

# Report: The Availability and Use of Greenspace in Peterhead



*Housing development along north-east area of Peterhead, which connected the 'town' with Buchanhaven. © Copyright [Ken Fitlike](#)*

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## Introduction

In the context of the Science Week, two social science surveys were carried out by two different Primary 6 classes of the Buchanhaven Primary School regarding the availability and use of public greenspace in Peterhead. One class carried out their survey in March 2011, the other in September 2011. Each class designed, carried out and analysed the different questionnaires with the support of Katrin Prager, social scientist at the James Hutton Institute, Aberdeen. Both social science experiments were designed in a similar way. A three hour slot during a school day was used to discuss research questions, design the questionnaire with appropriate questions and answer options, gather responses from students, and then analyse and interpret the data.

The March 2011 results were written up by Katrin Prager in a separate report (available at: [www.macaulay.ac.uk/LandscapePartners/publications.php](http://www.macaulay.ac.uk/LandscapePartners/publications.php)). The September 2011 results are combined with the March 2011 results in the present report. The report was written by Katrin Prager and Jula Heide for the students, their parents and teachers, and generally people who are interested in the views of 10 and 11-year-olds on greenspace in Peterhead.

## Purpose and objective

The main purpose of the social science experiments was to help primary students learn about social science, in particular the method of *quantitative survey* in form of a *questionnaire*, as part of their Science Week. The topic 'greenspace' was determined by the classes. After lively discussions, they understood 'greenspace' as an area of greenery within towns which includes public parks, gardens, football pitches, woodlands, or green strips along waterways. We also noted a difference between public greenspace, which is available for everybody, and greenspace that can only be used by certain people, such as allotment gardens and golf courses.

The objective of the surveys was to explore the views of local primary children on the availability and use of greenspace in Peterhead. The findings can be used to share the students' insights with other students, teachers, or parents. In addition, the results might be of interest to the council or other organisations involved in town planning, well-being and health.

## Questionnaire design

The social science experiments were conducted in form of a standardised questionnaire (every respondent is asked the same question). The first questionnaire was completed by two P6 classes (the one which designed it and the other P6 class at the school) in March 2011. The second questionnaire was completed by a P5 class and a P6 class (the one which designed it) in September 2011. The questionnaires of the two surveys were different as the respective class determined the questions which were of most interest to them. Taken together, the questionnaires included the following questions:

1. Do you use greenspace in the town of Peterhead? (September survey)
2. If you use greenspace, how often do you use it? (September survey)
3. How far would you cycle to a greenspace? (March survey)
4. How far would you walk to a greenspace? (March survey)
5. Is there enough greenspace in Peterhead? (March survey)
6. What do you use greenspace for? (March and September survey)

7. Why do you think we need to have greenspace in town? (September survey)

Note that only Question 6 appeared in the March survey as well as in the September survey.

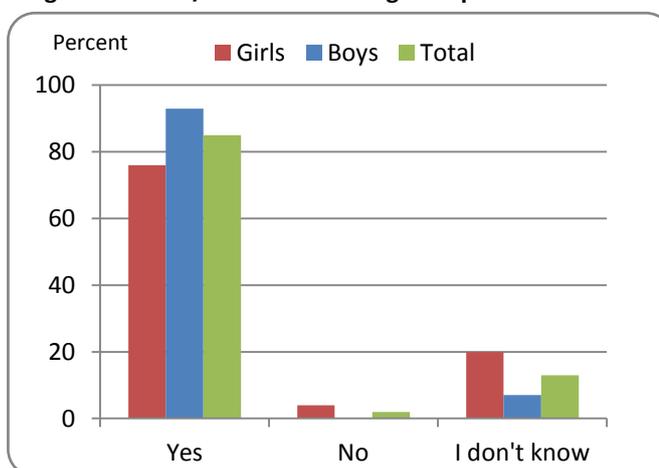
The questions of the March survey were answered by 51 students (23 girls, 28 boys). The September survey was completed by 57 students (29 girls, 28 boys). Consequently, the findings and numbers always refer to two classes, i.e. the March or the September group. The Primary 6 class that had carried out the survey analysed the results using Microsoft Excel Software.

## Results

### Use of greenspace in Peterhead

Around 85% of the students (September group) stated that they make use of the greenspace in Peterhead. Although more boys visit greenspace (93%), three quarters of the girls use it as well. Only one student claimed not to use greenspace at all. Eight students (six girls, two boys) did not know if they use them or not (Figure 1).

Figure 1: Do P5/P6 students use greenspace in Peterhead?

