

**202 – 2nd Year Scientific Communication
Semester Two, 2020 – 2021**

Compiled by Helen Ng and the PE team

202 – Scientific Communication

Objective: to review and further develop both written and oral transversal communication skills by completing the following four assignments:

Assignment 1: Scientific Group Presentation

Assignment 2: Scientific Report – Literature Review

Assignment 3: Cambridge Linguaskill Business Preparation

Assignment 4: Professional Interaction

Calendar

Week no.	Week beginning	Monday (SN)	Tuesday (MFEE)	Wednesday (3EA)
4	Mon. 25/01	Introduction	Introduction	Introduction
5	Mon. 01/02	Presentation training 1	Presentation training 1	Presentation training 1
6	Mon. 08/02	Presentation training 2	Presentation training 2	Presentation training 2
7	Mon. 15/02	CMS (no PE classes)	CMS (no PE classes)	CMS (no PE classes)
8	Mon. 22/02	Cambridge Linguaskill Business Exam Preparation	Cambridge Linguaskill Business Exam Preparation	Cambridge Linguaskill Business Exam Preparation
9	Mon. 01/03	Job interview practice	Job interview practice	Job interview practice
10	Mon. 08/03	Ski Week		
11	Mon. 15/03	CLM Evaluation during class (No PE)	CLM Evaluation during class (No PE)	CLM Evaluation during class (No PE)
12	Mon. 22/03	Presentation training 3 Scientific Presentation 1	Presentation training 3 Scientific Presentation 1	Presentation training 3
13	Mon. 29/03	Scientific Presentation 2 & Mind map presentation	Scientific Presentation 2 & Mind map presentation	Scientific Presentation 1 & Mind map presentation
14	Mon. 05/04	Easter Monday	CMS (no PE classes)	CMS (no PE classes)
15	Mon. 12/04	CMS (no PE classes)	Scientific Presentation 3 & 4	Scientific Presentation 2 & 3
16	Mon. 19/04	Holidays		
17	Mon. 26/04	Holidays		
18	Mon. 03/05	Scientific Presentation 3 & 4 Literature Review draft completed	Scientific Presentation 5 & 6 Literature Review draft completed	Scientific Presentation 4 & 5 Literature Review draft completed
19	Mon. 10/05	Scientific Presentation 5 & 6 Lit. Review due on 16/05	No PE class Lit. Review due on 16/05	Scientific Presentation 6 & 7 Lit. Review due on 16/05
20	Mon. 17/05	Scientific Presentation 7 & 8	Scientific Presentation 7 & 8	Scientific Presentation 8 & 9
21	Mon. 24/05	Pentecost	Scientific Presentation 9 & 10	CMS (no PE classes)
22	Mon. 31/05	Scientific Presentation 9 & 10		

Professional English 202- Overview of Assignments

	Assignments	Description
1	Scientific/Technical Group Presentation	<p>In pairs, students will organize a presentation each week over five weeks.</p> <p>Students should send an email invitation to their classmates and instructor, including 10 items of useful vocabulary and expressions four days before giving their presentation.</p>
2	Literature Review	<p>Students will write a Literature Review on a scientific or technical topic of their choice. The final report should show extensive research of English-language academic publications. This report must be 800-850 words long.</p> <p>Read 5 or more English academic publications – before the end of March Mind map presentation: March 29th - 31st Due Date: Friday, May 16th</p>
3	Exam Preparation - Cambridge Linguaskill Business (non-graded)	<p>Students will take a mock Cambridge Linguaskill Business exam to monitor their level in listening and reading skills.</p> <p>Your exam preparation requires continuous self-studying from January to June, 2021.</p>
4	Professional Interaction	<p>Based on general attitude and on-going performance in class and toward assignments.</p> <p>Professionalism: attendance, punctuality, participation, preparation, assignments submitted on time and effective group work.</p>

How is your Scientific English?

Self-Evaluation Task: Fill in the gaps in the sentences according to the definitions given at the end of the sentence. **You cannot use the dictionary / other resources.**
You have 20 minutes. (35 questions)

A) Measurements

Example: (The first two letters are given.)

How de is the Pacific Ocean? (distance from the surface to the bottom)

→ How **deep** is the Pacific Ocean?

1. In 1841, Sir George Everest, a colonial official, recorded the location and the he..... of the most famous mountain in the world. (altitude)
2. GIS (geographic information systems) are designed to process massive am..... of data. (quantities)
3. The hearing ra..... of bats is enormous; it goes from 50 to 100,000 cycles. (from the lowest to the highest limit, extent)
4. It is said that Galileo dropped objects from the leaning tower of Pisa to prove that the speed of fall is not proportional to we..... . (a force measured in kg)
5. Colonial power depended on navigation. In 1714, the British Parliament offered a prize of £20,000 to the first man to develop an ac..... marine chronometer. (exact, precise)

B) Frequency

1. Under stress, the heart b..... faster. (pulsates)
2. Over the past 100,000 years, the polar ice sheets have advanced or retreated depending on periodic sw..... in the climate. (variations, oscillations)
3. The famous 19th century millionaire, Carnegie, emigrated to the US from Scotland and began work in a factory for \$1.20 p..... week. (each)
4. There will be a re..... of epidemics as soon as natural immunisation dies out. (they will happen again, repeated incidence)
5. The Ebola virus produces a mortality r..... which can be as high as 88% in human beings. (a measure of frequency)

C) Comparison

1. In the early 1970s, b..... the American and Russian space agencies began exploring the possibility of long-term habitation in space. (the two of them)
2. The upper salinity limit for irrigation is l..... than 15% of the salt content of seawater. (≠ more)
3. Fever has a useful medical function; it not only increases the metabolic rate, but the ho..... environment facilitates the destruction of pathogens. (higher temperature)
4. Un..... true organisms, viruses are unable to synthesise proteins because they lack ribosome. (as opposed to; not similar)
5. Many of the drugs prescribed for human therapy are the s.....those used for farm animals. (identical – 2 words)
6. Chemicals can be added to vary the properties of the glass. For example, the addition of lead oxide en..... the refractive index. (makes better)
7. Fleming noticed that a penicillin solution prevented the sp..... of bacteria. (growth, proliferation)

D) Linking words

1. A new technique, the infra-red camera, means that dust surrounding new stars can be penetrated.
A) thus B) namely C) besides D) for instance
2. Computers can process data extremely fast. this, they have several serious drawbacks.
A) in spite of B) whereas C) however D) moreover
3. The data is stored on hard disk, it is easily accessible.
A) actually B) whereas C) e.g. D) hence
4. Applicants for the job should speak at least one other European language French.
A) obviously B) besides C) moreover D) actually

E) Cause and Consequence

1. A superficial interpretation of statistics may le..... to erroneous conclusions.
(have as a consequence)
2. The airports are being enlarged, th..... we can expect an increase in the tourist industry. (consequently)
3. D..... rising temperatures, the average thickness of polar ice is only half as much as it was 10 years ago. (because of – 2 words)
4. New data supplied by the human genome project is going to sp.....k a revolution in medical research. (cause, start)
5. In statistics, when the number of possible ou..... is 0, it indicates that an event will never occur. (consequences, results)
6. The accident re..... two deaths from multiple organ failure. (had as a consequence, 2 words)
7. Lake Geneva is becoming severely deoxygenated during the summer months ow.... the hydroelectric dams built in the upper Rhone. (because of – 2 words)

