



Researching and promoting physical literacy in Denmark: why and how?

Peter ELSBORG, Paulina S. MELBY, Glen NIELSEN & Peter BENTSEN,

Panel session
IPLC Europe 2019



Health Promotion



Department of Nutrition, Exercise
and Sports

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Agenda

Intro & learning outcomes

Physical Literacy Network Denmark

The importance of diversified physical activities in early childhood

Measuring PL and the DAPL project

The motivational climate and the SATS project

Outro & discussion





Learning Outcome 1: Consensus of PL in a Danish context across sectors and stakeholders as well as organisation of a PL network in Denmark.

Learning Outcome 2: Initial research in the area of PL in Denmark and finding ways to measure PL among children.

Learning Outcome 3: Initiatives of research projects to develop PL in a sporting environment.



PHYSICAL LITERACY NETWORK DENMARK (PLnet.dk)



Steno Diabetes Center
Copenhagen



DGI

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Vision, mission & governance

Vision and purpose

- The overall *vision* of PLnet is a world where everyone achieves optimal PL in order to move and participate in physical activities throughout their lives
- The *purpose* of PLnet is to promote physical literacy

Mission and strategic objectives

To achieve the vision and purpose, the *mission* of PLnet is to influence practice and policy through the following strategic objectives:

- Networking and collaboration between the members of PLnet
- Knowledge sharing and consensus between the members of PLnet
- Advocacy and debate aimed at practice and policy
- Education and capacity building aimed at practice

Governance

- PLnet meets two times a year
- PLnet is administrated by Danish School Sport, DGI and Steno Diabetes Center Copenhagen
- PLnet is open for all interested parties and is available by contacting info@PLnet.dk

PHYSICAL LITERACY I EN DANSK KONTEKST

APRIL 2019

FORMÅL

I de seneste år har en række interessenter fra forskellige sektorer beskæftiget sig med at omsætte det engelske begreb *physical literacy*. *Physical literacy* oversættes af forskellige aktører til *bevægelseskompetence*, eller bruges synonymt med begrebet *kropslig dannelse*. Den store interesse for begrebet har ført til en række forskellige definitioner og forståelser. For at kunne forstå, fremme og udvikle begrebet i en dansk kontekst, arbejdede en bred skare af praktikere, politikere og forskere fra en række organisationer og institutioner med dette forståelsespapir på et nationalt seminar (Nyborg, januar, 2019).

- Tydeliggøre begrebets særegenhed og potentiale
- Fremme værdien af physical literacy
- Advokere for en fælles forståelse
- Facilitere overensstemmelse på tværs af sektorer, institutioner og fagpersoner
- Skabe konsistens og klarhed i kommunikation af physical literacy
- Etablere et afsæt for metoder til at fremme physical literacy

“ *Physical literacy er et individs motivation, selvtillid, kropslige kompetence, viden og forståelse for at værdsætte og tage ansvar for at bevæge sig og deltage i fysiske aktiviteter hele livet*

INTERNATIONAL PHYSICAL LITERACY ASSOCIATION, 2016



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...

FIRE ELEMENTER: Definitionen af physical literacy indeholder fire delelementer, som hænger sammen og påvirker hinanden. De fire elementers betydning for et individ ændrer sig gennem livet.

“ **Motivation og selvtillid** er et individs lyst til, begejstring for, glæde ved og tro på egne evner til at bevæge sig og engagere sig i fysiske aktiviteter alene eller sammen med andre.

“ **Færdigheder og kapacitet** er de motoriske færdigheder og den fysiske kapacitet, som gør individet i stand til at bevæge sig og deltage i fysiske aktiviteter i både kort og lang tid, på alle intensiteter og i forskellige miljøer, alene eller sammen med andre.

“ **Viden og forståelse** er et individs viden om og forståelse for, hvad der påvirker ens egen og andres deltagelse i bevægelse og fysiske aktiviteter – og hvad kvaliteten og mængden af bevægelse og fysiske aktiviteter alene og sammen med andre påvirker, herunder sundhed, trivsel og velvære.

“ **Bevægelse og deltagelse i fysiske aktiviteter** er et individs frivillige handlinger og adfærd gennem hele livet, og indebærer prioritering og motivation for regelmæssig deltagelse i meningsfulde og personligt udfordrende fysiske aktiviteter.

