**Unit 5 Delivering a presentation and using visuals**

**1) Why are these items important for a successful presentation?**

*eye-contact postures and gestures right pace (not fast or slow)*

 *correct pronunciation of key terms*

 *knowing your slides intonation and pauses*

**2) Read the article bellow and find out what it says about**

*Memorizing Filler words Body posture*

*Eyes Non-native audience Reciting*

*Tone & volume of voice Gestures Knowing your slides*

 *Mispronouncing key terms*

Delivering effective oral presentations involves three components: what you say (*verbal*), how you say it with your voice (*vocal*), and everything the audience can see about you (*visual*). For all three components, maximize the signal-to-noise ratio: Amplify what helps, filter out what hurts.

Verbally (and as a general rule), do not write down and memorize or read your full text, because then your presentation will sound like what it is: a recited written text. Instead, memorize the outline of your presentation — that is, a tree structure of main points and subpoints — and speak extempore, reinventing the words as you go along. As you do, you will occasionally need to think about what to say next and find the most appropriate words to say it. Instead of using filler words (*um*, *er*, *you know*, *I mean*, etc.), simply pause. If you say *um*, you get about half a second of thinking time and the audience is likely to notice the *um* and be irritated by it. If you keep silent, you can get up to two or three seconds of thinking time without the audience noticing anything. Even if attendees do notice the silence, they will simply think that you are choosing your words carefully — and there is nothing wrong with that.

Vocally, vary the tone, rate, and volume of your voice as a function of the meaning, complexity, and importance of what you are saying. You need not invent a new intonation pattern: You simply need to amplify your normal pattern.

Visually, control your body. Adopt a stable, confident position; move only when you have a positive reason to do so (for example, move closer to the audience for taking questions), not when your body seems to ask for it. When you make a gesture, make it large and deliberate; between gestures, bring your hands down and do not fidget. Establish eye contact: Engage the audience by looking them straight in the eyes.

At all times, make sure you address the audience. Even if you have slides, tell the audience your story in a stand-alone way; do not just explain your slides. In particular, anticipate your slides. You should know at all times what your next slide is about so you can insert an appropriate transition.

As a non-native speaker or when speaking in front of a non-native audience, consider supporting your presentation with slides. Effective slides get the message across on their own, so if attendees do not understand what you are saying, they can still get your point from your slides. If your spoken English is imperfect or if their understanding of English is limited, attendees are more likely to get the point from the slides (verbal statements, illustrated visually) than from your spoken text. If you have a strong accent or are prone to mispronounce key terms, you may want to include these terms on your slides, integrating them as naturally as possible with the rest of the slide content. Then, as you say a term for the first time, you might point to it casually on the slide so the audience makes the connection between the term and how you say it.

**3) Watch two versions of the video.** As you watch, make notes on Dr Linden’s presentation. Use this checklist to help you.

|  |  |  |
| --- | --- | --- |
|  | **Version 1**  | **Version 2** |
| eye- contact | …………………………. | …………………………………. |
| gestures and postures |  |  |
| intonation |  |  |
| use of pauses |  |  |
| pace |  |  |

**4) What are the differences between written and spoken language?** Divide the statements into two groups.

*long sentences simpler arguments personal style*

 *complex vocabulary shorter sentences*

*impersonal style complex arguments simpler vocabulary*

**Using visuals**

**1. Discuss:**

a) Why are visuals used in scientific papers and presentations?

b) What visuals do people in your field commonly use to show data? Why?

**2. The rules for using slides: Match the beginnings and endings of the sentences about setting data in tables and charts. What is the best advice?**

|  |  |
| --- | --- |
| 1 Tables, graphs, etc. are necessary | a be consistent with them. |
| 2 Visual summaries allow | b reduced in size in a paper. |
| 3 Deciding how to present data visually makes you | c show trends; tables to show exact numbers. |
| 4 Visuals need to be clear even when | d the reader to check the data for themselves. |
| 5 Graphs should be used to | e think carefully about what your results mean. |
| 6 Too much information in a visual | f to avoid filling up the text with lists of numbers. |
| 7 Use standard symbols and | g will confuse the reader. |

**3. Introducing visuals – complete the missing words.**

*attention aspects Illustrate glance see take appreciate refers*

* OK. Let’s 1)…………. a look at …..
* The first / second / next / final slide is …..
* This shows / illustrates / demonstrates / 2)……… to …..
* As you can 3)………… from these figures...
* Let's have a look at this model...
* To 4)………….. my point let’s look at some diagrams...
* If you look at this bar chart you'll notice...
* If you look at this histogram you'll 5)………………...
* If you look at this flow chart you'll understand ...
* I’d like to draw your 6)……………… to …..
* One of the most important 7)………………. of this is …..
* At first 8)………….. it seems ….. but …..

