




Healthy and Physically Active Schools in Europe: Framework and Guidelines for Implementation

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1. The Healthy and Physically Active School Model

In one of the most important project outcomes in HEPAS (*An International Review of the Contributions of School-based Physical Activity, Physical Education, and School Sport to the Promotion of Health-enhancing Physical Activity*; Bailey et al., 2022) a quite complex model was built up. The *Healthy and Physically Active School Model* includes the dimensions and layers that represent the functions and environment of a school from physical activity (PA) promotion point of view (Figure 1). These dimensions are the following ones:

1-3. General categories from regulation level, indirect effects, school values and policies (school values, aims & policies, external information, international, national & local expectations);

4-8. The groups the activities target or can be delivered by (leaders, teachers/staff, students, parents, community);

9-12. The dimensions of the interventions (PA, PE, School Sport, Healthy Lifestyles);

13-17. The transversal dimensions of interventions (Inclusion & Diversity, Professional Development, Facilities, Equipment & Resources, Community Partnerships, Events, Project Weeks, Camps).

The dimensions are both surrounded and influenced by the “social climate” and the “physical environment”. Finally, the model includes as overarching aim “students’ physical activity/health behaviours”.

The HEPAS Active School model

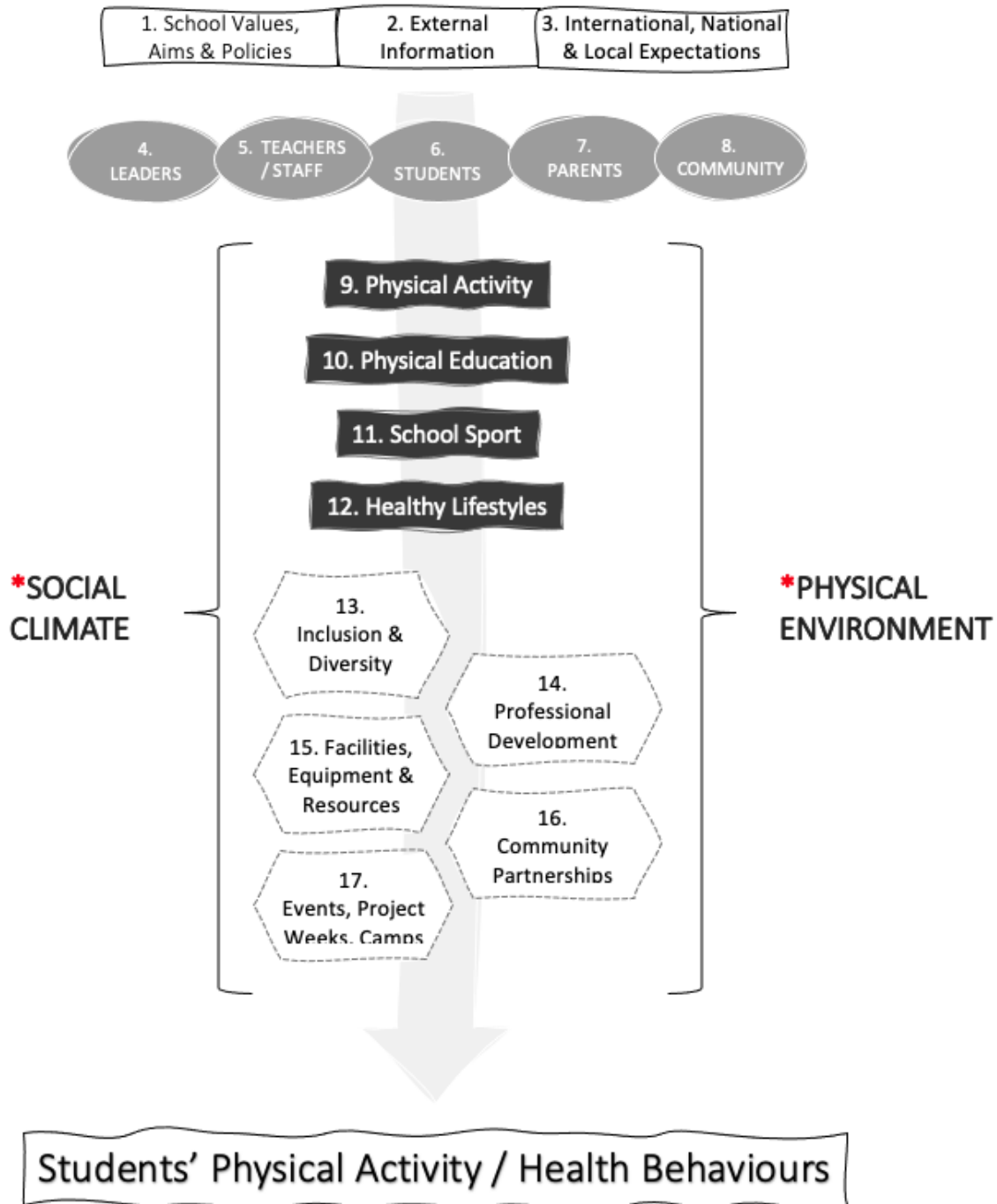


Figure 1. Layers and dimensions included in the Healthy and Physically Active School Model

There are several characteristics of schools that make them well-suited as settings for the promotion of health-enhancing PA:

- Schools can reach almost all children, and have long-term, in-depth contact with them, creating a unique opportunity to reach a wide range of children across the population, regardless of social background (Bailey, Agans, Côté, et al, 2021);
- This contact happens during a crucial period of development, during which many health-related behaviours and interests are formed which can be carried forward into later life (Karnik & Kanekar, 2011);
- Schools present a unique setting for integrating PA with other health-related messages (Böcker, 2010);
- Schools can create easily accessible physical environments in which children regularly engage in PA (Ip, Ho, Louie, et al., 2017);
- Schools, especially primary schools, often act as a hub of community activities, creating a focal point for PA opportunities, both directly (by organising school-based PA and PE), and indirectly (by encouraging PA at home, in the neighbourhood, and during commuting to and from school (Guinhouya, 2010);
- School lessons and other supervised periods are the only formal opportunities for the promotion of the knowledge, skills, attitudes, and values that underpin regular PA (Cale, 2020).

