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## **INTRODUCTION - WHAT IS ACTIVATE?**

Despite the well-recognized benefits of physical activity (Physical activity), 80% of European children do not meet recommended guidelines of at least 60 minutes of daily Physical activity (Tremblay et al, 2016). A recent report stated that Physical activity promotion among children in 49 countries was a 'serious worldwide and European concern' (Aubert et al., 2018). In response to this, International Society for Physical Activity and Health (ISPAH) highlighted school-based programs as a 'best investment' to promote Physical activity among children (International Society of Physical Activity and Health, 2020). The Physical activity strategy for the WHO European Region (2016-25) and the Global Action Plan on Physical activity (2018-30 World Health Organisation, 2016; World Health Organisation, 2018) highlight the need to strengthen the training of education professionals while creating school environments that encourage children to be physically active. Schools are the only setting where children of all social, cultural and economic backgrounds can be supported to engage in Physical activity for an extended period of time (Naylor & McKay, 2009). Unfortunately, children spend most of the school day being sedentary; classroom time consistently contributes to sedentary behaviours (Bailey, et al., 2012).

Schools are dynamic, complex systems where the core business is learning (McQueen et al, 2007). Therefore, it is exceedingly difficult to develop school-based physical activity programs that teachers support. Teachers must balance time for academic pursuits against time spent in Physical activity. Physically active learning (PAL) was designed to address this 'tug-of-war' between competing priorities. PAL is a pedagogical approach where pupils are physically active while learning academic content (Bartholomew & Jowers, 2011). The purpose of PAL is two-fold, to improve the physical activity levels of pupils while also providing a more engaging approach to learning. The delivery of PAL often encourages teachers to move beyond the classroom and use delivery environments that provide more engaging experiences (Daly-Smith, et al., 2020).

Although a young science, PAL has received widespread attention as it consistently increases physical activity levels while having a neutral or positive effect on academic performance (Daly-Smith et al., 2018; Martin & Murtagh, 2017; Norris et al., 2015; 2019; Singh et al., 2018; Watson et al., 2017). More specifically, in a recent meta-analysis that summarised the impact of all PAL programmes to date, there were large increases in lesson-time educational outcomes and small improvements in overall educational outcomes. These benefits were underpinned by a large improvement in lesson time moderate to vigorous

physical activity (MVPA) (Norris et al., 2019). A study focussed on children's experiences revealed that pupils perceived the lessons as enjoyable, more engaging and better for their academic development, while also improving their fitness (McMullen et al., 2018). Moreover, unlike other school-based PA interventions (e.g. recess), PAL benefits all demographic subgroups (Bartholomew et al., 2018).

The primary challenge for any school-based programme is how to achieve high levels of adherence and compliance from teachers and other school stakeholders. A reason for this could be that programmes are often developed and implemented using researcher-led push approaches that rarely involve teachers (Rütten et al., 2017). As a result, many teachers lack the capability, opportunity and motivation to embrace PAL (COM-B, (Michie et al., 2011; Quarmby et al., 2018). High-quality open access PAL teacher training programmes address this issue and ensure sustainable practice. As teachers are key partners, programmes should be created cooperatively (Daly-Smith, et al., 2020; Norris et al., 2019).

To recognize teachers as pivotal development and delivery partners, we established a six-nation partnership called ACTivate. ACTivate's main objective is to co-create, with teachers and other school stakeholders, an innovative European-wide open access PAL education programme, web portal and community of practice.



# WHAT WILL ACTIVATE DELIVER?

ACTivate is taking an evidence-based, collaborative approach to developing innovative learning assets and opportunities to enhance teachers' PAL competency. Specifically, ACTivate will;

- Work package one: establish recommendations for a PAL teacher training and implementation programme underpinned by behavioural science;
- Work package two: identify outcomes that hold relevance for school stakeholders (e.g. teachers, principals); this includes suitable and accessible measurement tools;
- Work package three (this report): develop a European curriculum for PAL teacher training and implementation that will guide organisations to develop teacher training and CPD programmes;
- Work package four: create an ACTivate online platform that will host e-learning. The platform will serve as a hub and information repository for the European community of PAL practitioners;
- Work package five: build two e-learning courses that can be used by trainee and practising teachers; stand-alone programmes or as a supplement for face-to-face delivery;
- · Work package six: pilot test the feasibility of the ACTivate online platform and e-learning courses.

ACTivate started in September 2019 and will conclude in December 2022

# THE **ACT**IVATE TEAM

ACTivate is led by The Western Norway University of Applied Sciences and brings together a consortium of six organisations. These include Leeds Beckett University (UK), LIKES Research Centre for Physical Activity and Health (Finland), Mulier Institute (Netherlands), University College South Denmark and the University of Porto (Portugal). Within each partner country, a national teacher council guides the work of the ACTivate project team. ACTivate is guided by an International Advisory Board that draws on expertise from Australia, Canada, Italy and the USA.

# **PURPOSE** AND RATIONALE PHYSICALLY **ACT**IVE LEARNING TEACHER TRAINING CURRICULUM

The ACTivate physically active learning teacher training curriculum (PAL-TTC) guides those who wish to develop training programmes specifically for (PAL). We will provide, for the first time, an evidence-based European PAL curriculum for (i) student teachers and (ii) qualified teachers. The curriculum is designed to inform and guide the development of high-quality PAL across Europe and facilitate transparency, mobility and adoption of PAL as a method of learning (a learning strategy) that teachers can use in all subjects (e.g. maths, language).

The curriculum uses a behaviour change approach to develop the capability of teachers, increase their motivation for PAL and capitalize on opportunities available for PAL delivery within an educational setting. The PALTTC adopts an output-based approach and is built around the notion of learning outcomes, units of learning and credits, that reflects a general education trend in Europe. Two separate curriculum templates are presented, one for initial teacher training (ITT) and the other for continuing professional development (CPD) for qualified



teachers. This facilitates education providers (e.g., Higher Education institutes or private providers) to adopt and embed the curriculum within their current course provision. The content may be delivered as a stand-alone PAL module or, embedded into a range of curriculum modules.