**4. Writing captions for figures** *Every visual in a scientific paper should have a caption. The caption is a short text which tells the reader/listener what the visual is showing.*

1. Should the caption appear above or below the visual it describes? Why?

2. What kind of information should the caption include?

Captions often begin with a noun phrase which tells the reader what the visual shows. Rewrite these captions to make noun phrases. (what you say x what you write in your slide)

a) The table compares the physical and chemical characteristics of the hydrothermal fluids.

b) The chart depicts how many students in class speak both English and Spanish.

c) This table lists the names of people who have seen the Loch Ness monster.

d) The picture illustrates the way in which functions can be categorized.

e) The pie chart shows how the percentage of the expenditure incurred is distributed.

**5. Watch the extract from a TED talk and comment on the way in which the presenter uses visuals.**  <https://www.ted.com/talks/hans_rosling_global_population_growth_box_by_box>

**6. Listening – Differential equations** <https://www.youtube.com/watch?v=p_di4Zn4wz4> (0.40 – 2:10) Fill in the missing words.

a) Differential equations arise whenever it is easier to describe ……………….. than ………………………….

b) In Newtonian mechanics, motion is described in terms of …………., and it determines ……………….

c) ODEs involve functions with a ……………………….. and PDEs deal with functions with …………………….

d) You think of PDEs as involving a …………………………… of values changing with time.

e) ODEs involve only a ……………………………………………………………….of values changing with time.

f) The ………………………………………………………………………………., however, does not have to be time.

### **7. Introduction to Differential Equations www.maths.duke.edu/ode**

#### The spread of a rumor

Suppose two students at your school start a rumor. How could we describe the spread of the rumor throughout the school population? Could we determine a function **S** such that **S(t)** approximates the number of people that know the rumor at a time arbitrary time **t,** where **t** is measured in, say, hours?

We'll begin by trying to decide what the graph of **S** might look like. Assume that **M** is the population of your school, and that **M** is sufficiently large that it makes sense to model discrete numbers of students with a continuous function. Thus, if **S(3) = 127.8**, we'll predict that the number of students who know the rumor after **3** hours is approximately **128**.

1. Study the six graphs below. For each graph, decide whether or not it could be the graph of the function **S**. In each case, give the reasons for your decision.

**Possible Graphs of S**

1. Describe three conditions that **dS/dt**, the rate of spread of the rumor, should satisfy. Keep in mind that we are describing the rate of change of the number of students who know the rumor. Suppose for example, that you know the number of "rumor-aware" students at two o'clock. What factors might determine the number of rumor-aware students at three o'clock? Consider the nature of the rumor itself, conditions at your school, and at least one condition that changes as the rumor spreads.

a)

b)

c)

**8. Word formation.** Use the word in brackets in its correct form.

1. A ­­­­­­­­­surface chart is useful when you want to find optimum \_\_\_\_\_\_\_\_\_\_\_ (combine) between two sets of data. As in a topographic map, colours and patterns indicate areas that are in the same range of \_\_\_\_\_\_\_\_\_ (evaluate).
2. Pie charts show the size of items in one data series, proportional to the sum of the items. The data points in this type of chart are displayed as a \_\_\_\_\_\_\_\_\_ (per cent) of the whole chart.
3. Area charts \_\_\_\_\_\_\_\_\_\_ (emphasis) the magnitude of change over time and can be used to draw attention to the total value across a trend.
4. Column charts are useful for showing data changes over a period of time or for illustrating \_\_\_\_\_\_\_\_\_ (compare) among items.
5. You could use a stock chart to indicate the \_\_\_\_\_\_\_\_\_\_ (fluctuate) of daily or annual temperatures.
6. Like a pie chart, a doughnut chart shows the \_\_\_\_\_\_\_\_\_\_\_\_\_ (relate) of parts to a whole, but it can contain more than one data series.
7. A bar chart is a \_\_\_\_\_\_\_\_\_ (graph) method of displaying several data series in the form of a two-dimensional chart of three or more quantitative \_\_\_\_\_\_\_\_\_\_\_\_ (vary) represented on axes starting from the same point.