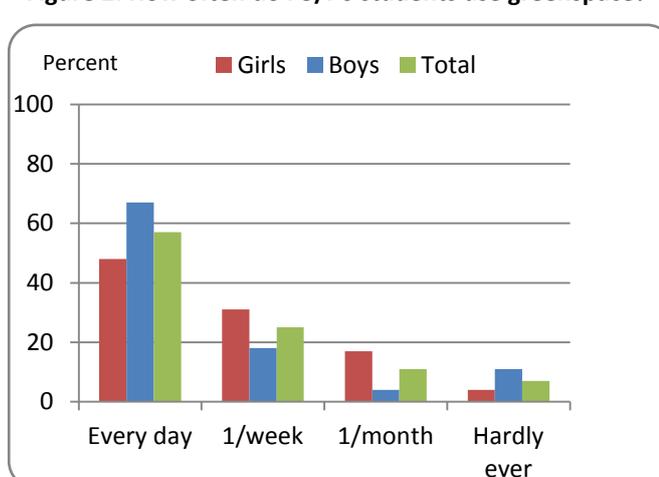


### Frequency of greenspace usage in Peterhead

More than half of the students, surveyed in September, use greenspace every day and a quarter of the 57 students, once per week.

Of those 33 students visiting greenspace every day, 58% are boys. Girls, however, also use greenspace a lot: almost half of the girls use greenspace every day and nearly a third of them once per week. Only four students, i.e. 7% of the group, stated that they hardly ever visit greenspace at all (Figure 2).

Figure 2: How often do P5/P6 students use greenspace?



### Distance to greenspace covered by bike/foot in Peterhead

The March survey asked the respondents to indicate how far they would walk and cycle, respectively, to a greenspace, assuming that they considered their home as the starting point. The students designing the questionnaire had preferred the time unit of minutes over a distance unit of kilometres or miles.

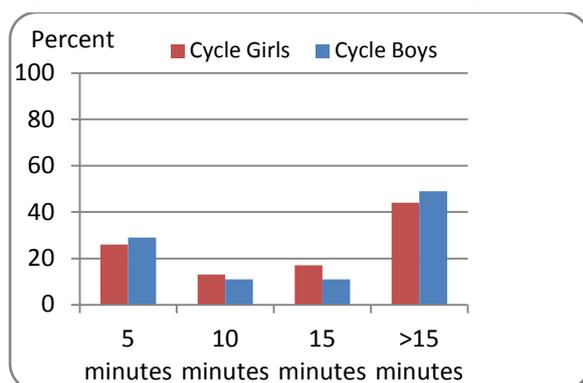
Almost half of the respondents would cycle more than 15 minutes to a greenspace. When it comes to walking, one third of respondents would prefer a greenspace to be only 10 minutes away, while slightly less than a third of the respondents are willing to walk for more than 15 minutes (Table 1).

**Table 1: How far do P6 students cycle/ walk to greenspace?**

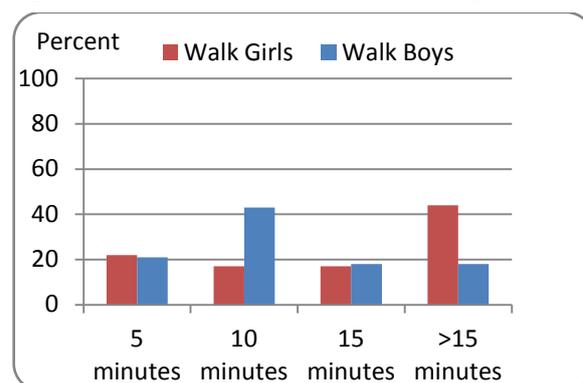
Distance in minutes	Cycle		Walk	
	Total number	Percent (%)	Total number	Percent (%)
5	14	27	10	20
10	6	12	17	33
15	7	14	9	18
>15	24	47	15	29
Total	51	100	51	100

If the data are analysed by sex, results show that every second boy is willing to cycle for longer than 15 minutes to a greenspace. Slightly fewer girls (44%) are prepared to invest the same amount of time (Figure 3). 44% of the girls, on the other hand, would also walk to greenspaces for more than 15 minutes, whereas 43% of the boys are only willing to walk for 10 minutes (Figure 4).

