Evidence on physical education and sport in schools: key findings

June 2013
## Contents

Introduction ........................................ 3

Key findings ........................................ 4

- Participation in PE and out of hours sport ........................................ 4
- Participation in PE and sport by pupil characteristics ........................................ 4
- Most common sports to participate in ........................................ 5
- School sports provision ........................................ 5
- Participation in competitive sports ........................................ 5
- Club links ........................................ 6
- Curriculum time spent on PE and sport ........................................ 6
- International evidence on PE and sport in schools ........................................ 6
- Schools' awareness of the Olympic and Paralympic Games (pre 2012 Games) ........................................ 7
- Impact of the 2012 Olympic and Paralympic Games on participation in sport ........................................ 7
- Entries and attainment in GCSE PE ........................................ 7
- Entries and attainment in A Level PE ........................................ 7
- Effective practice in PE and sport in schools ........................................ 8
- Teacher Qualifications ........................................ 8
- Pupil attitudes to PE and sport ........................................ 9
- Barriers to participation for pupils with SEN and disabilities ........................................ 10
- Benefits of PE and sport ........................................ 10
- The impact of school-based activity on attainment ........................................ 10
- Evidence gaps ........................................ 11

References ........................................ 13

Annex A: Sport surveys ........................................ 17
Introduction

This summary reports domestic and international evidence on physical education (PE) and sport in primary and secondary schools. The majority of the statistics are taken from the most recent PE and Sport Survey (Quick et al., 2010), which was commissioned by the Department for Education (the then Department for Children, Schools and Families, DCSF), and the Department of Culture, Media and Sport’s Taking Part survey (DCMS, 2013). For more information on these surveys, please see Annex A.
Key findings

Participation in PE and out of hours sport

- The most recent PE and Sport Survey (Quick et al., 2010) found that across Years 1-13, 55% of pupils participated in at least three hours of PE and out of hours school sport.
- The percentage of pupils taking part in at least three hours of PE and out of hours school sport increased across primary school and decreased across secondary school.
- The Tellus4 survey found that 21% of pupils (in Years 6, 8 and 10) said they did something active everyday during lesson time, whilst 74% said they were active some/most days, and 5% said they were never active during lesson time (Chamberlain et al., 2010).
- The Taking Part Survey (DCMS, 2013) found that 82.5% of 5-10 year olds did sport outside school and 94.7% of 11-15 year olds did sport in or outside school over the previous four week period: these figures have remained steady since 2008/09 with no significant changes.
- Over the previous week, 76.0% of 5-10 year olds participated in sport outside school and 94.4% of 11-15 year olds did sport in or outside school: there has been no significant difference for 5-10 year olds since 2008/09, however there has been a significant increase in participation for 11-15 year olds.

Participation in PE and sport by pupil characteristics

The PE and Sport Survey (Quick et al., 2010) found that:

- Schools where a high percentage of pupils took part in three or more hours of PE and out of hours school sport were more likely to be categorised as having low numbers of pupils on free school meals (FSM).
- Schools in deprived areas were over-represented amongst the lowest performing schools in terms of their participation in PE and out of hours school sport.
- Schools achieving the lowest levels of participation in three hours of PE and out of hours school sport tended to have a relatively high proportion of children from an ethnic minority background and pupils with special educational needs (SEN).
- Across all year groups boys were more likely to take part in three hours of PE and out of hours school sport than girls.
- The Taking Part Survey (DCMS, 2013) found that 82.5% of 5-10 year olds did sport outside school and 94.7% of 11-15 year olds did sport in or outside school.
over the previous four week period: these figures have remained steady since 2008/09 with no significant changes.

Most common sports to participate in

The Taking Part survey (DCMS, 2013) reported that:

- The most common sport for 5-10 year olds was swimming, diving of lifesaving, with almost half (47.6%) having taken part in the last four weeks. There were significant increases in participation in tennis since 2010/11, whilst participation in walking or hiking, rounders, and angling or fishing had significantly decreased.
- For 11-15 year olds, football (including five-a-side) was the most common sport, with 56.1% having played in the last four weeks. Since 2010/11 there have been significant increases in participation in football, rounders, tennis, rugby, cricket, table tennis, and athletics, track and field events, running races or jumping, and a significant decrease in participation in walking or hiking.

School sports provision

The PE and Sport Survey (Quick et al., 2010) found that in 2009/10:

- Schools provided on average 19 different sports to both girls and boys.
- The most commonly offered sports in schools included football, dance, athletics, gymnastics, cricket, rounders and swimming.
- Sports that have become more likely to be offered in schools include tennis, multi-skills club, fitness, orienteering and cycling.

