

DUMFRIES AND GALLOWAY

School Physical Activity Survey 2022



Summary Evaluation Results

For Pupils in Primary 4 to Secondary 5



Physical activity is defined as “any bodily movement produced by skeletal muscles that requires energy expenditure.

It takes many forms, occurs in many settings, and has many purposes (e.g. daily activity, active recreation, and sport”¹

Being physically active benefits physical, mental and social wellbeing. Benefits to children and young people include¹:

- Bone health
- Cognitive function
- Cardiovascular fitness
- Weight status
- Depression

While all physical activity intensities bring health benefits, movement of moderate or vigorous intensity deliver the full range of health benefits. Moderate to vigorous activity are those where the heart and muscles work harder.



“Regular physical activity is an important part of living well”



Physical Activity Guideline



Physical activity guidelines were revised in 2019 to consider updated evidence¹.

The Dumfries and Galloway Schools Physical Activity Survey aligns to the previous guidance. This states that children and young people should be active in health enhancing physical activity (of moderate/vigorous intensity) for a minimum of 60 minutes every day over the past week. This is known as the Daily Threshold Guideline.

The new guidance, updated to 2019¹ states that children and young people should be active in health enhancing physical activity (of moderate/vigorous intensity) for an average of 60 minutes per day across the week. This is known as Average Over a Week Guideline.

Despite these many benefits, most adolescents globally in 2016 did not achieve the physical activity guidelines (81%)². The Scottish Health Behaviour in Scottish School Children Survey 2014 reports just 18% of children and young people in Scotland meet UK physical activity guidelines³ compared with 20% in Dumfries and Galloway⁴. The 2018 edition found that 17% of adolescents in Scotland met the daily threshold guideline⁵.

The Dumfries and Galloway Schools Physical Activity (DGSPAS) Survey was first issued by Dumfries and Galloway Council's Education and Learning Directorate 2013 to measure physical activity levels and behaviours of local children and young people. Data reports against three annual indicators within the Councils Children's Services Plan and Education and Learning Business Plan;

- % of 'inactive' children achieving physical activity guidelines on 0-2 days
- % of 'moderately active' children achieving physical activity guidelines on 3-6 days
- % of 'very active' children achieving physical activity guidelines on 7 days

Findings from the survey are shared with key physical activity partners to:

- improve policy and practice,
- strengthen planning of delivery based on children and young people responses and
- allocate resources effectively to encourage and enable the most active to become and remain more active.

This survey was designed to collect data in six priority areas detailed below. Importantly, the survey continues to measure physical activity levels overtime while introducing a new measure to align with the new physical activity guidelines (Average Over Week Guideline).

Physical Activity Levels	Participation Insides/Outside Of School	Physical Literacy
Desired Activities	Barriers To Physical Activity	Happiness

Methodology

The 2022 DGSPAS was completed online by pupils during school curricular time. The survey opened on 06th June 2022 and was scheduled to close on 17th June 2022. Due to a low initial response, the survey was extended to 27th June 2020. Table 1 provides details of previous SPAS administration dates and sample sizes.

Table 1: DGSPAS administration dates and administration methods

Year	Administration date	Administration Method	Sample
2013	April 2013	Paper	3,803
2015	September 2015	Paper	2575
2017	November 2017	Paper	2,979
2018	November 2018	Paper	3,269
2019	November 2019 - March 2020	Online	1,872
2022	June 2022	Online	2,263

The DGSPAS 2022 increased the number of year groups included in the survey, specifically pupils in P4, P5, S2, S3 and S4. Where direct comparisons are made with previous DGSPAS editions, these additional year groups will be excluded to include only pupils in P6, P7, S1, S3 and S5 to enable direct comparison.

When data from DGSPAS 2022 is being compared directly against previous editions, only pupil responses from P7, S1, S3 and S5 will be included.

When data from DGSPAS 2022 is not being compared with previous editions, pupil responses for all year groups will be included (P4-S6).

Schools Physical Activity Survey 2022: Results

Survey responses are detailed below:

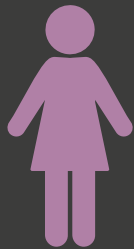
Total Responses 2,722



Boys

1,291

47%



Girls

1,326

49%

Other

87

3%

Blank

18

1%



Primary 4	431	16%
Primary 5	470	17%
Primary 6	509	19%
Primary 7	531	20%
Secondary 1	141	5%
Secondary 2	158	6%
Secondary 3	142	5%
Secondary 4	169	6%
Secondary 5	86	3%
Secondary 6	83	3%

White Scottish 2,195

White - Other British 252

No Disability 1,875



Physical Activity Levels



Key Findings

Table 2 provides a summary of the number of children meeting physical activity guidelines by demographic group. The Table identifies groups of school pupils with higher and lower levels of physical activity.

