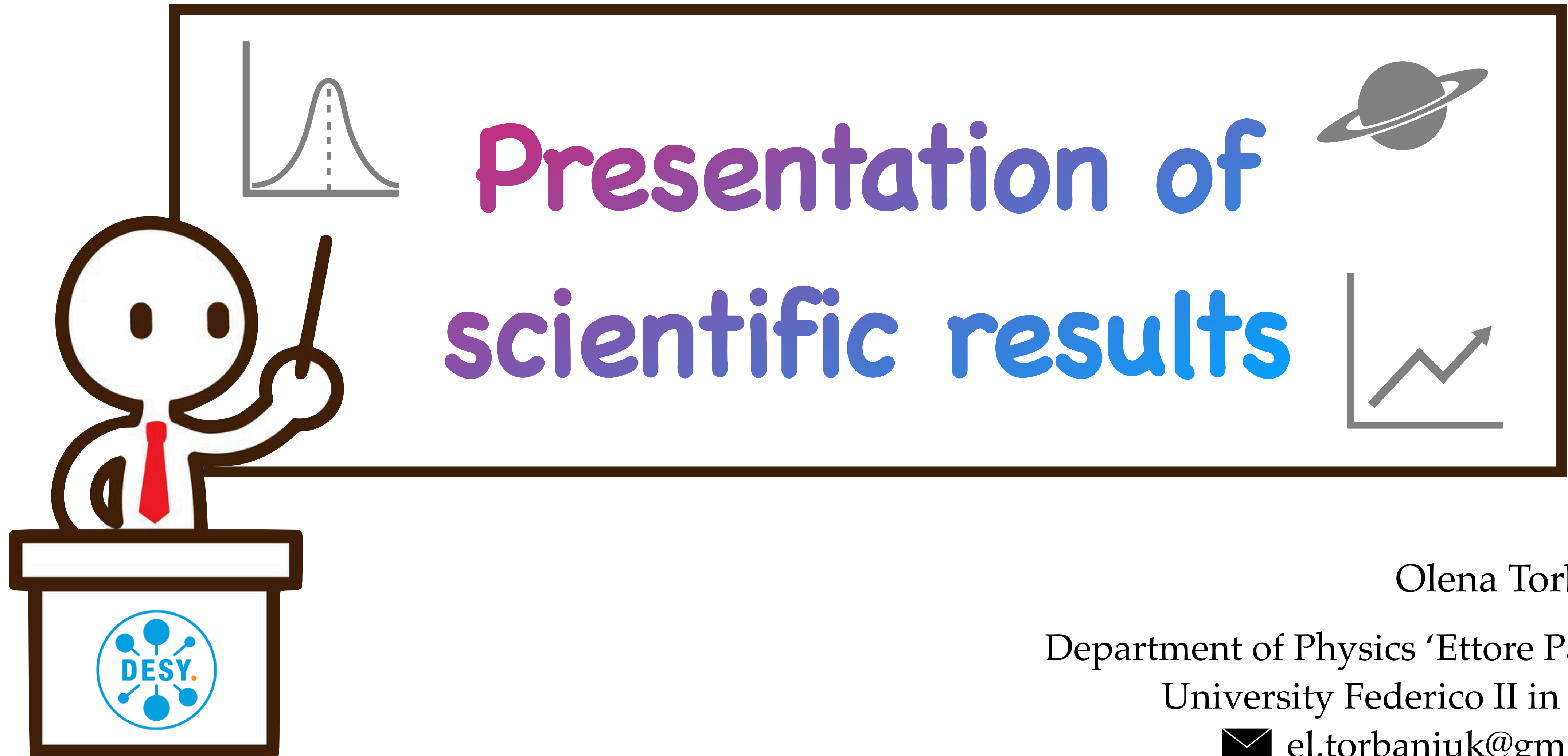


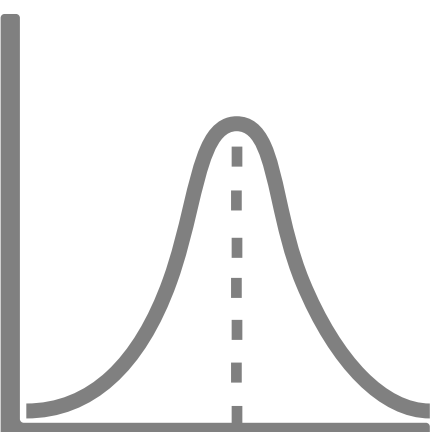


DESY Ukrainian Winter School 2023

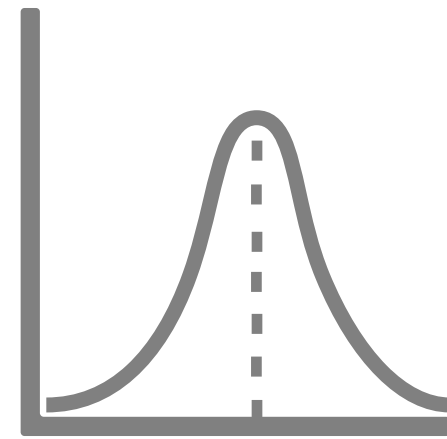


Presentation of
scientific results



Olena Torbaniuk
Department of Physics 'Ettore Pancini',
University Federico II in Naples
✉ el.torbaniuk@gmail.com

A brief content:

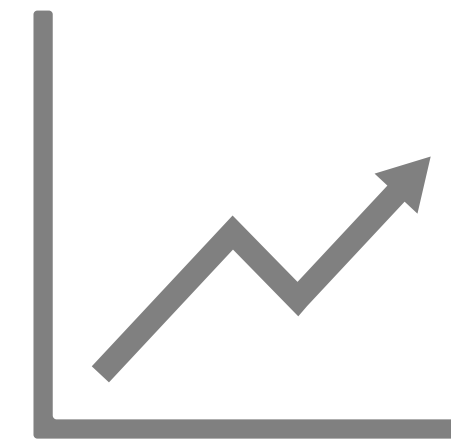


1. Purpose of a scientific presentation.



2. How to easily prepare a scientific presentation?

3. Slides structure and talk preparation

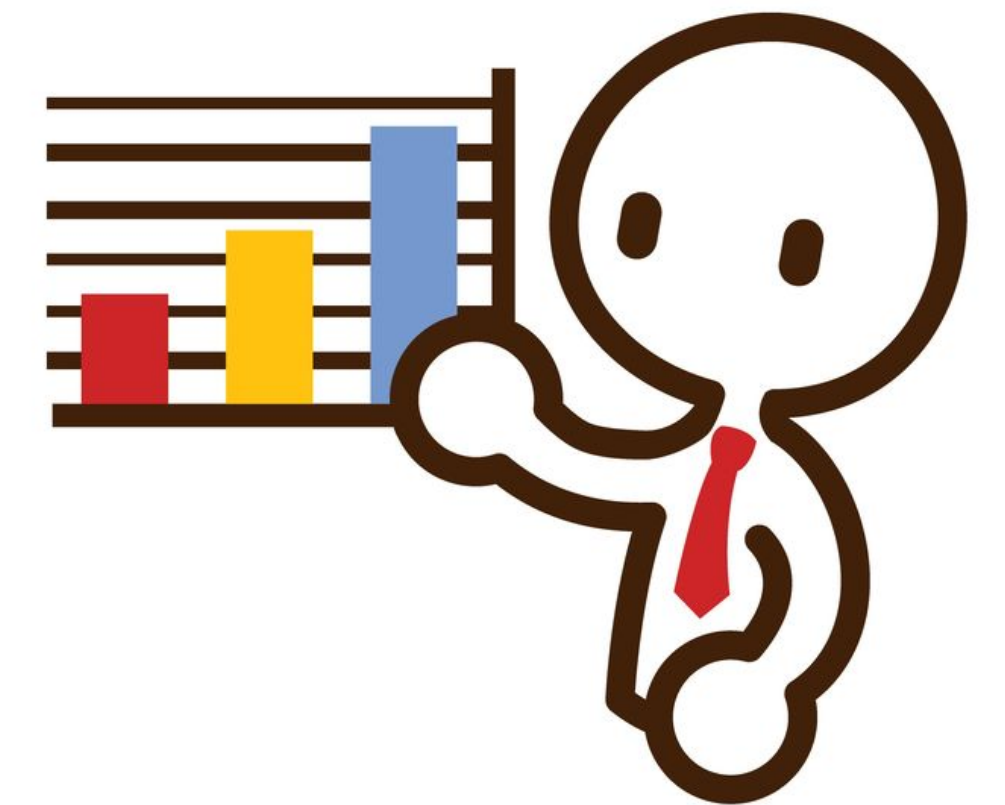


4. Some tips and helpful links!





Purpose of a scientific presentation

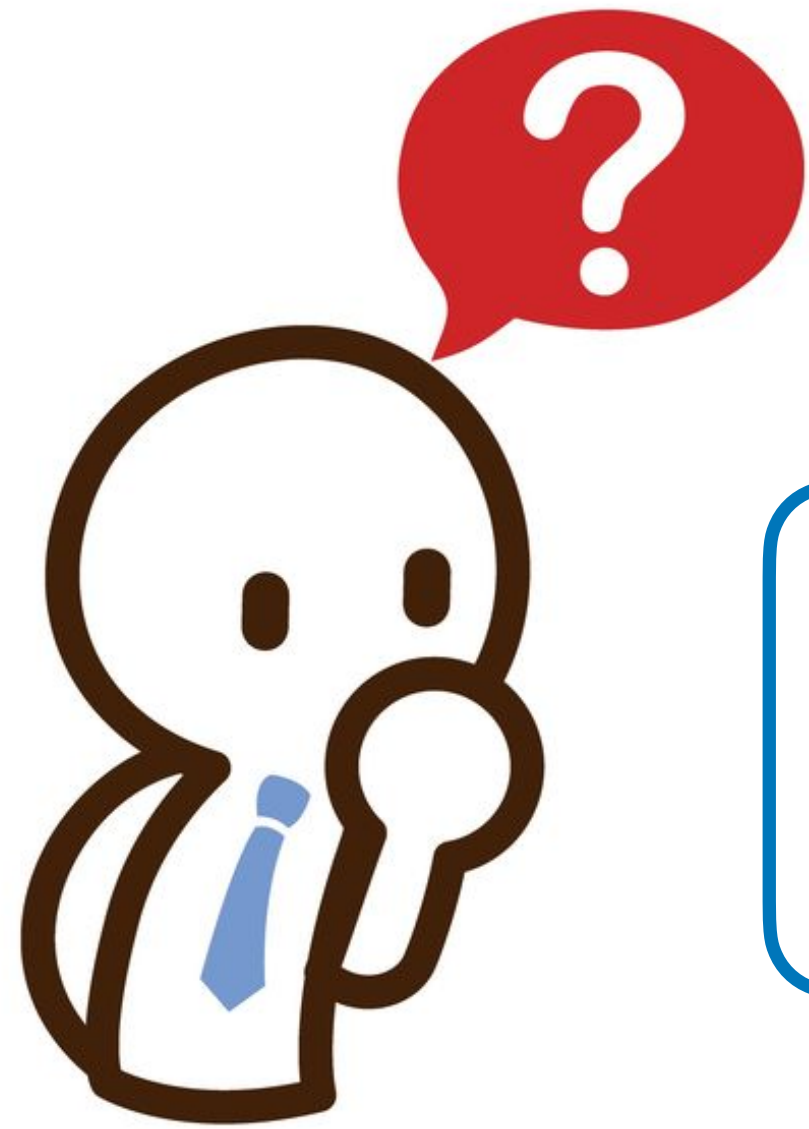


Primary:

- to find out what your colleagues think about your work and results;
- to hear new ideas and suggestions;
- establish new contacts and ways of cooperation;
- getting a job, research funding...;
- work report (and how much money you spent);
- educational (lectures);

Secondary:

- one of the criteria for evaluating the work;
- opportunity to reconsider your work and its results;
- self-improvement and development of speaking and teaching skills;



