

**Univerzita Tomáše Bati ve Zlíně**

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**Communication skills  
for international conferences**

**Zlín 2008**

**Recenzenti:**

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**ISBN 80-7318-508-3**

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## **Preface**

The book you have just opened is intended and designed for PhD students. It is part of a project supported by the Ministry of Youth, Education and Sports of the Czech Republic and should be used in Technical presentations course at the Faculty of Technology and Faculty of Applied Informatics, Tomas Bata University in Zlín; however, it can be also useful at other similar faculties. The course follows Academic Writing, so the skills acquired in the first one are supposed to be applied in this second course.




The book summarizes knowledge and tasks which should develop skills necessary for professional lives of research workers, which PhD degrees holders definitely should be. Attention is paid to communication before a conference and during it, with some background information and justification of the procedures, with the stress on spoken communication and oral presentations.

The issue of how to give effective speeches dates back to ancient times. Aristotle, a famous Greek philosopher, wrote his Rhetoric around 350 B.C., so he can be considered to be the founder of the genre. Now 2,300 years later, we are still fighting with the same problem – how to make a presentation as effective as possible.

The progress in technology has both complicated and simplified the task of the speaker. On the one hand, it is possible today to produce very neat graphs on the computer and turn them into overhead transparencies or PowerPoint screens, on the other hand, the problem of how to organize the information still remains. This book attempts mainly to help you answer the fundamental questions of how to prepare and deliver technical presentations effectively. After the course, with the help of this book, you should be more confident, enthusiastic and persuasive in your presentations.

As written above, beside oral presentations also other types connected with international conference are given: telephoning and emailing, conference abstract, poster presentation and small talk, which is mostly used in times between official sessions.

Throughout the textbook you will find symbols for

- Warm-up 
- Activity 
- Homework 

**Warm-up** sections should give you the chance to consolidate the knowledge you have in the area, to create the base on which the “structure” will be built. The **activities** are numbered in the format where the first is the number of the chapter, the second is number of activity inside the chapter, e.g. *Activity 5\*21* means twenty first activity in Chapter 5. And finally, **homework** are more complex task which require to be done outside lessons.

The concept of the book is based on the author’s personal experience and real-life requirements. The literature sources used over the years of teaching English to PhD students are given in Bibliography section.

# 1. Communication before the conference

As you know (or will soon learn) the work about a conference starts much (even a year) earlier than the actual event in the established place. Sometimes you need to get some details from the organizers, so you must communicate with them.



- Warm-up:**
1. What types of communication do you know?
  2. How do they differ?
  3. What are their advantages and disadvantages?
  4. Which do you prefer and why?

In your professional life you will use various ways of communication: telephone (fixed or mobile), email, face-to-face, letter and fax (of course, you can also use voice or text messages – SMS – but these are beyond the scope of this text). Here we are going to briefly deal with the first four. You should be sure about specific features of each of them.

**Telephone** – Telephoning is one of synchronous communications, i.e. you have a simultaneous two-way exchange of information. The best point of this contact is the ability to hear the tone of voice of your mate. Telephone is probably the most effective and popular method of communication (providing you have reached the called party). You can get answers quickly and respond immediately. This, on the other hand, can be considered a disadvantage, as you may later change your immediate decision. In other words, you do not have time to think your responses over. Some technical problems, like bad lines, can also make your call less pleasant. And of course, calling to a different part of the world, you have to think about the time lag (9 o'clock AM is a perfect time to call your colleague in Europe but not in America).

Sometimes, when calling a person, you only get an answer from a machine. Thus telephone loses its biggest advantage – immediate response.

**Email** – Unlike the previous one, this method of communication is asynchronous, it means you communicate one at a time and you may not get immediate response. Your message can wait for hours or even days without an answer, which is an advantage on the one hand, and a disadvantage on the other hand (you can be unsure about the answer

for a long time). However, email gives you a choice of automatic answers if you are not at work for a longer time, or you can get the confirmation of the message reception (thus you can learn that the other party has read the mail and does not want to reply). Email etiquette is fairly new and reflects also in language means. Compared to telephoning, you cannot hear the voice of your mate, which sometimes tells you a lot, but since you can read the message several times, it is much easier to understand. Also the message is not corrupted by bad lines or poor signal, as it may be in telephoning.

**Face-to-face** - When communicating face-to-face, you can see the person, hear him/her, you can follow the facial expression, body language, all ways of response. However, some people do not like it because they must respond immediately and do not have time to think the decision over. Also, the dialogue can proceed in a different direction, which will mislead you and you forget to discuss issues you wanted to.

**Letters** – Letters are one of the very first methods of communication, and are still used for the same purpose. Again, this is asynchronous communication, and as a rule, the delay between messages is much longer than in the case of emails. These two differ substantially in the level of formality, the former being much more formal than the latter.

And some premium – a few words about ...

... **fax** – The principle of fax communication is very similar to email. The message is written/printed and you have to wait for the answer. However, each fax machine has a unique number, so it is (nearly) impossible to cheat through the fax. That is why fax print is considered an official document, while email is not, and if you want to send, for example, the number of your credit card to a conference, you have to send it through the fax.



## 1.1 Telephoning

If you want to become a competent professional, you must be able to confidently and effectively communicate through the telephone. The skills for this should be one of the top priorities for your professional carrier. Learning the common phrases that are used on the telephone helps students know what to expect. However, what students need most is practice, practice, and more practice.

Telephoning requires special skills as there are a number of difficulties that arise when telephoning. The first obstacle is that you cannot see the person on the other end of the line. This lack of visual communication often makes students who can communicate quite successfully in other situations nervous and thereby block their communicative abilities.

This part includes a number of ingredients to improve your telephoning skills. You will find special telephoning phrases, techniques to improve confidence in telephoning, and telephoning practice exercises to use with your colleagues or in the classroom.

A very often used skill in telephoning is saying phone numbers and spelling names. The former are pronounce one by one, e.g. 785 698 is seven, eight, five, six, nine, eight. If there are the same numbers one after another, they are either double (66 77 11 – double six, double seven, double one), or even triple (444 – triple four). Number 0 is spelled “ou” in British English, while in the US it is “zero”.



### Activity 1\*1

1. For sure, you can spell perfectly :-) Just to prove it, spell the following words:

necessity	specialize	troublemaker
confession	vegeburger	vegetarianism
haemophilia	emotionality	confirmation
commonwealth	lightfingered	ironmongery

2. Now **you** prepare 5 words (rather more difficult, not very simple!) to spell to your colleagues.

### 1.1.1 Telephoning phrases

There are a number of phrases and idioms that are only used when telephoning. Look at a sample dialogue:

- Operator:** Hello, Frank and Brothers. How can I help you?
- Peter:** This is Peter Jackson. Can I have extension 3421?
- Operator:** Certainly, hold on a minute, I'll put you through...
- Frank:** Bob Peterson's office, Frank speaking.
- Peter:** This is Peter Jackson calling, is Bob in?
- Frank:** I'm afraid he's out at the moment. Can I take a message?
- Peter:** Yes, Could you ask him to call me at 212 456-8965. I need to talk to him about the new line. It's urgent.
- Frank:** Could you repeat the number please?
- Peter:** Yes, that's 212 456-8965, and this is Peter Jackson.
- Frank:** Thank you Mr Jackson, I'll make sure Bob gets this ASAP.
- Peter:** Thanks, bye.
- Frank:** Bye.

As you can see, the language is rather informal and there are some important differences from everyday English. Look at the chart below for key words and phrases used in telephoning:

#### Introducing yourself, greeting

Hello. This is Ken.

Ken speaking.

#### Asking for someone

Can I have extension 321?

Is John available?

Could/Can/May I speak to...?

Is Jack in?

#### How to reply when someone is not available

I'm afraid ... is not available at the moment.

I am sorry, the line is engaged/busy... (when the extension requested is being used).

Mr Jackson isn't in... Mr Jackson is out at the moment... What can I do for you?

#### Asking who is on the phone

Is that John?

Who is calling?

Excuse me, who is that?

Can I ask who is calling, please?

### **Connecting someone**

Hold on, I'll put you through.

Can you hold the line?

Can you hold on a moment?

### **Leaving/taking a message**

Could I leave a message?

Could/Can/May I take a message?

Could you ask him/her to call John Brown?

Would you like to leave a message?

Could you tell him/her that John Brown called?

Shall I ask him to ring you?

Could/Can/May I tell him who is calling?

### **Making an appointment**

When would be convenient for you/ When would suit you?

Can you make it in the afternoon?

What time could we meet/are you free?

Could you manage tomorrow?

No, I am afraid, I am not available then. Could we arrange another time?

OK, tomorrow would be fine/would suit me fine.

### **Finishing the call**

Thank you for calling.

My pleasure.

### **Leaving a message**

Sometimes, there may not be anyone to answer the telephone and you will need to leave a message on the answerphone. Follow this outline to make sure that the person who should receive your message has all the information they need.

1. **Introduction** - - - Hello, this is Ken. Or Hello, My name is Ken Black (*more formal*).
2. **State the time of day and your reason for calling** - - - It's ten in the morning. I'm phoning (calling, ringing) to find out if .../ to see if ... / to let you know that ... / to tell you that ...
3. **Make a request** - - - Could you call (ring, telephone) me back? / Would you mind ... - ing ?
4. **Leave your telephone number** - - - My number is .... / You can reach me at .... / Call me at ...
5. **Finish** - - - - Thanks a lot, bye. / I'll talk to you later, bye.

Here is a sample message:

**Telephone:** (*Ring... Ring... Ring...*) Hello, this is Tom. I'm afraid I'm not in at the moment.  
Please leave a message after the beep..... (*beep*)

**Ken:** Hello Tom, this is Ken. It's about noon and I'm calling to see if you would like to go to the football match on Friday. Could you call me back? You can reach me at 367-8925 until five this afternoon. I'll talk to you later, bye.

As you can see, leaving a message is pretty simple. You only need to make sure that you have stated all important information: Your name, the time, the reason for calling, your telephone number.

### 1.1.2 Tips for getting people to slow down

One of the biggest problems at telephoning is speed. Native speakers, especially business people, tend to speak very quickly on the phone. Here are some practical tips to get native speakers of English to slow down:

- Immediately ask the person to speak slowly.
- When taking notes of a name or important information, repeat each piece of information as the person speaks. This is an especially effective tool. By repeating each important piece of information or each number or letter as they spell or give you a telephone number, you automatically slow the speaker down.
- Do not say you have understood if you have not. Ask the person to repeat until you have understood. Remember that the other person needs to make himself/herself understood and it is in their interest to make sure that you have understood. If you ask a person to explain more than twice they will usually slow down.
- If the person does not slow down begin speaking your own language! A sentence or two of another language spoken quickly will remind the person that they are fortunate because they do not need to speak a different language to communicate. Used carefully, this exercise can be very effective.

In the following you will find several activities to be practiced in pairs. The tasks for student **A** are here, **student B** finds the instructions on pages 14 and 15 under the corresponding number.



#### **Activity 1\*2 - Travel information**

##### **Student A:**

You are going to travel to Munich for a business meeting over the next weekend. Telephone a travel agency and reserve the following:

- Round-trip flight
- Hotel room for two nights
- Restaurant recommendation
- Prices and departure times



#### **Activity 1\*3 - Product information**

##### **Student A:**

You need to purchase six new computers for your office. Call JA's Computer World and ask for the following information:

- Current special offers on computers
- Computer configuration (RAM, Hard Drive, CPU)
- Guaranty
- Possibility of discount for an order of six computers



#### **Activity 1\*4 - Leaving a message**

##### **Student A:**

You want to speak to Ms Braun about your account with her company, W&W. If Ms Braun is not in the office, leave her a message with the following information:

- Your name
- Telephone number: 347-8910 (or use your own)

- Calling about changing conditions of your contract with W&W
- You can be reached until 5 o'clock at the above number. If Ms Braun calls after 5 o'clock, she should call 458-2416.



### Activity 1\*5 - Selling your product

#### Student A:

You are a salesperson for Red Inc. You are calling a client who you think might be interested in buying your new line of office supplies. Discuss the following information with your client:

- New line of office supplies including: copy-paper, pens, stationary, mouse-pads and white boards
- You know the customer hasn't ordered any new products during this past year
- Special discount of 15% for orders placed before next Monday
- Any order placed before Monday will not only receive the discount, but also have its company logo printed on the products at no extra charge.



### Activity 1\*2 - Travel information

#### Student B:

You work in a travel agency. Listen to student A and offer him/her the following solutions:

- Round-trip flight: Air JW EUR 450 Economic class, EUR 790 Business class
- Hotel room for two nights: Hotel City EUR 80 a night in the downtown area, Hotel Relax EUR 60 a night near the airport
- Restaurant Recommendation: Chez Marceau - downtown - average price EUR 40 per person.



### Activity 1\*3 - Product information

#### Student B:

You work in at JA's Computer World. Answer student A's questions using the following information:

- Two special offers: Multimedia Monster - with latest Pentium CPU, 256 RAM, 40 GB Hard Drive, Monitor included - EUR 2,500 AND Office Taskmaster - cheaper CPU, 64 RAM, 10 GB Hard Drive, Monitor not included - EUR 1,200
- 1 year guaranty on all computers
- Discount of 5% for orders of more than five computers.



### Activity 1\*4 - Leaving a message

#### Student B:

You are a receptionist at W&W. Student A would like to speak to Ms Braun, but she is out of the office. Take a message and make sure you get the following information:

- Name and telephone number - ask student A to spell the surname
- Message student A would like to leave for Ms Braun
- How late Ms Braun can call student A at the given telephone number.



### Activity 1\*5 - Selling your product

#### Student B:

You work in an office and receive a telephone call from your local stationery supplier. As a matter of fact, you need some new office supplies so you are definitely interested in what the salesperson has to offer. Talk about the following:

- New pens, stationary and white boards
- Do they have any special offers?
- You would like to place an order for 200 packages of copy paper immediately.

## 1.2 Effective communication through email



- Warm-up:**
1. Do you use email in your professional life? How often?
  2. For what purposes do you use it?
  3. What are the positives and negatives of email communication?
  4. In what situations is not email suitable?

Electronic mail is now the preferred method of communication for many individuals and organisations for its ability to save time and therefore increase productivity of work. The written word, however, can present its own challenge when communicating, as body language or vocal tone cannot be used, which can result in misunderstandings.

When information needs to be given or obtained quickly, there is no better way than by email. Unfortunately, the benefit of speed brings about some problems that are not always predictable. This chapter should help you get the most of the use of this Internet tool at work, as well as avoid unsuitable behaviour, not only for conference purposes.

We all interact with the printed word as though it has a personality and that personality makes positive and negative impressions upon us. Without immediate feedback your document can easily be misinterpreted by your reader, so it is crucial that you follow the basic rules of etiquette to construct an appropriate tone.

### 1.2.1 General format

In email messages you should follow some basic rules:

- Write a *salutation* for each new subject email.
- Try to keep the email *brief* (one screen length maximum).
- *Return* emails within the same time you would a phone call.
- Check for *punctuation*, *spelling*, and grammatical *errors*
- Use a font that has a professional or *neutral* look.
- When you are writing directions or want to emphasize important points, *number* your directions or *bullet* your main points.
- Write in a *positive tone*.



- Use ☺, winks ;), and other graphical symbols only when *appropriate*.
- Use *contractions* to add a friendly tone (don't, won't, can't) – unlike in formal academic writing.
- Avoid sending emails to more than four *addresses* at once.
- When you are sending an *attachment*, tell your respondent what the name of the file is, what program it is saved in, and the version of the program. “This file is in MSWord 2000 under the name “LabFile.”

### 1.2.2 Content of the message

After the rules for “how”, we are now going to give ideas for “what”.

- *Avoid* discussing *private* concerns and issues.
- Change the *subject heading* to match the content of your message.
- When conflict arises on the list, *speak in person* with the one you are in conflict.
- When your message is *long*, create a summary or provide a table of contents on the first screen of your email. A *summary* should have all the main components of the email.  
 Table of contents - “This email contains:
  - A. Budget projections for the year 2007
  - B. Performance for the year 2006
  - C. Adjustment proposal
  - D. Expected profit.”
- If you require a *response* from the reader, then be sure to request that response in the first paragraph of your email.
- Create *headings* for each major section.

### 1.2.3 Delivering different types of information

Sometimes you want to inform the receiver about conferences, seminars, meetings or processes.

- If you inform, provide as much *information* as possible. Offer the reader an opportunity to receive the information via mail if the email is too confusing.

- If you deliver *bad news*, state it clearly but with consideration; avoid words that sound ambiguous. Avoid blaming statements: “I think it will be hard to recover from this, but it was you who caused the situation.” Maintain a positive attitude.
- If you are writing a *complaint*, you should briefly state the history of the problem to provide context for your reader. Explain the attempts you made previously to solve the problem. Show why it is critical for the problem to be resolved by the other side. Offer suggestions and write how you are willing to help in the matter.
- Do not take your reader by *surprise* or press them to the wall. Do not wait until the end of the day to introduce a problem or concern via email. Avoid writing a litany of concerns that you have been talking about this for a long time (even if this is true).
- If you are writing to professors and teachers, be sure you have permission to communicate with them via email.
- Complaints about grades and assessments should generally be discussed in person.
- Do not press your teacher or supervisor to solve the problem immediately.

#### 1.2.4 Flaming in emails

Flaming is a term for venting or sending inflammatory messages through email (i.e. when you are angry).

- Avoid flaming because it tends to create a great deal of conflict that spirals out of control.
- Flaming emails tend to affect observers in a very negative way.
- Calm down before responding to a message that offends you. What you write cannot be taken back; it is in black and white. Thus, keep flaming under control.
- Before you send an email message, ask yourself, “Would I say this to this person’s face?”
- Read your message twice before you send it and check that you cannot be misinterpreted.
- However, there are times when you may need to “blow off some steam”. Then, your email should have 3 steps: Flame on, Your message, Flame off.
  - Empathize with the sender’s frustration and tell them they are right (if that is true).
  - If you feel you are right, thank them for bringing the matter to your attention.
  - Explain what led to the problem in question.

- Avoid getting trapped by details and minor arguments.
- If you are aware that the situation is in the process of being resolved, let the reader know at the top of the response.
- Apologize if necessary.

Nevertheless, there are times when you need to take your discussion out of the virtual world and make a phone call, or, if things become very heated and a lot of misunderstanding occurs, then the best way is face-to face communication.

### **1.2.5 Checking, proofreading**

Fast is fine, but each email message, no matter what its character, must be re-read and revised before it is sent. After all, it is still a written genre and you must concentrate on the features like spelling and grammar. There are some great tools, but they are not 100% foolproof. You should use the basic proofreading and editing techniques to use with email messages so that errors can be corrected before it is too late. Here you will employ the skills obtained in Academic Writing course.

## 2. Conference abstract



- Warm up:**
1. Do you have any experience with conference abstracts? What?
  2. Is it important to write a good conference abstract? Why?
  3. What does it actually mean “a good conference abstract”?
  4. What (if any) are the difference between research paper abstract and conference abstract?