It is very important to highlight that physical activity can be intentionally used before and after the school day (in the frame of leisure time and active homework), during the school day (in the frame of pre-school and after-school clubs and activities as well as physical activity-related school events) and during classes (in the frame of PE but also as active, dynamic sitting, active breaks, active classroom learning, relaxation phases and cross-curricular classes) as well (Figure 2).



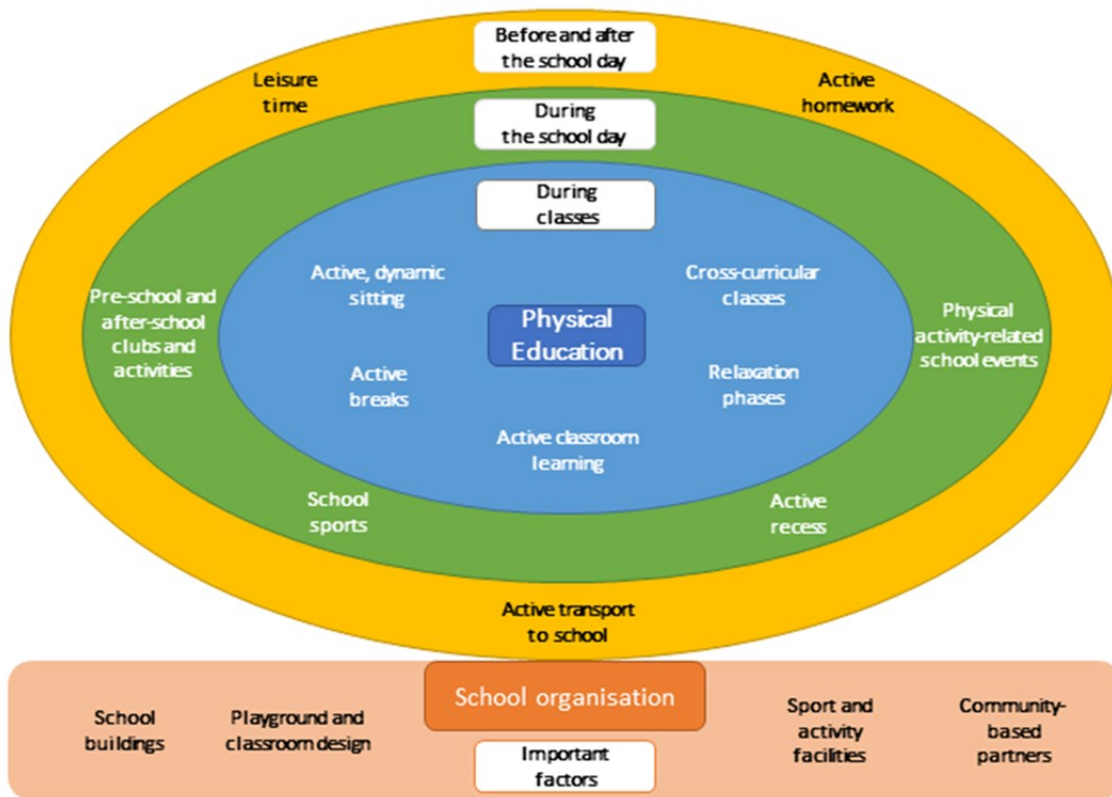


Figure 2. A model of PA opportunities at school (Scheuer & Bailey, 2021, p. 174)

In general, low levels of PA, negative attitudes toward sports and PA can be significant problems at the school level. Low levels of competence and confidence may result in children avoiding PA settings, thereby removing themselves from the context that is most needed. One way of envisaging the evidence that relates to this situation is as a 'virtuous cycle' (Figure 3):

