



Sport in Education

Introduction

The benefits of participation in school sport in terms of physical fitness, health benefits, cognitive development, personal wellbeing and social integration are extensively reported. Because school sport is so closely linked with physical education (PE) and other in-school physical activity opportunities, the observed benefits are often attributed to several sources. The collective contribution of school sport and PE to a child's daily physical activity may be substantial.

Physical education and/or school-based physical activity (which may include school sport) is part of the school curriculum. PE programs provide instruction and skill-learning opportunities that contribute to the development of physical literacy, which is linked to a greater likelihood of life-long participation, positive attitudes, and behaviours associated with being physically active.

More information on recommended levels of physical activity can be found in the



Australian Sports Commission, 07146-16

Prepared by: [Dr Ralph Richards](#), Senior Research Consultant, Clearinghouse for Sport, Australian Sports Commission

Evaluated by: [Chad Anderson](#), Director, School Engagement & Partnerships, Australian Sports Commission (September 2016)

Key Messages

1. School sport makes a valuable contribution to a child's overall accumulation of regular physical activity.
2. School sport, physical education curriculum, and school-day physical activity (including active transport to/from school) contribute to a child's development in several ways (e.g. health, physical and emotional wellbeing, cognitive and social development).
3. School sport can be a positive influence on lifelong participation in sport and physical activity.

Physical Activity, Physical Education and School Sport

Preschool development

Physical activity and motor development during the foundation years, ages 0-5, underpins a child's acquired physical literacy as well as establishing positive perceptions and attitudes about physical activity. When a child enters school, additional opportunities to develop their physical literacy become available through school sport, modified sports activities, physical education classes, and in-school physical activity time, including play and active travel to/from school.

The Australian Early Development Index is a population measure of children's development as they reach school-age. It tells us how children are progressing compared to developmental norms, on a range of characteristics. A child's physical readiness for school is measured by several key factors, including physical independence and appropriate gross and fine motor skill development. Children scoring above the 25th percentile (i.e. in the top 75% of the population) are considered to be 'developmentally on track'; those in the 10th to 25th percentile are considered to be 'developmentally at risk' and those below the 10th percentile are 'developmentally vulnerable'. Key results from the 2012 government survey indicate that 77.3% of Australian children are developmentally on track in their physical competence when they enter school; 13.4% are at risk, and 9.3% are vulnerable. However, these overall figures are skewed for Indigenous children (17% at risk and 20.4% vulnerable), non-English speaking populations (21.9% at risk and 29.5% vulnerable), and the most socio-economic disadvantaged children (15.6% at risk and 14% vulnerable).

- [Australian Early Development Index 2012, Summary Report](#), Australian Government; Department of Education, Employment and Workplace Relations; Office of Childhood Education (2013).

Early primary school experiences

Partnerships, Australian Sports Commission (September 2016)


Reviewed by network: [Australian Sport Information Network](#), AUSPIN (September 2016)

Last updated by: Ralph Richards (13 April 2017)


Please refer to the Clearinghouse for Sport [disclaimer](#) page for more information concerning this content.

The increasing rates of childhood obesity in Australia and many other countries suggests that young children do not engage in enough physical activity, spend too much time engaged in sedentary activities, and make poor nutritional choices.

More information can be found in the Clearinghouse for Sport portfolio [Childhood Obesity](#).

[Participation in exercise, recreation and sport: Children's Report 2010](#), (PDF  - 968 KB), Australian Sports Commission (2012). Data collection for this report came from the Exercise, Recreation and Sport Survey (ERASS) conducted by State and Territory departments of sport and recreation. The median frequency of participation among children, aged between 5 and 14, in organised physical activity (including school sport, club sport, and other organised activities) was two times per week. The percentage of Australian children reporting 'infrequent' (i.e. not on a weekly basis) participation was high, 71%. Only 35% of children participate at least three times per week and participation further declines to only 6% of Australian children engaged in organised activities seven or more times per week. The ERASS data also shows that participation in organised physical activity peaks in the 11-12 years age-group.

The SPANS study of New South Wales school children found that only 44% of kindergarten students met the Australian physical activity guidelines, this percentage increased somewhat to 49% among year-4 students.

- [NSW Schools Physical Activity and Nutrition Survey \(SPANS\) 2010](#), (PDF  - 5.2 MB), Hardy L, Diaz P, King L, Cosgrove C and Bauman A, Physical Activity, Nutrition, Obesity Research Group (PANORG), New South Wales Department of Health (2010). This is the fourth in a series of school-based surveys of NSW school students. The report provides valuable trend information on the weight status and associated physical fitness characteristics of a representative sample of NSW school students. The general trend shown over the past 20 years, among both boys and girls, is a reduced aerobic capacity and lower ability in movement skills such as running, jumping, and throwing.



The [LOOK Study](#) (Lifestyle of Our Kids) is a collaborative, multidisciplinary longitudinal study of a sample of Australian children, beginning in childhood and eventually finishing in old age. Its main objective is to determine how physical activity and early physical education impact upon the quality of life in childhood, adolescence, and throughout a lifetime. The LOOK participants were initially 8 years of age when the study commenced in 2005. Reassessment in 2013 of the cohort, now 15 years of age and in secondary school, demonstrates how their physical activity and fitness relates to their health and psychological well-being as teenagers. Also of interest is the extent to which physical education in primary school has influenced participation in various forms of physical activity at age 12 years. To date, evidence suggests that the health and wellbeing of children is diminished when they are not afforded opportunities for regular, well-designed, physical education classes provided by specialist teachers.

- [Longitudinal patterns of physical activity in children aged 8 to 12 years: the LOOK study](#), Telford RM, Telford RD, Cunningham R, Cochrane T, Davey R and Waddington G, *International Journal of Behavioral Nutrition and Physical Activity*, Volume 10 (2013). A consistent daily pattern of physical activity emerged during each year of school, characterised by increased activity on school days (Monday to Friday) followed by a decrease on the weekend. Friday was the most active day and Sunday the least. The percentage of boys meeting international daily physical activity recommendations was 36% (age 8), 50% (age 10) and 21% (age 12); for girls the percentages were 35% (age 8), 45% (age 10) and 18% (age 12). Over the period of the study boys were more active than girls and spent more time in moderate-to-vigorous physical activity. There was a trend toward increased sedentary behaviour from age


11 to 12 years.

- [Benefits of early development of eye-hand coordination: Evidence from the LOOK longitudinal study](#), Telford RD, Cunningham R, Telford RM, Olive L, Byrne D, and Abhayaratna W, *Scandinavian Journal of Medicine and Science in Sports*, Volume 5 (2013). Data from the LOOK Study was used to investigate the longitudinal and cross-sectional relationships between eye-hand coordination (EHC) and cardiorespiratory fitness, physical activity, percent body fat, body image, and the amount of organised sport participation. Cross-sectional analyses showed that boys and girls with better EHC were significantly fitter. A longitudinal relationship showed that girls who improved their EHC over time became fitter. There was also evidence that children with better EHC possessed a more positive body image. At age 8 years, boys and girls participating in organised sport possessed better EHC than non-participants. These data provide evidence for the premise that early acquisition of this single motor skill promotes the development of a child's fitness, body image, and continued participation in sport.
- [Physical Education can improve insulin resistance: The LOOK randomized cluster trial](#), Telford RD, Cunningham R, Telford RM, Daly R, Olive L, and Abhayaratna W, *Medicine and Science in Sport and Exercise*, Volume 45, Number 10 (2013). This investigation sought to determine whether the introduction of a specialist-taught school physical education (PE) program could improve insulin resistance (IR) in elementary school children. The results showed that (on average) the intervention (i.e. programs run by a specialist PE teacher) classes included more fitness work than the control PE classes. There were no differences between the intervention and control groups at baseline; however, by grade 6 the intervention group had lowered IR significantly, by 14% (boys) and 9% (girls). The conclusion was made that specialist-taught primary school PE classes improved IR in children; thereby offering a preventative strategy against the health risks associated with the onset of childhood overweight and obesity

International research supports the position that physical activity, physical education, and school sport introduced during the primary school years makes a valuable contribution to health and fitness, as well as a long-term contribution by increasing the likelihood of future participation in physical activities.

- [Change4Life Evidence Review: Rapid evidence review on the effect of physical activity participation among children aged 5 – 11 years](#), (PDF  - 156 KB), Chalkley A, Milton K and, Foster C, Public Health England (2015). The aim of this evidence review was to identify relevant literature on the physiological, psychological, social, and behavioural outcomes of physical activity participation among children aged 5 – 11 years, and provide an indication of the strength of the evidence for each outcome. The physiological outcomes with the strongest evidence for a positive association with physical activity among 5 – 11 years olds are: (1) cardio-metabolic health; (2) muscular strength; (3) bone health, and; (4) cardiorespiratory fitness. The psychological outcomes with the strongest evidence are: (1) improved self-esteem; (2) reduced anxiety/stress; (3) improved academic achievement and cognitive functioning, and; (4) improved attention/concentration. The social outcomes with positive associations with physical activity are confidence and peer acceptance. There was insufficient evidence on any of the behavioural outcomes included in the review. This review underpins and informs the construction of appropriate messages for parents and children about the benefits of physical activity, as put forward by the Change4Life campaign.
- [Do school-based interventions focusing on physical activity, fitness, or fundamental movement skill competency produce a sustained impact in these outcomes in children and adolescents? A systematic review of follow-up studies](#), (PDF  - 413 KB), Lai S, Costigan S, Morgan P, Lubans D, Stodden D, Salmon J and Barnett L, *Sports Medicine*, Volume 44 (2014). There is considerable evidence for positive associations between physical activity (PA), fitness, and fundamental movement skill (FMS) competence, for both children and adolescents. A systematic review of the literature was conducted to determine whether children and adolescents, aged 3 to 18 years, who participated in school-based programs achieve sustained outcomes. This review concluded that it is highly likely that PA, fitness and FMS outcomes are sustainable. While most studies reported positive findings, a key challenge is ensuring long-term change, so there needs to be additional follow-up studies to assess these outcomes.
- [Fundamental movement skill interventions in youth: A systematic review and meta-analysis](#), Morgan P, Barnett L, Cliff D, Okely A, Scott H, Cohen K, and


Lubans D, *Pediatrics*, published online (28 October 2013). Fundamental movement skill (FMS) proficiency is positively associated with physical activity and fitness levels. The objective of this study was to systematically review evidence of the benefits of FMS interventions targeting youth. Twenty-two articles describing 19 interventions were included in this analysis. All but one intervention was conducted in primary/elementary school settings. All studies reported significant intervention effects for fundamental movement skill. Meta-analyses of the data revealed large effect sizes for overall gross motor proficiency and locomotor skill competency; and a medium effect size for object control skill competency.

- [Interventions for preventing obesity in children \(Review\)](#), (PDF  - 2.2 MB), Waters E, et. al., *Cochrane Database of Systematic Reviews*, published online (7 December 2011). The review includes data from childhood obesity prevention studies of twelve weeks or more. The review found strong evidence to support beneficial effects of child obesity prevention programmes, particularly for programs targeting children aged six to 12 years. A broad range of program components were used in these studies and whilst it is not possible to distinguish which of these components contributed most to the beneficial effects observed, our synthesis identified six promising policies and strategies, two that involve school physical education practices: (1) a school curriculum that includes healthy eating, physical activity and body image, and (2) increased sessions for physical activity and the development of fundamental movement skills throughout the school week.
- [Sixty minutes of what? A developing brain perspective for activating children with an integrative exercise approach](#), Myer G, Faigenbaum A, Edwards N, Clark J Best T and Sallis R, *British Journal of Sports Medicine*, Volume 49, Issue 23 (2015). Current recommendations for physical activity in children overlook the critical importance of motor skill acquisition early in life. The overall focus on exercise quantity in youth may limit considerations of qualitative aspects of program design which include (1) skill development, (2) socialisation and (3) enjoyment of exercise. The timing of brain development and associated neuroplasticity for motor skill learning makes the preadolescence period a critical time to develop and reinforce fundamental movement skills in boys and girls. Children who do not participate regularly in structured motor skill-enriched activities during physical education classes or diverse youth sports programs may never reach their genetic potential for motor skill control which underlies sustainable physical fitness later in life. The goals of this review are twofold: (1) challenge current dogma that is currently focused on the quantitative rather than qualitative aspects of physical activity recommendations for youth and; (2) synthesise the latest evidence regarding the brain and motor control that will provide the foundation for integrative exercise programming that provides a framework for sustainable activity for life.

School sport, as well as the primary school physical education curriculum, supports students' acquisition and application of fundamental movement skills (FMS). More information can be found in the Clearinghouse for Sport portfolio, [Physical Literacy and Sport](#).