Writing abstracts for conferences is an important art for the academic world. It is not only a key job skill for the writer, but the knowledge of how they are written can help you in reading professional literature. The aim of conference abstracts is to inform organizers of your work that is either completed or currently developing, so that they can judge its interest and quality compared to the others submitted. It is a competitive process, anticipating your final findings and precedes the full conference paper. Thus, it must be convincing, which means prepared responsibly.

Conference abstracts differ from several similar genres: summary abstracts of completed work for publication (e.g. research papers – we did in the previous course – or dissertations), and projects of the research to be done. The different audiences and purposes must be kept in mind. In most cases, the description of research must be very short (strict length limit), and attractive (competitive character).

### 2.1 Audience

A conference abstract is submitted for consideration of a professional conference in a certain field. It is usually much longer than a summary abstract in research papers and functions independently (since the conference review committee will see it and not your actual paper). Thus, the primary audience for the conference abstract is the conference review committee. The conference participants, to whom you will actually deliver your paper, are your secondary audience. The conference abstract should:

- impress the conference reviewing committee by creating a research space (see Swales, Feak – Academic Writing for Graduate Students) – stating the novelty of your point of view on the problem,

- help readers understand your subject, so the abstract acts as an outline of key points,
- give participants first ideas about the presentation, and thereby enable them to choose which session to attend.

The program committee of the conference will require that the subject matter be the **topic** of the conference and that the abstract be coherent and in accordance with the specifications given beforehand.

Many major conferences nowadays have online collections of abstracts, which are excellent sources of examples and also good ways to get the flavour of a particular conference, so it is highly recommended to find several examples on the appropriate websites before you start preparing your own abstract.

Very often, conference abstracts are sent through email. When emailing abstracts, allow sufficient time for delivery delays. You never know when the network can fail, and all abstracts must arrive by the deadline. Late abstracts will not be considered, whatever the reason for the delay.

Even before writing your conference abstract you must think of your presentation. Because the abstract you will submit is for a conference **presentation** (oral or poster), and not a publication, the abstract should reflect this. The conference selection committee will want to know about your research, but may also want to know what your presentation idea is, how it will go beyond the submitted abstract.

## **2.2 Format and content**

The abstract length is usually limited by number of words or in another way. As a rule, a template is provided which you should use to get the right format of the text, including figures and tables. If the paper is accepted, the abstract will be photocopied and inserted into the collection of abstracts, which will be given to participants at the beginning of the conference.

If an abstract is rejected, it is mostly because of missing crucial information rather than because of errors they include. Authors are often given the chance to consult the **model abstract** prepared by the program committee. A suggested outline for abstract preparation is as follows:

1. Choose a title that clearly indicates the topic of the paper. The title should be informative and focused, indicating the problem, kind of data and your general approach. In other words, it should give the topic and the scope of research.
2. State the problem or research question raised by prior work, with specific reference to relevant previous research, i.e. make the context of your contribution clear - create a research space. What scientific discussion are you contributing to? This can often be done with a clause or two:
  - *Using Feature Geometry, as developed by Clements (1985) and others, we can see...*
  - *Following a fundamental principle of Optimality Theory (Prince & Smolensky 1993)...*

Another approach is to make clear that your problem is longstanding and/or important to the field:

- *Since Winslow (1949), the founder of electrorheology, scientists have debated ...*
  - *Over a century of work on....*
3. State the main point or argument of the proposed presentation. Make sure you clearly state the hypothesis (or several closely related hypotheses) which you can directly support with evidence and analysis. Typical ways to flag your hypothesis include phrases like:
    - *In this contribution we show that ...*
    - *This paper tests the hypothesis that ...*
    - *The analysis proposed here establishes ...*
  4. Cite sufficient data and explain why and how they support the main point or argument. Give only as much data as you need to illustrate your key point(s), choose clear examples and make sure they are well integrated into the abstract. You cannot assume that the abstract reviewers will know your data or your approach well. Present the data in the format used in major journals in your area. Explain abbreviations at their first occurrence.

5. If your paper presents the results of experiments but the research has not been completed yet, then report what results you have already obtained. Indicate explicitly the nature of the experimental design.
6. State the relevance of your ideas to previous work or to the future development of the field. If you are presenting a controversial issue, summarize the arguments that lead you to your position. State the contribution of your research.
7. Be clear and concise. The arguments should be ordered to tell the reader where you are going and how you want to get there.
8. The conclusion(s) should highlight the impact of the project. It should state the applicability of the findings and their role in a broader context. If the conclusion is unknown because the project has not been completed at the time of abstract submission, the anticipated conclusion can be described.

### **Criteria for conference abstract evaluation**

It can be useful to know how contributions are selected and scored on the base of abstracts. **Scoring** is often based on questions like:

- How valuable will this topic be to the conference?
- Does it link to the area of this conference?
- Does the work appear to be of a high standard?
- How clearly is the abstract written?
- Is a new idea or new research being presented?

When thinking of your presentation, you should answer these questions:

- Am I saying anything new? If not, why am I submitting an abstract? (There may be cases when building on existing research is important, so you can justify your contribution).
- Is there a challenging and provocative question in my work that can be posed during a presentation, one that will start a good discussion?

- Could I clearly speak to the broader implications and can I find a way to summarize them in my abstract?

Once you have a clear idea how your presentation could be made interesting, you will write your abstract.

## **2.3 Creating a conference abstract**

The process of creating a conference abstract can be summarized in six steps:

1. Finding the section where your research area fits best,
2. Deciding about the exact topic,
3. Listing the main points in bullet form,
4. Converting the bullet points into continuous text,
5. Deciding about the title,
6. Checking and proofreading your abstract.

### **Step 1: Finding the appropriate section**

Most conference organizing committees divide the field into sections so that professionals in each sub-field can best evaluate the work of their peers and, it is hoped, create the best conference program.

Sometimes your work or research may not fit easily into the any section chosen by the conference committee. If this is the case, you can either use the network of your peers to choose the stream to which you will all submit your contributions (this will help the organizers group similar projects), or you will choose a stream according to who you want to address with your presentation.

### **Step 2: Deciding about the exact topic**

You surely know what your research is about, however, for a conference presentation, either oral or poster, you will have to limit the scope of the research you want to present. You must decide of the “thesis”, which in this context means the basic idea you want to present. Do not try to include too much in your presentation (it also means in the abstract). The time or space is limited and a presentation packed with information can be confusing.



### **Step 3: Bullet points first**

Writing your main points in bullet form will help you limit what you are saying (one bullet = one idea).

- Be brief, summarize, and only say the essentials (conference abstract lengths are strictly limited). Is all of the information critical, or can it be shortened?
- Think about your target audience: who are they?

### **Step 4: Converting bullets to continuous text**

Make sure your abstract reads easily; use a clear, direct writing style (remember language means for writing research paper abstracts). Do not use any extra words, but on the other hand, express your ideas with good text flow.

### **Step 5: Deciding about the title**

Your title needs to help the reviewers categorize your presentation and may eventually help conference participants find your session. Do not try to be “witty” if it makes it difficult to understand the topic. The title, like for a research paper, should include both the topic and the scope of the research. However, for a conference contribution you can afford slightly less formal and gently provocative title, e.g. a question which will be answered in the presentation (oral or poster).

### **Step 6: Checking/proofreading the abstract**

Before submitting your abstract, answer honestly the following questions:

- Without over-simplifying the language, could people from other sub-fields of study understand it?
- Will the person interested in the topic get more from the presentation than from just reading a research paper?
- Is the abstract clear and concise?
- Have acronyms been explained?
- Is it free of grammatical errors, spelling errors and strange sentence structure?
- Is it factually correct?

- Are the conference's word limit and other guidelines absolutely respected?

If all your answers are “yes”, you can send the abstract to the conference committee and wait for their decision.



## **Homework**

Find a suitable conference on the Internet and following the organizers' requirements (length, format), prepare a conference abstract for an appropriate section of the conference. The conference can be one which has already finished but the materials are still on the net.

### **3. Conference proceedings paper**

If your abstract has been accepted, some time before the conference (much later than the abstract) or even at the time of conference you are to submit the version of the paper which will be included in conference proceedings. A similar genre is extended abstract, which sometimes is considered for posters, while the former is for oral presentations. However, sometimes these are only different names for the same – a longer version of your conference contribution. As a rule, their size is limited, so you have to follow much simpler aspects of your research than in journal research papers. Nevertheless, the form is very close to research papers we dealt with in Academic Writing course, and is mostly given by the committee in the form of template containing the same parts as RP. All in all, the skills used for writing a research paper can be fully applied for the purpose of conference proceedings paper, so you are just to brush up your knowledge.

## 4. Poster presentation



- Warm up:**
1. Do you have any experience with posters? What?
  2. Where are posters used? What is their purpose?
  3. How does a poster differ from a research paper? How does it differ from an oral presentation?

### 4.1 Purpose of poster presentation

The purpose of a poster presentation is to clearly and effectively communicate the results of your research to your colleagues in the field of research in a format that stimulates interaction and discussion. Posters are often the first opportunities for young investigators to present their work at important scientific meetings, and can help them develop their paper for publication in a journal. Presenting at a scientific meeting or seminar provides you the opportunity to meet people who have similar interests, and to receive feedback and suggestions. The feedback can be helpful when it is time to write your research paper for a journal, as well as for continuing, modifying, or expanding your research work. In any case, developing your poster presentation is an important step toward winning acceptance and publication of your research in a respected journal. In addition, your presentation may lead to recognition from colleagues, which can advance your career. However, the most important reason for your poster presentation is to advance the area of science where you work.

Poster has a similar **purpose** as a research paper or oral presentation – to present the results of your research – however, it is an independent genre with some specific features. Designing a poster is a challenge because the space is limited. The poster must be brief and clean, standing alone if you are not present, and gain attention of the audience. Basically, it is graphical communication, so the main part will be created by tables, figures, photographs, and diagrams that help explain your research. The role of the text is less significant, and it is usually in the form of bullets, not continuing text.

Regardless the differences in the style, the content of the three mentioned types of research presentation (research paper, oral presentation, poster) is very much the same. A logical order of these three in time is from the poster, through the oral presentation, to the research paper. This is also how the genres differ in the scope. The poster usually

presents a narrow range of research, in the oral presentation the scope is broader and the research paper in a journal is most complex. In other words, when properly done, the poster presentation can lead to a full journal paper submission.

In spite of some limitations, the poster also has advantages:

- There is more opportunity for discussion with the audience (time is not as limited as in oral presentation).
- An oral presentation can only be heard once; a poster session can be discussed several times with many participants over the session.
- The informal opportunity to meet people and exchange innovative ideas, and to get useful feedback and discussion, can be greater with a poster than with oral presentation.
- Posters can be prepared in advance, so the presenter can relax and focus on other things while attending the conference and not be worried about the “formal presentation”.

After the short general introduction, let us have a closer look at the content of a poster, process of poster preparation and thoughts that precede the actual making of a poster. In general, a poster must, on the one hand, meet the requirements determined by the conference organizers, and on the other hand, present your ideas arising from the research and show why it is interesting and important. Fortunately, today’s software programs enable even young researchers who are new to the field, like you, to prepare exciting and interesting posters.

## **4.2 Components of a research poster**

Posters are formally divided into several parts.

### **Purpose (Introduction)**

Compared to a research paper, poster is much shorter, so in most cases it is not suitable to include Abstract (it is published beforehand, so there is no need to repeat it in the poster). The introduction section of your poster should address questions “Why was this research done? What was its purpose?” This section clearly defines the topic and explains what was studied and why, which means the rationale and importance of your

study. The introduction section should also include your research question(s) and/or the hypotheses you tested.

## **Methods**

The Methods section of your poster should explain what you did. In a research paper, this section gives enough information to allow another researcher to reproduce the study; however, this may not be possible in a poster, because of space considerations. On your poster the Methods section should only provide enough detail to allow another researcher to judge if the study design was adequate to answer your research questions and/or test your hypotheses, and thus to judge the validity of your study. Your data analysis method should also be briefly given.

## **Results**

The Results section presents what you found in your study. This section includes tables and/or figures showing your data. Tables and figures should clarify and depict your study results, and they should be clear, self explanatory, and easy to understand. Tables are generally used to report data or list information, figures are reserved for graphs, line drawings, schemes and photographs, and must include legends. Figures may be in black-and-white or colour. For a borrowed figure you must give the source where you took it, otherwise it is plagiarism, which is illegal.

## **Discussion**

The discussion section says what you think your results mean. This section may also present supporting evidence from published reports. Any contradictory findings should be addressed, and the limitations of your study should be described as well.

Sometimes, the two previous sections are joint into one - Results and Discussion section.

## **Conclusion(s)**

In a poster you may create a separate Conclusion(s) section, or use the last part of the Discussion section to state your conclusions. Your conclusions should directly relate to your study research questions and hypotheses and should be supported by and consistent with your study results. Here you make a link with the purpose of the research: What was the purpose? Has it been reached?

Make sure that the conclusions are supported by the data presented in the Results and do not suggest unsubstantiated personal opinion. Never introduce new facts in the Conclusion section.

## **4.3 Process of poster creation**

Creating a poster actually starts long before its physical preparation. Several months before the conference you have to send the abstract of your paper to the conference committee. Let us suppose it has been accepted, so now you can concentrate on the genre of posters. It will be done in several steps:

1. Considering poster sessions in general
2. Analyzing the audiences
3. Thinking of the novelty of your topic or findings
4. Visualizing the message in the design space
5. Creating coherence
6. Using a template
7. Applying poster style to the text
8. Finalizing the poster

A word of advice: Preparing a poster will always take as much time as you allow it (but always more than you expect at the beginning), so do not wait until the last minute.

### **1. Considering poster sessions in general**

Poster sessions are held as part of professional conferences or other similar events. Posters usually have a predetermined (or at least limited) size and are displayed in an

area where the audience moves about and the presenters stand near their posters and answer questions from the audience. Poster sessions enable people to seek information about new work with convenience and freedom in a short time.

Long before the conference starts, the rules of the poster session are set, especially the size of the area you will have at your disposal, and sometimes also other features of the poster format. So, design your poster in the size which will use all the space given.

In some cases also other conditions are given and it is strongly recommended to read the instructions carefully and follow them from the very beginning of your work on the poster. It will spare you from further unnecessary corrections and additional work.

Presenting at a poster session, as already said, differs from giving other kinds of presentations. The audience comes and goes, so the presenter must constantly adapt to the viewers who are present. Some will want an oral explanation, some will only want to look for a few seconds. Prepare several versions of your “presentations”, from 30 seconds to 10 minutes (see **4.4 Presenting a poster**).

Poster sessions are usually scheduled for particular hours, and presenters are asked to be in place at the time of display. However, the poster area may also be open at other times; so, it is a good idea to make sure your poster can communicate well without the presenter being there. This is sometime very difficult to reach, considering the limited space you have.

## **2. Analyzing the audience**

Characterizing your audience at the beginning of planning your poster enables you to better tailor its content and design elements to the aims you want to reach. As a rule, conferences are quite monothematic events, so you can expect a major part of the audience to be experts in the area and their questions will be more technical and detailed. Thus you must thoroughly understand the mechanisms you describe.

However, you must still be ready for some beginners in the area, who are usually eager to learn everything, so you should be prepared to answer also basic questions concerning the research, its purpose and possible application of the results. These different types of audience will affect the poster content and provoke the following questions:



- What critical concepts, issues, terms will need to be defined for each audience?
- What visual aids (tables, graphs, figures) can be used to deliver information to the audience most efficiently?
- What questions do YOU want to answer for these people?
- What questions can you anticipate from the audience members about the information given in your poster?
- What have you studied that would help the viewers gain a foundation for understanding the research you will present?
- What applications can be expected from the results of your research?

Thinking about the questions above will help you stress the novelty in your presentation.

### **3. Thinking of the novelty of your topic or findings**

The poster design process will be much easier if you take time to make some early decisions:

- What is the message/ thesis/ basic idea of your presentation?
  - Why is the research useful?
  - How is your method related to other search methods?
  - How is your approach to a topic new and unique?
  - What research have you completed on this topic?
  - What are the open issues?
- How can the overall arrangement of the poster signal the message?
- How can all the elements reinforce the main idea?
- What will make the reader stop and look, i.e. how to make the poster attractive or provoking?

To select the content for your poster, you must pick up the most essential information from your broad knowledge. It is quite hard; anyway, you can rank the information into three categories:

- Necessary to know (to get the basic idea)
- Good to know (equipment, details of measurements)
- Nice to know (context – do not forget most of the audience are experts; unexpected effects).

You should include all the *necessary*, add some *good*, and save *nice* details for talking with your audience or for a handout you will give them. Thus, limit your poster presentation to a few main ideas. It is better to present a few of your findings well than present all of your findings poorly and confusedly.

#### 4. Visualizing the message in the design space

The point of design is to make the message accessible and easy to understand by the audience, which is mostly moving (an important aspect!). Help them get the main point of your poster with a large-font title. Include the purpose of this particular research. Use message headings or different sizes of fonts to show the importance of ideas. Reduce jargon or complicated language - people do not like things they cannot understand. Ease of readability is like an invitation for a closer examination.

Choosing an overall layout appropriate to your message is the most important step. A poster should have an arrangement that will suggest the main point. Three of the basic arrangements are horizontal, vertical and centred. Further, you can organize the information, for instance, in:

- a) left-to-right flow in vertical columns
- b) two fields in contrast
- c) a centred image (with explanations at the sides),  
such as in the examples taken from the Internet



a



b



c

Which of them best fits the communication aim of your poster? (Of course, the format can be not only landscape  as in the examples, but also portrait .) This is the most challenging part of design - matching the physical pattern of the layout with the intellectual pattern of your message. Answering the following questions can help you.

- What am I trying to show the audience?
- Is it a problem-solution issue?

- Is it an image of a device or chemical reaction?
- Is it a contrast (old vs. new, before vs. after)?
- Is it a demonstration? A process in series?

Group your ideas into appropriate areas. For example, if you have three main points, you will need three main areas plus the areas for the title, summary and probably acknowledgments.

## 5. Creating coherence

Constructing a coherent poster means to help the audience to move from one subtopic presented on your poster to another, and to see the relationships between them. Create coherence by carefully planning the arrangement of information based on the knowledge of how people read. Since it is common to read text from left to right and top to bottom, use this pattern to arrange the information in your poster. The title is usually centred at the top of the poster.

Other useful strategies for guiding the reader's attention and showing the relative importance of each part of your poster content include **blank space, graphic hierarchies, indenting, visuals, and colour**. More detail about them follows:

- **Blank space** in a poster gives the viewer visual pauses to think. Overloading the poster with information is tiring to read, and a poster is seldom read completely. Some authors say that the proportion between text, graphics and blank space should be 20 : 40 : 40. Margins around the sides and bottom create an inclusive frame for the content of your poster. Do not run text completely to the edge of the poster, leave some framing blank space. Divide also columns with blank space (although these areas may be coloured) so that the viewers' eyes can quickly pick out the pattern or arrangement of content.
- **Graphic hierarchies** help viewers determine quickly which sections are of equal importance and which are of lesser or subordinate importance. They include letter sizes, colour areas, line widths, etc.