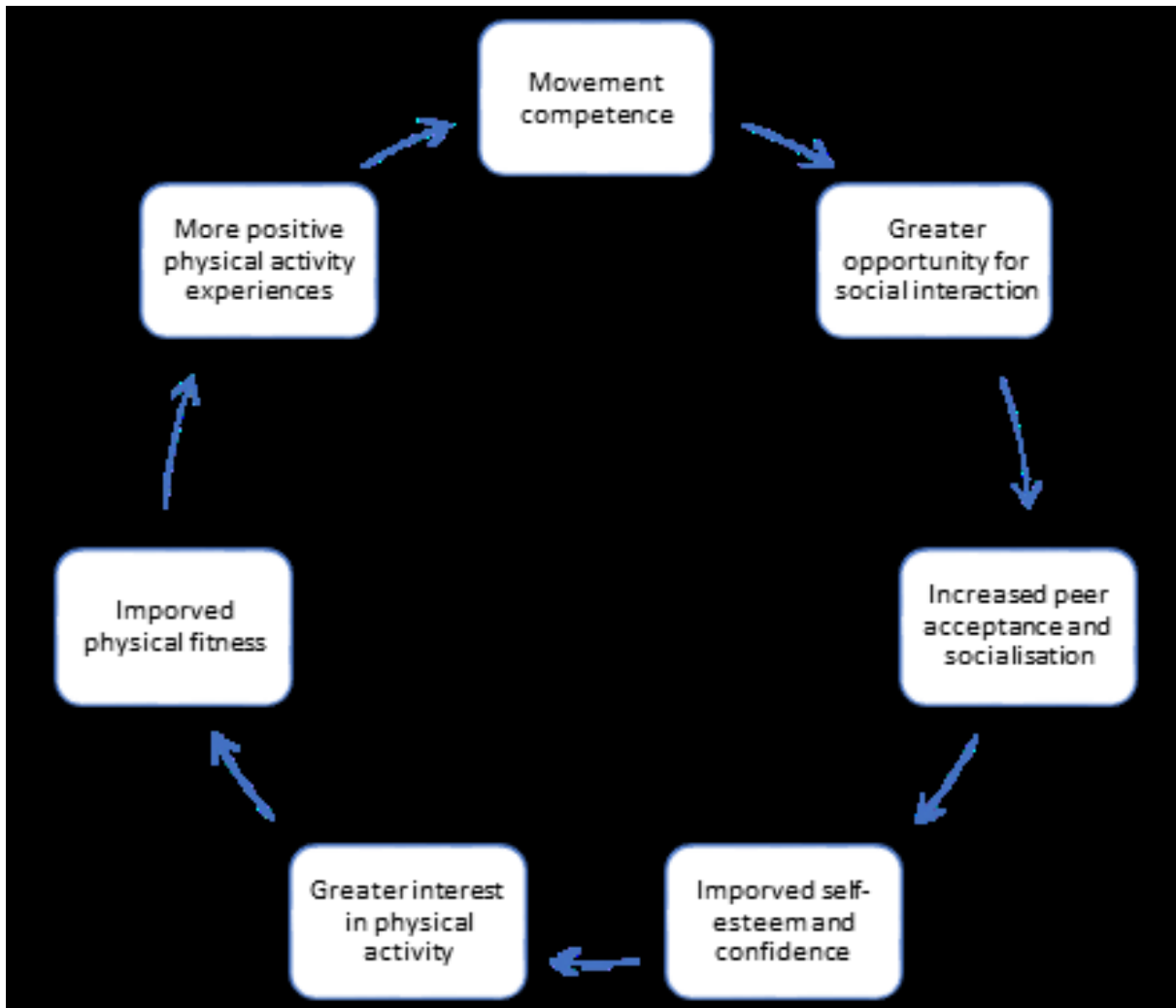


Figure 3. A 'virtuous cycle' of the interaction between movement skill development and psychosocial development (adapted from Bailey, Doherty, & Pickup, 2007)

The goal of this Guidelines for Implementation is to help schools:

- Understand the importance of physical activity in schools;
- Inspire and help implement physical activity and sports promotion in school settings;
- Support the growth of the schools, teachers, students, staff, and other stakeholders.

The following typical facts around Healthy and Physically Active Schools can support their implementation and be used as arguments (Figure 4):

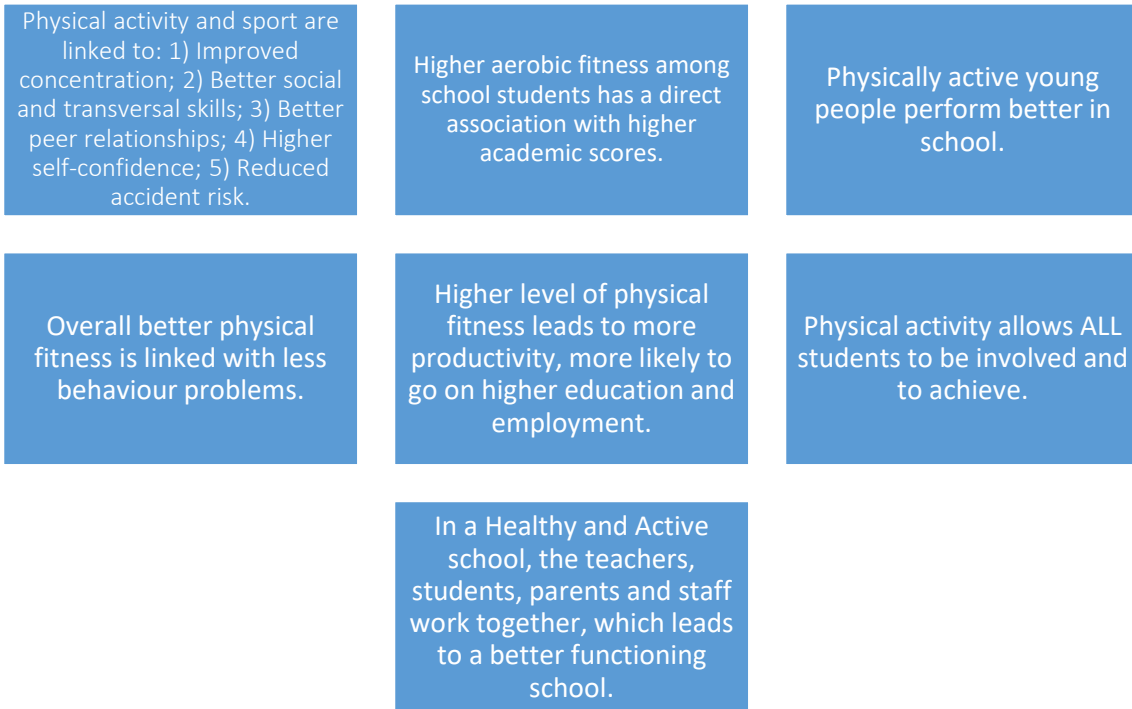


Figure 4. Healthy and Physically Active School facts

2. The Five Dimensions of an Active School – Definitions and Categories

2.1. Physical Activity

What do we mean by Physical Activity?

Physical activity is behaviour that involves human movement, resulting in physiological attributes including increased energy expenditure and improved physical fitness.

2.1.1. Categories in the Physical Activity dimension

Active Breaks

A short bout of physical activity performed as a break from academic instruction to increase or decrease students' activation.

Active Homework

Assigned physically active homework tasks that students can do on their own or with family members.

Active Learning

The use of physical activity lessons in which curriculum topics are delivered through movement.

Active Recess

The dedicated break time for school-based children to engage in spontaneous play (self-organised) or in structured play (active), but out of the formal subject-content curriculum.

Active Transport

Travel that incorporates all modes of transport relying on human power for propulsion.

2.1.2. Summary of the literature review

Opportunities to improve physical activity levels in the classroom are numerous. Whereas evidence for active homework is still weak and further supporting studies are needed, the positive effects of active recess active breaks and active learning are clearer. Active transport is finally supposed to have the strongest effect in this dimension, meaning that measures related to this aspect might show the strongest positive consequences on pupils' PA levels.

SUMMARY

- **Active Breaks** are relatively brief bouts of PA, usually led by a teacher during classroom lessons.
- Evidence shows Active Breaks increase students' PA levels, as well as contributing to healthier weight status, improved behaviour, enhanced cognition and greater

SUMMARY

- **Active Homework**, in which students carry out PA-related practices after school, is a potentially useful way of increasing PA.
- The small number of identified studies report positive outcomes from Active Homework for both girls and boys, although effects tend to be relatively small across the school week.
- Due to the small number of studies and limited methodologies used, the evidence for Active Homework is rated as **WEAK**.

SUMMARY

- **Active Learning** refers to the strategy of integrating PA into classroom lessons, across the school curriculum.
- The findings reported here demonstrate that Active Learning is a cost-effective, enjoyable, motivating strategy to increase students' daily PA at school without undermining other educational goals. On the contrary, the available evidence suggests Active Learning often enhances other educational outcomes.