Late primary school experiences

Anecdotal and empirical evidence suggests that the current generation of Australian children and adolescents are not receiving the optimal benefits that frequent moderate-to-vigorous physical activity can provide. We know that children are less likely to participate in sport when they have a low level of motor skill (i.e. low physical literacy). Participation in physical activities is linked to fitness gains and beneficial health outcomes; therefore, improving physical literacy is a good starting point for greater engagement by children and adolescents in sport and physical activity.

[Getting Australia Moving: establishing a physically literate and active nation \(game plan\)](#), (PDF  - 2.2 MB), Keegan R, Keegan S, Daley S, Ordway C and Edwards A, Centre of Excellence in Physical Literacy and Active Youth (CEPLAY), University of Canberra (2013). This report presents the case for increasing physical literacy amongst children in Australia, with a view to promoting greater physical activity and healthy lifestyles. Physical literacy is a concept capturing


the ability to move effectively; the desire to move; the perceptual abilities that support effective movement; the confidence and assurance to attempt movement challenges; and the subsequent ability to interact effectively with the environment and other people. Children who become physically literate are more likely to achieve sporting prowess, athleticism, cardiovascular fitness, and spend more time being active, which contributes to a long list of positive outcomes.

The current evidence suggests that school activities (physical education and sport) can do more to prepare children for engagement in sport now and into the future.



- [Thirteen-year trends in child and adolescent fundamental movement skills: 1997–2010](#), Hardy L, Barnett L, Espinel P, Okely A, *Medicine & Science in Sports & Exercise*, Volume 45, Issue 10 (2013). This study examined changes in the competency on five common Fundamental Movement Skills (FMS) – sprint run, vertical jump, catch, overarm throw and kick, in a population sample of New South Wales schoolchildren. Serial surveys spanning 13 years were used to collect data. At each survey children's competency was low. The observed increase in FMS competency in 2004 was attributed to changes in practice and policy to support the teaching of FMS in schools. This study concluded that overall, NSW primary school students were low in FMS competency. The data suggests that the current delivery of FMS programs requires stronger positioning within the school curriculum. Strategies to improve children's physical activity should consider ensuring children are taught skills and acquire competency so they can enjoy being physically active, including participation in a range of sports.
- [The longitudinal study of Australian children: Annual statistical report](#), Australian Institute of Family Studies (2012). This is Australia's first nationally representative longitudinal study of child development. The purpose of the study is to provide data that contributes to our understanding of children's development within Australia's contemporary social, economic and cultural environment. This is the third volume in the LSAC Annual Statistical Report series, which for the first time incorporates data from the fourth wave of the study. [Chapter 9](#) (authors: Mullan K and Maguire B) provides data to answer the question, "How engaged are children in organised sport and other physical activity during their late primary school years?" Data collection took into account socio-economic and cultural factors. The data shows that children from relatively low socio-economic family backgrounds were equally likely to participate in organised sports in school, but significantly less likely to participate in organised sports away from school and in organised sport overall, compared to children from moderate to high socio-economic backgrounds. This result supports other findings that the school environment provides a suitable platform for the introduction of organised sport and physical activity across the community.

Secondary school experiences

The health and cognitive benefits of physical activity and sport participation experienced during childhood carry over into adolescence. However, many studies indicate that participation rates tend to decline during the teenage years. This may be the result of competing interests and time commitments; or it may be a lack of sufficient opportunities to participate. Research on the social and psychological benefits of sport during the adolescent years add another dimension to the research supporting the overall health benefits of regular physical activity and sports participation.

- [Evaluating the relationship between physical education, sport and social inclusion](#), (PDF  - 162 KB), Bailey R, *Educational Review*, Volume 57, Number 1 (2005). Questions about the outcomes, place and justification of physical education (PE) and school sport continues to generate considerable debate among teachers and educational theorists. This review suggests that there are some areas in which a considerable amount of evidence in favour of the



positive relationship between PE and school sport and physical and mental health exists. More recently, policy-makers have begun to stress the social dimensions of sports participation.

- [Adolescents and school sport: The relationship between beliefs, social support and physical self-perception](#), (PDF  - 150 KB), Lubans D, Morgan P and McCormack A, *Physical Education and Sport Pedagogy*, Volume 16, Number 3 (2011). Physical activity declines among adolescents in many countries and strategies to combat this occurrence are included in both educational and public health priorities. Schools have been identified as central institutions for the promotion of physical activity among youth through physical education and school sport. This study explored the relationship between students' beliefs about school sport, social support received during school sport, and self-esteem. This study found that both boys and girls considered school sport an important opportunity to be physically active and interact with their friends. Boys reported significantly higher levels of perceived sport competence and physical fitness. Girls reported that school sport enhanced social support.
- [Social Motivation in Youth Sport](#), (PDF  - 55 KB), Allen J, *Journal of Sport & Exercise Psychology*, Volume 25 (2003). This study examined the contribution that social goal orientations and perceptions have on youth sport motivation to participate in sports. Evidence suggests that youth sport participants have concerns other than physical competence. That is, individuals' motivation in sport may not always be related to, or explained by, a desire to demonstrate or develop physical ability. Rather, social concerns such as developing and demonstrating social connections may be equally important. The social opportunities inherent in most sports provide opportunities for individuals to develop social relationships and to feel that they are part of a group.
- [Weekly sport practice and adolescent well-being](#), Merglen A, Flatz A, Bélanger R, Michaud P and Suris J, *Archives of Disease in Childhood*, published online (20 November 2013). A survey of 1245 adolescents, ages 16 to 20 years, from the general Swiss population compared weekly sports participation time and psychological well-being. Participants were categorised into four groups, based on the number of hours per week: (1) low activity, 0–3.5; (2) average activity, 3.6 to 10.5; (3) high activity, 10.6 to 17.5; and (4) very high activity, more than 17.5. The assessment of well-being was done using the World Health Organisation Well-Being Index. The results showed an inverted U-shaped relationship between the duration of weekly sport participation and well-being among adolescents. The peak scores of well-being were in the 'high activity' range. Engaging in higher or lower durations was associated with lesser perception of well-being.
- ['Physical Activity 4 Everyone' school-based intervention to prevent decline in adolescent physical activity levels: 12 month \(mid-intervention\) report on a cluster randomised trial](#), Sutherland R, Campbell E, Lubans D, Morgan P, Okely A, Nathan N, Wolfenden L, Wiese J, Gillham K, Hollis J and Wiggers J, *British Journal of Sports Medicine*, published online (10 September 2015). *Physical Activity 4 Everyone* is a two year intervention program, designed as a multi-component school-based intervention to encourage greater physical activity among adolescents (grades 7 and 8). The seven strategies used were: (1) teaching strategies to maximise activity in physical education (PE) lessons; (2) development of individual student physical activity plans; (3) enhanced school sport for all students; (4) 'school ethos and environment'; (5) school physical activity policies; (6) offering physical activity in school breaks (lunch and recess); (7) linking schools to community physical activity providers, and; (8) parent engagement. Ten schools located in disadvantaged areas of the Hunter, Central Coast and Mid-North Coast of New South Wales were part of the program; 645 students in the intervention group and 505 students in the control group. Baseline data was collected in grade 7 and again at 12-month follow-up (midpoint of the intervention). Interventions targeting adolescents from disadvantaged backgrounds are particularly important, since socio-economic disadvantage increases the likelihood that physical activity will decline during adolescence. Schools allocated to the control group participated in the measurement components of the study only. They were asked to continue with their usual physical activity practices, including normal PE lessons, school sport, breaks for recess and lunch and any scheduled professional development for teachers. At the midpoint of this study, the intervention group spent significantly more time in vigorous physical activity each day compared to the control group, but no statistical difference was found in the amount of moderate physical activity between groups. The authors suggest that the increase in vigorous physical activity is clinically meaningful and may have significant health benefits (i.e. reduced risk of type 2 diabetes and



Benefits of school sport

Enhanced learning

Participating in sport and physical activity contributes to the holistic development of children and adolescents. Not only does participation contribute to physical and mental health outcomes and valuable social connections, but physical activity (including sport) has been linked to cognitive development. Physical activity has been shown to stimulate brain development and this correlates with improved academic performance. It also ameliorates the health risks associated with a sedentary lifestyle so that healthy, active children become better learners. The evidence has accumulated across several contexts and settings – informal physical activity (i.e. children being active); structured sport and active recreation programs (i.e. organised sport during out-of-school hours) and; school-based programs (i.e. physical education curriculum and school sport opportunities).

- [Active Education: Growing evidence on physical activity and academic performance](#), (PDF  - 1.4 MB), Active Living Research, Robert Wood Johnson Foundation, USA (January 2015). There is a growing body of evidence indicating that physical activity and fitness (including sports participation) can benefit both health and academic performance for children. This report summarises the research and published scientific articles that examine how physical activity and fitness may help school-aged children maximise their academic performance. It also provides an overview of the effects of physical activity on the developing brain. The research indicates that providing opportunities for physical activity is consistent with the overall mission and objectives of schools.
- [The associations between physical activity, sedentary behaviour and academic performance](#) (abstract), Maher C, Katzmarzyk P, Dumuid D, Cassidy L and Olds T, *Journal of Science and Medicine in Sport*, published online ahead of print (23 February 2016). This study investigated cross-sectional relationships between children's measured physical activity, sedentary behaviour patterns, and academic performance using the standardised, nationally-administered academic assessment (i.e. NAPLAN). Data were collected from 285 children aged 9–11 years from randomly selected schools in South Australia. This study aimed to address the gaps in the current literature, by objectively measuring children's physical activity and sedentary behaviour patterns using accelerometer data. Academic performance was inconsistently related to moderate-to-vigorous physical activity (MVPA) across the range of academic measures. Writing and numeracy achievement were positively, significantly related to MVPA, as was overall proficiency score. Children categorised as achieving high MVPA (i.e. 45 minutes/day) scored, on average, 10 points more than those having low MVPA (i.e. 19 minutes/day or less). Impacts of MVPA, and in particular aerobic exercise on cerebral blood flow, and neuroplasticity and executive function, may underpin these associations. To our knowledge, this is the first study to consistently identify favourable relationships between total sedentary time and academic performance; sedentary time during weekdays was positively related to academic performance in reading and spelling.
- [Brain Boost: How sport and physical activity enhance children's learning, what the research is telling us](#), (PDF  - 2.9 MB), Smith J, Government of Western Australia, Department of Sport and Recreation (2015). This report is a follow-up to one published in 2010, it updates the latest research supporting the positive link between physical activity (including sport) and cognitive development and academic success. It details findings from Australian and international research published in peer reviewed journals and it provides summaries of intervention and longitudinal research, correlational studies, and research reviews.
- [The educational benefits claimed for physical education and school sport: An academic review](#), Gailey R, Armour K, Kirk D, Jess M, Pickup I and Stanford

R, *Research Papers in Education*, Volume 4, Issue 1 (2009). This review critically examines the theoretical and empirical evidence of claims made for the educational benefits of physical education and school sport (PESS). Claims regarding the benefits of PESS are made in four broad domains: (1) physical; (2) social; (3) affective, and; (3) cognitive. Analysis of the evidence is generally supportive in all four domains. However, benefits are mediated by environmental and contextual factors such as the quality of leadership; the involvement of young people in decision-making; the emphasis on social relationships, and; an explicit focus on learning processes (e.g. pedagogical considerations). In the physical domain there is strong evidence that development of children's movement skills and physical competence can contribute to greater physical activity, and therefore health and fitness benefits. In the affective and social domains engagement has been positively associated with psychosocial and emotional development, yet the specific mechanisms through which these benefits occur is less clear. Likewise, the mechanisms by which PESS might contribute to cognitive and academic developments are still being explored. There is persuasive evidence to suggest that physical activity can improve children's concentration and arousal, which benefits academic performance.


