

Language for ...

talking about statistics

Age: Adult / Young adult



Level: Upper-intermediate–Advanced

Length: 45–60 minutes

Language Focus: Key vocabulary for describing statistics, graphs, trends and proportions

Skills: Reading, speaking

Materials: One copy of the worksheet per student; one sheet of blank paper per group of three to four students

Aims: To allow students to effectively understand and use common language for describing trends and proportions

What are red words?

Ninety per cent of the time, speakers of English use just 7,500 words in speech and writing. These words appear in the Macmillan Dictionary in red and are graded with stars. One-star words are frequent, two-star words are more frequent and three-star words are the most frequent. 'Language for' lessons are based on red words and encourage students to improve their English through communicative tasks using collocation and commonly used phrases.

member who is going to write. Ask them to divide the sheet into three columns labelled a, b, c. Then hand out the student worksheet. Read aloud the instructions for Exercise 1a, clarifying that students should write the synonyms into the corresponding column on their answer sheet. Allow a minute for this and then each team should swap answer sheets with another team for correction. Monitor the class as they correct, clarifying doubts and making a note of good suggested words. Write these on the board. At this point, only focus on language which has been suggested from the class (language input will come later in the lesson). Finally, ask each team to add up the correct words and pass the answer sheet back to the original team. Announce the winning team.

- 1 On the board, write the phrases *The temperature in the last four weeks* and *The number of rainy days in the last four weeks*. On these topics, verbally elicit some trends and proportions from the class (e.g. 'The temperature has gone down a lot since last month'; 'About three quarters of the days this month have been rainy'). Don't write any information on the board at this point. Make sure that the distinction is clear between trends (increase/decrease/stability over time) and proportions (percentages, fractions, etc).
- 2 Put students into teams of three or four. Give each team a blank piece of paper, which will be their answer sheet. Tell them to choose one
- 3 Put students into pairs. Refer students to the quiz in Exercise 1b. Set a time limit of about 3–5 minutes for students to complete the quiz. Highlight that the focus of this task is speaking, so students should discuss the reasoning behind their answers to each question. Once the time is up, don't reveal the answers immediately: go through each question and ask students to suggest their answer and explain why they think it is correct. Finally, tell students the correct answers.
- 4 Refer students to Exercise 2a and read aloud the instructions. Allow students a few minutes to work alone, reading the texts and matching each to a graph. Tell students not to worry at this stage if there are some words which they don't understand. Elicit the answers.
- 5 Ask students to read the texts again and answer the questions in 2b. Once they have done this, ask them to compare answers in pairs, identifying the part of each text which corresponds to each answer. Finally, elicit the correct answers.

