

Guess the Olympian

Teachers' Notes



This activity is designed to help learners to understand the importance of:

- stating clearly the purpose of an investigation;
- planning how to collect data;
- designing clear, unbiased questions, open and closed;
- tabulating results systematically;
- recognising anomalies and deciding whether these are outliers or errors;
- taking random samples;
- plotting the appropriate graph or chart;
- reporting accurately on their findings.

Timing: One hour lesson in a classroom or a computer room. This resource is based on results from Phase 9 *CensusAtSchool* questionnaire (www.censusatschool.org.uk Take Part/Questionnaires/Phase 9).

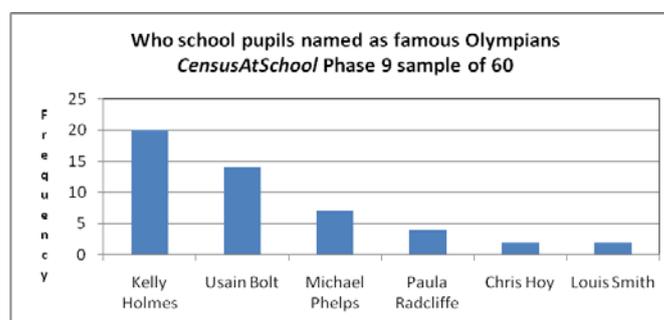
TASK A: You will need the cards from **Guess the Olympian Cards.doc** can either be cut out by the learners or beforehand. On completion of this task learners should have 14 piles of three cards. (See *Guess the Olympian Solutions.doc*.)

TASK B: Possible answers

1. This activity is to encourage discussion about the raw data and to ask the learners to think about the effects of their changes. Rebecca may not be Rebecca Adlington. It could be Rebecca Romero or others. Should 'That guy that can run really fast' be included. Philip Olivier is an actor so is probably not Phillips Iduwu.
2. Changing the names could distort the results. Using the miss-spelt names it is very difficult to sort in Excel and to search in Google.
3. Drop down menus or suggested names when letters typed in similar to Google.
4. Both of the above would suggest names that children had not thought about. There is no clear solution to this. An open question may be the only way to collect this data.

TASK C:

1. Note, for students who wish to analyse this in Excel see **Guess the Olympian Pivot Tables in Excel.Doc** for instructions how to use a pivot table.



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We are looking for a statement that refers to the sample and that is not implying that Kelly Holmes would be the choice for all children.

'Of the children from a sample of 60 who completed the *CensusAtSchool* Phase 9 questionnaire in 2009, Kelly Holmes was named the most often as a famous Olympian.'

(See funny You Tube video

http://www.youtube.com/watch?v=GwbSJFtRmDw&feature=player_embedded)

2. Possible answers. No, as the sample may not be representative of UK children. No, as the data was collected 2 years ago. No, as this is a small sample.
3. Michael, Ya mum and Tony Blair should have been discarded. Learners may have decided to discard others.
4. Michael – could be Michael Johnson, Michael Phelps plus others.
Ya mum – could be an Olympian but how would we know.
Tony Blair – not an Olympian.
5. No, as the frequency for the number of children who named Kelly Holmes as a famous Olympian is so much higher than the other frequencies.

TASK D:

1. Again we are looking for a statement that refers to the sample and that is not implying that Kelly Holmes would be the choice for all children. 'Of the children who completed the *CensusAtSchool* Phase 9 questionnaire in 2009, Kelly Holmes was named the most often as a famous Olympian.'
2. Yes, it could be as this is a large sample.
No, as the sample may not be representative of UK children as Phase 9 included children from overseas and the sample is opportunist (ie the sample is made of schools who choose to take part). No, the data was collected 2 years ago.
3. Same answer as for Task C, 3.

TASK E: The written sections in the worksheet have been designed around the Problem Solving Cycle, plan, collect, process, discuss. So putting these comments together could form most of the report.

EXTENSIONS

- Learners can analyse their own data by completing *SportAtSchool* online questionnaire. You will need to request this data from *CensusAtSchool*.
- Investigate whether boys' choices are different to girls'.
- Ask learners to find out some statistics/information of the Olympians in this resource.