- [Out of school activities during primary school and KS2 attainment](#) (PDF  - 1.1 MB), Chanfreau J, Tanner E, Callanan M, Laing K, Skipp A and Todd L, Centre for Longitudinal Studies, National Centre for Social Research, United Kingdom, Working Paper (2016). This research investigated whether taking part in out-of-school activities during primary school is linked with end of primary school academic attainment and social, emotional and behavioural outcomes. Specifically, the outcomes for all children were compared to children from economically disadvantaged backgrounds. The analysis is based on the Millennium Cohort Study (MCS) survey data linked to administrative data for the cohort's Key Stage 1 (KS1) and Key Stage 2 (KS2) academic attainment scores. Data on 11,762 children were collected at five time points, including ages 5, 7 and 11 years. Results showed that for all children sports clubs and 'other' (unspecified) after-school participation was positively associated with attainment outcomes at age 11, when controlling for prior attainment. Participating in organised sports or physical activity was also positively linked to social, emotional and behavioural outcomes. Among disadvantaged children, after-school club sport participation emerged as the only organised activity linked to child outcomes; participation was linked to both higher KS2 attainment and pro-social skills. The implications of these findings for further research, policy and practice are discussed. Educational inequalities between children from different backgrounds at the end of primary school are pronounced. A quarter of children in the UK from the most disadvantaged backgrounds achieve below expected levels, compared to just 3 per cent of children from affluent backgrounds. A range of theories have been offered to explain the different pathways that may link out-of-school activities to academic attainment; including academic enrichment (i.e. additional learning opportunities), greater confidence and self-esteem, and positive identification with school. The literature suggests that disadvantaged children have more to gain from out-of-school activities. The current research builds upon the existing evidence by examining a range of out-of-school activities and their potential for helping to reduce the attainment gap; future research must explore the causal relationships.
- [Physical activity and cognition in adolescents: A systematic review](#), Esteban-Cornejo I, Tejero-Gonzalez C, Sallis J and Veiga O, *Journal of Science and Medicine in Sport*, published online 24 July 2014. This systematic review of literature looked at the association between physical activity and cognition, differentiating between academic performance and cognitive ability. Half of the studies reviewed found a positive association between fitness and academic performance, and 23% found a positive association between fitness and cognitive ability. The results of this review support the positive association that moderate-to-vigorous physical activity has with cognition.
- [Maximizing the benefits of youth sport](#), (PDF  - 383 KB), *Journal of the American Alliance for Health, Physical Education, Recreation and Dance*, Position Statement, Volume 84, Number 7 (2013). Research shows that positive outcomes of youth sport depend on: (1) the manner in which sports are organised; (2) what occurs in a young person's relationships with parents, peers, and coaches; (3) the meaning that a young person gives to sport experiences, and; (4) the way a young person integrates sport experiences into other spheres of life. Knowledge of those factors is crucial when creating a framework that maximises the benefits of sport participation. Based on research findings across multiple fields, it is the current position of the American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD) that young people who play sports are likely to experience physical,

psychological, academic, and social benefits, but those benefits do not occur automatically. Positive benefits are most likely to occur when young people have positive and supportive relationships with teammates, coaches, and parents; develop physical and interpersonal skills, knowledge, and competencies; have opportunities to make decisions about their sport participation, and; have experiences that are consistent with their particular needs and developmental level.

Sport offers a value-added proposition to every curriculum area; challenging critical thinking skills, decision making, and moral reasoning. The introduction of sport in the school environment, particularly through team activities, provides a social network for children based on common interests outside the classroom. Sport provides another pathway for the fulfilment of personal potential. Sport also allows young people to take on leadership roles and responsibilities.

Health outcomes

In both Australian and international research, sport and increased physical activity is shown to have a positive impact upon health status. There are a number of common factors that consistently appear in the literature:



1. School settings provide many advantages because basic physical education gives children the skills that will enable a lifetime of varied physical activities and sports participation.
 2. Programs that target primary school-age participants (and the literature suggests that pre-school programs may be even more effective) have a good chance of producing long-term impact.
 3. School-based programs can help overcome some social disadvantage factors.
 4. The most successful programs produce behavioural change on several factors, not just environmental change. Changes occur in physical activity level, dietary practice, attitudes toward physical activity, time management, and there is usually a reduction of sedentary (screen time) activity.
- [A synthesis of existing systematic reviews and meta-analyses of school-based behavioural interventions for controlling and preventing obesity](#), Khambalia A, Dickinson S, Hardy L, Gill T, and Baur L, *Obesity Reviews*, Volume 13, Number 3 (2012). Eight reviews were examined, three meta-analyses and five systematic reviews. Intervention components in the school setting associated with increased physical activity had a significant effect on the reduction of weight in children. Long-term physical activity interventions combined with diet intervention and having a family component appeared to be the most effective. Several reviews also found gender differences in response to interventions.
 - [The WHO Health Promoting School framework for improving the health and well-being of students and their academic achievement](#), Langford R, et.al., *The Cochrane Library*, published online 16 April 2014. Health and education are strongly connected; healthy children achieve better results at school, which in turn is associated with improved health later in life. This relationship between health and education forms the basis of the World Health Organization (WHO) Health Promoting Schools (HPS) framework, an approach to promoting health in schools that addresses the whole school environment. This review assesses whether students' health, well-being, and their performance at school improved after interventions that included physical activity, dietary changes and education. The review covered 67 studies, 22 of these studies addressed primarily physical activity or the combined effect of physical activity and nutrition intervention. This review found interventions produced positive effects on reducing body mass index and increasing physical activity and physical fitness. Intervention effects were generally small but have the potential to produce public health benefits at the population level.
 - [Evidence update on obesity prevention across the life-course](#), (PDF  - 1.1 MB), New South Wales Ministry of Health, Physical Activity Nutrition Obesity

Research Group, Hector D, et al. (2012). This report provides a summary of evidence on the prevention of overweight and obesity in order to guide the development of the NSW State Obesity Plan 2012–2015 and highlights the most promising approaches for action based on the range of evidence across childcare, schools, workplaces, and home/family settings. School-based physical activity interventions may help children maintain a healthy weight but the results are primarily short-term. The evidence suggests that physical activity interventions may be more successful in younger children and in girls. While there are some inconsistencies in the findings, it is recommended that any interventions use a whole-of-school approach, not simply curriculum-based, and that interventions need to combine strategies which focus on both increasing physical activity and improving diet.

- [Lifetime cost effectiveness of a through-school nutrition and physical programme: Project Energize](#), *Obesity Research and Clinical Practice*, Volume 8, Issue 2 (2014). The Project Energize program aimed to improve the overall health and reduce the rate of weight gain of Waikato, New Zealand, primary school children. The economic analysis of the program compared the intervention cost against the life-time reductions in health treatment costs attributable to obesity. The program costs approximately \$45 per child per year to run and projected health cost savings over the lifecourse were approximately \$25,000 to \$30,000, depending upon the ethnic and socio-economic background of participants. Project goals were divided into physical activity and healthy eating; the goals for physical activity were: (1) 20 minutes of quality physical activity in school, daily; (2) encourage lunch-time play and physical activity; (3) encourage and advocate for home play every day; (4) encourage the reduction of two hours (including screen time) of sedentary behaviour each day; (5) raise awareness of incidental opportunities for physical activity (including active transport to/from school), and; (6) raise awareness in children of the importance of fundamental movement skills. In terms of measurable improvements, the program produced these results among participants 6-11 years of age, when compared to non-participants: (1) Energize children could run faster; (2) Energize children had smaller waist circumferences; (3) a smaller proportion of the Energize participants were categorised as overweight or obese; (4) Energize children were more physically active, both in and out of school, and; (5) Energize children demonstrated healthy eating and drinking habits.

Social outcomes

Sport in general, and school sport in particular, tends to bring individuals and communities together. The eclectic nature of many school environments provides a natural diversity of cultural and socio-economic influences. Numerous government and independent reports identify schools as the ideal setting to deliver the health and social outcomes that sport and physical activity can offer.

- [The glue that holds the community together? Sport and sustainability in rural Australia](#), (PDF  - 152 KB), Spaaij R, *Sport in Society*, Volume 12, Number 9 (2009). Drawing on the author's research in northwest Victoria, this essay examines the forms of social capital that are created in and through rural sport as well as the processes of social inclusion and access to social networks and to the resources these networks contain. Rural communities view both sports clubs and schools as network hubs that foster social cohesion, local and regional identities, and a shared focus. Sporting competitions in northwest Victoria also contribute to cultural and economic capital for some participants. While the creation and transference of these capitals are to a large degree regulated by wider social divisions, the two environments (clubs and schools) present increased opportunities for people to take on leadership roles and to develop new skills and knowledge through sport participation.
- [Life skills development through sport: current status and future directions](#), Gould D and Carson S, *International Review of Sport and Exercise Psychology*, Volume 1, Issue 1 (2008). This review summarises sport research regarding the acquisition of life skills. It also looks at the conditions needed to develop life skills and the possible theoretical explanations of how, when, and under what conditions life skills develop among sport participants.
- [Social values of sport participation and their significance for youth attitudes towards physical education and sport](#), (PDF  - 81 KB), Tomik R, Olex-Zarychta D and Mynarski W, *Studies in Physical Culture and Tourism*, Volume 19, Number 2 (2012). This study examined whether European school sport

clubs might support the overall efforts of the school to prepare youngsters with positive attitudes about lifelong participation in physical activity and sport. The results support the hypothesis that school sports clubs foster more pro-social attitudes among participants toward sport, compared to peers with no involvement. The results support the importance of sport in reinforcing the positive effects of social and cultural education at school.

- [Sport-based life skills programming in the schools](#), (abstract), Danish S, Forneris T and Wallace I, *Journal of Applied School Psychology*, Volume 21, Issue 2 (2005). This paper explores the role that sport can play in facilitating positive youth development. The authors identify the environments in which sport best contributes to positive youth development and the role that schools, and the psychologists who work in these schools, play in this process.

Shared access to facilities


Schools and communities with strong sport programs provide a focal point for community development and partnerships which have added social and economic benefits.

Of particular note is the greater capacity that partnerships provide in maximising the use of shared facilities. Community sporting organisations are under increasing pressure to provide services, but most do not have the capacity to maintain infrastructure. School facilities have been traditionally underutilised in the after school and weekend timeslots. Greater community sport use of school facilities can produce economic efficiencies in terms of facility maintenance, repair and upgrade and allow these to be undertaken in a more timely and effective manner.



Use of school facilities outside of school hours presents opportunities not only for cost benefits, but also social benefits such as a decrease in vandalism and increased employment opportunities in the local community.

Whilst official policies encourage the shared use of school facilities by other community groups, access is largely dependent on the attitude of each individual school. Many school facilities remain unused outside school hours. The Australian Government has made a significant investment in school infrastructure, including sporting facilities, through *Building the Education Revolution* from 2010 to 2013. Reciprocal agreements provide an opportunity for community groups to access school facilities and for schools to access community open space and the expertise of community organisations.

A number of reports have highlighted the advantages of shared facility access, both for schools and community sporting organisations. Internationally, the practice of sharing school and community facilities is seen as a cost effective way to encourage greater physical activity.

- [Characteristics of Joint Use Agreements in School Districts in the United States: Findings from the School Health Policies and Practices Study, 2012](#), Jones S and Wendel A, *Preventing Chronic Disease*, Volume 12 (2015). Joint use, or shared use, of public school facilities provides community access to facilities for varied purposes, including sport and recreation. This study examined a nationally representative sample of school districts in the United States to identify characteristics associated with having a formal joint use agreement (JUA). More than 80% of schools that had JUAs included the use of indoor and outdoor recreation facilities, other uses also were identified. JUAs were more common in urban than rural areas, in larger rather than small school districts, and in the West compared with other regions of the US.
- [NSW Auditor-General's Report: Physical Activity in Government Primary Schools](#), (PDF  - 1.5 MB), Department of Education and Communities (2012).

This report evaluates the status of physical activity programs in NSW schools. The report contains eight recommendations, including the development of agreements between local schools and councils to facilitate greater access to sporting facilities at little or no cost.

- [Promoting physical activity through the shared use of school and community recreational resources](#), (PDF  - 356 KB), Active Living Research, Robert Wood Johnson Foundation (2012). Providing access to safe, affordable and convenient recreational facilities is a critical strategy for helping children and adults be more active, especially in lower-income communities. Leading public health authorities, including the Centers for Disease Control and Prevention, the U.S. Department of Health and Human Services and the American Academy of Pediatrics, recommend sharing existing school and community recreational facilities to promote opportunities for physical activity.
- [Territorial Authority / School Facilities Partnerships: A guide](#), (PDF  - 1.1 MB), Sport New Zealand (2011). Facility partnerships are increasingly being considered to meet the sporting and leisure needs of both the wider community and school students. Research from New Zealand and internationally suggests that partnerships must be planned and managed effectively. This publication outlines the different phases a partnership project will go through, from planning to operation.
- [Use Our School](#). Sport England has provided an easy to navigate web resource, providing advice and guidance on the community use of school sites and sharing current good practice. Education sites deliver a valuable supply of facilities for developing and delivering sport. According to survey data, 76% of sports halls in England are on education sites and 73% of artificial grass pitches in England are located on education sites. The effective use of new and existing education facilities has the potential to transform sport and community club infrastructure whilst supporting education and community sports delivery.

Developing co-located and integrated community facilities, such as school-based sport and recreation facilities, can maximise the efficiency of access (i.e. travel networks and service provision) and thus enhance opportunities for sports participation by members of the community.

- [Healthy Active by Design](#), Heart Foundation Australia (website). This website contains evidence reviews, policy documents, relevant case studies, and examples of shared school—community facility use.

Australian Government initiatives


[Sporting Schools](#). This national program became operational in July 2015. The program is managed by the Australian Sports Commission and engages primary schools and 32 National Sporting Organisations (NSOs) and their networks, to bring more sport-based activity to schools. One of the program objectives is to convert children's sporting interests into club-based settings and foster a lifelong interest in sport. Funding is available to schools to engage quality coaches and deliver sporting opportunities before, during and after school hours. The Sporting Schools mission is to:

- support sporting organisations in the delivery of great programs that are suitable for children;
- provide schools with opportunities to get their students excited about sports through a diverse range of quality programs;
- provide children with positive sporting experiences in the best possible way – by allowing them to participate in a fun and safe learning environment, and;
- support schools, teachers and coaches by offering online resources and information.