Table 2: Number of school pupils in D&G meeting physical activity guidelines by demographic group (All year groups)

2022 - Characteristic	Number of responses - Daily Threshold	% Pupils meeting the Daily Threshold Guideline	% Pupils meeting the Average Over A Week Guideline	Assessment of Physical Activity Level by Protected Characteristics
All Pupils	2,263	30.2%	58.6%	N/A
Primary v Secondary				
Primary Pupils	1696	38.4%•	54.4%	DGSPAS found some evidence that physical activity levels differed by primary or secondary attendance*
Secondary Pupils	567	23.9%•	62.2%	
Gender				
Girls	1,145	31.4	51.6%	DGSPAS found evidence that physical activity levels differed by gender*
Boys	1,118	37.9%	61.5%	
Disability				
No	1,632	36.4	58.8%	DGSPAS found evidence that physical activity levels differed by disability
Learning Difficulty	168	30.4	53.2%	
Physical Disability	32	15.6	44.4%	
Sensory Disability	30	26.7	55.3%	
Another Disability	70	27.1	53.1%	
Ethnicity (>10 Responses)				
White - Scottish	1,905	35.1%	57.3%	DGSPAS found some evidence that physical activity levels differed by ethnic group
White - Other British	211	28.4%	51.6%	
White - Polish	27	29.6%	51.5%	
My Ethnic Group Is Not Represented	25	24%	52%	
Black, Black Scottish Or Black British	10	30%	50%	
White – Irish	<10	N/A	60%	
SIMD Quintile				
1 = Least Deprived	34	41.2%	69.2%	DGSPAS found no evidence that physical activity levels differed by area deprivation (pupil home postcode)
2	196	29.1%	56.4%	
3	442	34.2%	64.5%	
4	185	35.7%	64%	
5 = Most deprived	71	28.2%	63.1%	

Key

* = Statically significant finding / • = Weighted sample data

GREEN = Lower levels of physical activity within demographic group

ORANGE = unclear or inconsistent impact of physical activity level within demographic group

RED = Higher levels of physical activity within demographic group

Daily Threshold Guideline

DGPAS 2022 survey has measured the number of school pupils physically active for an hour a day, each day, over the past week since 2013. The proportion of children meeting the guideline are reported for the full sample, by demographic breakdown and by physical activity classification (see Table 3). The physical activity classifications enable comparison between pupils who meet guidelines, do some activity or are inactive (see table below for definitions).

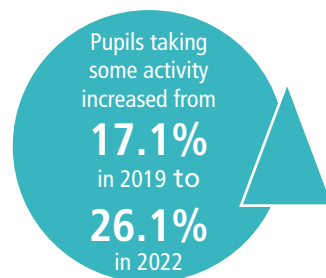
Table 3: SPAS 2022 - Physical Activity Classifications

Physical activity classification	Definition Using Daily Threshold Guidelines
Inactive	Active 60+ minutes on 0-2 days over the past 7 days
Some activity	Active 60+ minutes on 3-6 days over the past 7 days
Meets guideline	Active 60+ minutes on 7 days over the past 7 days

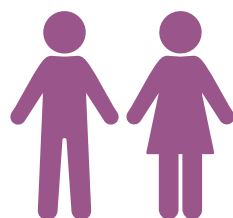
Schools Physical Activity Survey 2022 - Key Findings



29.1% of all pupils were active for **60 mins+ everyday** over past week



Pupils meeting guidelines and taking some activity increased from 17.1% in 2019 to 26.1% in 2022* using comparable year groups. (Figure 1)



Boys (35.4%)

more active than

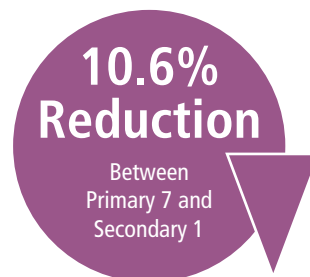
girls (27.8%)*

This is a long standing trend

However, no statistically significant difference was found between girls and boys for 3+ days physical activity.

