

Session V

Explaining Graphs, Chart and Table

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Charts, graphs and table are often used to summarize data. They make it easy to see trends and the amount of variation in the information being studied. (A trend is the direction of change in the data. For example, people's average lifespan has generally increased over the last century, even though in a few war years it declined. So we could say the trend has been for people to live longer than previous generations).

Table is a set of data arranged in rows and columns. Table is use clear and concise title that describe the what, where and when of the data collected, should be simple with 2-3 variables and should be self-explanatory

Graph is a method of showing quantitative data using the x-y coordinate system.

- simplest graphs are the most effective
- should be self-explanatory
- each variable shown should be clearly differentiated by legends
- the x-axis is used for variables which is the method of classification (independent variable e.g. time)
- the y axis shows dependent variable which is a frequency of measure (e.g. number of cases)

Purposes of Tables and Graphs

1. Organize, summarize and display data clearly and effectively
2. Analyze data set
3. Identify, explore, understand and present distributions, trends and relationships in the data
4. To communicate epidemiologic

Writing about Graphs

1. Write related words - turn nouns into verbs, verbs into nouns, adjectives into adverbs, etc. Write opposite words, similar words, synonyms, etc.
2. Circle and highlight the graph. Use arrows. Make notes. Circle the biggest, the smallest. stable or unchanging parts, sudden increases, etc.
3. Identify trends. A trend is the overall idea of the graph
 - what is happening/what happened
 - the main change over time
 - the most noticeable thing about the graph
 - the pattern over time
 - the pattern for different places or groups or people.

Most graphs will have two trends, or there will be two graphs with a trend in each. You could tell about the two trends in two separate paragraphs. Make sure you have identified the trends in the graph.

Steps to writing a graph description :

1. Read the title and labels on the graph as well as the instructions.
2. Analyze the information in the graph, looking at the overall trend(s).
3. Plan your body paragraphs (probably one paragraph for each main trend).
4. Choose the most important details that will support your statement(s) of main trend(s).
5. Think about how to restate the main trend(s) in the graph using different words.
6. Proofread your description..



Don't forget to check :

- ✓ **Grammar:** Accuracy of noun phrases and verb phrases, correct verb tenses & prepositions.
- ✓ **Organization/coherence:** Linking words and variety of phrases/conjunctions.
- ✓ **Content:** Is the information accurate and detailed enough? Do the

How can I describe a graph?

UPWARD TREND VERBS

- to increase
- to rise
- to go up
- to climb
- to shoot up
- to rocket
- to soar

DOWNWARD TREND VERBS

- to decrease
- to fall
- to go down
- to decline
- to drop
- to plunge
- to plummet

ADVERBS TO DESCRIBE BIG CHANGES

- dramatically
- sharply
- suddenly
- significantly
- drastically
- noticeably
- steeply

ADVERBS TO DESCRIBE SMALL CHANGES

- gradually
- slightly
- steadily
- gently
- moderately
- little by little
- step by step

HOW TO DESCRIBE NO CHANGE

- remained the same
- remained constant
- stabilised
- levelled off
- moderately
- little by little
- step by step

DESCRIBING TRENDS

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www.vocabulary.cl

Verbs to describe

rise
jump
grow
climb
go up
increase
rocket



Verbs to describe

fall
drop
decline
decrease
go down
plunge
plummet



Adverbs to describe... HOW?

sharply quickly
rapidly steeply
considerably
significantly
substantially
steadily
gradually
moderately
slightly
slowly



How to describe


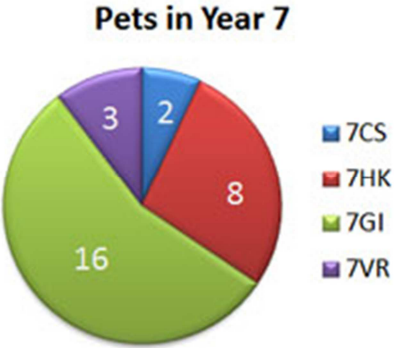
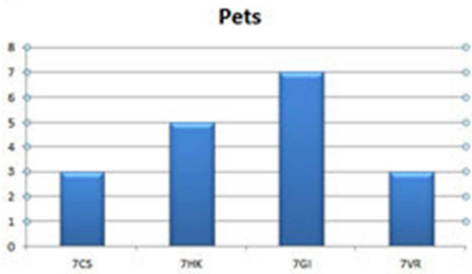
stay
remain +
maintain

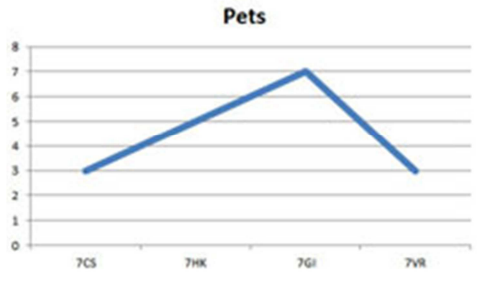
constant
steady
stable

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CHARTS is a method of showing epidemiological data using only one coordinate or a single variable.