Participation in competitive sports

The Taking Part survey (DCMS, 2013) reported that:

- Across 5-15 year olds, 81.6% reported doing some form of competitive sport in the last 12 months: 77.8% had taken part in school, whilst 37.9% had taken part outside of school. There have been no significant changes since 2011/12, the first full year of data collection on this.
- For 5-10 year olds, the most common way of participating in competitive sport was playing sport in their school in organised competitions (64.6%), whilst for 11-15 year olds, it was playing sport against others in PE and games lessons (76.0%).

The PE and Sport Survey (Quick et al., 2010) found that:
Primary school pupils were more likely to take part in intra-school and inter-school sport competitions as they move up the school; however, secondary pupils were less likely to take part as they got older.

Boys were more likely than girls to take part in intra-school and inter-school sports competitions regularly. The difference in boys’ and girls’ participation increased as they moved up the school.

Almost all schools (99%) held at least one sports day or equivalent event during the academic year in 2009/10.

Club links

The PE and Sport Survey (Quick et al., 2010) reported that on average, schools indicated that they had links to clubs for nine different sports.

The top five sports that schools had club links with were football (79%), cricket (61%), dance (55%), swimming (51%), and rugby union (50%).

Curriculum time spent on PE and sport

In 2009/10, the average curriculum time spent on PE and sport in primary schools was 127 minutes and in secondary was 107 minutes (Quick et al., 2010).

Only a small number of pupils across primary and secondary schools, around 6%, completed three hours of PE and sport within school time.

International evidence on PE and sport in schools

Recommendations on the minimum taught time in PE vary widely between countries: approximately 50-80 hours a year in compulsory education, which corresponds to around 9-10% of curriculum time in primary education and 6-8% in secondary education (Eurydice, 2013). These figures are similar to those of the OECD (2012), who found that on average 9% of curriculum time was spent on PE for pupils aged 7-8 and 8% of time for pupils aged 12-14, in 2009.

Eurydice (2013) highlighted large differences in the taught time for PE by primary and secondary school, ranging from 37 hours in primary schools in Ireland to 108 in France; and from 24 hours in secondary schools in Turkey to 108 in France.
Schools’ awareness of the Olympic and Paralympic Games (pre 2012 Games)

- Evidence suggests that awareness of the Olympics (prior to the Olympics) was high, with 96% of pupils in England reporting they were aware of the Games. Awareness of the Paralympics was also high (Bunt et al., 2011).

- Two-thirds of schools and colleges had been involved in at least one Olympic or Paralympic event during the 2009/10 academic year (66%), with almost all secondary schools having done so (96%) (Bunt et al., 2011).

Impact of the 2012 Olympic and Paralympic Games on participation in sport

- The Taking Part survey (DCMS, 2013) found that over a third of 5-10 year olds (36.2%) and over half of 11-15 year olds (51.6%) had been encouraged to take part in sport ‘a lot’ or ‘a little’ as a result of the UK hosting the Olympic and Paralympic Games in 2012.

- Those children who responded that they were encouraged ‘a little’ or ‘a lot’ to take part in sport by the Games, said they were more interested in sport and in new sports, were taking part in sport more often and taking up new sports, and they intended to participate more often and in more sports.

- Around a fifth of children (19.6% of 5-10 year olds and 22.8% of 11-15 year olds) had taken part in sports activities in school linked to the Games.

Entries and attainment in GCSE PE

- In 2012, 97,800 pupils entered GCSE PE. This is 16% of the cohort and compares to 18% of the cohort that entered in 2001 and 24% of the cohort in 2007, when entries peaked.

- In 2012, 71% of pupils achieved grades A*-C, compared to 53% in 2001.

- There was no difference in the percentage of boys and girls achieving an A*-C in 2012, with 71% of boys and 71% of girls achieving an A*-C.

Entries and attainment in A Level PE

- In 2012, 17,135 pupils entered A-level PE. This was 2.2% of the cohort. Entries peaked in 2008 when 3% of the cohort entered A-level PE.

- In 2012, 41% of pupils who entered PE A-level achieved grades A*-B.
Girls have consistently outperformed boys in achieving A*-B grades: in 2012, 50% of girls achieved A*-B grades compared with 34% of boys.

