Describing Graphs
(analysis & evaluation)

Presentation skills

This lesson begins with describing basic graphs and suggesting what they could represent. It then provides the language necessary for describing, analysing and evaluating with a guided practice. This is followed by students researching and analysing graphs/charts/tables from the Office of National Statistics (ONS) and giving a short presentation on their findings.

Teacher's Notes

Aim: *to develop the students' ability to describe graphical data and practice the key skills of analysis and evaluation.*

Level: ***** [B1/ B2/C1/C2]   **Lesson Time:** 1-2 hours

Graphical Analysis & Evaluation Lesson Plan

1.Lead in (10 minutes)
  i.   Ask students to look at **Graph 1** (worksheet) and explain the graph to your partner.
  ii. Teacher elicits the most significant points from the graph [answers: peaks in Feb, April, Dec].
  iii. Asks students to suggest a reason for these peaks and what could the product be.
       Product is flowers (Feb=Valentine's day / April = Easter / Dec = Christmas).
  iv. Highlight that **analysis** is identifying key highs and lows and **evaluation** is the reasons why.
       [Disclaimer: There are different understandings of analysis & evaluation – this is one way]

  v.   Do the same with the **Bar Chart 2** (explain it, highs and lows, why? = ice cream sales).
  vi. Labelling graphs: explain the key points (1-4) that must be said before analysing a graph.

2. Language Sheet 1: Describing / analysing and evaluation graphical data. (10 minutes)
  i.   Students read through the language sheet.
  ii. Ask students to practice the phrases (choral drilling with teacher if necessary).
  iii. IMPORTANT – highlight the three key stages [describe, analyse, evaluate].
  iv. Extra: describing graphs activity: www.academic-englishuk.com/graphs

3. Worksheet 2: Example Graph 1 (10+ minutes + feedback)
  i.   Give out worksheet 1 with Example Graph 1 and ask students to fill in the information.
  ii. Feedback using the model answer.
       Note: students may need help and guidance with the evaluation section.

4. Graphical Data: preparation: (20 minutes)
  i.   Give each student one of the web links to graphs from ONS.
  ii. Show the students how to find the information: go to webpage / click on the specific section key / find the figure number.
  iii. Allow 20 minutes for students to prepare a 1 to 2-minute mini presentation of their graph.
  iv. Ask for 2/3 pieces of key data to be described only.
  v.   They must follow the 3 key stages (describe the key elements (labelling), analysis and evaluation).

5. Presentation (30 minutes)
  i.   Students present their graph slide in front of the class – show webpage graph on board.
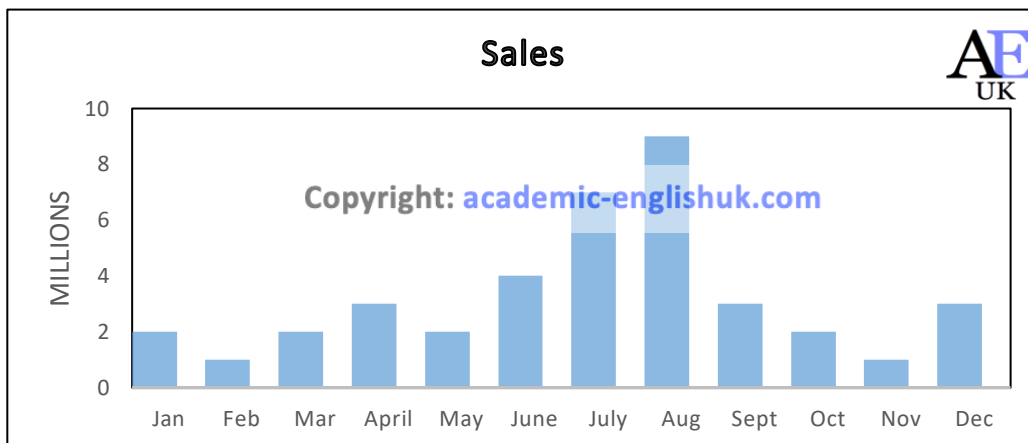 **ii.** Teacher can give feedback.