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- 6 Refer students to Exercise 3, first drawing their attention to the two tables containing vocabulary for *Trends* and *Proportions*. Now read aloud the instructions for part a, and ask students to work in pairs to complete it. Encourage students to re-read the texts from the previous activity, which provides context for the target language. Monitor the class as they complete the task, ensuring that they fully understand the meaning of each category in the two tables. Finally, elicit the correct answers. Once both tables are complete, take a moment to focus on the correct pronunciation of the expressions, as some of these may cause difficulty (e.g. double, dwindle, subside, etc).
- 7 Ask students to look again at the *Trends* table. In this table, most words in each category are simply synonymous but there are a handful which have more specific meanings. For example, in the 'to increase' category, the verb 'to double' specifically means to increase by twice the amount. Ask students to identify other expressions which have specific meanings. Elicit as many of these as possible. For expressions which students have not identified, write the expressions on the board and ask students to consult a dictionary to find the specific meanings. Then ask students to explain these dictionary definitions.
- Expressions with specific meanings:*
- to double = to increase by twice the amount
 - to treble = to increase by 3 times the amount
 - to dwindle = to become gradually less or smaller over a period of time until almost nothing remains
 - to ease off = to lose intensity
 - to slump = to be suddenly reduced to a much lower level
 - to hit rock bottom = to reach the lowest possible level
(Note: the phrasal verb 'level out' is also synonymous with 'level off')
- 8 Read aloud the instructions to Exercise 3b. Look at sentence a. together as a class, making it clear that students need to look again at the graphs from Exercise 2. Allow students a few minutes to complete all of Exercise 3b and then ask them to compare answers in pairs. Finally, elicit the answers.
- 9 On the board, write the phrases *Game of Thrones* and *Facebook*. Ask for a show of hands to find out what proportion of the class watch *Game of Thrones* and what proportion have a Facebook account. Read aloud the instructions for Exercise 4a. Highlight that the focus of this task is to speak, incorporating new language from this lesson. Begin by eliciting an example: ask the class to describe the trend in *Game of Thrones* viewing figures between season 1 and season 2 (e.g. 'Viewing figures rose by quite a lot between the initial two seasons of the show'). Also encourage students to give their opinions on the statistics (e.g. 'Perhaps the increase was due to people writing on social media about the dramatic end to season one'). Then tell students that they have a few minutes to speak in pairs to explain the information from the graphs. Monitor the class as they do this, making sure that pairs are having balanced discussions and helping students with past forms of verbs and suggesting adverbs (e.g. 'It fell *sharply*', 'It rose *steadily*', etc). Finally, provide feedback on the board.
- 10 In different pairs, ask students to discuss the items in Exercise 4b. Again, encourage them to use new language from this lesson and to elaborate on the ideas behind their predictions

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or explanations. Monitor the class as they speak and, finally, provide open-class feedback.

- 11** As an optional extension activity, ask students to work in small groups to create funny pie charts. Show some examples from a website such as: www.ranker.com/list/funny-pie-charts/nathandavidson (you should check the link before your lesson to decide which charts would be most appropriate). Once students have drawn or printed their own funny pie charts, they could pin them on the walls around the classroom. Students could then walk around the room, discussing the meaning of each pie chart.

KEY:

1a. Possible answers:*

- a. went up, rose, grew, climbed, shot up, etc
- b. went down, fell, dropped, dwindled, subsided, weakened, etc
- c. the majority, more than half, the bulk, the greater part, the best part, etc

(*Note: At this stage of the lesson, it is only necessary to focus on the words/expressions which have been correctly suggested by the class. Students will see a more comprehensive list of such words/expressions later in the lesson.)

- 1b.**
- a. decreased
 - b. trebled
 - c. increasing
 - d. just over half
 - e. Asia
 - f. just over 50%

- 2a.** Cats In Baths = graph 2;
Tulips By Judith = graph 3;
Poplewell Productions = graph 1

- 2b.**
- a. Tulips By Judith ('Just over **a tenth of** customers find the site through social media campaigns.')
 - b. Cats in Baths ('It wasn't until 2017 when visitors really began to fall, **plummeting** from millions to thousands.')
 - c. Poplewell Productions ('one of their movies was nominated for an Oscar, causing visitor numbers to **spike** ... After this, traffic to the site began to **ease off**.')

- 3a.**
- (1/2) to soar, to rocket;
 - (3/4) to decline, to ease off;
 - (5) to plummet;
 - (6) to fluctuate;
 - (7) to level out;
 - (8) to spike;
 - (9) the (vast) majority of;
 - (10) a tenth of;
 - (11) one in five;
 - (12) a (small) share of

- 3b.**
- a. soared
 - b. regained stability
 - c. peaked
 - d. hit rock bottom
 - e. subsided
 - f. plunged
 - g. the lion's share of
 - h. almost every fifth visitor
 - i. out of

- 4, 5** students' own answers

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1 Warmer

a. Work in teams. Suggest synonymous words or expressions for the parts of the sentences in bold. You have one minute to complete the entire task. Which team has the highest number of correct suggestions?