A simple rule is: **big = important**      small = subordinate

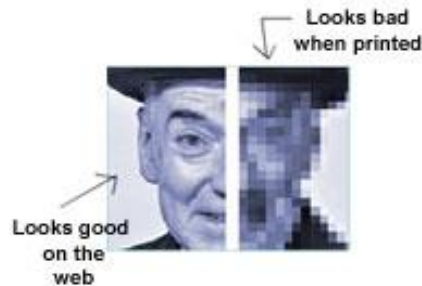
- **Indenting** information helps to create white space around the information that emphasizes it and makes the information easy to notice and scan. You can indent information by bullets, numbers or by creating more white space around piece of visual or textual information.

- **Visual aids**, if used effectively, help to make your poster both aesthetically acceptable and easy for the viewer to scan. Visuals, such as graphs, tables, photographs (and a variety of other discipline-specific visuals), can deliver a lot of information. For this purpose, choose graph types that are appropriate to the information that you want to display, do not include too many lines in one graph. Instead of using lines of different thickness, use contrasting *coloured lines* or *different line styles* to distinguish between different sets of data in multi-line graphs. It is also good in multi-line plots or plots with more than one variable to have a legend in the colour or style of the line. Remember that inconsistent styles give the impression of disharmony and can interrupt the flow of your message. If graphs are to be compared, they should be of the same size and scale. On the other hand, there can be one or two (most important) graphs, drawings and tables which dominate the poster and essential (and are larger); the others are supporting.

If you want to use visuals accurately and effectively, it is good to remember these tips:

- Enlarge visuals so that they can be easily seen. Remember that the audience looks at your poster from a distance (a meter or two). No photo, graphic or chart should be smaller than 13 x 15 cm.
- Make sure that also labels you use with the visuals are large enough to be read from the distance.
- Keep in mind that figures, photos, drawings, etc. are independent elements that should be understood without reading a long explanation. The headings and labels on your visual will help it stand alone. Remember that the audience may only scan your poster (i.e. not read carefully), and the visuals may be the only features they examine.
- Eliminate any information which is not essential and design your visuals to emphasis the basic idea you want to communicate.

- Sometimes it is useful to provide arrows to direct attention to the sequence of ideas.
- Remember that photographs or other illustrations may be distorted and difficult to read if enlarged. Double-check if they are still clear when you print them out before printing the entire poster. Avoid images from the Internet; when printed large, they often have large pixels, such as this:



- Think carefully whether the logo(s) you want to use on the poster do not visually distract attention. Simply, do not include anything which is not necessary. And remember – **sophisticated illustrations, bright colours and technically perfect drawings do not substitute for content.**
- **Font style/size.** Improve legibility with the correct font size. As written above, the audience usually views the poster from the distance of 1 – 2 meters. Be sure that the text is legible. Two factors play roles here – the style and the size of font.

Concerning the style, it is recommended to use Sans Serif ("without a tail") fonts, which are easier to read from a distance. Sans Serif fonts have uniform (or nearly uniform) line widths. The recommended sizes are as follows:

Title (6 – 10 words)	<b>S</b>	(Arial bold)	90 - 120 pt
Headings (3 - 5 words)	<b>Sans</b>	(Arial)	36 - 48 pt

There are several general rules based on experience.

- Text and titles written entirely in capitals (upper case) are harder to read. Compare the sentences:  
THIS IS A SENTENCE WHERE ALL THE CHARACTERS ARE IN UPPER CASE.  
This is a sentence where only the first word is capitalized.  
Which of the sentences is easier to read?
- Do not use different font types to highlight important points, otherwise the flow of your sentence can appear disrupted. For example,  
In this sentence, I want to **emphasize** the word “emphasize”.  
In this sentence, I want to **emphasize** the word “emphasize”.
- Instead, use underlined text, the **bold face** or *italics* or **combinations** to emphasise words and phrases. If you use **bold italics** for emphasis, then underlining is not necessary – it would be too much. However, remember that italics is always more difficult to read.
- Line spacing should allow easy reading of the text (1.5 to 2). Do not try to save space by getting lines too close to each other.
- The lines should be left-justified, i.e. all lines begin on the left edge of the text.
- Headings of the same level of importance should be in the same size and type of font.
- Avoid extremely long titles (but remember, the title must express both the topic and the scope of the research.), font size below 24 points, excessive use of different fonts, fonts that may be difficult to read.
- One thing which helps distinguish the importance of the section is the font size. Thus Purpose and Conclusion sections, as they are most important, should be largest, while Methods section is of lower importance, it means in smaller letters. The Acknowledgements section, from the viewpoint of communication between the presenter and the audience is least important (but must be there; your sponsor requires!), so it can be only readable from a very close distance.

- If you have your poster printed in a professional company, make sure they have installed all the symbols in the printer; I have personal experience with Greek letters (& was printed instead of  $\dot{\gamma}$ ).
- **Colour** can “make or break” a poster’s legibility and aesthetic impression. Using colour appropriately in a poster means choosing it for the purpose. From the technical point of view, you can use virtually any colour since the modern software offers a very wide range of them.

In deciding how to use colour in your poster, the following rules can help:

- Use colours to show relationships among different areas of the poster.
- The use of colour should show the viewer which elements go together (are similar in importance or are related in topic) and which, on the other hand, differ.
- Use colours to create coherence and guide your audience through the sections of the poster.
- Colour should highlight, separate, define and associate information. If it competes with the information, then it is too strong. So, use colours sparingly and purposefully; as usually, also here less is more.
- There must be sufficient contrast between the background and the text, or between the background and the diagrams for viewers to read easily. You can use light colours for your text (such as yellow) only if the background is dark.
- Use light background with darker photos, dark background with lighter photos and neutral background to emphasize colour in photos.
- Colours may look different on the screen than in the printed form; so, check them before final print of the poster.

## 6. Using a template

To get some help to create your first posters, several templates (PowerPoint files) in vertical and horizontal layouts can be found on the Internet, so you can download them to your computer and use (e.g. <http://www.owl.net.rice.edu/~cainproj/templates.html> "Download Poster Design Templates").

## 7. Applying poster style to the text

As said above, *text* should only create some 20% of the poster area. In other words, reduce the text as much as possible. (While reducing, you can say: There is always too much text :-) The text should explain your work in as few words as possible. Use *bullets* to break up text. Shrink text just to keep a clear message, as in this example:

### *Original*

The compounds were prepared by mixing the basic polymer, styrene-butadiene rubber, with 30 wt.% of fillers, which were different types of carbon blacks (.....). The mixing was carried out in a Brabender double-screw mixer at the temperature of 135°C for 25 minutes.

### *Revised*

#### **Compound preparation:**

- SBR + 30 wt.% carbon black (...)
- Brabender double-screw mixer
- 135°C
- 25 min

*Equations* should be minimized; present only the necessary and important equations. As the whole text, they must be large enough and accompanied by nomenclature to explain the significance of each variable.

Delete all *redundant* references and filler phrase (such as *see Fig.1*). As the figure follows immediately, it does not need to be referred to.

## 8. Finalizing the poster

When you have finished the draft of the poster, check it carefully for consistent formatting and accurate language. It is very important to check your spelling. There is nothing more amusing (or annoying) than spelling mistakes on public display. Spelling mistakes give the impression that you have not paid the poster appropriate effort, that you are careless. Thus check your poster for mistakes, legibility and inconsistency in style. Try different layout arrangements and be critical to your work. If possible, ask your partner, friends, colleagues or supervisor for their opinions.

Avoid abbreviations and acronyms a viewer may not know (however, some abbreviations are very common in a specific area, so you can use these). Limit the number of reference to minimum - give only those that are very close to your research



and are very recent. Acknowledge the people or institutions that have contributed to your presentation, either personally or financially. Include contact information.

Thus, in the final stage of poster preparation you should give positive response to the following items:

- **Content**

- Title, authors, and institutional affiliations are listed. The authors are usually given without titles (PhD, Prof.) and should be printed at the size of some 70 points. Affiliations can be smaller (40 points). It is a good idea to place a small photo of the person who will present the poster. The audience will see immediately who to address with their questions.
- Purpose (or Introduction) Methods, Results, Discussion/Conclusion and, if applicable, Acknowledgements sections are present.
- The information flows logically (left to right, top to bottom, ...).
- Photographs, graphs, tables and charts are used whenever possible to display data or convey important information.
- Each section is concise and clear.
- The content can be absorbed in 10 minutes or less.

- **Appearance**

- The poster meets the requirements of the conference organizers.
- It appears neat and well-organized.
- Major headings can be read from at least 2 meters.
- Text, graphs and figures can be read from at least 1 meter.
- The font is similar throughout.
- Colours, lines, boxes, and arrows are used to emphasize important points and show relationships.

Make sure your deadlines include sufficient time to revise the poster if you find mistakes. It is a good idea to prepare the “final version” of the poster, then leave it for some time and re-read it with fresh mind. If you read the same text several times in a short time, you will not notice the mistakes you would see later.

Making a poster in the final version can differ from “do it yourself” approach with minimum costs, to complete support provided by a professional company. However, the state-of-the-art enables every PC user to produce a professional quality poster at a reasonable cost.

A conference location often requires delivering your poster to a long distance, so in the preparation you should also consider the transport. If you are to travel by plane, a container will be needed to protect the poster in transit; poster tubes are suitable for this purpose, either cardboard or plastic. A worthy investment can prevent damage to your poster and your reputation. Nevertheless, to prevent further disappointment, you should take it to the cabin; do not check-in your poster as luggage. Carry the poster with you at all times; better your clothes get lost than your poster.



## Homework

1. Find a suitable conference on the Internet and following the organizers' requirements, prepare a poster for an appropriate section of the conference. The conference can be one which has already finished but the materials are still on the net. (The conference and topic can be the same as for conference abstract.)
2. Print the poster black-and-white on A4 and also send the electronic version (size, colours,...) to Teacher.
3. Be ready to present the poster.

### 4.4 Poster preparation in brief

- Read the information given by the organizers.
- Determine one essential concept you want to communicate.
- Reread the abstract which was accepted by the committee. Is still accurate or does it need modification?
- Collect all elements you will need (data, figures).
- Determine a logical sequence of the material.
- Organize the material into sections.
- Determine the size (usually given), set it in PowerPoint (size of the page).

- Arrange sections into the format you have chosen.
- Add graphics, follow the formatting requirements (empty space, line spacing, font type and size, justification, different sizes for different sections, colours) as discussed above.
- When your electronic version is ready, save the poster in a format which will appear the same on any computer screen (Adobe Acrobat, Corel Draw).

Arrange for print in a professional company, check before the print in the shop (printing in large size is quite expensive, so be sure your poster is perfect).

## **4.5 Presenting a poster**

Making a nice copy of a poster is only part of preparing for a poster session. You still have to communicate with the audience. Interacting with them demands thinking on your own, applying your social skills, and explaining the issues in your poster clearly. You should be ready for various types of audience, which will require individual attitude. Thus:

- Prepare for different versions lengths of your presentation (e.g. 1, 3, 5, and 10-minute long).
- Make sure you can sum up your poster key points and conclusions in 2-3 sentences.
- Practice starting your speech from different sections of your poster.
- Identify the parts of your poster that will be most challenging to explain and practise them hard.
- Anticipate people's questions and prepare answers.
- Produce supplemental handouts and/or photocopies of your poster (and probably the relating literature). You can place them in an envelope at the bottom of your poster area. However, do not substitute a handout for a good oral explanation - the handout is a "take away" piece to reinforce your message. It can be with the poster when you are not present, so people can take it with them.

- The same can be done with business cards – they can be placed in an envelope at your poster. People who come to the poster when you are not there will have a chance to contact you later.
- Find out where and when to set up your poster. The room or area reserved for posters is usually given in the meeting program. Arrive early to set up your poster. This will allow you to adapt to any surprises in the physical layout or unannounced changes in the method of displaying the poster. Additionally, it is easier to put up your poster when there are fewer people competing for space and equipment.

When the time of poster session comes, you must be with your poster, ready to explain whatever needed from the audience. To be a **good presenter**, you should follow some valuable advice:

- For the presentation be sure to dress professionally.
- Greet people with a smile and show your enthusiasm for your research.
- Find out why they are interested in your poster before you start your speech so that you are able to meet their expectations.
- If people approach your poster after you have begun your speech, pause to welcome them and identify where you are in speech, “Hello, I’m in the middle of explaining the methods we used to characterize the crystalline structure of polypropylene.”
- Do not stand directly in front of your poster where you might block people’s view. Stand to the side of the poster (of course, without blocking the neighbouring poster).
- Maintain eye contact with people as you present your poster. Do not read directly from the poster or from a prepared text. Reading may be understood as “lack of knowledge” by the audience.
- Pay special attention to the figures and tables on your poster.
- Summarize each section of the poster before moving on to the next section. For example, “Now that I’ve described the methods, I’d like to go on to the result we obtained.”

- Check your audience's understanding, i.e. create a feedback from their non-verbal signals or by asking them whether YOU have been clear or should go into a little more detail. Do not ask whether THEY understand what you have said.
- Use hand gestures to illustrate and reinforce the message and relationships, such as to refer to particular parts of the poster, so that people can follow your talk. Concerning body language, try to avoid putting your hands in your pockets or behind your back.
- One interesting trend in poster presentation is to supply visual aids, such as samples of materials you obtained in your research, or even video sections (e.g. results of your simulation), which you will offer to those who are interested.
- Maintain your professionalism. Thank people for listening and talking with you about your project: "Thank you for stopping to talk with me." "Thanks for your feedback on the crystallization mechanism." Your comment should show that **you were listening to them**, not just talking to them. Remember that the people attending the poster session may be your future research collaborators or even employers.
- The most important point of the poster presentation is to enjoy yourself while sharing your knowledge with colleagues.
- Know when to take your poster down. You will find in the programme when the poster session is over and when the poster must come down. Some of my colleagues were really disappointed to find their posters damaged, lying on the floor. Simply, if they failed to move their posters at a given time, the hotel staff did it for them but of course, not very gently.



#### Activity 4\*1

Present the poster you have created for homework. Prepare two versions – one short (1 minute), the other longer (3-5 minutes).

## 5. Oral presentations



- Warm-up:**
1. What is your experience with oral presentations (formal talks), either in Czech or in English?
  2. How can you recognize if the presentation is good or poor?
  3. Do you know a good presenter you would like to resemble?

Presentations are a way of communicating ideas and information to a group of listeners - audience. A good presentation has:

- **Content** - it contains information that the audience need. Unlike written reports, it must take into account how much information the audience can absorb in one sitting.
- **Structure** - it has a logical beginning, main body, and end, and must be ordered and presented in the speed (pace) enabling the audience to understand it.
- **Packaging** - it must be well prepared. A report can be reread, but the audience is at the mercy of the presenter. The listeners must be able to follow the ideas on first listening.
- **Human element** - a good presentation will be remembered more than a good report because it has a person attached to it, it gives the listener some emotions.

### 5.1 Aspects of a presentation

When preparing an oral presentation, you have to keep in mind several important features: the audience, the aim of the communication, differences between written and spoken communication, and the structure of the speech. All of them are in close relationship.

#### 5.1.1 Audience analysis

To start with, you must analyze the audience. Logically, your presentations, even on the same topic, will differ for common people and for experts in the area. Thus, you should formulate a strategy for the specific audience. You must know who the people are and why they are here, you should know their interests and expectations, and background

knowledge. This is a critical determinant in what information is presented (the content) and how it is presented (the form).

Are the people in the audience experts in the area with better knowledge than you, or are they your peers (Ph.D. students)? Are they experienced or just newcomers to the area? This will influence tailoring your message to the audience.

### **5.1.2 Communicative aim**

All meaningful spoken communication has an aim: this is not just to deliver information to a listener but to deliver it for a purpose e.g. to inform, to educate, to persuade, to entertain, to motivate, to explain. What do you want the audience to know, feel or believe after your presentation? This aim affects the way the speech is organised, its content and the language/tone and other means used to deliver the information.

### **5.1.3 Spoken versus written communication**

Listeners cannot reread the passage if they do not understand, neither can they control the pace at which the information is being delivered. They cannot note down everything that is said, and furthermore, if they are tired or bored at the particular time, they are not able to receive the information later. Unlike a writer, the speaker has only one occasion to deliver the message. Thus, if the listener is to get the information that the speaker presents, the speech must be easy enough to follow and stimulating to listen to.

Listening is much more difficult than reading since you hear it, as a rule, only once and you cannot get back as you do in reading. “Listeners” listen somewhere between 25% and 50% of the time. Moreover, people’s memory is quite limited; short-term memory holds only 5 to 7 points and people remember only 10% of what they hear (compared to 50% of what they read). Thus, if your audience listens only part of the time and remembers only 10% of what they hear, then your “communication window” is around 2.5% to 5.0% of your total presentation time. Keep this in mind when preparing your talk. Do everything you can to help the audience to listen and remember.

### **5.1.4 Structure**

Generally, a good presentation starts with an **introduction** and a “human touch” (sometimes called “icebreaker”), which can be a joke, story, interesting fact, quotation,

or even an activity to get the group warmed up. The introduction also needs an objective, i.e. the purpose of the presentation. This all should be said at the beginning.

Next comes the **body** of the presentation. There are several options how you can structure it:

- Timeline - arranged in chronological order. However, this is more often used in the humanities, e.g. history.
- Climax - the main points are delivered in the order of increasing importance and the presentation is finished with the most significant information.
- Problem-solution – with the four basic parts, as discussed in Academic Writing course in the previous year.
- Classification - the important items are the major points.
- Simple to complex - ideas are listed from the simplest to the most complex. Can also be done in reverse order.

After the body, **closing** or **conclusion** follows. Here you will include an overall summary, consequences of your findings, and proposed actions or options. This is not just to present data or summarized results; look at your research from distance, put it in context, give possible consequences, applications, etc.

In brief, when you are building the **structure of your presentation**, consider the following:

### ***Introduction***

- What? - overview of presentation (use visual aids if necessary).
- Why? - purpose of presentation - why is the subject important?
- How? - format you will use; what can the audience expect to see and learn?

### ***Main body***

- Rhetorical questions (and answers)
- Logical progression - indicate steps (A then B then C)
- Time series - order information from beginning to end, earlier to later, and so on
- Compare and contrast - use the same structure to compare different events, individuals or situations



- Problems and solutions; do not present problems without concluding with some recommended action
- Simple to complex - use successive building blocks to communicate complex processes or concepts
- General to specific - moving from general principles or values to specific applications or examples
- Generalization – an opposite process - from specific results/applications/ examples to general principles or conclusions.

### ***Conclusion***

- Review, highlight and emphasize - key points, benefits, recommendations
- Draw conclusions - Where are we? ... What does all of this mean in the context/research field? ... What will be the next step?

It is well-known that in a good presentation you say the information three times: in the introduction you indicate what **you are going to talk about**, in the main body you **talk about it** in detail, and in the closing/conclusion you say **what you have talked about**.



