

Warm up

Ask students to brainstorm types of information involving numbers. For example: dates of historical events; distances between places; the temperature outside; the height/size of a building; exam marks; the score of a football match; the vote share for each candidate in an election. See if students can categorize them in any way – for example, some might be used to count a physical number of people or things (e.g. the population of a country), whereas others might be measurements, times, percentages or more figurative numbers.

Using the Factsheet

There are three possible ways to use the Factsheet:

- 1 Give students the Factsheet before the lesson, so they can read it at home and come to the lesson prepared to do the Worksheet. If you use this approach, start the lesson by checking that all students have read and understood the Factsheet and answer any questions.
- 2 Give students the Factsheet at the beginning of the lesson and start by working through it with the students.
- 3 Focus on the Worksheet in the lesson, then give students the Factsheet at the end of the lesson, so they can take it home and keep it as a reference or revision tool.

Theory to practice

Answers

- | | |
|----------------|----------------|
| 1 30 | 9 between |
| 2 in | 10 0.74% |
| 3 dramatically | 11 2.2 million |
| 4 of | 12 2010 |
| 5 ten | 13 slightly |
| 6 doubled | 14 greater |
| 7 increased | 15 highest |
| 8 slower | |

Using the Worksheet

- Go through the information at the top of the page. Emphasize that students have already learnt some of the skills which they need in order to use statistics in writing. They may also have already done **Interpret tables, charts and graphs (1)** and **(2)** from the *C21 Academic Skills* series; if so, you could discuss what they found interesting, or difficult, about these. Explain that the focus of this Worksheet is on improving their ability to write about the information in charts and graphs.
- **Note:** It will be easier to discuss the graphs and charts on the Factsheet/Worksheet for this lesson if you can project them onto the board.

Practice

Look at Figure 1. Choose the correct preposition to complete each sentence.

- Discuss the first item together. Check that there is general agreement on the correct answer. Make sure students understand that they need to read the whole sentence to work out the answer – the verb form is crucial here, since the present perfect *has risen* indicates a trend which links the past to the present, ruling out things which took place *in* or *by* 1980.
- Remind students that they can look at the example phrases in the Key features section of the Factsheet (if they have done it yet) and refer to the text in Theory to practice. Depending on their level of confidence with the prepositions, you could work through the items as a class or leave them to work individually.

Answers

- | | |
|-----------|------|
| a Since | e By |
| b In | f to |
| c Between | g of |
| d until | |

2 Look at Figure 2. Choose the correct comparative/superlative from the box to complete each sentence. Use each word once.

- Refer students to the bar chart. Check their understanding of what it shows by asking e.g. *What percentage of black men are imprisoned in the US? (Four point three-five per cent.)*
- Discuss the first item together. Ask what kind of word will complete the sentence – a comparative or a superlative? (A superlative – *the* usually goes before a superlative, although there are exceptions to this rule.) This item is the only one with two possible answers – *lowest* and *least*. Wait until students have narrowed their choices down to these two words, then suggest that they should wait to decide which word to use because they will need the other one in a later item.
- Some of these items use collocations that you may need to explain, particularly the use of *high/low* with *chance*.
- Once the class has agreed on the answers to the other questions, discuss the bar chart together.

Answers

- a** lowest
- b** most
- c** more
- d** less
- e** Fewer
- f** least
- g** higher

3 Look at Figure 3 and Figure 4. Write numbers to complete the sentences. Remember to use symbols or to write numbers as words if you need to.