Følgende principper ligger til grund for dette forståelsespapir:

PHYSICAL LITERACY

- kan opnås og er af værdi for alle
- er som begreb velegnet til at synliggøre og understrege de dannelsesfremmende aspekter af fysisk aktivitet og bevægelse
- er en individuel proces, som kan udvikle sig hele livet
- kan udvikles gennem oplevelser og erfaringer i mange forskellige idræts- og bevægelsesmiljøer og kontekster
- bidrager til udviklingen af hele personen, herunder den almene dannelse



THE IMPORTANCE OF **DIVERSIFIED PHYSICAL ACTIVITIES** IN EARLY CHILDHOOD FOR LATER MOVEMENT SKILLS AND PHYSICAL ACTIVITY: A 7-YEAR LONGITUDINAL STUDY

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AIMS

Explore longitudinal relationship between diversified physical activities (DPA), motor skills (MS) and levels of physical activity (PA)

Emphasis on leisure-time diversified PA in early childhood

Explore if the longitudinal association between diversified physical activity and physical activity can be mediated by motor skills?

VARIABLES

CoSCIS : The Copenhagen School Children Study

club-organized sports activities: with a maximum score of four different sports

Diversity of PA
6 y

Diversified physical activity

leisure activities:

e.g.
playing with a ball
bicycling
skating/ice skating
playing a game of tag;
playing hopscotch/jumping rope;
dancing

the time spent: the weekly number of leisure-time sports sessions and playing outdoors during leisure

Motor skills
6 y

Motor skills
9 y

Fundamental movement skills (KTK test)

MVPA
6 y

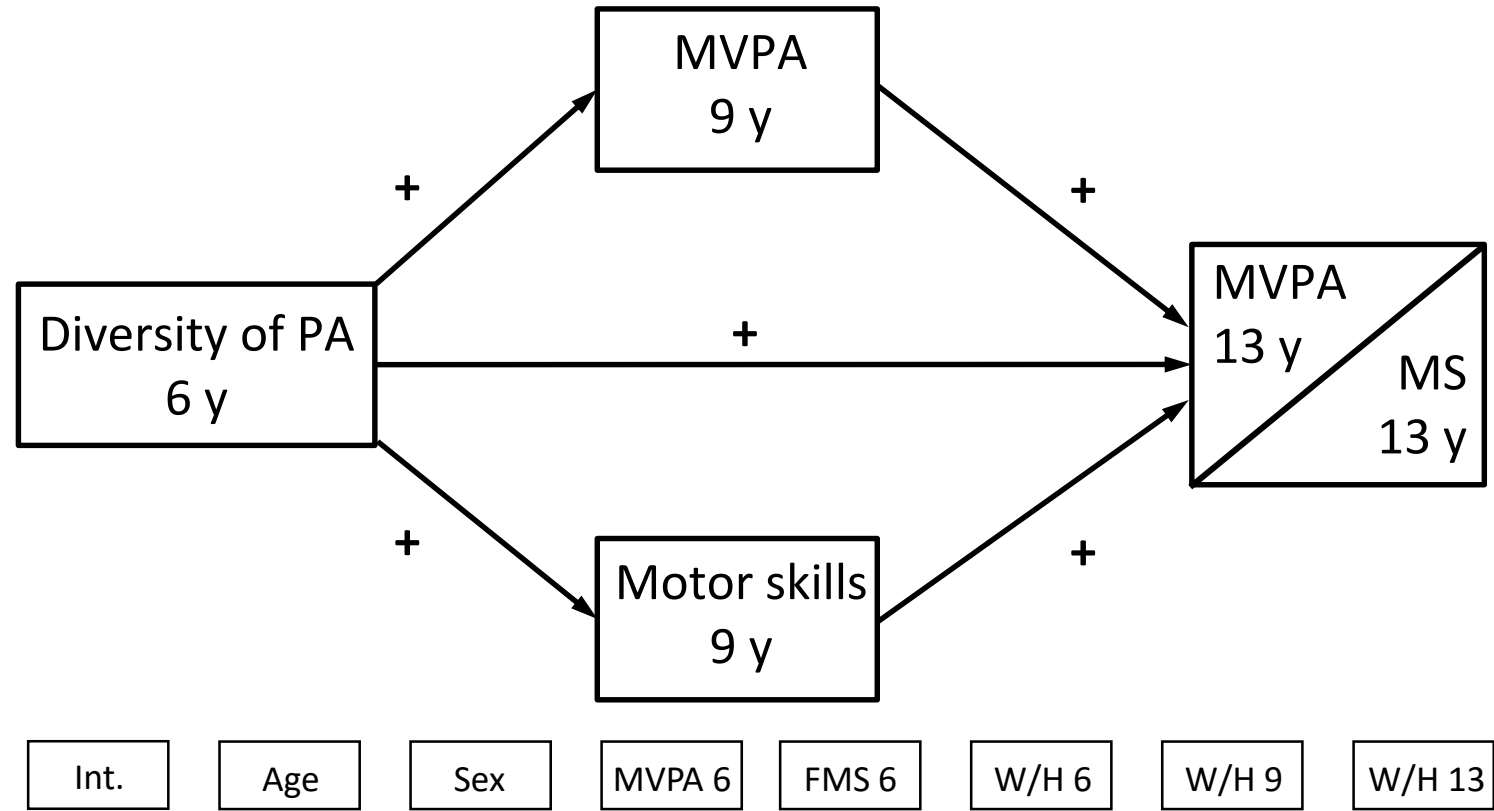
MVPA
9 y

MVPA
13 y

Moderate-to-vigorous physical activity (min/day)