F) Purpose and Process

1. As far as public transport is concerned, the ta is to extend the tram network by 25 km within the next 6 years. (goal, objective)
2. The infection causes an inflammation which blocks the artery s..... blood to the appendix. (providing, feeding)
3. To survive on land, reptiles had to develop a skin which was relatively impermeable to water s... t... prevent desiccation. (in order to – 3 words)
4. The a..... of the Government's population policy is to bring about a fundamental change in the demographic pattern. (the objective)
5. It was Canadian scientists who first proposed and de..... the experiment. (made the plan)
6. A complete survey of the surface of the Earth has been carried out b... me.... high-resolution satellite photography. (using, thanks to – 3 words)
7. The escape velocity, which is 40,250 kph, en..... a rocket to overcome the Earth's gravitational pull. (permits)

Score out of 35:

Assignment 1 - Scientific/Technical Presentation (in pairs)

Objective: to further develop and improve professional communication skills including:

- teamwork
- presentation skills
- reading & analytical skills
- evaluation of sources
- professionalism
- autonomy
- scientific vocabulary
- developing research skills
- keeping audience interested
- presenting to non-specialists

Presentation guidelines:

- a) In pairs, choose a **scientific or technical topic**. This could be something that you already specialize in or something that you would like to know more about.
- b) **Research** your topic, being careful to evaluate the reliability of your sources. Keep track of your sources for your bibliography.
- c) **Plan** and structure your presentation. Include an appropriate introduction and conclusion.
- d) Prepare your **visuals**. Include **graphs, diagrams/numerical data**.
*Remember to **cite the source of your images**. Using an image that does not belong to you without citation or attribution is not acceptable in a professional context.
- e) Create **two discussion questions** that your classmates will work on after your presentation. These should lead your classmates to critically think about the topic.
- f) **Practice, practice, practice**. Consider your use of **body language** and **vocal techniques**. Review guidelines for presenting on Zoom. (page 15-18)
- g) **Invitation** – send an invitation, agenda, and 10 items of vocabulary (with English definitions) to your instructor and your classmates **four days in advance**. The attendees will read the documents and prepare for the in-class discussion.
- h) Your presentation should last **20 minutes** max. There will be 10 minutes of question-and-answer period following the presentation.

Evaluation: Students will be evaluated **INDIVIDUALLY** based on preparation, professionalism, quality of English and presentation / communication skills.
See individual feedback sheet, page 31.

Your class instructor will give you the presentation date for your group.

Active listening:

*Students in the audience are expected to learn the vocabulary they receive, to prepare questions and to **participate in a discussion** on the topic using relevant vocabulary words. Your professionalism during the presentations and discussions will be observed.*



Presentation Tasks

Task 1

Read one of the following articles from **Engine** Magazine. Give a 5-minute oral summary of this article to your classmates using the presentation phrases listed on page 11-12. You will need to cover the main content of the article and structure your presentation appropriately (Intro-Body-Conclusion). Expect questions from your audience members.

Engine (December 2019 issue)

<http://moodle-n7.inp-toulouse.fr/course/view.php?id=1052>

- p.13 A brief history of CNC (Computer Numerical Control) machines
- p.22 Smart Cities
- p.16 Lilium Jet - Electric air taxi
- p.38 Attracting promising start ups in Europe
- p.41 Dendrochronological analyses of paintings (tree-ring dating)
- p.45 Structuring work – current trends
- p.61 What did Sir Isaac Newton discover?

Task 2

Read one English-language academic article each week and tell your classmates about what you learned in a 5-minute presentation. The material could be from a peer-reviewed journal, a book chapter, or a scientific/technical TED talk. The presentation phrases listed on the next page. Expect questions from your audience members.

Books on engineering-related themes recommended by the N7 librarians:

<https://bibliotech.inp-toulouse.fr/fr/bibliotheques/enseeiht/etageres-scholarvox.html>

Filter: Language - English

Task 3 - Your new love for ____

Choose a scientific or technical field/problem/phenomenon/product that you are indifferent about, and speak about it enthusiastically for 3 minutes. Use your voice, emphasis, and body language to convey your newfound love for this topic. If you can make this topic sound exciting, then you have what it takes to passionately talk about what you are **really** interested in.

Task 4 - Three Minute Thesis

Give your own "Three Minute Thesis" on a scientific/technical project that you are working on or a scientific field that you are passionate about. See example videos on page 10.

Task 5 - Break your own news in engineering

Tell your classmates about the latest news in the field of your studies / specialization using the template on breakyourownnews.com. Your presentation must be 5 minutes long and include the use of presentation phrases. Download the image and "share" your screen when you present. Expect questions from your audience members. <https://breakyourownnews.com>

Task 6 - Break your own news in engineering [future edition!]

Imagine telling your classmates about breaking news in the field of your studies / specialization in year **2070** using the template on breakyourownnews.com. Your presentation must be 5 minutes long and include the use of presentation phrases. Download the image and "share" your screen when you present. Expect questions from your surprised audience members!

Task 7 - Presentation improv

Your teacher will give you a series of 5 or 6 images on presentation slides. Your job is to create a coherent and engaging presentation using these images AND appropriate presentation phrases.

Variation: Mix the slides at a random order and play **Presentation Roulette**

Task 8 - Tell a Photo Story

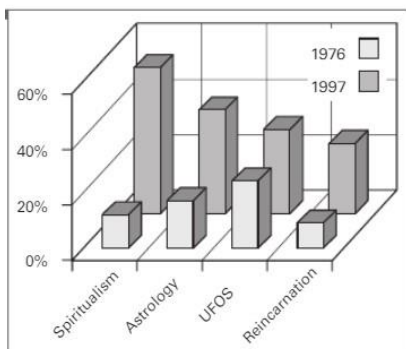
Practice your storytelling skills, which proves to be one of the best ways to engage an audience and help them retain the information you're sharing. Your teacher will show you an intriguing photo and have you prepare a 2-minute compelling story based on this photo.

Extra challenge: link this story to a scientific/technical topic. End your story with this sentence: "This story illustrates..."

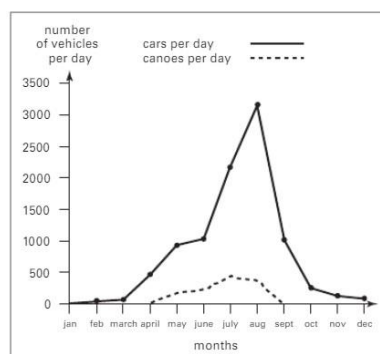
Task 9 - Battle of the graphs

Create a scenario that might reflect the data captured in each of the graphs below. Describe the graph in detail using the functional phrases listed on page 12. Compete to have the most (entertaining / inspiring/ optimistic/ pessimistic/ currently relevant) graph description.

