



Department  
for Education

# **Evidence on physical education and sport in schools**

**June 2013**

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## Introduction

This evidence note 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.

## 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 or 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 PA 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<sup>1</sup> 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 et al., 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.

## 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).

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<sup>1</sup> Available on the [University of Manchester's website](#)



- Whizz-Kidz (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 et al., 2008; QCA, 2007; Raviv and Low, 1990; Tuckman and Hinkle, 1986).

## The impact of school-based physical 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-curricular 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-curricular 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).

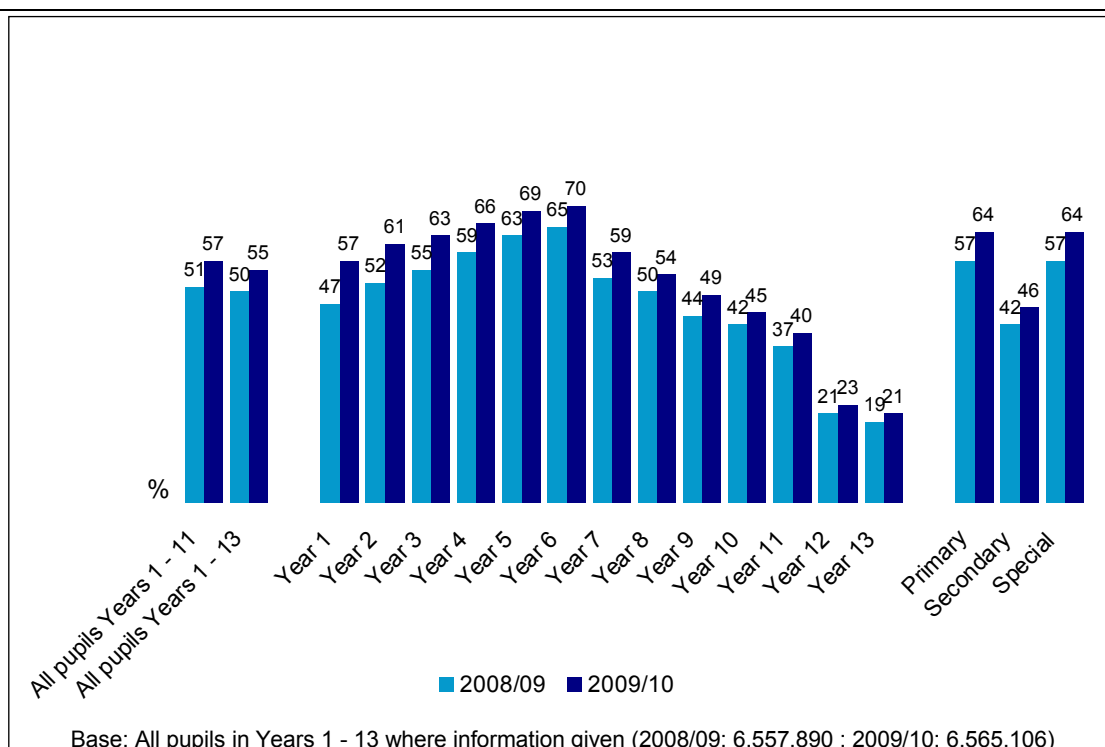
## **Evidence gaps**

- The annual PE and Sport survey last reported in 2010 and has been discontinued. Although the Taking Part survey (DCMS, 2013) reports some evidence on sport participation, and Sport England are lowering the age of participants in their Active People Survey to age 14, neither survey focuses on school sport: there is therefore currently minimal reported evidence on participation rates in school sport.
- Whilst the Taking Part survey (DCMS, 2013) reported some evidence on the impact of the 2012 Games on sport participation, using data collected between October 2011 to September 2012 (i.e. before, during and immediately after the Games), there is no evidence on the impact of the 2012 Olympics on school sport in the academic year following the Games.

## Participation in PE and out of hours school sport

Evidence from the PE and Sport Survey, commissioned by the then DCSF, found that by 2007/08, 90% of pupils across Years 1–11 were participating in at least two hours of high-quality PE and out of hours school sport in a typical week. Subsequent surveys provided information on the percentage of pupils taking part in *three* hours of high-quality PE and out of hours school sport. The survey in the 2009/10 academic year found that across Years 1–13, 55% of pupils participated in at least three hours of high-quality PE and out of hours school sport, an increase of five percentage points from the previous survey in 2008/09, as can be seen in Figure 1 below (Quick et al., 2010).

**Figure 1: Percentage of pupils taking part in at least three hours of PE and out of hours school sport**



Source: Quick et al. (2010)

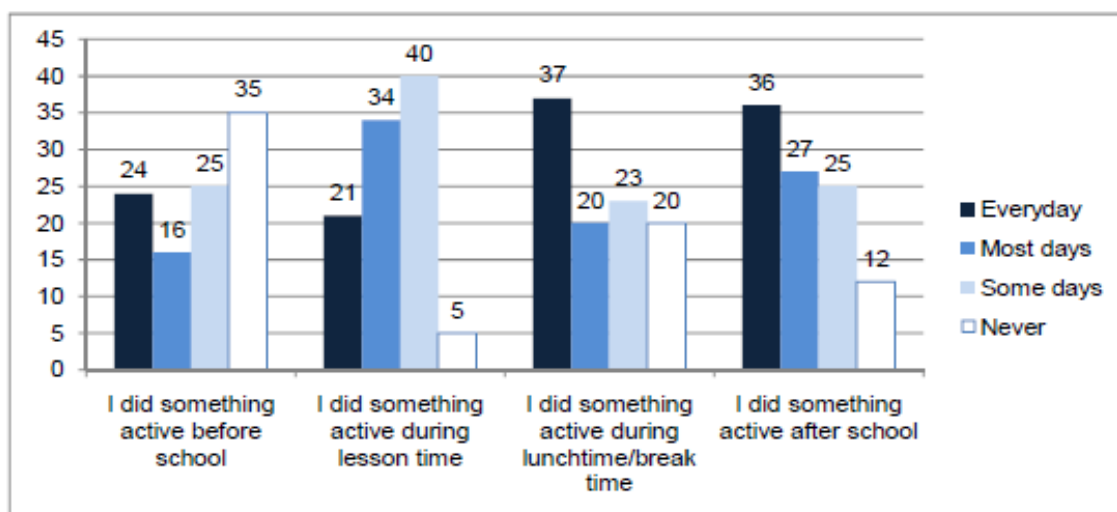
In primary and special schools, 64% of pupils took part in at least three hours of PE and out of hours school sport a week in 2009/10, compared with 57% in 2008/09. In secondary schools, 46% of pupils took part in at least three hours a week, compared to 42% in 2008/09. Pupils in rural areas were more likely to participate for more than three hours than pupils in urban areas: 60% compared with 54%, respectively (Quick et al., 2010).

Overall, figures for participation in three hours of PE and out of hours school sport are highest for pupils in Years 4-6. This decreases steadily across secondary school, down to 40% in Year 11, then dropping to 23% and 21% respectively in Years 12 and 13. In comparison to 2008/2009, the greatest gains in pupils doing at least three hours were seen in younger pupils: in Years 1 and 2 there were 10 and nine percentage point gains respectively. The least difference was seen in the older years when there were only two percentage point gains (Quick et al., 2010).

Tellus4 was an online survey, live between 5 October and 20 November 2009, representing the views of 253,755 children and young people in school in Years 6, 8 and 10 in 3,699 schools, in 151 Local Authorities. Children were asked how physically active they were in their daily lives during the last week, both within school and outside of school. Figure 2 below shows how active<sup>2</sup> children reported they were during the school week (Chamberlain et al., 2010).

Focusing on being active during the school day, 21% of children said they did something active everyday during lesson time, compared to 74% who said they were active some/most days, and 5% who said they were never active during lesson time. During lunch and break times, 37% said they were active everyday, whilst 43% said they were active some/most days and 20% said they were never active.

**Figure 2: Extent to which young people were active in the last week**



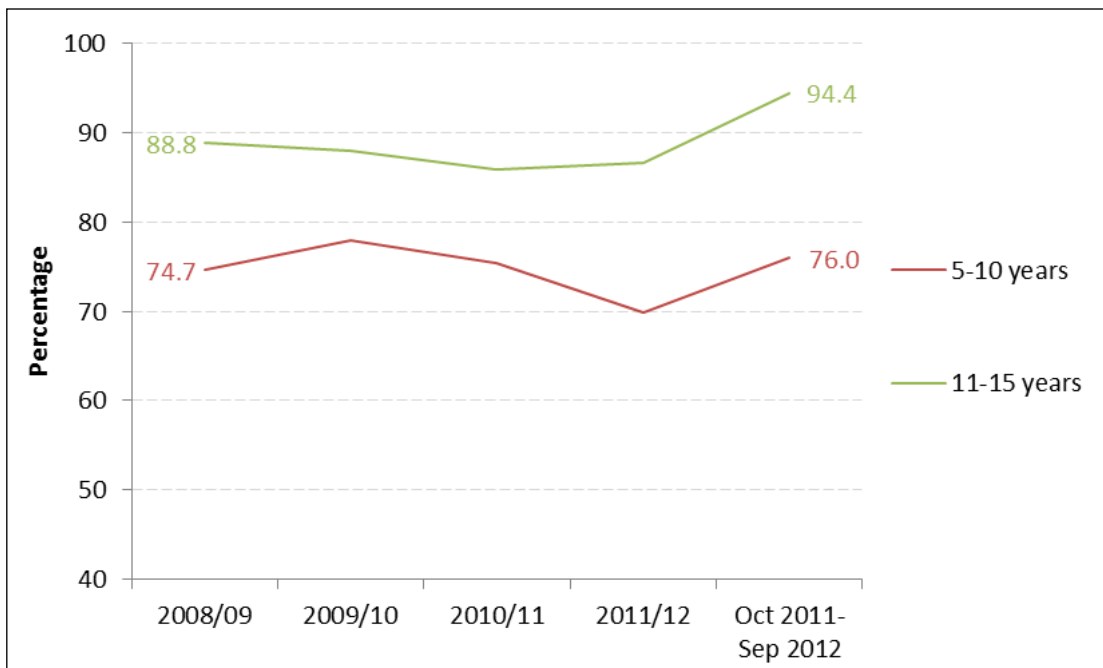
*A series of single response items  
 Due to rounding percentages may not always sum to 100  
 Ns are unweighted: Ns for each item = 233,729; 237,130; 233,896; 236,466  
 Source: Tellus4*

The Department for Culture, Media and Sports' (DCMS) Taking Part survey (2013) reported that 82.5% of 5-10 year olds did sport outside school and 94.7% of 11-15 year

<sup>2</sup> Respondents were instructed that they could include a range of activities such as running around and playing sports.

olds did sport in or outside school, in the last four weeks. These figures have remained steady since 2008/09, with no significant changes. During the last week, 76.0% of 5-10 year olds did sport outside school and 94.4% of 11-15 year olds did sport in or outside school as can be seen in Figure 3. There was no significant difference for 5-10 year olds from 2008/09 figures, but there was a significant increase for 11-15 year olds from 88.8% in 2008/09.

**Figure 3: Percentage of children who did sport in the last week, 2008/09 to Oct 2011-Sept 2012**



Note: Confidence intervals range between +/-1.7 and +/-6.5 from 2009/09 onwards. Data for 5-10 year olds relates to out of school activities only. Data for 11-15 year olds relates to activities undertaken both in and out of school.

Source: DCMS (2013)

## Participation in PE and Sport by pupil characteristics

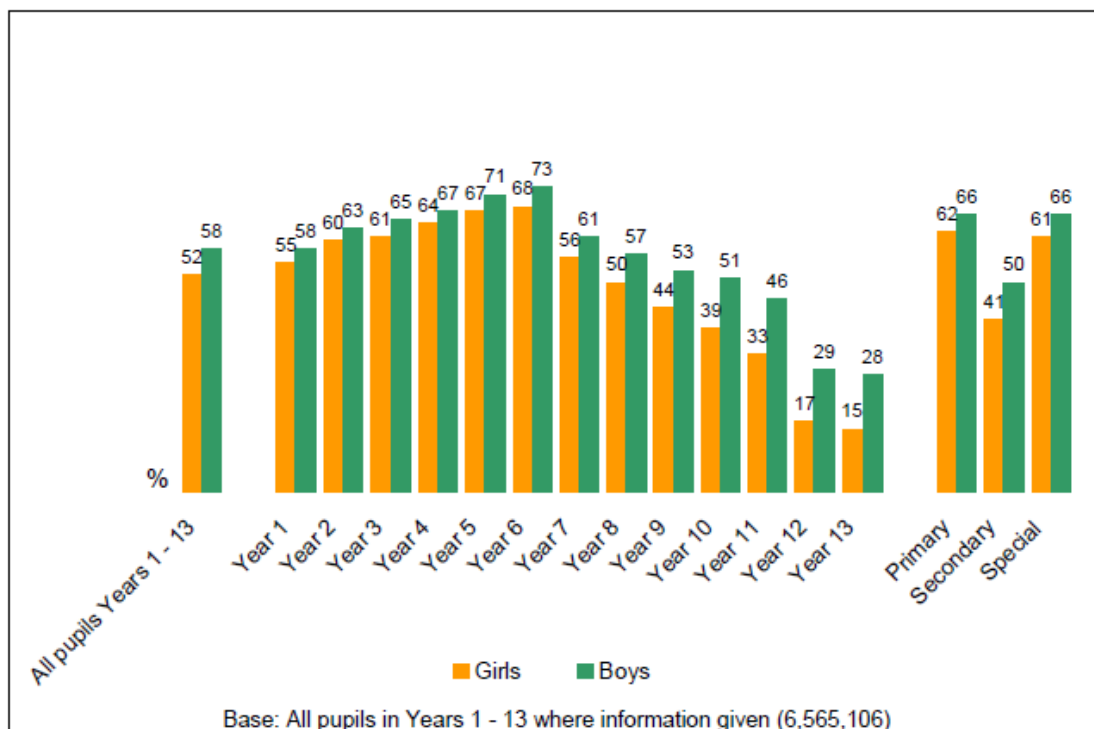
The PE and Sport Survey (Quick et al., 2010) found that in the schools which performed highest, i.e. over 70% of pupils participated in three hours of PE and out of hours school sport, there tended to be fewer pupils who were eligible for FSM than in schools where there are lower levels, i.e. 40% or less pupils participating in three hours of PE and out of hours school sport.