### **Activity 5\*1**

Prepare a short (3-5 minutes) presentation on one of the following (or your own) topics. Clearly distinguish the three basic parts.

- ✚ Public transport in your hometown.
- ✚ Study or work?
- ✚ A good place to go out.
- ✚ Nuclear power plants – yes or no?
- ✚ Family or career?
- ✚ Electronic and classical books – pros and cons.
- ✚ *Your own topic.*

### **Presentation as a journey**

To develop an understandable structure of your talk, imagine your presentation this way: You, as a presenter, are a leader of a group of people (audience) who are to get from point A to point B. Help them.

**Organize** your presentation in a logical manner and integrate it with your visual aids - provide structure and framework for the data you will present. Indicate the structure at the very beginning so that the audience knows what they can expect. Invite your listeners to the journey – motivate them – and indicate the way to the aim. During the way describe your progress and surrounding, and at the end of the journey look back where you have just been going.

**Illustrate** - help listeners to visualize - convert data to information, i.e. find relations and possible impacts of your findings. Provide your fellow travellers a graphical support, which are in the case of presentations graphs, figures, photos, real objects, etc.

**Use various means** – make your journey attractive. Use different methods and means both in the preparation and delivery of your presentation. You do not want your fellow travellers to fall asleep during the way; you would not get to the aim together. Your task is to get the whole group to the goal point, not only you.

However, for different travellers (understand “audiences”) the journey should be different. With some you will have to walk slowly, with some you should only go along certain paths, and on the other hand, some will require top performance, otherwise they are not interested.

### **5.1.5 Structuring aids**

In a speech, you cannot use indicators for a new idea as you do in writing (paragraphs), but you have other choices. The two basic types of aids are non-verbal and verbal. The former include:

1. *Pausing*. If you say nothing, you say a lot. Pausing can help you divide sections and subsections, or stress an important point. On the other hand, pausing in the middle of sentences confuses the listener, breaks fluency of the speech and can distort the message.
2. *Voice control*. Your voice is a powerful tool in delivering the message. You can use intonation, word stress, voice levels and changes in pace to underline key points. Keep in mind that rising intonation at the end of a sentence suggests a question, uncertainty or

incompletion. Do not use it for statements. A pleasant, expressive voice is far more stimulating to listen to than a robotic, monotonous one.

3. *Body language.* By changing the position of your body you can indicate the beginning of a new part. Unconsciously the audience perceives this non-verbal message. This is, however, less pronounced than the previous structuring aids.

**Verbal structuring aids** lead the audience through your presentation like signposts on the road. As the listener cannot get back in the presentation, you first turn him/her to the right direction and then they make the steps.

No matter what topic you talk about, the “signposts” can be very much the same. Examples of verbal structuring aids can be found in **5.3 Language of presentation.**

## **5.2 Preparation of presentation**

Let us have a brief look at the process of preparing a presentation as a whole. First, you must be sure about the **subject**. Choose a topic/findings that are new in the research area. Make sure it will benefit others in some way. Specify the scope you want to present; do not try to communicate too much.

The second factor which will influence presentation preparation is the **purpose**. Think of the purpose of your presentation: is it to inform (demonstration, explanation, process description), to persuade (to convince, to change people’s minds or attitudes, to get people to do something), or other? Mostly you will prepare presentations for a conference, so your aim will be to inform people about research results. Thus, your talk must be balanced, giving both positives and negatives.

The third important factor you must consider is the **time limit**. Give serious consideration to the time given for the presentation and limit your subject to that time. This means subdividing a larger topic into component parts until you find an angle narrow enough to be covered in your presentation.

Your presentation will be for a particular group of people. Thus, analyse your **audience**. At a conference you should consider the scope of the meeting and from this you can judge whether the listener will be from a broader or a very narrow area. This

will influence the background information. Remember that the audience is as much a part of this process as the speaker.

It is essential for you to be an expert in your research area (and related areas). **Research your topic** carefully. The more you know about it, the more assertively you can discuss it, and the more credible you will be to the audience.

Now that you have decided about the topic, formulate the main idea of your presentation - **thesis statement**. Then all your presentation should be in line with this. It will be the central principle which will be supported by **major propositions**. So, write down the ideas and facts on which your statement is based.

After this, you must decide about the **pattern of organisation** of the **main body**, i.e. organise your material into a logical pattern: chronological, problem-solution, topical, spatial, general-to-specific, cause and effect, etc., as already discussed. Eliminate material which is not directly relevant to your propositions and to your thesis statement.

It is good at this stage to ask your colleague(s) for **peer response**. This feedback may prevent you from later remaking your talk because it will reveal what may be clear to you, but is not understandable to others.

Then prepare the **introduction**. It should do three things: 1) attract attention; 2) establish a speaker-audience-topic connection; and 3) show the audience the way through the presentation. List and discuss your objectives. Let the audience know how your presentation fits in with their goals. Tell them what they should expect of you and how you will contribute to their goals. Be challenging and provocative (but not offensive!) - try to add stories, jokes, analogies, demonstrations. Provide variety; novelty will increase the impact. If you are the same as five speakers before you, no one will care.

The introduction must indicate the thesis and give it the background, and it should also give the aim of the presentation or your research. This aim will be addressed again in the **conclusion**: How was the aim reached? This is probably the most important part of your presentation since it will be best remembered. A conclusion should fulfil two tasks: 1) briefly summarise the content and link to your opening, your thesis statement; and 2) clearly indicate that you are approaching the end.

When the **draft** is ready, let it rest and come back to it later. Meanwhile you can find better explanation or at least formulation of ideas, or at second sight you will see what you do not see at first sight.

The basic ideas of the three main parts will now be put in an appropriate form, either on transparencies or more often in PowerPoint. Clear and tidy visuals are a must for an effective presentation.

If you are not skilled in presentations, which is often the case of PhD students, it is recommended to write a *full manuscript* of your presentation. This will help you formulate your ideas precisely, think about the meaning of the words. Use transitions to lead the listeners through the presentation. You will use this manuscript to rehearse the presentation - practise. Of course, **you will not read full sentences** during the presentation. When you feel confident enough, discard the manuscript and use only notes with items.

And finally – you must *practise*. This is the most important factor for effective public speaking. So, repeat the presentation several times, including visuals. In this stage you will see how much time the talk takes, and probably you will have to cut or develop some ideas. Practice and more practice will make perfect. A good way to practise is using a tape recorder or to use your friends as feedback.

To remember the principles of presentations, Engleberg (1994) proposes a “**7 P approach**”. You might find it helpful:

**Purpose:** Why are you speaking? What do you want audience members to know, think, believe or do as a result of your presentation?

**People:** Who are your audience? How do the characteristics, skills, opinions, and behaviour of your audience affect your purpose?

**Place:** Why are you speaking to this group now and in this place? How can you plan and adapt to the layout of this place? How can you use visual aids to help you achieve your purpose?

**Preparation:** Where and how can you find good ideas and information for your speech? What kind of supporting materials do you need?

**Planning:** Is there a natural order to the ideas and information you will use? What are

the most effective ways to organize your speech in order to adapt it to the purpose, people, place, etc.

**Personality:** How do you become associated with your message in a positive way? What can you do to demonstrate your competence, charisma, and character to the audience?

**Performance:** What form of delivery is best suited to the purpose of your speech? What delivery techniques will make your presentation more effective? How should you practice?

## 5.3 Language of presentations

As already discussed in the previous course, there are various aspects which have to be taken into consideration at presentations, both spoken and written. One of them is the organization, which can be indicated by verbal structuring aids: here are some of them for different parts of presentations.

### 5.3.1 Verbal structuring aids

#### *Opening the speech*

What I'd like to do this morning is to present the results of ...

I would like to tell you about ....

I'd like to give you some information on ...

I'm going to talk about ....

The subject of my speech is ...

This afternoon I want to deal with/look at ...

I think you already know something about ...

I would like to talk about ...

#### *During the speech*

To open my talk, I will ...

I'd like to begin by ...

I would like to divide my speech into 3 main areas ...

We can divide it up into 3 headings.

I'll be developing 3 main points.

I'd just like to run through the main points.

The first thing we have to consider is ...

First/Firstly/To start with ...

Second/Secondly/To go onto my second point ...

Finally/My third and last point is ...

I would like to turn to ...

...and that was a little bit about ...

There is one other thing to think about.

On top of that ...

Let's now consider ...

An interesting feature is ...

A significant point is ...  
Now let us move on to ...

A major consideration is ...  
So, as we can see, ...

### ***Closing the speech***

Let me summarise the main issues/points.  
...and I would like to sum it up ...

To sum up/Finally/To round off ...  
... well, I think that's all I have to say  
on ....

To go back to my initial argument ...

I would just like to remind you that ...

Now I am going to link this back to ...

This relates to my first point ...

To recapitulate, ...

To summarise, ...

I would like to conclude by ...

To round off my speech, ...

I do hope you have gained an insight into ...

### **5.3.2 Connectors**

If you present facts and ideas, both in written and spoken communication, you express relationship among them. For this you need specific words and phrases to express the result, cause, effect, contrast, and other functions. The list below may help you enrich the language used as connectors in presentations. It is divided by the function of the connector.

#### ***Addition***

additionally	again	along with
also	and	and then
apart from	as well (as)	besides,
equally important	further	furthermore
in addition	moreover	next
neither .....nor	together with	too
what's more		

#### ***Comparison***

after all	at the same time	by comparison
for all that	in the same way	likewise
meanwhile	similarly	simultaneously
unlike		

### ***Contrast***

at the same time	but	by contrast
conversely,	in contrast to	instead
notwithstanding	on the contrary	on the one hand

### ***Concession***

after all	all the same	Although this is true,
despite	even	even so
for all	however	in spite of
nevertheless	still	yet

### ***Result***

accordingly	as a consequence	as a result
consequently	hence	so (informal)
therefore	thus	

### ***Enumeration***

finally	first(ly)	furthermore
last(ly)	next	second(ly)
then	third(ly) etc.	to begin/start with

### ***Stressing a point***

above all	crucial	essential
first and foremost	I would like to emphasise ...	last but not least
most important(ly)	most important(ly)	My main point is ...
My primary problem is ...	of utmost importance	of vital importance
The major reason for this is ...	This is by far superior to ...	This is of considerable interest.

### ***Showing time***

Afterwards,	And then	Finally,
First, second, ...	Formerly,	Immediately



Later Soon,	Next Then	Previously,
<b><i>Giving examples</i></b>		
As an illustration, To demonstrate,	for example To illustrate,	for instance
<b><i>Emphasising</i></b>		
As a matter of fact, Indeed,	In any case/event Obviously,	In fact, That is,
<b><i>Repetition</i></b>		
As I've noted As I've said	In brief In other words	In short
<b><i>Conclusion</i></b>		
Accordingly, Hence,	As a result, Therefore,	Consequently, Thus,
<b><i>Summarising</i></b>		
In brief In conclusion	On the whole Summing up	To conclude

### 5.3.3 Description of visuals

Let us now look at some specific language features of the description of visuals. Usually, when talking about trends, changes and graphs, you will have to use words which depict a movement of numbers or amount. Below you will find a selection of these.

**General**

x-axis	y-axis	axes ( <i>pl.</i> )
bar graph	curve	deviating
exponential	flow chart	histogram
line (solid, broken, dotted)	line graph	linear
logarithmic	mean (=average)	mode
organigram	origin	parallel
perpendicular	pie chart (segments)	plot
range	scale	slope

**Talking about changes***upward movement*

increase	rise	go up
grow	expand	rocket
boom	climb	progress
escalate		

*downward movement*

decrease	fall	drop
decline	diminish	go down
regress	reduce	contract
shrink	slump	collapse

*end of movement*

flatten out	level off	stabilize
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*no change*

to remain constant/stable/ steady at	stagnate	to stay the same/at the same level
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*degree of change*

dramatically	considerably	significantly
moderately	slightly	steeply
sharply		

*speed of change*

rapidly	quickly	suddenly
gradually	steadily	slowly

*points on the graph*

minimum	local minimum/dip	maximum
local maximum	spike	peak
downward swing	upward swing	

*odds and ends*

by (20, 37, ...) %	fluctuation	percent/per cent ( <i>never plural!</i> )
magnitude	table	statistics

### 5.3.4 Linguistic means

The language of spoken presentations differs from that of written academic text. Basically, it is less formal as you communicate with the audience face-to-face. Also considering that the audience only hears the presentation once, the portions in which you deliver the information must be smaller. In practice it means that sentences are shorter, without so many digressions as you can afford in writing. The idea must be understandable at first listening.

Also grammar differs. While in writing you can find a lot of passive voices, gerunds and other –ing forms, in oral presentations these are often replaced by active voices (“The measurements of rheological properties were carried out...” vs. “We measured rheological properties ...”). Instead of condensed forms (-ing) you use looser structures, like relative or other clauses (“... the contamination resulting from ...” vs. “... the contamination which results from ...”, “Determining the effect of temperature ...” vs. “When we were determining the effect of temperature ...”).

The less formal style used in oral presentations also gives you a chance to get in closer contact with the audience using “you”, “let’s” or other personal structures. Also rhetorical questions, beside rising interest, are an efficient tool in creating relationship between the speaker and the audience. (“Have you ever thought about what process has water to go through before you can drink it?”)



### Activity 5\*2

Which of the following presentations are more likely to be in the written and which in the oral form? How do you know?

**I.** A frequent problem in the production of metallocene linear low-density polyethylene (mLLDPE) films is the occurrence of flow instabilities, e.g. sharkskin, or degradation of material, which limit the production rate and decrease the product quality. If such problems arise, the question is what causes these phenomena and how they can be avoided. With the aim of understanding these problems and providing some guidelines for their suppression, rheological measurements together with modelling of these melt flows are often employed. In the present study, flow behaviour of two commercially available mLLDPEs was determined and used for the process simulation. ...

**II.** Welcome to the National Science Museum's new exhibition: Robots: past, present, and future. This recording is intended to guide you through our exhibits. Before we begin our tour, I'll briefly review the history of robots in the twentieth century. Of course, you could argue that the history of robots goes back much further. Throughout history, people have tried to invent machines to perform a whole variety of tasks, such as writing, drawing, or even playing musical instruments. ...



### Activity 5\*3 - Improving your performance

1. Talk on a video camera for 10 minutes, e.g. about the street where you grew up.
2. Watch the tape and make notes:
  - a. Which words, phrases, sounds are too formal to you?
  - b. Is there anything interesting on your performance? What?
  - c. Is your performance natural? Why do you think so?
  - d. What do you think you could do to improve your performance?

## 5.4 Delivery

Delivery plays a very important role in the presentation as it directly influences the impression of the audience. The performance of the speaker directly affects the listeners' emotions. It can be seen from several viewpoints.

### 5.4.1 The voice

The voice is probably the most valuable tool of the presenter. It carries most of the content the audience takes away. However, while we can easily tell others what is wrong with their voice, (too quiet, fast, too high, too soft, etc.), we can hardly recognize mistakes and changes in our own voices.

There are four characteristics of vocal qualities:

**Volume**, i.e. how loud the sound is. The goal is to be heard without shouting. Good speakers lower their voice to draw the audience in, and raise it to stress something.

**Pace**, i.e. the speed of the speech. Talking too fast causes the presentation difficult to understand, while talking too slowly makes listeners fall asleep. Varying the pace helps to maintain the audience's attention. An important thing is pausing, which can help to emphasise the importance of a particular point.

**Pitch**, i.e. how low or high the voice is placed. Men usually have lower pitch than women, but inside the groups you can hear significant differences. During your speech you should change the pitch.

**Colour and tone**, i.e. it can have a flavour of irony, anger, surprise or other feelings. A voice of a person who fears is different from that who smiles, for instance.

Even if you are not an actor, you should work on your voice control. Try to tape your voice and you will probably be surprised what other people hear from you. (But this is common; most people have the same feelings.) Anyway, you will probably recognize some features you would like to get rid off. Your aim should be to speak to the crowd in a conversational tone. This will need practice, but helps substantially to improve the impression from the presentation.

So, vary your voice and the speed of speech. One of the major criticisms of speakers is that they speak in a **monotonous** voice. Listeners perceive this type of speakers as **boring**. It has been proved many times that people learn less and lose interest more quickly when listening to those who cannot modulate their voices. Thus it is good to change the pace of your delivery and the volume and intonation of your voice.

#### 5.4.2 Visuals

Visuals are one of the typical features of a presentation. They should support your communicative aim, enhance your verbal message, i.e. they must be closely connected to the ideas you are talking about, and during the presentation you should refer to them. Visuals also affect the emotional side of the audience's personalities (use of colours and images).

Visual aids significantly improve the interest in a presentation. However, they must be relevant to what you want to say. A careless design or use of visuals can simply ruin the presentation. What you use depends on the type of talk you are giving. Here are some possibilities:

- Overhead projector transparencies (OHP)
- Computer projection (e.g. PowerPoint)
- Video, film sequences
- Real objects - either shown from the lectern or passed around. (Employ as many audience's senses as possible - and suitable. If you are talking about perfume preparation, let the audience smell it, when your talk is about noise damping, use audio recording, if you present preparation of new surfaces/textile materials, let the audience touch it.)
- Flip-chart or blackboard – nowadays not very often used; however, they offer a possibility to expand on a point immediately.

At present, most often used are PowerPoint screens, even if transparencies, i.e. OHP still survives for some purposes. If you are to use them, adhere to the following basic advice:

Make sure you know well how to operate the equipment and also when you want a particular visual to appear. A very complex set of hardware can result in confusion for

both the speaker and the audience. Sometimes a technician/helping student will operate the equipment. In this case, arrange beforehand what you are going to do and what signals you will use. Edit your visuals as carefully as your talk - if a visual is not discussed in the presentation, leave it out. Always check your visuals - for consistency of fonts and layout, spelling and grammar mistakes.

Then, during your presentation, speak to your audience, not your visuals; they should support you, not the other way around. Ideally, transparencies/screens are graphics with limited number of words (people read faster than they hear and will be impatient for you to get to the next point). Graphics also gives you the facts, so you just express them in words.

If you use a laser pointer during the presentation, do not wave it in the air. Use it only for what it is intended and then put it down or switch it off (laser pointer), otherwise the audience will become fixed on it, instead on you.

### ***Good visuals are***

- **Visible** – even the most distant viewer must be able to see them. Each transparency or PowerPoint screen must include graphics or text large enough to be recognizable from each place in the room. The size of the screen can actually be changed by the distance of the projector from the screen, but of course, the size of the screen limited. So, use fonts and figures of an appropriate size, which will require only a minimum number of words per line and number of lines in the visual. Use colour on your slides, but avoid the colours that do not show up very well when projected. For text, white or yellow on blue is pleasant to look at and easy to read. Room lighting should be also considered. Too much light near the screen will make it difficult to see the detail. On the other hand, a completely darkened room can make the audience fall asleep. Also, if the room is dark, you cannot rely on reading your notes, which is dangerous.
- **Simple** - Do not want to include too much in one visual. The audience can only see the screen for a short time and can absorb limited amount of information. Follow the rule: one visual = one idea (of course, plus supportive details); avoid too much primary information. If you include too much, you risk making the slide unreadable

or distracting the audience's attention so that they spend time reading the slide rather than listening to you. In your talk, avoid using a diagram prepared for a research paper. It will be too detailed and difficult to read at first sight.