1)



2)



3)

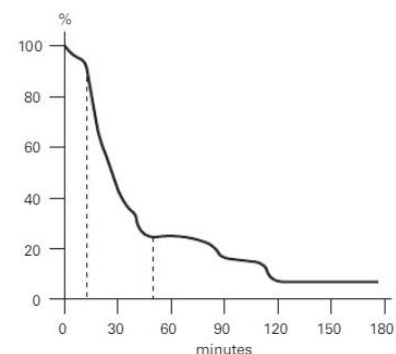




Photo by [Rita Morais](#) on [Unsplash](#)

What the leading experts say about giving presentations:

1) TED's secret to great public speaking

https://www.ted.com/talks/chris_anderson_ted_s_secret_to_great_public_speaking

2) Start with why, Simon Sinek <https://www.youtube.com/watch?v=IPYeCltXpxw>

3) 5 things every presenter should know about people

<https://www.brainpickings.org/2012/06/20/things-every-presenter-should-know-about-people-susan-weinschenk>

4) How to start your presentation – 4 step formula

<https://www.youtube.com/watch?v=aGEftRwPhE4>

5) How to open and close a talk - <https://www.youtube.com/watch?v=Nk44-1uPUjI>

(excellent demonstration of good pace and use of voice)

6) Presenting complex scientific ideas to a general audience "Talk Nerdy to Me"

https://www.ted.com/talks/melissa_marshall_talk_nerdy_to_me

7) Use body language to rock your next presentation

<https://www.youtube.com/watch?v=pp4YlyXjcKI>

8) How to avoid "Death by Powerpoint" <https://www.youtube.com/watch?v=Iwpi1Lm6dFo>

9) How to make slides that communicate your idea <https://blog.ted.com/10-tips-for-better-slide-decks/>

10) Examples of "Three Minute Thesis" presentations from PhD students

<https://vimeo.com/showcase/4768396/video/233777264> "Drones – gone with the wind"

<https://vimeo.com/showcase/7624763/video/464057234> "Moon to Mars and beyond"

<https://vimeo.com/460848324> "Teaching robots by showing, not by programming"

<https://threeminutethesis.uq.edu.au/3mt-wildcard-showcase>

11) Attributing the source of your images

Start here: Basics on copyright licenses - <https://www.youtube.com/watch?v=uhgihySJyHk>

Finding Creative Commons images - <https://www.youtube.com/watch?v=c0SCeiKTwZk>

Citing Creative Commons images on Google - <https://www.youtube.com/watch?v=KgI5AsdBQng>

Presentation Language

Signposting enables the audience to know what to expect next instead of being lost in a lot of complex information. It is especially important when presenting in a group so that you have a strong and smooth transition between presenters.

Fill in the functions of the following phrases with the answers below:

starting first point giving examples	organizing new speaker giving thanks	taking transition referring back	showing summarizing story	purpose analyzing
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	Function	Phrases
1	_____ the presentation	Good morning/Good afternoon ladies and gentlemen • The topic of my presentation today is ... • I'm going to talk about ...
2	Linking a _____ to the topic	• I tell that story because... • This story illustrates...
3	Giving the _____ of the presentation	• The purpose of this presentation is ◇ to show you... ◇ to illustrate... ◇ to examine... • The main goal today is to ... • This is important because ...
4	_____ the presentation	My presentation/talk is divided into three parts/sections... ◇ Firstly / first of all ... ◇ Secondly, ◇ Next / then I'll go on to ... ◇ Finally ... we're going to look at ...
5	Introducing the _____	• Let's start / begin with ... • I'd like to begin by...
6	_____ graphics, tables, slides, etc.	• I'd like to illustrate this by showing you ... • I'd like to draw your attention to... • As you can see...
7	_____ to the next point	• Now let's move on to ... / let's look at ... • This brings us to the next topic, which is ... • Let's now turn our attention to ... • The next important element is...

8	** for group presentations** Introducing ____	<ul style="list-style-type: none"> • Now Anne is going to tell you about... • Now I will pass you over to my colleague / classmate, Tom, to talk about... • I've shown you ... now Tom will discuss...
9	_____	<ul style="list-style-type: none"> • Let me illustrate this by ... • An example of this is ... • Take the case of ...
10	_____ a point	<ul style="list-style-type: none"> • Where does that lead us? What does this mean for us? • Let's consider this in more detail. • The significance of this is... /It illustrates the importance of...
11	Engaging the audience	<ul style="list-style-type: none"> • You are certainly aware... • As you know...
12	_____ to an earlier point	<ul style="list-style-type: none"> • This relates to what I was saying earlier about... • As ____ mentioned, ...
13	_____ the main points	<ul style="list-style-type: none"> • To sum up / to summarize • In conclusion... / To conclude... • I'd like to finish with... / To put it simply ...
14	Ending and _____	<ul style="list-style-type: none"> • That concludes my presentation. • I'd like to thank you for your time and attention.
15	_____ questions	<ul style="list-style-type: none"> • If anyone has any questions, I'd be happy to open up the discussion. • I'm happy to answer any questions that you might have.