Types of Charts :

Charts	English										
 <table border="1"><thead><tr><th>Year</th><th>Pets</th></tr></thead><tbody><tr><td>7CS</td><td>2</td></tr><tr><td>7HK</td><td>8</td></tr><tr><td>7GI</td><td>16</td></tr><tr><td>7VR</td><td>3</td></tr></tbody></table>	Year	Pets	7CS	2	7HK	8	7GI	16	7VR	3	table
Year	Pets										
7CS	2										
7HK	8										
7GI	16										
7VR	3										
 <p>Pets in Year 7</p> <p>Legend:</p> <ul style="list-style-type: none">7CS (Blue)7HK (Red)7GI (Green)7VR (Purple) <p>Values: 7CS=2, 7HK=8, 7GI=16, 7VR=3</p>	pie chart										
 <p>Pets</p> <p>Y-axis: 0 to 8</p> <p>X-axis: 7CS, 7HK, 7GI, 7VR</p> <p>Values: 7CS=2, 7HK=8, 7GI=16, 7VR=3</p>	bar chart										

Charts	English
 <p>The line graph is titled "Pets". The vertical axis (y-axis) is labeled from 0 to 8 in increments of 1. The horizontal axis (x-axis) has four categories: 7CS, 7HK, 7GI, and 7VR. A blue line connects the points (7CS, 3), (7HK, 5), (7GI, 7), and (7VR, 3). The line rises from 7CS to 7GI and then falls from 7GI to 7VR.</p>	line graph

List with phrases to describe chart

- The pie chart is about ...
- The bar chart deals with ...
- The line graph (clearly) shows ...
- The slices of the pie chart compare the ...
- The chart is divided into ... parts.
- It highlights ...
- ... has the largest (number of) ...
- ... has the second largest (number of) ...
- ... is as big as ...
- ... is twice as big as ...
- ... is bigger than ...
- more than ... per cent ...
- only one third ...
- less than half ...
- The number ... increases/goes up/grows by ...
- The number ... decreases/goes down/sinks by ...
- The number ... does not change/remains stable
- I was really surprised/shocked by the ...
- So we can say ...

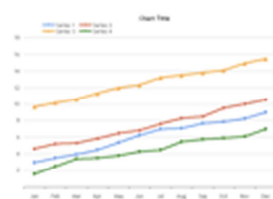
Use of Tenses for describing charts

Mind the correct use of tenses when describing a chart. If the chart deals with facts in the present use the **Simple Present**, if the facts are the past, then use the **Simple Past**. If there is a connection between the past and the present, use the **Present Perfect**.

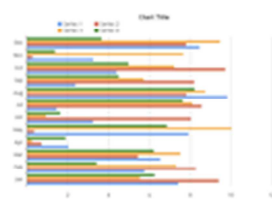
Point To Remember!

- Don't include your own opinion
- Don't include too many figures when you describe
- Don't forget to have a plan to structure correctly.