Primary pupils more active than secondary pupils

Figure 2 shows the proportion of pupils meeting the daily threshold guideline by year group.



A 10.6 percentage point reduction in pupils meeting these guidelines is reported between Primary 7 and Secondary 1, a sizeable reduction at this transition stage is a longstanding SPAS finding



A larger decline is reported between S3-S4 (11.4%) was reported although sample sizes are lower. This might be explained by exam preparation.

* Result is statistically significant meaning it is unlikely to have occurred by chance

* = Statically significant finding

Figure 1: Physical Activity daily threshold trends overtime in Dumfries and Galloway

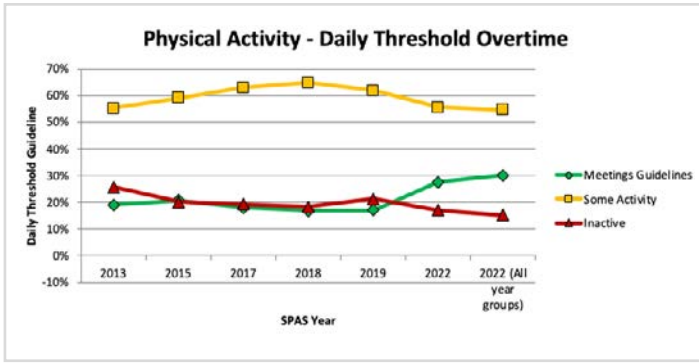
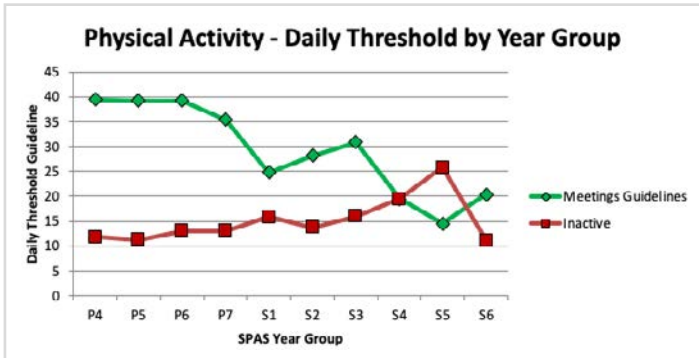


Figure 2: Daily threshold guideline adherence by year group



Interest towards being more physically active



79% of all pupils were interested in being physically active



72% of inactive pupils are interested in being more active

Interest in being more active generally declines with ascending year group



82% in primary 4

80% in primary 7

77% in Secondary 1

70% in Secondary 6

Average Over A Week Guideline

This survey measured the Average Over a Week Guideline for the first time in 2019.

The number of children physically active was significantly higher (**60.5%**) compared to Daily Threshold Guidance (**29.1%**).

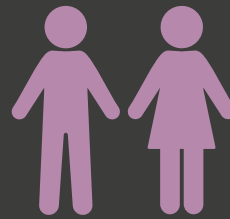
Key Findings



58.6% of all children and young people were active for 60 mins+ everyday over past week

Pupils meeting guidelines and taking some activity increased from

43% in 2019 to **60.5%** in 2022* using comparable year groups (Figure 3).

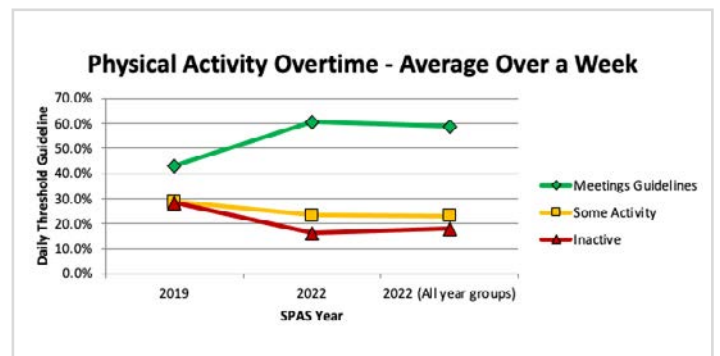


Boys (61.4%) more active than **Girls (56.2%)***

Secondary pupils are more active (**54.4%**) than primary school children (**62.2%**).

This contrasts with the daily threshold finding and may suggest that pupils have different movement behaviours. This finding was also reported in 2019.