Sporting Schools aims to engage more than 850,000 children across Australia in what will be the country's largest school-based sport participation program.

Programs are based on the 'Playing for Life' philosophy, which encourages children to have fun while focusing on skills.

- [Market Insights Report](#), Australian Sports Commission, School Engagement and Partnerships, Sport Participation (May 2016). The Australian Sports Commission works with schools and National Sporting Organisations (NSOs) to deliver the federally funded Sporting Schools Program. This report provides insights from market research conducted within the education sector, to assist NSOs (and their State affiliates) to better understand the opportunities that engagement with schools can offer. *[full text may be restricted to some Clearinghouse member groups]*

[Play.Sport.Australia](#). (PDF  - 19.5 MB), Australian Sports Commission (2015). This is the Australian Sports Commission's (ASC) game plan to increase participation in sport by Australians. It provides a 'big picture' vision for boosting participation in sport in the years ahead. It also paints a compelling picture of how sport has changed, and is changing, and identifies opportunities for the Australian sport sector to grow. The key aims of Play.Sport.Australia are:


- more Australians, particularly young Australians, participating in sport more often;
- year-on-year membership and participation growth for all sports, and;
- strong sporting organisations that deliver the products and opportunities Australians want.

Legacy Programs

The AUSSIE Sports program was launched by the Australian Sports Commission (ASC) in April 1986. For the first time, Australia had a nationally coordinated program of sports education and development targeting primary school age children. AUSSIE Sports was not designed to replace physical education in primary schools, but to support existing programs and enhance the capability of primary schools to deliver a skills-based sport education program within their curriculum. The Australian Sports Commission led a national awareness campaign to highlight AUSSIE Sports and the desirable outcomes from junior sport participation. The ASC also encouraged National Sporting Organisations (NSOs) to think about how they promoted and delivered sport, particularly to children. Primary schools and sporting clubs could enroll in the AUSSIE Sports program to receive supporting resources, as well as benefiting from the enhanced public profile of junior sport highlighted in the media campaign. Resources included an activities manual with 30 modified games as well as techniques and drills to develop basic sports skills, videos, pupil log books, posters, badges and certificates. AUSSIE Sports disappeared as an identifiable brand in the late 1990's.

More information about the [AUSSIE Sports](#) program can be found in the Clearinghouse for Sport.

In May 1992 the Federal Government referred the issue of school physical education, sport education, and school sport to a Senate Committee for inquiry. This Committee (as part of its terms of reference) investigated the current level of physical and sport skills acquired by Australian children through their participation in school physical education and sport education. The Committee also looked at the current training practices of teachers and members of the community providing sport education in schools; the allocation of resources, and; the consistency of physical education and sport policies and programs within and between schools and states.

- [Physical and Sport Education](#), (PDF  - 4.6 MB), Commonwealth of Australia, Report by the Senate Standing Committee on Environment, Recreation and the Arts (1992).

The Senate Committee found that there was general agreement about the importance of physical education in schools (particularly primary schools), but a serious problem existed in the delivery of physical education and sport education because of several factors, including:

- crowded curriculum;
- the inclusion of physical education under the umbrella of health education;
- a lack of consistent physical education policy in all States and Territories;
- a devolution of decision making to local schools;
- lack of defined and agreed outcomes for the physical education curriculum compared to other curriculum areas;
- a reduction in the number of specialist physical education teachers and limited preparation of generalist teachers of physical education and sport;
- confusion regarding what is physical education and what is sport education, and what is school sport;
- the use of AUSSIE Sports and associated programs to justify the withdrawal of physical education from schools.

Based upon the Committee's findings a number of conclusions were drawn and supporting recommendations made, they included:

1. physical education is a necessary part of the school curriculum and should be inclusive of sport education and school sport;
2. children's physical skill levels, physical fitness levels, and participation in physical education and sport programs are declining;
3. there is a policy vacuum surrounding physical education which has led to an ad hoc approach to delivery;
4. physical education, when properly implemented, leads to increased performance in other areas of the curriculum and the development of skills enabling lifelong physical activity for better health;
5. State and Territory departments of education are responsible for providing physical education and State/Federal and community sporting organisations are currently filling the existing 'physical education gap';
6. physical education programs should be taught by teachers with appropriate skills;
7. access and equity issues are not addressed for Aboriginal and Torres Strait Islanders and children of non-English speaking backgrounds;
8. girls and boys are entitled to equal experiences and opportunities to engage in physical education and school sport;
9. quality physical education and school sport programs (particularly at primary school level) should focus on participation, skill development, and social development, rather than competition;
10. positive and cooperative links between departments of education, sport and recreation, sporting associations, and local communities can deliver quality sport education and school sport.

The Australian Government's Active After-school Communities (AASC) program was an initiative that provided primary school-aged children with access to free sport and other structured physical activity programs during the after-school time slot of 3.00pm to 5.30pm. The program ran from 2005 through 2014. At its peak the AASC program was conducted in more than 3200 schools and after-school care centres in all States and Territories, with approximately 190,000 children participating each school term.


More information about the [Active After-school Communities](#) (AASC) program can be found in the Clearinghouse for Sport.

Programs for Aboriginal and Torres Strait Islander school children that linked sport with education were also introduced, they included:


- 'No School, No Play' – This federally funded program (2010-2012) through the Department of Education, Employment and Workplace Relations was delivered in partnership with eight National Sporting Organisations: Australian Rugby League, Australian Football League, Australian Rugby Union, Football Federation of Australia, Netball Australia, Basketball Australia, Hockey Australia, and Cricket Australia. Sport partnerships were used to encourage regular school attendance among 'at risk' secondary school students.
- 'Sporting Chance Program' – The Sporting Chance Program used five sport and recreation-based strategies to encourage educational engagement by Aboriginal and Torres Strait Islander primary and secondary school students. The strategies include: (1) provide inspiration, encouragement and support for students through role models and mentors, (2) enhance students' self-esteem and self-confidence as Aboriginal and Torres Strait Islander young people, (3) help students develop life skills, for example in leadership and goal-setting, (4) encourage participation in sport and recreation activities for healthy and positive lifestyles, and (5) strengthen school and community partnerships and cultural awareness. The program was decommissioned in 2013.
- 'Sporting Academies' – In 2012, 66 school-based programs provided support to approximately 6,000 Aboriginal and Torres Strait Islander secondary school students, including students from remote locations who are deemed 'at risk' of not completing their schooling. The aim of the academies was to encourage positive educational outcomes for Aboriginal and Torres Strait Islander students (boys and girls) by using sport and recreation incentives.

Education Department policies

Australian Capital Territory

- [Australian Capital Territory Health, Physical Education and Sport Policy](#), (PDF  - 46 KB), Department of Education and Training (2009). The ACT Department of Education and Training. mandates a minimum of 25-30 minutes per day of moderate-to-vigorous physical activity as part of planned physical education and sport programs for students in K-6, and 150 minutes per week of moderate-to-vigorous physical activity for students in grades 7 through 10.

New South Wales

- [New South Wales Curriculum Guidelines](#), (PDF  - 1.2 MB), NSW Board of Studies (2007). Personal Development, Health and Physical Education is one of six key learning areas in the NSW primary school curriculum. Students should be physically active every day in as many ways as possible, including 30 minutes of moderate physical activity and at least 20 minutes of more vigorous activity three times per week.

Northern Territory

- [Northern Territory physical activity requirements for schools](#), Department of Employment, Education and Training (2008). Schools in the Northern Territory are required to provide at least two hours of physical activity in the curriculum each school week for students in the primary and secondary years.


Queensland

- [Queensland: Daily physical activity – A guide for schools](#), Department of National Parks, Recreation, Sport and Racing (2012). This guide is intended to be a 'how to' resource, rather than a 'what to' resource. Daily physical activity should provide a variety of ways to achieve the outcomes expected in the delivery of the Queensland School Curriculum, in an active way.

South Australia

- [South Australia Curriculum Standards and Accountability Framework: physical activity and participation](#), Department of Education and Children's Services. Charts are provided in each learning area as an overview of key ideas and developmental outcomes for early, primary, middle, and senior years.

Tasmania

- [Tasmanian Curriculum, Health and wellbeing, K–10 syllabus and support materials](#), Department of Education. Tasmania's Plan for Physical Activity 2011-2021 (PDF  - 1.6 MB).

Victoria

- [Victoria, Health and Physical Education](#), Victorian Curriculum and Assessment Authority.

Western Australia

[Western Australia, Physical Activity Policies and Guidelines](#), Department of Education. The Department of Education's Curriculum, Assessment and Reporting policy requires that opportunities are provided to enable all students in Years 1-10 to participate in a minimum of two hours of physical activity each week during the school day as part of student learning programs. Schools are also encouraged to provide opportunities for students to be physically active at other times.

Australian School Sport Associations

[School Sport Australia](#). Since its establishment in 1981, School Sport Australia has been responsible for the development and promotion of school sport in Australia. This is achieved through an affiliated network of State Member bodies which have accepted the responsibility of implementing School Sport Australia's programs, assisting in policy development, and providing opportunities for students to participate in the broadest possible range of sporting activities. The focal point of School Sport Australia activities has been the interstate competitions offered at both primary and secondary-school levels. Interstate competition is the culmination of state based competitions and offers talented students the opportunity to demonstrate their skills at a higher level. National events are an integral part of the School Sport Australia program, not only for their sporting benefits, but for the educational, cultural, and social benefits they provide participants.


State and Territory organisations

- [School Sport ACT](#)




- [NSW, Department of Education and Communities, School Sport Unit](#)
 - [School Sport NT](#)
 - [Queensland School Sport](#)
 - [South Australia Primary School Sport](#) (SAPSASA) and [Secondary School Sport SA](#) (SSSSA)
 - [Southern Primary Schools Sports Association](#) and [Sports Association of Tasmanian Independent Schools](#)
 - [School Sport Victoria](#)
 - [School Sport Western Australia](#)
-

International practice

Canada

- [Sport Schools in Canada: The future is here](#), (PDF  - 2.3 MB), Way R, Repp C and Brennan T, Canadian Sport Centre, Pacific (2010). High school education systems in many provinces of Canada have evolved to allow a wider variety of educational options, including sport specific academies. In British Columbia there are 72 schools offering 110 programs with approximately 4000 students enrolled in 21 sports. Sport specific academies offer an enriched training environment for students and approximately 95% have links to community sports organisations through coaching, facility use and shared equipment use. In addition, 77% of sport schools contract services from outside the school (primarily coaching and officiating). Empirical evidence suggests participating student-athletes have better school attendance, increased academic performance, and improved life skills. This report outlines recommendations that will help link school sport academies to the larger Canadian sport system. Opportunities are available to form new partnerships between sport and education to deliver leadership, accountability, and quality control and maximise available resources.



Europe

- [EU White Paper on Sport](#), (PDF  - 85 KB), Commission of the European Communities (2007). Sport makes an important social and economic contribution to the European Union's strategic objectives of solidarity and prosperity. One of the Commission's recommendations is to strengthen cooperation between the health, education, and sport sectors to promote the concept of active living through the national education and training systems, including the training of teachers. Based on experience gained during the 2004 European Year of Education through Sport, the Commission encourages support for sport and physical activity through various policy initiatives in the field of education and training.
- [Sport education in European schools: Compulsory but less important than other subjects](#), (PDF  - 5.0 MB), European Commission, Education, Audiovisual and Culture Executive Agency (March 2013) Physical education is a compulsory subject at school but is commonly perceived as being less important than other subjects, according to a new European Commission report. This report covers primary and lower secondary education and provides an insight into the following topics: national strategies and initiatives, the status of physical education in national curricula, recommended annual classroom time, pupil assessment methods, teacher education, extracurricular activities, and planned reforms.
- [Young and physically active: A blueprint for making physical activity appealing to youth](#), (PDF  - 3.3 MB), Kelly P, Matthews A and Foster C, World Health Organization, regional office for Europe (2012) Scientific evidence shows that physical inactivity is a leading risk factor for ill health, going well beyond issues related to weight control. Over the past few years the promotion of physical activity has increasingly been recognised in Europe as a priority for public health, and many countries have responded by developing policies and interventions. Several case studies include physical education settings.



Japan




- [Trends and Development in Education, Science and Technology](#), Japanese Government Whitepaper, Chapter 6, “Creating a Sport Nation” (2011). Sport plays a key role in many aspects of people’s lives by supporting the development of youth, revitalising local communities, promoting mental and physical health, generating social and economic vitality, and raising national status in the international community. In view of this, the national plan strives to create a society where all people can enjoy a happy and fulfilled life, with sport making a contribution. The ‘Sport Basic Plan’ outlines the Government’s key principles of sport promotion for the next 10-year period. The Plan promotes initiatives to improve physical education and sports club activities in schools, improvement of the quality of physical education, and provision of support for sports club activities.