Schools in deprived areas were over-represented amongst the lowest participation in PE and out of hours school sport and schools in affluent areas were over-represented in high-performing schools.

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. In the lowest performing schools, there were a higher proportion of pupils with SEN than in higher performing schools.

Across all year groups, boys were more likely to take part in three hours of PE and out of hours school sports in comparison to girls, as can be seen in Figure 4 below. On average across the year groups, 52% of girls participated compared to 58% of boys. The smallest differences between genders were seen in primary schools, whilst in secondary schools, the gap increased as pupils got older (Quick et al., 2010).

**Figure 4: Percentage of pupils who participated in at least three hours of high quality PE and out of hours school sport in a typical week**



Source: Quick et al. (2010)

Similarly, the TellUs4 survey found that boys were more active during break times, with 47% of boys doing something active every day, compared to 26% of girls. In addition, 27% of girls said they never did anything active during break times, compared to only 13% of boys. During lessons, boys were again more active, with 26% stating that they did something active every day in lessons, compared with 15% of girls (Chamberlain et al., 2010).

## Most common sports to participate in

The Taking Part survey (DCMS, 2013) found that swimming, diving or lifesaving was the most common sport amongst 5-10 year old children, with 47.6% participating in the last four weeks, as can be seen in Table 1. There were significant decreases in participation in walking or hiking, rounders and angling or fishing, and a significant increase in tennis since 2010/11.

**Table 1: Sports participated in by 5-10 year olds in the last four weeks, Oct 2011-Sept 2012**

<b>Sport</b>	<b>Percentage</b>
Swimming, diving or lifesaving	47.6
Football (including five-a-side)	37.9
Cycling or riding a bike	25.7
Walking or hiking	17.1
Gym, gymnastics, trampolining or climbing frame	12.0
Tenpin bowling	10.2
Tennis	9.9
Roller skating/blading or skate boarding	6.9
Cricket	5.5
Martial arts – Judo, Karate, Taekwondo and other Martial arts	5.4
Golf, putting, pitch and putt	5.0
Badminton	3.9
Basketball	3.7
Rounders	3.5
Table tennis	3.4
Horse riding or pony trekking	3.4
Dodgeball	3.3



Ice skating	3.0
Aerobics, keep fit	2.9
Netball	2.8
Cross country, jogging or road running	2.6
Hockey	2.5
Rugby	2.4
Athletics, track and field events, running races or jumping	2.1
Angling or fishing	1.2

Source: Taking Part survey (DCMS, 2013)

As can be seen in Table 2, football (including five-a-side) was the most common sport amongst 11-15 year olds, with 56.1% having played football in the last four weeks. There were 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 since 2010/11.

**Table 2: Sports participated in by 11-15 year olds in the last four weeks, Oct 2011-Sept 2012**

<b>Sport</b>	<b>Percentage</b>
Football (including five-a-side)	56.1
Basketball	29.7
Rounders	28.1
Swimming, diving or lifesaving	26.5
Gym, gymnastics, trampolining or climbing frame	24.7
Tennis	22.9
Rugby	22.7
Badminton	22.2
Cycling or riding a bike	21.6

Cricket	21.5
Dodgeball	21.4
Table tennis	20.8
Cross country, jogging or road running	20.4
Netball	20.3
Athletics, track and field events, running races or jumping	19.6
Hockey	18.3
Walking or hiking	17.8
Aerobics, keep fit	11.8
Tenpin bowling	8.2
Ice skating	6.3
Martial arts – Judo, Karate, Taekwondo and other Martial arts	6.1
Golf, putting, pitch and putt	5.8
Roller skating/blading or skate boarding	5.6
Horse riding or pony trekking	3.3
Angling or fishing	1.8

Source: Taking Part survey (DCMS, 2013)

## School sports provision

In 2009/10, schools in England provided on average 19 different sports to both girls and boys, with an average of 25.6 sports provided in secondary schools, 17.6 in primary schools, and 21.5 in special schools. There was no difference by school deprivation.

Table 3 below shows the percentage of schools overall that offered each sport (Quick et al., 2010)

**Table 3: Percentage of schools offering each sport**

<b>Sport</b>	<b>Percentage of schools</b>
Football	98
Dance	96
Athletics	93
Gymnastics	91
Cricket	89
Rounders	85
Swimming	84
Tennis	80
Netball	79
Multi skills clubs	76
Hockey	73
Outdoors/advent	72
Fitness	71
Basketball	69
Rugby union (including tag rugby)	66
Orienteering	59
Cycling	55

Golf	44
Badminton	41
Table tennis	36
Rugby league (including tag rugby)	35
Volleyball	29
Canoeing	29
Archery	27
Softball	16
Martial arts	15
Mountaineering	14
Judo	13
Boccia	12
Sailing	11
Karate	11
Boxing	10
Lacrosse	8
Squash	7
Bowls	6
Equestrian	6
Triathlon	5
Skateboarding	4
Angling	3
Goalball	3
Kabaddi	2

Source: Quick et al. (2010)

Several sports have shown increases over the past seven years, as can be seen in Table 4 below.

**Table 4: Sports that have shown a significant increase in schools over the past seven years**

<b>Sport</b>	<b>Percentage of schools 2003/2004</b>	<b>Percentage of schools 2009/2010</b>
Tennis	70	80
Multi-skill clubs	26	76
Fitness	58	71
Orienteering	46	59
Cycling	21	55
Golf	14	44
Badminton	31	41
Table tennis	26	36
Rugby league	12	35
Canoeing	17	29
Archery	7	27
Martial arts	4	15
Rowing	2	12

Source: Quick et al. (2010)

Swimming, multi-skill clubs and cycling are much more common in primary schools than in secondary schools. In contrast, there are a very large number of sports that are much more commonly offered by secondary schools than by primary schools – rounders, netball, hockey, fitness, basketball, rugby union, orienteering, golf, badminton, table tennis, volleyball, canoeing, softball, martial arts, mountaineering, sailing, boccia<sup>3</sup>,

<sup>3</sup> Boccia is a Paralympic sport for athletes with disabilities that have a major impact on motor skills. Boccia is a target ball sport belonging to the same family as bowls.

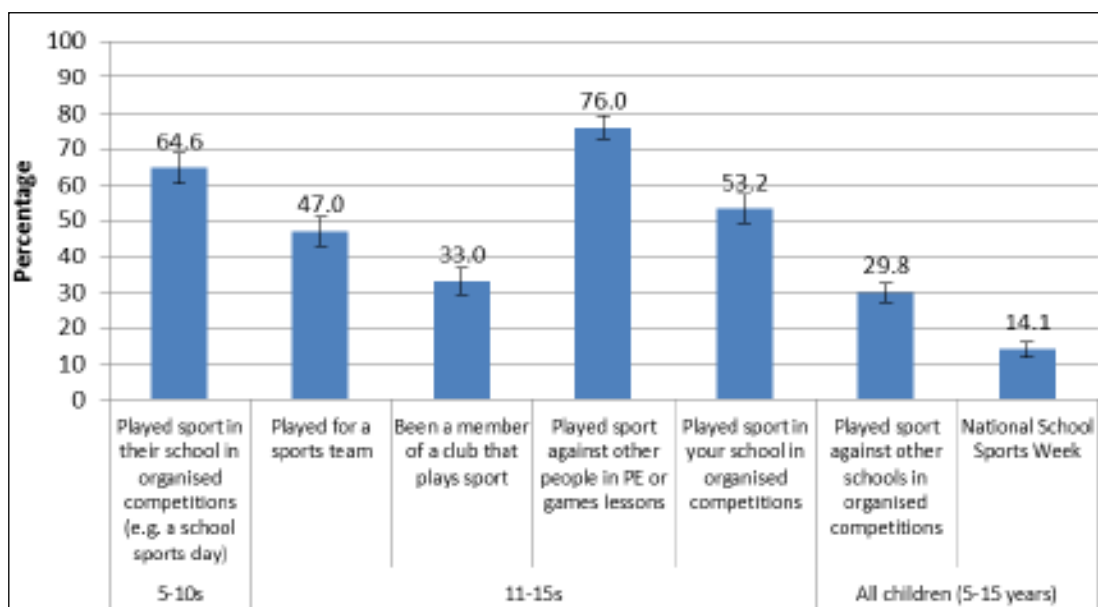
rowing, boxing, squash, lacrosse, cheerleading, trampolining, yoga, handball, baseball and equestrian all fall into this category (Quick et al., 2010).

Some sports were more likely to be offered to girls than boys in secondary schools. Those with the largest differences were cheerleading, netball and hockey. Sports that were the most likely to be offered only to boys were softball, baseball and rugby union (Quick et al., 2010).

## Participation in competitive sports

The Taking Part survey (DCMS, 2013) found that 81.6% of 5-15 year old children reported that they had taken part in some form of competitive sport in the last 12 months. Over three quarters of those surveyed (77.8%) had taken part in competitive sport 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 on this measure. For 5-10 year olds, playing sport in their school in organised competitions (such as a sports day) was the most common way of participating in competitive sport (64.6%), whilst for 11-15 year olds, playing sport against others in PE and games lessons was the most common way of doing competitive sport (76.0%), as can be seen in Figure 5.

**Figure 5: Percentage of children who did competitive sport in school, by type of participation, Oct 2011-Sept 2012**



Note: Confidence intervals range between +/-2.1 and +/-4.1.

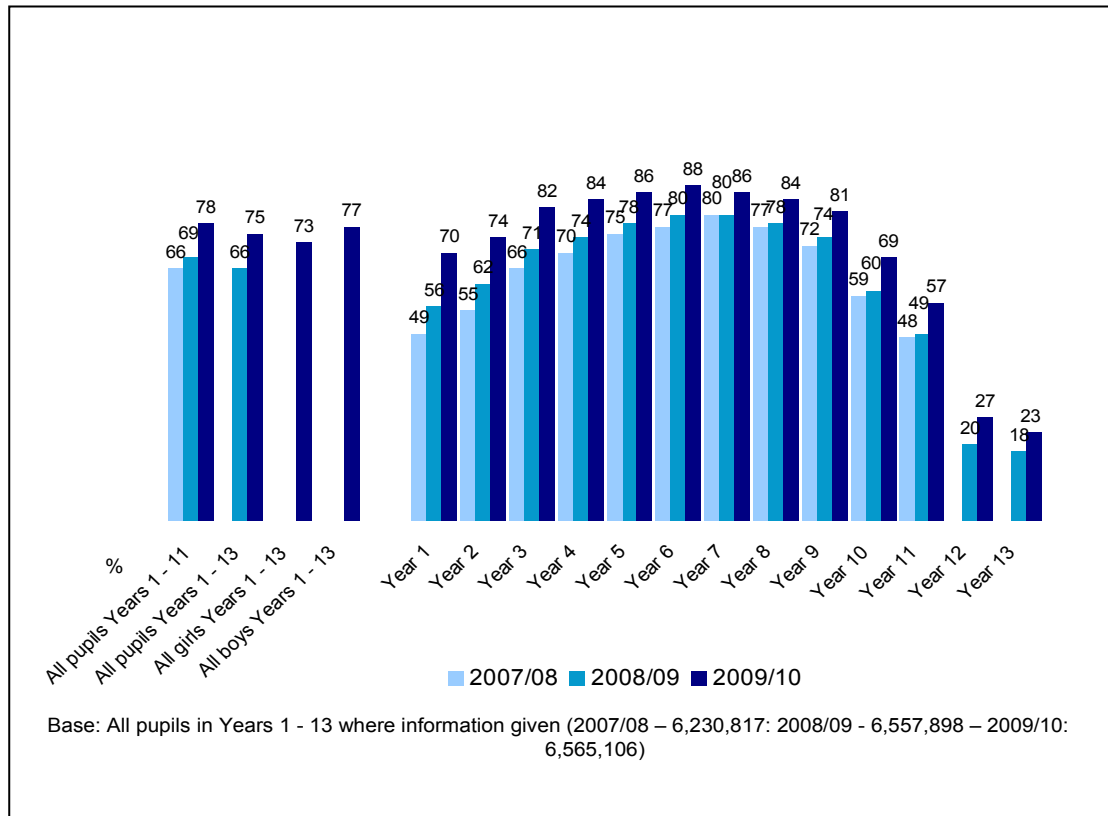
Source: DCMS (2013)

## Intra-school competitive sport

The PE and Sport survey 2009/10 asked about intra-school (i.e. within the school) and inter-school sport (i.e. between schools) separately. Their figures on intra-school participation were similar to DCMS's 2013 figures as schools reported that on average, 78% of pupils took part in intra-school competitive sport in 2009/10 (excluding sports day), as can be seen in Figure 6 below. This was a large increase from 2008/09 when 69% of pupils took part in intra-school competitive sport, and represents a 20 percentage point difference to 2006/07 when 58% of pupils took part (Quick et al., 2010).