Figure 3: Average over a week guideline - Adherence by year group



* = Statically significant finding

Participation Inside / Outside of School

Pupils were asked to report if they had taken part in a physical activity, fitness, dance or sports club session over the past week.

Schools Physical Activity Survey 2022 - Key Findings



85%

of all pupils took part in physical activity session over the past week



No attendance

was higher in secondary school year groups (range = 14-32%) compared with primary pupils (range = 9-15%)



Participation by setting

13% at school only

47% at school and outside school

23% outside of school only

15% no attendance



Inactive children and young people were less likely not to attend a physical activity

67%

Compared with those meeting guidelines

92%



Attendance at a physical activity inside and outside of school was lower in inactive children and young people

26%

compared with those meeting guidelines

59%



Gender not a predictor of attendance

Boys 84%

Girls 86%



Attendance at a physical activity at school only was higher in inactive pupils

20%

compared with those meeting guidelines



Encouraging Physical Activity Participation

Pupils were asked to identify types of programmes that would encourage them to take part in physical activity.

Activities in nature were important for ALL pupils, genders, year groups and level physical activity classifications

26% pupils would be encouraged to be active through activities in nature

This was the top response for girls (29%) and second top for boys (23%) as shown in Figure 4.

19% of inactive pupils selected activities in nature, the second top response after 'none' (see Figure 5).