Planning a presentation

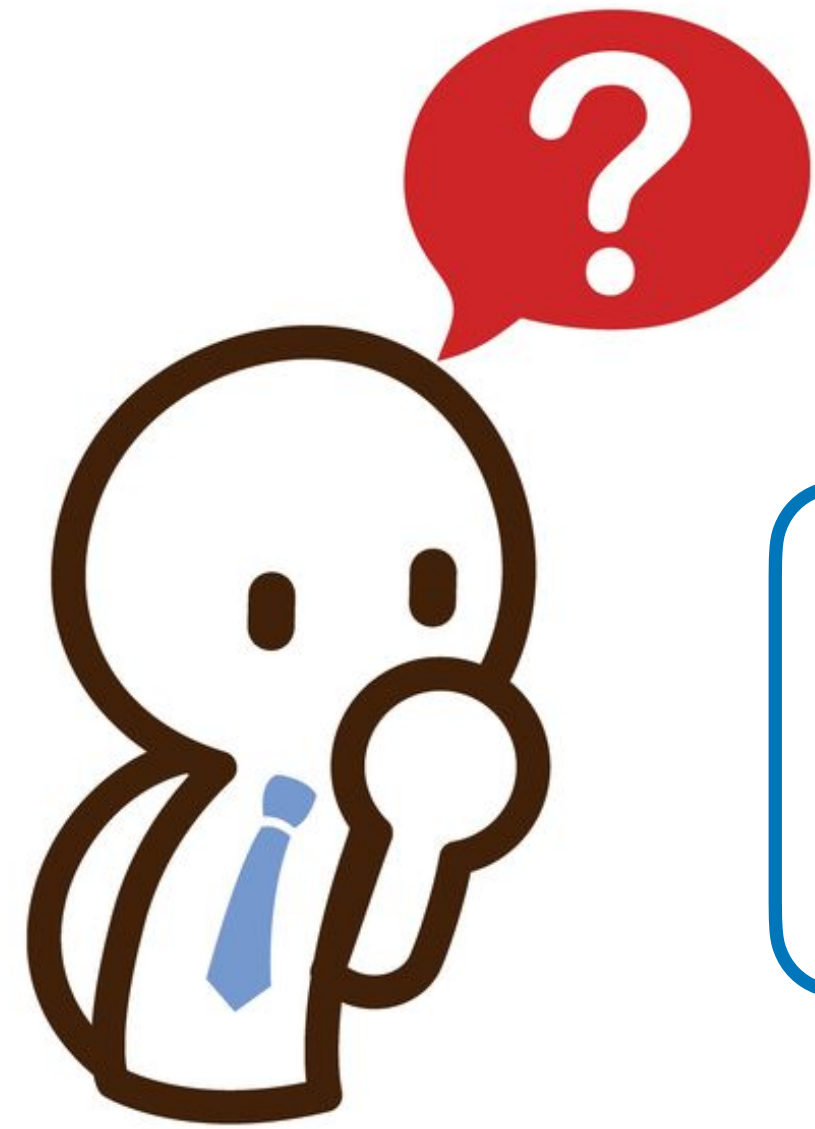
Thesis defence

Conference

Seminars

Lectures

- **type (purpose) of the presentation?**
- how much time do you have? is there time for questions?
- venue: its advantages and disadvantages
- how many listeners and who they are?
- how much audience know about this topic/issue?
- does this audience have their own opinion on this issue
- why do audiences listen to you?



Planning a presentation

Thesis defence

15-30* min

*or more for PhD defence

Conference

12-20* min

*or more in the case of invited talk

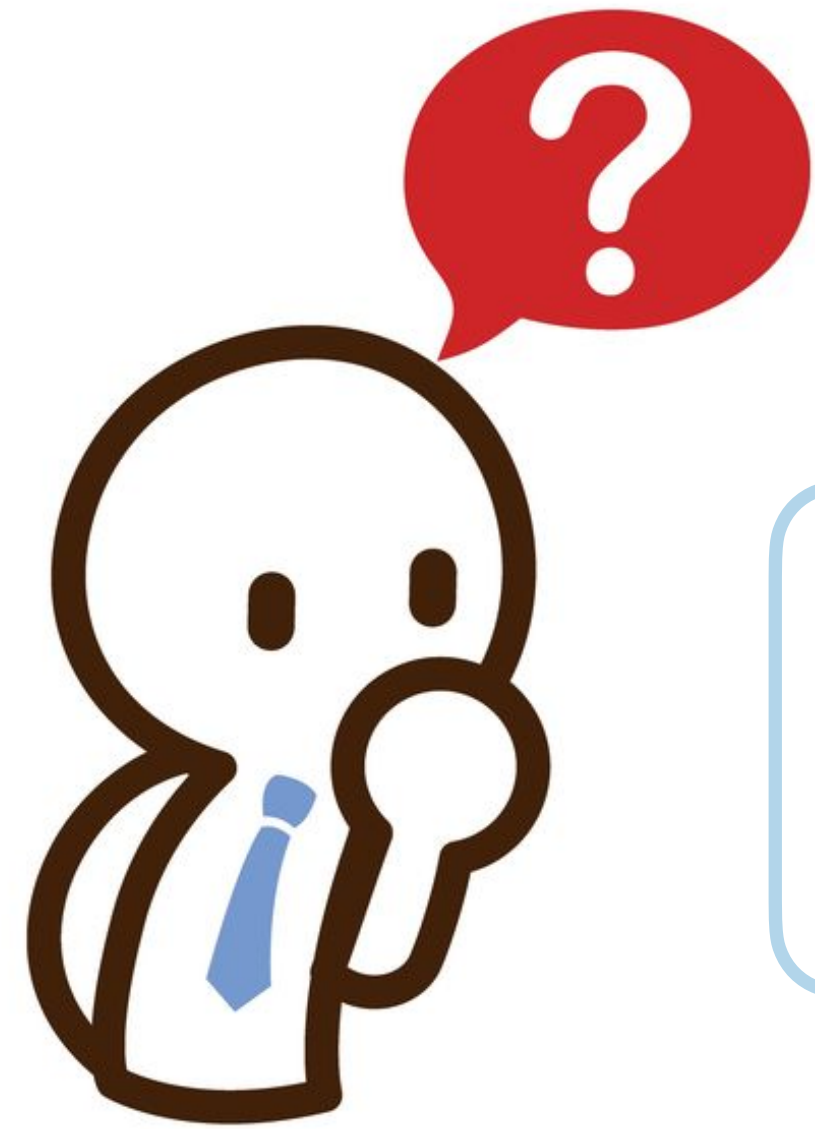
Seminars

30 min

Lectures

> 40 min

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- how many listeners and who they are?
- how much audience know about this topic/issue?
- does this audience have their own opinion on this issue
- why do audiences listen to you?

- how large is the screen for the presentation?
- the type of the lighting in the room: natural or artificial?
- the size of the room...



Planning a presentation

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15-30* min

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30 min

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- why do audiences listen to you?

Defence committee of
5-10 persons **OR**
50+ participants of
the conference on broad topics?



