



This article is really an activity idea to try with children which includes bits on probability, what data to collect, how to collect it, how to display the data and how to interpret the data.

The setting: Monday morning in school. Your class is gathered around you on the carpet. You pose the following question "What can you say about the child who will be the first one into the playground next Monday morning break time?". Then follows a discussion in which you act as the chair as much as possible. The discussion centres around what 'things' (attributes) could describe the child in question. For example, age, gender, what class they're in, colour of hair, eyes etc., height, shoe size, number of siblings, etc.

Next there is a discussion about the collection of information (data) so as to be able, after interpretation, to make a good description of the child. Incorporated in this discussion is the question "Does it matter what order we collect, display and interpret the data from these different attributes?". The class then decides upon the who, what and how.

I have found the richness of discussion amazing and the collection of data to be so meaningful that it has been entered into enthusiastically. So the children decide, for example, to look at data connected with number of siblings; gender; hair colour; eye colour etc. It is that, that has led me to repeat this activity in different schools. Typical answers could be (because each attribute is in the majority):

Child with 2 siblings

Girl

Blonde hair

Class 3 pupil

Blue eyes, etc

The collection of the data is of minor significance and has been done in an efficient way so that a lot of time is not spent just going around classes collecting data.

Sometimes there is an actual child who has all of these attributes which leads to a discussion again as to how that will not always be the case. The seeing of who is in fact there first on the playground is fun but of little mathematical importance. So there would never have been very much point to just seeing who is first in the playground on the previous ten days and then make a guess.

I once had all the work done with a class when a 10 year old girl said "I know who'll be first in the playground on Monday, it'll be me because I'm on duty to go into the playground and ring the play time bell"!

Sometimes I've suggested that, because of different circumstances, an alternative may be better: "What can you say about the first vehicle to pass the school gates at 11 on a particular day?". As well as data about types of car, colour, number of doors etc. there is also information like driven by a lady, has a child in a carry cot inside, a window open, a dirty car and so on. In this case there are climatic and social circumstances that affect the information available.

In conclusion, when we are working in this area of mathematics let's see that:

1/ The youngsters understand what they're trying to find out.

2/ They discuss at length what data is needed to help in the challenge.



# Meaningful Statistics

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- 3/ There's plenty of discussion about efficient ways of collecting the data.
- 4/ The displayed data can be interpreted satisfactorily.
- 5/ Some conclusions are arrived at.
- 6/ It has been enjoyable!