New Zealand



- [Fundamental Movement Skills among children in New Zealand](#), (PDF  - 2.1 MB), Sport New Zealand (2012). This report provides some insights about movement abilities of Kiwi children and is based on data collected in 2002 as part of the National Education Monitoring Project (NEMP) for year-4 and year-8 children. A snapshot is provided, as well as an examination of whether skill levels have changed over time.
- [KiwiSport in Schools, October 2012 Report](#), Education Review Office, New Zealand (2012). KiwiSport is a government initiative established in 2009 to increase opportunities for school-aged children to participate in organised sport.
- [Physical Education and Sport in Primary Schools](#), (PDF  - 943 KB), Penney D, Pope C, Hunter L, Phillips S and Dewar P, University of Waikato, New Zealand (2013). This report presents the results of a scoping study focusing on the provision of physical education and sport in New Zealand primary schools within and beyond the school curriculum, and outside of school hours. The project examined: (1) the types of opportunities that are provided; (2) which sports and activities are popular; (3) the key factors influencing current provision of sports and activities, and (4) ways in which current provision may be enhanced, from the perspective of students, teachers and other stakeholders.
- [Play.sport](#), Sport New Zealand (10 March 2016). This new initiative, *Play.sport*, is aimed at ensuring students are receiving quality physical education and sport at school. The initiative uses a physical literacy approach that is focused not only on physical skills, but social and emotional skills needed to enjoy life-long engagement in sport and physical activity. In 2016 *Play.sport* will be a pilot program in 34 New Zealand schools. The program is funded primarily through Sport New Zealand and supported by the Ministry of Education.

United Kingdom



- [The future of school and community sport](#), (PDF  - 785 KB), Efford C (editor), The Smith Institute (2013). The challenge facing the UK Government is how best to take forward the Olympic legacy. How to create a consensus for school and community sport that delivers continued, sustained benefits for future generations; how to ensure that resources are in place that match the vision; and what more can be done to integrate sport in schools with sport in the community? Nine expert authors take these issues head-on, and between them offer a progressive agenda for the future.
- [The PE and sport premium for primary schools: Good practice to maximise effective use of funding](#), (PDF  - 364 KB), Ofsted, publication reference number 140164 (2014). Ofsted is the Office for Standards in Education, Children’s Services and Skills in the United Kingdom. Ofsted is an independent body that provides inspection and regulatory services and reports directly to Parliament. The government is providing funding to primary schools and academies that is specifically targeted at improving the provision of physical education (PE) and sport. A survey conducted during April to July 2014 identified good practice in 22 schools previously identified as performing well in PE. This report shares the results of that survey. In most of the schools surveyed, additional funding was being used to:


- deploy new sports coaches and other qualified personnel;
 - join existing sports partnerships by pooling resources and organising inter-school sports competitions;
 - improve teacher's subject knowledge, techniques and skills;
 - work in partnership with secondary schools to facilitate specialist teachers and coaches in extra-curricular sport;
 - engage with parents and community sports clubs to increase pupils' regular participation in sport and physical activity outside of school hours, and;
 - help selected pupils, including persons with disability, who have special needs to overcome barriers and benefit from PE and sport.
- [Physical Education and School Sport](#), Ruff Guide to Sport and Physical Activity academic resources (2012). Physical Education (PE) is one of five subjects required for all pupils from the ages of 5 through 16 years. In schools, sport and physical activity are contextualised principally as PE, and in recent years there has been a greater emphasis on sport in schools as a result of 2012 London Olympic Games legacy programs. The Club Links program is delivered by Sport England with the objective of increasing the number of young people in school sport partnerships with community based sports clubs.
 - [Changing the Game, for Girls: A toolkit to help teachers get more girls involved in PE and school sport](#) (PDF  - 632 KB), Women's Sport and Fitness Foundation, UK (2016). This resource is designed to help schools and physical education (PE) teachers get more girls involved in PE and school sport by understanding the reasons why so few girls participate. Underpinning research at Loughborough University examined the reasons for the gender gap in PE and school sport participation. Population statistics also show that young girls in the UK are less likely to meet the recommended daily physical activity target than boys and a high proportion of girls are overweight or obese. The research can help us understand what would help girls become more active, so that schools can develop policies and strategies to encourage greater participation among girls. Overall, this research found that families are the most powerful influence on a child's activity levels, and schools are seen as the most important site for change. Because school attendance is compulsory, schools have a unique opportunity to deliver programs (e.g. PE and school sport) and create a culture in which physical activity is valued. A whole-school approach is recommended, involving students, parents and teachers.
 - [Sport Changes Lives](#), (PDF  - 616 KB), Youth Sport Trust, UK (2012). The Youth Sport Trust (YST) is an independent charity devoted to changing young people's lives through sport. The YST is passionate about helping all young people to achieve their full potential by delivering high quality physical education (PE) and sport. The YST is a strong advocate for school PE and sport and has driven many improvements and continuously looks at new ways to inspire young people to participate, compete, volunteer and officiate. The YST believes that every young person's life can be transformed by PE and sport, whatever their age or ability. The YST works in partnership with schools, sponsors, government, sporting organisations and young people to achieve its objectives.
 - [Towards a Better Future for Youth Sport](#), (PDF  - 1.2 MB), MacDougal J, Sport England (2012). This report summarises the current state of play and offers a variety of policy ideas. The failure to produce a holistic, longitudinal, and successful sports policy has resulted in a lack of opportunity and provision because of disjointed structure and intermittent funding commitment. This has negated many benefits that sport has to bring to the wider community, particularly in health and education. Two of the key findings of this report: (1) a child's opinion of sport tends to be formed at an early age, so quality provision of primary school programs (that incorporate core movement skills) is very important; currently teachers lack the training and confidence (not ability) to provide quality physical education, and; (2) increasing the time spent on school sport to two hours per child per week still lags behind European schools and most British independent schools, who regularly offer over four hours per week. It is vital that investment in school sport and physical education is continued and the links with sports clubs are made stronger to meet the latest targets of providing an additional three hours per week outside the classroom.

[Intergovernmental Committee for Physical Education and Sport \(CIGEPS\)](#), United Nations Educational, Scientific and Cultural Organisation (UNESCO). The Committee was established in 1978 to promote the role and value of sport and its inclusion in public policy. CIGEPS is comprised of expert representatives in the field of physical education and sport from 18 UNESCO Member States, each elected for a four year term. A Permanent Consultative Council (PCC) has been established; comprising key sport federations, UN agencies, and non-governmental organisations; to provide technical support and advice to the Committee. CIGEPS has the potential to bring nations together and to engage governments in coordinated international efforts to optimise the socio-economic benefits of sport and physical education programs and help them achieve their potential.

- [CIGEPS Report](#), (PDF  - 547 KB), Plenary Session and joint meeting with PCC, held in Paris, 6-7 March 2014. This report presents a summary of the discussions which took place during the Plenary Session of CIGEPS, convened by UNESCO. Topics included: the revision of the International Charter of Physical Education and Sport; quality physical education guidelines for policy-makers, and; research on the socio-economic benefits of sport.
- [Quality Physical Education \(QPE\) Guidelines: Guidelines for policy-makers](#), (PDF  - 4.2 MB), McLennan N and Thompson J, United Nations Educational, Scientific and Cultural Organization (2015). UNESCO's vision is clear – sport and physical education are essential to youth, to healthy lives, to resilient societies, to the fight against violence. Physical education exposes young people to a range of experiences that enable them to develop the skills and knowledge they need to make the most of opportunities today and to shape new forms of global citizenship. Yet, despite the recognised power of physical education, we are seeing a global decline in its delivery. These guidelines have been developed in partnership with the International Olympic Committee and other organisations to inform and mobilise stakeholders to take action.

United States

- [2012 Shape of the Nation Report: Status of physical education in the USA](#), (PDF  - 759 KB), National Association for Sport and Physical Education and the American Heart Association (2012). This report provides current information on the status of physical education in each of the states in the USA. Data for the following areas is presented: time requirements, high school graduation requirements, exemptions/waivers and substitutions, physical activity targets, local school wellness policy, standards for curriculum and instruction, class size, student assessment and program accountability, body mass index data of students, physical education teacher certification/licensure, and state physical education coordinator requirements.
- [K-12 Education: School-based physical education and sports programs](#), (PDF  - 517 KB), United States Government, Accountability Office, Report to Congressional Requesters (2012). Schools are uniquely positioned to provide students opportunities to increase physical activity through physical education (PE) classes and involvement in sports teams. In view of the federal government's role in promoting the health and welfare of children, the Congress is currently considering a number of proposals aimed in part at increasing the physical activity of youth. To assist the Congress as it considers options, the GAO was asked to review: (1) the status of opportunities for elementary and secondary school students to participate in school-based physical education or sports activities; and (2) what challenges schools face in providing physical education and sports opportunities. This report estimates that in 2006 only about 14% of elementary schools offer PE at least three days per week to all grades. This percentage raises slightly (15%) for middle schools and junior high schools and falls to only 3% of high schools. These percentages have declined significantly from figures obtained from surveys conducted in 2000. The challenges faced by school officials include: budget cuts; inadequate facilities and lack of dedicated space for PE; limited funding for specialist instructors; and transportation. However, the percentage of schools offering PE at least once per week increased in all grades, kindergarten through year-12. Along with the decrease in PE instruction time, the emphasis on quality PE programs (competency in motor skills) seems to have increased. School-based sports programs offer another opportunity for students to engage in regular physical activity; an estimated 77% of middle schools and 91% of high schools offered students opportunities to participate in interscholastic sports programs.

- [Physical activity: Moving toward obesity solutions \(workshop summary\)](#), Pray L, Institute of Medicine of the National Academies, USA (2015). The National Academies' Institute of Medicine invited experts to attend a workshop on the science and practice that links physical activity to health outcomes, specifically the impact of physical activity on the prevention and treatment of overweight and obesity in the United States. Chapter 7 – *Institutional strategies for promoting physical activity* – provides evidence-based and innovative strategies for school-based physical activity programs. One of the key findings in the *2012 Physical Activity Guidelines for Americans Midcourse Report* is the importance of a multicomponent approach to promoting school physical activity. Two important national initiatives were forthcoming: the Centres for Disease Control and Prevention's (CDC) *Comprehensive School Physical Activity Program* and *SHAPE America*. In 2013 (for the first time) the CDC provided funding to all 50 States to support their efforts to address physical activity in schools. The experts agree there is strong evidence to support a multicomponent approach to school physical activity: (1) ensure that a sound physical education curriculum is one component; (2) emphasise that schools should ensure that sufficient time during the school day is spent on physical education and that activities actually keep students active; (3) implement active transportation — that is, walking or biking to/from school; (4) provide activity breaks (i.e. classroom-based physical activity and recess) during the school day; (5) encourage physical activity before and after school – through shared facility use and partnerships; (6) school staff involvement (implementing and energising the program), and; (7) community engagement. Based upon national data collected by the CDC, in 2012 no State had more than 30% of its public schools implementing such as comprehensive program, and only 12 States had more than 20% of their schools implementing a comprehensive program. A key challenge for any funded initiative is ensuring implementation – including professional development training, rigorous program evaluation, and student assessment.
- [Presidential Youth Fitness Program](#). School-based fitness programs in the United States have entered a new era in 2014 as the assessment protocols of the 'Presidential Youth Fitness Program' replace the 24-year-old Physical Fitness Test. A partnership between the President's Council on Fitness, Sports and Nutrition; the American Alliance for Health, Physical Education, Recreation and Dance; the Amateur Athletic Union; the Cooper Institute; and the U.S. Center for Disease Control and Prevention has facilitated the change. The new program will emphasise health over performance.
- [Promoting Physical Activity through Policy](#), (PDF  - 615 KB), Bassett D, La Monte M, Wiese-Bjornstal D, Volpe S and Mechanick J, President's Council on Fitness, Sports & Nutrition, *Research Digest*, Series 12, Number 3 (2011). Policies to improve physical activity may be direct, such as required participation in quality physical education programs in schools, or less direct, such as a transportation policy that encourages additional walking, or replacing automobile transport with cycling. This report describes five policy categories within schools and communities that have the potential to improve population physical activity. Evidence of effectiveness of these policies is already available or emerging. Currently, there is a growing consensus that policy-based approaches targeting the school environment, such as mandatory physical education (PE), may have the greatest impact on child and adolescent physical inactivity and childhood obesity. The five promising policy areas are: (1) quality physical education programs in schools; (2) complete streets – policies that influence how communities are designed to influence physical activity; (3) joint use – policies that allow shared access to facilities and spaces; (4) community trail – construction or use of existing access routes (such as bicycle/pedestrian paths) that allow a variety of modes of active transport (i.e. walking, cycling, in-line skating, wheelchairs, etc.), and; (5) policies for active transport to-and-from school.