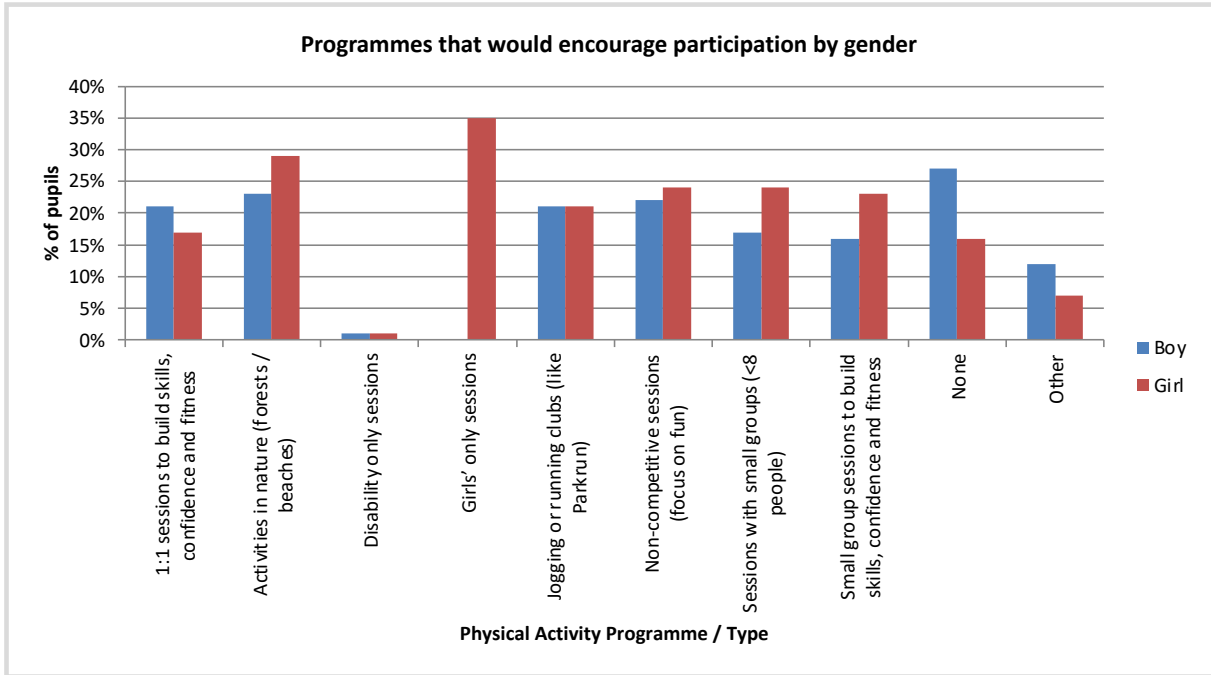


Figure 4: Programmes that would encourage participation by gender

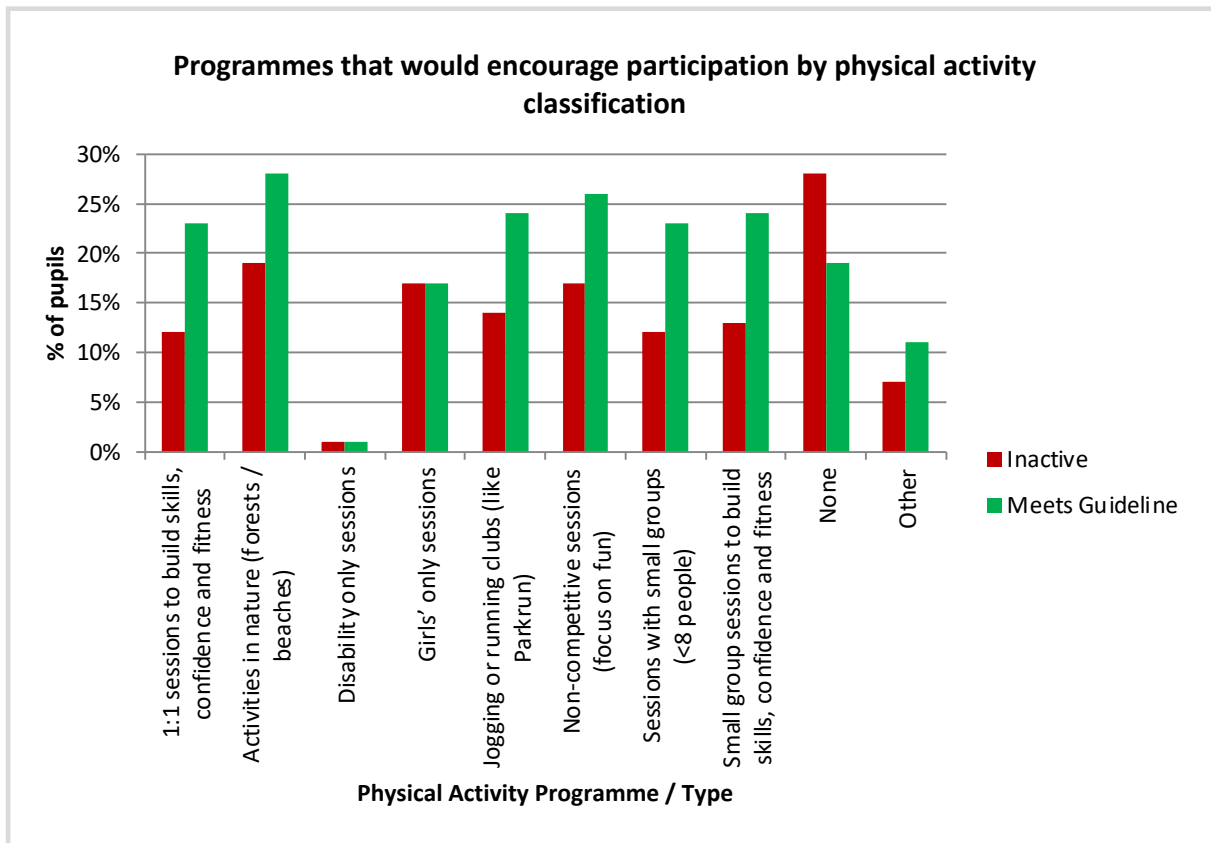


Figure 5: Programme's that would encourage participation by physical activity classification

Barriers to Physical Activity Participation

Top 5 barriers to physical activity participation in D&G - All Pupils

The weather is too bad	54%
I don't have time	50%
The physical activities I want to take part in are not available	48%
I would rather do other things with my time	47%
I don't have the right equipment	47%

Top 5 barriers - Gender

Boys

The weather is too bad	53%
I would rather do other things with my time	47%
The physical activities I want to take part in are not available	46%
I don't have the right equipment	44%
It is difficult for me to get places where I can do physical activity	42%

Girls

The weather is too bad	55%
I don't have time	51%
I don't have the right equipment	50%
The physical activities I want to take part in are not available	48%
I would rather do other things with my time	47%



Girls (45%) were much more likely to report feeling embarrassed when being physically active compared with boys (29%)

Top 3 barriers - Disability

Difficulty in getting to physical activity environments was a more commonly cited barrier for people with disabilities.