- **Clear** – Visuals must be immediately recognizable in the context of your verbal message. To distinguish more and less important points, use colours and different sizes of text, or use different means (some kind of animation). At the beginning of a visual description, provide overview (general statement), e.g. “The following figure shows the effect of temperature on viscosity.”, which, compared to a paragraph in writing, has a function of topic sentence.

In order to communicate your message most efficiently, apply a **variety of approaches** to the presentation of ideas with the help of visuals. It means:

- Combine both left and right brain sensory channels of the audience, i.e. left hemisphere for verbal communication, right hemisphere for graphics (charts, symbols, pictures, etc.).
- To emphasise, add colour (but be careful – some colours are unconsciously connected with some meanings, like red = danger)
- Use dynamic/changing transparencies or screens. Some animation can serve well, so you should be skilled in PowerPoint.
- Change backgrounds to alter pace or introduce a new topic.
- Change the layout of the visual (horizontal, vertical, diagonal).

However, **never overdo!** The presentation must be perceived as one whole, not a conglomerate of different styles. Balance between unity and variety. Do not jump from one style to another very often; it would make the presentation confused. And always keep in mind that the message you want to deliver is more important than the richness of means you use.

Good help for the preparation of your presentation can be templates. Some inspiration can be found on the Internet, e.g.

<http://www.nwlink.com/~donclark/hrd/templates/presentations.ppt>.

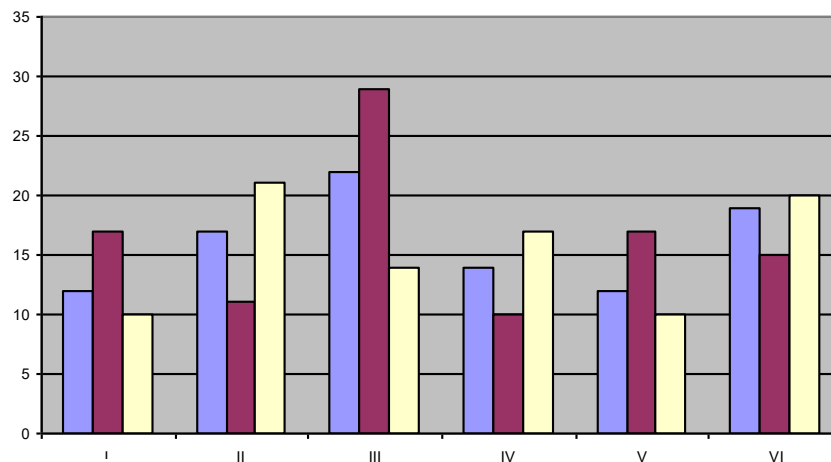


## Graphs

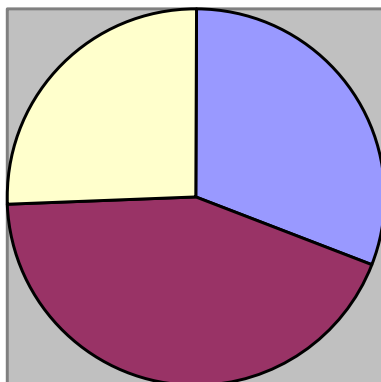
As researchers, you will often need to understand, talk and write about numerical information - with trends and relationships, and the changes involved. Technical information is frequently based upon statistical data, and one of the primary tools used within this area is the graph, another being a table. The former is usually more suitable for presentations, as it can instantaneously project the information. Graphs can show trends and relationships very briefly in the cases where you would otherwise need many words to explain or to study complicated tables full of numbers.

To brush up the knowledge you have about graphs, here is a short review.

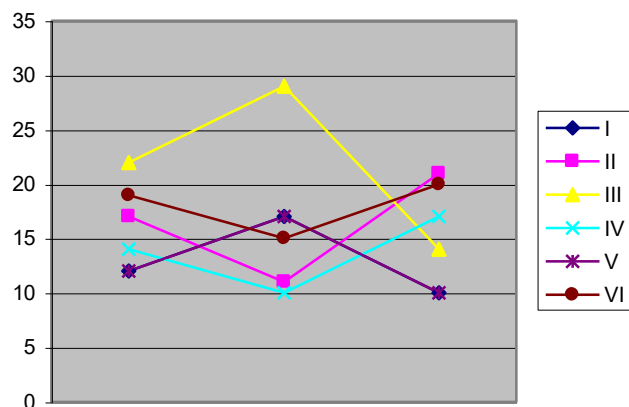
There are various types of graphs, such as bar graph, pie chart, line graph (below), flowchart, histogram and others.



Bar graph



Pie chart



Line graph

When preparing graphs:

- Make it simple, keeping in mind the audience and purpose;
- Place titles below or above graphs; keep them clear;
- Make them big enough to be seen from any place in the room;
- Keep them orderly, e.g. place the information in a logical order (e.g. chronologically);
- Use all means available, e.g. colours, arrows, different thicknesses of lines;
- Make the units agree, use SI units or those used in the area.

### **5.4.3 The body**

During your presentation people not only listen to you, they also watch you. Your body makes various impressions on the audience. If you keep good posture, it tells the audience that you know what you are doing and you care deeply about it. Also, a good posture helps you speak more clearly and effectively. Unsuitable posture, on the other hand, persuades them you are not involved in the research deeply and do not care about it very much.

Your body, or their parts, can work in various ways to address the audience:

**Posture:** You send different messages by the way you talk and move during your presentation. Standing upright, face to face to the audience, shows your friendliness, frankness. If you, on the other hand, stand with your back turned, or if you look at the wall (or other part of the room) all the time, you send the signal that you are not interested in the audience.

**Facial expression:** Smiling is a powerful tool that transmits friendliness, enthusiasm and warmth. Smiling often causes favourable reactions; it makes people comfortable and open to listen to you.

**Eye contact:** This helps to control the flow of communication. It signals interest in others and persuades them that they can trust you. This increases the efficiency of communication. Look at the audience as much as possible, but do not fix on an

individual - it can be unpleasant. Involve all the audience in your presentation, especially in larger rooms; do not talk just to the first row.

**Proximity:** This item is not relevant to every situation; however, you should take it into account. Cultural conventions dictate a comfortable distance for interaction with others, and they differ in various parts of the world. You should look for signals of discomfort caused by invading other people's space. In large rooms, space invasion is not a problem; on the contrary, in most instances there is too long distance between the presenter and the audience. To counteract this, move around the room to increase the interaction with your audience.

**Gestures:** The right movement of your hands can help you deliver the message very efficiently. If you fail to gesture while speaking, you will look like a dummy. A lively speaking style captures attention, makes the audience involved in the talk and facilitates understanding.

In the following we are going to deal with gestures in more detail.

### **Gestures**

As described before, novice speakers often either fail to use gestures or use distracting hand movements. Which of the following, you think, you do? Complete with some more possibilities.

- ☹ keeping your hands at your sides
- ☹ keeping your hands in the pockets
- ☹ grasping your hand behind your back
- ☹ grasping your hands in front of you
- ☹ playing with small objects (paperclips, pens, etc.)
- ☹ .....
- ☹ .....
- ☹ .....

How would you like to improve your gestures?

## Improving hand gestures

Some ideas you are presenting can be strengthened by your hands. Below you will find several possibilities; add some more ideas.

Gestures enable to

- mimic or demonstrate an action (using an imaginary tool)
- outline the shape, size of the thing you are talking about (tall, round)
- demonstrate characteristics of an object (elastic, smooth)
- stress an object by pointing at it (a person, a step in a process)
- emphasize a key point in a presentation
- .....
- .....



### Activity 5\*4 - Gestures

Read (or just say) the following sentences with appropriate hand gestures:

- a) Let me introduce Professor Peter Toucher, the Rector of the University.
- b) There are three basic types of synthetic polymers: thermoplastics, thermosets and rubbers.
- c) The mechanism moves in the clockwise direction.
- d) Nanofillers have very small or tiny particles.
- e) The surface area of an object differs according to its shape. The smallest surface can be seen for spheres.
- f) Acid rain falls to the ground and deposits on plants.
- g) Hold the tool between your thumb and index finger.
- h) Let's have a look at the instrument from right to left.
- i) ... and then he came and punched me in the nose.
- j) This type of waste is very, very dangerous.

Now, **you** create some sentences from your area and present them with adequate gestures.

We all have a few bad or annoying habits. For example, somebody says "uh," "you know," very often, or puts his hands in the pocket and jingles the keys, which distracts the audience from the message he/she is trying to communicate. Avoid them; if you know that during presentations you play with buttons or put your hands in the pockets, try to not wear clothes with pockets or buttons. And even more, if you put hands in the pockets for a long time, it makes you look offensive and loudish.

The best way to break some of these distracting habits is to get immediate feedback from co-workers or friends.



#### **Activity 5\*5 – Annoying habits**

1. Take turns giving short talks about your favourite hobby, ..... etc. The talk should last about 3 minutes. During a speaker's first talk, the audience should listen and watch for annoying habits.
2. After the presentation, the audience should agree on the worst two or three habits that destroy the presentation most. After agreement, each audience member should write these habits on a sheet of paper (such as the word "Uh") in big letters. The next time the person gives her or his talk, each audience member should wave the corresponding sign in the air whenever they hear or see the annoying habit.

#### **5.4.4 Timing**

The time for your presentation at the conference is always limited. (In less formal situations it is often the same, and if the limitation is not from the outside, **you** should know how long you will speak). There is nothing more frustrating than to hear from the chairperson that the time is over and you have to finish in the middle of explaining your brilliant ideas, so the audience will never learn your conclusions. It is better to finish slightly earlier and have more time for questions than to overrun. Thus, when you have the first version of the presentation, you should rehearse it with all the things you will be doing in the real presentation. Speaking loudly takes much more time than if you just read the text for yourself. Also showing your visuals and pointing at details slows the

presentation down. The first rehearsal gives you the idea how long the presentation is, and whether you should shorten it or extend.

In timing you should also take into account the question time, as it is mostly part of your presentation.

## **5.5 Question time**

The question time is often a nightmare for the speaker. If you are clever enough, you should take these several minutes as a chance to precise your ideas and get new impulses from experts. However, the true is that you must understand not only the area you are directly discussing, but also the background of the problem. You, as a PhD student, are supposed to have this knowledge.

A good message for you is that some types of questions can be expected after your presentation. Some speakers are clever enough not to give some information intentionally, or because of a short time, they do not discuss some points and expect the discussion at the end of the presentation. So, in the stage of preparation think about possible questions, or ask your friends what they would ask about and prepare answers. You can even prepare visuals to support your answers; these are not to be shown in the presentation but are ready for the question time.

If you want to provide a good answer, first you have to understand the question. Sometimes it is really a hard job if the inquirer has a strange accent, which you do not understand. Make really sure you hear the question properly. If you do not understand, ask the questioner (“Could you repeat the question, please?”). Sometimes it is quite difficult to understand either native speakers who use some dialect, or Asians (Chinese, Japanese, ...) who have very strange pronunciation for us. In this case, try to get at least the key words from the question and paraphrase it. He/She will either agree with your version or will modify it, but you will get closer to the aim.

If, for a while, no one asks a question, do not rush ahead. Pause for several seconds to allow the audience to gather their thoughts. When a question is asked, be sure you understood it well by repeating the question, or better, paraphrasing (saying in your own words). When answering, address your remarks to the whole audience. This will keep

everyone involved, not only the questioner. To reinforce your presentation, try to relate the question back to the main points (“As I said in my presentation,...”, “You surely remember the graph I presented. ....”).

Actually, repetition of the question is always recommended. It will not only make you sure that you have understood, but also enables all the others to hear it and last but not least, it will give you several seconds to think the answer over. Getting time is always very important, so it is very good to make a pause before every answer, even if you know it immediately. Thus, the responses where you hesitate will not seem so uncertain.

Also the fillers (“well”, “OK”, ...) will help you here if you pronounce them automatically and in the time you can concentrate on what to answer. Sometime the filling phrase can be longer, like “Oh, this is a good question, thank you very much”, but be careful you compliment each questioner (of course the phrases will not be exactly the same!), otherwise they will have the feeling that their question was not good.

A major point is that the presenter should always maintain control of the session. So if somebody asks you about something which is not directly connected to the topic, refuse it politely, do not digress. In your answers, be firm and assertive but never aggressive or defensive. Avoid circumstances you could be sorry for and have to apologize later. Keep cool if a questioner disagrees with you. You are a professional! No matter how hard you try, not everyone in the world will agree with you!

If a questioner becomes provoking, try to get the audience on your side and remind him of the goal of your presentation.

Although some people get a perverse pleasure from discrediting others and some try to look better than they really are, most people ask questions from a genuine interest. Questions do not mean that you made a mistake not explaining the topic well enough, but the questioner’s interest is deeper than the average audience’s.

Answers should be neither very short nor very long (something between 10 and 40 seconds). If they are too short, they seem impolite; while in long answers you (or the audience) can get lost. This is always improvisation and much more difficult to be structured immediately. This need some practice.

Be honest: if you cannot answer the question, say so and promise to obtain additional information and get in touch with the person later. For this purpose you should have your business cards ready. You can say something like “This is a very good question. Unfortunately, I have never thought about the issue from this point of view. If you don’t mind, we can exchange our contacts during the break and I will inform you after the conference.”

Actually, you are going to be the presenter only for some half an hour, but all the rest of the conference time you will be a member of the audience. To get the most of your participation, you should be a good questioner. In this role, do not try to do what you hate being done. Avoid rhetorical questions which cannot be reasonably answered, ask interesting questions that may seem provoking but are not too difficult to answer. Ask open-ended questions with no “right or wrong” answers, life (and science) is more complicated. Encourage sharing experience or opinions. Ask questions which you are interested in, but make them relevant also to the audience.

As you know the topic of presentations in advance (or can even read an abstract in the proceedings), you can prepare key questions prior to the presentation. It is better to think them over than to ask what comes to your mind on the spot.

In the question time, listen carefully to comments and opinions on your (but also other people’s) presentations. By using a lateral thinking technique (adding to ideas rather than dismissing them), the audience will feel that their ideas, comments, and opinions are worthwhile. And more important for you – your research will be enriched by the ideas you would never create by yourself.



## 5.6 Types of presentations

In the following you will find basic types of presentations you will be using in your professional life. Unlike the previous part, this is more practically oriented.

### 5.6.1 Introducing oneself and colleagues in different situations



#### Warm-up

The very basic thing, not only in the academic environment but in any contact between people, is to be able to introduce either yourself or someone else.

In your experience, what are the situations in the professional life when you use these skills? Give examples:

- 1) .....
- 2) .....
- 3) .....
- 4) .....

The different occasions require different content and organization of the introduction speech, and also different levels of formality.



#### Activity 5\*6

Work in pairs. What would you say in the following situations?

- 1) You arrive at a conference. Introduce yourself to the person at the registration desk.
- 2) You are at a conference, sitting in the lecture hall. Introduce yourself to the person next to you.
- 3) At a conference you have arranged (through the phone) an appointment with a person from your research area you have never seen before. You see someone you think might be the right person. Talk to him/her.
- 4) Introduce a person who is visiting University/your organization to a colleague.

Match the sentences to previous situations

- a) Mr. Black, may I introduce you to the Head of the department, Mr. Toucher?  
Mr. Toucher, this is Mr. Black, President of Blackmail company.
- b) Mr. Brown, I'd like to introduce you to a colleague of mine, Peter White.
- c) Can I introduce myself? I'm .....
- d) Excuse me. Would you by any chance be Ms Jekyll?
- e) Hello. I don't think we met before. My name is .....
- f) Good morning. I'm Paula Greenhorn and I'm a participant in the conference.
- g) Sorry to interrupt you. Do you happen to be Ms. Jekyll from Hide company?
- h) I don't know if you remember me. We met ....

Which of the phrases are more and which are less formal?

What replies can you expect?



### Activity 5\*7

Now, you should introduce a visitor who is coming to University. Look at two different structures of information you want to present:

#### A

- Name and country
- Bc. degree (1996)
- First job (1996-1998)
- Second job (1998 – 2001)
- Third job (2004 – 2006)
- Current studies and research area
- Current interests
  - Family – first baby
  - Sports – football, ice-hockey
- Closing

#### B

- Name and country
- Educational background
  - Bc. degree
  - Mgr. degree
  - Current studies
- Work experience
  - First job (1996-1998)
  - Second job (1998 – 2001)
  - Third job (2004 – 2006)
- Hobbies
  - Sports
  - Family
- Closing

What difference between the structures can you identify? Which of the talks is better organized? Give your ideas.



### Activity 5\*8 - Organization indicators

In **B** example above, follow the work experience. It can be (with some more details) said in different ways:

1. Following his graduation, Lucas first worked as a technician, then he was promoted to laboratory supervisor and after that he became an instructor.
2. Following his graduation, Lucas had three different jobs in the laboratory. First he worked as a technician, then he was promoted to laboratory supervisor and after that he became an instructor.

- How are the introductions similar/different?
- Which one do you prefer? Why?

Beside the content and organization of the introductory speech, you also have to consider social aspect of the speech and possible cultural differences between different nations and countries. What is acceptable in Europe can be a faux pas in Asia, for example.



### Activity 5\*9 – Correctness in introduction

Read the following introduction and then answer the questions which follow.

Dear colleagues, this pretty lady is Jane. She is from Bradford and she lives at 54 Short Street if you want to visit her. Jane started studying in PhD programme and specializes in biodegradable polymers. She first showed her interest in the topic at the age of 5 when she hid some plastic bags in compost. She was excited by the dirty pieces of plastic which her dog dug out of the compost.

- How do you like this introduction?
- Would you omit anything? What?

- Would you include some more information?
- Do you like the story with compost or would you rather eliminate it?



### Activity 5\*10 – Introducing speakers at conferences or seminars

At academic or scientific conferences the speaker is often introduced by one of the organizers or the chairperson of the session. In the following situation the guest speaker, Phil Martyn, is being introduced by the head of the Department of Engineering. The topic of the international seminar is Information Technology in Polymer Engineering, and the seminar was designed for the teaching staff of the faculty.

Read the introduction and then answer the questions. For your convenience the sentences are numbered.

<sup>1</sup>Good morning everybody.

<sup>2</sup>Welcome to our international seminar where we are to discuss the use of IT in the area of engineering, or more specifically, polymer engineering. <sup>3</sup>The title of the opening speech is “Can IT replace an engineer?” and it will be presented by our guest – Professor Phil Martyn, who deals with modelling of processes at the University of Nevada in Reno (which, as you may know, is in Nevada, U.S.A.). <sup>4</sup>Prof. Martyn obtained his Master degree in 1992 and PhD in Applied Mathematics 5 years later at Stanford University. <sup>5</sup>Among the courses he teaches are Introductory to Discrete Mathematics, IT in Applied Mathematics, and Experimental Methods. <sup>6</sup>For his achievement in teaching he was awarded the Rector’s Ribbon. <sup>7</sup>He is a distinguished personality in the area of scientific publications and author of several textbooks. <sup>8</sup>His research covers a broad field – from first order derivative equations to modelling of polymer flow, both in melt and solid state.