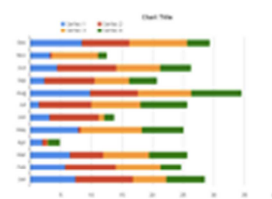
Line chart



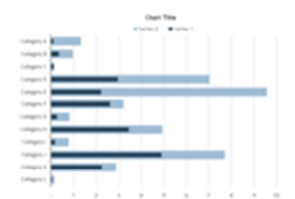
Bar chart



Stacked bar chart



Bullet bar chart



Column chart



Stacked column chart



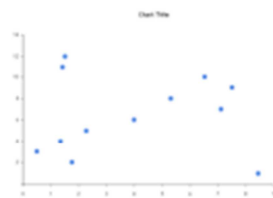
Pie chart



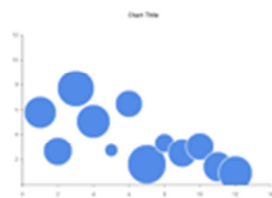
Pie chart with highlight



Scatterplot chart



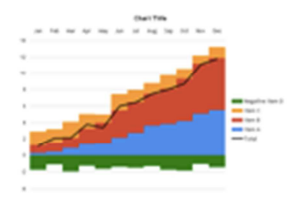
Bubble chart



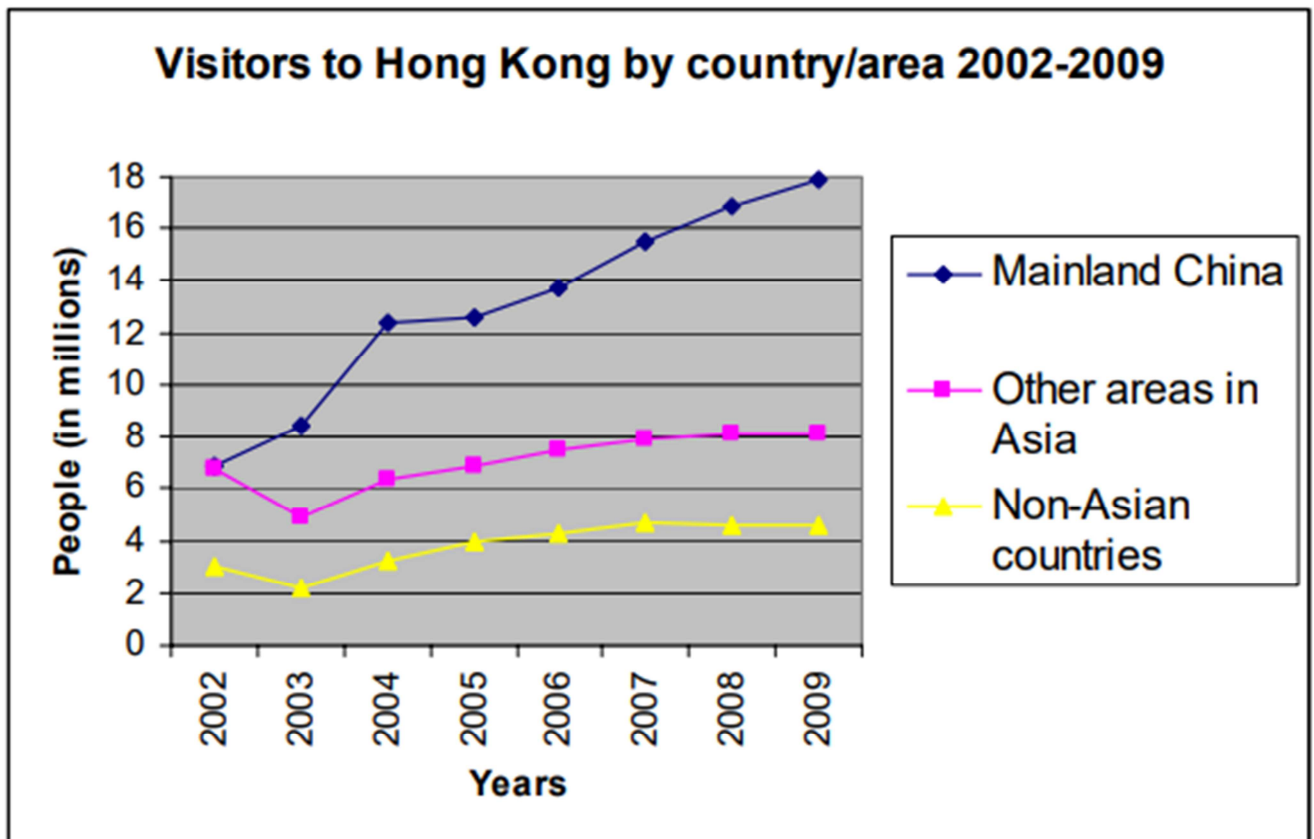
Stacked column volume ch



Stacked column volume wit



Example Describing Graphs :



The graph shows the number of travelers from various parts of the world entering Hong Kong for the years from 2002 to 2009. It can clearly be seen that there has been* a large increase in the number of Mainland Chinese visitors, while figures for visitors from Asia as well as other areas of the world have only shown* a slight growth.