Figure 6 also shows that primary school pupils were more likely to compete in intra-school competitive sport as they got older. However in secondary schools, fewer pupils compete in intra-school competitive sport as they get older. The gap between girls and boys taking part in competitive sport is larger as pupils get older. There is no difference in Year 1, but by Year 10 there is a five percentage point difference, with boys more likely that girls to be taking part (Quick et al., 2010).

**Figure 6: Percentage of pupils taking part in intra-school competitive sport**



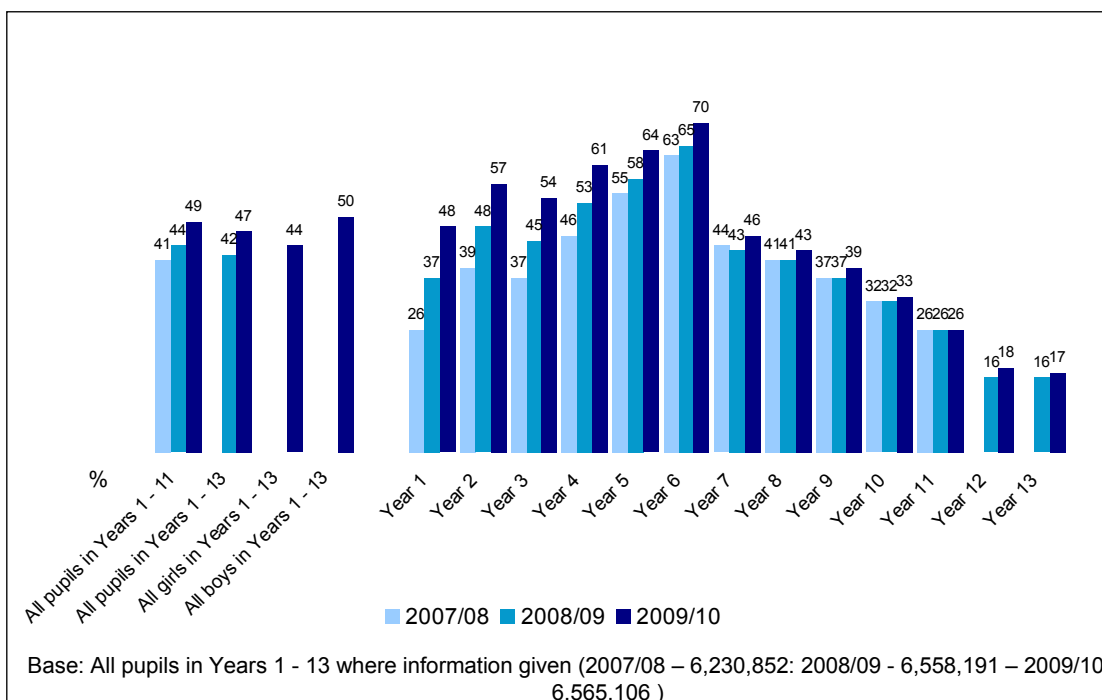
Source: Quick et al. (2010)

The PE and Sport Survey 2009/10 also reported regular intra-school competition, which was defined as *3 times or more* during the academic year for Key Stage 2, and *12 times or more* for Key Stages 3 and 4 (schools were not asked to supply data for Years 1 and 2 for intra-school competition). They reported an increase in regular participation from 28% among Years 3–13 in 2008/09 up to 39% in 2009/10. As with general participation in intra-school competition, boys (41%) were slightly more likely than girls (36%) to be *regularly* taking part in intra-school competition. This difference got larger as pupils got older (Quick et al., 2010).

The PE and Sport (2009/10) survey revealed that half (49%) of pupils across Years 1–11 (47% across Years 1–13) participated in inter-school competition during the academic year. As with intra-school competitive sport, generally a higher percent of pupils take part as they move up through primary school and fewer pupils take part as they move through secondary school, as can be seen in Figure 7 below (Quick et al., 2010).



**Figure 7: Percentage of pupils taking part in inter-school competitive sport**



Source: Quick et al. (2010)

Across all pupils in Years 1-13, 50% of boys took part in inter-school competitive sports compared to 44% of girls. As with intra-school competitive sports, there are only small differences between boys and girls participation in primary school, with the difference getting larger as pupils move up the school. There is no difference in Year 1, but a six percentage point difference in Year 7 and a ten percentage point difference by Year 10. Around one in five (21%) pupils across Years 3-13 *regularly* participated in interschool competition during the 2009/10 academic year (*regularly* was defined as 3 times or more during the year for Key Stage 2, and 9 times or more for Key Stages 3 and 4). Boys were more likely to take part regularly than girls (Quick et al., 2010).

## School sport days

The PE and Sport Survey 2009/10 found that almost all schools (99%) held at least one sports day or equivalent event during the academic year: 99% of primary schools reported having a sports day, 98% of secondary schools and 96% of special schools (Quick et al., 2010). The Taking Part survey (DCMS, 2013) reported that almost two thirds (64.6%) of 5-10 year olds played sport at school in organised competitions (such as a sports day). Over half (53.2%) of 11-15 year olds had participated in competitive sport in this way.

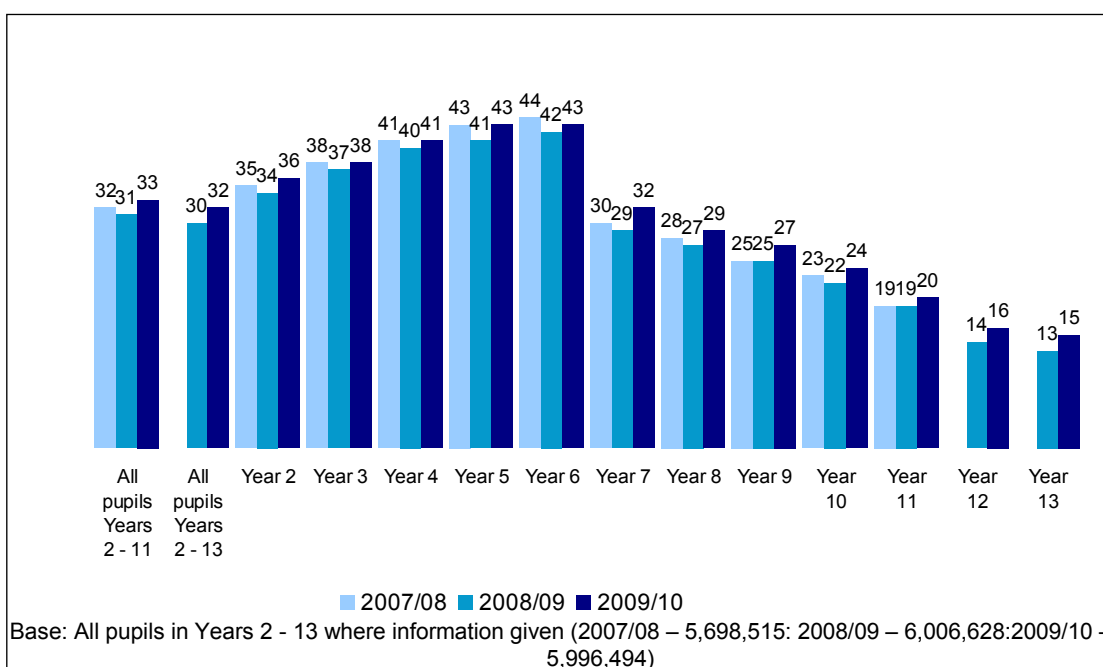
## Club links

On average, schools indicated that they had links to clubs for nine different sports. Secondary schools were more likely to have links to clubs, averaging 14 links to clubs compared to eight in primary and seven in special schools. Schools in areas of high deprivation tended to have slightly few links to clubs.

The top five sports that schools had club links with were football (79%), cricket (61%), dance (55%), swimming (51%), and rugby union (50%). Links to clubs have risen over the seven years of the survey. From 2008/09, those with the biggest increases were dance (up from 50% to 55%), swimming (46% to 51%), and tennis (42% to 47%) (Quick et al., 2010).

In 2009/10, 33% of pupils in Years 2-11 took part in a community sports, dance or multi-skill club linked with their school. This has increased from 19% in 2003/04. Figure 8 shows the uptake by school year. In primary schools this increases year on year whilst it decreases year on year in secondary schools (Quick et al., 2010).

**Figure 8: Percentage of pupils taking part in one or more community sports, dance or multi-skill clubs linked with their school**



Source: Quick et al. (2010)

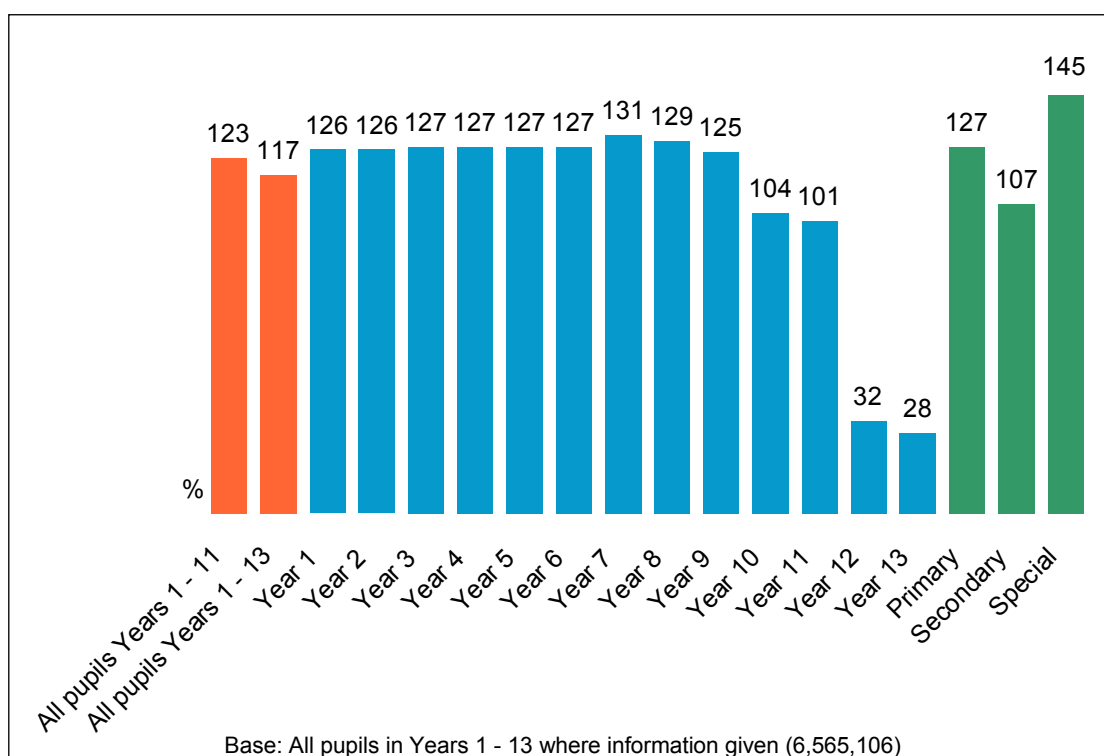
## **Academically-able pupils (previously known as Gifted and Talented)**

In 2009/10, 8% of pupils across Years 5-11 were registered as academically-able because of their sporting ability. Levels of registration have increased from 3% in 2003/04. Generally, slightly more pupils were registered as academically-able due to sport in primary school. There was little difference in gender but slightly more boys were registered than girls (8% compared with 7% of girls) (Quick et al., 2010).

## Curriculum time spent on PE and sport

Based on Years 1–11, the average number of minutes spent on curriculum PE has increased from 107 minutes in 2004/05 to 123 minutes in 2009/2010. In 2009/2010, primary school pupils in Years 1 and 2 spent on average 126 minutes curriculum time on PE and sport, whilst pupils in Years 3–6 spent 127 minutes, as can be seen in Figure 9 below. The average curriculum time spent on PE and sport in primary school overall was 127 minutes. There was more variation across year groups in secondary schools and curriculum time got progressively less as pupils moved up the school. Curriculum time on PE and sport was highest in Year 7 at 131 minutes and lowest in Year 13 at 28 minutes. The average curriculum time in secondary school was 107 minutes (Quick et al., 2010).