- Last year, visitors to our website **increased** by 10%. (e.g. 'grew')
- This month, visitors to our website **decreased** by 5%. (e.g. 'fell')
- 51%** of visitors find the site using a Google search. (e.g. 'over half')

b. With a classmate, discuss and decide the answers to the quiz below.

Quiz about trends and proportions on internet usage

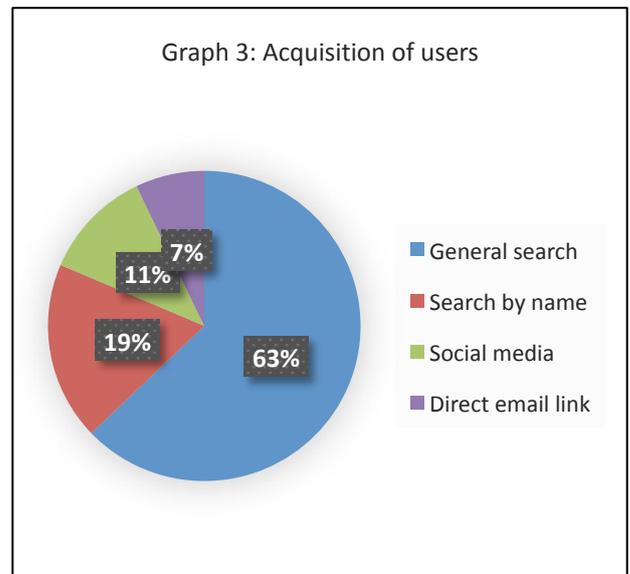
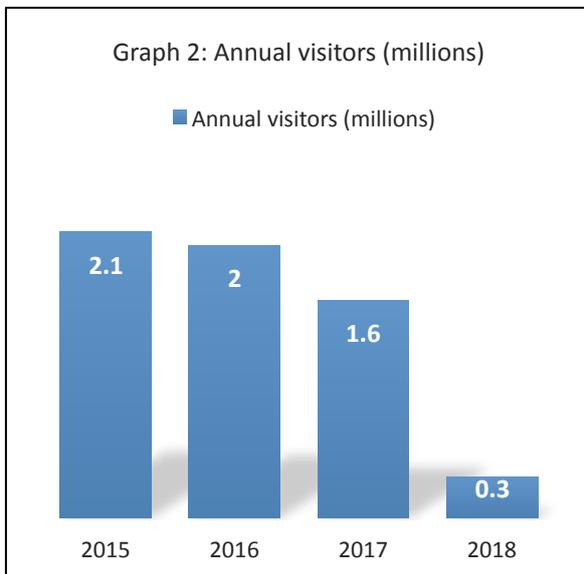
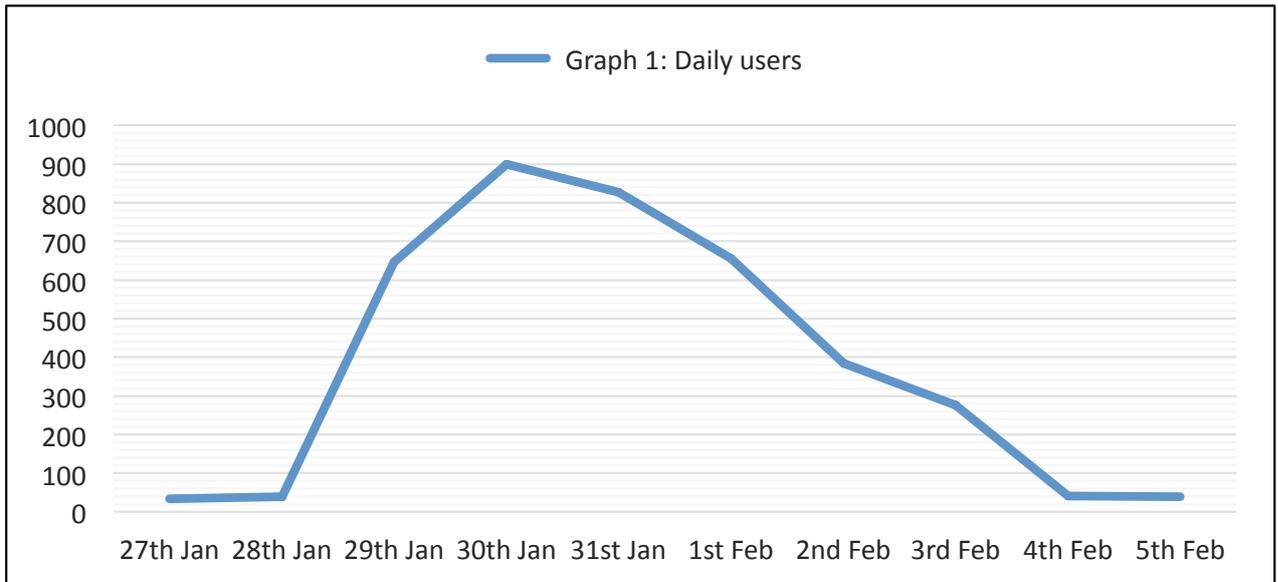
Trends	Proportions
	