PAL-TTC presents contemporary evidence-based information about PAL skills, knowledge and experience that are required to promote PAL competency. However, some aspects of the PAL curriculum may vary across regions or countries. Therefore, it is essential that education providers conduct a local needs analysis to complement the PAL-TTC and to align learning outcomes with local education systems.

The PAL-TTC also serves to provide a curriculum for the European wide ACTivate PAL teacher training programme. The units of learning and underlying learning outcomes will be used to develop a web-based PAL teacher training programme. This will be freely accessible to all trainee teachers and qualified teachers within Europe via www.activateyourclass.eu

# ACTIVATE PAL CURRI-CULUM FOUNDATIONS AND DESIGN METHOD

The ACTivate PAL-TTC was developed through an extensive two-phase process. First, a meta-synthesis was used to systematically review the international peer reviewed literature on PAL implementation. The full report and publications (Daly-Smith et al., 2021) present the methods used to develop the ACTivate PAL curriculum and provide an in-depth analysis of the literature. Main themes that emerged from the analysis included; the benefits of PAL, teachers' beliefs about own capabilities, PAL teacher training, thole-school approach, resources, PAL delivery and external school factors. Second, to gain multi-stakeholder input into requirements of a PAL teacher training programme we interviewed eighteen international PAL pioneers - six teachers, six teacher trainers and six researchers. To ensure a broad international perspective, experts from Australia, Finland, Denmark, Ireland, Netherlands, Norway, USA and England were interviewed. Interview transcripts were thematically analysed to identify what should comprise the key

learning content for a PAL teacher training programme. Methods, results and a discussion are provided in the report and associated academic publication (Daly-Smith et al., under review).

Stage one (meta-synthesis) and stage two (interviews) results were then presented to the **ACT**ivate project team. Following this, the PAL-TTC curriculum was developed through a design-led two-day workshop using multiple phases of convergent and divergent thinking. Within the workshop, the units of learning and associated learning outcomes were identified. Next, a core working group developed work-related competencies. Upon completion the working group shared a draft report with **ACT**ivate partners for critical feedback:

- · National teacher councils in six European countries
- ACTivate International Advisory Board
- Eighteen PAL experts: teacher trainers, teachers and researchers

Following the incorporation of feedback, the curriculum was revised and finalised.

# WHAT MAKES THE **PAL-TTC** UNIQUE?

The PAL-TTC is the first teacher training curriculum for PAL developed by an international team of researchers, teachers and broader stakeholders who understand the educational system. We combed peer-reviewed evidence on the skills, knowledge and experience with international perspectives from teachers, teacher trainers and researchers to ensure that the curriculum reflected leading evidence. We incorporated a behavioural science approach within the design and delivery of the curriculum to also ensure that a teacher's motivation to engage in PAL was addressed. PAL-TTC was also designed to enhance teachers' capability and availability to capitalize on available opportunities. The PAL-TTC draws on the behavioural change wheel and, more specifically, the COM-B model. COM-B identifies that to change behaviour (B), that an individual's capability (C), opportunity (O) and Motivation (M) must be addressed (Michie et al., 2011, pg3-5).

- Capability an individual's psychological and physical capacity to engage in the activity concerned.
   It includes having the necessary knowledge and skills.
- Motivation is defined as all those brain processes that energize and direct behaviour, not just goals and conscious decision-making. It includes habitual processes, emotional responding, as well as analytical decision-making.
- Opportunity is defined as all the factors that lie outside the individual that make the behaviour possible or prompt it.

Traditionally, a learning curriculum will focus on the content required to develop the capability, otherwise known as skills and knowledge. The uniqueness of the PAL-TTC resides in the integration of the components required to change behaviour within the content, while also addressing how and when each element of the content should be delivered- the learning journey. The PAL learning journey The PAL learning journey (Daly-Smith et al., under review) was developed through PAL pioneer interviews. Experts' opinion reflects not only "what" needs to be learnt, but also "when" it should be learnt and "how" it should be

learnt. The learning journey begins with a two-phase onboarding process that includes making PAL meaningful followed by building initial capability.

Once the onboarding process is complete, the learning journey progresses into a process of gradual growth, where teachers are encouraged to start simple, build slowly - taking small steps - towards an advanced level of practice. To achieve this, it is essential that teachers learn how to manage pupil behaviour, embrace reflective practice and adopt a growth mindset. During the initial weeks of embedding PAL into practice, challenges are high and experiences are

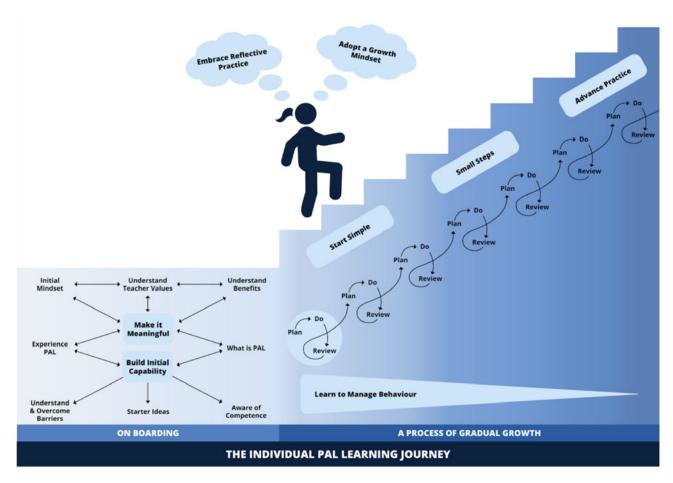


Figure 1 The individual PAL learning journey, reproduced with permission from Daly-Smith et al., under review.

not always positive (Quarmby et al., 2018; Routen et al., 2018). Behavioural science suggests that it is essential at this stage to promote success and reduce negative experiences, hence the need to start simple and build slowly.

To support training providers to introduce relevant content at the appropriate time within the learning journey, the timing of the specific learning outcomes is mapped into four phases; i) onboarding, ii) start simple, iii) small steps and iv) advanced practice. In addition to the four phases for individual development, learning outcomes that align with building whole-school PAL culture are reflected in a fifth phase. To successfully embed PAL within a school, strong evidence suggests the need for a whole-school approach. It is therefore essential that

teachers understand how to create change at a whole-school level. When to begin the journey of changing the school culture will depend on the individual teacher and school culture. For example, if a single teacher within a school wishes to embrace PAL, they may wish to focus on their own practice and progress towards becoming an advanced practitioner prior to attempting to influence the whole-school. However, if a number of teachers within a school or indeed the whole-school - wish to adopt PAL, then building a whole-school PAL culture may begin at the same time as onboarding individual teachers. Therefore, teacher training organisations should encourage a flexible delivery model that enables schools and teachers to introduce building a whole-school PAL culture when the time is right.