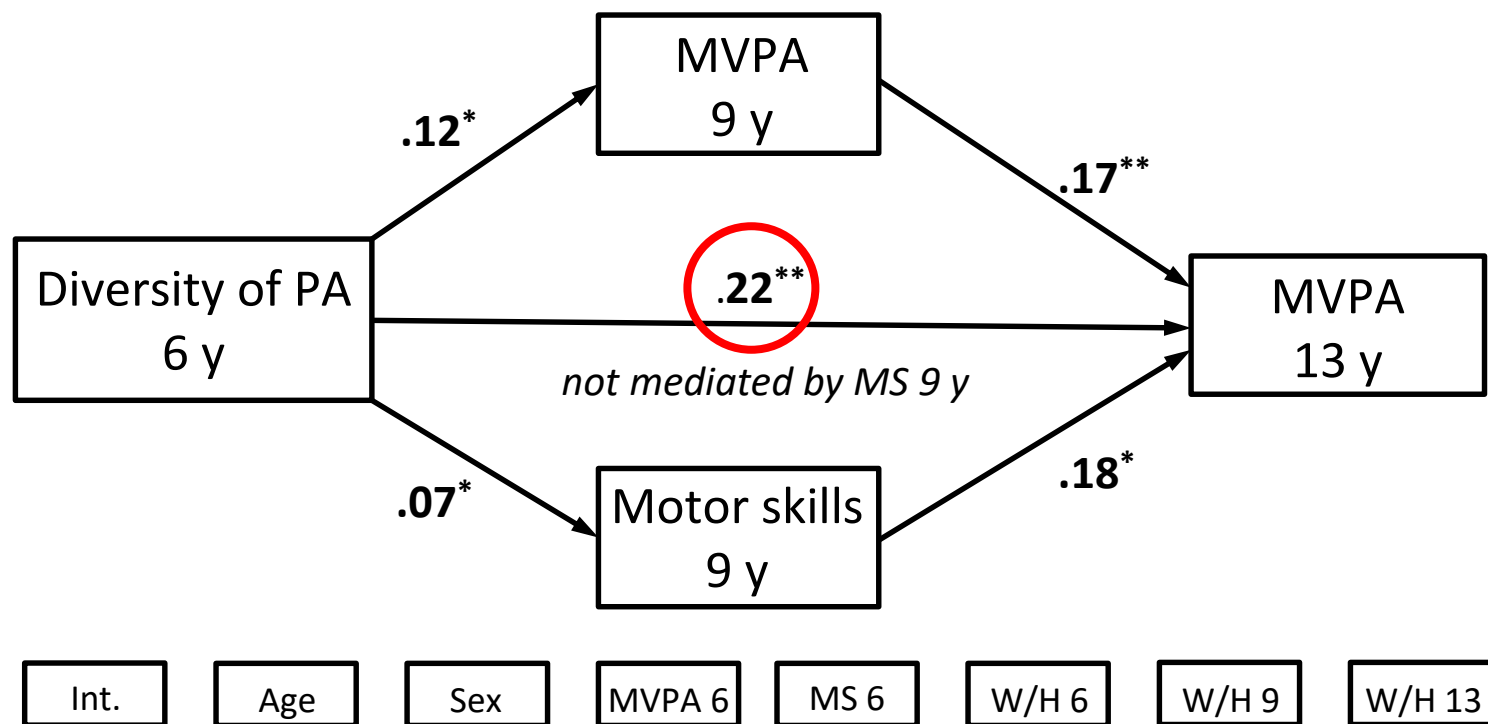
HYPOTHESIZED MODELS



(*n* = 654)



OUTCOME: MVPA (13 y)