Effective practice in PE and sport in schools

There is more good and outstanding PE in schools since the Ofsted 2009 report, however, not all pupils have a good physical education, some schools do not provide enough ‘physical’ aspects, other schools do not teach PE in enough depth, and there is limited access to a high standard of competitive sport (Ofsted, 2013).

Primary schools

The teaching, quality of the PE curriculum, leadership and management, and overall effectiveness of PE was good or outstanding in over two thirds of the primary schools visited.

Pupils’ achievement was good or outstanding in over two thirds of the primary schools visited, with boys, girls, disabled pupils and those with special educational needs (SEN) making similar progress in PE.

Secondary schools

The overall effectiveness of PE was good or outstanding in just under three quarters of secondary schools.

Teaching, the PE curriculum, and leadership and management of PE were good or outstanding in over three quarters of schools visited.

Pupils’ achievement was good or outstanding in almost three quarters of secondary schools visited, with pupils with SEN making similar progress to other pupils in PE, whilst boys tended to outperform girls in practical lessons.

Teacher Qualifications

The School Workforce Census (DfE, 2012) found that 56% of teachers in secondary maintained schools in England that taught PE had a degree or higher, 16% had a bachelor of education (BEd), 7% had a PGCE and 2% held an ‘other’ relevant qualification. Overall, 80% of all teachers who taught PE had a relevant post A-level qualification, while 20% of teachers who taught PE had no relevant post A-level qualification.

Eurydice (2013) reported that across Europe, PE is taught by generalists and specialist teachers in primary schools, whilst in lower secondary education PE teachers tend to be specialists. Specialist teachers at primary school usually have
a Bachelor’s degree whereas in lower secondary education almost as many countries require a Master’s degree as a Bachelor’s degree.

- The secondary school curriculum and staffing survey in England (Charles et al., 2008) reported that the gender split of teachers was almost equal, with 49% of PE teachers being male and 51% female. The majority of PE teachers were in the youngest two age bands: 51% were under 30 and 27% were aged 30-39. Fifteen per cent of PE teachers were aged 40-49 and 10% were 50+.

Pupil attitudes to PE and sport

- In 2006, analysis of LSYPE showed that 24% of pupils in Year 9 named PE, games or sport as their favourite subject. This was the most popular subject ahead of art, which 16% of pupils said was their favourite subject. More recently, a survey of pupils in Years 7-11 conducted by researchers at the University of Manchester confirmed these findings, stating that pupils’ favourite subject was PE (33%), followed by art (20%) and English (8%).

- Reasons cited by 6-11 year olds for not enjoying school sport or exercise included: beliefs that their physique was not suited to sport, embarrassment at not being good enough and letting the team down, frustration at not understanding the rules, and boredom (Mason, 1995).

- Bad weather and wanting to spend time doing other things such as seeing friends, playing computer games or watching television were common reasons for not taking part in physical activity after school (Brockman et al., 2011; Burrows et al., 1999; Mason, 1995; Mulivhill et al., 2000; Tuxworth, 1997).

- Fun and enjoyment have been reported as the main reasons that pupils take part in physical activity. Being with friends and the sense of belonging to a team and achieving also encourages pupils to take part (Brockman et al., 2011; Burrows, 1999; Mason, 1995; Mulivhill et al, 2000; Tuxworth, 1997).

- Gorely et al. (2011) highlighted that girls’ participation in PE and sport declines over time. They identified suggestions for encouraging girls to be more active: having a genuine choice of activities, having girls-only sessions, including more friendly competition and fun, ensuring teachers are positive/encouraging, changing boys’ attitudes to girls in sport, and increasing girls’ confidence.

- SPEAR’s (2011) evaluation of the Change 4 Life School Sports Club programme concluded that greater targeting of the programme at ‘non sporty’ pupils has the potential to more than double the reach of the impact of the programme.

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1 The University of Manchester: University of Manchester’s website
Barriers to participation for pupils with SEN and disabilities

- The barriers of taking part in PE and sport for pupils with disabilities include: inaccessible facilities and equipment; staff without adequate training; and inadequate, non-compliant, or otherwise inaccessible programs and curricula (Auxter et al., 2010; Rimmer, 2008; Rimmer and Rowland, 2007; Stanish, 2010).

- Whizz-Kidz Kidz Board (2011) found that 57% of disabled pupils said they took part in PE as much as other children whilst 33% said they didn’t: of those who didn’t take part in PE as much as others, 33% felt that it was because of their disability, with 54% of wheelchair users reporting this. Only 22% of the powered wheelchair users and 27% of manual wheelchair users took part in team games and activities all of the time.