### INITIAL TEACHER TRAINING AND CPD

To reflect the needs of the teaching profession, we developed two versions of the curriculum. One is for initial teacher training for student teachers, and the other for continuing professional development for qualified teachers (CPD).

ITT curriculum: the learning units, learning outcomes and task-related competencies align to university-based teacher training provision. The main focus of learning and task-related outcomes are knowledge-based. Where a practical application is expected, this can take place with peers rather than within the school setting. Within postgraduate programmes, where there is a greater opportunity to apply within the school setting, this would be desirable. The learning outcomes were written for undergraduate curricula. To increase the levelness of the expectations for postgraduate provision, it is hoped that critical discussion and application would be introduced.

CPD curriculum: the learning units, learning outcomes and task-related competencies align to professional development activities within the school setting. It is expected that qualified teachers will apply their learning directly within the school setting.

### UNITS OF **LEARNING**

Each unit of learning includes:

- Title of the unit of learning
- Summary of the unit of learning
- Learning outcomes
- Task-related competencies/assessment criteria



## INITIAL TEACHER TRAINING LEARNING UNITS

The orange blocks represent the appearance of the learning outcome in the different stages of the PAL learning journey. The introduction to, and teaching of, the learning outcome begins in the first occurrence of the orange block. The light coloured blocks represent a light touch introduction to the learning outcome. The majority of the content should be covered within the darker coloured blocks.

#### **UNIT OF LEARNING 1: WHAT IS PAL?**

The following learning unit focuses on the foundational knowledge that is required by the learner to begin the journey of embedding PAL within their own teaching practice. The unit will further the learner's knowledge of the different forms of PAL and the range of environments in which PAL can be delivered. Learners will experience PAL through direct engagement or observing others in practice. Together, these early experiences will enable the learner to appreciate PAL as a pedagogical approach by positioning the use within the current literature. Finally, the unit of learning will introduce the learner to the relevant national and international policy that directs the use of PAL within the education system.

Learning outcome On completing this unit of learning, the learner will:	On- boarding	Start simple	Small steps	Advanced practice	Whole-school PAL culture	Task-related competencies After completing this unit of learning, the learner is able to:
1.1 Develop knowledge and awareness of a broad range of PAL activities.						1.1.1 Explain different forms of PAL using peer-reviewed national and international literature.
1.2 Develop knowledge and awareness of different PAL delivery environments.						1.2.1 Discuss the role that different environments can play in the delivery of PAL.
1.3 Experience PAL through direct or indirect engagement.						1.3.1 Engage in the delivery of a PAL activity either as a participant or an observer
1.4 Build awareness of own PAL competence within different subjects.			1.4.1	1.4.2		1.4.1 Discuss the use of PAL within different national curriculum subjects.  1.4.2 Reflect on teaching experience (own or observed) and the use of movement-based activities in national curriculum subjects.
1.5 Develop knowledge and awareness of PAL as a physically active pedagogical method or practice.			1.5.1	1.5.2		1.5.1 Discuss PAL in relation to pedagogical theory from peer-reviewed literature.  1.5.2 Observe and reflect on the application of pedagogical knowledge of PAL in practice (own or others)
1.6 Develop knowledge and understanding of the role of PAL within national and international policy.						1.6.1 Demonstrate knowledge of the role of PAL within national and international policy.

### **UNIT OF LEARNING 2: PAL BENEFITS**

The following learning unit will build a learner's knowledge of the holistic benefits of PAL for both pupils and teachers. Specifically, the learning content will cover the benefits of PAL on teachers' motivation, pupils' academic performance, health and wellbeing and the role PAL can play in creating a positive learning environment. To ensure a balanced understanding of PAL, the learner will form an understanding of the potential risks of using PAL. Finally, the learner will develop a knowledge of the role that different benefits may play in persuading different stakeholder groups to embrace PAL.

Learning outcome On completing this unit of learning, the learner will:	On- boarding	Start simple	Small steps	Advanced practice	Whole-school PAL culture	Task-related competencies After completing this unit of learning, the learner is able to:
2.1 Develop knowledge and awareness of the benefits of PAL for teachers' motivation.						2.1.1 Explain and discuss the benefits of PAL for teachers' motivation using peer-reviewed national and international literature.
2.2 Develop knowledge and awareness of the benefits of PAL on pupils' academic performance.						2.2.1 Explain and discuss the benefits of PAL for pupils' academic performance using peer-reviewed national and international literature.
2.3 Develop knowledge and awareness of the benefits of PAL on pupils' health and wellbeing.						2.3.1 Explain and discuss the benefits of PAL on pupils' health and wellbeing using peer-reviewed national and international literature.
2.4 Develop knowledge and awareness of the benefits of PAL in creating a positive learning environment.						2.4.1 Explain and discuss the benefits of PAL in creating a constructive learning environment using peer-reviewed national and international literature.
2.5 Develop knowledge and awareness of the risks of using PAL.						2.5.1 Explain and discuss the risks of using PAL using peer-reviewed national and international literature.
2.6 Develop knowledge and awareness of the relevance of PAL benefits for different school stakeholders.						2.6.1 Explain and discuss the relevance of PAL benefits for different school stakeholders using peer-reviewed national and international literature.

### **UNIT OF LEARNING 3: PAL DELIVERY CAPABILITY**

The following unit will improve the learners' PAL delivery capability. The unit covers core concepts which are essential that include selecting and/or designing PAL activities and resources. Learners will develop the ability to embed PAL into short, medium and long-term plans. In relation to PAL delivery, learners will develop effective group management skills and behaviour management approaches, while also developing the ability to deliver PAL across a range of different delivery environments. As learners increase their PAL delivery capability, they will progress from using simple PAL activities to seamlessly integrating PAL with academic content. Finally, learners will develop the knowledge to deliver PAL to meet the needs of all pupils, while also understanding the role that different stakeholders can play in the delivery of PAL.