Planning a presentation

Thesis defence

15-30* min

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Conference

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Seminars

30 min

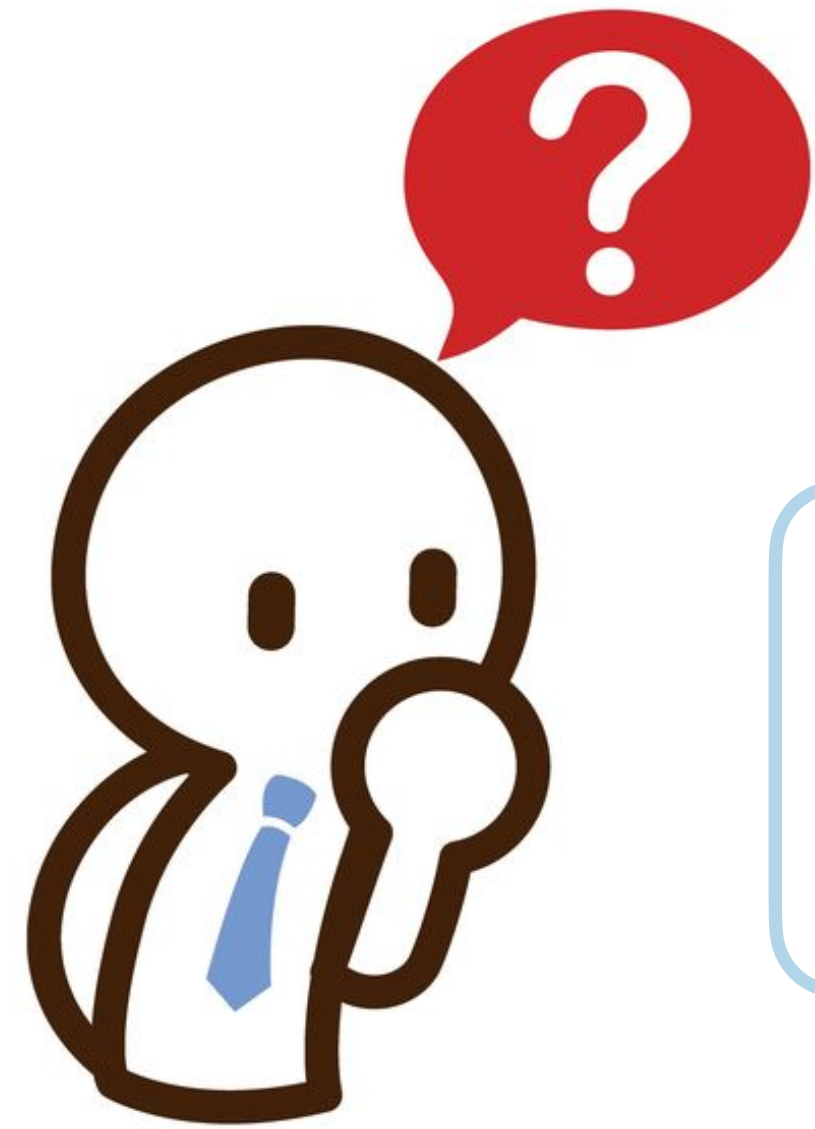
Lectures

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- venue: its advantages and disadvantages
- how many listeners and who they are?
- **how much audience know about this topic/issue?**
- does this audience have their own opinion on this issue
- why do audiences listen to you?

Conference on Physics/Astrophysics
(broad topic) OR
Cometary Physics/AGN (narrow topic) ?

An internal university seminar
or a working group meeting ?



Planning a presentation

Thesis defence

15-30* min

*or more for PhD defence

Conference

12-20* min

*or more in the case of invited talk

Seminars

30 min

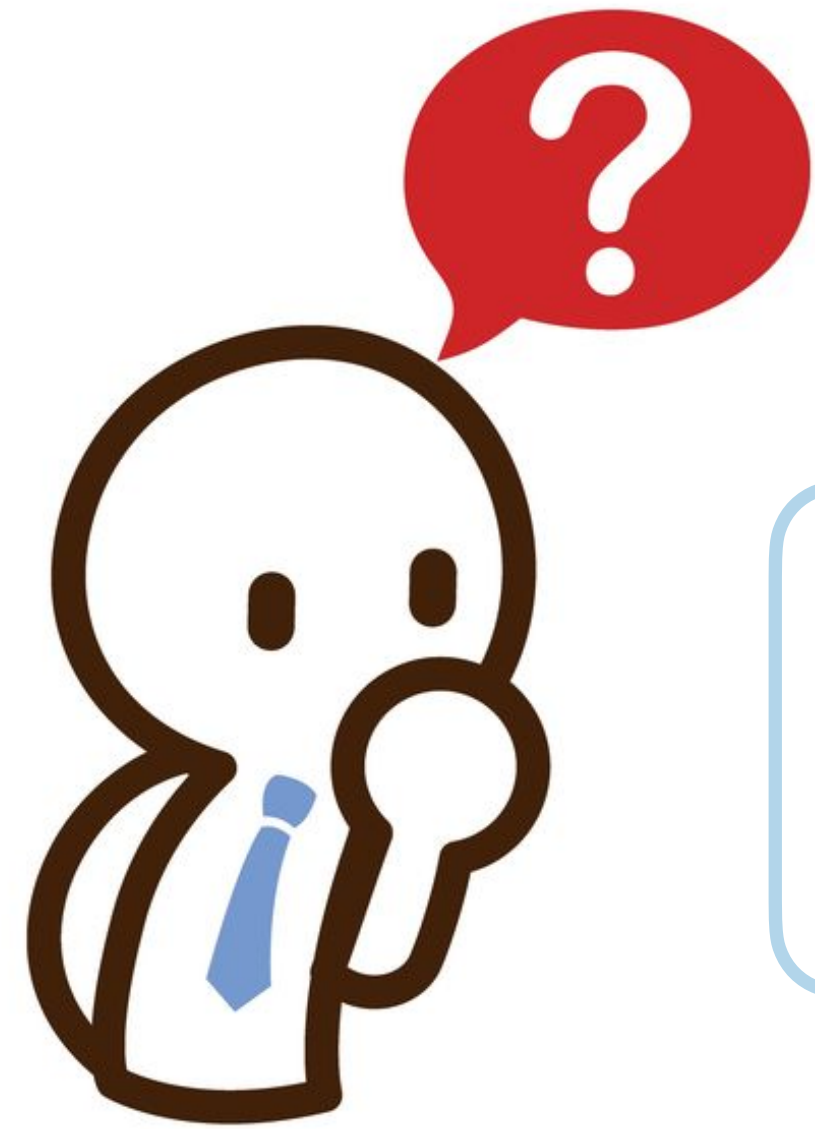
Lectures

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- how many listeners and who they are?
- how much audience know about this topic/issue?
- **does this audience have their own opinion on this issue**
- why do audiences listen to you?