- Go through and discuss the information in the Tip box. If your students have a particular academic focus, you may be able to go into more detail here.
- With the activity that follows, it is your choice whether or not to make a rule of spelling out the numbers 1–10. Many books in the humanities follow this practice, whereas numerals are more widely used in scientific writing. There are many other special cases where it might be necessary to spell out numbers as words (for example: when they are at the beginning of a sentence; when they have a non-quantitative meaning; when there are two adjacent numbers in body text), but it is not necessary to cover all of these here unless you think students will benefit.
- Draw students' attention to Figure 3 and Figure 4. Make sure they understand what each figure shows: Figure 3 shows the total number of people in prison in each country, whereas Figure 4 shows the number of people per 100,000 population, i.e., the *proportion of people*, in prison in each country.
- Discuss the first item. First, elicit which figure students should refer to in order to complete this sentence. (The answer is Figure 3, because when a number is added, the sentence will refer to a number of people, not a proportion of the population.) Draw students' attention to the word *about*, and ask what this indicates. (It shows that the number will be approximate, not exact – as discussed in the Key features section of the Factsheet.) Students should now be in a position to look at Figure 3 and identify the answer.
- Students can work through the rest of the exercise individually or in pairs. They may need help with item h, which requires an understanding of multiples expressed using *times*, e.g., *five times as many*.

Answers

- | | |
|------------------|-----------------------------------|
| a 200,000 | e 324 |
| b 100,000 | f 2.1 million/2.12 million |
| c 2006 | g 50% |
| d four/4 | h ten/10 |

4 Look again at Figure 3 and Figure 4. Choose the correct phrase (1–8) to complete each sentence (a–h). Write the number in the space.

- This exercise helps students to develop their ability to describe statistical trends using verbs and adverbs. Discuss the first item together. If students are unsure of the meanings of the answer options, elicit suggestions from the whole class as to how to group individual words in a diagram on the board. For example, you could make categories of increasing (+) and decreasing (–) verbs, and rate the adverbs as *** (intensifying), ** (neutral) and * (weakening).
- Students can complete the exercise individually or in pairs. Again, check answers as a class.

Answers

- a** 5 more than doubled
- b** 7 rose to 153 and then fell again
- c** 2 fell by almost 200,000
- d** 4 increased steadily
- e** 6 rose substantially
- f** 3 increased by about 7,000
- g** 1 decreased moderately
- h** 8 was the highest of all countries in the ten-year period

5 Write five more sentences about the information in Figure 3 and Figure 4. (You can use sentences from Exercises 1–4 as models.) Make some of your sentences true and some false. Then swap with a partner. Correct your partner's false sentences.

- Explain the activity by writing two new sentences – one true and one false – on the board. Get students to identify the false sentence and correct it. For example, if you write:
Between 2006 and 2008, the imprisonment rate in Nigeria increased dramatically.
Students should correct this to a sentence such as:
Between 2006 and 2008, the imprisonment rate in Nigeria decreased slightly.
- Get students to write five sentences individually. At least one sentence should be false.
- Put students into pairs. Students have to read each other's sentences and correct the false ones.
- Get pairs to feed back to each other and see if they agree. Then have pairs take turns to write one of their false sentences on the board. Elicit suggestions for how to correct it from the class. Bear in mind that there may be several possible ways to correct some sentences.

Reflect

6 Reread the Tip box. What are the rules for writing numbers in your academic subject?

- This could be a class-based or homework task. You could provide parameters for students to work within based on your discussion in Exercise 3; you might also like to suggest excerpts for them to read. If students are not yet studying an academic subject, this is an equally interesting exercise to pursue using general English texts like newspaper websites. You could also use a *C21 English for the 21st Century* Course Book.

Learning outcome

By the end of the lesson, students should:

- be able to use key verbs and adverbs to discuss statistical trends
- be more confident in employing other key features of statistical writing, such as prepositions, comparatives and superlatives
- have improved their ability to write different kinds of numbers, including percentages, decimals, multiples, fractions and large numbers

Ending the lesson

Have a whole-class discussion about what students feel they learnt from the lesson. Answer any questions.

Integrated skills

If you prefer an integrated skills approach, turn Exercise 3 into a listening and writing activity by asking students not to look at Figure 3/Figure 4, but instead to listen to you as you read out the correct completed sentences. They have to listen and fill in the numbers. This will help them to develop their ability to write down numbers they have heard – an essential skill for lectures and seminars.