Learning outcome On completing this unit of learning, the learner will:	On- boarding	Start simple	Small steps	Advanced practice	Whole-school PAL culture	Task-related competencies After completing this unit of learning, the learner is able to:
3.1 Demonstrate the ability to use a range of effective group management strategies to facilitate PAL delivery.						3.1.1 Explain the use of effective group management strategies to facilitate PAL delivery.  3.1.2 Demonstrate the ability to use a range of effective group management strategies to facilitate PAL delivery with pupils and/or peer learners
3.2 Demonstrate a range of effective strategies and techniques to manage pupil behaviour within PAL delivery.						3.2.1 Explain the use of a range of effective strategies and techniques to manage pupil behaviour within PAL delivery.  3.2.2 Demonstrate a range of effective strategies and techniques to manage pupil behaviour within PAL delivery with pupils and/or peer learners
3.3 Select and/or design and justify appropriate PAL activities based on curriculum needs, research evidence and pupils' needs.						3.3.1 Demonstrate the ability to select and/or design PAL activities based on curriculum needs, research evidence and pupils' needs.
3.4 Select and/or design appropriate PAL resources to support effective PAL delivery based on curriculum needs, research evidence and pupils' needs						3.4.1 Demonstrate the ability to select and/or design appropriate PAL resources to support effective PAL delivery based on curriculum needs, research evidence and pupils' needs.
3.5 Integrate PAL into short, medium and long-term educational planning based on curriculum needs, research evidence and pupils' needs.						3.5.1 Demonstrate an ability to integrate PAL into short, medium and long-term educational planning based on curriculum needs, research evidence and pupils' needs.

3.6 Demonstrate an ability to deliver a range of PAL activities across a variety of environments.			3.6.1 Demonstrate knowledge of a range of PAL activities across a variety of environments.  3.6.2 Deliver a range of PAL activities across a variety of environments with pupils and/ or peer learners
3.7 Demonstrate an ability to seamlessly integrate physical activity in the delivery of academic content to justify the appropriate pedagogical practice.			3.7.1 Explain and discuss different pedagogical theoretical models aligned with PAL delivery.
3.8 Demonstrate an ability to deliver PAL in an inclusive way that meets the physical, psychological and academic needs of all pupils.			3.8.1 Explain and discuss the considerations to ensure the inclusive delivery of PAL to meet the physical, psychological and academic needs of all pupils.
3.9 Demonstrate an awareness of, and the ability to, engage a range of stakeholders in PAL planning and delivery.			3.9.1 Explain and discuss the role of different stakeholders in PAL planning and delivery.



### **UNIT OF LEARNING 4: BEING A REFLECTIVE PAL PRACTITIONER**

#### Summary of learning unit:

The following unit will build the learner's reflective practice capability through developing the core concepts that are essential to developing the skills of a reflective practitioner. Learners will begin by learning how to reflect on personal beliefs, values and assumptions to understand how these influence personal assumptions and school culture. Building on this, the learner will understand how to articulate and evaluate how their role and the role of others impacts PAL delivery. Feeding from this, learners will understand how to adapt PAL delivery and wider initiatives based on the reflections. Learners will develop a knowledge of contemporary reflective practice processes using high-quality international literature. For those learners who wish to embed a whole-school PAL culture, they will develop the knowledge of the tools required to develop a peer learning community.

Learning outcome On completing this unit of learning, the learner will:	On- boarding	Start simple	Small steps	Advanced practice	Whole-school PAL culture	Task-related competencies After completing this unit of learning, the learner is able to:
4.1 Demonstrate an ability to reflect on the prevailing beliefs, values and assumptions within you and the school culture in relation to the pupils' learning environment.						4.1.1 Identify and discuss your beliefs, values and assumptions in relation to creating an effective pupil learning environment using peerreviewed literature and personal experience  4.1.2 Identify and discuss
						general schools beliefs, values and assumptions in relation to creating an effective pupil learning environment using peer-reviewed literature and personal experience
4.2 Demonstrate an ability to articulate and evaluate how your role affects your own practice and the practice of other stakeholders within the delivery of PAL initiatives.						4.2.1 Identify and discuss how your role as a teacher affects your own practice and the practice of other stakeholders within a school setting
4.3 Demonstrate an ability to adjust PAL initiatives using reflective practice and external feedback.						4.3.1 Demonstrate an ability to use reflective practice and external feedback to improve future PAL delivery.
4.4 Demonstrate knowledge of reflective practice models from peer-reviewed national and international literature.						4.4.1 Use national and international peer-reviewed literature to identify and discuss models of reflective practice
4.5 Demonstrate and ability to use reflective practice models from peer-reviewed national and international literature to guide improvement in practice						4.5.1 Demonstrate and ability to use reflective practice models from peer-reviewed national and international literature to guide improvement in practice

4.6 Demonstrate a			Not relevant
knowledge of how to			
build and facilitate			
effective peer learning			
communities through			
using national and			
international peer			
reviewed publications.			

# UNIT OF LEARNING 5: EMBEDDING PAL CULTURE AS PART OF A WHOLE-SCHOOL PHYSICAL ACTIVITY APPROACH

Summary of learning unit:

The following unit will strengthen the learner's ability to build a whole-school PAL culture. Learners will begin by developing their knowledge of impact of national and international policy on a whole-school approach to PAL. Building on this, learners will use high-quality international literature to inform the development of a whole-school PAL culture. This will facilitate a learner's ability to review internal school policy and improvement plans to inform the strategic embedding of PAL within short, medium and long-term goals. Following this, learners will develop an awareness of strategies and ability to integrate PAL as part of a sustainable whole-school culture. Central to this will be the developing the learner's understanding of the role of different stakeholders in the process and creating a peer support network.