Further Resources and Reading

Resources




- [ACHPER National Position Statements](#), Australian Council for Health, Physical Education and Recreation (ACHPER). A number of position statements have been developed by ACHPER to assist teachers, parents, caregivers, school principals, administrators, and kindred professional service organisations to understand and advocate for Health and Physical Education in the school curriculum. [The importance of the Health and Physical Education learning area](#)

- [in schools](#) (PDF  - 110 KB), ACHPER (2014). [Support for the Australian curriculum: Health and Physical Education](#) (PDF  - 101 KB), ACHPER (2014).
- [ACTIVE Schools Project](#). The ACTIVE Schools Project was conducted in 27 government-funded primary schools in Perth, Western Australia by researchers from The University of Western Australia. The schools were randomly selected from 9 groups incorporating an equal number of low, middle and high socio-economic status schools; and old, middle, and newly built schools. The project investigated the relationship between primary school environments and children's physical activity participation while at school. (updated June 2010)
- [Advocacy for School Sport](#). School Sport Victoria has a collection of resources directed to the advocacy for sport in schools.
- [The Copenhagen Consensus Conference 2016: children, youth, and physical activity in schools and during leisure time](#), Bangsbo J, Krstrup P, Duda J, et.al., *British Journal of Sports Medicine*, published online (27 June 2016). This evidence-based consensus statement was prepared by 24 researchers from 8 countries, representing a variety of academic disciplines. Physical activity is an overarching term that consists of many structured and unstructured forms within school and out-of-school-time contexts, including organised school sport, physical education, outdoor recreation, motor skill development programs, active play during recess, and active transportation such as biking and walking to/from school. This consensus statement represents accord on the effects of physical activity on children's and youth's fitness, health, cognitive functioning, engagement, motivation, psychological wellbeing and social inclusion. There are 21 items of consensus grouped into four thematic areas that identify educational and physical activity implementation strategies.
- [Daily Physical Activity – A Guide for Schools](#). This Queensland Government resource provides a Daily Physical Activity Guide for early childhood professionals, primary and secondary teachers. The aim of this resource is to get school children active, and to instil in them a positive attitude towards an active lifestyle. By creating a mobile app, this resource is accessible to more Queenslanders.
- [Guidelines for using contracted external providers for physical education and school sport](#), (PDF  - 943 KB), Australian Council for Health, Physical Education and Recreation (ACHPER) NSW for the NSW Premier's Council for Active Living (PCAL) (2008). These guidelines are designed to help school Principals, or the relevant Head of Junior School, to decide whether or not they want to hire an external provider. If they choose to engage an external provider, the guidelines may be used in the decision making process.
- [Guidelines for using external providers for physical activity in out of school hours centres](#), (PDF  - 741 KB), NSW Premier's Council for Active Living (2008). These guidelines are designed to help out of school hours centre management committees and coordinators if they choose to hire an external provider of physical activity or sport services.
- [Improving School Sport and Physical Education in your School](#). This Blueprint statement describes the Government's intent in providing the best possible opportunities for every child in Victoria to 'thrive, learn and grow'. School sport is a key aspect of this intent and as part of a broad curriculum it offers young Victorians this opportunity by fostering their learning and development.
- [International Position Statement on Physical Education](#), (PDF  - 81 KB), International Council of Sport Science and Physical Education (2010) This position statement by the ICSSWPE reaffirms the 1978 UNESCO International Charter on Physical Education and Sport concerning the value of physical education within the overall education environment. Physical education in schools is the most effective and inclusive means of providing all children, whatever their ability/disability, sex, age, cultural, race/ethnicity, religious or social background, with the skills, attitudes, values, knowledge and understanding for lifelong participation in physical activity and sport. It is the only school subject whose primary focus is on the body, physical activity, physical development and health. Physical education develops physical competence so that all children can move efficiently, effectively and safely as they develop a 'physical literacy' that contributes to their overall development and achievement.
- [Move & Learn: Training manual for non-formal education through sport and physical activities with young people](#), (PDF  - 2.1 MB), Andonova D, Acs M and Holmes D, International Sport and Culture Association (2013). This manual aims to provide an approach through which learning projects can be complemented with sport and physical activities and sport for all communities can be complemented with a more conscious learning for life skills





dimension. The manual is written for sport trainers who work with young people and would be open to integrate a stronger non-formal education approach in their sport activities. It is also for youth workers and trainers who are ready to integrate sport and physical activities in their community work and educational activities.





- [NSW Premier's Sporting Challenge](#). The Premier's Secondary School Sport Challenge aims to engage young people in sport and physical activity and encourages them to lead healthy, active lifestyles. The program involves teams of up to 32 students in a 10 week sport and physical activity challenge. A team may accumulate time spent in a broad range of sports and recreational pursuits during lunchtime, in school sport programs, class time, after school, or in weekend physical activity. There is also a '[Primary School Sport Challenge](#)' offered to younger students.
- [South Australia specialist sport schools](#). There are two types of special interest sport schools recognised by the South Australia Department of Education and Child Development. 'Special Interest Sport Programs' are single sport programs offered by schools in conjunction with State Sporting Associations (SSOs). Two schools have been designated as 'Specialist Physical Education and Sport Schools', they have a broader physical education and multi-sport focus.
- [Sport and Physical Activity in Schools Safe Conduct Guidelines](#) (NSW). This web page links to relevant procedures and information on risk management.
- [Sport and Physical Activity Safety Policy for Schools](#) (NSW). This document provides information relating to student participation, supervision requirements, equipment specification, venue requirements and safety procedures for sport and physical activities.

Reports

- [Active Healthy Kids Australia – Physical Literacy: Do our kids have all the tools?](#) (PDF  - 3.2 MB), Schranz N, Olds T, Boyd R, et.al., 2016 Report Card on Physical Activity for Children and Young People, University of South Australia and Heart Foundation Australia (2016). This Report highlights the importance of the concept of 'Physical Literacy', specifically providing children with the 'tools' they need to be physically active for life. We know that Australian children (of all ages) still need to be more active, but why are we failing to achieve our physical activity goals? Just as being academically literate requires skills, being physically active also requires the acquisition of specific skills and attitudes. We need to make sure that from the very beginning of children's lives they are provided daily opportunities to develop their Physical Literacy, so they grow up to become individuals who choose to engage in physical activity that challenges and benefits their bodies and minds. *Active Healthy Kids Australia* advocates for a coordinated national response to the current physical inactivity pandemic. Although there is no single solution to this problem, we need a united effort across government and non-government organisations, communities, the sport sector, schools, teachers, parents, and children themselves. Physical activity (including sport) needs to become a priority in our daily lives as something we all want and choose to do for fun, enjoyment, and better health and wellbeing.
- [Belonging, Being & Becoming: The early years learning framework for Australia](#), (PDF  - 718 KB), Australian Government, Department of Education, Employment and Workplace Relations (2009).
- [Future Development of School Sport and Physical Activity](#), (PDF  - 529 KB), Queensland Government, Ministerial Review Committee for School Sport and Physical Activity (2007). The review committee sought feedback from all stakeholder groups about the factors they perceived as possible barriers preventing students from participating in school sport and physical activity programs. A number of recommendations were forthcoming from this report, among them: (1) that school principals should report on their allocation of time to school sport; (2) schools should work with local junior sporting organisations to maximise the use of school facilities; (3) all schools should develop a 'physical activity strategy'; (4) primary school teachers should take a leadership role in enhancing physical activity in their schools; (5) State primary school teachers should undertake professional development in the delivery of physical activity programs; (6) schools need to develop programs that promote fun and enjoyment and enable students to develop the necessary skills to participate in sport and physical activity; (7) schools with more than 300 students must offer inter-school team sports and all state primary schools must

offer opportunities for all students to participate in intra-school sport at least once a week; (8) Education Queensland is to undertake an audit of sporting facilities available in schools and local communities, and; (8) coordination between Education Queensland, Sport and Recreation Queensland and local governments should be improved to make better use of available programs and funding.






- [The Future of Sport in Australia](#), (PDF  - 14.4 MB), Crawford D, Independent Sport Panel Report, Government of Australia, Department of Regional Australia, Local Government, Arts and Sport (2009). Chapter 5 of this report, 'Putting Sport and Physical Activity Back Into Education', concludes that there is great scope for the re-invigoration of sport and physical education in the Australian school system, making it a priority. As a condition of current Australian Government education funding, a physical education requirement of two hours per week in primary schools exists. However, there are no uniform protocols to measure program delivery nor monitoring of achievement and progress. In reality, compliance is left to the discretion of individual schools and teachers. The Panel supported a recommendation of the National Preventative Health Taskforce that, "adequate time for sport and recreation within school time is a way of improving the nation's health objectives." The Panel received significant anecdotal evidence during its consultation process suggesting that the number of qualified physical education teachers in primary and secondary schools is declining. This appears to be linked with a decline in the emphasis placed on sport in teacher training courses and the difficulties teachers already experience in overcoming a crowded curriculum and added supervisory tasks, sport is often an easy target for removal. The Panel also found that growing pressure on local community sport and recreation facilities implies a need for local sports organisations to have good access to local school facilities outside of school hours. Several recommendations are made at the conclusion of this chapter: (1) governments should make sport in schools an ongoing priority and should agree that physical education is a key learning area in the national curriculum; (2) the relevant education agency should ensure that sport and physical education are implemented as part of the national curriculum; (3) the Australian Government should consider the repair, upgrade and development of sport facilities in schools on the basis that public access to school sporting facilities is maximised; (4) State and Territory Governments should take action to allow greater access to primary and secondary school sporting facilities outside of school hours, and; (5) greater community access should be provided to tertiary education and other institutional sporting facilities.
- [The impact of participation in sports on educational attainment: New evidence from Germany](#), (PDF  - 214 KB), Corneliben T and Pfeifer C, Leibniz University, Discussion Paper Number 3160 (2007). This paper analyses the impact of participation in sports programs outside of school hours on educational attainment in the form of secondary school completion and professional degrees. Overall, the authors concluded that German adolescents engaged in sport activities had significantly higher educational attainment. They also found that the effect is generally greater for women than for men. They recommend that opportunities to participate in sport, both in and out of school hours, should be increased.
- [My Time, Our Place - Framework for School Age Care in Australia](#), (PDF  - 700 KB), Australian Government, Department of Education, Employment and Workplace Relations (2011). The Framework will assist educators by identifying opportunities to extend and enrich children's wellbeing and development while in school-age care settings. The Framework acknowledges the importance of play and leisure in children's learning and development. Life skills and a sense of enjoyment are emphasised as part of social and emotional learning through play and leisure activities.
- [National Report on Schooling in Australia, 2009](#). Australian Curriculum Assessment and Reporting Authority (ACARA).
- [NSW Auditor-General's Report: Physical Activity in Government Primary Schools](#), (PDF  - 1.5 MB), Department of Education and Communities (2012). This report evaluates the status of physical activity programs in NSW schools. The report contains eight recommendations in three areas: (1) how Schools can make better use of the two hours per week of class time allocated to physical activity, (2) how physical activity can be better integrated into other parts of the curriculum, and (3) how human resources and infrastructure resources can be used more effectively. The eight recommendations include:
 - enhance existing monitoring and reporting arrangements;
 - once reliable information is available, identify schools in need of assistance;

- provide greater recognition for staff involved in the delivery of school sport and emphasize the value of physical education teaching;
 - ensure schools make the best use of available time to maximise the amount of moderate-to-vigorous physical activity and reduce student waiting time and travel time;
 - help schools engage with local sporting organisations to encourage greater sharing of expertise;
 - increase the skill levels of primary school teachers in teaching physical activity and sport;
 - identify best practice in schools and promote this, and;
 - assist schools and groups of schools to develop agreements with local government to access facilities at little or no cost.
- [Review of Funding for Schooling](#), (PDF  - 3.9 MB), Gonski D, et.al., Australian Government, Department of Education, Employment and Workplace Relations (2011).
 - [The Shape of the Australian Curriculum, Version 3](#), (PDF  - 932 KB), Australian Curriculum, Assessment and Reporting Authority (May 2012).
 - [Smart Moves – Physical Activity programs in Queensland State Schools, Evaluation Summary](#), (PDF  - 69 KB), Education Queensland (2012). The Smart Moves program was implemented in 2009 as a way of increasing student participation in physical activity and improving the quality of activity delivered in all Queensland state schools. There are six key components of the program: (1) allocated time for physical activity, (2) improved access to resources, (3) increased capacity to deliver physical activity programs, (4) professional development for teachers, (5) community partnerships, and (6) accountability and reporting. This review concluded: that physical activity programs can continue to be effectively embedded across the key learning areas; and localised approaches to planning and implementation may best meet the diverse needs of Queensland schools.
 - [What works in schools and colleges to increase physical activity? A briefing for head teachers, college principals, staff working in education settings, directors of public health and wider partners](#), (PDF  - 1.52 MB), Public Health England (October 2015). Evidence suggests a strong association between being physically active and academic attainment and attention, and physical and emotional health and wellbeing. In addition, children and adolescents who are physically active are more likely to continue the habit into adult life. Schools and colleges have an important contribution to make in encouraging, and providing opportunities for, children and adolescents to take part in physical activity. This report summarises the quality of evidence behind eight principles for practice that appear to have a positive effect: (1) interventions that are multi-component or adopt a ‘whole of community’ approach; (2) a trained, skilled and knowledgeable workforce, ensuring staff have the confidence and competence to offer high quality experiences to students; (3) giving students a voice and enhancing their ownership of physical activity programs; (4) access to open space, facilities and equipment; (5) offering a variety of opportunities, a focus on fun and participation as well as traditional sports and competitive activities; (6) increasing the amount of physical activity during physical education instruction and other school-day periods; (7) encouraging active travel to/from school, and; (8) monitoring and evaluation of interventions – establishing baseline information and evaluating outputs and milestones linked to the intervention(s).