<p>a. In the US, the number of laptops purchased in the last ten years has:</p> <ul style="list-style-type: none"> • decreased • increased a little • increased a lot <p>b. Since 2011, the average time per day that Americans spend using mobile apps has:</p> <ul style="list-style-type: none"> • increased slightly • doubled • trebled <p>c. The global number of active Facebook users is currently:</p> <ul style="list-style-type: none"> • increasing • decreasing • remaining stable 	<p>d. The proportion of the global population who use the internet is:</p> <ul style="list-style-type: none"> • about a third • just over a half • almost 90% <p>e. Almost half of the world's internet users live in:</p> <ul style="list-style-type: none"> • Asia • North America • Europe <p>f. The number of people who read online reviews of products before buying them is:</p> <ul style="list-style-type: none"> • a tiny proportion • just over 50% • the vast majority

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2 Text

- a. The graphs below show the analytics for three websites. Read the short text about each website and decide which graph illustrates each text.



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Cats in Baths is a website dedicated to photos and videos of cute cats taking a bath. It started in 2015 and, due to a viral video, visitor numbers **soared**. The site finished the year with over 2 million annual users. However, the site wasn't very well organised, and in 2016 a similar rival website appeared. Initially, this caused visitor numbers to **decline** only a little. It wasn't until 2018 when visitors really began to fall, **plummeting** from millions to thousands. Can *Cats in Baths* survive another year?

(graph = _____)

Tulips By Judith is a flower shop in Melbourne, Australia. The shop has a popular website, where customers select flowers and have them delivered. **The vast majority** of customers find the website by doing a generic internet search, such as 'flowers in Melbourne'. However, we can assume that nearly **one in five** customers are already familiar with the shop, as they search directly for 'Tulips By Judith'. Just over **a tenth of** customers find the site through social media campaigns. **A small share of** customers come to the site by clicking on a direct link which has been emailed to them by friends.

(graph = _____)



Popplewell Productions is a film studio based in East London. As their website only provides basic information, it doesn't usually attract an enormous number of visitors. Daily totals usually **fluctuate** between about 20 and 40 users. However, last January, one of their movies was nominated for an Oscar, causing visitor numbers to **spike**. Traffic to the site **rocketed**, reaching a high of 900 users on 30th January. After this, traffic to the site began to **ease off**. The movie failed to win the prize at the Oscars ceremony in February and site visitors eventually **levelled out**, returning to their usual levels.

(graph = _____)

b. Read the three texts again and answer the questions below.

- Which website uses promotions to attract more visitors?
- Which of the three websites has had the biggest fluctuation in visitor numbers?
- Which website had a brief moment of unusual activity?