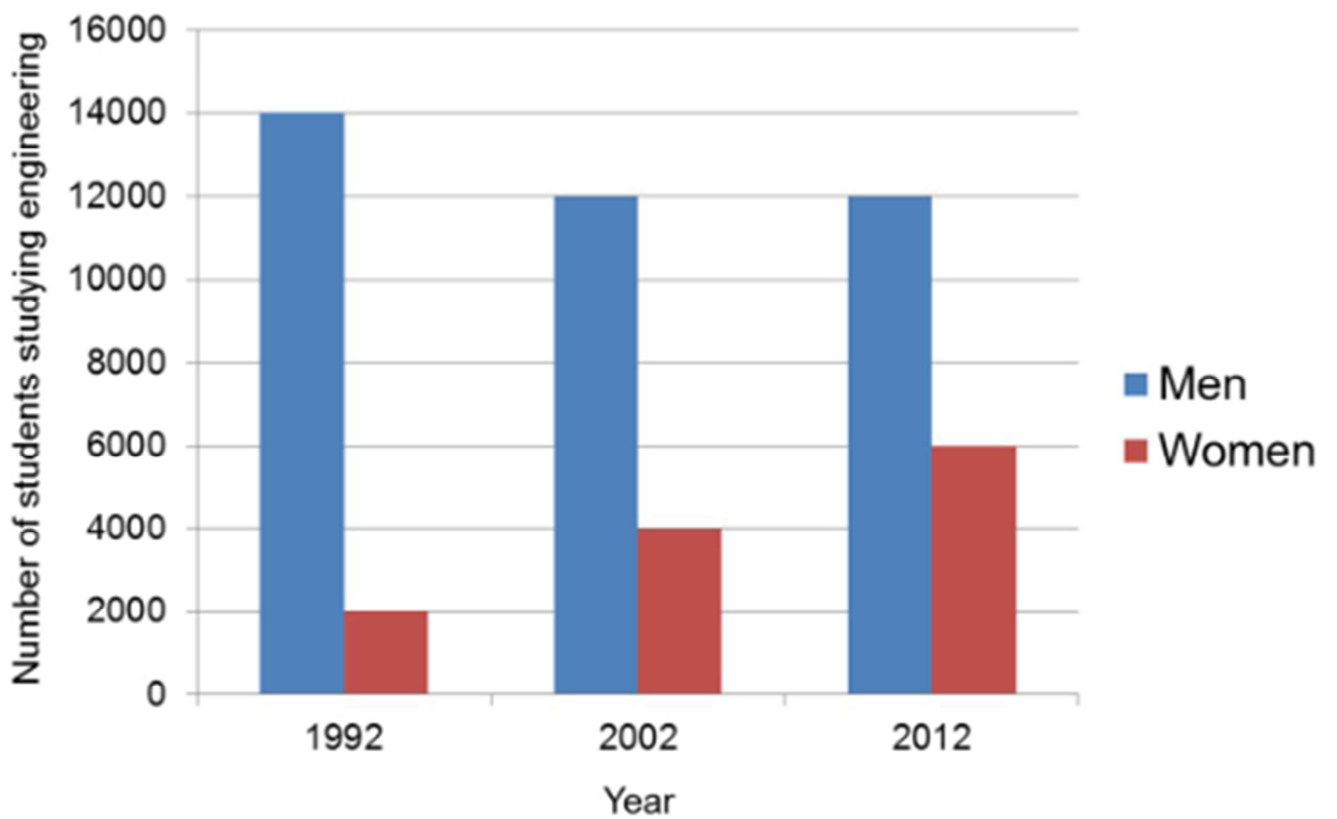
The numbers of Mainland Chinese visiting Hong Kong have risen considerably over this time period. In 2002 there were nearly 7 million Mainland Chinese visitors, similar to the figure for other parts of Asia and just over double that for non-Asian travelers. This number climbed to approximately 8 million in 2003, then rose dramatically by 4 million to just over 12 million only one year later. Since 2004 there has been a steady increase, with around 18 million Mainland Chinese travelers visiting Hong Kong in 2009. This is more than double the number for that year of other visitors from Asia, and around four times the figures for non-Asian visitors.

The figures for travelers from other parts of the world show similar trends: first a dip of roughly one-third the total number of visitors from 2002 to 2003, then slow growth until 2007 followed by a leveling out. Overall, the numbers of Asian tourists rose by 1 million from just under 7 million in 2002 to roughly 8 million seven years later, while the corresponding figures for visitors from non-Asian parts of the world were roughly 3 million and 4.5 million respectively.

To sum up, in recent years Hong Kong has become an increasingly popular destination for visitors, especially people from mainland China who currently outnumber those from all other parts of the world combined.

Example for describing charts :

Number of studying engineering at Australian Universities



The bar chart illustrates the number of men and women studying engineering at Australian universities between the years 1992 and 2012 at 10-year intervals.

It can be seen that the number of male students fell slightly from 14,000 in 1992 to 12,000 in 2002, and then remained level through the following decade. The number of female students is relatively low, starting at 2,000 in 1992. However, while the number of men decreased, the number of women increased. Female students grew steadily by 2,000 each decade. This led to a rise in the total number of engineering students from 16,000 to 18,000 in this period.