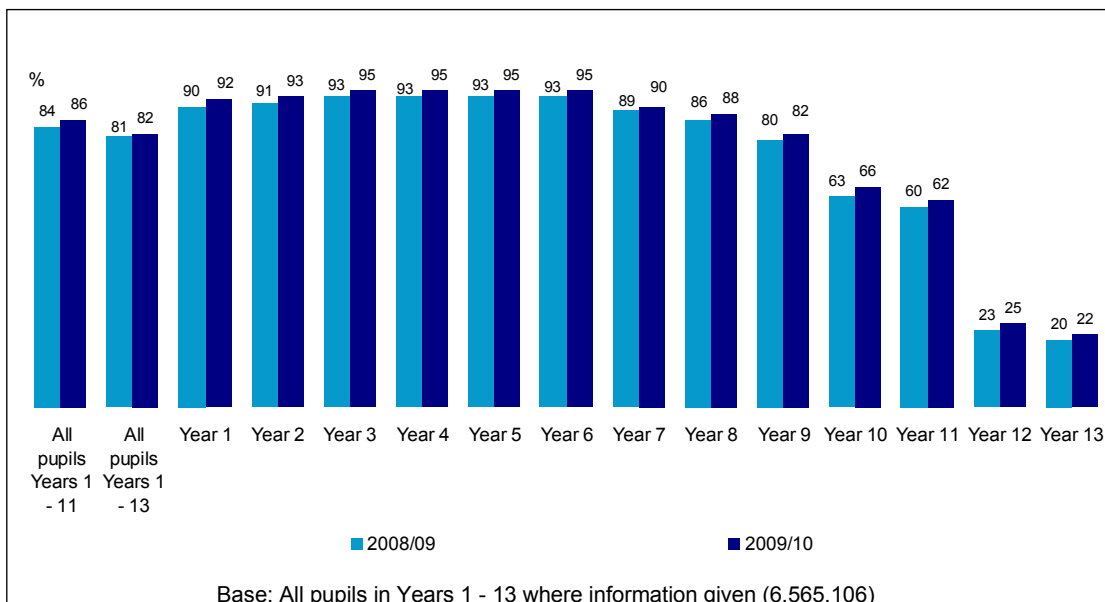
**Figure 9: Average curriculum time that all pupils in each year group spend taking part in PE in a typical week in the academic year 2009/10**



Source: Quick et al. (2010)

Figure 10 below shows that for each year group in primary school, the majority of pupils (92% or more), are participating in at least 120 minutes of curriculum PE a week. In secondary schools, the percentage of pupils doing at least 120 minutes declines with age across Years 7–11. In Years 12 and 13, only 25% and 22% of pupils respectively do 120 minutes of PE curriculum time (Quick et al., 2010).

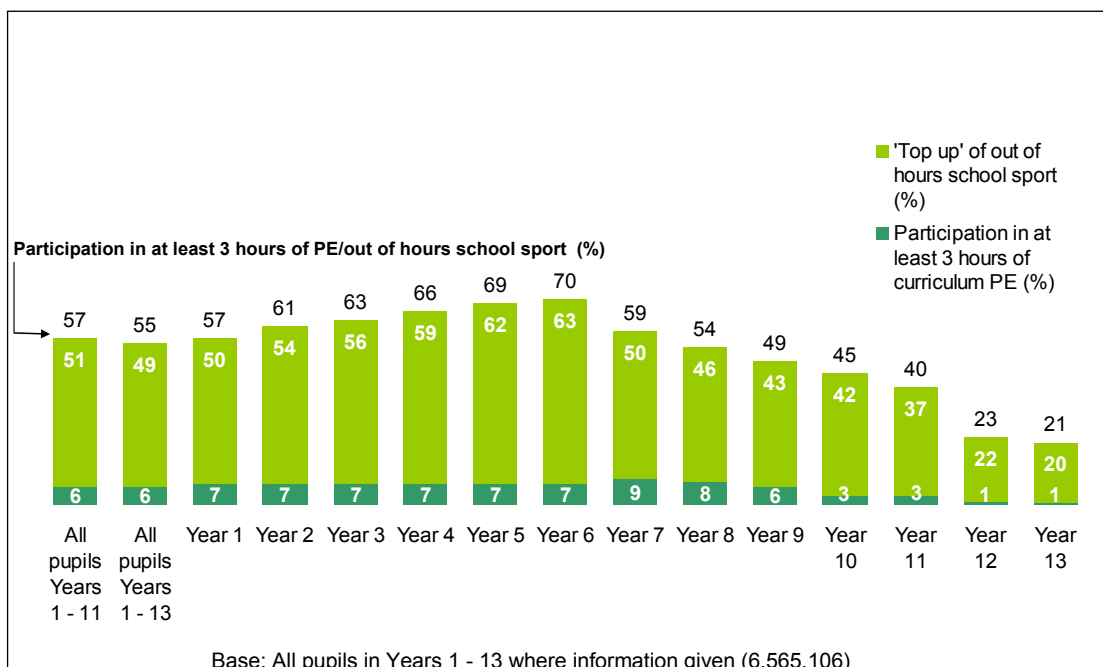
**Figure 10: Proportion of pupils taking part in at least 120 minutes or more of PE in the curriculum PE in the academic year 2009/10**



Source: Quick et al. (2010)

As stated earlier, 55% of pupils across Years 1-13 (57% across Years 1-11) participate in at least three hours of PE and out-of-hours school sport. Examination of how the three hours is achieved shows that only a small percentage of pupils (on average 6% across the year groups) complete three hours of school sport within the curriculum time, with the majority completing this through 'topping up' with out of hours school sport, as can be seen in Figure 11.

**Figure 11: Analysis of how three hours PE and out of hours sport is achieved**



Source: Quick et al. (2010)

## International evidence on PE and sport in schools

Eurydice (2013) mapped out PE and sport activities in primary and lower secondary schools in 30 Eurydice Network countries in Europe, for the academic year 2011/12. They state that “all European countries recognise the importance of physical education at school” and that it “is compulsory in primary and lower secondary education throughout Europe”. In addition, “around half of the education systems have national strategies to promote the development of physical education and physical activity” at school and two-thirds “have large-scale initiatives devoted to them” (Eurydice, 2013, p11). Furthermore, they found that around a third of the countries were “engaged in national reforms or debates directly linked both to sport as practiced in society in general, and to physical education at school” (Eurydice, 2013, p47).

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

Eurydice (2013) also highlighted large differences in the taught time for PE by primary and secondary school. For example in 2011/12, the average taught time in primary education in Ireland was 37 hours, compared to 108 hours in France. In secondary education, the figures range from 24-35 hours in Turkey, Malta and Spain to 102-108 hours in Austria and France (Eurydice, 2013). Extra-curricular activities complement or extend the PE covered in regular taught time, and tend to focus on competitions and other events (Eurydice, 2013).

### Australia

In Australia, PE is the only subject that has a mandated amount of time allocated to it. Pupils aged 5-9 must have 20-30 minutes of PE a day. In Years 4–6 (ages 9-12) this rises to three hours each week of PE and sport, with a minimum provision of 50% for PE. In Years 7–10 (ages 12-16) the mandated time is 100 minutes per week for PE and 100 minutes per week for sport (DfE, 2011).

### Canada - Alberta

In Alberta, all children in Years 1-9 (ages 6-15) are expected to participate in Daily Physical Activity (DPA). School authorities monitor the implementation of this DPA to ensure that all pupils are active for a minimum of 30 minutes daily.

## France

In France, for children aged 6-11, the weekly allocation of PE is decided by the teacher, while in secondary school the time allocated to PE gets progressively less as pupils get older. At 11-12 years old pupils do four hours a week, 12-14 year olds do three to four hours a week, 14-15 year olds do three hours and 15-16 year olds do two hours.

The recommended minimum number of hours across primary and lower secondary education is 108 hours a year (Eurydice, 2013).

## Hungary

In Hungary, the recommended minimum number of hours in primary education was 83 hours, decreasing to 68 hours in secondary education in 2011/12. However, a new reform which is being introduced in the academic year 2012/13, means that taught time allocated to compulsory PE will increase so pupils will have the opportunity to take part in physical activities five times a week. Taught time is doubling in lower secondary education (Eurydice, 2013).

## Japan

In Japan, between ages 6-12 pupils do between 68 hours and 75 hours of health and PE. Most pupils participate in sports and culture study clubs, and most schools offer sports such as baseball, soccer, tennis, swimming, and judo.

## Korea

In Korea, pupils aged 8-14 do 102 hours of PE and sport a year. This reduces to 68 hours a year for pupils aged 14-16.

## Singapore

In Singapore, pupils aged 6-10 have three 30 minute lessons a week on PE, pupils aged 10-12 have two sessions a week, and pupils aged 12-17 spend two 35/40 minute sessions a week on PE. From 2012 onwards, all time allocations for PE increased by half an hour per week.

## Netherlands

In the Netherlands, PE is compulsory between ages 5-18. The amount of time spent on it is at the teacher's discretion (DfE, 2011; Eurydice, 2013).

## Schools' awareness of the Olympic and Paralympic Games (pre 2012 Games)

Evidence suggests that awareness of the Olympics prior to them starting was very high, with 96% of primary and secondary pupils aware of the Games. Awareness of the Paralympics was also high. For primary school pupils, the best things about the London 2012 Games being held in London were 'It will get more people to take part in sport' (27%), 'going to watch it' (20%) and 'having famous sports stars in the country' (19%). For secondary school pupils and further education (FE) students, the key benefits were: 'It promotes sport fitness' (44%), 'it will get more people to take part in sport' (33%) and 'it is good for the UK' (30%) (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%). The event that had the most involvement (52%) was the Lloyds TSB National School Sports Week<sup>4</sup>, which was also the event most likely to have been promoted as a London 2012-related activity. Among schools and colleges involved in any Olympic and Paralympic-related events, just over half had involved the whole school/college in these events (52%) and around a quarter had involved a specific year group. Only a small number of schools limited participation to pupils who were the most involved in sport (Bunt et al., 2011).

Three in ten schools and colleges had introduced new sporting activities as a result of being part of 'Get Set'<sup>5</sup> or London 2012 Olympic and Paralympic-related events and activities and two thirds of pupils said they had tried a new sport at school. Four in ten pupils said that they had learnt or done an activity related to the Olympic Games or Paralympic Games in the last school year (Bunt et al., 2011).

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<sup>4</sup> Lloyds TSB National School Sports Week, delivered in partnership with the Youth Sport Trust, is a week-long sporting celebration for schools across Britain.

<sup>5</sup> Get Set was the official London 2012 education programme for children and young people in thousands of schools and colleges across the UK, and is a flexible cross-curricular programme for 3-19 year olds, offering materials and resources for teachers to use in the classroom, in assembly and in wider activities and has continued post Olympics.



## The School Games

The School Games was established in 2011 and is a competition over four levels for school-aged children, designed to build on the London 2012 Olympic and Paralympic Games and enable every school and child to participate in competitive sport, including opportunities for pupils with disabilities. The four levels are:

- Level 1 – sporting competition for all pupils through intra-school competition;
- Level 2 – individuals and teams are selected to represent their schools in local inter-school competitions;
- Level 3 – the county/area will stage multi-sport School Games festivals as a culmination of year-round school sport competition; and,
- Level 4 – the Sainsbury's School Games finals: a national multi-sport event where the most talented young people in the UK will be selected to compete.

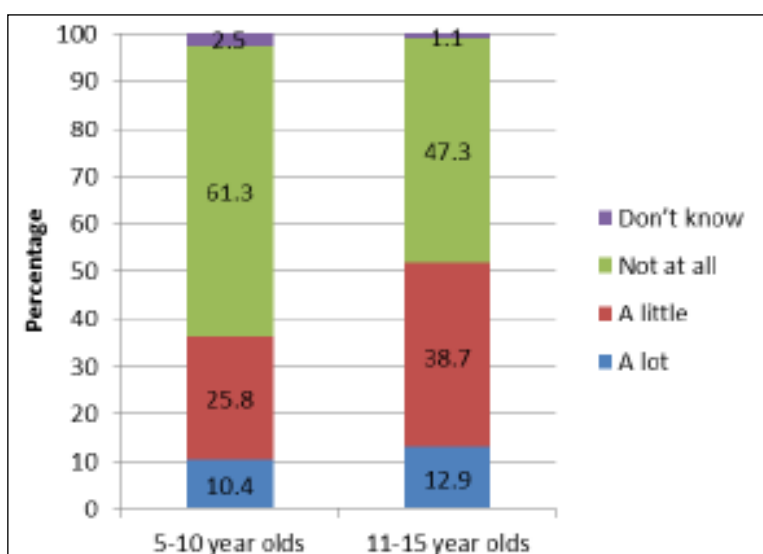
Levels 1 to 3 are open to all schools in England, whilst level 4 is a UK wide event.

By August 2012, 8,341 schools (around 1/3 of schools), with 3.85 million eligible pupils, were participating in the School Games. Participation was measured by numbers of schools registered rather than by pupil level, with number of pupils participating being estimated from numbers of schools taking part. An additional 5,860 schools registered for the School Games before 31st January 2012 but did not confirm their participation (if all of these did participate, the total number of schools was 14,201) (DCMS, 2012).