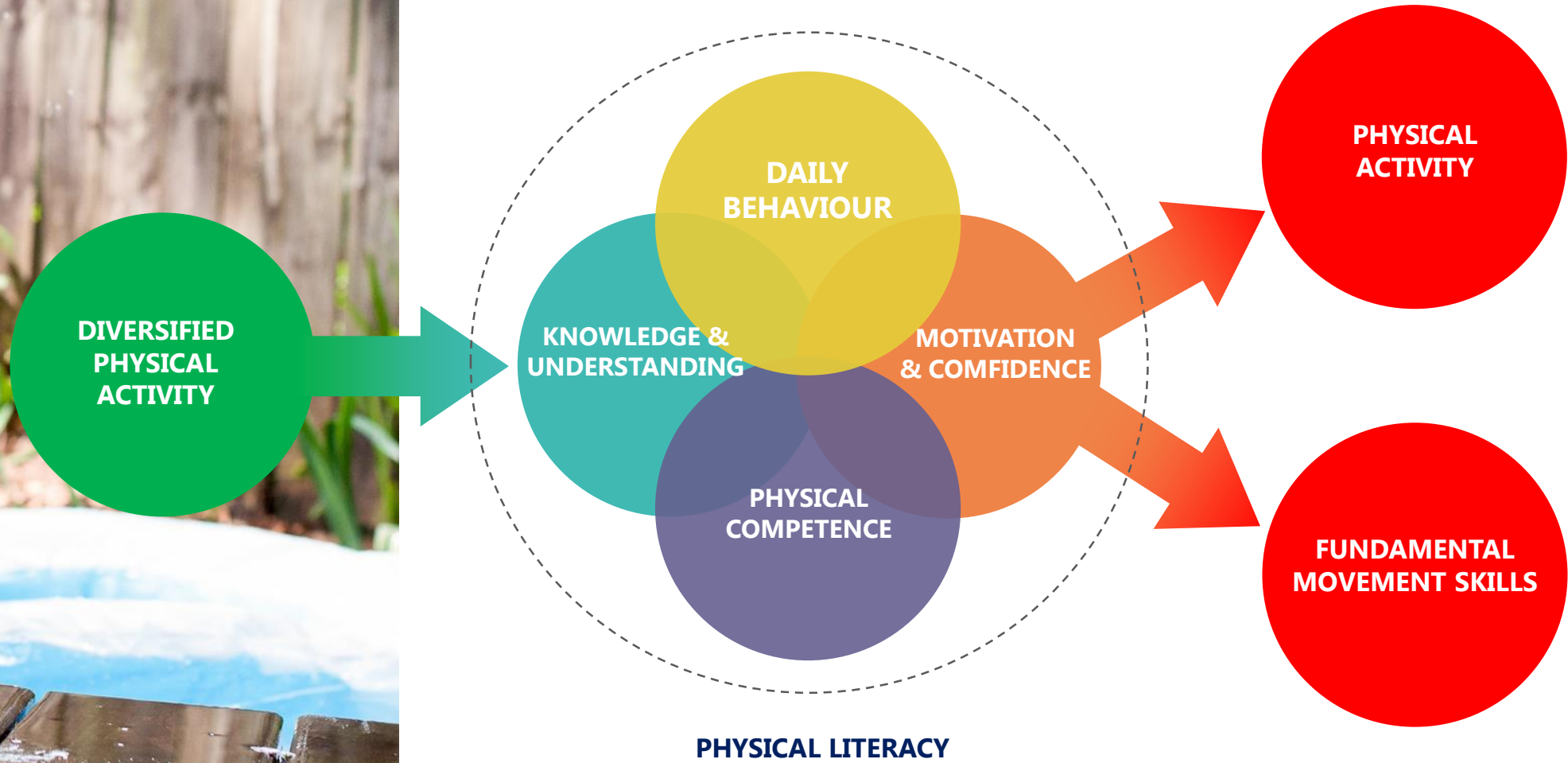


(n = 654)



PHYSICAL LITERACY

“ Physical literacy is the motivation, confidence, physical competence, knowledge and understanding to value and take responsibility for engagement in physical activities for life (International Physical Literacy Association, 2014).





IMPLICATIONS FOR PRACTICE

- Governing bodies should encourage children to engage in a diverse range of physical activities. Not just with high intensity.
- Sports clubs should support facilitating diversity of physical activity participation. Especially with young children.
- Physical literacy could be a guiding framework for future interventions.

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THANK YOU!



INVESTIGATING AND MEASURING **PHYSICAL LITERACY** AND ITS ASSOCIATION TO PHYSICAL, MENTAL AND SOCIAL HEALTH IN DANISH AND INTERNATIONAL CHILDREN

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BACKGROUND

Time spent outdoors before school, after school and during weekends, active/inactive school transportation, parental education, household annual income, and TV in the bedroom (Lizotte et al., 2016)

Cardiorespiratory fitness (Lang et al., 2018)

Adherence to canadian PA guidelines (Belanger et al., 2018)

Weight status (Nyeström et al., 2018)

A recent review assessed the Canadian CAPL-2 to be the most comprehensive tool to measure physical literacy (Edwards et al., 2017)



DAPL: TRANSLATION, ADAPTION AND VALIDATION OF A CANADIAN ASSESSMENT TOOL TO MEASURE PHYSICAL LITERACY IN 8-12 YEARS OLD CHILDREN