Presenting graphs and tables

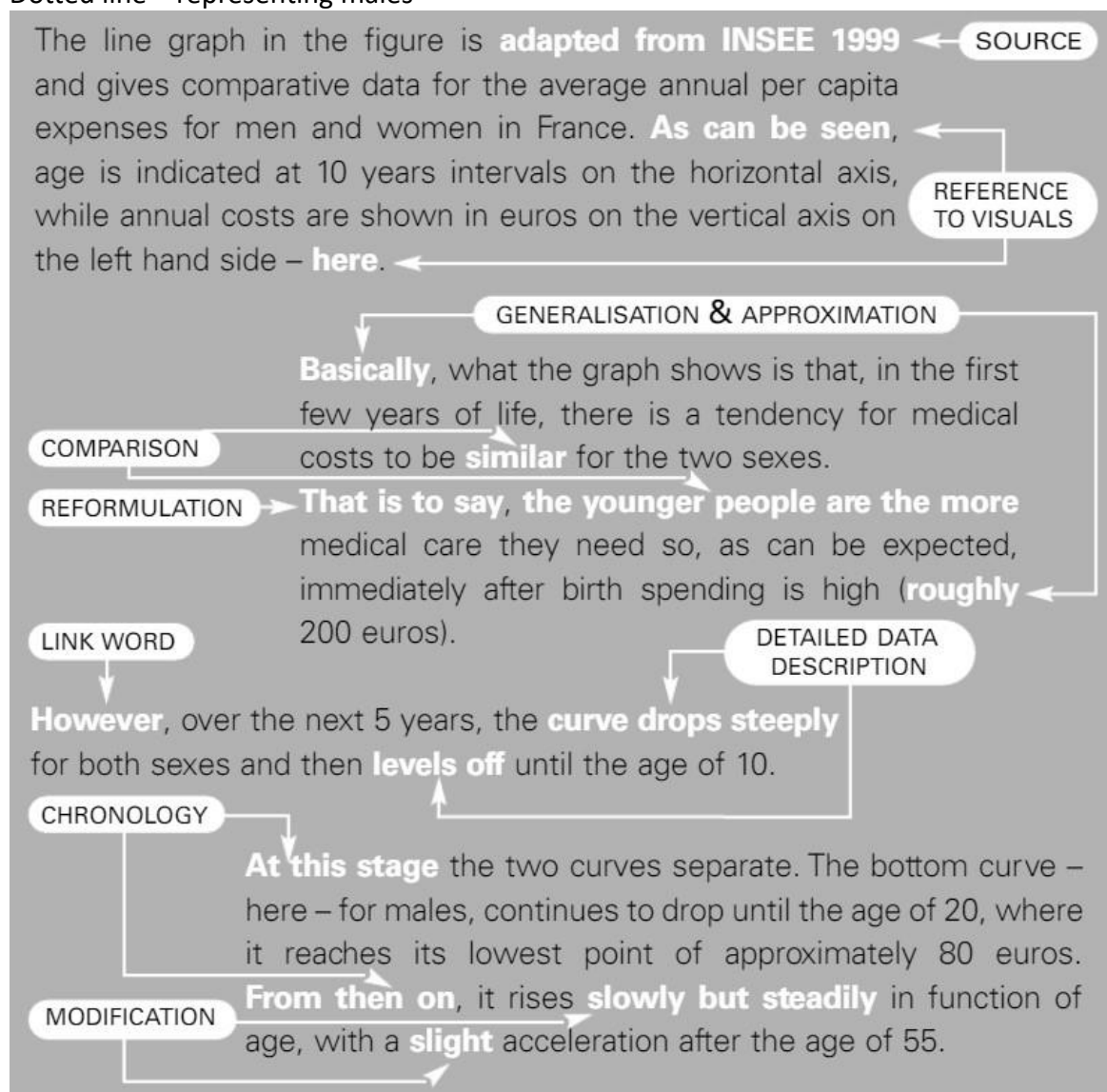
Task 1:

Below is a description of a line graph. Read the description and try to draw the graph. Compare your graph with your partner's work.

***Note: there are 2 lines**

Solid line – representing females

Dotted line – representing males



Source: Minimum Competence in Scientific English, Blattes, Jans & Upjohn. (2013)

Answer – see graph on p. 20

Task 2: Fill in the blanks with the following prepositions:

by / within / between / for / and

Visual Aid	Topic	Circumstances
This graph shows ...	the results of our products ...	over 10 years.
The diagram outlines ...	rates of economic growth ...	_____ 2018 _____ 2020.
This table lists ...	the top ten corporations...	in the industrial world.
This pie chart represents	the company's turnover ...	_____ this year in our sector.
This line chart depicts ...	the impact of air pollution ...	_____ year 2030.
This chart breaks down ...	the sales of each device...	_____ the past 48 hours.

Task 3: Use the above phrases to do task 9 (Battle of the graphs) on page 9**7. REFERRING TO VISUALS**

- ▶ As you can see • Here, on the bottom left hand corner • This can be seen over here in the second column ...
- ▶ This curve illustrates • The table illustrates • The pie chart shows • The figure • Diagram • Dotted line • Shaded area • The largest sector ...

8. DESCRIBING A CURVE

- ▶ **Rising** – The curve rises / increases / goes up / attains a peak ...
- ▶ **Falling** – The temperatures drops / goes down / decreases / declines / reaches a low point ...
- ▶ **Stability** – It levels off / reaches a plateau / stagnates / remains stable ...
- ▶ **Modification** – A sharp / steep / significant / considerable / unexpected / gradual ... fall • It declines steadily / abruptly / dramatically / unexpectedly ... with minor fluctuations ...

9. PATTERNS AND TENDENCIES

- ▶ A general trend • A growing tendency • A slow but steady increase • A clear pattern • An overall improvement • A swing ...
- ▶ The richer people are, the more energy they consume ...

Sources:
<http://www.lyc-lapie-courbevoie.ac-versailles.fr/>

Minimum Competence in Scientific English, Blattes, Jans & Upjohn. (2013)

Zoom Presentation Tips to Ace Your Next Online Presentation

Written by Mahnoor Sheikh and Abridged from <https://visme.co/blog/zoom-presentation/> on 17/01/2021

Now that more people are working from home, online presentations using tools like Zoom have started to become the norm. But giving a Zoom presentation is very different from presenting in person. The lack of physical presence and body language can make it difficult to engage and inspire your audience.

Getting ready for your Zoom presentation is just as important as giving the actual presentation. By preparing well, you ensure your presentation is as smooth and error-free as possible. After all, you only get one chance to make a great first impression.

1. Design a Great Online Presentation

The first thing you need to do is make sure your presentation is designed to look its best on your audiences' tiny computer screens.

- Keep it simple.

The best online presentations are simple and straightforward.

You don't want your audience to be squinting at their screens trying to navigate through a tangled web of text, colours, graphs and other content. You need them to look at a slide and get the point at a single glance.

Use a plain background for your slides, preferably white, and focus each slide on only one point or idea. Don't stuff too many bullet points or text into your slides. Also, make sure you centre your text in case the edges of the slides are cut off for some of the participants. Lastly, use a large and bold font that doesn't require participants to strain their eyes, even if they're viewing your slides on their phone.

- Use relevant visuals

Visuals make information much easier to digest and retain than plain text. And let's face it—they keep things entertaining.

Here are some types of visuals you can use to make your Zoom presentation more engaging:

- **Charts and graphs.** Visualizing data can bring the most boring numbers and statistics to life. If you're using research findings to show a trend or back up your point, consider presenting them in the form of a bar graph or pie chart. Not only will it add some colour to your slides, it will make it easier for your audience to interpret the data.
- **Maps.** If you're presenting geographic data, you can easily visualize it in the form of maps.
- **Icons and illustrations.** Adding creative graphics like icons and illustrations can break up walls of text, make your information look more visual and interesting, and help explain your point better.
- **Videos.** Adding videos into your slides is a great way to make your presentation more engaging. Videos can help you explain a point more clearly, show a product in action or give some background information on your subject. You can embed YouTube or Vimeo videos into your slides or upload them directly.
- **Stock photos.** If used intelligently, stock photos can add value to your slides by helping you set the tone, tell a story or visualize an idea. You can also use relevant stock photos in the background with text overlay to add some colour to your slides.

- **GIFs and Memes.** Make your online presentations fun and engaging by adding relevant memes and GIFs into slides that would otherwise look quite dry. Be careful not to overdo it, and only use humour if appropriate. You don't want to risk looking unprofessional.

Using visuals in your online presentation is great, but this doesn't mean you should stuff all your slides with images. Make sure the visuals you're using add value to your content and emphasize your point instead of taking attention away from it.