SUMMARY

- **Active Recess**, promoting PA during the non-curricular time allocated by schools between lessons, promises to add a significant amount of activity to all European schools.
- Effective Active Recess strategies have been found to provide up to 40% of students' recommended daily PA, with greater benefits going to younger children and boys.
- There is a growing high quality scientific literature on Active Recess, although this research is of variable quality. There has been no European-level evaluation of the concept. The evidence for Active Recess is rated as **MODERATE**.

SUMMARY

- **Active Transport** to and from school, such as walking or cycling, has been proposed as an important source of daily PA.
- Research demonstrates that walking and cycling to and from school are associated with increased MVPA (*Moderate-to-Vigorous Physical Activity*), and Active Transport interventions are effective.
- Due to the quality and number of the scientific papers informing this domain, the evidence for Active Transport is judged to be **STRONG**.

2.1.3. Recommendations

Active Breaks

Active Breaks should be integrated as a daily and regular ritual in all classes at all school levels. They should be organized in an inclusive way in order to engage all students.

School and supporting agencies should compile a collection of Active Break ideas and make them available as a resource for all teachers.

Information and guidance about Active Breaks should be shared with parents, encouraging them to implement Active Breaks at home.

Active Learning

Schools and supporting agencies should include professional development opportunities for all school staff on the importance of physical activity for students' health and learning, and introduce accessible strategies and practices for implementing Active Learning into all lessons.

Schools and supporting agencies should create and share working examples of how to use Active Learning in different school subjects.

Active Learning can and should be used in all curriculum areas. Teachers need to be given sufficient professional development in order to fully realise these opportunities.

Active Recess

Schools should ensure easy access to a variety of physical activities that can be practised by all students during recess.

They should give particular attention to the active engagement of girls, the disabled, and other groups that have traditionally been marginalized during recess.

Funding should be made available, where necessary and possible, to support the development of activity-promoting school spaces, including playground markings and safe equipment/apparatus.

Developmentally appropriate play and sports equipment (balls, bats, hoops, ropes, etc.) should be available to all students and supervised to ensure they are used equitably and safely.

Active Homework

Active Homework requires the support and engagement of parents, so schools should hold regular meetings, share information, and establish effective means of communication about it.

Schools should help families identify accessible spaces and facilities for physical activity and sport, including parks, play areas, sports centres, and (if regulations allow it) school facilities.

Schools should establish cooperative relationships with local partners involved with physical activity promotion, such as sports centres, sports and dance clubs, scouts/guides, cultural and religious groups, to help create extended opportunities for Active Homework.

Active Transport

Municipalities should support active transport initiatives by establishing safe and well-lit routes to schools, or places for securing students' vehicles.

Schools should encourage Active Transport by communicating supportive messages, sharing guidance, and possibly initiating collaborative actions, such as 'walking buses' and group cycling.

Teachers should integrate Active Transport into lessons by, for example, planning projects exploring the local environment, surveying perceptions of safety in the local area, and calculating distances, speeds, and times of different routes to and from school.

Schools should introduce if they are not already available, cycle education programmes for students.

Best Practice Examples

During a mapping process covering more than 30 European countries, examples of best practices were identified and selected based on quality criteria. These examples can be browsed and downloaded on the HEPAS project website following this link: <https://www.movingschoolsaward.com/hepas-best-practice>.

2.2. Physical Education

What do we mean by Physical Education?

Physical Education (PE) is supervised, structured physical activity experiences that are part of an explicit curriculum domain, taking place during the school day.

2.2.1. Categories in the Physical Education dimension

Curriculum PE Lessons

Curriculum PE lessons are written, clearly articulated plans for how standards and education outcomes in physical education will be attained. Curriculum PE can be viewed as the content of the lesson that is taught and also as the result of how children are able to include PA into healthy lifestyles later.

Teacher Education Workforce

Teachers are at the heart of the learning process. Physical Education Teacher Education (PETE) and workforce training are an essential part of quality physical education. PE teachers may be the only members of school staff professionally trained to work with students in physical activity settings and thus promote a Healthy and Physically Active School concept.

2.2.2. Summary of the literature review

Where data were available about the lesson content, it was evident that PA levels were significantly affected by the types of activities that were included in PE lessons. Sporting games seem to be especially valuable in promoting MVPA, and of these, invasion-based games were most effective of all. Reconsidering the activities offered to girls and boys seems to be a necessary step in order to develop inclusive, equitable PA opportunities.

SUMMARY

- **Physical Education** has a unique position in school-based PA promotion as the only protected, regular, supervised setting for PA during the school day.
- Students are more active during PE lessons than in any other context, but generally fail to reach a target of 50% of lessons at MVPA.
- Due to the relatively large number of reviews and empirical studies in this area, publication quality, and consistency of findings, the evidence for PE is rated **STRONG**.

Teacher Education Workforce

The importance of teacher education and workforce training in the professional preparation of teachers seems unarguable. Yet, despite the increased attention given to the role of schools as key settings for the promotion of health-enhancing physical activities (HEPA), relatively little has been forwarded in terms of evidence-based guidance for either future or current teachers. The limited research provides little information about the effects of preparing teachers for the support and promotion of Active Schools and is unlikely to offer the necessary support for an expansion of effective Active Schools in Europe.

SUMMARY

- **PETE** and workforce training are vital elements in the implementation of effective practice, and this may be especially the case when innovations are introduced.
- No directly relevant reviews or empirical studies were identified to inform discussion of this topic, and the only indirectly related article reported limited impact of professional training in HEPA promotion.
- In light of the poor evidence base, Teacher Education and Workforce is rated **WEAK**.

2.2.3. Recommendations

- Since physical education teachers and other school staff are the main mediators of the effectiveness of physical activity strategies in schools they need to be trained to promote the concept of healthy and physically active schools.
- Based on the concept of quality physical education, future physical education teachers should learn to advocate for PA in schools and should be able to promote PA not only in physical education classes but also as part of school life.
- Schools are expected to fulfil different roles and functions, but most people are likely to agree that two goals are essential: the development of students' well-being, and the development of knowledge, skills, attitudes, and values that can encourage an active and successful life.



- If one of the desired effects of physical education is the activity of citizens, then physical activity should be encouraged as part of physical education. As PE plays an important role in the long-term promotion of physical activity among young people, the exposure of pupils to a range of fitness, sport and leisure activities is only the beginning of the process.
- Pupils are only likely to want to continue their involvement in physical activity if their physical education classes allow them to experience self-determination and competence in their own abilities. Thus, one of the main tasks of physical education is to equip children with the necessary motor skills to enable them to participate in physical activity over the long term. Attitudes and values must also be addressed to encourage children to engage in lifelong physical activity.
- If children and adolescents are to follow the HEPAS recommendations, contexts and school environments are needed to reach the “healthy and active schools”.