Thesis defence and evaluation
of your work/reports
(+ questions and discussion)

or educational lecture?



Planning a presentation

Thesis defence

15-30* min

*or more for PhD defence

Conference

12-20* min

*or more in the case of invited talk

Seminars

30 min

Lectures

> 40 min

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- how much time do you have? is there time for questions?
- venue: its advantages and disadvantages
- how many listeners and who they are?
- how much audience know about this topic/issue?
- does this audience have their own opinion on this issue
- **why do audiences listen to you?**

Your work/knowledge
evaluation (defence/exam)
OR
you teach someone
(lectures) ?

Creating your presentation



- making of a plan of the presentation
- selection of illustrative material
- creating slides and "text" of the speech/talk
- first rehearsal of the presentation
- improving slides and report
- second rehearsal of the presentation
- improving slides and report

.....

- analyse possible questions from the audience
- improving slides and report

Creating your presentation



- making of a plan of the presentation
- **selection of illustrative material**
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- first rehearsal of the presentation
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- second rehearsal of the presentation
- improving slides and report

.....

- analyse possible questions from the audience
- improving slides and report

Don't forget to add links to the sources where all pictures were taken from (e.g. websites, articles...)

Creating your presentation



- making of a plan of the presentation
- selection of illustrative material
- creating slides and "text" of the speech/talk
- **first rehearsal of the presentation**
- improving slides and report
- second rehearsal of the presentation
- improving slides and report

In front of a mirror **OR**
ask friends/relatives/
colleagues to listen to you

.....

- analyse possible questions from the audience
- improving slides and report

Creating your presentation



- making of a plan of the presentation
- selection of illustrative material
- creating slides and "text" of the speech/talk
- first rehearsal of the presentation
- improving slides and report
- second rehearsal of the presentation
- improving slides and report

.....

- **analyse possible questions from the audience**
- improving slides and report

*Allows you to easily navigate
and not get confused due to
a stressful situation*

Creating your presentation



- making of a plan of the presentation
- selection of illustrative material
- creating slides and "text" of the speech/talk
- first rehearsal of the presentation
- improving slides and report
- second rehearsal of the presentation
- improving slides and report

.....

- analyse possible questions from the audience
- improving slides and report

Always ask your supervisor/tutor to check your presentation!

The main parts of the presentation



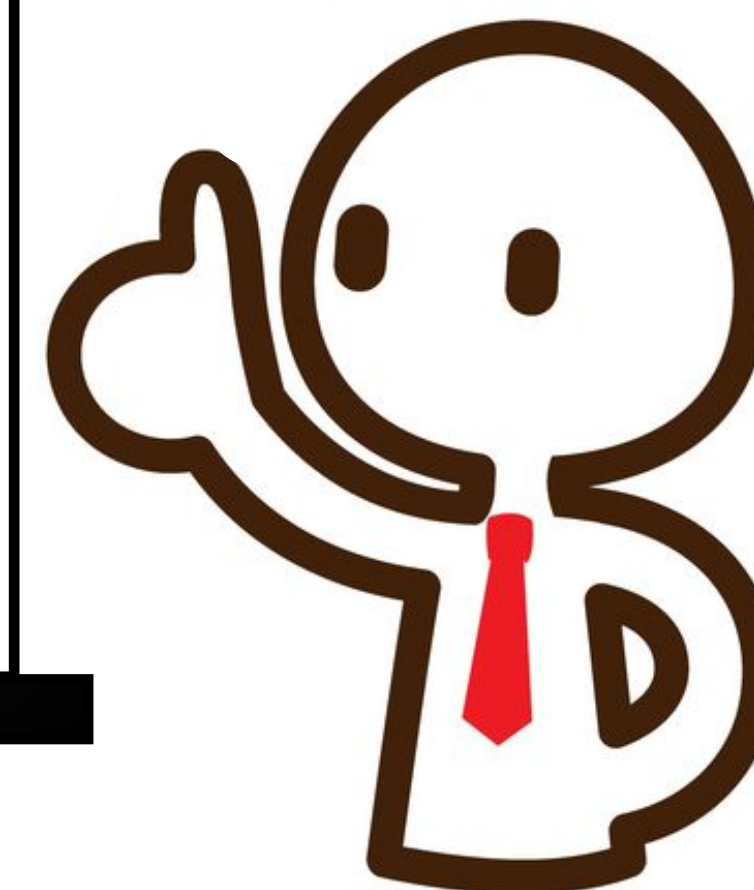
Logo of your
university/
institute

TITLE:

should contain the main essence of the work and
be fascinating [1-2 lines]

AUTHORS AND AFFILIATION

----- conference/workshop/seminar name and date ----- your name and e-mail -----



The main parts of the presentation

INTRODUCTION:

minimum of the background information;
formulation of the problem in the light of
published works

1-2 slides

depending on the conference topic and
the awareness of the audience in this topic

DATA AND METHODS:

short description with illustrations (if possible)

N slides

RESULTS:

usually the largest part: figures and tables;

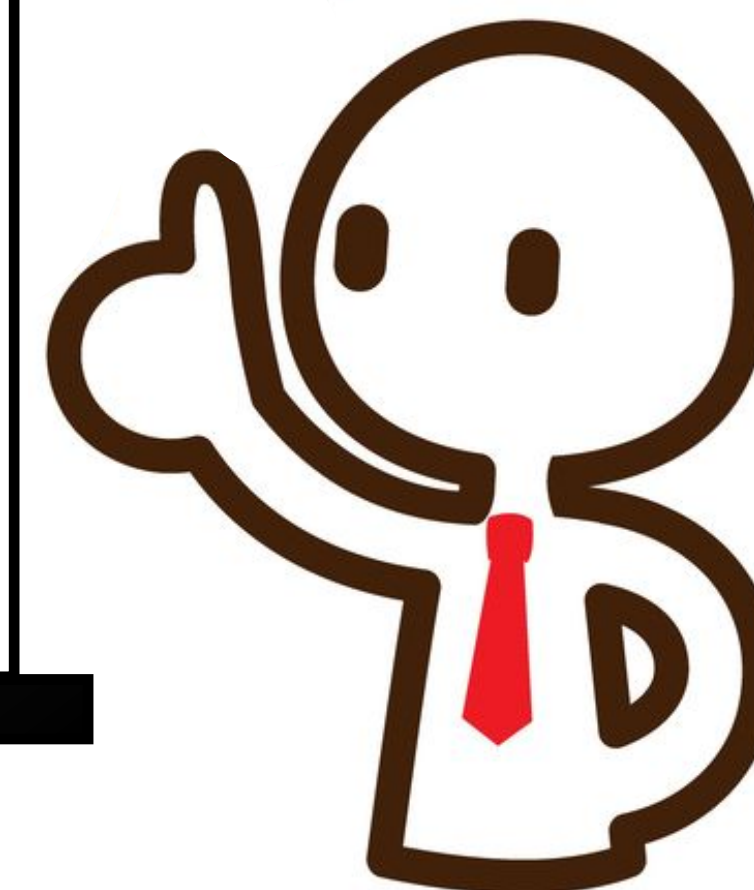
CONCLUSIONS

1 slide


a short list with bullets

Thank you for your attention!