- Make it interactive

It can be tough to keep your audience engaged when you're not interacting with them face-to-face. So, why not do the next best thing? Make your slides interactive! A healthy dose of interactivity can make your audience feel more involved with your Zoom presentation – here are some examples:

- **Animation.** Add beautiful slide transitions, or animate objects separately. A good tip is to animate bullet points to appear one at a time to draw focus to each one. You can also choose from pre-animated illustrations, icons and characters to make your Zoom presentation more engaging.
- **Links.** You can link any text or graphic element to a web page, or a slide or object inside your presentation. Get creative with this tool to add interactive quizzes (Quizlet, Kahoot, etc.), slides and more to your Zoom presentation.

2. Tidy Up Your Background

If you want your audience to take you seriously, clean up any clutter behind you. A messy background can make you look unprofessional and distract people from focusing on your presentation. Ideally, your background should be a plain wall. If you can't manage to find a clean, empty background, consider using a virtual Zoom background. There are tons of different styles out there, so make sure to pick one that looks realistic and professional.

3. Draw Attention to Your Face

An online presentation can quickly start to feel distant and impersonal, like watching a pre-recorded video. To remind your audience that they're interacting with a real human, you need to draw focus to your face and expressions as you present. Make sure you're presenting in a well-lit room, where the source of light is in front of you. If the light source is directly behind you, you might end up looking like a dark blob.

4. Check Your Equipment

Make sure you check all your technical equipment to see if everything is working properly. This will help minimize issues like awkward camera angles or a malfunctioning microphone. Here are a few things you should take care of before your presentation:

- **Check internet connection.** No one wants to listen to a presenter with laggy audio and video. Use a reliable, high-speed internet connection to ensure a smooth Zoom presentation.
- **Test audio and video.** Check if your camera and microphone are working properly by joining a 'Zoom test meeting'. You can also test out your equipment from inside the Zoom app by clicking on **Settings → Audio** or **Settings → Video**.
- **Ensure your laptop is plugged in.** Imagine if your laptop dies out in the middle of your presentation just because you didn't plug it in properly. Don't let that happen.

- **Adjust your camera level.** Make sure your audience is looking at your face instead of the top of your head. Decide whether you want to sit or stand during your presentation, and adjust the webcam so it's at eye level.

Keep in mind that technical issues can arise unexpectedly, even if you do everything right. Doing tech prep beforehand, though, keeps the chances at a minimum.

5. Minimize Potential Interruptions

Whether you're giving your Zoom presentation at home or in a nearby cafe, there are tons of potential interruptions that can disrupt your flow and make you look unprofessional. During your prep, your goal should be to minimize these interruptions as much as possible. Find a quiet area to begin with, and lock the door so no one comes in unexpectedly.

Another tip is to close all other open applications and windows on your computer. Notifications and sounds can interrupt your meeting and distract you. You can also use the "Do Not Disturb" mode on MacOS or "Focus Assist" on Windows 10 to mute notifications.

6. Stick Your Notes in the Right Place

Just like when you're presenting in person, you'd likely want to keep notes or pointers nearby in case you forget something important. During a Zoom presentation, though, you need to **be careful about where you place your notes**. It can look very unprofessional and awkward if your eyes keep moving away from the camera when everyone is staring at your face. Avoid keeping a notepad next to you or pasting them on the side of your monitor. A better alternative is to stick a post-it right below or next to your webcam. So, even if you take a peek, you will still be looking somewhat directly at your audience.

7. Rehearse Before the Presentation

Never walk into a presentation unprepared. This is especially important for Zoom presentations, as it can be even more difficult to wing it when you're not interacting in person. Plus, rehearsing is a good idea if you want to overcome the fear of being on camera. Do a demo Zoom meeting with a friend or family member, or just practice alone before the presentation.

Delivering Your Zoom Presentation

Now that you're all prepped up to give your Zoom presentation, here are some tips to help you make the most of your time while you're presenting.

1. Start With a Bang

Did you know that people take as little as five seconds to judge how charismatic a speaker is? Figuring out how to start your presentation is one of the most important parts of your Zoom presentation. It can either get your audience to sit up in their seats or prepare to doze off.

- **Reveal a shocking statistic.** A relevant and powerful statistic can set the tone for your presentation and show your audience the importance of your message.
- **Tell a relevant joke.** Humor is a great way to break the ice and keep your audience engaged. A boring presentation can quickly cause the listener to zone out.
- **Ask a question.** Get your audience involved by asking them a question relevant to your presentation topic. The more you interact with them, the more likely they'll be to listen to what you're saying.
- **Quote an influential person.** A powerful quote can often motivate or inspire your audience to sit up and listen to what you have to say.

- **Tell a short story.** Stories are personal and can evoke emotions. Telling a relatable story that also gets the audience curious to know more is a great way to start your presentation.
- **Use an interesting prop.** Using a prop can break the monotony of your presentation. Using motion and a visual object can also help attract your audience's gaze.
- **Show a captivating visual.** Pictures speak louder than words, which is why using a powerful image that tells a story or shows the importance of your topic is an effective way to start your presentation.

Along with starting impressively, you should also try to end your presentation in a way that it drives your audience to take action or think about your message. A good idea is to end with a powerful statement or a thought-provoking question.

2. Make Eye Contact with the Audience

While you're speaking, it's just as important to make eye contact with your audience as it is during a face-to-face presentation. The problem with Zoom presentations, though, is that you often end up looking at your own video or at the video of your audience. To make eye contact online, however, you need to look directly at your camera. To make things easier, you can place the video boxes of your audience at the top of your screen, directly under your webcam.

3. Regularly Pause to Engage

Online presentations can get monotonous really quickly, and it's common for people to zone out in the middle of it. If you want to ensure your message hits home, take regular breaks throughout your Zoom presentation and engage your audience in conversation. You could pause to ask them questions, or simply ask what they think about a certain topic. You could also try switching up the pace of your presentation, show a short video clip or tell an interesting or humorous story that helps bring wandering minds back.

4. Use the Chat Feature to Your Benefit

Zoom's chat feature is a great way to get your audience involved without disrupting the flow of your presentation. You can use Zoom chat to your advantage in several different ways:

- **Questions.** Ask your audience questions and let them answer through chat, or get them to ask you questions in the chat.
- **Feedback.** Let your audience know beforehand that they can leave their feedback and comments related to your presentation or topic in the chat. For example, if someone comments that they can't hear you properly you can try fixing your mic or raising your voice.

5. Record Your Presentation

The best way to improve your Zoom presentation skills is to learn from your past mistakes. Thankfully, Zoom lets you record your presentations so you can revisit them later and analyze your performance. Are you using too many hand gestures? Are you walking around too much? Are you speaking at a reasonable pace? Understanding how you did can help you do even better in the future.

You can also send your Zoom presentation recordings to a friend or family member so they can review it for you. It always helps to get the opinion of someone you trust.

How to deliver effective, empathetic presentations

"I taught my dog to whistle"

"I can't hear him whistling"

"I said I taught him. I didn't say he learned it"

(from David Minton)

Just because you've done a presentation doesn't mean you have made an impact on the audience. Too many people present without thinking it through from the audience's point of view. Did you think about what the audience wanted out of your presentation? How does it affect their lives? Why should they bother learning about this topic?