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3 Language in use

- a. In the two tables below, there is useful language for talking about trends and proportions. Complete the tables using the twelve words/expressions in bold from the texts in the previous task (you may wish to read the texts again).

Words/Expressions from the text:			
• to decline	• to soar	• to spike	• to plummet
• to fluctuate	• the (vast) majority of ...	• a (small) share of ...	• to level out
• a tenth of ...	• to ease off	• to rocket	• one in five ...

Trends

To increase	To decrease	To move or not move	To reach an extreme
to go up	to go down	To vary:	To reach a high:
to rise	to fall	to waver	to peak
to grow	to drop	to veer from ... to ...	(8) _____
to double	to dwindle	(6) _____	To reach a low:
to treble	to subside	To stabilise:	to slump
... by a lot!	(3) _____	to regain stability	to hit rock bottom
to shoot up	(4) _____	to steady	
(1) _____	... by a lot!	(7) _____	
(2) _____	to plunge		
	(5) _____		

Proportions

More than 50%	Fractions	Ratios	Synonymous words for "proportion"
Nearly all ...	A half of ...	Three out of seven ...	A number of ...
The best part of ...	A third of ...	Every second ...	A percentage of ...
The bulk of ...	Two thirds of ...	Every fourth ...	(12) _____
The lion's share of ...	A quarter of ...	(11) _____	
(9) _____	Three quarters of ...		
	A fifth of ...		
	(10) _____		

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- b. Look again at the three graphs at the start of this lesson. For each sentence below, choose the correct option.

Graph 1:

- a. The number of users **soared/plunged** on 29th January.
- b. The traffic to the website **regained stability/subsided** from 4th February onwards.
- c. User numbers **peaked/slumped** on 30th January.

Graph 2:

- d. The website's owners think that visitor numbers **hit rock bottom/went down** in 2018 and will improve in future.
- e. Compared to 2015, visitor numbers **subsided/wavered** slightly in 2016.
- f. Traffic to the site **plunged/dwindled** drastically in 2018.

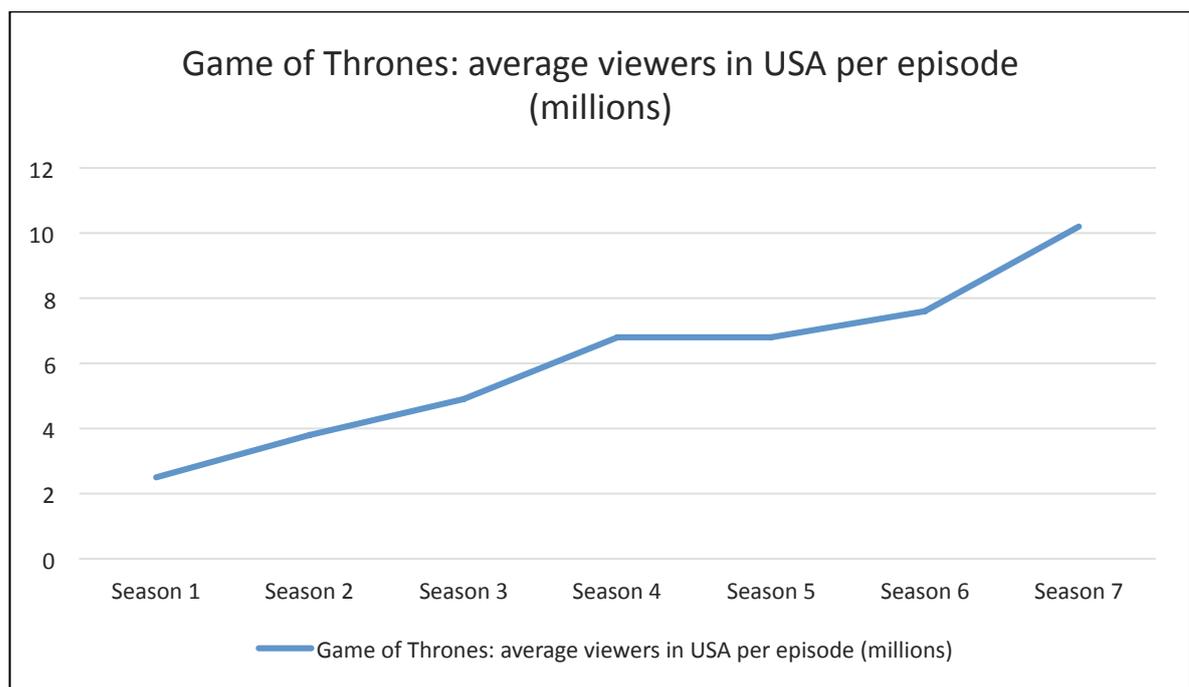
Graph 3:

- g. **The lion's share of / Over three quarters of** users find the website by doing a general search online.
- h. Doing a direct search for the website's name accounts for **almost every fifth visitor / the bulk of visitors** to the site.
- i. About one **out of / from** ten visitors come to the site via social media.

4 Communication

- a. Look at the graphs below. With your classmate, discuss the trends or proportions which each graph shows.

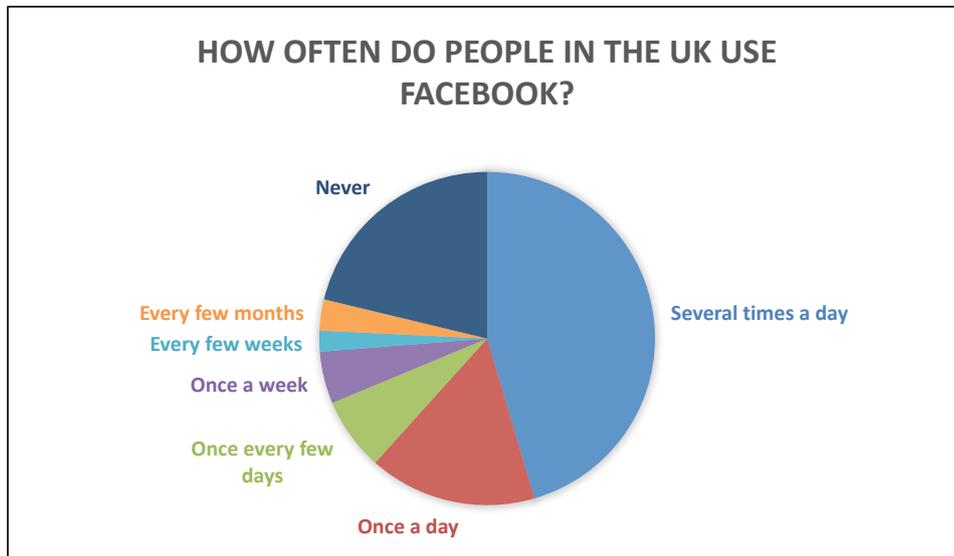
Graph 1: Number of viewers of the TV series Game of Thrones.



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Graph 2: How often do internet users in the UK use Facebook?



b. Discuss the lists below with your classmate.

Try to predict the trend in the next five years for ...

- Facebook’s popularity around the world.
- The age when children first get a mobile phone.
- Going to the cinema.
- Lady Gaga’s popularity.
- Fake news in the media and on social networks.
- Property prices in your area.

Talk about the proportion of ...

- Your friends and family who own their own house.
- An average day that you spend looking at a screen.
- Today that you have spent working.
- Your friends/family who have a cat.
- Your workmates/classmates who wear glasses.
- An average day that you spend commuting.

Red Words

Increase (verb)***	decrease (verb)**	trend (noun)***	proportion***
soar*	decline (verb)***	majority***	share (noun)***
rise (verb)***	grow***	double (verb)**	fall (verb)***
drop (verb)***	plunge (verb)**	vary***	number (noun)***
percentage**			