Physical Disability

I would rather do other things with my time / I don't have the right equipment	61%
It is difficult for me to get places where I can do physical activity	55%
The physical activities I want to take part in are not available	55%

Sensory Disability

It is difficult for me to get places where I can do physical activity	60%
The weather is too bad	57%
I would rather do other things with my time	52%

Learning

I would rather do other things with my time / The weather is too bad	52%
I don't have time / It is difficult for me to get places where I can do physical activity	50%
The physical activities I want to take part in are not available	47%





Physical Literacy

Physical literacy is defined as “the motivation, confidence, physical competence, knowledge and understanding to value and take responsibility for engagement in physical activities for life”⁶

The concept of Physical Literacy proposes that at each stage of life, our decisions to be physically active are influenced by four equally important but entwined and interdependent domains⁷

1. Motivation
2. Confidence
3. Physical Competence
4. Knowledge and Understanding

A person lacking one or more domain is more likely to engage in physical activity 8-9 with examples shown in Figure 6.

Pupils were asked to give their perception on each domain scored on a Likert Scale from zero (not like me) to ten (this is very like me). Four domains were also grouped to provide a total Physical Literacy score.

Figure 6: Impact of removing domain on engagement in physical activity



Schools Physical Activity Survey 2019 - Key Findings

Average Physical Literacy values

Motivation = 7.4

Confidence = 6.6

Competence = 6.8

Knowledge = 8.4

Understanding = 7

The analysis found no clear evidence that deprivation influenced physical literacy score.

Boys perceived Physical Literacy (37.8) was higher in all 5 domains compared with **girls (35.6)**



Physical Literacy values domain scores decrease with ascending year group from Primary 7 (30) to Secondary 5 (26.1)

Pupils reporting a disability had lower physical literacy score that those reporting no disability (see Table 4)

Table 4: Physical Literacy Score by Disability

Disability Classification	5 Domains Grouped
All Pupils	36.4
No Disability	37.5
Learning Disability	33.6
Physical Disability	35.9
Sensory Disability	33.9
Another Disability	32.4

Self-Efficacy

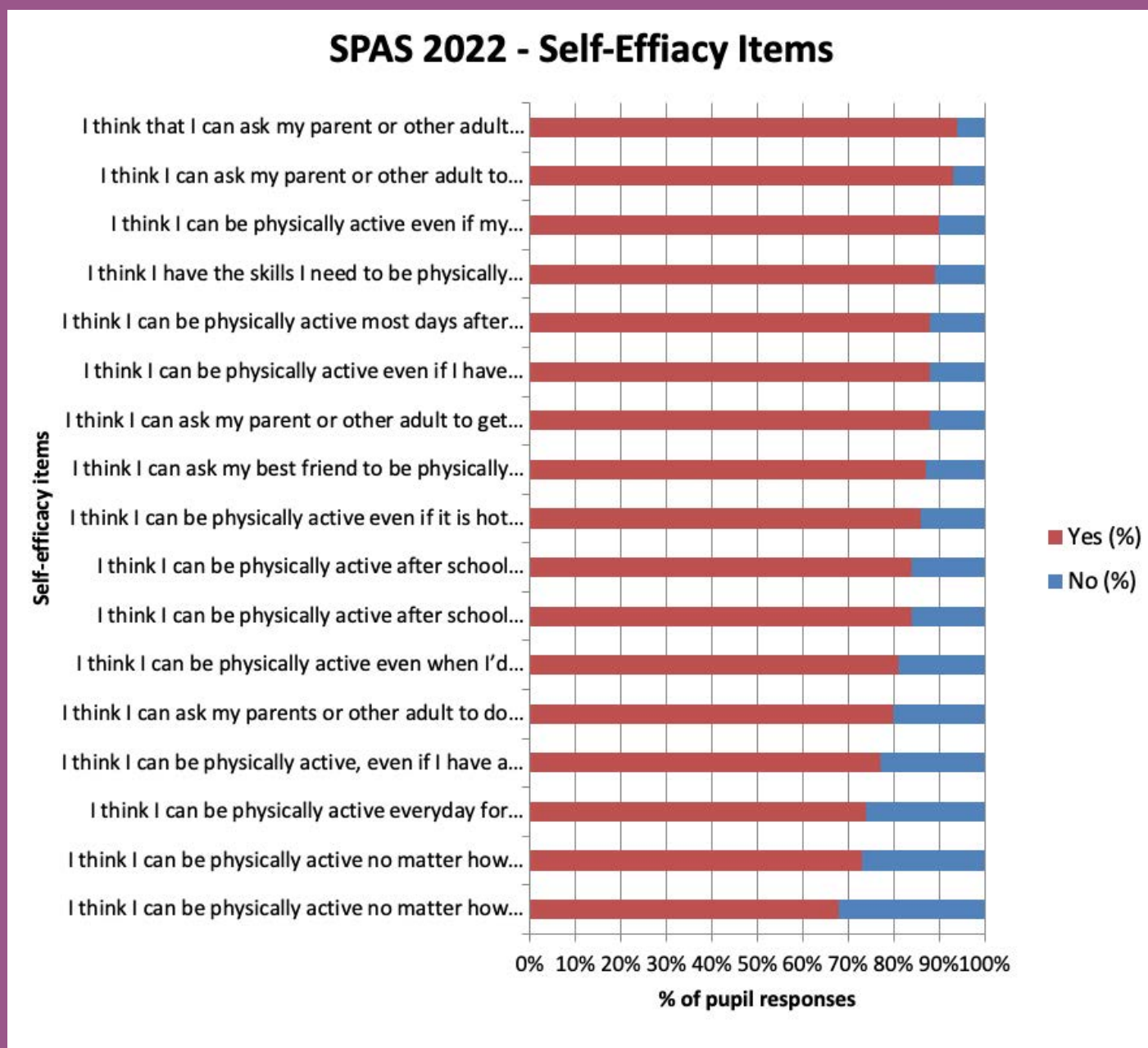
Research has shown that self-efficacy (an individual's confidence in their ability to be physically active) is an important correlate of physical activity lifelong participation¹⁰⁻¹².