Benefits of PE and sport

- Physical benefits of physical activity in childhood include greater bone strength and positive movement skill development (Bass, 2000; Fisher et al., 2005; Kemper et al., 2000). There is also evidence that physical activity is linked to better cognitive functioning (Sibley and Etnier, 2003).

- There is evidence that physical activity has a positive effect on mental health in children, including reducing anxiety and depression and improving mood (e.g. Ahn and Fedewa, 2011; Mutrie and Parfitt, 1998). However, there is some evidence that for pupils who do not enjoy physical activity it can have a negative impact on self-esteem and mood (Biddle, 1999; Hellison, 1973).

- There is some evidence to indicate that physical activity is linked to improved concentration and behaviour in the classroom (Budde, 2008; QCA, 2007; Raviv and Low, 1990; Tuckman and Hinkle, 1986).

The impact of school-based activity on attainment

School-based PE and the link with attainment

- Overall, the evidence on the relationship between time spent on PE and sport and attainment is mixed. Some evidence shows that increased time in PE has a positive relationship with attainment while some evidence reports that there is no relationship between the two. However, overall the evidence suggests that there is no negative association between increased time spent on PE and sport and attainment; despite the reduced teaching time, studies have shown that pupils have equal or enhanced grades.
Increasing physical activity lessons from twice a week to daily has been reported to have a significant effect on primary pupils’ academic achievement in maths, reading and writing (Ericsson, 2008).

In secondary pupils, performance in certain sports including football, netball, athletics and hockey have been found to be positively associated with higher GCSE scores in maths and English (Dexter, 1999).

Despite numerous positive findings, some studies, particularly at secondary level, have found that physical activity has no impact on attainment (Dollman et al., 2006; Melnick et al., 1992; Tremblay et al., 2000).

The impact of extra-curricular sport

Overall, the evidence on pupils taking part in extra-curricula sport suggests that it has a positive impact or no impact on attainment. There is no negative association, though.

Generally the evidence suggests that participation in school team sports, for secondary pupils, has a positive impact on attainment, but this is not conclusive and some studies have reported no association (Fox et al., 2010; Stephens and Schaben, 2002; Yin and Moore, 2004; Hawkins and Mulkey, 2005).

For secondary pupils, there is some evidence that extra-curricula physical activity is associated with positive academic attitudes and better attendance and homework completion rates (Darling, 2005; Fredricks and Eccles, 2006; Harrison and Narayan, 2003).

International sport schools

Sports schools are mainstream secondary schools which assist young elite athletes to pursue their secondary education, while also training and competing at an elite level.

In most countries, sports schools were founded in the early 1990s. The number of sports schools in each country varies widely: from one in Canada (which has 22 sports) and Singapore (14 sports); 10 each in Belgium and Italy (including ski colleges); 22 in Finland; 25 in the Netherlands; 36 in Australia; 38 in Germany and 61 in Sweden (Radtke and Coalter, 2007).

Evidence gaps

Sports schools are mainstream secondary schools which assist young elite athletes to pursue their secondary education, while also training and competing at an elite level.
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References


Annex A: Sport surveys

The PE and Sport Survey 2009/2010

The PE and Sport Strategy for Young People (PESSYP), set up in 2003, aimed to get more young people taking part in high quality PE and sport. To deliver this, the Government created a network of 450 School Sport Partnerships across England. In the 2009/10 academic year there were 21,486 schools and 357 FE colleges arranged into these partnerships. In October 2010 it was announced that PESSYP was being discontinued and therefore the funding for the School Sport Partnerships was to end.

Between 2003/04 and 2007/08 TNS-BMRB (formerly TNS), conducted five annual surveys of schools to measure progress towards increasing participation in PE and sport by 5–16 year olds. In 2008/09 and 2009/10, TNS-BMRB was commissioned to conduct two further surveys of schools which measured take-up of PE and sport by young people in schools and colleges. At this point the survey was also extended to cover Years 12 and 13, and collected data by gender for the first time. The 2009/10 survey was the final PE and Sport survey, and it collected information from all partnership schools in the maintained sector in England (a total of 21,486 schools) and from all FE colleges (a total of 357).

Taking Part survey (DCMS, 2013)

Taking Part is a continuous national household survey looking at adult and child participation in culture and sport. The April 2013 report summarises mid-year findings of the Taking Part child survey, based on data collected from October 2011 to September 2012. The findings are based on interviews with an adult respondent on behalf of 1,014 primary aged children (5-10) and interviews directly with 741 secondary aged children (11-15).