## 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, as can be seen in Figure 12 below.

**Figure 12: Percentage of children indicating to what extent the Olympic and Paralympic Games encouraged them to take part in sport, Oct 2011-Sept 2012**



Note:

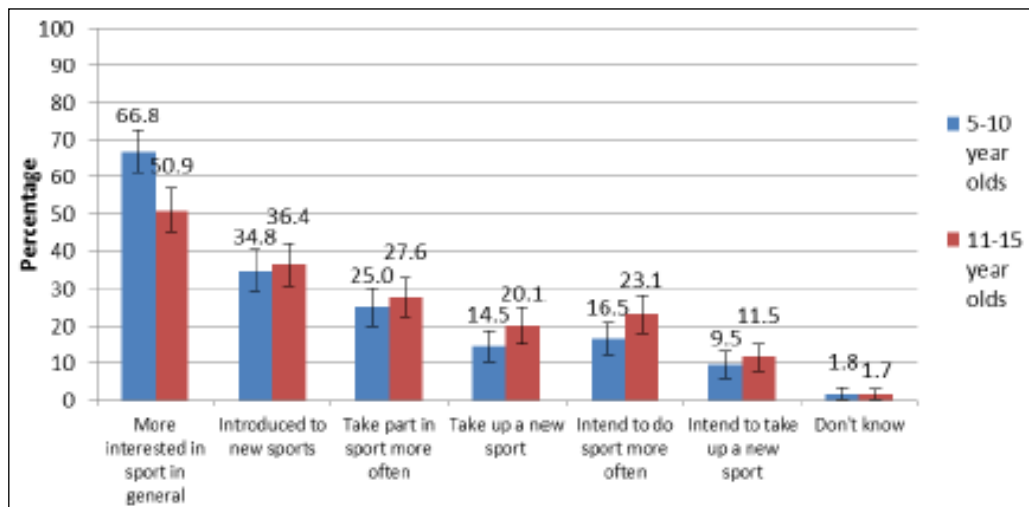
Confidence intervals range between +/-0.9 and +/-4.2.

Source: DCMS (2013)

Those children who responded that they were encouraged 'a little' or 'a lot' to take part in sport by the Games, were asked in what way the Games had encouraged them. Figure 13 shows that as a result of the UK hosting the Olympic and Paralympic Games, 'encouraged' children:

- were more interested in sport (66.8% of 5-10 year olds and 50.9% of 11-15 year olds) and in new sports (34.8% of 5-10 year olds and 36.4% of 11-15 year olds);
- were taking part in sport more often (25.0% of 5-10 year olds and 27.6% of 11-15 year olds) and were taking up new sports (14.5% of 5-10 year olds and 20.1% of 11-15 year olds); and,
- intend to participate more often (16.5% of 5-10 year olds and 23.1% of 11-15 year olds) and in more sports (9.5% of 5-10 year olds and 11.5% of 11-15 year olds).

**Figure 13: Percentage of those children that were encouraged by the Games to take part in sport in different ways, Oct 2011-Sept 2012**



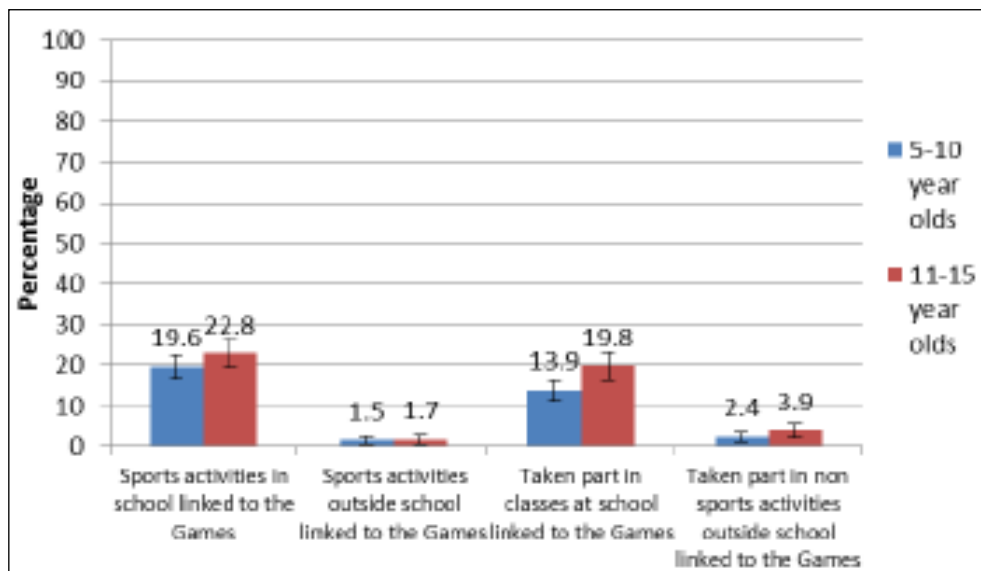
Note:

(1) Confidence intervals range between +/-1.5 and +/-5.9.

Source: DCMS (2013)

The Taking Part survey (DCMS, 2013) also found that 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, as can be seen in Figure 14 below.

**Figure 14: Percentage of children who participated in activities linked to the Games, Oct 2011-Sept 2012**



Note: Confidence intervals range between +/-0.9 and +/-3.5.

Source: DCMS (2013)

There is no reported evidence on the impact of the Olympics on school sport in the academic year since the Games.

## GCSE PE

### Provision for GCSE PE

In 2011<sup>6</sup>, 78% of comprehensive schools offered GCSE PE. Independent schools were least likely to offer PE at GCSE (46%), as can be seen in Table 5 below.

**Table 5: Provision of GCSE PE by school type**

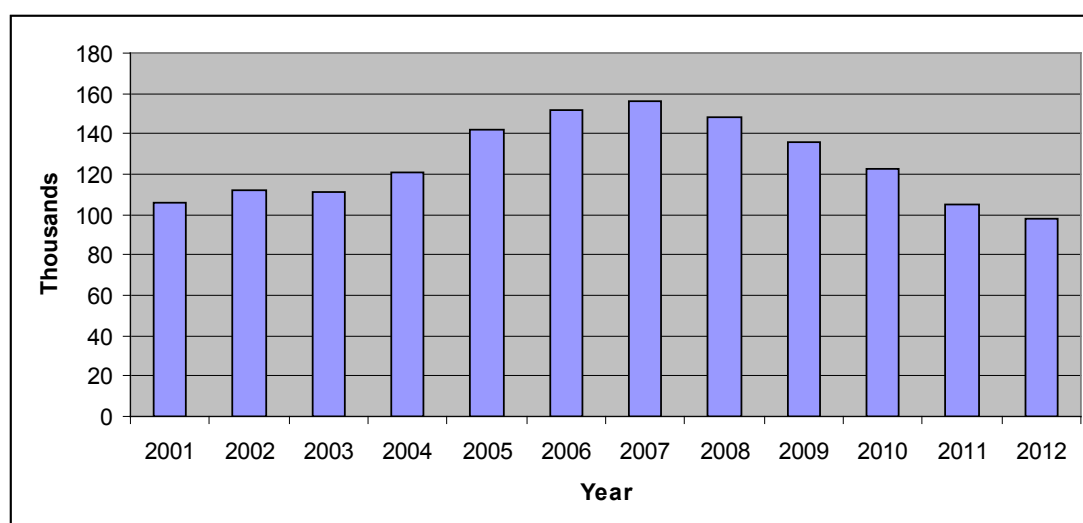
School Type	Percent
Academy	77
Comprehensive	78
Grammar	75
Independent	46
Secondary Modern	59

Source: Cambridge Assessment statistical report series (Gill, 2012a)

### Entries for GCSE PE

The number of GCSE entries in 2012 was slightly lower than figures in 2001, as can be seen in Figure 15 below. In 2012, 97,800 pupils entered GCSE PE compared to 106,000 in 2001. In 2012, of the 97,800, 57,800 were boys and 40,000 were girls. Entries increased from 2001 to 2007 when there was a peak of 156,000 entries, and have since been in decline. In terms of the percentage of all pupils entering in 2012, 16% of pupils entered compared to 24% in 2007 and 18% in 2001.

**Figure 15: Entries for GCSE PE 2001-2012**

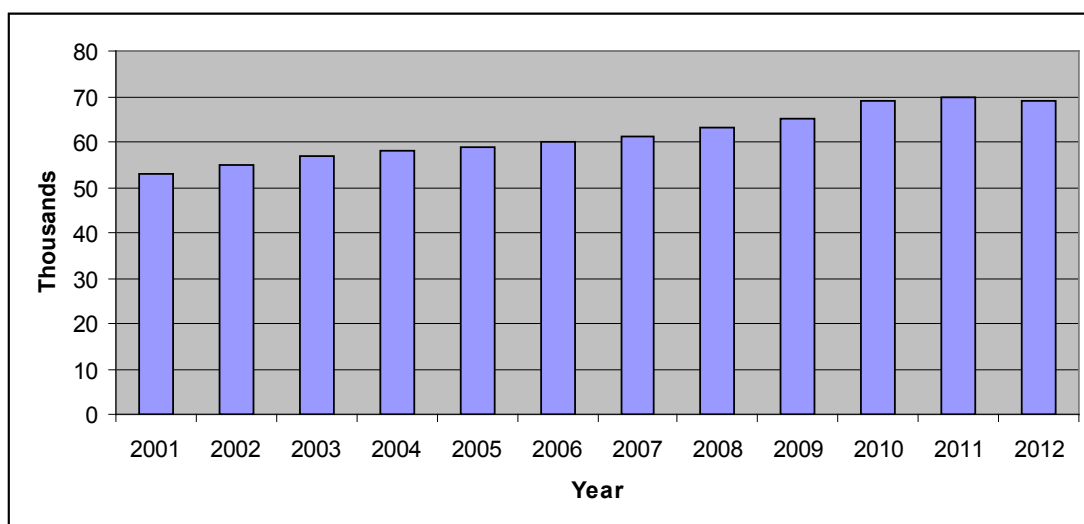


<sup>6</sup> Figures are based on 366 academies, 2,230 comprehensives, 113 Grammar schools, 927 Independent schools, and 59 secondary modern schools.

## Attainment

Of the pupils that took GCSE PE, the number of pupils achieving grades A\*-C has risen year on year from 2001-2011, then slightly dropped in 2012, as can be seen in Figure 16 below. In 2012, 71% of pupils achieved grades A\*-C compared to 53% in 2001.

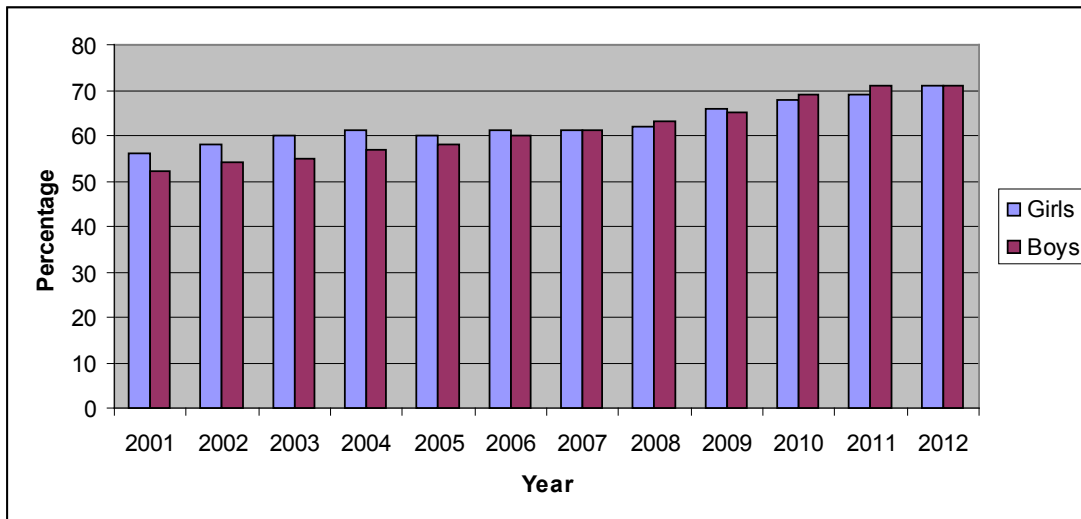
**Figure 16: Number of pupils achieving grades A\*-C**



Source: DfE (2013) GCSE and equivalent results in England 2011/12

In 2012, there was no difference in the percentage of boys and girls achieving an A\*-C grade, with 71% of boys and 71% of girls achieving an A\*-C. The pattern in achievement of boys and girls has changed over time, with girls slightly more likely to achieve A\*-C grades from 2001 until 2006. The largest percentage difference was in 2003 when 60% of girls achieved an A\*-C grade in comparison to 55% of boys. There was no difference in attainment in 2007. Since 2007 there has been little difference between boys and girls in the achievement of A\*-C grades. This pattern is shown below in Figure 17.

**Figure 17: Percentage of boys and girls achieving grades A\*-C**



Source: DfE (2013) GCSE and equivalent results in England 2011/12

## A-Level PE

### Provision for A-Level PE

In 2011<sup>7</sup>, 67% of comprehensive schools offered PE at A-level. Grammar schools were most likely to offer PE (88%), whilst FE/tertiary colleges were least likely to (29%), as can be seen in Table 6 below. Schools that do not offer A-Levels were not included in this data.