"Audience Applause for Speaker" by TEDxNickelCity, licensed with [CC BY-NC-ND 2.0](#).

From the audience's perspective, what makes a successful presentation?

List these characteristics and try to adopt them.

Checklist: Planning your presentation... the thinking model

"If I am to speak 10 minutes, I need a week for preparation; if 15 minutes, 3 days; if half an hour, 2 days; if an hour, I am ready now." Woodrow Wilson

1. Your point of view/standpoint

What's your point of view on the topic? Your standpoint is a like the *forward* in a book. It's the reason **WHY** you want to present your topic.

2. Identify the purpose/objective

What do you want the audience to retain?

"By the end of my presentation, I want the audience to understand that _____"

3. The listeners

- Who are the members of the audience and what do they do? (e.g. assessors, peers, employers)
- What is the benefit to the audience of listening to your presentation?
- What do they already know about the subject?
- What is the relationship between yourself and the audience?
- What interests your audience?

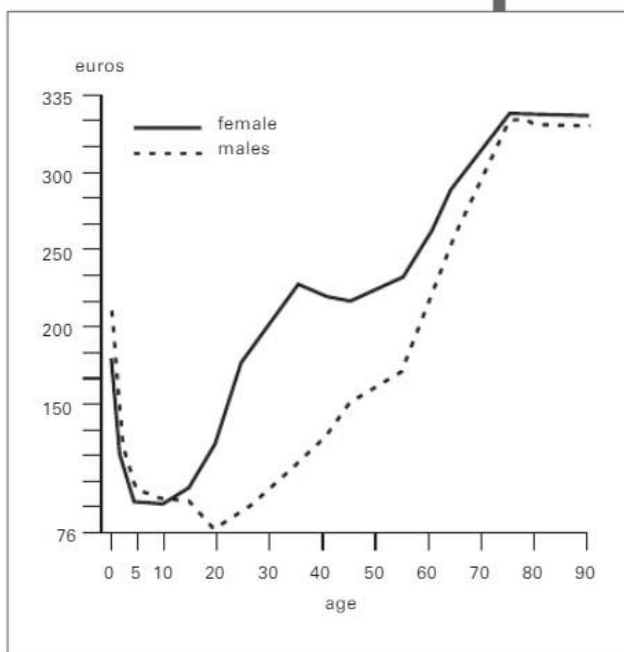
4. What is in it for them? (the listeners)

Give your audience a reason to listen. What's my point? And why does it matter to my listeners? Why should my audience care?

Use the **SUCCESS** formula recommended by Garr Reynolds in his book "Presentation Zen", to help you crystallize your ideas when developing your messages for presentations:

- **Simplicity.** What's the key point? Why does it matter?
- **Unexpectedness.** Stimulate curiosity. Make audience aware they have gap in their knowledge and then fill that gap or guide them to the answers.
- **Concreteness.** Use natural speech and give real examples.
- **Credibility.** For example use a quote from a famous person in your field.
- **Emotions.** You should make your audience "feel" something. Ex. using images can help to create an emotional connection to your idea.
- **Stores.** Get the attention of your listeners by taking them on a journey through stories, examples and illustrations so that your message will be easily remembered.

Answer for Description Task on p.13



Checklist: Planning your presentation... the writing model

1. Selecting the content

Generating and organizing your ideas: first brainstorm to generate a lot of ideas.

Then, create a mind map to begin to explore the scope of what you can cover, what you will leave out, and how your points will relate and follow on from each other.

2. Organizing the structure

Audiences need strong orientation and clear reminders of what has been covered:

Tell them what you're going to tell them



Tell them



Tell them what you told them

The Introduction:

- Tell them who you are and **why** you are giving this presentation.
- Tell them what the presentation is about and what you will be covering.
- Tell them what your objectives are.
- Tell them what's in it for them.
- Use an opening attention grabber (image, question, shocking statistic, story, etc.).

The Main Body:

- Give details of your topic in a logical, smoothly linking order.
- Use anecdotes and real examples to illustrate your points.
- Show the relevance of the content to the bigger picture.

The Conclusion:

- Summarize and highlight your main points.
- Tell them the benefits that your solution/ conclusion will bring to them.
- Tell them what you want them to do next.
- Use a closing attention grabber (image, pertinent quotes, food for thought, etc.).
- End on a high. Avoid saying "That's it!"
- Ask for questions.

Assignment 2 - Literature Review

Objectives:

To develop professional writing skills in the scientific and technical domain

To sharpen skills in summarizing and synthesizing ideas with the accurate use of grammar and vocabulary

Other skills developed:

- critical analysis and critical thinking
- autonomy
- appropriate style and register in writing
- research skills
- conciseness

Assignment:

Carry out research and analyze academic publications in order to write a literature review on a scientific or technical topic. It should be accompanied by charts or figures and an appropriate bibliography.

Your work must incorporate **a minimum of FIVE academic sources** (books, academic journals, conferences, theses, dissertations, etc). **FOUR** sources must be in English.

Websites containing peer-reviewed academic publications or conference material are acceptable.

Word limit: 800-850 words, excluding the bibliography.

Format:

- in PDF or Word format
- double spaced
- size 12 font
- with your name, group number and dept. clearly stated on it

Evaluation:

Peer-evaluation of completed draft.

Teachers evaluate and give feedback using the criteria grid on page 32.

Deadline: Sunday, May 16th (end of the day)

What is a literature review?

Complete the research task included in this link:

<https://docs.google.com/document/d/16R7WgkxTqIEDPwk2AV5h8k6P4a5eFDu0Zv7v13tsRiY/edit>

Writing your first literature review

A literature review is a summary, synthesis and critical evaluation of published research (*the literature*) relevant to a specific research question. The writer needs to analyze the literature in one or more of the following ways in order to understand what is already known about a topic:

- ✓ identify patterns and trends
- ✓ find consensus
- ✓ point out inconsistencies or controversies
- ✓ discuss strengths and weaknesses of different approaches
- ✓ highlight an overlooked aspect
- ✓ identify problems for future research

A literature review is **NOT**:

- ☹ a list of published ideas about a topic
- ☹ a group of broad, unrelated ideas
- ☹ a report containing everything that has been written on a particular topic
- ☹ several authors' work rewritten in your own words
- ☹ an argumentative essay

Organizing your literature review:

1) Introduction

- Identify the focus of the literature review
- Give a brief outline of the structure of the body paragraphs
- The introduction should end with a clear thesis statement showing the aim of the literature review

2) Body

- Develop themes, highlight key concepts, influential studies linked to your topic
- Show a synthesis of ideas gathered from your research
- Use graphs and tables if appropriate
- Use strong topic sentences at the beginning of each paragraph to clearly convey the themes to readers

3) Conclusion

- Summarise major themes covered in the body paragraphs
- Remind readers of the aim established in the thesis statement (introduction)

4) References

- List of academic sources consulted, with appropriate formatting (see reference guide from Biblio'Tech - <https://bibliotech.inp-toulouse.fr/fr/se-former/rediger-sa-bibliographie.html>)