----- conference/workshop/seminar name and date ----- your name and e-mail -----



Slides preparation

- don't forget to add co-authors
- the minimum amount of text on the slide
- the text should **NOT** be written in complete sentences
- illustrations and text are as large as possible
- clear captions to each figure and its parts (axis, legends etc)
- references to the used results (even your own results)
- "pleasant" colours — **NOTE:** *people with vision problems and color blindness may be present in the audience;*
- as little technical information, complex formulas as possible ...
- illustrations and videos are better than words, but remember about the balance!
- double check grammar and spelling!  **grammarly** or others

be prepared for your e-presentation to work under any circumstances


Blue letters on a black background look really "beautiful"

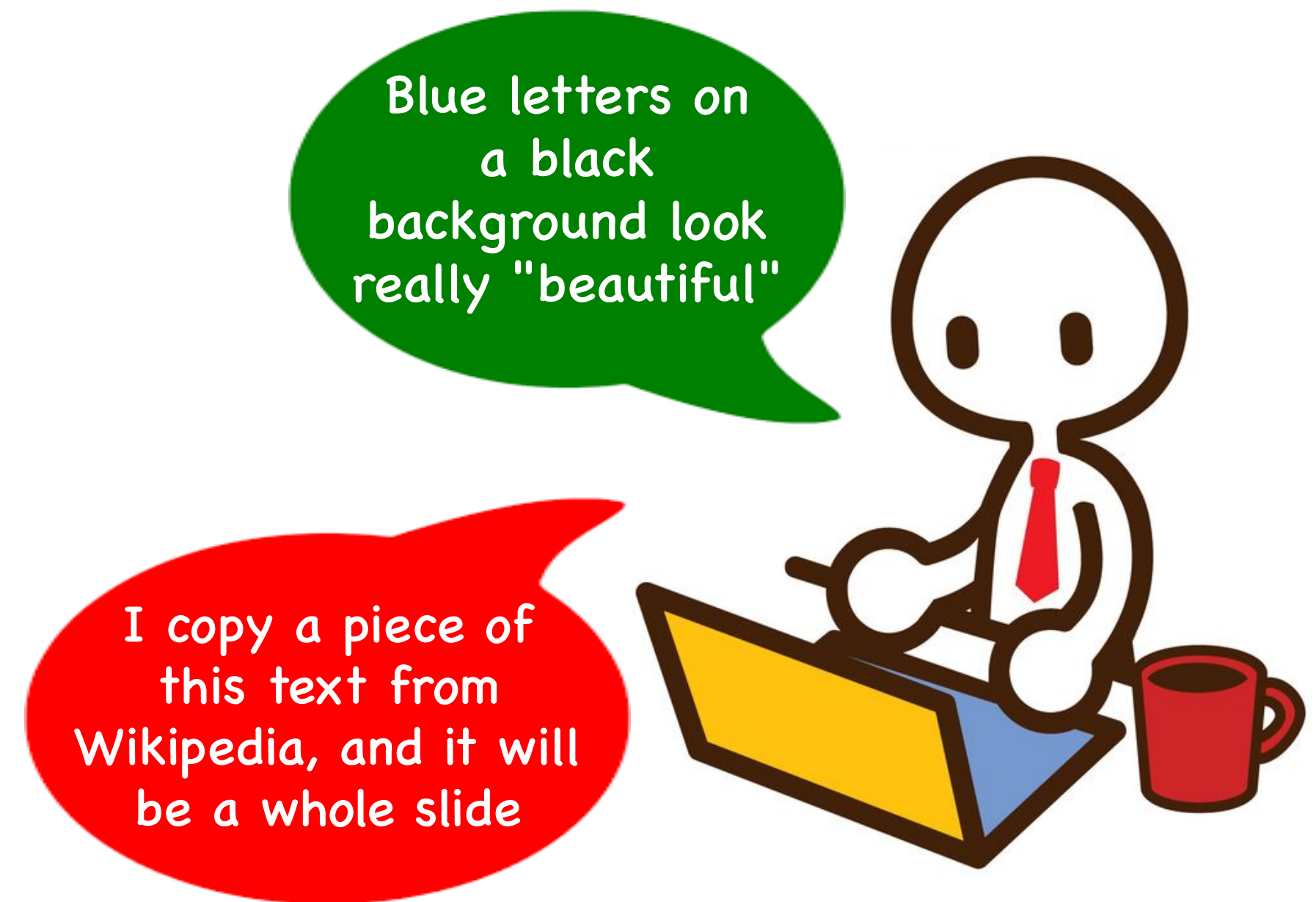
I copy a piece of this text from Wikipedia, and it will be a whole slide




do NOT make it in rare and very new formats AND have a copy in PDF format!

Slides preparation

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 - ☑ be prepared for your e-presentation to work under any circumstances
 - ☑ have multiple copies (flash drive, mail, DropBox, Google Drive...)
 - ☑ check if your presentation works before the talk!!!



Slides preparation

- don't forget to add co-authors
- the minimum amount of text on the slide
- the text should **NOT** be written in complete sentences
- illustrations and text are as large as possible
- clear captions to each figure and its name (e.g. Fig. 1, etc)
- references to the used results (e.g. [1], [2], etc)
- "pleasant" colours — **NOT** red, green, blue, yellow, cyan, magenta, black, white
vision problems and color blindness may be present in the audience
- as little as possible text, complex formulas as possible ...
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READ THE CONFERENCE/SEMINAR REQUIREMENTS !!!