Graphs and Statistics

- Describe these graphs (analysis) and then suggest the reasons for these trends (evaluation)

Graph 1

Sales
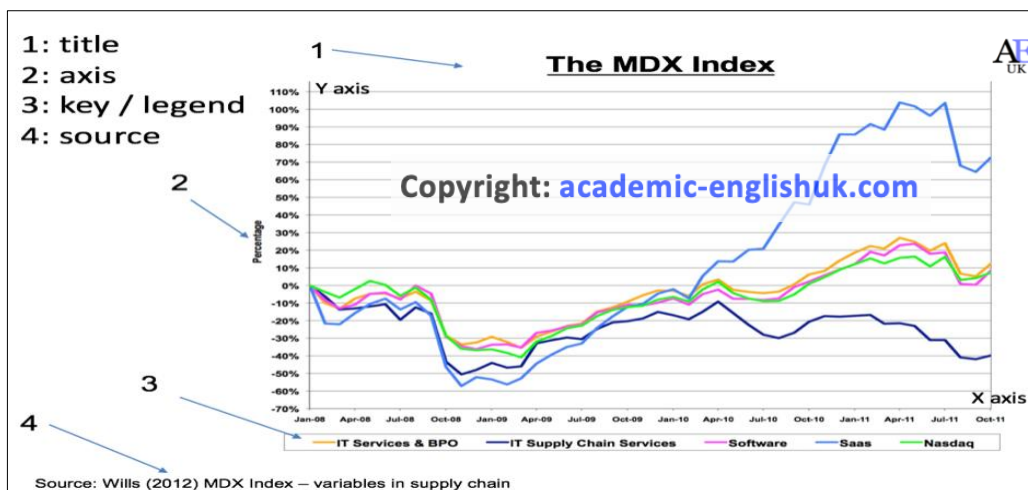
MILLIONS

Copyright: academic-englishuk.com

Jan Feb Mar April May June July Aug Sept Oct Nov Dec

Bar Chart 2

Sales

MILLIONS

Copyright: academic-englishuk.com

Jan Feb Mar April May June July Aug Sept Oct Nov Dec

Labelling Graphs

1: title
2: axis
3: key / legend
4: source

The MDX Index

1

2

3

4

Y axis

Percentage

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X axis

Jan-08 Apr-08 Jul-08 Oct-08 Jan-09 Apr-09 Jul-09 Oct-09 Jan-10 Apr-10 Jul-10 Oct-10 Jan-11 Apr-11 Jul-11 Oct-11

IT Services & BPO   IT Supply Chain Services   Software   Saas   Nasdaq

Source: Wills (2012) MDX Index – variables in supply chain

Language Sheet 1: Describing graphs and charts

1. Describe the graph layout (title / source / axis / key)

The graph from (source) presents data on (title)…
The graph from (source) shows/ illustrates (title)…
If we look at this graph on (title) from (source) you can see...
The y axis (vertical) is… and the x axis (horizontal) is…
(Graph) These lines represent… (Bar) These Columns are… (Pie) These segments are… (Table) These rows are…

2. Analysis: describe key points from the graph

Overall summary: Overall, there is / has been… / Generally, there is…
What you can see is… / From the graph we can see...
I'd like to focus your attention on…
If you look at this…, you'll see / notice / understand
(Not all phrases are shown – all in paid version)
A key significant area is … / Two …
An important point is… / Two important ….
What is ….
An interesting …
An analysis …

Useful Graph Vocabulary
UP: *increase / rise / grow / went up / soar / double / multiply / climb / exceed /*
DOWN: *decrease / drop / fall / decline / plummet / halve / depreciate / plunge*
UP & DOWN: *fluctuate / undulated / dip /*
SAME: *stable (stabilised) / levelled off / remained constant or steady / consistent*
(Not all phrases are shown – all in paid version)
CHANGES: *gently …*
CHANGES: *suddenly …..*
TOP: *reached a peak /……*
BOTTOM: *bottomed out / ……*