Best Practice Examples

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2.3. School Sport

What do we mean by School Sport?

School sports are organized sporting activities within the school with the primary goal of enhancing pupils’ knowledge, skills, and competencies in a selected sport. It can be competitive or non-competitive.

2.3.1. Categories in the School Sport dimension

Competitive School Sport

Result and performance-oriented individual or team sporting activities with comparable competitiveness, in local, regional and/or national championship systems, such as Student Olympics and Inter-School competitions.



Non-Competitive School Sport

Regular, non-result-oriented individual or team sporting activities for educational, health, recreational, fun, or social reasons, such as grassroots football, intra-school competitions, school running club, etc.

2.3.2. Summary of the literature review

Although both school sport categories generally target educational improvement, diversification is needed within school sport programmes, since competitive and non-competitive settings differ in goals, target groups and intervention possibilities. Whilst competitive school sport is closer to classical talent management, non-competitive school sport is regularly organized with the definite goal of health-enhancing, developing social skills (such as belonging to a group) and fun. For that reason, engagement in the first one is limited, but non-competitive sport settings can be dedicated for those who are unlikely to join competitive sporting group activities.

SUMMARY

- **School sport**, especially after school, has been a popular setting of PA, despite cautious support from policy-makers.
- The studies reviewed in this section suggest that sporting activities, both competitive and non-competitive, can increase both MVPA and VPA, especially if played multiple times during the week; however, attention needs to be paid to the needs of girls and overweight/obese students, who are heightened risk of exclusion.
- There have been numerous studies of the relationship between school sport, including some of high quality, and their findings are relatively consistent, leading

2.3.3. Recommendations

- Participation in both competitive and non-competitive sports and physical activities should be included and encouraged in a Healthy and Physically Active School as a non-formal education, and as a unique source of health-enhancing physical activity, skill development, socializing, and fun.

- All students should have regular opportunities to play competitive and / or non-competitive sporting activities, irrespective of their gender and ability.
- School and non-school staff should receive professional training and support to help them elevate physical activity levels, maximize active time, and include all students during sports sessions.
- Since an after-school sports programme can be organized more flexibly and independently than within curricular regulations, it is worth examining the community connections, including those with sports clubs.

Good Practice Examples

During a mapping process covering more than 30 European countries, examples of best practices were identified and selected based on quality criteria. These examples can be browsed and downloaded on the HEPAS project website following this link:

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2.4. Healthy Lifestyles

What do we mean by Healthy Lifestyles?

Healthy lifestyles are the strategy, policies and activities aimed at helping students acquire lifestyle habits that prevent the potential development of non-communicable diseases derived from inactivity and high body-mass index. The deployment of a healthy lifestyle education programme in a school setting is shown to be more effective through the empowerment of key stakeholders to develop the basic components of the practices that will develop the strategy and policies.

2.4.1. Categories in the Healthy Lifestyle dimension

Healthy School Policies

The Healthy school policies are part of the strategy of the school and must define those elements that are most effective for promoting healthy lifestyles, both in a general plan that will contemplate Health promotion programmes for staff, Family & community engagement, and Healthy eating, as well as on a more specific level with concrete actions in promoting physically active lifestyles or social, emotional, and sexual education.

Family & Community Engagement

Family and community engagement in which students live is one of the characteristics of the development of Healthy Lifestyles in a school that has defined 6 types of involvement identified as especially relevant: parenting, communicating, volunteering, learning at home, decision making, and collaborating with the community. By observing active behaviours and lifestyles in their families and communities, students can internalize healthy habits, especially if health messages are shared among the triad of school-family-community.

Healthy Eating

Healthy eating is formed by the actions conducted by school staff to engage with both, children and parents, to stimulate healthy eating. Due to the substantial amount of time spent at school, children often consume food and drinks during this time. Healthy eating could be developed by specific programmes, school-based interventions combining easier access to fruit and vegetables within classroom lessons and even using engaged students as change agents.

Social & Emotional Education

Social and emotional education is the process through which students acquire and apply the knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions.

Health Promotion Programmes for Staff

Health promotion programmes for staff are essential to the implementation of school-based health promotion as a necessary condition for realizing health-related change. The whole-school approach to health education requires training topics such as school policies, physical environment, social environment, community links, and health-sector partnerships. As teacher education in Europe rarely includes such content, professional development opportunities are even more crucial in fostering the conditions of healthy lifestyles in schools.

Sex Education

Sex education involves teaching and learning about a variety of topics related to sex, sexuality, and relationships, exploring values and beliefs about those topics, and gaining the skills that are needed to navigate relationships and manage one's own sexual health.

Best Practice Examples

During a mapping process covering more than 30 European countries, examples of best practices were identified and selected based on quality criteria. These examples can be browsed and downloaded on the HEPAS project website following this link: <https://www.movingschoolsaward.com/hepas-best-practice>

2.4.2. Summary of the HEPAS Delphy consensus study on Healthy Lifestyles in school settings

The objective of this study was to develop a Europe-based, authoritative list of the most effective components or elements of learning and health support systems influencing school students' healthy lifestyles education. The basic approach in this study involved the gathering of the opinions of a group of context experts and then submitting those opinions to structured rounds of analysis and reorganisation. So, the experts were invited to engage with shared statements of the group's decision-making to reach a group consensus.

Cognisant of the limitations of any exploratory study, the authors were cautious of overly optimistic or generalized conclusions from the data presented here. While the present study is a preliminary step towards conceptualizing the elements of school-based programmes, its findings offer useful information for evidence-based programmes, presenting the necessary components of health promotion in schools that could well be divided into:

SUMMARY

- For **Healthy lifestyles**, on a general level, staff professional development, family & community engagement, and healthy eating should be part of *healthy school policies* developed within school development measures.
- On a more specific level, promoting physically active lifestyles throughout the school day should be supported by quality PE, active recess, PA in classroom lessons, and active transport.