Learning outcome On completing this unit of learning, the learner will:	On- boarding	Start simple	Small steps	Advanced practice	Whole-school PAL culture	Task-related competencies After completing this unit of learning, the learner is able to:
5.1 Demonstrate knowledge of the impact of relevant local, national and international policy on a whole-school approach to PAL.						5.1.1 Identify local, regional, national and international policies that impact wholeschool approaches to PAL.  5.1.2 Explain the impact of local regional, national and internal policies on whole-school approaches to PAL
5.2 Demonstrate knowledge of how to create a whole- school approach to PAL using national and international peer- reviewed literature						5.2.1 Explain and discuss strategies to developing a whole-school approach to PAL informed by national and international peer-reviewed literature
5.3 Understand the role of different school stakeholders in creating a sustainable integration of PAL with a sustainable physically active whole-school culture						5.3.1 Demonstrate a knowledge of the role that different stakeholders can play in the sustainable integration of a whole-school approach to PAL.
5.4 Review internal school policy and improvement plans to inform the strategic embedding of PAL within short, medium and long-term goals.						Not relevant

5.5 Apply relevant strategies to integrate PAL as a part of a sustainable physically active whole-school culture.			Not relevant
5.6 Develop and action a peer support network with relevant school stakeholders to integrate PAL as a part of a sustainable physically active wholeschool culture.			Not relevant



# CONTINUAL PROFESSIONAL DEVELOPMENT **LEARNING UNITS**

The green blocks represent the appearance of the learning outcome in the different stages of the PAL learning journey. The introduction to, and teaching of, the learning outcome begins in the first occurrence of the green blocks. The light coloured blocks represent a light touch introduction to the learning outcome. The majority of the content should be covered within the darker coloured blocks.

#### **UNIT OF LEARNING 1: WHAT IS PAL?**

The following learning unit focuses on the foundational knowledge that is required by the learner to begin the journey of embedding PAL within their own teaching practice. The unit will further the learner's knowledge of the different forms of PAL and the range of environments in which PAL can be delivered. Learners will experience PAL through direct engagement or observing others in practice. Together, these early experiences will enable the learner to appreciate PAL as a pedagogical approach by positioning the use within the current literature. Finally, the unit of learning will introduce the learner to the relevant national and international policy that directs the use of PAL within the education system.

Learning outcome On completing this unit of learning, the learner will:	On- boarding	Start simple	Small steps	Advanced practice	Whole-school PAL culture	Task-related competencies After completing this unit of learning, the learner is able to:
1.1 Develop knowledge and awareness of a broad range of PAL activities.						1.1.1 Explain different forms of PAL using peer-reviewed national and international literature.
1.2 Develop knowledge and awareness of different PAL delivery environments.						1.2.1 Discuss the role that different environments can play in the delivery of PAL.
1.3 Experience PAL through direct or indirect engagement.						1.3.1 Engage in the delivery of a PAL activity either as a participant or an observer.
1.4 Build awareness of own PAL competence within different subjects.						1.4.1 Discuss the use of PAL within different national curriculum subjects.
						1.4.2 Reflect on your own teaching experience and the use of movement-based activities in national curriculum subjects.
1.5 Develop knowledge and awareness of PAL as a physically active pedagogical method or						1.5.1 Critically discuss PAL in relation to pedagogical theory using peer-review national and international literature.
practice.						1.5.2 Apply pedagogical knowledge of PAL into own teaching practice.
1.6 Develop knowledge and understanding of the role of PAL within national and international policy.						1.6.1 Demonstrate knowledge of the role of PAL within national and international policy.

### **UNIT OF LEARNING 2: PAL BENEFITS**

The following learning unit will build a learner's knowledge of the holistic benefits of PAL for both pupils and teachers. Specifically the learning content will cover the benefits of PAL on teachers' motivation, pupils' academic performance, health and wellbeing and the role PAL can play in creating a positive learning environment. To ensure a balanced understanding of PAL, the learner will form an understanding of the potential risks of using PAL. Finally, the learner will develop a knowledge of the role that different benefits may play in persuading different stakeholder groups to embrace PAL.

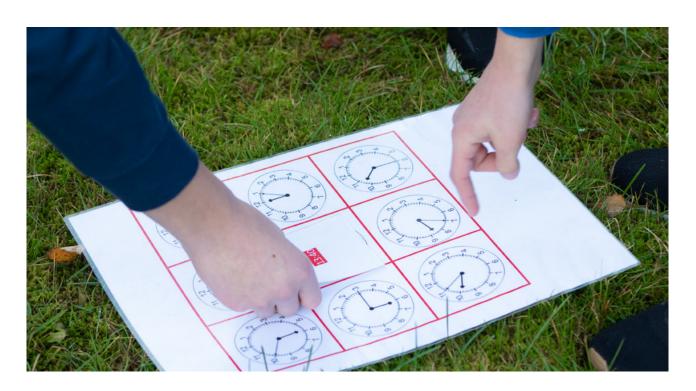
Learning outcome On completing this unit of learning, the learner will:	On- boarding	Start simple	Small steps	Advanced practice	Whole-school PAL culture	Task-related competencies After completing this unit of learning, the learner is able to:
2.1 Develop knowledge and awareness of the benefits of PAL for teachers' motivation.						2.1.1 Identify and explain the benefits of PAL for teachers' motivation using peer reviewed national and international literature.
2.2 Develop knowledge and awareness of the benefits of PAL on pupils' academic performance.						2.2.1 Identify and explain the benefits of PAL on pupils' academic performance using peer reviewed national and international literature and personal experiences.
2.3 Develop knowledge and awareness of the benefits of PAL on pupils' health and wellbeing.						2.3.1 Identify and explain the benefits of PAL on pupils' health and wellbeing based on peer reviewed national and international literature and personal experiences.
2.4 Develop knowledge and awareness of the benefits of PAL in creating a positive learning environment.						2.4.1 Identify and explain the benefits of PAL in creating a positive learning environment based on peer reviewed national and international literature and personal experiences.
2.5 Develop knowledge and awareness of the risks of using PAL.						2.5.1 Identify and explain the risks of PAL based on peer reviewed national and international literature and personal experiences.
						2.5.2 Identify and critically reflect upon existing examples of risks of using PAL
2.6 Develop knowledge and awareness of the relevance of PAL benefits for different school stakeholders.						2.6.1 Identify and explain the relevance of PAL benefits for different school stakeholders based on peer reviewed national and international literature and personal experiences.