Key Stages:

Stage	Resources	Work to submit
FOR ALL STAGES:	Moodle resource folder http://moodle-n7.inp-toulouse.fr/course/view.php?id=2566	
1. Define the topic of your literature review	See page 25	
2. Research, take notes, keep track of sources	https://bibliotech.inp-toulouse.fr/ <ul style="list-style-type: none"> – Open Access – ScholarVox for online work – “Click and Collect” service https://bibliotech.inp-toulouse.fr/fr/bibliotheques/enseeiht.html Referencing software like Zotero and Mendeley https://bibliotech.inp-toulouse.fr/fr/se-former/rediger-sa-bibliographie.html	
3. Organize and synthesize your ideas	Mind mapping tools	Presentation of Mind Map with main ideas from reviewed literature – week of March 29th
4. Consider the use of graphs and tables.	Moodle folder	
5. Write the first, second, (third) drafts.	Moodle folder - content on scientific English	
6. Editing and peer-editing	Moodle folder - content on scientific English	Submit <u>Completed Draft</u> for Peer and Teacher Review - week of May 3rd
7. Finalize bibliography	https://bibliotech.inp-toulouse.fr/fr/se-former/rediger-sa-bibliographie.html	
8. Submit work!		Submit final copy on Sunday, May 16th

How to choose a topic for your literature review:

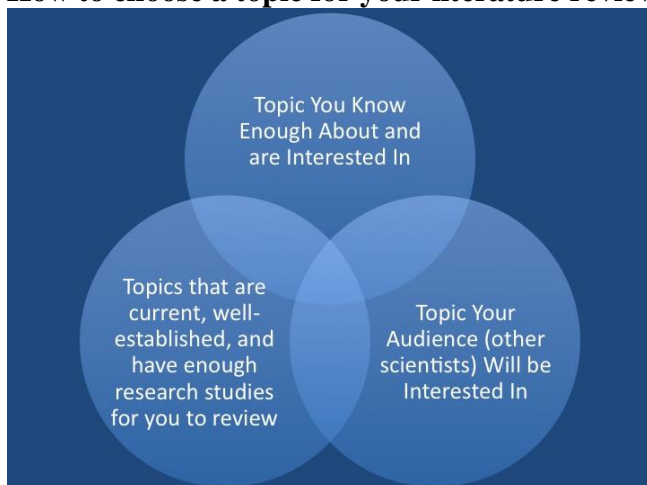


Image: University of Michigan, Research Guides – Publishing in the Sciences, licensed with [CC BY 4.0](#).

Assignment 3 - Preparation for Cambridge Linguaskill Business (CLB)

Objectives:

- To familiarise students with the format and timing of the Cambridge Linguaskill Business test
- To help students revise important grammatical structures and functions tested in the CLB exam and to help to recognise their weaknesses
- To develop students' reading & listening skills
- To develop students' exam taking techniques, methodologies and strategies

Notes on CLB in Semester 8

The official TOEIC for the 2nd year students is scheduled for **May/June 2021**.

You will find books on Cambridge Linguaskill Business exam preparation in the ENSEEIHT library.

IMPORTANT:

REGLEMENT DE SCOLARITE DE L'ENSEEIH (19 juin, 2015)

1.5. Enseignements de Langues :

« Le passage du TOEIC ou d'un autre test équivalent est obligatoire en 2ème année (cf. Article 3.7). Le financement et l'organisation du 1er passage du TOEIC seront assurés par l'école si l'étudiant a fait preuve d'un taux de présence en cours de langue LV1 et LV2 d'au moins 70% durant l'ensemble de l'année. »

Internship interview Practice

Before the day of the interview, prepare ONE of the following; You will show this document to your interviewees:

- A document showing a posting for a job or an internship in your professional domain
- A document showing the admissions requirements for a Master's or Doctorate degree in a foreign country

AND

Prepare for all five steps of 'Interview Preparation' listed below.

You will be interviewed by several 'employers' on the day of the interview. This is the last English interview simulation you will have before diving into the real job market.

Interview Preparation

1. Research the company /university
2. Know what employers are looking for
3. Anticipate interview questions and prepare answers (see questions on p.27)

Additional resources on Moodle - <http://moodle-n7.inp-toulouse.fr/course/view.php?id=977>

4. Prepare questions you have about the company and internship/job
5. Online interviews: Review guidelines for professional presence on Zoom.
(page 15-17)

Things to keep in mind for interviews

- ★ You will have less than 10 minutes to convince the interviewer you are the right person
- ★ Preparing for an interview does not mean memorizing answers. It does mean knowing what the company /university does, anticipating potential questions, and thinking about your answers
- ★ Interviewers are generally trying to find out these things about you:
 - Do you have the knowledge, skills and experience to fulfil the role?
 - Why are you interested in this position? Are you motivated to excel?
 - Do you have the necessary soft skills to work well within the organization?

Research the company or university

Spend some time finding out about the company or university. Look at the company website and talk to current or past employees or interns if you know them. This will help you understand the company's needs and work culture, and it will help you develop relevant questions to ask during the interview.

What are employers looking for?

It is important to know the skills, and abilities that are highly desired. Other than your technical skills, they include:

<ul style="list-style-type: none">• Adaptability; flexibility• Communication• Creative problem solving• Drive to achieve• Passion and enthusiasm	<ul style="list-style-type: none">• Team work and collaboration• Working with diverse groups• Trustworthiness• Interest in company• Leadership	<ul style="list-style-type: none">• Handling conflict• Initiative• Time management skills• Handling pressure
--	--	---

IMPORTANT: If you do not have a work history, you can use other experiences and projects during the interview. Some possibilities include:

- Class projects and assignments
- Sports
- Volunteering or community service
- Student leadership positions in clubs
- Tutoring

Common traditional and behavioural interview questions

***Remember that your answers need to be concise and organized in a way that helps the comprehension of the listener/employer.**

1. Tell me about yourself
2. What personal strengths would you bring to the internship?
3. What is your biggest personal challenge or weakness?
4. Where do you see yourself in five years?
5. What makes you a good candidate for this internship? Why should we choose you for this position?
6. Why do you want to work for us?
7. How would your colleagues or classmates describe you?
8. How do you think your education will help you in this position?
9. Tell us about your experience in ____ company/ association.

Describe to me a time where...

10. You faced a challenging situation and the steps you took to overcome the challenge. What was the outcome?
11. You demonstrated taking initiative in a manner that positively served your organisation. What happened? What role did you play?
12. A project didn't go as planned. How would you approach the situation differently in the future?
13. You had to handle pressure. What did you learn from it?
14. You demonstrated your leadership skills. What was the outcome?
15. You demonstrated your skills in conflict resolution.
16. You demonstrated significant creativity.

And a few surprising questions to see how well you can think on your feet!

- How would you solve problems if you were from Mars? (Amazon)
- Are you a hunter or a gatherer? (Dell)
- If you could only read one book for the rest of your life, what would it be?
- Which superpower would you like to have?