2.4.3. Recommendations

- Relevant initiatives providing opportunities for healthy lifestyles throughout the school day should be conceptualized in a flexible model of a *Healthy and Physically Active School*, taking advantage of opportunities throughout the school day, adaptable to individual schools' specific contexts.
- Opportunities to promote healthy lifestyles should be maximized, so students understand healthy behaviours can be incorporated into all aspects of school life, as well as life beyond school.
- The promotion of healthy lifestyles throughout the school day should be embedded within school policies and development plans.
- The simultaneous implementation of the components of a healthy school is likely to prove an administrative and professional challenge, so priorities need to be identified, and implementation considered a long-term project. Efforts should be undertaken based on shared agreement among stakeholders – school leaders, teachers, parents, community-based decision-makers, and students – within school development plans.

Best Practice Examples

During a mapping process covering more than 30 European countries, examples of best practices were identified and selected based on quality criteria. These examples can be browsed and downloaded on the HEPAS project website following this link: <https://www.movingschoolsaward.com/hepas-best-practice>

2.5. Transversal Dimension

What do we mean by the Transversal Dimension?

Transversal dimensions are the themes that cut across the settings and elements that provide the HEPAS framework. These themes feed into and are relevant to each of the settings. What follows are summaries of these categories as they relate to the reviews above, with specific examples from the literature to highlight their application within HEPAS.

2.5.1. Categories in the Transversal dimension

Inclusion and Diversity

A process of addressing and responding to the diversity of needs of all learners through increasing participation in learning, cultures, and communities, and reducing exclusion within and from education. It involves changes and modifications in content, approaches, structures, and strategies, with a common vision that covers all children of the appropriate age range and a conviction that it is the responsibility of the regular system to educate all children.

Continuous Professional Development

Professional growth of teachers involved in teaching. These can include formal training, collaborative practice, coaching, mentoring, peer review, reflective practice, enquiring practice, action research, etc.

Facilities, Equipment, and Resources

- Facilities: the buildings, equipment, and services provided for a particular purpose;
- Equipment: the set of necessary tools, clothing, etc. for a particular purpose;
- Resource: a useful or valuable possession or quality of a country, organization, or person.

Community Partnerships

Practices to include families and communities in educational processes.

School Events, Project Weeks, and Camps

School events: “The definition of an event is something that takes place.”¹ Based on this definition, school events are events that take place either in the school itself or by the school community in other settings.

Project weeks: “Project-Based Learning (PBL) is a teaching method in which students learn by actively engaging in real-world and personally meaningful projects.”² Those projects frequently last for one week giving them consequently the name “project weeks”.

¹ <https://www.yourdictionary.com/event>

² <https://www.pblworks.org/what-is-pbl>



Camps: “Camps are seen as an integral part of the school curriculum as they enable students to explore, extend and enrich their learning and their social skill development, in a non-school setting. Camps may have a cultural, environmental, or outdoor emphasis and are an important aspect of the educational programmes offered at our school. A camp is defined as any activity that involves at least one night’s accommodation.”³

2.5.2. Summary of the literature review

Inclusion and Diversity

- There is a global movement towards inclusion, and every European nation affirms the right to education for all students, regardless of gender, ability, ethnicity, or other factors (Flecha & Soler, 2013; Majoko, 2013; Pantic & Florian, 2015).
- Inclusion, therefore, is an expectation in sport and PA, as it is in any other area of the school curriculum (Heck & Block, 2019; Qi & Ha, 2012).
- There has also been the emergence of a growing body of guidance literature on inclusive or adapted approaches to PA and sport that shift the emphasis away from an ethos of competition and normative judgements about the body and performance and towards an ethos of participation, individualised learning, and development (Bailey, 2010; Hofmann, Diketmüller, Koenen, et al, 2017).
- Broadly speaking, research can be categorised into two themes: inclusive education from a whole-school perspective, and aspects or components of inclusive education (Artiles, Kozleski, Dorn, et al, 2006).
- It has been suggested that teachers need to develop certain core attitudes and values that underpin successful inclusive practice, and consequently ought to feature in PETE and professional development training, such as: valuing diversity and the different abilities brought to school by all students (Reina & Alvaro-Ruiz, 2016); offering a wide range of opportunities and experiences suitable for different abilities (Block, Taliaferro, Campbell, et al, 2011); and developing supportive social environments for learning and participation (Prieto, Haegele & Columna, 2020).

³ <http://www.upweythps.vic.edu.au/wp-content/uploads/school-camps-policy.pdf>



Continuous Professional Development

- As already discussed, a central principle of the implementation of PA in schools is teacher training and professional development. In fact, evidence shows that the first step towards any educational change is professional development (Guskey, 2002).
- There is some evidence that non-specialists (Lerum, Bartholomew, McKay, et al, 2019) and even specialist PE teachers (Alfrey, Webb & Cale, 2012) often feel unprepared for a role promoting PA within an Active School context.
- Observation of positive outcomes is a vital element of change, so it seems that introduction of the Active School concept in practice is best done in small steps.
- Guskey's Model of Teacher Change (2002) presents four governing principles that crystalize this process:
 - Quality professional development experiences;
 - Teachers attempting to implement the new ideas and practices;
 - Teachers observing positive student outcomes;
 - Follow-up and support.

Facilities, Equipment, and Resources

- The inclusion of space and facilities in areas used for breaks between lessons has been found to be a significant factor in the realisation of Active Recess. In addition, a number of studies have reported that simply adding playground markings can increase students' PA. In all of these initiatives, maintaining safe, social, and active environments in school is fundamental
- Another strategy that has proven to be supportive of PA is the provision of age-appropriate sports and play equipment for each class that is made freely available to students during recess, lunchtimes, and (depending on school regulations) before and after school. With the addition of the concept of Active Homework, engagement with such facilities stretches out into the local environment.



- The available evidence supports the role of facilities, equipment, and resources as mediators of PA at and around schools. The absence of facilities and equipment is a recognised barrier to participation, and budget cuts have hindered school systems from building new facilities or upgrading existing ones in many countries, especially during periods of austerity.
- The percentage of students participating in after-school sport is contingent on the type and number of facilities.
- This suggests that adequate facilities and equipment are necessary elements in an effective Active School programme, and their absence can turn children and young people off sport and PA. However, simply adding facilities and equipment to the school environment is unlikely to have a significant and sustainable impact. Professional development and a modification of the priorities within the school curriculum are also necessary.