Med støtte fra
TrygFonden

REGION H Steno Diabetes Center
Copenhagen

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CFEO RESEARCH
INSTITUTE

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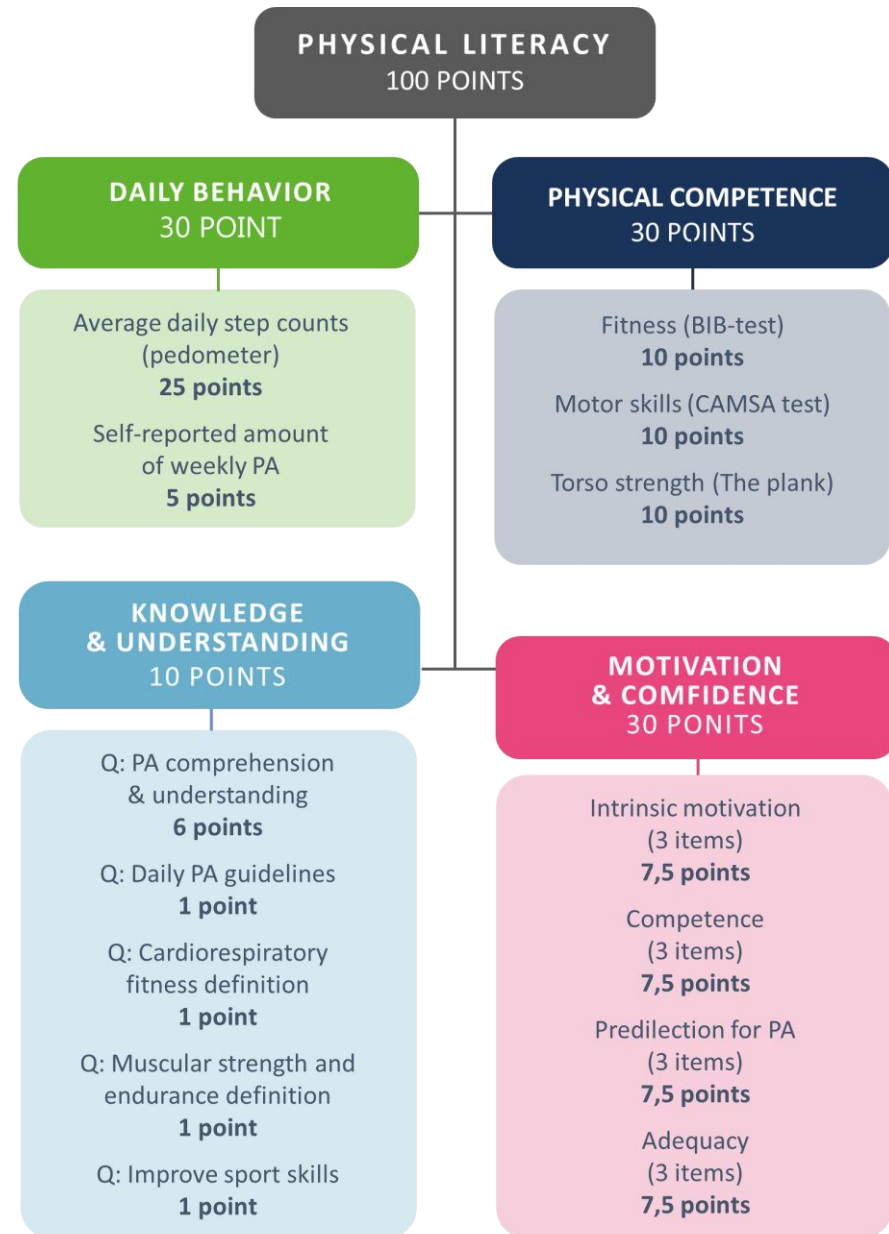
OBJECTIVES

What is the current status of PL in Danish children?

1. What are the psychometric properties of DAPL?
2. What are empirical correlates of PL in Danish children?
3. What are the cultural differences and similarities of PL and its correlates in Danish and Canadian children?



The Canadian assessment tool (Tremblay, 2018)





DATA COLLECTION

500 school children aged 8-12

CONSTRUCT	MEASURE
Physical literacy	DAPL
Physical activity level	Accelerometer
Diversified physical activity	Ecological Momentary Assessment (EMA)
Chilids' characteristics	Strength & Difficulties Questionnaire (SDQ) Parent survey
Parents' characteristics	Demographical and Family Health Questionnaire
Teachers rating and characteristics	Teachers questionnaire
School environment	Observations



CONTRIBUTIONS OF THE PROJECT

- Physical literacy on the agenda
- Promotion of physical literacy in Denmark
- National recommendations for children's PA
- Physical literacy in PE curriculums in schools and in kindergarten
- Easy to use DAPL-manual public available
- Video-guidance and database

THANK YOU!