3.Evaluation: give reasons for the data

This seems to suggest that...
This is possibly because of...
This is (clearly) due to…
(Not all phrases are shown – all in paid version)
One reason …
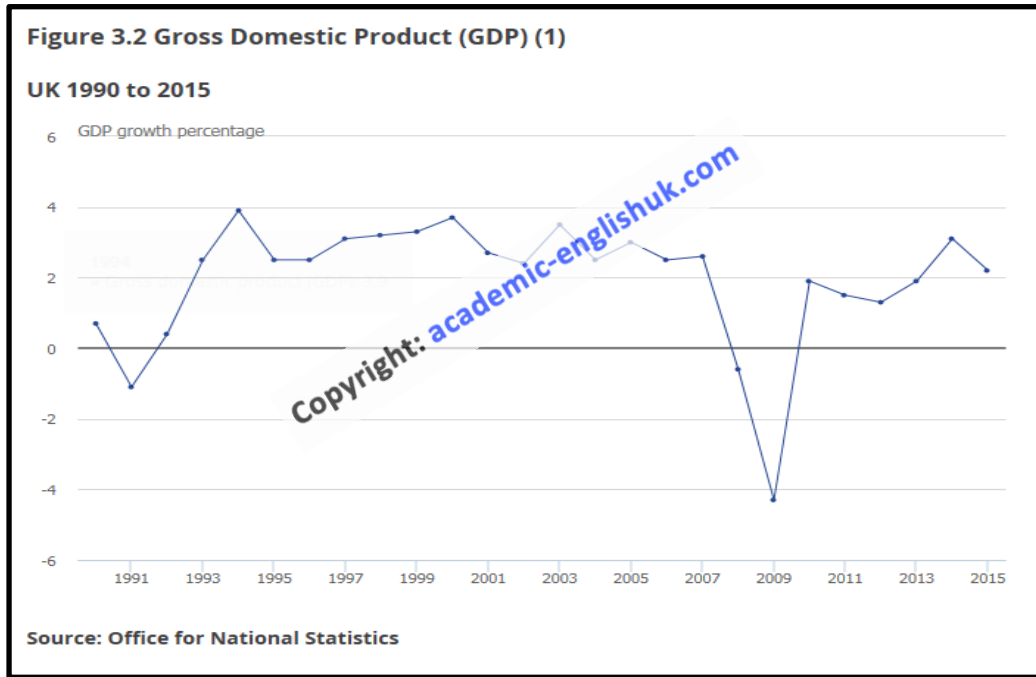*An evaluation of this …*
To provide evidence …
Overall, this highlights …
Therefore, this provides …
A possible future …

Worksheet 2: Example Graph 1

Figure 3.2 Gross Domestic Product (GDP) (1)

UK 1990 to 2015

GDP growth percentage

[Graph showing GDP growth percentage for UK 1990 to 2015, y-axis from -6 to 6, x-axis from 1991 to 2015]

Source: Office for National Statistics

Language: *Describe the graph using the phrases below to help you (write in your answers)*

The graph from (source) shows/ illustrates (title)…

The y-axis is… and the x-axis is…

Overall, GDP has remained... between…

(Not all phrases are shown – all in paid version)