Community Partnerships

- The importance of families and the communities in which children and young people live for educational development is well-established (Bouchard, Gallagher & St-Cyr Tribble, 2015).
- Epstein's (2011; see also Egan & Miller, 2019) influential framework was based on empirical studies at both primary and secondary levels, and although its interest was general education, her six types of parent/community involvement seem relevant to the Active School concept: parenting, communicating, volunteering, learning at home, decision making, and collaborating with the community. These categories offer some insights into possible ways in which Active Schools can work more closely with parents and the wider community.
- Evidence in favour of close and sustained partnerships between schools and the local community is convincing (Epstein, 2018), and there is no doubt that the effective delivery of partnerships is fundamental to the Active School concept (Allar, Elliott, Jones, et al, 2017; Egan & Miller, 2019).



- For reasons discussed in this report, students are much more likely to reach the WHO target of one hour of MVPA & VPA per day if they are supported in being active both in and outside of school.

School Events, Project Weeks, and Camps

- School events, project weeks, camps and other special, organised events are quite widely used in European schools (e.g., Böcker, 2014), although details regarding where and how they are used is not known.
- Summer camps are the most-researched context, due to their popularity in the United States (Wahl-Alexander & Morehead, 2017). These camps (which can be either ‘day camps’, in which children and young people take part during the day, but return home in the evening, or ‘residential camps’, where they sleep at the camp) present a promising setting to increase PA given their available time and access to children. Also, summer camps operate during the long vacation (up to 3 months) when other organised PA opportunities may be fewer, and children are unable to take advantage of more regular PA opportunities (e.g., Active Transport, PE, and school sport) (Brazendale, Beets, Weaver, et al, 2017). Camps can be valuable settings for maintaining or even increasing students’ daily PA levels.
- The ‘structured days hypothesis’ (Brazendale, Beets, Weaver, et al, 2017) suggests that health-related behaviours (PA, sedentariness, diet) are more beneficially regulated during relatively structured days (e.g., school days; residential camps) than during less structured days (e.g., long holidays; weekends). Consistent with the hypothesis, research suggests that quarantine procedures have resulted in reduced levels of PA (Hall, Laddu, Phillips, et al, 2020; Lippi, Henry & Sanchis-Gomar, 2020; Tison, Avram, Kuhar, et al, 2020).
- There is much less published evidence related to school events and project weeks. This is an area deserving further examination.



2.5.3. Recommendations

Inclusion and Diversity

- Teachers and other members of staff should promote and develop positive attitudes and values towards inclusion/value diversity, sharing experiences of successful inclusive practice, and creating a multi-professional support team of people surrounding students.
- School leaders should take responsibility for developing supportive social environments for learning and participation, such as by ensuring professional development for inclusive teaching is available to all staff, by making available necessary material/equipment needed, and adapting the school curriculum (if possible).
- Local governments should support schools in creating a barrier-free school environment, through professional development courses, the provision of specialist support staff, and helping with access to community resources.

Continuous Professional Development

- Teachers should engage in relevant professional development experiences, including taught courses, structure observation activities, and reflecting practice.
- School leaders should support teachers to put knowledge from CPD into practice by helping them develop personal programmes of professional development, and regularly providing information about professional development opportunities.
- Local governments should support the development of programmes of professional development and disseminate information about such activities.

Facilities, Equipment, and Resources

- Teachers should become familiar with the safe and appropriate use of resources, become familiar with the resources available, and train students in the safe and appropriate use of these facilities, equipment, and resources.
- School leaders explore funding sources for the improvement of playgrounds and other resources, including markings, facilities, sports equipment, and other resources that are supportive of increased physical activity, whilst maintaining safe, social, and active environments in school.



- Local governments should support increased access to age-appropriate facilities in the promotion of physical activity, seek out new spaces from areas nearby the school, and make sure that facilities remain accessible, attractive, and safe. Where relevant to municipalities, they should establish joint-user agreements to increase the availability of facilities.

Community Partnerships

- Teachers talk to parents, sports coaches, and fellow teachers in local schools to support the development of a 'join-up' supportive and activity-friendly environment for all students. They should also assign active homework, include physical activity-related information for family members, encourage families to discover and use local sports facilities.
- Teachers should encourage parents and other community stakeholders to take part in Active School committees, and work with parent and community associations to support physical activity promotion throughout the community.
- School leaders should keep parents regularly informed of school initiatives and encourage them to participate actively. They should proactively collaborate with the key community stakeholders and identify and work with local organizations and groups promoting physical activity.
- Local governments should plan after-school school sporting activities with community volunteers, sports coaches, and others, share information about local physical activity settings and resources with families and schools, and regularly gather information about physical activity behaviours, interests, and priorities in the community.
- Institutions of higher education, such as universities and research centres, can be key partners in the development and implementation of the Active Schools concept.

School Events, Project Weeks, and Camps

- Teachers advocate for the inclusion of physical activity-orientated project weeks, day camps and residential camps within the school year.
- School leaders support teachers' initiatives by protecting budgets for these activities and allowing time for them.



- Local government personnel develop partnerships and contractual agreements with local community providers and/or universities to use their facilities.

Best Practice Examples

During a mapping process covering more than 30 European countries, examples of best practices were identified and selected based on quality criteria. These examples can be browsed and downloaded on the HEPAS project website following this link: <https://www.movingschoolsaward.com/hepas-best-practice>.



3. The Process of Becoming a Healthy and Active School

Becoming a Healthy and Active School takes a lot of effort and dedication from schools, and it usually is not a linear process. There are certain steps along the way, which could be critical from the overall success point of view.

3.1. The Willingness to Change

The willingness to change normally appears when the school realizes, identifies problems, difficulties within the school culture or functions. Every school is different, every school environment has specific attributes that need to be met in order to develop a sustainable programme. Therefore, it is crucial to understand the effect of regular physical activity on students, and in general the Active and Healthy School Concept.

3.2. Gaining Knowledge and the Decision to Enter the Process

It is worth imagining the possible positive effects, challenges, pains, and gains of the implementation of activities, also from the resources and partnership point of view. One of the major goals of the Guidelines for implementation is to help schools to build up the specific knowledge and motivation to start their development in the field of school PA and PE.

3.3. Self-evaluation and Planning

To be able to develop a realistic plan it is crucial to carry out a self-evaluation, which helps to identify areas to start with. We recommend using the self-evaluation tool of the Moving Schools Award (<https://www.movingschoolsaward.com/for-schools/>) but, of course, additional components can be included in the process.