<sup>9</sup>So much the official introduction. <sup>10</sup>To introduce him as a human being – people say he is someone you should know for his friendly attitude to students and colleagues, readiness to help, his sense of humour and creativity. <sup>11</sup>It is my great pleasure and honour to welcome our first speaker – Professor Phil Martyn.

- 1) What information is included in the introduction?
- 2) How is the speech structured?
- 3) How does this introduction speech take into account the purpose and the audience?



## Homework

Prepare an introduction speech ca 5 minutes long:

A new person from abroad is coming to spend some time at your department; your task is to introduce him/her to your colleagues. Say who he/she is, where from, what is he/she going to do at the department, how long the stay will last, and add some personal information which can be of interest for the others. Do not fail to clearly distinguish the basic parts of speech (introduction, main body, conclusion).

## 5.6.2 Defining terms

A definition is

- a phrase or sentence that says exactly what a word or phrase means (Longman).
- a statement of the meaning of a word/word group/sign/symbol (Merriam-Webster Online Dictionary)
- a statement of the meaning of a word, phrase, or term, as in a dictionary entry.

As you surely remember from the previous course (Academic Writing), a standard definition consists of several basic parts. Can you identify the parts in the following definition?

A dog is an animal that has four legs, guards the house and barks.

As a rule, a definition consists of three basic parts. First you give the **term**, then you classify it, i.e. put it in a **category** which is on a higher level of generality, and finally you introduce **distinctive features**. In the sample definition the term is a dog, the class is an animal, and the rest of the sentence is distinctive characteristics. Each of the parts has some features. The term is mostly a singular noun and is preceded by the indefinite article (if the noun is countable, e.g. model, extruder) or by nothing (if the noun is uncountable, e.g. writing, extrusion). The same rule holds for the second part of the definition. The third part, distinctive features, distinguishes the term from other terms in the same category. In our example it distinguishes a dog from a cat, a cow, a bird, etc. Grammatically, it is a relative clause, and because it is essential for the meaning of the sentence, it is the defining/identifying type. (This means in writing, the clause is not separated by commas.)



### Activity 5\*11 – Formal definition

Prepare formal definitions of 5 of these terms:

dictionary

mother board

residual

nutrition

additive

modem

plastic

controller

moulding

greenhouse effect

rubber

operating system

ozone

rheology

pixel

extruder

nanofiller

calorimetry

computer

injection

tyre

*(you can add your own).*



### Activity 5\*12 - Other ways of defining

Beside the “classical definition” you can explain a term also in other ways. In the following examples, identify how they differ from the formal definition and how they are specific:

- 1) What’s the definition of thermometer? Well, it’s a device or tool that measures the temperature of substances.
- 2) A thermometer is a tool or device you use when you want to find out the temperature of a substance.
- 3) Thermometers measure temperature of substances.
- 4) A thermometer can be defined as a device or tool that measures the temperature of substances.
- 5) By thermometer I mean a tool that measures the temperature of substances.

### Substitution

In a presentation you may use words which are unfamiliar to the audience. However, if you always explained the term in the form of definition presented above, your speech would be often interrupted, which would disturb the audience. Thus you can use substitutions – **examples, paraphrases, synonyms** or **acronyms** – which shorten the explanation. See examples:

	Meaning	Example
<b>Substitution</b>	representatives of the term	Carrying bags are often made of polyolefins, such as polyethylene.
<b>Paraphrase</b>	clarifying the meaning in other words	The material is translucent; in other words, light can pass through it.
<b>Synonym</b>	one or two words which have the same or similar meaning	A camera has an aperture or hole where the light passes through.
<b>Acronym</b>	initials or letters which stand for a longer term	Liquid crystal displays or LCDs ....



### Activity 5\*13

Give an example for each type of substitution from your area of research.

### Extended definition

A definition can be extended with various aspects of the term. The extension can deal with history, function, structure, price, problems connected with the object, possible future development, etc. (see Swales: Academic Writing for Graduate Students).

### Using transparencies with outlines

One thing which can help follow the structure of your presentation is the use of visuals (either transparencies or PowerPoint screens) with outlines. How can it be beneficial? Give some reasons.

Actually, visuals with the presentation structure can help both the speaker and the audience. This type of visual:

- reminds the speaker of what he/she is going to say next, so it leads the speaker through the presentation;
- helps the audience to follow the speaker's organizational pattern;
- supports the audience's understanding in case they do not hear/understand the speaker properly (key words and major points are clear from the visual).





## Activity 5\*14

Look at the following visual and the answer the questions:

- 1) Where is “polymer” defined?
- 2) In what way is the definition extended?
- 3) How is the speech organized?
- 4) Can the transparency be improved by adding some pictures or otherwise? How?

Introduction to polymers

What is a polymer?

Characteristics of polymers

Molecular structure of polymers

linear

branched

network

Classification of polymers

thermoplastics

thermosets

rubbers

Examples of polymers

Conclusion

### **Strategies for opening your speech**

The beginning of your talk should motivate the audience and raise their interest in the topic. It can be done in various ways, as listed below (and the strategies can also be combined):

- Placing the topic in the context
- Asking a question (either rhetorical or real)
- Describing a hypothetical situation
- Giving historical background to the topic
- Presenting an example

- Telling a story you experienced
- Using a picture/cartoon/short video
- Playing sounds (e.g. while presenting sound damping properties of a material)
- Using a real (3-D) object
- ..... (complete) .....
- .....



## Homework

Prepare a 5-minute “extended definition” presentation of a term from your field of study. Choose a term that can be explained to a general academic audience.

1. Think carefully of the opening. Before the definition itself, motivate the audience by giving the context to the term and/or stressing the importance of the thing/process, or other ways.
2. Define the term carefully (use the formal definition). Use your visual to support understanding.
3. Develop or extend the definition. Go back to Swales (Academic Writing for Graduate Students) to see how a definition can be extended.
4. Use substitutions to clarify quickly any unfamiliar terms.
5. Use signposts to move from one part to another. Employ connectors to show the relationship between ideas.
6. Keep in touch with your audience during the presentation. Use rhetorical or direct questions. Get the feedback from the audience and respond accordingly.
7. Use visual aids (speech outline, pictures) to enhance the message.
8. Practise your speech.

### 5.6.3 Object description

In academic environment (but not only here) you often have to describe an object – an instrument, product, machine, ..... Look at the visual and read the following description of an extruder presented by a student of technology.



<sup>1</sup>Good morning everybody.

<sup>2</sup>For my presentation today I've chosen an object which is related to my area of study – technology. <sup>3</sup>In processing of polymers, both plastics and rubbers, extrusion is a very often used technology. <sup>4</sup>So, I am going to talk about an extruder. <sup>5</sup>I'll describe the machine from the right to the left, as it is the direction in which the material is transported and processed.

<sup>6</sup>I think you have seen extruders many times from the outside, but it may be also useful to know what it looks like below the hood.

<sup>7</sup>First, on the very right (*pointing to the visual*) you can see a motor. <sup>8</sup>This can be AC or DC, and the speed can be varied. <sup>9</sup>To the left of the motor is placed a reducer, which is specifically designed, with heavy wall, two piece iron housing. <sup>10</sup>All shafts are supported on roller bearings, which reduce the friction.

<sup>11</sup>Further to the left you could see a barrel with a screw. <sup>12</sup>At the beginning of the barrel, it means on the right in the picture (*points*), a hopper is placed where material, either plastic or rubber compound is fed. <sup>13</sup>Then, from the hopper it is transported by the screw. <sup>14</sup>The screw has a shape of spine with a helix on it and is driven by the output shaft from the reducer. <sup>15</sup>To ensure the proper function of the screw and smooth movement of the material, the barrel is inlaid with, for instance, brass liner. <sup>16</sup>So, this was the inside of the barrel.

<sup>17</sup>From the outside the barrel can be cooled or heated. <sup>18</sup>For air cooled extruders, air blowers are installed, or alternatively the cooling can be ensured by water. <sup>19</sup>Here (*points*) you can see flexible hoses. <sup>20</sup>This system is more complicated and I'm not going to describe it in detail now.

<sup>21</sup>The opposite direction of heat transfer is ensured by electric resistance heaters that are bolted to the barrel. <sup>22</sup>The temperature of the barrel, as well as many other functions of the machine, can be precisely controlled. <sup>23</sup>Here in the picture (*points*) you can see the control panel.

<sup>24</sup>At the end of the barrel, in our case on the left-hand side, an extrusion head is located with a die which gives the shape to the material exiting from the barrel.

<sup>25</sup>Finally, at the bottom of the machine you can see a steel base which, in the plant, is mounted to the ground and ensures stable disposition of the machine.



### Activity 5\*15

Discuss the following questions:

1. What are the purpose and the topic of the presentation? Who is the topic appropriate for?
2. What introduction has the speaker chosen?
3. How is the presentation organized? What indicates the organization?
4. Find the words and phrases the speaker uses to move from one part of the machine to another. How is the end of the description indicated?
5. What words are explained in the speech? What is not explained and why, you think?
6. Is the visual effective? Why/Why not? How would you improve it?

## **Organization of speech**

The sample presentation above is organized from right to left. Commonly, the ways of organization are:

1. Spatially (as in the example)
2. General – specific organization
3. Most important – least important part (or the opposite)
4. Logically

The patterns, of course, can be combined.

### ***1. Spatial organization***

The described object may have a form or a function which suggests a specific description in space.

- Left to right\* or right to left
- Top to bottom\* or bottom to top
- Back to front or front to back
- Inside to outside or outside to inside
- Clockwise or counter-clockwise

\* These are preferred in the countries where people read in this way. In Arabic countries the second possibilities may be suitable. However, if the presentation is in English, the first is more suitable (unless the function requires otherwise).

### ***2. “General – specific” organization***

The described object may consist of several major parts. The presenter first introduces the object and then its parts, first in general, then in detail (from general to specific).

### ***3. “Most important – least important” organization***

The speaker can also start with the most important part of the object and then discuss other relevant but less important parts (e.g. structure of an organization). An opposite case is also possible, such as description of a river from streams, through crooks to the river.

#### ***4. Logical organization***

Sometimes the function of the object requires explaining parts of an object in a certain order, regardless of spatial or other arrangement. The relationship between parts may be best shown in this strategy.

#### **Language means**

For the description of an object you will need certain vocabulary. Here are some examples for different aspects of the description:

***Size*** - large, small, tall, slim, tiny, huge, thin, thick, dimensions of ... by ... centimetres, wide, narrow, ...

***Shape*** - triangular, rectangular/oblong, square, pyramidal, conical, spiral, round, heart-shaped, curved, wavy, spherical, oval, helical, ...

***Material*** – (*made of*) metal, steel, aluminium, cast iron, brass, wood, plastic, rubber, composite, glass, ceramics, stone, cotton, wool, paper, cardboard, linen, ...

***Appearance*** - shiny, dim, transparent, translucent, opaque, rough, smooth, red, black (*colours*)

***Properties*** – flexible, tough, ductile, elastic, plastic, heavy, light, soft, hard, fragile, coarse, ...

***Function/Purpose*** - Function can be described in various language structures. Let's take "an oven" as an example (*the structure is in bold*).

- 1) An oven **functions as** a heater in the kitchen.
- 2) **The purpose/function of** an oven **is to** heat ...
- 3) An oven heats ...
- 4) An oven **is used to** heat ...
- 5) An oven **is for** heating ...
- 6) **What** an oven **does is to** heat ...



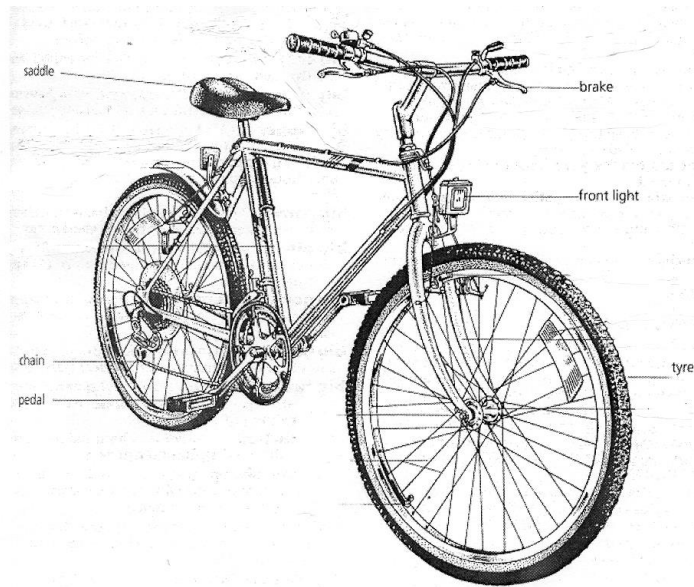
### Activity 5\*16

Express the function/purpose of an object from your area (or everyday life) in the ways given above.

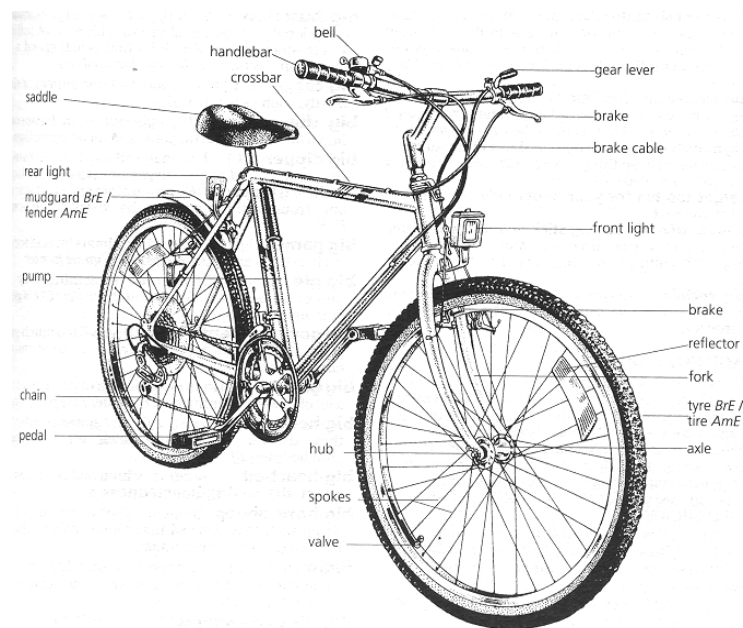


### Activity 5\*17 - Using visuals

Look at the picture – visual aid for a presentation. Which organizational strategy would you use? Why?



Look at the original picture from a book. Compare the two drawings. What changes have been made to the picture? How do they make the visual more effective?



From *Longman Dictionary of Contemporary English*, Longman, 2001



## Homework

1. For homework prepare a 5-6 minute presentation in which you describe an object from your area of studies. Choose an object that the audience is familiar with but does not know much about. If your area of studies focuses on abstract concepts, you may wish to describe a standard written text commonly used in your field, such as a case study or a report.

Do not discuss a process or “problem – solution” for this speech. They are different speech types and will be discussed later.

2. Think about your audience. What audience characteristics are relevant for this speech? Ask yourself questions such as “ Is my topic too difficult or too easy for this audience?”
3. Keep your time limit in mind. If your object has a large number of parts, focus only on the major parts and eliminate the others.
4. Place your object in a larger context. Give adequate background information about the object and discuss its importance. Define it, if necessary.
5. Choose an organizational strategy (or strategies) that suits the object you will describe.
6. Think about the language you will use to introduce or point to the object and its parts and move from one part to the next.
7. Choose vocabulary that will be helpful in describing your object. Use less formal, more colourful adjectives when appropriate if you think it will enhance your speech.
8. When explaining the function of the object or its parts, use a formal definition or terms that express purpose.
9. Make one or more Power Point screens of the object. Make sure that a) the visual has a title and that the important parts are labelled, b) both the picture and lettering are large and clear, c) all unnecessary writing is eliminated. Keep in mind that if you spend too much time preparing your visual, you may not have enough time to devote to your speech. If you prefer to bring a real object, be prepared to use the board to write key terms.



#### 5.6.4 Explaining a process/procedure

Hardly any presentation in technology can do without description of processes or procedures. They may be explained, created, modified, implemented, proposed, etc. We dealt with process description in the previous course, so go back to Swales (Academic Writing for Graduate Students) to revise the basic language means.

**Processes** are generally viewed as series of changes, events or steps which follow in time, i.e. they have a beginning and an end. Sometimes, however, the processes are cyclical, so they repeat again and again. Processes can be natural (water cycle) or involve human intervention (plum brandy production). Established processes for carrying out specific tasks are usually referred to as **procedures**.



#### Activity 5\*18

Give examples of processes from your research area. They may be from the production technologies, measurements, grant applications, writing a research paper or others.

Depending on the purpose, talks with process description can be organized in various ways, e.g. if the speaker wants to highlight some improvements in a process, he/she will only concentrate on the changed steps in the process. If, on the other hand, they want to explain a completely new process, all steps will be given in chronological order.

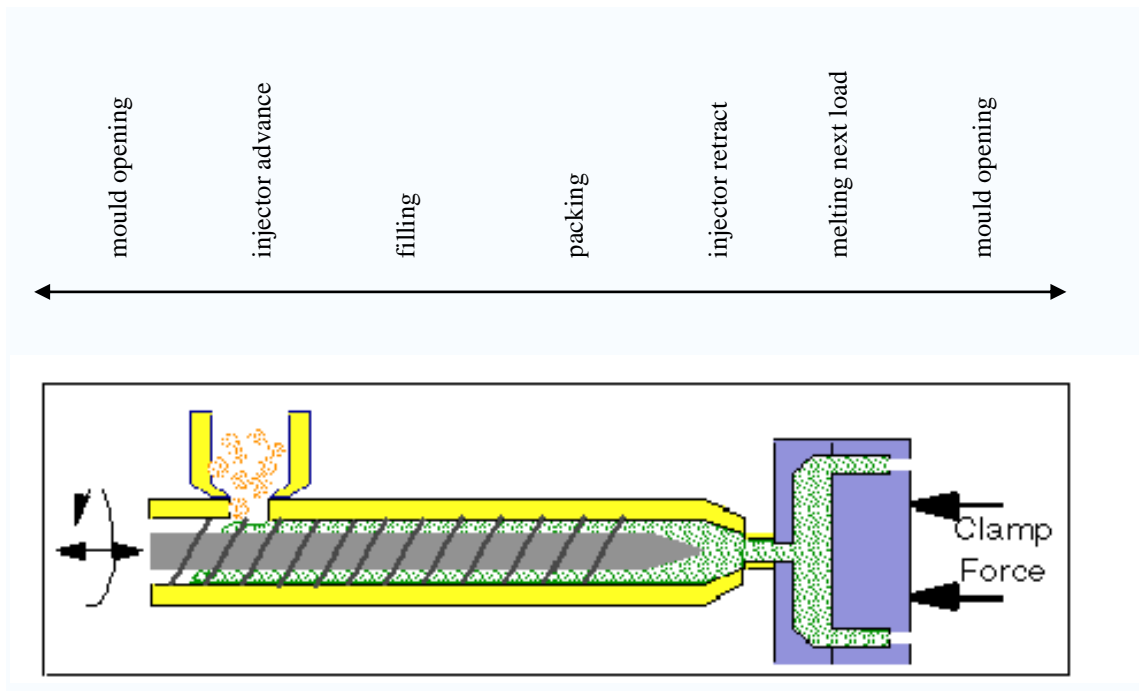
Compared to object description, explaining a process is more challenging and much more complex since a process may require description of several objects, tools, machines, etc. Besides, you have to be able to talk about materials (and sometimes even people) involved in the process. That is why you need to plan your speech carefully and think twice what background information the audience needs to get before the process description itself, what terms might be unfamiliar to them and when is the right time to introduce and explain them (at the beginning? during the presentation?), what strategies to choose to present the steps in the process to make them most accessible.