- be prepared for your e-presentation to work under any circumstances**
- have multiple copies (flash drive, mail, DropBox, Google Drive...)**
- check if your presentation works before the talk!!!**

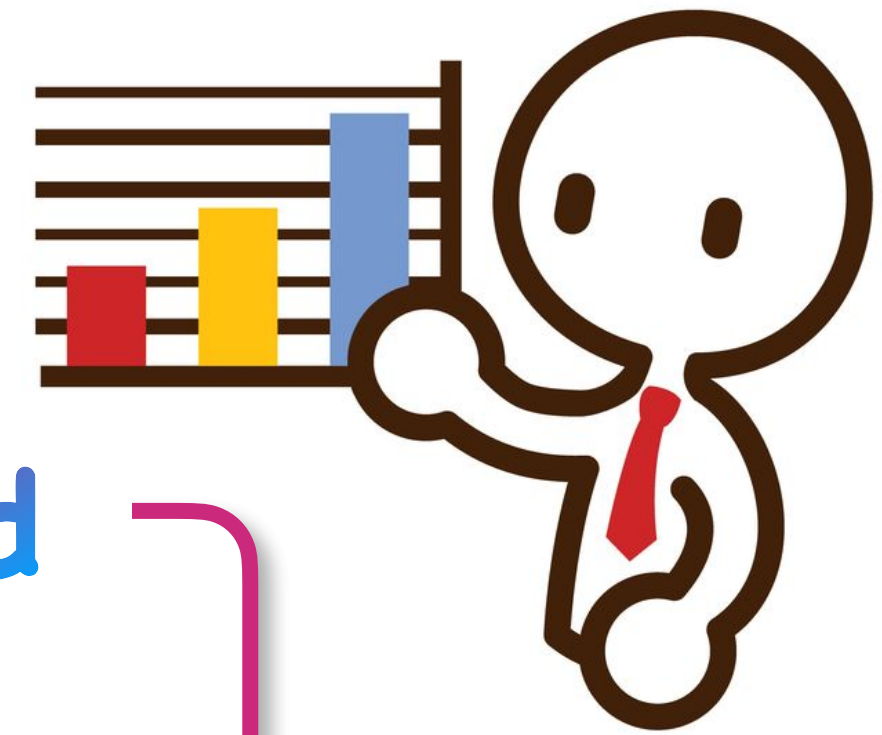
Blue letters on a black background look really "beautiful"

I copy a piece of this text from Wikipedia, and it will be a whole slide





The talk



Memorized

- + Eye contact
- Difficult for long talks
- No improvisation
- Possibility of mistakes

Prepared and Read

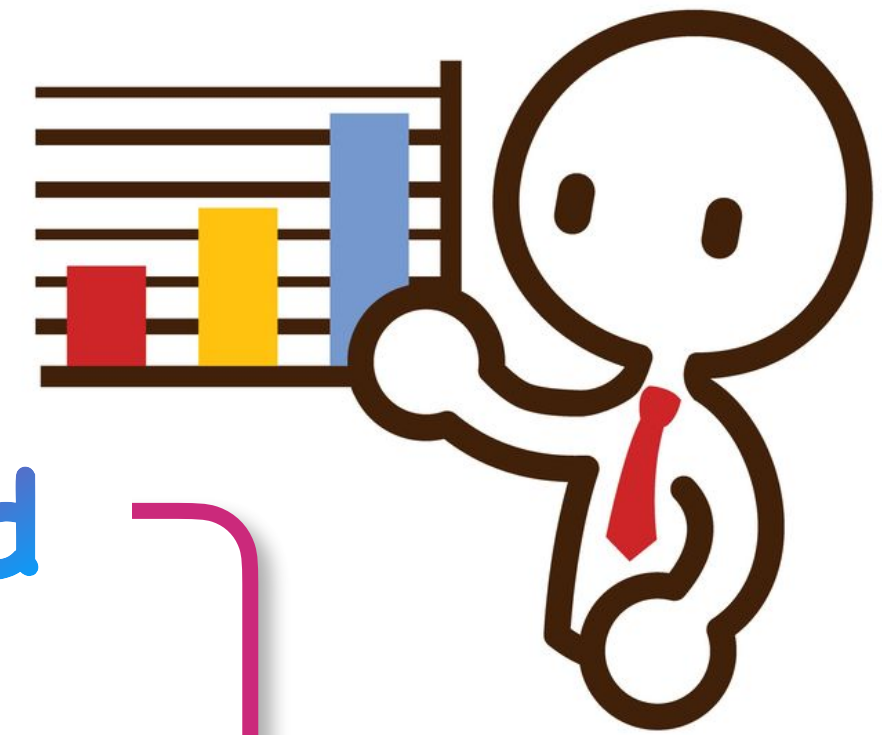
- + Accuracy of information
- It does not sound natural
- Complicates eye contact
- No improvisation

From slides

- + Eye contact
- + Improvisation is possible
- + Good organization / logic
- + Small possibility of mistakes



The talk



Memorized

- + Eye contact
- Difficult for long talks
- No improvisation
- Possibility of mistakes