Research

- [Annotated Bibliography – Sporting Schools Youth Participation Research](#), Australian Sports Commission, Sporting Schools program (2015). This bibliography was part of the ‘Youth Participation Preliminary Research Summary’ section of the ‘Project Briefing – Youth Participation in Sport’ document prepared for the Sporting Schools program. Selected research articles published during the period 2005 to 2015, meeting the project’s inclusion criteria, are summarised. Australian-based research (shaded text) is identified.
- [Athletics and executive functioning: How athletic participation and sport type correlate with cognitive performance](#), Jacobson J and Matthaeus L, *Psychology of Sport and Exercise*, Volume 15, Issue 5 (2014). This study aims to document the link between physical exercise and cognitive function.




Specifically, this research examined the relationship between the type and level of sports in which college students participate and their executive functioning (EF). We found that athletes scored higher on some of the EF measures than non-athletes. Furthermore, we observed that scores varied by sport type according to which subset of EF each test measured. Self-paced athletes scored highest on an inhibition task, and externally paced athletes scored highest on a problem-solving task. Results suggest that athletes outperform non-athletes on tests of such EF domains as inhibition and problem solving, and that different types of athletic experience may correlate with higher levels of particular EF domains.

- [Changes in physical fitness and sports participation among children with different levels of motor competence: A two-year longitudinal study](#), (PDF  - 181 KB), Fransen J; Deprez D; Pion J; Tallir I; D'Hondt E; Vaeyens R; Lenoir M and Philippaerts R, *Pediatric Exercise Science*, Volume 26, Number 1 (2014). This study investigated the differences in physical fitness and sports participation over two years in children, ages 6-10 years, with relatively high, average and low motor competence. Children with high motor competence scored better on physical fitness tests and participated in a greater number of sports more often. Since low motor competent children participate less in sports, they had fewer opportunities of developing motor abilities and physical fitness. This may further prevent them from catching up with their peers having average or high motor competence.
- [The contributing role of physical education in youth's daily physical activity and sedentary behaviour](#), (PDF  - 392 KB), Chen S, Kim Y and Gao Z, *BMC Public Health*, Volume 14 (2014). The purpose of this study was to determine the contributing role of physical education classes (PE) to the daily moderate-to-vigorous physical activity (MVPA) of sixth-grade students in a Midwest USA school system. This study concluded that PE provided a positive contribution to increasing daily MVPA and increased the likelihood that students would be more active and less sedentary beyond the school environment.
- [Education and life-long learning: summary](#), (PDF  - 52 KB), Coalter F, Sport England and UK Sport (2011). This paper reviews the existing literature and explores the potential of sport to contribute, directly and indirectly, to improved cognitive and educational performance. It also discusses the need for innovative approaches to program delivery to maximise these benefits, and the need for more rigorous research in this area.
- [Effectiveness of interventions to promote physical activity in children and adolescents: systematic review of controlled trials](#), (PDF  - 182 KB), van Sluijs E, McMinn A and Griffin S, *British Medical Journal*, published online (December 2006). Two independent reviewers assessed studies using a controlled trial design, comparison of interventions that promote physical activity with no intervention control condition. All studies contained participants younger than 18 years, and reported the statistical analyses of a physical activity outcome measure. The literature search identified 57 studies; 33 aimed at children and 24 at adolescents. Twenty four studies were of high methodological quality. Strong evidence was found that school-based interventions that also included involvement of the family or community and multicomponent interventions can significantly increase physical activity among adolescents. A lack of high quality evaluations (at his time) limits conclusions concerning the effectiveness of intervention programs among children.
- [Effects of one versus two bouts of moderate intensity physical activity on selective attention during a school morning in Dutch primary schoolchildren: A randomized controlled trial](#), Altenburg T, Chinapaw M and Singh A, *Journal of Science and Medicine in Sport*, published online (13 December 2015). Evidence suggests that physical activity is positively related to several aspects of cognitive functioning in children, including selective attention. This study looked at the frequency of physical activity on the cognitive functioning of school children (aged 10 to 13 years) in the Netherlands. Subjects (30 boys and 26 girls) were randomly assigned to one of three groups in the classroom: (1) sitting all morning while working on school tasks; (2) one 20-minute bout of moderate-to-vigorous physical activity (MVPA), and; (3) two 20-minute bouts of MVPA. The results indicated that two physical activity bouts during a school morning had a significant beneficial effect on selective attention. One 20-minute bout of physical activity about halfway through the school morning had a short-term positive effect at the start of the morning.
- [Extracurricular activities and youth development](#), (PDF  - 171 KB), Blomfield C and Barber B, *Australian Journal of Educational & Developmental Psychology*, Volume 10 (2010). Australian adolescents spend much of their discretionary time in organised sport and recreational activities. This study examined the links between Australian adolescents' participation in extracurricular activities and indicators of their positive and negative development.




Positive indicators included academic achievement, university aspirations, school belonging, reduced truancy and alcohol use. This study supports a link between extracurricular activity participation (including sport) and positive developmental indicators. Therefore, the potential benefits of participating in sports activities should not be neglected. Sports programs should be embraced as a complementary approach in the facilitation of positive development for Australian adolescents.

- [Forty-five minutes of physical activity at school each day? Curricular promotion of physical activity in grades one to four](#), Liersch S, Henze V, Röbl M, Schnitzerling J, Suermann T, Mayr E, Krauth C and Walter U, *Journal of Public Health*, Volume 19, Issue 4 (2011). According to the World Health Organization, regular physical activity is essential to the healthy development of children. However, coordinated comprehensive national programs to promote physical activity and sports participation are lacking. According to the German Sports Federation physical education classes in schools are increasingly being cancelled or taught outside the school. "fit for pisa" is a German intervention developed in response to the demand for scientific evaluation of interventions like daily physical education. Its goal is to provide quality management-secured, structured and standardised physical education instruction by qualified instructors. This study provides important recommendations to implement quality assurance instruments to optimise physical education in primary schools.
- [Four minutes of in-class high-intensity interval activity improves selective attention in 9 to 11-year olds](#), Ma J, Le Mare L and Gurd B, *Applied Physiology, Nutrition, and Metabolism*, Volume 40, Number 3 (2015). Time-efficient physical activity solutions are needed to increase overall physical activity for primary school students. *FUNtervals* is program used in some Canadian primary schools that provides 4-minute, high-intensity interval activities using whole-body movements at random times throughout the school-day. This study looked at whether *FUNtervals* can improve selective attention among primary school students and whether this relationship is predicted by students' classroom behaviour. This study found a weak, but positive, relationship between the *FUNtervals* intervention and verbal behaviour and improvements in attentional performance. More importantly, students made fewer errors in their work following *FUNtervals* activity. These results support the inclusion of *FUNtervals* within schools as a time-efficient and easily implemented physical activity break that can improve selective attention in 9 to 11 year old students.
- [Fundamental Movement Skills – How do primary school children perform? The 'Move it Groove it' program in rural Australia](#), (PDF  - 370 KB), van Beurden E, Zask A, Barnett L and Dietrich U, *Journal of Science and Medicine in Sport*, Volume 5, Number 3 (2002). The 'Move it Groove it' project rated proficiency of primary school children (n=1045, 18 schools) in skills of balance, throwing, catching, sprint, hop, kick, side gallop and jump. Three skill ratings were assigned - 'mastery', 'near mastery' or 'poor'. Less than half of all children tested were rated at mastery (21.3%) or near mastery (25.7%) level. The low prevalence of skill mastery found in this survey suggests that there may be great potential to improve fundamental movement skills of primary aged children in many parts of rural Australia through tailored physical education programs and modification of social and physical environments.
- [Fundamental Movement Skills in children and adolescents: Review of associated health benefits](#), (PDF  - 166 KB), Lubans D, Morgan P, Cliff D, Barnett L and Okely A, *Sports Medicine*, Volume 40, Number 12 (2010). The objective of this systematic review was to examine the relationship between fundamental movement skills (FMS) competency and potential health benefits in children and adolescents. This review found strong evidence for a positive association between FMS competency and physical activity in children and adolescents. There was also a positive relationship between FMS competency and cardio-respiratory fitness and an inverse association between FMS competency and weight status; both of these relationships are associated with positive health outcomes.
- [How can schools help youth increase physical activity? An economic analysis comparing school-based programs](#), (abstract), Babey S, Wu S and Cohen D, *Preventive Medicine*, Volume 69, Supplement, December 2014. This study investigated the cost effectiveness of different school-based options to increase physical activity. The study looked at before and after-school programs, and short physical activity breaks during the school day. As MET-hours gained were similar across the different programs, cost was the driving factor of effectiveness. In-class physical activity breaks of ten minutes, several times per day, were deemed the most cost-effective option; followed by after school programs, which also had an after-school childcare benefit to justify

their cost. Low staff and student participation in before-school programs made this option less feasible.

- [The impact of long-term school-based physical activity interventions on body mass index of primary school children – a meta-analysis of randomized controlled trials](#), Mei H, Xiong Y, Xie S, Guo S, Li Y, Guo B and Zhang J, *BMC Public Health*, published online (1 March 2016). Physical activity (PA) intervention is a common strategy to combat childhood obesity. This paper examines the effectiveness of long-term (≥ 12 months) school-based PA interventions on body mass index (BMI) in primary school children. The review of literature found 18 papers meeting the inclusion criteria, representing 22,381 primary school children, with intervention durations ranging from 12 to 72 months. Long-term school-based interventions containing PA as a core component appear to be effective in achieving healthier BMI. However, the results should be interpreted with caution due to the high heterogeneity among the studies. More high quality school-based randomized controlled studies using diverse populations are needed to yield a more robust conclusion.
- [Is there a relationship between physical fitness and academic achievement? Positive results from public school children in the northeastern United States](#), (PDF  - 148 KB), Chomitz V, Slining M, McGowan R, Mitchell S, Dawson G and Hacker K, *Journal of School Health*, Volume 79, Number 1 (2009). This study looked at the relationships between physical fitness and academic achievement in a diverse population of urban public school children, aged 9-13 years. Results show statistically significant relationships between fitness and academic achievement, though the direction of causation was not determined. It appears that promoting fitness, by increased opportunities for physical activity and sport, both in and out of school time may support academic achievement.
- [Longitudinal relationship between cardiorespiratory fitness and academic achievement](#) (abstract), Sardinha L, Marques A, Minderico C, Palmeira A, Martins S, Santos D and Ekelund U, *Medicine and Science in Sports & Exercise*, published online ahead of print (24 November 2015). This prospective study examines the associations between cardiorespiratory fitness and academic achievement in a sample of 1286 Portuguese boys and girls in grades 5 to 7 (11-14 years of age) across three years. Objectively measured fitness, as opposed to physical activity, was measured against cognitive variables for language – both native language (Portuguese) and English as a foreign language. The results indicated that consistently high levels of cardiorespiratory fitness, or improvements in fitness during the three year period, were associated with better academic achievement in language skills.
- [Physical activity is associated with attention capacity in adolescents](#), (abstract), Vanhelst J, et.al., *The Journal of Pediatrics*, published online ahead of print (21 October 2015). This study included 273 adolescents, aged 12.5-17.5 years, who participated in the *Healthy Lifestyle in Europe by Nutrition in Adolescence* study. Multivariate analyses were used to study the association of attention capacity with each measure of physical activity. After controlling for potential confounding variables (age, sex, body mass index, parental educational level, fat mass, and aerobic fitness) the results indicate that longer time spent in moderate or moderate-to-vigorous physical activity was associated with a significant positive test performance on attention capacity, which is an important component of cognition in adolescents.
- [Physical activity interventions in the school setting: A systematic review](#), (PDF  - 506 KB), Demetriou Y and Höner O, *Psychology of Sport and Exercise*, Volume 13, Issue 2 (2012). This paper reviews the effectiveness of school-based interventions with a physical activity component by measuring changes in psychological determinants, physical activity, and health outcomes. The literature search identified 129 suitable studies. Physical activity intervention programs produced significant effects on motor performance, physical activity level, and knowledge in 70%, 57% and 88% of the studies, respectively. On self-concept 30% and attitudes 44% of the studies reported effects. Further research is needed to clarify the mediator effects of psychological variables that underlie behavioural change.
- [Physical exercise performed four hours after learning improves memory retention and increases hippocampal pattern similarity during retrieval](#) (PDF  - 1.5 MB), Dongen E, Kersten I, Wagner I, Morris R and Fernandez G, *Current Biology* (2016). Persistent long-term memory depends on successful stabilization and integration of new memories after initial encoding. This consolidation process is thought to require the release of dopamine, noradrenaline, and brain-derived neurotrophic factor. Research has established that physical exercise acutely stimulates the release of one or more of these chemicals in the brain, raising the question whether physical exercise can be used to improve memory retention. In this study 72 subjects were




randomly assigned to one of three age and gender matched groups; each group was exposed to a set of picture-location learning tasks lasting 40 minutes. Afterward, one group performed exercise (35 minutes at 80% of maximum heart rate) immediately, one group performed the same exercise 4 hours later, and the third group performed no exercise. The results showed no evidence for any effect of physical exercise immediately after learning, suggesting that the physiological response to exercise did not benefit memory consolidation at this stage. However, delayed exercise intervention was effective in improving memory retention; it seems likely that one or more of the physiological consequences of aerobic exercise facilitated memory consolidation. These results provide initial evidence that properly timed physical exercise can alter mnemonic processes at delayed retrieval and improve memory retention. The findings of this study are in line with previous studies reporting beneficial effects of physical exercise on learning, and highlight its potential as a memory intervention technique. The practical nature of using physical exercise in educational settings is worth further study. Current results should be considered as speculative until supported by other studies.