Assignment 4: Professional Interaction

Look at the following criteria and evaluate your performance this semester

Criteria

Attendance	Many unexplained absences	A few unexplained absences	No absences
	On time	Often late	Always late
Participation	Focused on task	unfocused	Spacey/dreaming
	Easily distracted	sleeping	Attentive but quiet
Language	Only speaks English	Speaks mainly in English	Sometimes uses French
	Speaks French often	dominates	Too quiet
Preparation	Well prepared for class	Unprepared for class	Minimal preparation
Team/group work	Works well with others	Good team player	Minimal cooperation
	Fails to contribute	Refuses to work in a group	
Attitude	Very professional/good	defeatist	uncooperative
	unprofessional	superior	Doesn't care

5 Must-Have Soft Skills for Engineers

adapted from an article by David Butcher 18/03/2013

Technical acumen alone is insufficient for engineering career success. “Soft skills” play an increasingly important role in differentiating STEM professionals for employment and advancement.

In the day-to-day work of engineers, soft skills are as important as technical skills. These skills, or emotional intelligence, often not learned in school, enable professionals to navigate smoothly and effectively through a wide variety of social and professional situations with a wide variety of people. Such skills include communication, cooperation, creativity, leadership, and organization.

A mid-2012 study from [Millennial Branding](#) showed that soft skills topped the list of must-haves for employers, with 98 percent saying communication skills are essential and 92 percent citing teamwork skills.

Soft Skill 1: Communication

Engineers tend to prioritize technical skills over communication skills, not realizing that they cannot be fully effective in their jobs if they are inadequate speakers, writers, and listeners.

In a recent survey conducted by the [American Society of Mechanical Engineers](#), respondents said they believe communication skills - such as business writing, technical writing, public speaking, and presentation preparation and delivery - are crucial for success as engineers work in and among more varied groups.

The interaction between stakeholders, whether it is internal in an organization or external with partners or clients, is fraught with opportunities for misunderstanding. That is why effective communication also involves listening. Without actively listening to customers, clients or project partners, problem-solving becomes much more difficult and time-consuming.

Soft Skill 2: Creativity

Creativity is arguably the driving force behind innovation and therefore increasingly seen as [the new capital](#) in uncertain and challenging economic times. Innovation thrives on breakthrough thinking, nimbleness and empowerment. Organizations often depend on big ideas and creative employees to develop innovative products and services.

“Every engineer's core mission is to try to improve the utility of things, to design products or processes that will solve problems better, faster and cheaper.” (IEEE Spectrum). It is engineers’ creative thinking which often leads to problem-solving opportunities that would otherwise remain hidden.

In engineering, creativity can be as valuable to solving a problem as the technical skills to identify and troubleshoot the source of the problem.

Soft Skill 3: Adaptability

Challenges and issues arise every workday. Having the ability to identify solutions to unforeseen problems requires being able to adjust to changes in your environment and situation.

The way professionals demonstrate their adaptability is by thinking on their feet, assessing problems, and finding solutions. The ability to develop a well-thought-out solution within a given time is a highly valued skill.

Today's tech frontier is rapidly reshaping industries, which means that organizations often must implement change internally to keep up. Here, adaptability also means a willingness to face the unexpected.

"Are you the first to complain if plans change? Do you sulk when things don't go your way?" [AOL Jobs](#) recently asked. "If that's you, think about how you can be a little less rigid. It will make you a more marketable job seeker."

Soft Skill 4: Collaboration

A 2007 study from Northwestern University used almost 20 million papers over 5 decades and 2.1 million patents to demonstrate that teams increasingly dominate solo authors in knowledge production. The days of single-inventor innovations have been replaced with team research across nearly all fields.

Whether you call it cooperation, collaboration, or teamwork, an engineer's ability to work with other people from different backgrounds is essential.

"For example, when designing a transformer for high-voltage transmission lines ... it takes more than one engineer to complete the project," says the [American Society for Training & Development](#) (ASTD). "It requires a team of engineers and other professionals -- drafters, project managers, and administrative staff -- working together and potentially interfacing with clients, regulatory agencies, subcontractors, and even public advocacy groups.

"What would be the likelihood of success if team members could not communicate? What if they could not share responsibilities and accountability in working as a team? What if there was no leadership present in the project?"

Soft Skill 5: Leadership

Leadership is not one skill but the blending of a variety of skills. By its very nature, leading people is about successfully interacting with them and convincing them to follow.

"In an engineering context, leadership incorporates a number of capabilities which are critical in order to function at a professional level," according to the [National Society of Professional Engineers](#) (NSPE). "These capabilities include the ability to assess risk and take initiative; the willingness to make decisions in the face of uncertainty; a sense of urgency and the will to deliver on time in the face of constraints or obstacles; resourcefulness and flexibility; trust and loyalty in a team setting; and the ability to relate to others."

While much of leadership is character-based, engineers can develop or hone certain leadership skills to foster personal and professional success.

"Leadership skills are also important to allow engineers later in their careers to help develop and communicate vision for the future and to help shape public policy," the NSPE continued. "These leadership capabilities are essential for the professional practice of engineering and for the protection of public health, safety and welfare.

SECOND YEAR SCIENTIFIC PRESENTATION STUDENT EVALUATION FORM

NAME: _____

TOPIC: _____

Non-verbal communication skills: body language, eye contact, posture, visual aids, correct usage and attribution of images	
Use of techniques and structure: - coherence of ideas - transition between slides and speakers - engaging the audience, asking questions, storytelling etc.	
English: - accurate use of scientific language and presentation language - pronunciation - intonation	
General overall performance: enthusiastic, convincing, engaging for the audience, showing appropriate arrangement for an online presentation	
Final mark out of 20	

SECOND YEAR SCIENTIFIC REPORT — LITERATURE REVIEW

STUDENT EVALUATION FORM

NAME: _____

TOPIC: _____

Checklist:

Language /8

Does the student...

- write with correct grammar?
- use a wide range of grammatical structures?
- use varied and appropriate vocabulary?
- write in a formal style? (no slang, no contractions, no first person pronoun "I")

Content /8

Does the literature review ...

- include a suitable and concise introduction?
- Include a conclusion summarizes the review?
- include body paragraphs that show the synthesis and analysis of ideas found in the literature?

Format /4

Does the student...

- adopt a format that is easy to read?
- include a clear and concise title?
- include appropriate headings?
- organise their work into paragraphs?
- reference their work correctly in the text?
- include a list of references at the end of the review?

Preparation and Planning

- ☐ Has the student met deadlines and objectives throughout the writing process? (e.g. production of mind map, completion of drafts)

Plagiarism

- Does the student have an acceptable plagiarism score from Compilatio?

Grades

Below 10: does not meet the minimum requirements for the task

10 : satisfactory and corresponds to the minimum requirements for the task

11 - 12: the work produced is quite good

13 - 14: the work produced is very good

15 - 16: the work produced is excellent

17 - 18: the work produced is exceptional

19 – 20: professional literature review, to be published in the next issue of **Science** or **the IEEE Engineering Journal**