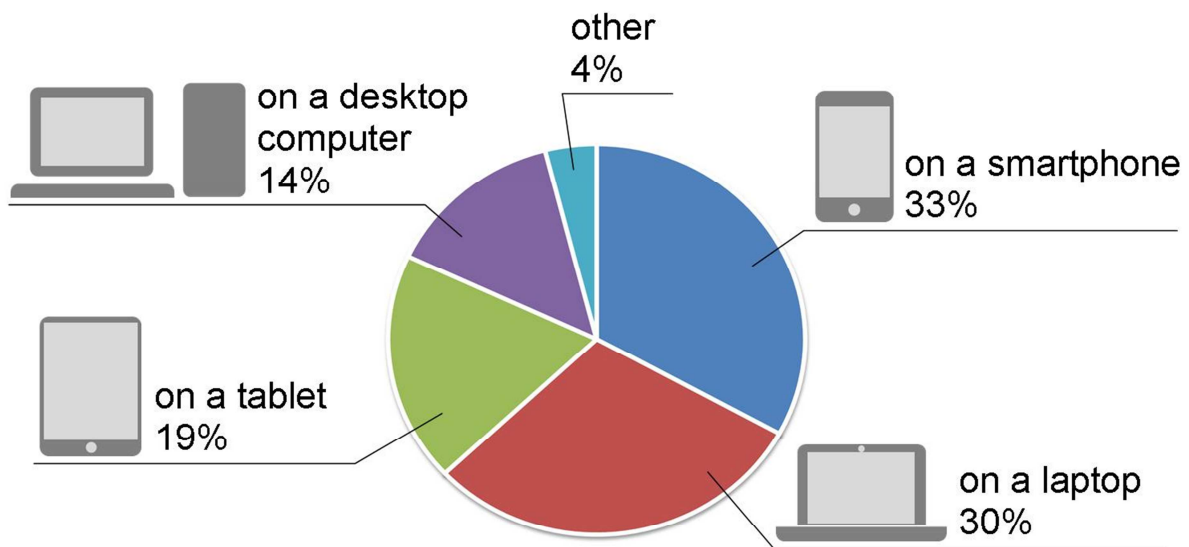
Men continue to make up the majority of students. However, the proportion of female students increased sharply in this period. In 1992 there was one woman to every seven men, but by 2012 this had narrowed to one woman to every two men.

Overall, we can see a clear upward trend in the number of female engineering students in Australian universities, while the number of male students seems to have levelled off.

Top Tips for writing

1. Start by saying exactly what the chart shows, and the time period.
2. Describe the changes as precisely as you can. Use data and numbers from the bar chart.
3. Compare the information. Talk about differences or similarities between the groups shown.
4. Conclude by saying what the main trends or changes are.

Example describing pie charts :



This graph shows the results of a survey in which people aged 16 and over were asked about their preferred devices for accessing the internet. The question referred to going online at home and in other places. Participants mentioned four main devices in their answers: a smartphone, a laptop, a tablet and a desktop computer.

From the pie chart it is clear that the majority of participants prefer to use smartphones and laptops, with just three per cent difference between the two. Nearly a third of participants prefer to go online with a smartphone. Thirty per cent like to use a laptop. A desktop computer accounts for fourteen per cent of users' preferred devices. Only a small minority prefer a device other than these main four.

In conclusion, since mobile and portable devices are the most popular choices, it is clear that many participants are accessing the internet outside their homes. The desktop computer is the least popular of the four main devices. In future, we can probably expect to see more and more people accessing the internet with smartphones as their preferred choice.

Top Tips for writing

1. Start by saying exactly what the pie chart shows. Avoid copying words in the question – use other words with the same or similar meanings.
2. Mention the survey question that participants answered.
3. Explain what the different sections of the pie chart refer to.
4. Describe the key findings shown in the chart.

Example Describing Tables :

Secondary School Attendance

	2000	2005	2009
Specialist Schools	12%	11%	10%
Grammar Schools	24%	19%	12%
Voluntary-controlled Schools	52%	38%	20%
Community Schools	12%	32%	58%

The table illustrates the percentage of school children attending four different types of secondary school from 2000 to 2009. It is evident that whereas the community schools experienced a marked increase in the proportion of those attending their institutions over the period, the others saw a corresponding decline.

To begin, the percentage of pupils in voluntary-controlled schools fell from just over half to only 20% or one fifth from 2000 to 2009. Similarly, the relative number of children in grammar schools -- just under one quarter -- dropped by half in the same period. As for the specialist schools, the relatively small percentage of pupils attending this type of school (12%) also fell, although not significantly.

However, while the other three types of school declined in importance, the opposite was true in the case of community schools. In fact, while only a small minority of 12% were educated in these schools in 2000, this figure increased to well over half of all pupils during the following nine years.