The concept of self-efficacy aligns with physical literacy domains (page 11) as a persons lifelong Participation 'can be enhanced by fostering motivation and confidence and physical competence'¹².

Pupils were asked seventeen yes/no questions related to their self-efficacy¹⁰. The aim was to identify items which could be targeted through local policy and plans to build pupil self-belief and confidence towards physical activity participation.

The findings reported that elements related to tiredness and time pressures were particularly important, as shown in Figure 7 below.

Figure 7: Self efficacy items affecting participation in physical activity



Desired Activities

Pupils were asked to identify up to two activities that they would like to take part more in.



Top 10 Activities - All Pupils

Activity	Percentage (%)
Football	44
Swimming	44
Cycling	35
Walking	33
Basketball	30
Rounders	29
Trampolining	28
Tennis	26
Ice Skating	26
Golf	22
Fitness	22

Top 3 Activities - Disability

Learning Disability

Swimming	42%
Cycling	33%
Walking	31%

Physical Disability

Football	63%
Swimming	50%
Golf	44%

Sensory disability

Football	55%
Cycling	50%
Swimming	47%

Top Five Activities By Gender

Gender	Activity	Percentage of group (%)
Boy	Football	59
Boy	Swimming	37
Boy	Basketball	36
Boy	Cycling	35
Boy	Golf	30
Girl	Swimming	50
Girl	Walking	38
Girl	Ice Skating	37
Girl	Cycling	36
Girl	Gymnastics	34

Top Five Activities – Inactive Children and Young People

Physical Activity Classification	Activity	Percentage of group (%)
Inactive	Swimming	39
Inactive	Football	32
Inactive	Walking	25
Inactive	Basketball	23
Inactive	Ice Skating	22



Where and When Pupils would like to go to be physically active



Indoor and outdoor spaces are important to supporting pupils to be physically active

Where pupils would like to be more active

Swimming pool	25%
Leisure or sport centre	23%
Active travel to school	21%
Outdoors including forests and beaches	19%
Public Park	16%
Home including garden	15%

When pupils would like to be more active

Before school activity at school	25%
After school activity at community sports club	22%
After school activity at school	21%
Activity during school class not PE	21%
After school activity - other	16%
Activity at break time	14%
Activity at lunchtime	14%
PE class at school	10%

Conclusion

A report published by the Directors of Public Health in 2018 identified physical activity as a national public health priority¹³.

The SPAS 2022 reported record high levels of physical activity for school pupils in Dumfries and Galloway. Despite this welcome finding, 70% of pupils are not active for 60 minutes each day with 41% not averaging an hour a day over the past week.

Therefore, many children and young people are not receiving the fullest range of benefits and are potentially putting their health and wellbeing at risk.

Data from this survey will be shared with policy makers and practitioners to progress opportunities that encourage and enable our most inactive children and young people to become then remain more active.

For the first time, participating schools will receive a data breakdown for their school to support local planning and delivery.



References

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