### Activity 5\*19

Look at the following visual. What procedure has the speaker chosen to describe?

- 1) What is the topic of the talk? Is it suitable for academic audience from the area of technology? Would you be interested in listening to the speech? What would it depend on?
- 2) How many steps does the speaker discuss? What organization indicators could the speaker use?
- 3) What information does the speaker include in the transparency?
- 4) What terms, you think, should the speaker define in his speech? Is he more likely to explain the terms at the beginning or during the presentation, as they appear?



### Activity 5\*20

Read a presentation on injection moulding. Find which of the following strategies the speaker uses in the presentations:

- a) a rhetorical question
- b) the purpose of the process
- c) the definition of the process

- d) other important definitions/explanations of terms
- e) the number of steps in the process
- f) equipment used in the process
- g) material used in the process
- h) people involved in the process

How does the speaker start the talk? Is it suitable?

<sup>1</sup>Have you ever thought of how a number of plastic objects you use every day are produced? <sup>2</sup>Many times the products are very cheap or even disposable, it means you use them once and throw away. <sup>3</sup>What technology enables to get the price to the low level? <sup>4</sup>Today I'm going to explain you a process of injection moulding, which enables production of the cheap plastic things.

<sup>5</sup>In injection moulding, heated plastic is forced under pressure into a mould cavity. <sup>6</sup>The mould is then clamped together and the plastic solidifies into the shape of the mould, creating the part.

<sup>7</sup>At the beginning of the process, plastic pellets are poured into the feed hopper, a large open bottomed container, which feeds the granules down to the screw. <sup>8</sup>The screw is driven by hydraulic or electric motor, which turns the screw. <sup>9</sup>This feeds the pellets up the screw grooves. <sup>10</sup>As the screw rotates, the pellets are moved forward in the screw and they undergo extreme pressure and friction, which generates the heat needed to melt the pellets. <sup>11</sup>Heaters on the outer side of the cylinder assist in the heating. <sup>12</sup>The temperature of the material during the melting process is controlled.

<sup>13</sup>To firmly close the male and female mould parts, a hydraulic system is most often used. <sup>14</sup>After the mould closure, the liquid material is injected into it under the pressure of the injection screw, and after cooling the material – plastic - takes the shape of the mould. <sup>15</sup>Cooling of the mould is supported by water-cooling channels in the body of the mould. <sup>16</sup>The cycle is completed when the mould opens and the part is ejected (with the assistance of ejectors in the mould).



## Homework

Prepare a 5-minute talk which describes a process in your field of study.

- 1) Choose a topic that can be discussed in the time given and is suitable for PhD students in your group. It should be neither too simple, nor too complicated for the given audience, otherwise they will lose interest.
- 2) Start with motivating or provoking introduction to get the attention; among others, use rhetorical questions. Think of the background information the audience will need to understand the topic.
- 3) As a **process is a series of changes in time**, decide what time connectors to use. Involve the audience in the talk (*Let's... You ...*). Define or explain unfamiliar terms, either at the beginning or during the presentation as they appear.
- 4) Describing the steps in the process, decide whether to use active voice (natural process) or passive voice (human intervention), or both.
- 5) Use visuals to enhance your presentation. They should
  - help the audience maintain attention
  - ensure the audience follows you and understands (or reads) basic terms
  - provide you the outline of the talk and thus reminding you what to say.
- 6) Plan to make strategic pauses, such as between parts, stressing what you have said etc. Get a feedback from the audience by asking them questions or checking understanding.

### 5.6.5 Problem-solution

Problem-solution presentation may be considered the most complex out of those you will use. It can comprise definitions, description of several objects and processes, materials or people involved. Basically, a problem-solution speech has four essential parts:

- Description of the situation
- Identification of the problem
- Suggestion of the solution
- Evaluation of the solution



#### Activity 5\*21

Read the following problem–solution speech and identify the 4 parts.

#### ***Greenhouse effect***

<sup>1</sup>Hello everybody. <sup>2</sup>I hope you had no problems getting to this beautiful building with large windows, where you can feel like in a greenhouse. <sup>3</sup>Also the nice plants contribute to the comfortable environment here, so a greenhouse can seem to be a nice place to live in. <sup>4</sup>However, it needn't be always true. <sup>5</sup>And this is what I'm going to talk about today.

<sup>6</sup>Definitely, all of us welcome development in technology, which brings us more comfortable lives. <sup>7</sup>You surely appreciate the warmth of your house, or the ease of getting to nearly any place by car. <sup>8</sup>Hardly anybody thinks of the price we pay for this welfare. <sup>9</sup>From time to time you can hear ecologists on the radio or elsewhere who warn the humankind to stop exploitation of our mother planet, or in other words, destruction of the environment. <sup>10</sup>So I would like to give you some arguments and explanation concerning one problem of our environment – greenhouse effect.

<sup>11</sup>The greenhouse effect is caused by carbon dioxide and some other “greenhouse” gases that go up from the earth and create a layer around it, like glass does in a greenhouse. <sup>12</sup>The earth is then closed in a bubble. <sup>13</sup>The rays coming from the sun heat the earth, but the heated air can't go back through the layer. <sup>14</sup>This, naturally, heats the air in the “global greenhouse”, so the temperature on the earth gradually increases. <sup>15</sup>Even if this process is

relatively slow, it has big consequences. Increased temperature, for instance, causes melting of icebergs, which leads to rising levels of water in oceans and seas. <sup>16</sup>This is especially serious for countries like The Netherlands, where large areas are on or below the sea level. <sup>17</sup>Even now building of protective walls costs the country a large amount of money, not to speak about the potential danger for people.

<sup>18</sup>The increased temperature, on the other hand, causes lack of water in some areas, as more water evaporates from natural resources and falls back to the ground in a different place of the planet. <sup>19</sup>Needless to say that mainly in Africa and Asia this forces people from certain areas and potentially it can lead to “wars for water”, without any fun.

<sup>20</sup>In the world you and I know, a certain latitude is a good place for certain vegetation and animals because it has suitable humidity and temperature conditions. <sup>21</sup>With global warming, however, these conditions change and both flora and fauna migrate to more favourable conditions and some areas are left uninhabited. <sup>22</sup>So, the areas for life are decreasing, which, again, is a potential reason for wars. <sup>23</sup>I hope I've persuaded you that the consequences of global warming are far-reaching.

<sup>24</sup>Now that we know the result, we should see what it is caused by. <sup>25</sup>A major source of greenhouse gases is burning of fuels, either for heating, or for other reasons, mainly transport. <sup>26</sup>With increasing number of people and rising production, and the need to deliver materials and goods from one place to another, the amount of these gases increases, which makes the problem more and more pressing. <sup>27</sup>It is said that the changes in climate which took a thousand year in the past will now happen ten times faster, it means in a hundred years.

<sup>28</sup>Now, how to solve the problem? <sup>29</sup>Actually, as it is a complex issue, the solution can't be simple. <sup>30</sup>One of the possibilities is to decrease the amount of greenhouse gases we reveal to the atmosphere. <sup>31</sup>So, what can be done to reduce the level of carbon compounds in the air? <sup>32</sup>There are several ways to reach this. <sup>33</sup>It is generally known that trees store carbon, thus from this point of view, trees can serve well to contribute to slowing down the process of warming, even if to a limited extend. <sup>34</sup>For the mankind it means to stop deforestation and destruction of rain forests.

<sup>35</sup>A greater effect can bring reduction of the emission of CO<sub>2</sub> and other “greenhouse” gasses. <sup>36</sup>Easy to say, more difficult to do. <sup>37</sup>People are not ready to sacrifice their comfort to

the environment and to limit the consumption of fuels voluntarily, just because they want to help the planet. <sup>38</sup> However, they understand the language of money very clearly. <sup>39</sup> The suggestion here is a universal carbon tax; it means fuel should be taxed according to the amount of carbon compounds it produces when burnt. <sup>40</sup> This is a popular proposal among economists because it promises an efficient solution. <sup>41</sup> A carbon tax should be set equally for all users worldwide and as a result, it should bring a reduction in the use of carbon at the lowest cost. <sup>42</sup> It would make the consumers, in the most natural way – through money, reduce the consumption of fuel (which would lead to lower emissions), or at least to use fuel producing less greenhouse gases. <sup>43</sup> Together with other measures, this would definitely contribute to the reduction of greenhouse gases, which would result in slowing down of global warming.

How sure is the presenter about the solution?

### Language means

In this type of speech, to signal a **problem**, various language means can be used. Some of the strategies with examples are below:

- Adversative signposts: *but, however, although, even though, nevertheless, in spite of, despite ...*
- Adverbs: *unfortunately, sadly, ..*
- Phrases:

*The problem is that ...*

*... caused a serious problem*

*An unfortunate result of ... is ...*

Can you add some more to each category?

The third part of P-S speech is suggestion of the **solution**. It can start with:

- Purpose statement: *In order to..., So as to ...*
- Phrases: *One way to solve the problem is to...*

*One solution to the problem is to/-ing ....*

If you have several factors influencing a property, a number of aspects you have to consider etc., you will use **listing connectors**. They can be of different types:

- Enumerators: *first, second, third, ... last but not least, the final effect, ...*
- Other listing connectors: *furthermore, in addition, moreover, what's more, also, plus, besides, finally, one...another, ...*
- Bullets (*as in this list*).



### Activity 5\*22

Describe the situation, identify the problem, suggest a solution and evaluate it for the lack of classrooms for teaching at the university.



### Activity 5\*23

Imagine the situation and suggest solution in a problem-solution presentation:

The supervisor is not treating each employee fairly, for example, one employee is allowed to leave early each day to catch the 3:45 p.m. bus, but some others (including you) are often made to stay late. Solution: an overall policy for flexible work hours for everyone.



### Homework

Prepare a problem-solution presentation from your field of study. Choose a topic you can successfully explain to a general academic audience. The presentation should not take more than 5 minutes.

1. Develop an attention getting opening, provide any necessary definitions/explanations.
2. Keep to the speech structure situation-problem-solution-evaluation.
3. Use phrases/signposts for signalling problems and solution.
4. Implement an overview using listing strategies and bullet strategies where appropriate.
5. Keep in touch with your audience. Check for understanding.
6. Develop a suitable conclusion of your speech.
7. Use transparencies where appropriate (speech outline, overview).

After preparing your speech, write a list of questions (about 5) you think you could be asked. After the presentation you will compare with questions really asked and see how well you can predict.



## 5.7 Presentation assessment

Effective presenters know very well that communication is both intellectual and emotional. Presenting good ideas is one part of the task, the other is to gain and maintain the audience's attention. What you can do in this aspect is to:

- Show enthusiasm for your subject. The audience will forgive the speaker a lot if he/she shows enthusiasm. The listeners will mostly respond in the same way - positively.
- Pay attention to your voice and body language. Do not behave in the way which may seem impolite.

### 5.7.1 Some hints for an effective oral presentation

There are several aspects you should consider for the time of presentation itself (delivery).

1. **Appearance.** First impressions influence the audience's attitudes to you. Think about your appearance and avoid extremes. Dress appropriately for the occasion, i.e. in the style the other participants do, either in a more formal or casual style. Do not try to be exceptional this way.
2. **Notes.** Do not read from a manuscript; use notes. A good system to use is note cards. Number the cards in case you drop them. Know your notes very well and keep in mind transitions from one idea to another. The "safety net" in the form of notes reduces your anxiety about forgetting what you were going to say or having your mind go blank. You may never even use the cards, but the fact that you have them can greatly reduce your nervousness.
3. **Language and style.** Keep in mind the differences between oral and written style we discussed earlier. Use language means for an oral style: short sentences, personal pronouns, concrete terms, active verbs, sign posts, repetitions of key terms, parallel structures, etc. Look up the pronunciation of all your key words. Think of your diction: do not present too fast, or too slow, do not repeat the same words, do not use slang words.

4. **Visuals.** Use relevant visual aids and make sure they are perfectly clear and not confusing. Make sure they can be read from the back of the room. If you need a pointer, make sure you have one before you start. Do not let a picture remain on the screen when you have finished referring to it. As a rule of thumb, allow 2 minutes for each general OHP transparency or Powerpoint screen you use, but longer for any that you want to use for developing specific points. However, the audience will get bored with something on the screen for more than 5 minutes, especially if you are not actively talking about it. So switch the display off, or replace the slide with some form of “wallpaper” such as the conference logo.
5. **Contact with audience.** Use verbal and non-verbal means to establish the contact with your audience (rhetorical questions, human touch, “let’s”, “you”). Maintain eye contact with the entire audience, not only with one or two people in the room. Keep eye contact with as many people as possible; eye contact is your primary tool to involve the audience. For some people this is a skill to be trained. If it is difficult for you to keep an eye contact with the audience, find a person near the middle of the crowd who you know or have a friendly relationship with. Look at this person, but be sure to also look around to the other ends of the room. When you look in other places, you can look just above the people. This may help. Later, you will be more comfortable with this, and learn to look into the people’s eyes.
6. **Behaviour:** Think about your body language, be natural, and do not exaggerate. Let everybody see the screen - do not block it. Do not play with any object in your hand or pocket, it distract attention. Show enthusiasm (very important!).
7. **Beginning.** Do not apologise or make excuses. If your English is poor, everybody will notice (actually, in this case you should not be at the conference), if you are nervous, saying that will only increase your nervousness. Greet your audience with a smile, set the scene and establish a link between you and them.
8. **Body of the presentation.** Do not overload the main part with too much information or too many minor details. Emphasise and link main points. Repeat key concepts and give periodic recapitulations. Maintain logical flow.
9. **Ending.** Do not just let your presentation fade out, and do not end abruptly by saying “That’s all” or “Questions?” Manage the time of your presentation so that you

have several moments to conclude properly. Link the conclusion with the beginning (aim of your research → how it was reached). Do not introduce any new information at the end.

10. **Questions.** Do not relax before the question time – concentrate on questions and do your best to understand. Answer clearly and briefly. If you do not know the answer to a question, be honest and say so.



### **5.7.2 Evaluation guidelines for peer response and self-evaluation**

Evaluating other people's presentations helps you become a better critic of your own presentation. Listening to and watching somebody's presentation you can analyze it answering the questions in the following areas:

#### ***Subject and purpose***

- Is the subject relevant to the given audience?
- What is the overriding purpose of the presentation/the communicative aim? Is it to inform, to persuade or other?
- Is the chosen topic narrow enough to be covered in some depth in the time given?

#### ***Audience and context***

- How does the speaker show that he/she has analysed the audience and taken factors such as background knowledge and interests into account?
- Does the speaker seem comfortable in the surroundings?

### ***Research***

- Has the topic been adequately researched? Is the evidence convincing?
- How complex is the speaker's understanding of the topic?
- How does the speaker communicate his/her competence to the audience?

### ***Presentation thesis and major propositions***

- What is the thesis statement of the presentation? Is it limited to one idea?
- How are the major propositions related to the thesis statement?

### ***Supporting material***

- How is each proposition supported? Is the support appropriate to the speech and to the proposition?
- How does the supporting material add (amplify or explain) the propositions?
- Does any of the supporting material complicate the issue rather than explain it?

### ***Organization***

- What pattern of organisation has the speaker used? Is it appropriate to the subject and audience?
- Is the pattern of organisation clear to the audience?

### ***Opening, closing and transitions***

- How does the introduction raise interest? How does it establish a relationship between speaker, audience and subject?
- Does the introduction provide a clear orientation to the subject matter of the speech?
- How does the conclusion tie all the loose ends together and indicate closure?
- What will the audience remember from this particular presentation?
- What are the signposts from one point to another, and how do they help the audience understand the development of the presentation?

### ***Delivery***

- Does the speaker maintain eye contact with most of the audience?
- Does the speaker have any distracting habits (fiddling with pen, constant clearing of voice) or outer appearance (inappropriate clothing)?

- Can the speaker be heard? Does he/she speak too fast or too slowly?
- Are all the important terms correctly pronounced or can mispronouncing cause some misunderstanding?
- Does the speaker know how to use the technical apparatus (OHP, dataprojector)? Does the speaker hide the screen?
- Are the visual aids well designed or are they overloaded with too much information? Is the text large enough and legible?
- Does the speaker seem nervous?
- What kind of attitude does the speaker project?
- Does the speaker use a manuscript? Does he/she read the text from the manuscript?
- Is the speaker easy to understand? Is the speaker's fluency spoiled by faulty grammar, bad pronunciation, use of vocabulary?

To quantify the assessment of a presentation, you can give each aspect a certain number of points. The table on the following page can be used for this purpose.



**Activity 5\*24 - Presentation evaluation form**

Give each item points from 5 (excellent) to 1 (poor); for some items points are not applicable (= NA).

Name: \_\_\_\_\_

Topic: \_\_\_\_\_

<b>Overall</b>	<b>Points</b>
Considering and involvement of the audience Clear objectives Well prepared	
<b>System/Organization</b> Clear structure (introduction, main body, conclusion) Linking parts together, sign posts Timing considered	
<b>Delivery</b> Clear pronunciation Right speed Appropriate language Grammar	
<b>Body language</b> Meaning of words emphasised by the body Eye contact with the audience Confident and positive speaker	
<b>Visual aids</b> Clear and readable aids The aids support the message The speaker can use the equipment	
<b>Dealing with questions</b> The speaker understands the questions Clear answers The speaker is able to solve unpleasant situations	
<b>General comments:</b>	

## 5.8 Public speaking

In the following we are going to look at presentations from other viewpoints: the speaker's subjective negative feelings and how to "fight" with them (kind of psychology and corresponding physiology).

Even if your experience may be different, you should remember that human nature is good, so your audience wants you to succeed. They are on your side (actually, otherwise they would just waste their own time), so, have a positive attitude too.

Also, the audience is not an anonymous sea of faces, but they are real people. So, take it as communication with people, a two-way communication, even if the other side does not respond verbally. There is still a range of means of body language; the listeners may nod in agreement, or frown in disagreement, they may seem confused or tired. (The last mentioned can display as falling asleep - a nightmare of all speakers).