- [Physical fitness, obesity, and academic achievement in schoolchildren](#), Torrijos-Niño C, et.al. *The Journal of Pediatrics*, Volume 165, Issue 1, published online, 29 March 2014. This study examined the association of physical fitness and obesity with academic achievement and the independent association between fitness and academic achievement after controlling for relevant confounders such as age, parental education, and body mass index in school aged children. Overall, academic achievement scores were positively related to fitness levels.
- [A review of the relation of aerobic fitness and physical activity to brain structure and function in children](#) (PDF  - 189 KB), Chaddock L, Pontifex M, Hillman C and Kramer A, *Journal of the International Neuropsychological Society*, Volume 17 (2011). An abundance of literature suggests that childhood aerobic fitness is associated with higher levels of cognition and differences in regional brain structure and function. It has been reported that aerobic fitness level even predicts cognition over time. Findings from randomized controlled trials provide additional support for the positive relationship between aerobic fitness, cognitive development, and achievement; with physical activity interventions serving to improve academic performance and reduce off-task behaviours. This paper provides a review of the literature and highlights several avenues of future investigations.
- [Scheduled physical activity is associated with better academic performance in Chilean school-age children](#), (PDF  - 156 KB), Burrows R, Correa-Burrows P, Orellana Y, Almagia A, Lizana P and Ivanovic D, *Journal of Physical Activity and Health*, Volume 11 (2014). This study was carried out to examine the association between systematic physical activity and academic performance in school-age children after controlling for potential socio-demographic and educational confounding variables. A random sample of 1271 students from 5th and 9th grades were studied; data on their physical activity habits, anthropometric characteristics, socioeconomic status, and academic performance was collected from standardized tests. About 80% of students reported less than 2 hours of weekly scheduled exercise, while about 10% reported 2 to 4 hours per week and 10% reported more than 4 hours per week. Devoting more than 4 hours per week to scheduled exercise significantly increased the odds of children scoring above the 50th percentile and above the 75th percentile on academic achievement tests. The results suggest that better academic performance was associated with children participating in 4 or more hours per week of physical activity.
- [School sport participation under two school sport policies: Comparisons by race/ethnicity, gender, and socioeconomic status](#), Kanters M, Bocarro J, Edwards M, Casper J and Floyd M, *Annals of Behavioral Medicine*, Volume 45 (2013). School-based extracurricular sport remains an effective strategy to increase physical activity. However, school sport is often limited to a small number of elite athletes. This study examined school sport participation in middle schools (ages 11-14 years) with contrasting school sport delivery strategies – intramural and interscholastic. Data were obtained from public schools in a southeastern United States city. School policy was either intramural (within-school) or interscholastic (between-schools). Children from low-income homes as well as Black children were identified as having greater risk of physical inactivity and its associated negative outcomes. These ‘at risk’ groups were more likely to participate in intramural programs, probably because of cost and travel factors. This study concluded that after-school intramural sports in middle schools offered a promising strategy for increasing sport participation, particularly among ‘at risk’ students.
- [Talented athletes and academic achievements: A comparison over 14 years](#), (PDF  - 87 KB), Jonker L, Elferink-Gemser M and Visscher C, *High Ability*

Studies, Volume 20, Number 1 (2009). This study looked at the academic achievements of 200 talented Dutch athletes in 1992/1993, aged 14-16 years, and again in 2006/2007. As a result of their extensive commitment toward their sports, elite athletes tend to demonstrate self-conscious, goal-oriented, and problem-focused behaviours to improve their performances. This is also reflected in their capability to manage a tight schedule between training, competitions and ongoing commitment to school. With regard to academic achievements of the talented athletes in 2006/2007, the results reflected significantly greater attendance and completion of university studies among athletes, as compared to the national population average.

- [Tracking physical activity and sedentary behaviour in childhood: A systematic review](#), Jones R, Hinkley T, Okely A, and Salmon J, *American Journal of Preventive Medicine*, Volume 44, Issue 6 (June 2013) A literature search of studies was conducted to determine the sustainability of physical activity programs from early childhood (i.e. under the age of 6 years) into middle childhood (6-12 years). This review highlights the importance of establishing recommended levels of physical activity during the early years of life. Based on this review, early childhood should be targeted as a critical time to promote healthy lifestyle behaviours.
- [Understanding High School Students' Sports Participation](#), Garcia A, *Sport Science Review*, Volume 24, Issue 3-4 (2015). The author conducted a qualitative analysis of twenty-eight semi-structured interviews of college students. Interviewees were asked about their high school experiences in sports to discover the main factors leading to positive or negative experiences. This research found that the influence of family and friends and the opportunity to participate in a competitive activity were the two most important positive aspects of students' high school sports experiences.

Reading

- [Australian children lack the basic movement skills to be active and healthy](#), (PDF  - 50 KB), Barnett L, Hardy L, Lubans D, Cliff D, Okely A, Hills A and Morgan P, *Health Promotion Journal of Australia*, published online 18 July 2013. This commentary puts forth the position that primary schools must increase children's opportunities to learn and develop fundamental movement skills through unstructured active play, quality physical education, school sport and community-based programs. Schools are universally recognised as important institutions for the promotion of physical activity; physical education and school sport programs being potential vehicles for the promotion and provision of these opportunities.
- [Healthier students are better learners: A missing link in school reforms to close the achievement gap](#), (PDF  - 676 KB), Basch C, Research Review Number 6, Campaign for Educational Equity, Columbia University (2010). Health-related problems play a major role in limiting the motivation and ability of students to learn, particularly among disadvantaged youth. Emerging evidence from the scientific literature documents the ways in which physical activity, physical fitness, school-based physical activity programs such as physical education and school sport, favourably affect educational outcomes. Those population segments of youth experiencing the greatest disparities in their level of physical activity and fitness may also have disparities in accessing school-based opportunities and resources. Three recent literature reviews conclude that school-based physical activity programs may result in short-term cognitive benefits and improve cognitive functioning.
- [Investments that work for physical activity](#), (PDF  - 1.2 MB), Global Advocacy for Physical Activity, *British Journal of Sports Medicine*, Volume 46, Number 8 (2012). Physical activity promotes healthy growth and development in children and young people, and helps establish behaviour that prevents unhealthy later-life weight gain. This paper presents seven 'best investments' for physical activity, which are supported by good evidence of effectiveness and that have worldwide applicability; they are: (1) whole of school programs; (2) transport policies and systems that prioritise walking, cycling and public transport; (3) urban design regulations and infrastructure that provides for equitable and safe access for recreational physical activity, and recreational and transport-related walking and cycling; (4) physical activity and non-communicable disease prevention integrated into primary health care systems; (5) public education to raise awareness to change social norms; (6) community-wide programs involving multiple settings and sectors and that mobilise and integrate community engagement; and (7) sports systems and programs that promote 'sport for all' and encourage participation across the lifespan.

- [Is the lack of physical activity strategy for children complicit mass child neglect?](#) Weiler R, Allardyce S, Whyte G and Stamatakis E, *British Journal of Sports Medicine*, published online 9 December 2013. A substantial evidence base demonstrates a link between academic performance and physical fitness (closely linked to physical activity) for children of all ages and socioeconomic groups. There is also an inverse association between physical fitness and reported violent and antisocial incidents in school. Physical education and sport for children have a demonstrable positive impact on physical health, and affective social and cognitive function. Furthermore, physical activity habits in childhood seem to determine, in part, adult physical activity behaviour, which is a key determinant of adult health. Despite these well-accepted benefits of physical activity and sport participation and the recognised importance of schools in delivering physical literacy and activity outcomes; the erosion of physical education and sport forces children to literally sit for most of their school day. The expert opinion of the International Council of Sport Science and Physical Education concluded that physical education in schools is the most effective and inclusive means of providing all children, whatever their ability/disability, sex, age, cultural, race/ethnicity, religious or social background, with the skills, attitudes, values, knowledge and understanding for lifelong participation in physical activity and sport.
- [Learning movement culture: mapping the landscape between physical education and school sport](#), (PDF  - 231 KB), Ward G, *Sport, Education & Society*, Volume 19, Issue 5 (2014). This article examines 'Movement Culture' (MC) as an approach to support teachers in exploring the integration of sport as a medium for learning within physical education (PE). By avoiding the need to draw clearly defined lines between PE and sport, MC embraces both. MC maintains the educational purpose of PE by developing meaningful subject matter and contextualised learning that reflect contemporary and evolving participation in sport. It is argued that such structures have the potential to support a more coherent rationale for pedagogical practice across the PE curricula.
- [Operationalizing physical literacy through sport education](#), Hastie P and Wallhead T, *Journal of Sport and Health Science*, published online (15 April 2015). Physical literacy, as embodied within physical education, has been associated with the disposition of students of all abilities to engage in lifelong physical activity. This paper discusses how the pedagogical features of Sport Education (SE), may be used to operationalise both physical literacy and physical education. The authors conclude that substantial evidence exists to validate the link between physical literacy and physical education. However, despite effective curricular innovation using SE as a methodology within physical education, the potential to transform physical literacy to a broader context of long-term physical activity participation remains less clear. Some researchers have suggested that students who are developing into competent, literate, and enthusiastic participants within their school physical education program must be provided with an external outlet to activate their skills in the form of community sport. Therefore, SE provides the necessary connections and collaborations with the youth sport community to encourage extra-curricular and community-based participation.
- [Physical Literacy for Educators](#), (PDF  - 189 KB), Position Paper by Physical & Health Education Canada (2009). Physical literacy serves as an important foundation for many sport and education policies in Canada. This paper provides an overview of physical literacy through the lens of an educator and attempts to bridge a significant gap between sport and physical education. The development of physically literate individuals is a priority that both education and the sport system share. The working definition that is provided examines physical literacy from the perspective of a quality physical education program and the role that such programs play in the development of the whole child.

Videos

- [School Sport Victoria advocacy for sport](#). This video highlights the benefits of school sport; it is essential viewing for Principals, School Councils and School Sport Coordinators.
- [Sport Works - cross curriculum and whole school impact](#). This presentation from Britain's Youth Sport Trust demonstrates the impact that sport can have across the curriculum and the whole school.

- [Use Our School](#). This short video introduces *Use Our School*, a Sport England initiative to support schools in opening, and keeping open, their facilities for community sport use.

Related Clearinghouse for Sport portfolios

- [Childhood Obesity](#)
- [Physical Activity Guidelines](#)
- [Physical Literacy and Sport](#)
- [Sport Participation in Australia](#)

Is this information complete?



The Clearinghouse for Sport is a sector-wide knowledge sharing initiative, and as such your contributions are encouraged and appreciated. If you would like to suggest a resource, submit a publication, or provide feedback on this topic, please [contact us](#).

Alternatively, if you would like to be kept up to date with research and information published about this topic, please request a [research profile setup](#).

Delivered by Australia's leading sport and active recreation agencies



Australian Government
Australian Sports Commission





Site tools

Legal information

Site map

[Disclaimer](#) | [Privacy statement](#) | [Site accessibility](#) | [Copyright](#)