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THE MOTIVATIONAL ASPECT OF PL

WHAT IS MOTIVATION?
WHY IS IT IMPORTANT?
HOW CAN IT BE PROMOTED?



SDT:

Several types of motivation

With different levels of autonomy

The more autonomous the stronger effect

Extrinsic Motivations:

For external reasons/gains

4 types

Intrinsic Motivation:

For the enjoyment of the activity - well-being

Created by feelings of Relatedness, Competence and Autonomy



The more self-determined motivations are the strongest predictors of engagement, effort, continuation and performance

Intrinsic motivation / wellbeing in the activity is a strong predictor of continuation

We need physical activities to produce feelings of relatedness, competence and autonomy

.....But how???



Social-psychological situational factors in sport have shown to be important to participants
BPNS, wellbeing, motivation and continuation

(Ommundsen et al. 2014, 2011, Duda 2013.....)

The motivational climate



ASPECTS OF THE MOTIVATIONAL CLIMATE

Empowering and disempowering motivational climate (J Duda, P Appleton et al.)

AGT:

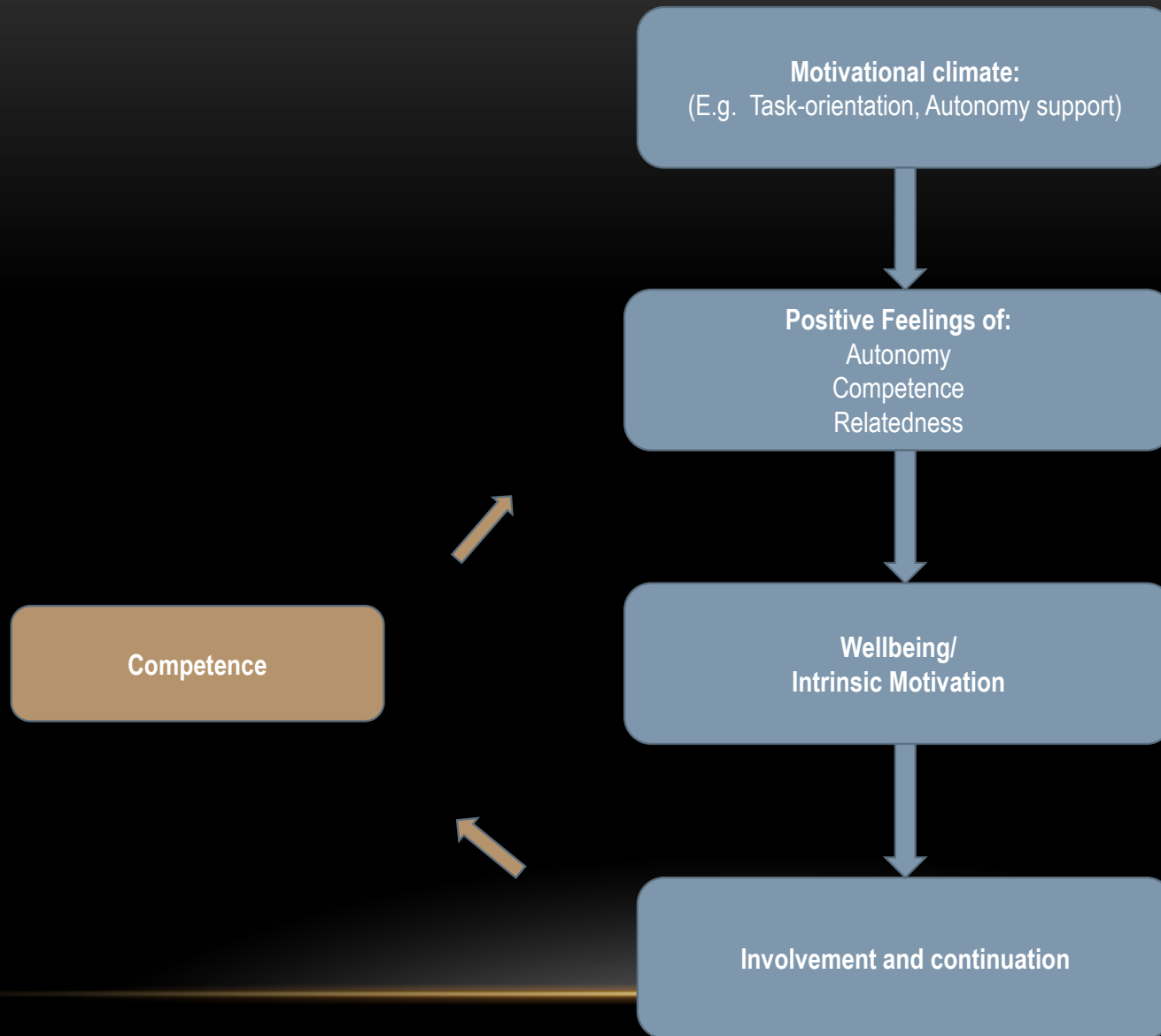
Task orientation/Mastery climate -> Feelings of competence, relatedness