I'd like to focus your …

(Analysis) The first one is …

(Evaluation) This is/was …

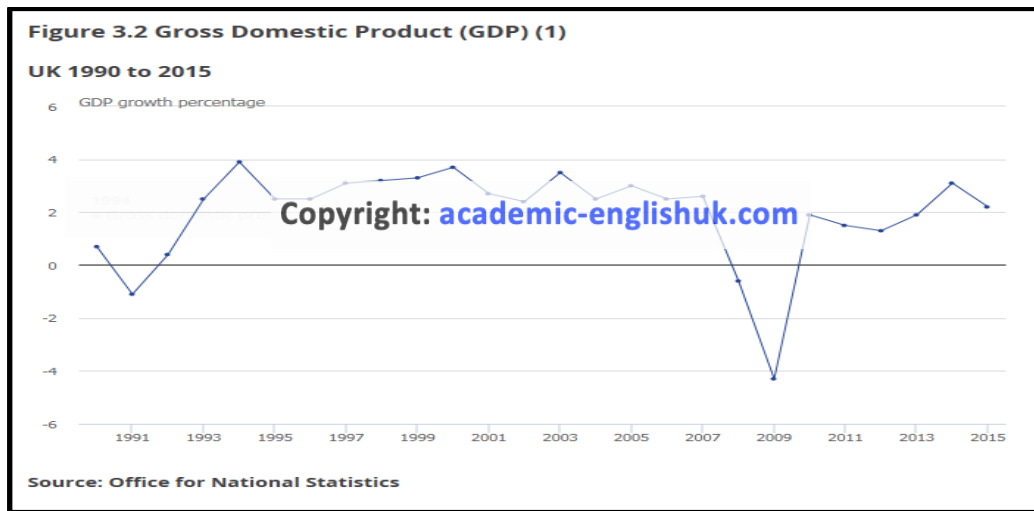*(Analysis) The second …*

(Evaluation) This is / was …

Overall, this graph …

A future prediction …

Example ANSWERS

Figure 3.2 Gross Domestic Product (GDP) (1)

UK 1990 to 2015

GDP growth percentage

Copyright: academic-englishuk.com

(x-axis: 1991, 1993, 1995, 1997, 1999, 2001, 2003, 2005, 2007, 2009, 2011, 2013, 2015; y-axis: -6 to 6)

Source: Office for National Statistics

Language:

The graph from The Office of National Statistics (2015) shows GDP growth in the UK over the years 1990 to 2015.

The y axis is the percentage of growth while the x axis is the individual 15 years.

Analysis: Overall, GDP has remained reasonably stable from 1993 to 2007 and again in 2013 to 2015 within the 2-4% range.

I'd like to focus your attention on two key significant areas.

Analysis: The first one is in 1991, where as you can see GDP fell to -1 and then dramatically soared to 4% within two years.

Evaluation: This was possibly because of the UK suffering a small recession caused from high interest rates and limited availability of credit. The government lowered the interest rates shortly after this and this would explain the sudden rise in 1992.

Analysis: The second interesting point is the sudden drop in GDP in 2007 ....(answers in paid version).

Evaluation: This is clearly due to the 2007/8 global financial crash, where the many countries suffered what is now being called ......(answers in paid version).

Evaluation: Overall, this graph highlights the evidence that global markets and recession ....(answers in paid version).

Prediction: There is a possibility that with such uncertainty in the world financial markets that .....(answers in paid version).

Graph Data Analysis

Task: Analyse and evaluate an Office of National Statistics (ONS) graph / chart / table and give a 1-2-minute presentation on your findings.

Guidelines

i. Your teacher will allocate one of the graphs / charts / tables below.

ii. Open the specific ONS webpage link and find the specific section and graph / chart / table.

iii. Analyse and evaluate the graph / chart / table using language sheet 1.

iv. You must follow the 3 key stages (describe the key elements (labelling), analysis and evaluation).

v. You may need to do some internet research to help your understanding / evaluation.

vi. Give a 2-minute presentation of your graph using your own analysis and evaluation.

vii. You have 20-minutes preparation time.

Office of National Statistics (ONS) Data links

Graph 1

Unemployment Rates [Free Example]
Figure: Employment rate (aged 16 to 64, seasonally adjusted)
https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/timeseries/lf24/lms

Graph 2

Crime Survey [Free Example]
Section 5: An overview of crime
Figure 1: Crime estimated by the survey has not changed over the last year
https://www.ons.gov.uk/peoplepopulationandcommunity/crimeandjustice/bulletins/crimeinenglandandwales/yearendingseptember2018#overview-of-crime

Bar Chart 3

Aging Population
Section X: The 90 years and over population is getting older.
Figure X: Number of people aged 90 years and over by age group, selected years, UK, 2002 to 2017
https://www.ons.gov.uk/

Graph 4

Tourism trends
Section X: What are the main trends in visits and spending?
Figure X: Overseas residents' visits to the UK and UK residents' visits abroad by month
https://www.ons.gov.uk

 # There are 20 graphs / charts / tables in the paid lesson version

Other topics: life satisfaction / divorce / religion / mental health / alcohol / mobile phones / murder / technology / leisure / population growth / life expectancy / etc..