### **UNIT OF LEARNING 3: PAL DELIVERY CAPABILITY**

The following unit will improve the learners PAL delivery capability. The unit covers core concepts that are essential that include selecting and/ or designing PAL activities and resources. Learners will also develop the ability to embed PAL into short, medium and long-term plans. In relation to PAL delivery, learners will develop effective group management skills and behaviour management approaches, while also developing the ability to deliver PAL across a range of different delivery environments. As learners increase their PAL delivery capability, they will progress from using simple PAL activities to seamlessly integrating PAL with academic content. Finally, learners will develop the knowledge to deliver PAL to meet the needs of all learners, while also understanding the role that different stakeholders can play in the delivery of PAL.

Learning outcome On completing this unit of learning, the learner will:	On- boarding	Start simple	Small steps	Advanced practice	Whole-school PAL culture	Task-related competencies After completing this unit of learning, the learner is able to:
3.1 Demonstrate the ability to use a range of effective group management strategies						3.1.1 Explain the use of effective group management strategies to facilitate PAL delivery.
to facilitate PAL delivery.						3.1.2 Demonstrate the ability to use a range of effective group management strategies to facilitate PAL delivery with pupils.
3.2 Demonstrate a range of effective strategies and techniques to manage pupil behaviour						3.2.1 Explain the use of a range of effective strategies and techniques to manage pupil behaviour within PAL delivery.
within PAL delivery.						3.2.2 Demonstrate a range of effective strategies and techniques to manage pupil behaviour within PAL delivery with pupils.
3.3 Select and/or design and justify appropriate PAL activities based on curriculum needs, research evidence and pupils' needs.						3.3.1 Demonstrate the ability to select and/or design PAL activities based on curriculum needs, research evidence and pupils' needs.
3.4 Select and/or design appropriate PAL resources to support effective PAL delivery based on curriculum needs, research evidence and pupils' needs.						3.4.1 Demonstrate the ability to select and/or design appropriate PAL resources to support effective PAL delivery based on curriculum needs, research evidence and pupils' needs.
3.5 Integrate PAL into short, medium and long-term educational planning based on curriculum needs, research evidence and pupils' needs.						3.5.1 Demonstrate the ability to integrate PAL into short, medium and long-term educational planning based on curriculum needs, research evidence and pupils' needs.

3.6 Demonstrate an ability to deliver a range of PAL activities across a variety of environments.			3.6.1 Demonstrate a knowledge of a range of PAL activities across a variety of environments.  3.6.2 Deliver a range of PAL activities across a variety of environments with pupils.
3.7 Demonstrate an ability to seamlessly integrate physical activity in the delivery			3.7.1 Explain and discuss different pedagogical theoretical models aligned with PAL delivery.
of academic content to justify appropriate pedagogical practice.			3.7.2 Deliver PAL that seamlessly integrates physical activity and academic content using an appropriate pedagogical approach.
3.8 Demonstrate an ability to deliver PAL in an inclusive way that meets the physical, psychological and academic needs of all			3.8.1 Explain and discuss the considerations to ensure the inclusive delivery of PAL to meet the physical, psychological and academic needs of all pupils.
pupils'.			3.8.2 Demonstrate an ability to deliver PAL in an inclusive way that meets the physical, psychological and academic needs of all pupils.
3.9 Demonstrate an awareness of, and the ability to, engage a			3.9.1 Explain and discuss the role of different stakeholders in PAL planning and delivery.
range of stakeholders in PAL planning and delivery.			3.9.2 Demonstrate the ability to engage a range of stakeholders in PAL planning and delivery.



### **UNIT OF LEARNING 4: BEING A REFLECTIVE PAL PRACTITIONER**

The following unit will build the learner's reflective practice capability through developing the core concepts that are essential to developing the skills of a reflective practitioner. Learners will begin by learning how to reflect on personal belivefs, values and assumptions to understand how these influence personal assumptions and school culture. Building on this, the learner will learn how to articulate and evaluate how their role and the role of others impacts PAL delivery. Feeding from this, learners will understand how to adapt PAL delivery and wider initiative based on the reflections. Learners will develop a knowledge of contemporary reflective practice processes using high-quality international literature. For those learners who wish to embed a whole-school PAL culture, they will develop the knowledge of the tools required to develop a peer learning community.

Learning outcome On completing this unit of learning, the learner will:	On- boarding	Start simple	Small steps	Advanced practice	Whole-school PAL culture	Task-related competencies After completing this unit of learning, the learner is able to:
4.1 Demonstrate an ability to reflect on the prevailing beliefs, values and assumptions within yourself and the school culture in relation to pupils' learning environment.						4.1.1 Identify, discuss and reflect on your beliefs, values and assumptions in relation to creating an effective pupil learning environment. using peer reviewed literature and personal experience.  4.1.2 Identify and discuss your school's beliefs, values and assumptions in relation to creating an effective pupil learning environment using
						peer reviewed literature and personal experience. 4.1.3 Critically reflect on your personal values and the school values to identify areas for improvement in behaviour and practice.
4.2 Demonstrate an ability to articulate and evaluate how your role affects yourself and others within the delivery of PAL initiatives.						4.2.1 Identify and discuss how your role as a teacher affects your own practice and the practice of other stakeholders within a school setting.  4.2.2 Critically reflect on your role and the impact it has on other stakeholders to identify areas for improvement in behaviour and practice.
4.3 Demonstrate an ability to adjust PAL initiatives based on evaluation and reflection.						4.3.1 Demonstrate an ability to use reflective practice and external feedback to improve future PAL delivery.
4.4 Demonstrate knowledge of high-quality national and international peer reviewed publications that inform the reflective process.						4.4.1 Use national and international peer-reviewed literature to identify and discuss models of reflective practice.

4.5 Demonstrate and ability to use reflective practice models from peer reviewed national and international literature to guide improvement in practice			4.5.1 Demonstrate an ability to use reflective practice models from peer reviewed national and international literature to guide improvement in practice.
4.6 Demonstrate knowledge and the ability to facilitate reflection within a peer learning community using tools identified within high-quality national and international peer reviewed publications.			4.6.1 Demonstrate a knowledge of and ability to build and facilitate an effective peer learning community through using national and international peer reviewed publications.