Ego Orientation/Result focussed -> rivalry, low autonomy, low feelings of competence

SDT:

Autonomy support vs. Controlling environment

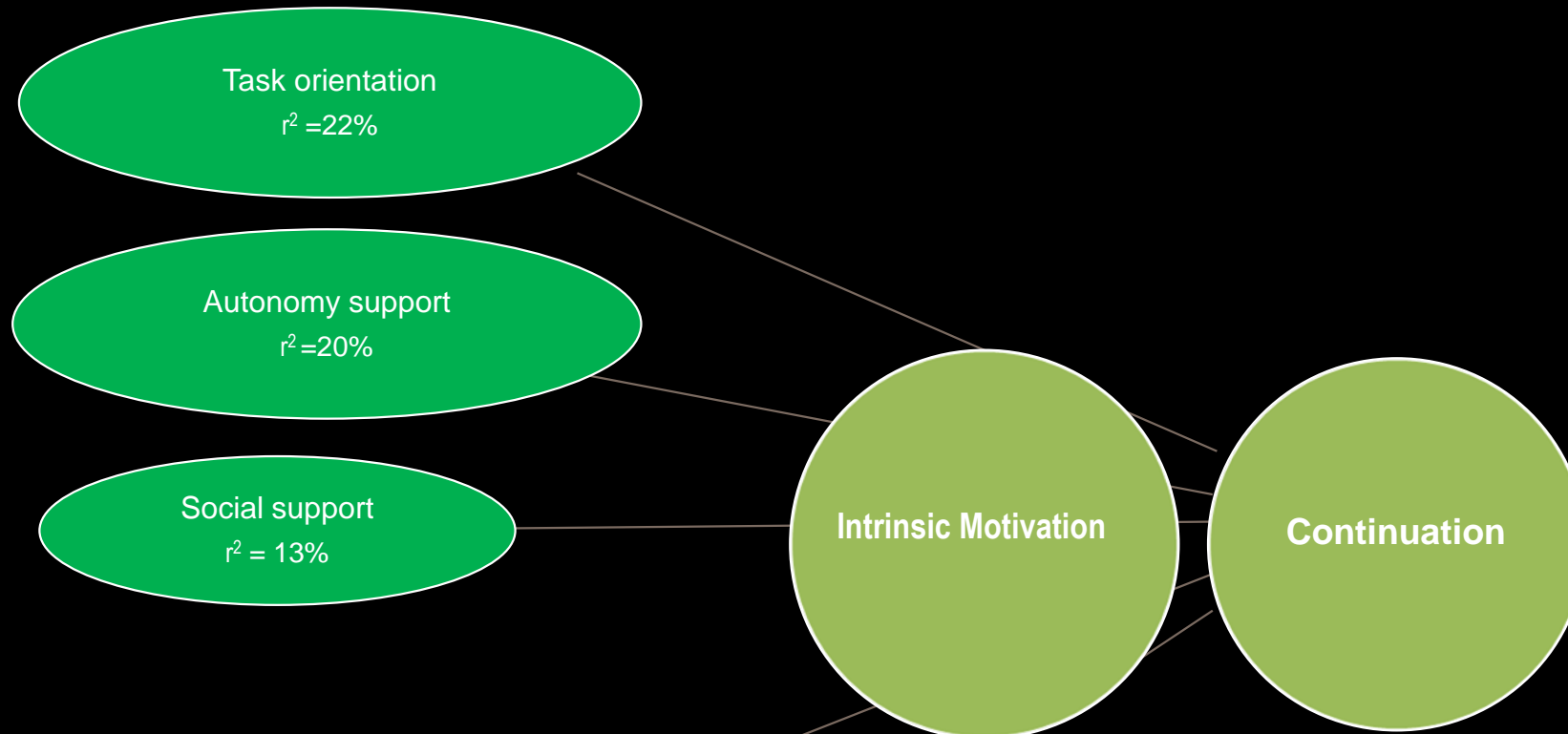
Social support



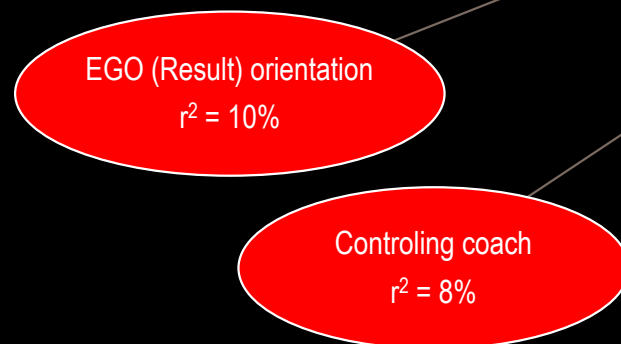
SOME OF OUR RESEARCH IN VOLLEY-BALL AND FOOTBALL