**Figure 3: How far do P6 students cycle to greenspace?**



**Figure 4: How far do P6 students walk to greenspace?**



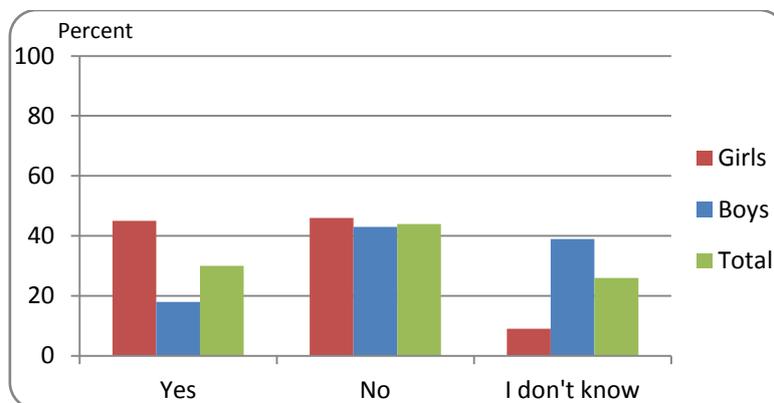
### Availability of greenspace in Peterhead

In total, 43% of respondents to the March survey found there was not enough greenspace in Peterhead, while 30% answered that Peterhead offers a sufficient amount of greenspace. 13 out of 49 students (two missing answers) stated they did not know (11 boys).

If a distinction is made between male and female responses, we see that girls' opinions are almost equally divided: half think there is enough greenspace, the other half think there is not. Most of the

boys, on the other hand, feel there is not enough greenspace (43%). Surprisingly, almost 40% of boys are not sure whether the amount of greenspace is sufficient (Figure 5).

**Figure 5: Is there enough greenspace for P6 students in Peterhead?**



### Type of greenspace usage in Peterhead

The question what greenspace is used for was the only question asked in both surveys. However, the two groups came up with different answer options while designing each questionnaire. The respondents of the March group could select between Football, Planting/ growing vegetables, Rugby/ walking, Easter egg hunt and Other. Students of the September group had the choice of Playing, Camping, Bike racing, Horse riding, Sports day, Gardening/ growing plants, Walking the dog, BBQ and Other. In summary, the September survey included some of the same answer options of the March survey ('Planting/ growing vegetables' and 'Walking') and offered a number of additional answer options (listed above). In both surveys, several answer options could be chosen.

Three quarters of the students belonging to the March group listed only one use for greenspace. The number of times each use was mentioned was added up and the sums are represented in a pie chart (Figure 6). As shown in Figure 6, football is the most common use of greenspace, with 24 out of 51 students listing this activity. Particularly boys use greenspace for this activity (68%) whereas only slightly more than one fifth of the girls named this use. Instead, they prefer to use greenspace for Planting/growing vegetables (52% of the girls) which is, therefore, the second most popular activity, with 23 out of 51 students listing it. Almost 40% of the boys, however, stated to perform this activity as well. Ten respondents said that they use greenspace for an Easter egg hunt. Other uses include 'playing', 'horse riding' and 'gymnastics'.

**Figure 6: What do P6 students use greenspace for? (March survey)**

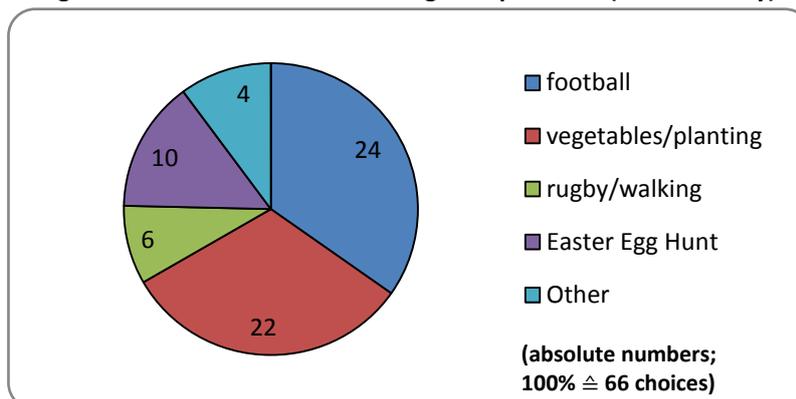
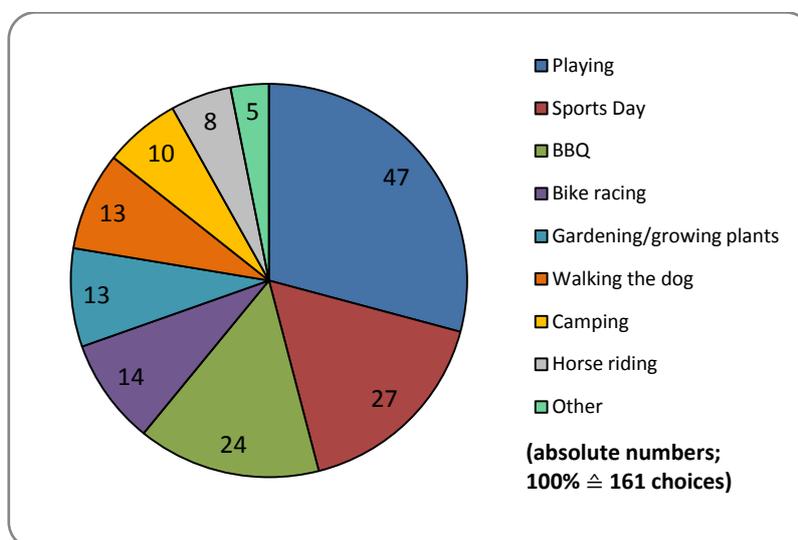