**Table 6: Provision of A-Level PE by school type**

School Type	Percent
Academy	64
Comprehensive	67
FE\Tertiary College	29
Grammar	88
Independent	59
Secondary Modern	38
Sixth Form College	78

Source: Cambridge Assessment statistical report series (Gill, 2012b)

### Entries for A-Level PE

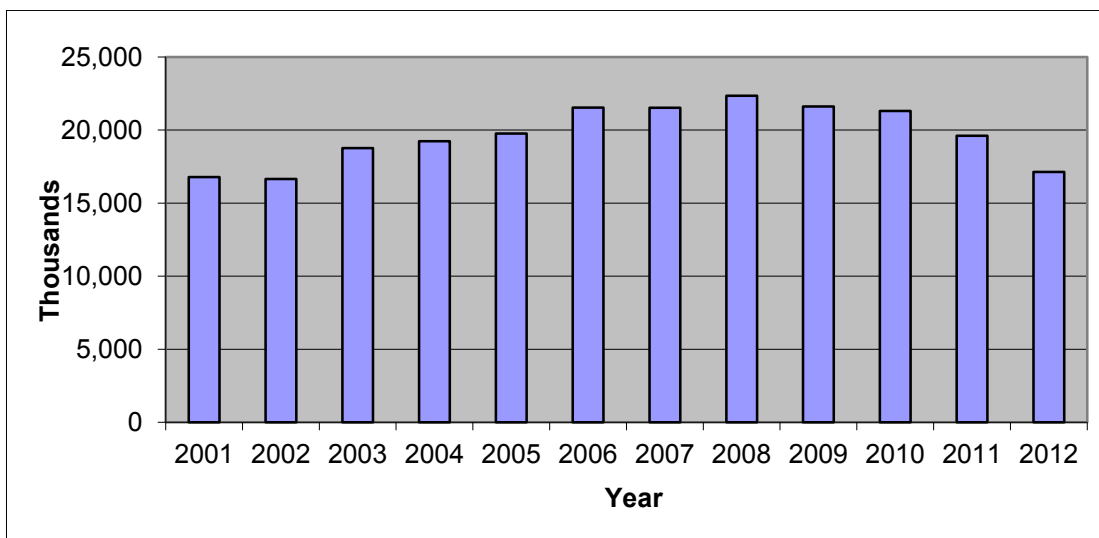
The number of pupils entering PE A-Level increased between 2001 and 2008 as can be seen in Figure 18. There was a peak in entries in 2008 when 22,344 pupils (3% of the cohort) were entered for A-level PE. There has been a decline in entries since with 17,135 pupils (2.2% of pupils) entering in 2012.

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<sup>7</sup> These figures are based on 398 academies, 1,223 comprehensive schools, 207 FE/tertiary colleges, 107 Grammar schools, 588 Independent schools, 88 Secondary Modern schools and 140 sixth form colleges.



**Figure 18: Number of entries to A-level PE**

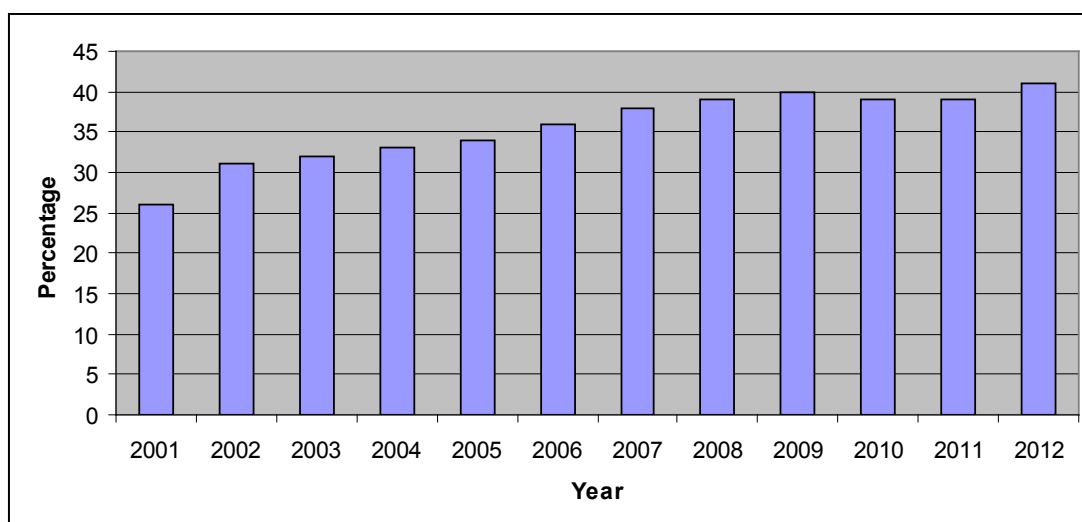


Source: DfE (2013) A Level and equivalent results in England 2011/12 (Revised)

## Attainment

The numbers of pupils achieving A\*-B<sup>8</sup> grades at A-level has generally increased between 2001 and 2009. In 2001, 26% of pupils achieved grades A-B while at the peak in 2009, 40% of pupils achieved grades A-B. In 2012, 41% of pupils achieved grades A\*-B, as can be seen in Figure 19 below. Girls have consistently outperformed boys in achieving A\*-B grades. In 2012, 50% of girls achieved A\*-B grades compared with 34% of boys.

**Figure 19: Percentage of pupils achieving A\*-B grades**



Source: DfE (2013) A Level and equivalent results in England 2011/12 (Revised)

<sup>8</sup> The A\* grade was introduced in 2010.

## Effective practice in PE and Sport in schools

Ofsted inspected PE in schools from September 2008 to July 2012 in 120 primary, 110 secondary and seven special schools in England, and included evidence from four visits to schools to observe good practice in PE in their report (Ofsted, 2013). Whilst the report confirms that there is more good and outstanding PE since the last Ofsted PE survey (Ofsted, 2009), it stated that not all pupils have a good physical education, with some schools not providing enough 'physical' aspects in PE, other schools not teaching PE in enough depth, and there is only limited access to a high standard of competitive sport. Further improvement is required in approximately a third of primary and a quarter of secondary schools (Ofsted, 2013).

### Primary schools

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

Teaching, the quality of the PE curriculum, and leadership and management of PE were good or outstanding in over two thirds of the schools visited, with no schools judged to be providing inadequate teaching. Where teaching did require improvement, the main areas of weakness were "the teachers' limited subject knowledge and use of assessment, which led to superficial planning and insufficient challenge, especially for more able pupils" (Ofsted, 2013, p5).

### Teaching

Where teaching was outstanding (in 4% of primary schools), "teachers' enthusiasm and willingness to demonstrate movements and skills fostered strong relations with pupils and developed their skills and knowledge of different PE activities. Pupils enjoyed replicating teachers' demonstrations and valued the positive comments, technical advice and praise provided by them." (Ofsted, 2013, p15).

In schools where teaching was good or outstanding (Ofsted, 2013, p15-16):

- Expectations of all pupils were consistently high;
- Excellent teacher relationships led to full engagement and high levels of pupil enjoyment;
- Pupils were inspired to try hard and achieve their best;
- No time was wasted and the pace of learning was purposeful and physically active;

- Excellent subject knowledge enabled teachers to model techniques to show pupils what was expected of them;
- Teachers assessed learning through observation and effective questioning of pupils, which was accompanied by high-quality, subject-specific feedback on how to acquire skills and improve their performance;
- Lessons were focused, based on high-quality long-term planning;
- Teachers planned together to avoid duplication of activities across Key Stages, also ensuring lessons had suitably challenging tasks for pupils of different ages and abilities; and,
- Pupils had regular opportunities to be creative, make decisions for themselves and practise skills independently in pairs and small groups.

## Assessment

Schools with effective assessment procedures (Ofsted, 2013, p19):

- Built on Early Years Foundation Stage teachers' judgements of children's physical development by testing children's ability at the start of Key Stage 1, using this as a baseline to measure progress;
- Selected 'core tasks' to teach pupils, assessed how well they did on each strand of the PE National Curriculum, recording whether pupils were working towards, achieving or exceeding standards expected, and matching this information to the PE attainment target descriptors to identify pupils' achievement. This information was then shared between teachers throughout Key Stages 1 and 2 to track progress over time and plan further support or extra challenge;
- Shared assessment information with pupils, giving them regular feedback to enable them to compare their progress against the PE attainment target; and,
- Maintained high activity rates.

## Curricula

"A wide range of traditional and alternative activities, competitions and festivals had significantly improved curricular and enrichment provision" with competitive and non-competitive activities increasing pupil enjoyment and achievement in primary schools (Ofsted, 2013, p21). In schools with outstanding curriculum (20% of primary schools), schools personalised the curriculum to meet pupil needs and interests, matching them to a range of curricular and extra-curricular activities, with less able pupils benefitting from additional support, whilst more able pupils received specialist coaching. Two hours of high-quality PE and school sport each week was regarded as the minimum entitlement for all pupils in these schools.

## Leadership and management

In schools where leadership and management were good or outstanding, subject leaders (Ofsted, 2013, p25):

- Had a clear vision, were aspirational and pursued improvement, inspiring others to improve their teaching and understanding;
- Were highly effective teachers and role models;
- Shared good practice with colleagues and increased their confidence and competence in teaching PE;
- Took steps to strengthen areas of weakness;
- Showed that planning had led to significant, sustained improvements, raising PE standards;
- Set challenging improvement targets with clear timescales; and,
- Forged good relations with other schools to widen opportunities for pupils and liaised with local partners to provide training for staff.

## Secondary schools

The overall effectiveness of PE was good or outstanding in just under three quarters of secondary schools. Pupils' achievement was also 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, "particularly in invasion games" (Ofsted, 2013, p6).

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

## Teaching

"Where teaching was outstanding, planning and assessment procedures were systematic and rigorous" with "pupils' learning accelerated by regular, precise feedback and extended periods of time to practise skills" (Ofsted, 2013, p6).

In schools where teaching was good or outstanding (Ofsted, 2013, p33):

- Expectations of all pupils were consistently high;
- Teachers set challenging tasks and posed questions that probed pupils' knowledge and understanding, helping them to improve their own and others' work;

- Teachers' specialist subject knowledge and enthusiasm promoted high-quality learning and pupils' interest in PE and sport;
- Lessons were planned using a coherent scheme of work for all activities;
- Teachers knew how to introduce and develop skills and provide opportunities for pupils to practise and apply skills in different activities to consolidate their learning;
- Pupils worked independently and in small groups to improve skills;
- Pupils were physically active for extended periods of time, improving their fitness; and,
- Teachers checked pupils' progress, using the information to plan future learning.

## Assessment

Schools with good and outstanding assessment practice (Ofsted, 2013, p36):

- Tested pupils on entry to Year 7, using this as a baseline, which was discussed with pupils to enable them to set and meet their own challenging targets for improvement;
- Taught 'core tasks', assessed whether pupils were working towards, achieving or exceeding standards expected in each strand of the PE National Curriculum;
- Checked pupils' progress against their personal targets and the PE attainment target;
- Enabled pupils to self-assess their progress, comparing their performance against National Curriculum levels and their peers;
- Displayed and referred to National Curriculum levels to enable pupils to understand what they were doing well and what they needed to do to achieve the next level; and,
- Recorded and collated assessment information to provide an overview of pupils' achievement.

## Curricula

Most of the schools with a good or outstanding curriculum (Ofsted, 2013, p 38):

- Provided two hours of PE each week in Key Stage 3;
- Embedded PE National Curriculum requirements in their planning, enabling pupils to understand how to become competent performers, work creatively and lead a healthy lifestyle;
- Had established strategies to enable pupils to evaluate and improve their own and others' performance; and,

- Provided good opportunities for pupils to outwit opponents, replicate actions, solve problems and maximise performance in a range of activities, with pupils taking on different roles such as group leader, organiser, referee or coach.

## **Leadership and management**

In more than a third of schools, the leadership and management was outstanding, with subject leaders being expert practitioners, inspiring others to improve PE in their schools.

Where leadership and management was good or outstanding, subject leaders (Ofsted, 2013, p45-46):

- Used specialist knowledge and experience to innovate, instigate change, and secure sustained improvements;
- Were enthusiastic, inspiring others and gaining support of schools leaders and staff to support improvement;
- Prepared detailed plans for improvements, based on their knowledge of strengths and weaknesses, with excellent self-evaluation and improvement planning and monitoring of timescales and targets;
- Were expert teachers and role models;
- Had high expectations of staff, with clearly defined roles and teachers' accountable for pupil progress;
- Observed colleagues' lessons to assess quality of teaching, providing feedback on what they did well and where improvements were needed;
- Tackled teaching that needed improvement, with directed professional development and support for less-experienced teachers; and,
- Forged strong partnerships with sports clubs and leisure providers.

## Teacher Qualifications

The School Workforce Census (DfE, 2012) undertaken in November 2011 looked at the highest post A-level qualification<sup>9</sup> held by maintained secondary school teachers in the subjects that they taught to Years 7-13. In PE, 56% of teachers in secondary maintained schools that taught PE had a degree or higher. Sixteen percent had a bachelor of education (BEd), 7% had a PGCE and 2% held an 'other' relevant qualification. Only teachers of design and technology were more likely to hold a BEd. 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 30 Eurydice Network countries in 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.