First, you should know that most people are afraid of speaking in front of audience; it is not only you who suffers from this. Public speaking is actually considered to be the most common phobia. You certainly have the experience that your body starts behaving strangely if you are to talk to a crowd of people. When you are to stand up and face a sea of people who hope to learn something new from you, moreover, in an interesting way, your hands may start sweating, knees shaking and the mouth goes dry. You have butterflies in your stomach and the heart is beating loudly. Other symptoms you may know are ruined voice, body language and spontaneity. The voice becomes unnatural as the throat tenses. Shoulders may tighten up while the legs, in extreme, start to shake and cause unsteadiness. When this happens, most people just want to run away or die, or in the better case, to be ready with the presentation as quickly as possible. Or they stick to the notes and start to read directly from them, which makes the presentation very boring.

The pre-presentation fear may have several reasons (with the details depending on the type of personality you are). You may think that:

- You will never be as good as the others.
- The people will think you are stupid.

- You might make mistakes, get nervous and lose your way during the talk. Thus, you may feel like a fool.
- The audience will not understand the message you want to communicate.
- The audience will not like you. ...

To cope with this, try not to fight nerves, but welcome them. It will enable you to get on with the presentation instead of focusing on being nervous. A presenter is like an actor, so use their strategies. Actors recognize the value of nerves and they use them to add to the value of the performance. This is because adrenaline, which can be purposefully used to become better. You have two choices – fight or flight. If you let your nerves win, then you go into the flight mode, which means you give up, you want to run away. When you feel tension or anxiety, remember that everyone gets them, but the winners use them to their advantage, while the losers get beaten by them.

The basic idea is to get your attention off yourself. It is very tempting to focus on your feelings, especially if they are unpleasant. You will concentrate on every bead of sweat on your body, dry mouth, shaking hands. Don't do that, it only worsens the situation. To make your nerves work for you, you need to focus on anything else than yourself. You must distract yourself. Still sitting in your place, you can pay attention to details in the room where you are going to speak. When you are already in front of the audience, pay attention to them. You can notice how people are dressed, who is wearing a strange piece of clothing or bright colours. There are a lot of things you can pay attention to help you trick your mind, so that it does not deal with what is happening with you. The less you concentrate on your feelings and more on other things, the more "normal" you will be.

So, do not get rid of anxiety and tension, but send the energy into concentration. You should know that anxiety and tension is **your** feeling. The audience may not notice it at all. The worst thing is to say at the beginning (even to yourself): "I am sorry I am so nervous, so my presentation will not be very good."

For most speakers, warming up is an essential part of their pre-performance ritual. Breathing, physical exercise of some sort, and warm drinks are usually the major tricks. They help the speaker focus and wake up their voices. Breathing exercises and tongue twisters, on the other hand, might help you to wake up your tongue.



Before the presentation you should be physically rested and drink enough water or hot drink (tea or coffee). However, you should know how the drinks affect you and make the right choice. If you find out, for instance, that coffee makes you sleep, never drink it before the presentation.

One important note - never drink alcohol to reduce tension. It affects your coordination, which you might not realize, but your audience will. You may feel more self-confident but the listeners will perceive you differently.

## Relaxation



### Activity 5\*25

If you have the chance before your presentation, try some relaxation exercises. You can start with this:

Stand with your feet about 15 cm apart, arms and fingers hanging free by your sides. Gently shake each part of your body, starting with your hands, then arms, shoulders, body, and legs. Concentrate on shaking out the tension. Then slowly rotate your shoulders forwards and backwards. Move your head, rotate it slowly in both directions.



### Activity 5\*26

Beside physical relaxation, also your mental strength can help you. You can practice it both before and during the presentation. **Before the presentation:** imagine the room, audience, and you giving the presentation. Mentally go over what you are going to do from the moment you start to the very end of the presentation.

**During the presentation:** take a moment to yourself by having a drink of water, take a deep breath, concentrate on relaxing the tensest part of your body, and then return to the presentation self-confident.

When you are finally introduced to speak, take a breath to settle you down before you get up of your chair. When you have come to the lectern, thank the person who introduced you and then wait for several seconds before you start speaking. This will

allow the audience to get settled and ready to listen to you. It is also a way how to show that you are now in control. It is not easy to do because you have to look at the audience and you can panic. But if you have made all the preparations, you can be sure of yourself and be in control of the situation. It is a good feeling.

What can help you is to check over the conditions under which you will speak. If you can, go up to the lectern before your presentation (in the morning or during lunch break) to check things over and see where everything is. Check out the equipment and compatibility of your document/software with it. This should relax you and give you more confidence when it is your turn to speak.

### **Speaking ability**

As with any other human behaviour, success in public speaking depends on two factors: confidence and competence. Becoming a good speaker requires creating balance between personal and public component of your personality.

First, you should start by building your **self-confidence**. Focusing on the personal and professional benefits of speaking and realizing your strengths can help put fear in its place. Some experienced speakers admit that their fear has never completely disappeared, but they have learned to manage it.

The best way to get rid of public speaking is practising. Each speaking experience means that the next presentation will be less stressful. Over time, the focus on your own fears shifts toward an interest in the reactions of people listening to you. The best way of learning is doing it; so practise as much as possible. Ask you friend to spend some time with you so that you can get feedback, or videotape your talks. Focus on positives, not negatives. Concentrate on what you can already do well and develop it. If there is something that ruins your presentations, just leave it, do not use it.

If you know you make mistakes, do not get nervous; mistakes are all right (unless they change the meaning of your message), they make you appear more human. The point is to go on after the mistake and forget it for the rest of the presentation. You can analyse later and avoid it next time.

As a rule, we enjoy doing what we are good at, so we do more of it. And as we practise, we get better at an activity and therefore feel more confident. So, confidence correlates in the real world with competence. Even if some people are "naturally" gifted at speaking (it may not be your case), exercises can help everyone.

You must continually improve your speaking skills. Your goal should be a speech that leaves both speaker and listeners feeling satisfied, encouraged, and, perhaps, motivated for future action.

## 6. Small talk



- Warm-up:**
1. What does “small talk” mean?
  2. What experience do you have in small talk?
  3. How can you improve your skills in this area?

In today’s fast-paced environment, connecting quickly with others is more important than ever. Whether you are looking for your next job, advance your current career or simply meet new people, mastering the art of small talk will help you reach your aim. It is critical in both social and professional settings.

This is also true for international conferences. Being a successful participant requires not only mastering formal genres but also skills in informal communication – **small talk**. Small talk is the type of conversation you have with other participants during coffee breaks, at the dinner or other occasions - short, light conversation. It mostly includes general topics, like the weather, journey to the conference, comments on the (good) level of the conference, etc.

This enables you to establish contacts with your peers and personalities in your research area. How they perceive you will significantly influence their attitude to you and possible future cooperation.

Not always is information exchange in itself so important: Small talk is really just a method of finding out whether you and your counterpart are on the same wavelength. Is he or she likeable? Does he or she find me agreeable?

The great skill is to be able to guess what topics the other person enjoys. The factual discussion of a given topic does not play the deciding role in small talk. Instead, it is about the level on which you connect. As a result, those who can build and maintain relationships can develop themselves and can move upwards.

The basic rule for spoken communication in general is: *you must learn to listen as well as to speak*. To be sure you understood your partner well, play back for confirmation. You can, for instance, say “Let me see if I have understood correctly. You are saying that ...” and you paraphrase (repeat in your own words) what the speaker

said. If your version is acknowledged as being correct by the original speaker, then you have a greater degree of confidence in your understanding.

The same important also is to show interest in the other person. This can be done by flattering, i.e. showing the person how important for you he/she is. Ask questions like “What do you think of ...?”, or appreciate the person’s presentation “I found your presentation very interesting, mainly ...”

Do not try to speak all the time; silence is very effective (and often under-used). People are nervous of silence and try to fill it. So, you can use this if you are seeking information. You ask the question and lean back, the person answers, you nod and smile and keep quiet, and the person continues with more detail simply to fill the silence.

Psychologists say someone adept in small talk not only shows a high level of empathy and possesses strong communication and teamwork skills, but is also adept at solving conflict. In short, he is **socially competent**.

But what to do if you are lacking the self-confidence to initiate small talk? An important thing is to give yourself some credit. All of us have a lot to offer others, and remember - people will help you achieve your goals. You should persuade yourself that if you want to survive, you will need “personal marketing”.

Change your thinking from "Who would want to talk to me?" or "What do I have to offer?" to “I’m (quite) good” and “Others have to know what I can offer.” If you ask most successful people whether they always feel confident, the answer will be “no”. They have to push themselves into the position. It is fair to assume that many, if not most, of your colleagues at the conference are at least somewhat uncomfortable as you are.



#### **Activity 6\*1**

1. Give 5 examples of topics you can use for a small talk.
2. Give 5 topics unsuitable for small talks.

## 6.1 Clear communication

Below are several ways of measuring whether or not your conversations are clear. If you are speaking clearly and concisely, your listeners:

- ☺ respond warmly and attentively throughout the conversation; their eyebrows are raised, and they lean forward while you are talking,
- ☺ give you more eye contact,
- ☺ follow your directions more accurately,
- ☺ ask you fewer questions for clarification,
- ☺ appear more relaxed: smiling, shoulders down, hands relaxed .

You should be able to read nonverbal signals that others are confused. Confused listeners, on the other hand, often

- ☹ avoid eye contact
- ☹ tilt their heads
- ☹ partly close their eyes
- ☹ close their mouths
- ☹ lower their eyebrows
- ☹ cross their arms and legs
- ☹ turn away from you.

Also, do not try to say too much, to join many ideas together. Thus:

- finish each idea before you go on,
- shorten your sentences,
- tolerate silence,
- put the most important information in your sentences at the end (more natural) or at the beginning,
- slow down to allow more time to think.

## 6.2 Be a pleasant person to talk to

People may sense that you are not interested in them, especially their feelings. Ask people how they are feeling and what their concerns are. If that bores you, try to show interest (lean forward, open your eyes wide) and try to repeat in your head what they are saying. Keep in mind that people do not communicate just to give information. Communication has many other, often more frequent, purposes: to smoothen uncomfortable moments, to greet and acknowledge another human's existence, and to build relationships. You may not value these things; however, your future will depend on your ability to use communication to accomplish your tasks and in this aspect, other human beings can help you substantially.

You should know what emotions you show on your face. If these are only negative ones (impatience, annoyance, boredom), check how you are talking. Is it always critical and negative? Try saying the same idea in a positive way, and show it on your face. Again, communication is not all about information; most people use communication to connect and relate. If your "relating," is always negative, people will avoid you. Make positive comments!

People who fail to ask questions about others (they just make statements and demand information) are felt as arrogant. Start asking people about their work, interests, and lives. Ask genuine questions that relate to your interests, and be open minded.

From the previous you could say that small talk is a difficult skill, but it is a big challenge. A little preparation and confidence is all you need. The following advice can help you:

1. Practise. Talk to people you come across: people you are in line with, neighbours, co-workers and kids. Force yourself to get into small talk situations. Even if you do it in your mother tongue and not English, it will help you develop the psychological side of the skill.
2. Read everything: newspapers, magazines, reviews, etc. They are a source of information that can be discussed.

3. Immerse yourself in culture and life, like television, music, sports, fashion and art. If you can't stand Rolling Stones, it is also a good topic for talk.
4. Be a better listener. Did your boss just say he suffers from headaches? Has your colleague just got married? These are opportunities for making small talk.
5. Work on confidence, overcome shyness and any feelings of nervousness. Remember, the more you know, the more you can talk about.

However, to be interested in small talk, you must have the same pleasure as your counterpart. If you force yourself into a position of good companion, it will reflect in your behaviour. So, be yourself, show confidence and humour which also you like.

### **6.2.1 How to start small talk**

The strategies of starting small talk have already been used for a long time and you would learn them after some years. However, it is much easier and prompt to learn from other people experience. You should follow these rules:

- Open-ended questions
  - *Tell me about your...*
  - *How did you...*
- Ask about difficulty
  - *What is the most difficult part of your job?*
  - *What are the problems you met in your research?*
- Follow-up questions
  - *Why?*
  - *How did it happen?*
  - *What happened there?*
- Listen first - talk second
  - *The best rule for good interpersonal communication is to allow your companion to speak first, to listen to what they say and then respond. Repeating phrases and buzz words back to the person reinforces the fact that you have listened and understood. Listening and understanding is not the same as agreeing.*



### 6.2.2 The art of small talk

Beside verbal aspect of communication, there is also the non-verbal component. The latter is even more important, particularly at the beginning of conversation. So, you should first give the person a hearty smile. It says “You can talk to me”; the person is encouraged to approach you. When you are to meet someone new, be prepared to have something to say. Keep up with current events and you will always have something to talk about.

When the dialogue has been started and you were told the other person’s name, always remember it. At the moment of introduction, try to visually attach the name to person’s face. Then, repeat the name to make sure you remember it, and then again throughout the conversation.

During conversation, maintain a good balance of eye contact. If you maintain an unblinking stare for a long time, the person will feel it threatening. Also, if your arms are folded, it can be unpleasant to the other side. Crossing your arms can make you appear defensive or closed, and it also signals tension. Thus, unfold your arms and relax. People will perceive your body language and react accordingly.

As the other person is speaking, show how you are interested. Nod your head and lean in, but without invading the other person’s space. You just want to show that you are engaged. Be sincere and let the people know they are unique individuals. If you want to become special in others’ eyes, make **them** feel special. So, you must learn to listen, as already said. The deepest principle in human nature is to be appreciated. You should first understand, then to be understood. We are often so worried about what to say next that we do not listen to the other person. When the conversation starts, do not interrupt the person. Show empathy and understanding by nodding your head and using friendly body language. Ask questions, focus on their triumphs, laugh at their jokes. Do not be an advisor. In the course of conversation there is a real temptation to respond to someone with advice. Resist this temptation. Recognize the situation: the person just wants to be heard.

Adjust the level of personal approach to the other person. If you feel, he/she is open, be open too. If, on the other hand, they are closed and only open their “window” very little, keep to general topics. One helpful technique is to mirror the other person’s

behaviour. How loudly do they speak? What is their body language? By adjusting your behaviour to mirror the person you are talking to, he/she will automatically feel more comfortable. This shows that you are particularly sensitive to other people's emotional temperaments.

The level of "intimacy" is also connected with touching as a powerful act. Most of us convey their friendly intentions by shaking hands; some go further by shaking with two hands. A good way, if you want to break through the distance between you and the person you are trying to establish a bond with, is to touch the other person's elbow. It conveys just the right amount of intimacy.

If you feel you have talked to one person long enough, keep a few exit lines in mind. For example, "Thanks for the wonderful chat, but I must still speak to ..... It was a pleasure to meet you." Or probably "I need to talk to a person over there", "I skipped lunch today, so I need to go to the buffet," "Would you excuse me for a second?" or "Who do you know at this meeting that could help me with...?" A person can also end the conversation by saying he is going to get another drink or by introducing the other person to someone new, or by simply saying, "Thank you very much, I've enjoyed this."

The person should offer his breaking-away excuse only after he/she has spoken, not after the other person has spoken. When exiting a conversation, repeat the other person's name, and try to comment on something he or she has said, to show that you have paid attention. People generally understand, and appreciate the honesty.

In order to establish a lasting connection, small talk needs to end on an invitation to continue the relationship. Establish a verbal agreement to meet again, even if it is not business.

And finally a very simple advice: Study people who are good at small talk and learn from them.



## Activity 6\*2

Here are some situations you can appear in. How would you deal with them?

- 1) You walk in and realize you do not know anybody. What to do?
- 2) Your small talk gets into an awkward silence. How do you revive a dying conversation?
- 3) A dull person is holding you hostage. How can you politely excuse yourself?

### 6.2.3 Get ready for the conference

The motto I read somewhere for this occasion is: **P**rior and **p**roper **p**lanning, **p**reparation, and **p**ractice **p**revent **p**oor **p**erformance. Easy to remember, isn't it? So, how to get ready:

1. Prepare yourself. Find out who is going to be at the conference and learn about them. Set goals for the event in advance and let them help you to move around. Perhaps you want to meet a person who works in your area with good results. Memorize their names and learn more about their work to be able to start a conversation on an appropriate level. People appreciate this.
2. Have your business cards available. Not to offer them to everybody but have them ready for appropriate situations. If you, on the other hand, are given a business card, write notes on the back of the card to help you remember who the person is.
3. Have a really good handshake. Not a "dead fish" and not a bone crusher. Firm and three quick pumps work best for men and women.
4. Practice good communication skills: make eye contact, smile, listen.
5. Pay attention to the common courtesies - know the etiquette. The lack of ease people feel with small talk is part of a general decline in the knowledge of etiquette. Thus, learning proper behaviour will not only help you in everyday life but can also contribute to your professional development.



### Activity 6\*3

1. List three people you would like to meet. Where can you meet them?
2. Give one reason people would like to meet you.
3. Prepare a 30 second self-introduction, something you can use when meeting new people.
4. Write the topics you can write or speak about.

#### 6.2.4 Your behaviour during a conference

If you are a newcomer to the area of international conferences, you should know from the very beginning how to behave to get most of your participation. The money spent on you for the conference should be valued much more than just in your presentation or poster session. Here are some rules to increase you efficiency:

- Wear your badge visibly so that the others can address you, or even remember your name.
- If you are introduced to somebody, remember the other person's name and introduce yourself in a way that should generate conversation.
- Have discussions with speakers after their presentation. Say how interested it was, if you noticed any mistakes, be careful not to talk about them or at least do not be too negative. If you do not agree with some conclusions, think twice before you say it. Also consider positioning – a more experienced person will probably be right.
- If you are a speaker, walk around after your presentation so that the others can talk to you. This way you can obtain valuable information which will help you in future research.
- Talk to the person sitting next to you.
- Get your friends/adviser to introduce you. Get the people you have just met to introduce you, and introduce them to your friends.

- Make lunch/dinner plans – meals are a very good chance to make an acquaintance. The talk is connected with something pleasant (unless the food is horrible!). Attend social activities held in the frame of the conference.
- Participate in hall talk; speak, do not just stand somewhere looking around shy. Look approachable - smile and make eye contact. Focusing on the feet is not a good way to attract the others.
- Do not create a closed group with your colleagues. You will have enough time to discuss your issues any other time, but the time of the conference is short and the chance to talk to a person can never repeat.
- It is easier to approach a group of three or more people than to interrupt two. Sometimes you can see that it is a closed group which does not want to be interrupted. Talk to people who come up to you, but on the other hand, do not interrupt heavy or private technical conversations.
- Be aware of your body language - act confident and comfortable even when you are not.
- A person who is standing alone may appreciate a “rescuer”. Most people are far more approachable than they seem to be.
- If you meet an interesting person at a conference, follow-up. E-mail him/her, keep in touch.
- Despite all the preparation and visualization in the world, sometime it is difficult to feel comfortable. So, do not get discouraged if your counterpart does not show interest in talking to you. They may have just had some bad experience or got a bad message. If you are not successful, do not take it personally. The others may have known each other before.

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