Figure 7 shows the responses of the second survey (September) to the question of what greenspace is used for. Over 80% of the students say they use greenspace for playing. It is the most popular activity amongst the students since boys (75%) and girls (90%) perform this activity. The second most popular use, i.e. Sports Day, is also enjoyed by girls and boys alike; explaining that 27 out of 57 students listed it (47%). Male students prefer BBQs (67% of the 24 students choosing it as a greenspace use were boys) and bike racing (57% of the 14 students listing it were boys). Slightly fewer boys (21%) than girls (24%) use greenspace for gardening/growing plants (in total listed by 13 students). ‘Walking the dog’ was ticked 13 times, ‘Camping’, ten times and ‘Horse riding’, eight times. The only ‘other’ use suggested was ‘Running’. Generally, 63% of the students in the September group use greenspace for more than one activity.

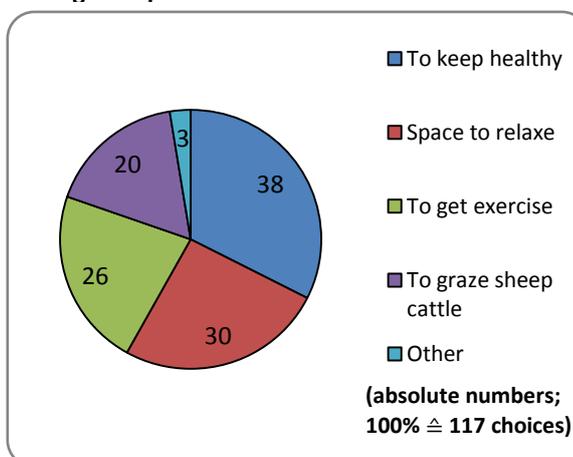
**Figure 7: What do P5/P6 students use greenspace for? (September survey)**



### Reasons for necessity of greenspaces in towns

More than half of the students in the September survey tended to name only one reason why greenspace is needed in towns (options: ‘To keep healthy’, ‘To graze sheep/cattle’, ‘To get exercise’, ‘Space to relax’, ‘Other’) (58%). ‘To keep healthy’ was chosen by 67% of the students since both sexes considered this option as a major reason (girls 62%, boys 71%). 66% of the female respondents (40% of the males) claimed that there is mainly a need to relax in greenspaces, while half of the boys favour the explanation ‘To get exercise’ (42% of the girls) (Figure 8).

**Figure 8: Why do P5/P6 students think there is a need for greenspace in towns?**



## Summary and Discussion

More than 4/5 of the students in the September survey use greenspace in Peterhead – especially boys “because [they] like to play football and girls don’t” said a girl during discussions of the results in class. Furthermore, 67% of the boys and generally more than 3/5 of all students claimed to use greenspaces every day and 1/4 of them once a week. Consequently, greenspaces are a valued asset and a worthwhile investment from the viewpoint of the children.

Another worthwhile investment are cycle paths throughout the town of Peterhead: Almost half of the students participating in the March survey are willing to cycle more than 15 minutes in order to reach greenspace which would translate to approximately 2-3 miles. Having children on the road for this amount of time requires proper cycle paths, ensuring the safety of the children and providing opportunities for exercise and environmentally friendly transport. The time needed to walk to a greenspace should not exceed 10 minutes for 1/3 of the students. However, it should be noted that a large number of girls were also happy to walk for more than 15 minutes (44%). Implications of this result would be that without cycling opportunities greenspace would need to be spread throughout the town more evenly to reduce the walking distance for users.

Despite the effort the students are willing to make in order to reach greenspace, not even 1/3 of the students (March survey), think there is sufficient amount of greenspace in Peterhead (girls 46%, boys 43%). Less than 20% of the male respondents – compared to 45% of the girls- share the opinion that there is enough greenspace in their town and underline, thereby, their demand for more such areas. Every third boy stated they did not know if greenspace provided in Peterhead is sufficient or not. An explanation for this figure could be that they either did not feel competent to give their statement for the entire town or that they had not previously given the matter much thought. In the discussion of the results in class, one student commented that some pupils may not have fully understood the meaning and concept of greenspace. All theories imply that more could be done in order to raise students’ awareness of greenspaces and their town in general.