In 2007, the secondary school curriculum and staffing survey (Charles et al., 2008) reported that in PE, where 83% of teachers held a relevant post A-level qualification, 25% of teachers held a BEd, which was the highest proportion of BEds compared to all other subjects. Dance was included within PE in this analysis. It was interesting, though, to look at Dance in its own right to get a sense of how qualified the teachers delivering the subject were. Of those teachers specifically teaching Dance, 75% held a post A-level qualification related to Dance, and 62% held a degree in the subject. Out of all those teaching PE in general, just over 4% held a post A-level qualification in Dance.

The gender split of teachers was almost equal with 49% of PE teachers being male and 51% female. A slightly higher proportion of teachers in secondary modern schools had post A-level qualifications in the subject (86%), however 85% of comprehensive schools had teachers with post- A-level qualifications. Other secondary schools had 80% of teachers with post-A-level qualifications in PE; this was compared to 66% of Grammar schools. 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+ (Charles et al. 2008).

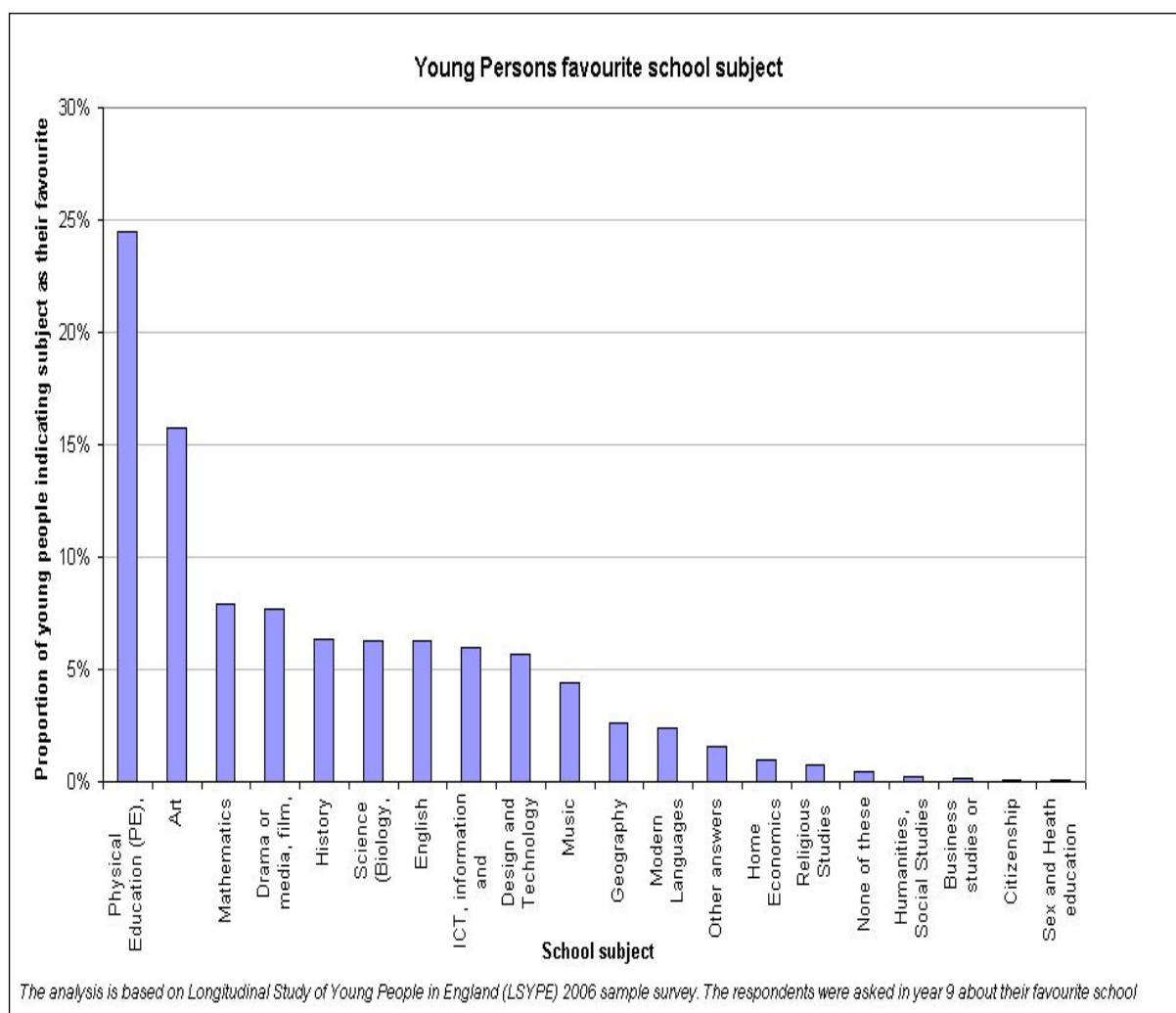
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<sup>9</sup> Where a teacher has more than one post A-level qualification in the same subject, the qualification level is determined by the highest level.

## Pupil attitudes to PE and sport

The Longitudinal Study of Young People in England reported that in 2006, 24% of pupils in Year 9 named PE, games or sport as their favourite subject, as can be seen in Figure 20 below. This was the most popular subject ahead of Art, which 16% of pupils said was their favourite subject.

**Figure 20. Year 9 pupil's favourite subject in 2006**



More recently, a survey of pupils in Years 7-11 conducted by researchers at the University of Manchester<sup>10</sup> confirmed these findings, stating that pupils' favourite subject was PE (33%), followed by art (20%) and English (8%).

### *Pupil perceptions of barriers to participation in PE and sport in and out of school*

Brunton et al. (2003) reviewed the literature on the barriers and facilitators for children taking part in PE and reported on five studies which looked at children's views of physical

<sup>10</sup> The University of Manchester: [The website for Manchester University's Research Department](#)



activity. Reasons cited for not enjoying sport or exercise cited by 6-11 year olds 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). Not wanting to play sport in bad weather was another reason cited (Mason, 1995; Brockman et al., 2011). In a number of studies, children said they just preferred to do other things such as watching television, playing computer games or meeting friends (Burrows et al., 1999; Mulvihill et al., 2000; Tuxworth, 1997). Lack of time was reported as a reason for not taking part in out of school sport, with parents working long hours (Mulvihill et al., 2000). Tuxworth (1997) also found that children's friends taking part was important.

Less commonly reported barriers included lack of facilities, cost and transport, for example, Tuxworth (1997) reported that 11% of children cited lack of money and 7% reported issues with transport. Mason (1995) reported that children and parents in low income families were more likely to cite money and lack of facilities as reasons for not taking part in out of school sport.

Brockman et al. (2011), through their focus groups with 77 10-11 year olds, reported that most parents had rules about their children going outside to play. Most of these appeared to be linked to social fears such as strangers, traffic or an unsafe neighbourhood. However, generally the children perceived these rules to be fair, and did not think they had too much of an impact on their outdoor play. Some pupils mentioned that using their mobile phones helped alleviate parents' concerns. Some pupils were apprehensive themselves about playing outdoors as they reported that there were gangs of older children in the streets or the parks in their local areas.

## **Facilitators to participation in physical activity**

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 (Tuxworth, 1997; Burrows et al., 1999; Mason, 1995; Mulvihill et al., 2000; Brockman et al., 2011). Eighty-six per cent of the sample (which included over 1,100 children in Suffolk) in the Tuxworth (1997) study reported that enjoyment was a key reason for taking part and fun was frequently cited as a motivator in the Burrows et al. (1999) study. Keeping fit and healthy was identified in studies as being an important reason to take part in sport (Burrows et al., 1999; Tuxworth, 1997; Brockman et al., 2011). In the Burrows et al. (1999) study, maintaining weight was also an incentive to take part in exercise. Brockman et al. (2011) reported that preventing boredom was a motivator for taking part in active play, and pupils reported a sense of freedom or escape from adult control, when they went outside to play with friends.

Gorely et al., (2011) examined girls' relationships with PE and sport to understand how, when, and why girls turn away from sport. Contrary to the PE and Sport Survey (Quick et al., 2010) finding that there is a steady increase in both girls' and boys' participation in

sport in primary schools as reported by schools, Gorely et al. (2011) found a decline in girls' reported participation in physical activity by the end of primary school, through their survey with pupils. However, both agree that girls' participation declines during secondary school.

Gorely et al., (2011, p4) stated that "the decline in participation is influenced by multiple factors that slowly change over time" and "is a culmination of a number of small changes over a period of time that ultimately result in disengagement". The factors influencing girls' participation in sport include: social influences such as that of family and friends; environmental factors including the importance of various spaces and places; young people's sense of identity; and the role of competition and fun.

The research identified some suggestions for encouraging girls' to be more active, including:

- Having a genuine choice of activities;
- Having girls-only sessions;
- Including more friendly competition and a focus on fun;
- Ensuring teachers are encouraging/positive;
- Changing boys' attitudes to girls in PE and sport; and,
- Increasing girls' confidence in PE and sport.

Change4Life School Sport Clubs programmes aim to encourage inactive and at risk pupils to participate in sporting activities in school, either immediately after school and/or at lunchtime. Sport Physical Education and Activity Research (SPEAR, 2011) conducted an evaluation of the programme, and concluded that the average Change4Life School Sport Club ran for two or three terms, was supported by one or two new coaches, had 22 members of whom six were previously 'non-sporty' and three were young leaders, and they generated 1.3 new relationships with community clubs. However, half of the clubs were not targeted at any particular groups within schools, with less than a half targeted at 'non-sporty' pupils: SPEAR (2011, p2) concluded that greater targeting has the "potential to more than double the reach of the impact" of the programme among 'non-sporty' pupils.

In 2010/11, over 61,000 pupils participated in the programme: approximately two-thirds were male and one-third was female. By the end of the programme, 90% of all participants were choosing to play sport each week and had a positive attitude towards sport. For those pupils in the initial target group (i.e. inactive or at risk pupils), "those choosing to play sport each week increased by 166% and those positive about sport increased by 89%". The increase in the number of girls choosing to play sport at least once a week was higher than that for boys (36% compared to 14%), as was the increase

in the number of girls having a positive attitude to sport (31% compared to 11%) (SPEAR, 2011, p1).

## Barriers to participation for pupils with SEN and disabilities

Typically, children and youth with disabilities engage in less school-based physical activity, less after-school activity, and more sedentary amusements (Rimmer and Rowland, 2007; Whizz-Kidz, 2011). Even with the limited research on effective practices, there is growing consensus in the research literature regarding several common barriers to physical activity for children with disabilities. The barriers 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, cited in US Department for Education, 2011).

The TellUs4 survey found that children who reported that they were disabled appeared less likely to engage in active pursuits during lesson time, with 11% stating they never did anything active. However, this group may include children with limited mobility, which may explain this slightly lower participation rate. Overall, the majority of children who said they were disabled participated in some physical activity, with many doing so every day (Chamberlain et al., 2010).

Whizz-Kidz (2011) conducted a Schools Consultation in 2009/10 to examine young disabled people's thoughts on a range of issues, including PE in schools. Of the 321 children and young people who answered questions on PE at school, 57% said they took part in PE as much as other children whilst 33% said they didn't and 9% were unsure. Of the 33% who didn't take part in PE as much as other children, 33% felt that it was because of their disability, with 54% of wheelchair users reporting this.

In terms of team games and activities during PE lessons, 46% of respondents said they took part all the time and 36% said sometimes. Only 22% of the powered wheelchair users and 27% of manual wheelchair users took part in team games and activities all the time.

Only 37% of the 176 disabled pupils who said their school offered GCSE PE said they could take it if they wanted to. This decreased to 26% of those in powered wheelchairs and 22% of those in manual wheelchairs (Whizz-Kidz, 2011).

# Benefits of PE and sport

## Physical benefits

Taking part in regular physical activity has been shown to reduce the risk of heart disease, high blood pressure and type two diabetes (US Department of Health and Human services, 1996; Warburton et al., 2006). There is clear evidence of a link between childhood physical activity and bone strength with its potential impact on osteoporosis later in life (Bass, 2000; Kemper et al., 2000). Research studies investigating the relationship between basic movements and physical activity participation have found that the total time young children are involved in moderate to vigorous physical activity appears to influence positively movement skill development (Fisher et al., 2005). There is also some evidence that physical activity may improve asthma management in some children (Welsh et al., 2005) and that physical inactivity is linked to obesity (Steinbeck, 2001).

Sibley and Etnier (2003), in a meta-analysis of 44 studies, concluded that physical activity was positively associated with better cognitive functioning. This was particularly the case for middle school pupils (aged 11-13) and younger pupils.

## The impact on mental health

Evidence suggests that sports participation is associated with psychological benefits in young people by improving their control over symptoms of anxiety and depression, and can assist in the social development of young people (World Health Organisation<sup>11</sup>). Mutrie and Parfitt (1998) concluded that physical activity is positively associated with good mental health, and other psychological benefits of regular physical activity include reduced stress, reduced anxiety and reduced depression. Similarly, Tomson et al. (2003) found that in 462 boys aged 8-12 the relative risk of depressive symptoms for boys who did not play sport was 2.4 times higher than for those who did. The association between physical activity and depression was not significant for girls.