### UNIT OF LEARNING 5: EMBEDDING A WHOLE-SCHOOL PAL APPROACH

The following unit will build the learner's ability to build a whole-school PAL culture. Learners will begin by developing their knowledge of impact of national and international policy on a whole-school approach to PAL. Building on this, learner's will use high-quality international literature to inform the development of a whole-school PAL culture. This will facilitate a learners ability to review internal school policy and improvement plans to inform the strategic embedding of PAL within short, medium and long-term goals. Following this, learners will develop an awareness of strategies and ability to integrate PAL as part of a sustainable whole-school culture. Central to this will be the developing the learner's understanding of the role of different stakeholders in the process and creating a peer support network.

Learning outcome On completing this unit of learning, the learner will:	On- boarding	Start simple	Small steps	Advanced practice	Whole-school PAL culture	Task-related competencies After completing this unit of learning, the learner is able to:
5.1 Demonstrate know- ledge of the impact of relevant local, national and international policy						5.1.1 Identify local, regional, national and international policies that impact whole- school approaches to PAL.
on a whole-school approach to PAL.						5.1.2 Explain the impact of local regional, national and internal policies on whole-school approaches to PAL.
5.2 Demonstrate know- ledge of how to create a whole-school approach to PAL using national and international peer reviewed literature.						5.2.1 Explain and discuss strategies to developing a whole-school approach to PAL informed by national and international peer reviewed literature.
5.3 Understand the role of different school stakeholders and promote their engagement in su- stainable integration of PAL with a sustainable physically active whole- school culture.						5.3.1 Demonstrate a knowledge of the role that different stakeholders can play in the sustainable integration of a whole-school approach to PAL.

5.4 Review internal school policy and improvement plans to inform the strategic embedding of PAL within short, medium and long-term goals.			5.4.1 Critically appraise internal school policy and improvement plans for strengths and weaknesses in current provision for a whole-school approach to PAL.  5.4.2 Develop short, medium and long-term objectives with school improvement plans to embed.
5.5 Apply relevant strategies to integrate PAL as a part of a sustainable physically active whole-school culture.			5.5.1 Demonstrate an ability to apply whole-school strategies for sustainable whole-school PAL implementation.  5.5.2 Successfully engage different stakeholders within the school-setting to initiative a sustainable whole-school approach to PAL.
5.6 Develop and action a peer support network with relevant school stakeholders to integrate PAL as a part of a sustainable physically active wholeschool culture.			6.1 Explain how to develop a peer support network with relevant stakeholders within the school setting. 5.6.2 Set up an effective peer support network to facilitate a whole-school approach to PAL.



### **CLOSING REMARKS**

The PAL-TTC was designed to facilitate integration of PAL into teacher education programmes, while also increasing the quality of all PAL related teacher training. The PAL curriculum is flexible to enable teacher educators to implement learning units and learning outcomes in different ways. Differences in local, regional and national education contexts necessitate this flexibility so that providers apply the curriculum in ways that align with the local context. The curriculum embraces learning principles outlined in peer reviewed published literature, and meshes it with practice-based knowledge from those who operate on the front lines within the local education system.

We wish you well as you embark upon embedding the PAL-TTC into your classroom or school. Please acknowledge the PAL-TTC curriculum in any published materials. We provide the reference below.

If you have any questions about the PAL-TTC, please do not hesitate to contact us.

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<sup>1</sup> https://www.icoachkids.org, accessed 13th March 2021

### References

Aubert, S., Barnes, J. D., Abdeta, C., Abi Nader, P., Adeniyi, A. F., Aguilar-Farias, N., Andrade Tenesaca, D. S., Bhawra, J., Brazo-Sayavera, J., Cardon, G., Chang, C.-K., Delisle Nyström, C., Demetriou, Y., Draper, C. E., Edwards, L., Emeljanovas, A., Gába, A., Galaviz, K. I., González, S. A., Herrera-Cuenca, M., Huang, W. Y., Ibrahim, I. A. E., Jürimäe, J., Kämppi, K., Katapally, T. R., Katewongsa, P., Katzmarzyk, P. T., Khan, A., Korcz, A., Kim, Y. S., Lambert, E., Lee, E.-Y., Löf, M., Loney, T., López-Taylor, J., Liu, Y., Makaza, D., Manyanga, T., Mileva, B., Morrison, S. A., Mota, J., Nyawornota, V. K., Ocansey, R., Reilly, J. J., Roman-Viñas, B., Silva, D. A. S., Saonuam, P., Scriven, J., Seghers, J., Schranz, N., Skovgaard, T., Smith, M., Standage, M., Starc, G., Stratton, G., Subedi, N., Takken, T., Tammelin, T., Tanaka, C., Thivel, D., Tladi, D., Tyler, R., Uddin, R., Williams, A., Wong, S. H. S., Wu, C.-L., Zembura, P. & Tremblay, M. S. (2018) Global Matrix 3.0 Physical Activity Report Card Grades for Children and Youth: Results and Analysis From 49 Countries. Journal of physical activity & health, 15 (S2) November, pp. S251–S273.

Bailey, D., Fairclough, S., Savory, L., Denton, S., Pang, D., Deane, C. & Kerr, C. (2012) Accelerometry-Assessed Sedentary Behaviour and Physical Activity Levels during the Segmented School Day in 10–14-Year-Old Children: The HAPPY Study. European journal of pediatrics, 171 (12) September, pp. 1805–1813.

Bartholomew, J. B. & Jowers, E. M. (2011) Physically Active Academic Lessons in Elementary Children. Preventive medicine, 52 Suppl 1 June, pp. S51–S54.

Bartholomew, J. B., Jowers, E. M., Roberts, G., Fall, A.-M., Errisuriz, V. L. & Vaughn, S. (2018) Active Learning Increases Children's Physical Activity across Demographic Subgroups. Translational Journal of the American College of Sports Medicine, 3 (1) January, p. 1.

Daly-Smith, A. J., Zwolinsky, S., McKenna, J., Tomporowski, P. D., Defeyter, M. A. & Manley, A. (2018) Systematic Review of Acute Physically Active Learning and Classroom Movement Breaks on Children's Physical Activity, Cognition, Academic Performance and Classroom Behaviour: Understanding Critical Design Features. BMJ open sport & exercise medicine, 4 (1) March, p. e000341.

