkeiden ihmisten kanssa vapaa-ajan liikunnan harrastuksistani.

1	2	3	4	5	6	7
Täysin erimieltä		Ei erimieltä eikä samaa mieltä			Täysin samaa mieltä	

10) Minulle tärkeät ihmiset varmistavat, että ymmärrän, miksi minun tarvitsee harrastaa aktiivista liikuntaa vapaa-ajallani.

1	2	3	4	5	6	7
Täysin erimieltä		Ei erimieltä eikä samaa mieltä			Täysin samaa mieltä	

11) Minulle tärkeät ihmiset vastaavat kysymyksiini, jotka liittyvät aktiivisen liikunnan harrastamiseen vapaa-ajallani.

1	2	3	4	5	6	7
Täysin erimieltä		Ei erimieltä eikä samaa mieltä			Täysin samaa mieltä	

12) Minulle tärkeät ihmiset ovat kiinnostuneet vapaa-ajallani harrastamastani aktiivisesta liikunnasta.

1	2	3	4	5	6	7
Täysin erimieltä		Ei erimieltä eikä samaa mieltä			Täysin samaa mieltä	

13) Minusta tuntuu, että pystyn kertomaan minulle tärkeille ihmisille kokemuksistani, jotka liittyvät aktiivisen liikunnan harrastamiseen vapaa-ajallani.

1	2	3	4	5	6	7
Täysin erimieltä		Ei erimieltä eikä samaa mieltä			Täysin samaa mieltä	

14) Luotan minulle tärkeiden ihmisten uskomuksiin, jotka liittyvät vapaa-ajan liikunnan harrastuksiini.

1	2	3	4	5	6	7
Täysin erimieltä		Ei erimieltä eikä samaa mieltä			Täysin samaa mieltä	

10(10)

Minulle tärkeät ihmiset... (laita rasti ruutuun, joka parhaiten kuvaa sinua)

Eivät lainkaan hyväksyisi							Hyväksyisivät täysin	
1	2	3	4	5	6	7		

minun harrastavan aktiivista liikuntaa vähintään 20 minuuttia kerrallaan 3 päivänä viikossa seuraavien 4 viikon aikana.

Minulle läheiset ihmiset odottavat minun harrastavan aktiivista liikuntaa vähintään 20 minuuttia kerrallaan 3 päivänä viikossa seuraavien 4 viikon aikana. (laita rasti ruutuun, joka parhaiten kuvaa sinua)

Erittäin epä todennäköistä							Erittäin todennäköistä	
1	2	3	4	5	6	7		

Kiitokset yhteistyöstä!

Appendix 7. Questionnaire 3 in Finnish

Kyselylomake 3

1(3)

Henkilötiedot

Nimi: _____ Ikä: _____

Luokka-aste: _____

Oletko tyttö poika (rastita)

Opettaja: _____

Syntymäaika: päivä _____ kuukausi _____ vuosi _____

Tämä kyselylomake käsittelee vapaa-ajallasi harrastamaasi liikuntaa. Vapaa-ajan liikunta käsittää kaiken liikunnan ja fyysisen aktiivisuuden, joka saa sykkeen nousemaan ja saa sinut hengästymään vähintään 20 minuuttia kerrallaan. Meitä kiinnostaa ainoastaan koulutuntien ja koululiikunnan ulkopuolella tapahtuva aktiivinen liikunta. Koulun järjestämät liikuntakerhot, jotka järjestetään kouluajan ulkopuolella, lasketaan mukaan vapaa-ajan liikuntaan.

Kuinka usein viimeisen 4 viikon aikana olet harrastanut aktiivista liikuntaa vähintään 20 minuuttia kerrallaan? (laita rasti ruutuun, joka parhaiten kuvaa vastaustasi)

Tuskin koskaan	Pari kertaa	Pari kertaa, mutta harvemmin kuin joka toisena päivänä	Noin joka toinen päivä	Useimpina päivinä	Lähes joka päivä	Joka päivä
1	2	3	4	5	6	7

Sitouduin harrastamaan liikuntaa säännöllisesti kerrallaan 20 minuuttia viimeisen 4 viikon aikana seuraavasti: (rastita ruutuun parhaiten kuvaava vaihtoehto)

Joka päivä	Suurimpana osana päivistä	Joinain päivinä	Silloin tällöin	Hyvin harvoin	Tuskin koskaan	En koskaan
1	2	3	4	5	6	7

SINÄ JA IHMISSUHTEET

2(3)

Tässä kysytään mielipiteitäsi ihmissuhteistasi. Ympyröi mielipidettäsi parhaiten kuvaavan vaihtoehdon numero. Jokaisella on omat mielipiteensä, joten ei ole olemassa oikeita eikä vääriä vastauksia. Meitä kiinnostaa sinun mielipiteesi. Älä jää miettimään vastauksia liian pitkäksi aikaa ja vastaa siten, mikä parhaiten vastaa sinun tunteitasi. Kaikki vastaukset ovat luottamuksellisia. Ole hyvä ja vastaa kaikkiin kysymyksiin.

1. Teen mieluummin tärkeitä päätökset itse keskustelematta niistä ystäväni kanssa.

1	2	3	4	5	6	7
ei lainkaan						erittäin paljon

2. Ihmisen tulisi olla niin itsenäinen muista kuin mahdollista.

1	2	3	4	5	6	7
ei lainkaan						erittäin paljon

3. Vaikeissa henkilökohtaisissa päätöksissä on parempi päättää asioista itse, kuin noudattaa ystävien ja sukulaisten neuvoja.

1	2	3	4	5	6	7
ei lainkaan						erittäin paljon

4. Jos ryhmä hidastaa minua, on parempi lähteä ryhmästä ja työskennellä yksin.

1	2	3	4	5	6	7
ei lainkaan						erittäin paljon

5. Ikääntyvien vanhempien tulisi asua lastensa luona.

1	2	3	4	5	6	7
ei lainkaan						erittäin paljon

6. Lasten tulisi asua lapsuudenkodissaan, kunnes he ovat tarpeeksi vanhoja menemään naimisiin.

1	2	3	4	5	6	7
ei lainkaan						erittäin paljon

7. Voin luottaa sukulaisteni apuun kaikissa tilanteissa, joissa joudun jonkinlaiseen pulaan.

1	2	3	4	5	6	7
ei lainkaan						erittäin paljon