Meta-analyses of studies have reported positive effects in children. Larun et al. (2006) investigated the effects of vigorous exercise interventions in preventing or reducing anxiety or depression in children and youth, in 16 randomised controlled trials and found results were in favour of exercise interventions in alleviating or preventing negative symptoms (Larun et al., 2006). Ahn and Fedewa (2011) reviewed 73 studies and reported small but significant effects of physical activity on improved mental health outcomes in children.

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<sup>11</sup> World Health Organisation (WHO): [Factsheet on diet and physical activity for young people on the website of the World Health Organisation](#)

Evidence also supports the view that participation in sport and physical activity is associated with enhanced mood and affect and is positively associated with children's self-esteem. The mechanism for the influence on self-esteem may be that enjoyment experienced during physical activity can reinforce self-esteem, which can, in turn, lead to enhanced motivation to participate further (Williams and Gill, 1995; Sonstroem, 1997). However, it should also be noted that physical activity can have a negative impact on mood and self-esteem: some pupils do not enjoy PE and this can lead to learned helplessness, development of a negative self-concept and avoidance of physical activity (Hellison, 1973; Biddle, 1999).

## **The impact on pupil behaviour**

There is some evidence that indicates that school-based physical activity promotes better classroom behaviour (Tuckman and Hinkle, 1986; QCA, 2007) and increased attention and concentration (Raviv and Low, 1990; Budde et al., 2008). In particular, research into physical activity at break-times has shown positive relationships on behaviour in class. Caterino and Polak (1999) reported that pupils who participated in active break-times had significantly higher concentration scores than pupils who sat quietly in the library during break-time. Similarly, Pellegrini and Davis (1993) found that pupils who engaged in physical activity rather than sedentary behaviours during break-time fidgeted less in class.

There is some evidence that physical activity could have social impacts. Leisure Futures (2002) conducted a study in which 4,136 participants took part in an initiative to use sport to reduce anti-social behaviour, crime, and drug use among 10-16 year olds in local neighborhoods. Participants took part in 10,076 hours of sports programmes, which involved coaching and competitions, training and mentoring, linked educational programmes and leadership training. In most cases these evaluations and statistics point to reductions in crime and 'nuisance behavior' during the period of the project, however, the authors caution about over-stating these outcomes as the impacts varied between individuals (Leisure Futures, 2002).

# The impact of physical activity on attainment

## School-based PE and the link with attainment

Overall, the evidence suggests that increased time in PE appears to have a positive relationship or no relationship with academic achievement, whilst increasing time during the day for physical activity does not appear to have any negative impacts on academic performance (the US Department of Health, 2010). *Possible* reasons for enhanced academic performance following physical activity that have been suggested in the literature include: increases in blood flow in the brain; increased levels of arousal; stimulated brain development (Shephard, 1997); and a break from sedentary, classroom-based work (Lindner, 1999). It has also been reported that physical activity levels are higher in relatively high-performing schools than in low-performing schools (Lindner, 2002).

The US Department of Health (2010) reported on 14 studies examining the relationship between school-based PE and academic performance. Ericsson (2008) compared primary school pupils who received PE lessons five days a week to pupils who received PE lessons two days a week and reported that extending PE was positively associated with academic achievement in maths, reading and writing. Ericsson also noted positive associations with attention. Sallis et al. (1999) examined an intensive two year programme for primary schools pupils that consisted of four 30 minute lessons of PE a week and also included three days of PE lessons, including lessons on health and fitness and a lesson on behaviour change. This was compared to the standard PE programme. The programme was taught by trained classroom teachers or PE specialists in primary aged pupils. When taught by classroom teachers, the intervention had a positive impact on pupil's scores in reading and language but there was no association with maths. When taught by specialists, the programme had an impact on reading, but had no effect on maths and pupils scored lower than the control group on language.

A number of studies have used secondary data analysis to explore the relationship between PE and attainment. For example, Carlson et al. (2008) in their research using the Early Childhood Longitudinal Study with a sample of over 5,000 primary school pupils, reported that there were small but significant associations between achievement in maths and reading for girls who had more PE: 70-300 minutes a week compared to those getting lower amounts of 0-35 minutes a week. However, there were no significant associations for boys. In secondary pupils, Nelson and Gordon-Larsen (2006) analysed results from the US National Longitudinal Study of Adolescent Health and observed that adolescents who were active in school were more likely to have high grades. Dexter (1999) explored the relationship between performance in sports and academic ability using GCSE scores in PE, maths and English. He found that, for most sports examined, there was a small but significant positive correlation between sport performance (as assessed by teachers) and GCSE maths and English grades, however it did depend on

the type of sport. For example, there were positive relationships between maths and English GCSE scores and performance in football, badminton, hockey netball and athletics. There was no relationship between performance in basketball and GCSE grades.

Evidence suggests that increasing the time spent on PE in school does not have any negative impact on academic performance. A review of three large-scale studies found that academic performance is maintained, and occasionally enhanced, by an increase in a pupil's levels of PE at school, despite a reduction in the time for the study of academic material (Shephard, 1997). Dwyer et al. (1996) compared academic achievement in primary school pupils across three conditions: a fitness group who had 75 minutes of daily activity with an emphasis on intensity; a skill group who had 75 minutes of daily activity with no emphasis on intensity; and a control group who had three 30 minute periods of physical activity per week. No differences in academic achievement were reported despite the fact that the pupils who were doing 75 minutes of physical activity a day had less classroom teaching time.

These findings should however be taken with some caution, as a number of other studies have found no relationship, or a trivial one, between participation in PE and school sport and educational achievement, particularly at secondary level (Melnick et al., 1992; Tremblay et al., 2000; Dollman et al., 2006). For example, Pollatschek and O'Hagan (1989) found that the frequency of PE (daily vs. twice a week) in secondary pupils was not associated with any increase in standardised scores in maths or reading.

The author suggests that the different findings may be due to intensity or duration of the physical activity, the context in which it took place and pupil individual differences such as motivation.

## **Extra-curricular physical activity and attainment**

The US Department of Health (2010) reported on nineteen studies which examined the relationship between involvement in extra-curricular physical activity (which includes school team sports outside the school day and other physical activity arranged by the school outside the regular school day). Just over half of the associations were positive (52%) and 2% were negative.

### **Participation in school team sport**

A number of studies have looked at the relationship between participation in school team sports and academic performance using school records or teacher ratings of academic achievement or pupil self-assessment. The results are mixed, but overall suggest that participation in team sports has a positive association on grade scores or has no impact. Fox et al. (2010) also explored the relationship between sports team participation and academic performance controlling for socio-demographic variables in a sample of 4,746



ethnically and socially diverse middle and high school pupils from 31 schools. Their analysis indicated that for middle school boys and high school boys and girls, sports team participation was associated with higher test scores. Also, performing more hours of moderate to vigorous physical activity (MVPA) was associated with higher grade scores for all. Analysis of the independent associations between grades and sports team participation and MVPA indicated that for high schools girls, both were independently associated with higher test scores. However, for high school boys, only sports team participation was associated with higher scores. Similarly, Stephens and Schaben (2002) found that participation in school team sports was associated with higher maths grades.

In contrast, Yin and Moore (2004) found that pupils who reported participation in school team sports in eighth grade (age 13-14) showed significantly lower test scores compared to those who did not participate. However, as these pupils moved through high school these differences disappeared and there was no difference in pupils test scores once they were in the 10<sup>th</sup> or 12<sup>th</sup> grades (15-18 years old). Hawkins and Mulkey (2005) explored the relationship between participation in school sports teams and teachers' ratings of pupil's academic ability in 6<sup>th</sup> to 8<sup>th</sup> grade (11-14 years) and found no relationship.

## **Extra-curricula physical activity**

This section reports the evidence on the relationship between extra curricula physical activities which have taken place outside the school day but could still be arranged by the school. Generally these studies have found that extra curricula sport has a positive impact on attainment although some of the results are mixed.

A UK intervention examined a school organised year long exercise programme completed at home for children (7-10 years) with or at risk of dyslexia or dyspraxia. The participants showed improved verbal and cognitive skills following the individualised home programme, but showed no maths improvement (Reynolds and Nicolson, 2007). Dwyer et al. (2001) conducted a cross sectional survey of 9,000 Australian school pupils between the ages of 7-15, reporting a significant association between academic achievement and physical activity, which was measured by minutes of physical activity at school lunch-time and minutes of physical activity the preceding week.

A number of studies have used secondary analysis of data to examine any associations between extra-curricula activities and achievement and have found positive associations (Pfeifer and Carnelißon, 2010; Lipscomb, 2007). Lipscomb (2007) analysed longitudinal data from a sample of 16,305 pupils in the National Educational Longitudinal Study (1988, 1990 and 1992) along with secondary school test scores. Sport and club participation was indicated by membership during the 12 months prior to each survey date. Lipscomb found that sports club participation was associated with a 2.2% increase in test scores in science and maths. Pfeifer and Carnelißon (2010) reviewed the data

from the annual German socio-economic panel (GSOEP) using retrospective data about adolescents' outside-school sports participation, with a sample of 3,100 females and 2,950 males recruited to the survey between 2000 and 2005. The analysis controlled for the educational qualifications and job of parents, and how strongly parents' cared about their child's school performance. The overall conclusion was that participation of German adolescents in outside-school sporting activities has significant positive effects on educational attainment.

A number of studies looked at pupil self-reported academic attainment and participation in sport and found positive associations (Darling, 2005; Spence and Poon, 1997; Fredricks and Eccles, 2006). Darling (2005) examined the relationship between participation in out of school physical activity and self-reported grades in a sample of over 4,000 secondary school pupils. Positive associations were found between the two and physical activity outside of school was also linked to positive academic attitudes and higher aspirations. Similarly, Fredricks and Eccles (2006) reported that pupils' self-reported grades at 11<sup>th</sup> grade were positively associated with taking part in extra-curricula school sport during high school. However, Schmaker et al. (1986) reported that extra-curricula physical activity had a positive impact on pupil self-concept but not on attainment.

Harrison and Narayan (2003) examined the effect of participating in after school activities, including 1-2 hours per week in after-school sports, by exploring the data from the Minnesota Student Survey in a sample of more than 50,000 pupils. They reported that participation in extra-curricular physical activity was positively related to homework completion and attendance.

## 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. There are three exceptions to this – the private Singapore Sports School (SSS), a Canadian school and Italian ski schools - which are specialised institutions with limited contact with regular schools (Radtke and Coalter 2007). In some countries, the sports schools are part of a national system, while others have several specialised schools that are permitted to cater for elite athletes, but are not part of a national *system*. There are no sports schools in England; however the Bellhouston Academy in Glasgow caters for specialist sports pupils. There are currently over 900 pupils at the school, 132 of whom are specialist sports pupils. The School of Sport has five sports specialisms: athletics, badminton, gymnastics, hockey and swimming. Pupils specialise in one sport and entry to the School of Sport is by selection only.

There is a lot of variation between and within countries<sup>12</sup>, however, in all cases the schools cater for substantial numbers of elite sport pupils in systematic ways. Sports schools tend to be government-funded state schools and, in the main, there are no school fees. The exceptions are the private school in Singapore, and in the Netherlands, where pupils aged 16 and over have to pay annual tuition fees. Some of the schools have private funding for scholarships (e.g. Canada, France and Singapore). There are also examples of private industry supplementing government funding (e.g. Sweden, Singapore and Germany).

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 deals with 22 sports) and Singapore (14 sports); ten 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. Germany has the highest number of pupil athletes attending sport schools, with more than 11,000. In most countries the sports schools are state secondary schools and include pupils of all abilities and educational levels. Normally, pupil athletes must meet the standard academic requirements to achieve the relevant secondary school graduation diploma. However, there are substantial degrees of flexibility to enable the pupil athletes to train and compete in their sport (Radtke and Coalter, 2007).

The time dedicated to sport varies: for example, in France there are 24 hours of school lessons and about 20 hours of training per week, whilst in Belgium, the weekly 32 hour curriculum has 12 hours of sport. The time dedicated to training varies between different sports. For example, swimming requires 22 hours of training at German sports schools, with 31 hours of school lessons (Radtke and Coalter, 2007). Radtke and Coalter investigated the impact of sports schools on attainment, with some respondents

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<sup>12</sup> Information was collected via secondary sources (published materials; conference papers; internet) and via telephone interviews with a range of informants

suggesting that in some cases, pupil athletes' completion rates and academic achievements are often above the national average (e.g. Australia, Canada, the Netherlands and Sweden), despite the disrupted nature of their schooling. This may reflect the special attention that they receive (it could also reflect social class factors, although the data was not provided on this). Others suggest that there is no difference between pupil athletes and non-athletes (e.g. Finland).

## Evidence gaps

The annual PE and Sport survey last reported in 2010 and has been discontinued. Although the Taking Part survey (DCMS, 2013) reports some evidence on sport participation, and Sport England are lowering the age of participants in their Active People Survey to age 14, neither survey focuses on school sport: there is therefore currently minimal reported evidence on participation rates in school sport.

Whilst the Taking Part survey (DCMS, 2013) reported some evidence on the impact of the 2012 Games on sport participation, using data collected between October 2011 to September 2012 (i.e. before, during and immediately after the Games), there is no evidence on the impact of the 2012 Olympics on school sport in the academic year following the Games.

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## **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).



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