Daly-Smith, A., Quarmby, T., Archbold, V. S. J., Routen, A. C., Morris, J. L., Gammon, C., Bartholomew, J. B., Resaland, G. K., Llewellyn, B., Allman, R. & Dorling, H. (2020) Implementing Physically Active Learning: Future Directions for Research, Policy, and Practice. Journal of Sport and Health Science, 9 (1) January, pp. 41–49.

Daly-Smith, A., Morris, J., Norris, E., Williams, T.L, Archbold, V.L., Kallio, J., Tammelin, T.H., Singh, A., Mota, J., von Seelen, J., Pesce, C., Salmon, J., McKay, H., Bartholomew, J. & Resealand, G.K. (2021) Behaviours that prompt primary school teachers to adopt and implement physically active learning. A meta synthesis. International Journal of Behavioural Nutrition and Physical Activity.

Daly-Smith, A., Morris, J., Norris, E., Tjomsland, H.E., Archbold, V.L., Kallio, J., Tammelin, T.H., Singh, A., Mota, J., von Seelen, J., Pesce, C., Salmon, J., McKay, H., Bartholomew, J. & Resealand, G.K. (under review) Developing teacher behaviours to adopt and implement physically active learning: an international multi-stakeholder perspective. Journal TBC

International Society of Physical Activity and Health (2020) ISPAH's Eight Investments That Work for Physical Activity [Online]. International Society for Physical Activity and Health. Available from: <a href="https://www.ispah.org/wp-content/uploads/2020/11/English-Eight-Investments-That-Work-FINAL.pdf">https://www.ispah.org/wp-content/uploads/2020/11/English-Eight-Investments-That-Work-FINAL.pdf</a>.

Martin, R. & Murtagh, E. (2017) Effect of Active Lessons on Physical Activity, Academic, and Health Outcomes: A Systematic Review. Research quarterly for exercise and sport, 88 (22) March, pp. 149–168.

McMullen, J. M., MacPhail, A. & Dillon, M. (2018) 'I Want to Do It All day!'—Students' Experiences of Class-room Movement Integration. International journal of educational research [Online], December. Available from: <a href="http://www.sciencedirect.com/science/article/pii/S0883035518314988">http://www.sciencedirect.com/science/article/pii/S0883035518314988</a>.

Michie, S., Stralen, M. M. van & West, R. (2011) The Behaviour Change Wheel: A New Method for Characterising and Designing Behaviour Change Interventions. Implementation science: IS, 6 April, p. 42.

Naylor, P.-J. & McKay, H. A. (2009) Prevention in the First Place: Schools a Setting for Action on Physical Inactivity. British journal of sports medicine, 43 (1) January, pp. 10–13.

Norris, E., Shelton, N., Dunsmuir, S., Duke-Williams, O. & Stamatakis, E. (2015) Physically Active Lessons as Physical Activity and Educational Interventions: A Systematic Review of Methods and Results. Preventive medicine, 72 March, pp. 116–125.

Norris, E., Steen, T. van, Direito, A. & Stamatakis, E. (2019) Physically Active Lessons in Schools and Their Impact on Physical Activity, Educational, Health and Cognition Outcomes: A Systematic Review and Meta-Analysis. British journal of sports medicine, October, p. bjsports – 2018–100502.

Quarmby, T., Daly-Smith, A. & Kime, N. (2018) 'You Get Some Very Archaic Ideas of What Teaching Is ... ': Primary School Teachers' Perceptions of the Barriers to Physically Active Lessons. Education 3-13, February, pp. 1–14.

Routen, A. C., Johnston, J. P., Glazebrook, C. & Sherar, L. B. (2018) Teacher Perceptions on the Delivery and Implementation of Movement Integration Strategies: The CLASS PAL (Physically Active Learning) Programme. International journal of educational research, 88, pp. 48–59.

Rütten, A., Frahsa, A., Abel, T., Bergmann, M., Leeuw, E. de, Hunter, D., Jansen, M., King, A. & Potvin, L. (2017) Co-Producing Active Lifestyles as Whole-System-Approach: Theory, Intervention and Knowledge-to-Action Implications. Health promotion international [Online], September. Available from: <a href="http://dx.doi.org/10.1093/heapro/dax053">http://dx.doi.org/10.1093/heapro/dax053</a>>.

Singh, A. S., Saliasi, E., Berg, V. van den, Uijtdewilligen, L., Groot, R. H. M. de, Jolles, J., Andersen, L. B., Bailey, R., Chang, Y.-K., Diamond, A., Ericsson, I., Etnier, J. L., Fedewa, A. L., Hillman, C. H., McMorris, T., Pesce, C., Pühse, U., Tomporowski, P. D. & Chinapaw, M. J. M. (2018) Effects of Physical Activity Interventions on Cognitive and Academic Performance in Children and Adolescents: A Novel Combination of a Systematic Review and Recommendations from an Expert Panel. British journal of sports medicine [Online], July. Available from: <a href="http://dx.doi.org/10.1136/bjsports-2017-098136">http://dx.doi.org/10.1136/bjsports-2017-098136</a>.

Watson, A., Timperio, A., Brown, H., Best, K. & Hesketh, K. D. (2017) Effect of Classroom-Based Physical Activity Interventions on Academic and Physical Activity Outcomes: A Systematic Review and Meta-Analysis. The international journal of behavioral nutrition and physical activity, 14 (1) August, p. 114.

World Health Organization (2016) Physical Activity Strategy for the WHO European Region 2016–2025 [Online]. World Health Organisation. Available from: <a href="https://apps.who.int/iris/bitstream/handle/10665/329407/9789289051477-eng.pdf">https://apps.who.int/iris/bitstream/handle/10665/329407/9789289051477-eng.pdf</a> [Accessed 9 November 2019].

World Health Organisation (2018) Global Action Plan on Physical Activity 2018-2030: More Active People for a Healthier World [Online]. World Health Organisation. Available from: <a href="https://apps.who.int/iris/bitstream/handle/10665/272722/9789">https://apps.who.int/iris/bitstream/handle/10665/272722/9789</a> 241514187-eng.pdf?ua=1> [Accessed 9 November 2019].