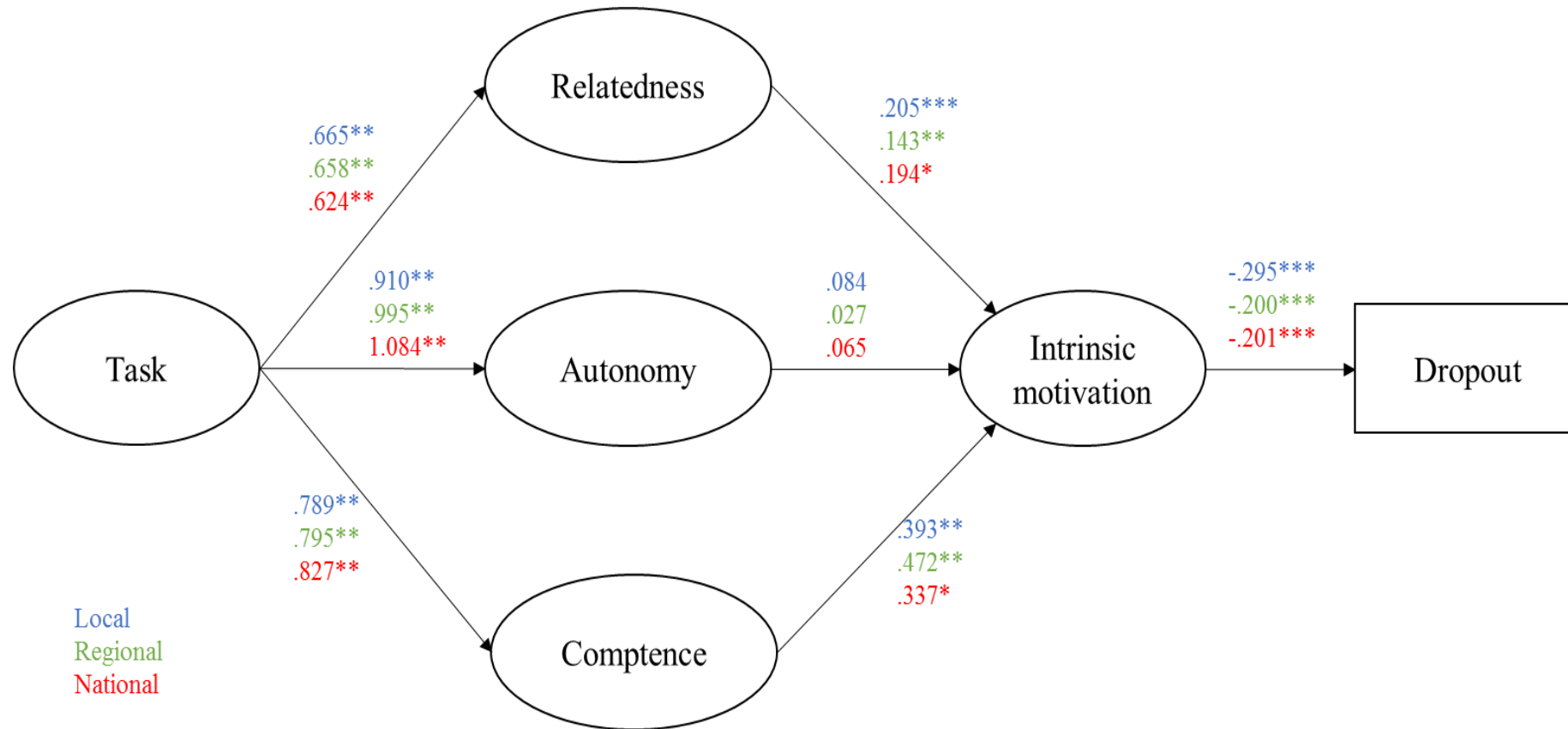
Promoters of Intrinsic mot and continuation:



Inhibitors of Intrinsic mot and continuation :



Impact of task orientation in volleyball environments on BPNS, IM and dropout



CURRENT PROJECTS

SATS

Large Cohort study (half year follow-up)

Associations between Motivational climate, Basic needs, Motivation and continuation among youth sports participants in Swimming, Tennis, Gymnastics, football, Handball Horse-riding, Badminton, Basketball and ice-skating

THANK YOU!



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Questions or comments?

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