Almost half of the students surveyed in March use greenspaces in Peterhead to play football (47%) or to plant/grow vegetables (45%). When greenspace caters for these two activities, more than 90% of the students could be classed as satisfied according to the data: It lets us assume that 75% of the respondents would use greenspace for one activity only. However, this result might be caused by respondents assuming they could only tick one option in this question.

On the other hand, more than 3/5 of the students in the September survey use greenspace for more than one activity. This is most likely due to the fact that the second group had more answer options to choose from although the March survey also offered a text box to name other activities. ‘Playing’ was mentioned three times by the first group. 47 students of the second group stated that they use greenspace for playing, i.e. more than 4/5 of the two classes. How can the discrepancy between these two divergent figures which refer to the same activity be explained? First of all, ‘football’ was explicitly mentioned in the March survey and was chosen by almost 4/5 of the boys. The September survey did not offer ‘football’ but ‘playing’. Consequently, the latter option was most likely considered as a substitute for football by many boys, hence the higher figure. Furthermore, ‘playing’ is a broader term and was, therefore, also chosen by female respondents who had proven not to be so fond of football (slightly more than 1/5 of the girls in the March group ticked ‘football’). One has to bear in mind that actually more girls stated that they use greenspace for playing (90%) than boys

(75%) (September survey). This makes us question what kind of plays girls prefer. A future questionnaire should offer different types of playing activities such as badminton, basketball, role plays, trading activities, or hide and seek to discover the sort of pitches or play areas which should be constructed if new greenspaces are created in Peterhead.

Still, not only the figure of the option 'Playing' needed further analysis: The second ('Sports Day'), third ('BBQ') and fourth ('Bike racing') most popular activity of the students in the September group was not even mentioned by the students of the March group. Moreover, the activity 'Easter egg hunt' was performed by 20% of the students in the first group (March survey) and apparently by no one in the second group (September survey). 'Growing vegetables/ plants' was ranked second in the March survey and 5<sup>th</sup> in the September survey. The figures demonstrate how much the options themselves as well as their choices are influenced by situation and the context: If one student had not said 'Playing' another might not have thought of 'Sports Day'. In addition, it is not a mystery why the March survey included 'Easter egg hunt' – while the September survey did not – if we keep in mind that Easter is in April.

We can speculate that fewer students would have stated that they were willing to cycle to a greenspace which is further than 15 minutes away if the survey had been conducted in January. It also makes a difference if an answer option in a questionnaire is at the beginning of a list or at the end. Nevertheless, future design of greenspace should cater for several kinds of activities since no single option alone satisfied more than 50% of the March group, and the majority of the September group preferred to make several choices. A football pitch is a must but other playing fields and types of greenspaces should be offered as well.

Playing, especially outdoors, helps to keep the body healthy. The majority of students in the September survey consider 'Too keep healthy' as the major reason for the general need of greenspaces in towns. Signs could be erected in greenspaces displaying how exercise in the open air is beneficial for the body. Others could address the health of greenspaces and how our behaviour influences the environment (disposal of rubbish etc.). In Todmorden, England, public herb and vegetable gardens have proven to be a successful initiative<sup>1</sup> and are a worthy approach to tackle the topic of 'health' in greenspaces from a different point of view.

## Limitations

The survey has some limitations relating to the way it was designed and carried out as a social science experiment with the main purpose of learning about social sciences. The empirical results reflect only the perceptions and needs of one age group (10-11 years). If results were to inform planning for the provision of greenspace, students of all ages from both primary and secondary school would need to be surveyed.

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<sup>1</sup> See their website <http://www.incredible-edible-todmorden.co.uk/> or a new story on the Telegraph: <http://www.telegraph.co.uk/earth/countryside/4806351/Todmorden-turns-into-a-giant-vegetable-patch.html>

## Acknowledgements

Katrin Prager's visit to Buchanhaven Primary School was supported by The James Hutton Institute and an EU Marie Curie research fellowship. Jula Heide spent 5 weeks at the James Hutton Institute as a visiting researcher and carried out the data analysis for the September survey. Thanks go to Claire Eade for organising the researchers' visit to the school. The interest of the teacher Mrs Ingram and the enthusiasm and curiosity of the primary students is greatly valued.

Any comments and questions on the report and the survey are very welcome. Please email Katrin Prager at [katrin.prager@hutton.ac.uk](mailto:katrin.prager@hutton.ac.uk)