Based on the evaluation it is highly recommended to make an intervention plan, which includes the answers to basic questions: who, what, how, when?

Self-evaluation is recommended to be done every year, but not necessarily with the intention to grow, but also to maintain a certain level.

3.4. Implementing Activities – The Actual Development of the School’s Offer of Physical Activity and Physical Education

Choosing the right activities in the right dimension is not an easy task. Probably there will be a lot of “swing and miss” at the beginning but with time more and more information will be gathered, and the colleagues will be able to decide what functions and what does not. To help this process

we collected many best practices (<https://www.movingschoolsaward.com/hepas-best-practice>) which hopefully will give good ideas to start becoming a Healthy and Active School.

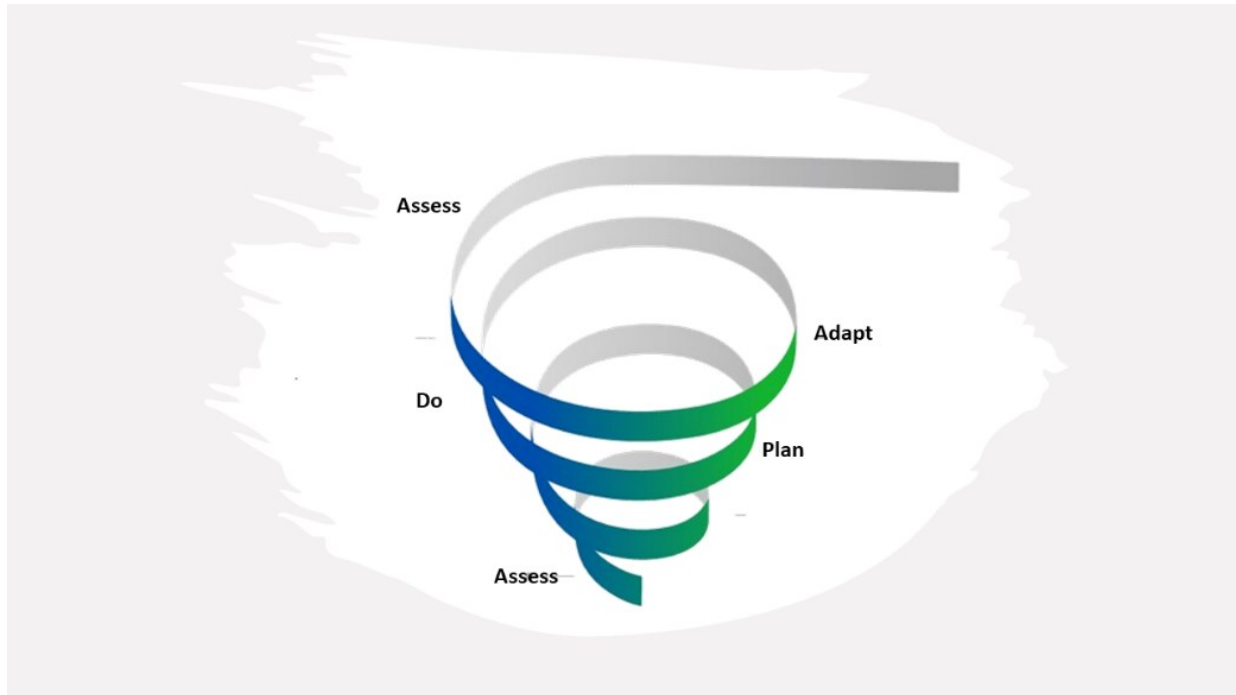


Figure 5. The “Intervention Spiral”

The growth of the extent and depth of the spiral (Figure 5) shows the nature of properly implemented PA programmes in schools, when during the activities, lessons, active breaks and recesses, etc. more and more students and teachers get involved, more and more experience and knowledge will gather, which will support the evolution of the intervention.

Assess – Structurally recognizing the current situation of the school’s attitude and providing health and physical activity is an essential step since it gives the foundation from on which the development and the changes will be built. It also gives a better understanding for those who will be involved in the implementation, by getting to know the HEPAS framework, the content of certain dimensions, etc.

Plan – Each and every school is different, therefore each and every school’s needs, possibilities, “pains and gains” are different. From the success of the intervention, it is very important to take the time and effort to examine the school’s needs, properly plan the activities (who, what, when

and how?), and based on this, to set goals and a possibly school-specific vision (future-oriented thinking).

Do - The actual implementation of the planned activities, bearing in mind the characteristics of the dimensions and the different types of activities. Also, formative assessment and evaluation are very much needed, as there will be experiences and feedback during the activities which definitely need the attention of those who are responsible for the interventions. A larger and diverse team, involving school personnel, students and families will speed up the process in front of a single person or little team trying to push the active and healthy school project.

Adapt – Evaluating (as a summative assessment) the effect of the interventions is important to fine-tune the activities, to understand what worked and what did not, and to see more clearly what the needs of the students and teachers (and staff) are.



4. Recommendations on Starting a Programme

Based on the results of the HEPAS project, the following section gives concrete recommendations on how to start a programme towards a healthier and physically active school. While chapter 4.1 concentrates on concrete practice-oriented preparatory steps, like setting up a team, communication strategies and possible partnerships, chapter 4.2 gives some general thoughts related to the required attitude during implementation.

4.1. First Steps

- Setting up a team
 - One person who will be the responsible facilitator
 - PE teacher(s)
 - Principal
 - Experts who understand the functions of the school (what kind of formal and non-formal constraints are tying the school, like regulations, rules, etc.)
- Communication
 - Connecting the teaching staff, parents, other stakeholders
 - Helping to understand the importance and values of HEPAS among all participants
- Partnerships
 - Identifying local partnership possibilities who could be advantageous for the interventions (parents, municipality, sports clubs, etc.)

4.2. Things to Consider

Start small, think forward – the easier the goal at first, the better the chance to reach it. A culture of physical activity and health in a school is not something that can be built in a day, but it needs to be built every day, in little steps.

Everybody is important – from students to teachers, caretakers to principals, everybody is part of the school community, and therefore everybody is responsible and contributing in a way to the “PA climate” of the school. Those who know their roles, goals, importance, and responsibilities within the system, are more likely to contribute positively to the “PA climate”.



Every action counts – that was taken toward a more physically active school community, toward a Healthy and Physically Active School.



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