Prepared and Read

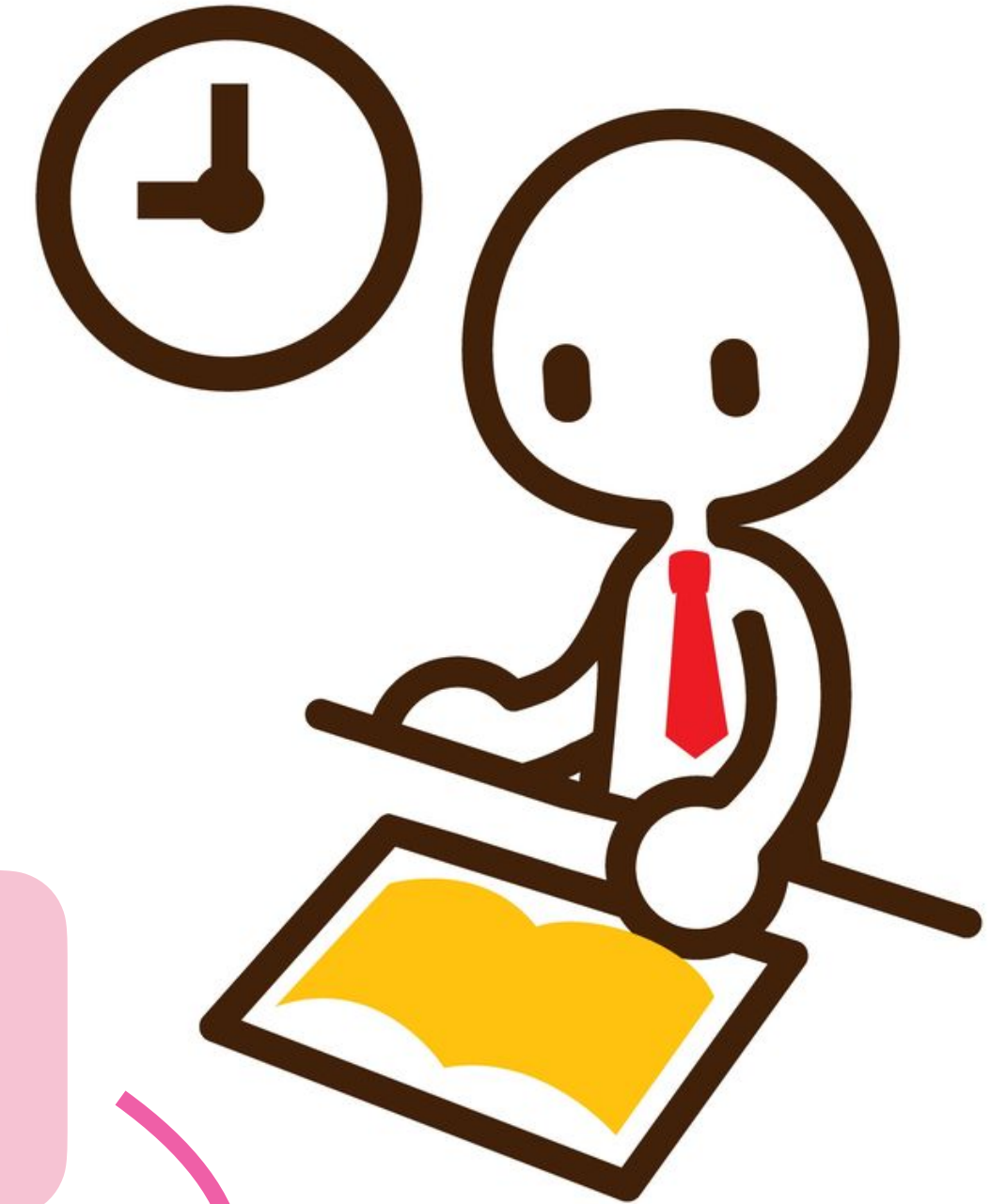
- + Accuracy of information
- It does not sound natural
- Complicates eye contact
- No improvisation

From slides

- + Eye contact
- ... / logic
- possibility of mistakes

**DO NOT READ FROM SLIDES !!!
Use them as a guide!**

The structure of the talk



Greet the audience

Introduce yourself and your work
(do not repeat the title of your talk if it has already been presented by the section chairman = save your time)

Thank you for your attention!
Invite the audience to questions and discussions

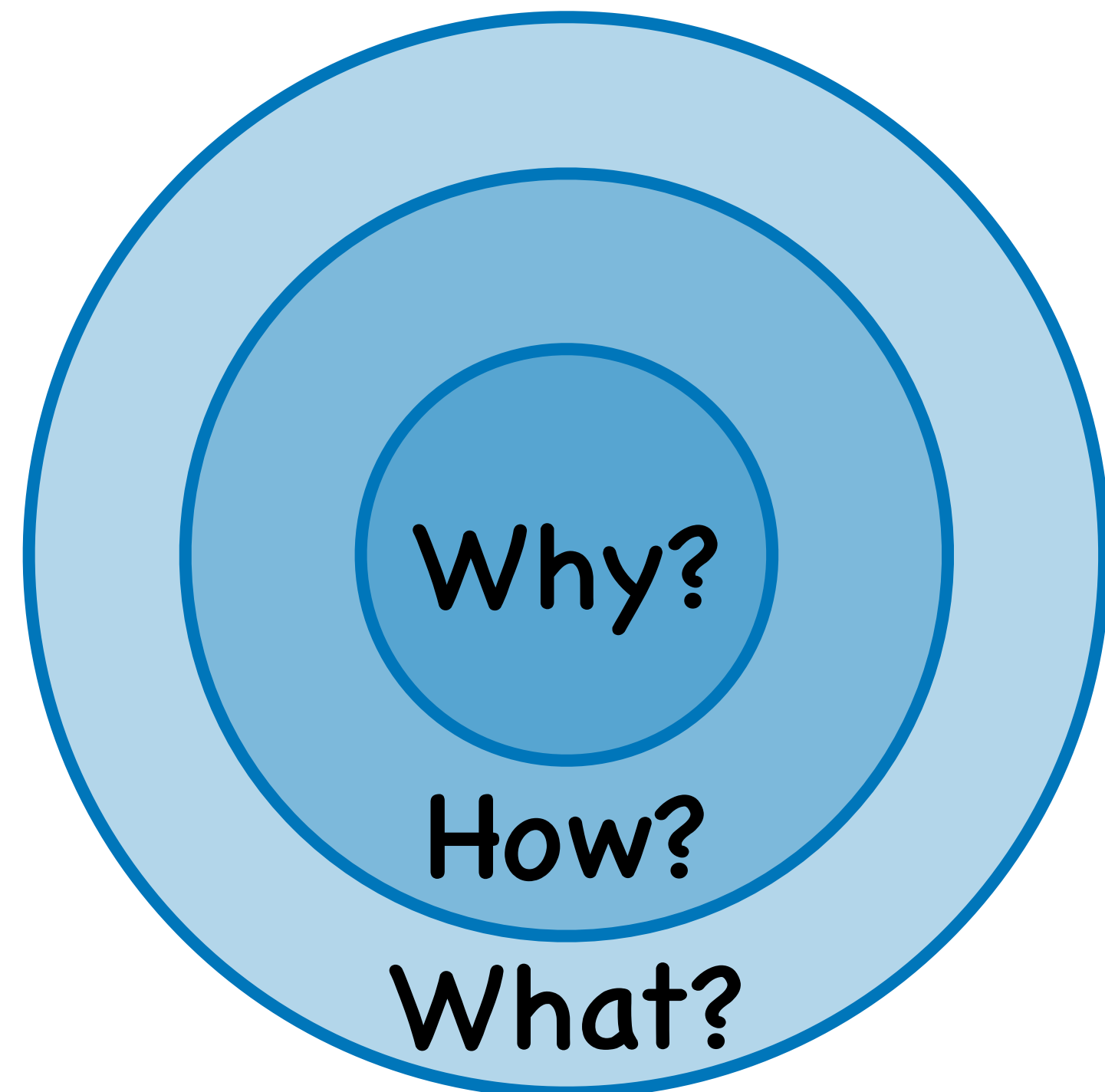
"Loud" beginning
to engage the audience,
to present the problem

Logical and consistent main part
with smooth transitions between
its main points

Clear conclusions

The structure of the talk: advices

Golden circle rule

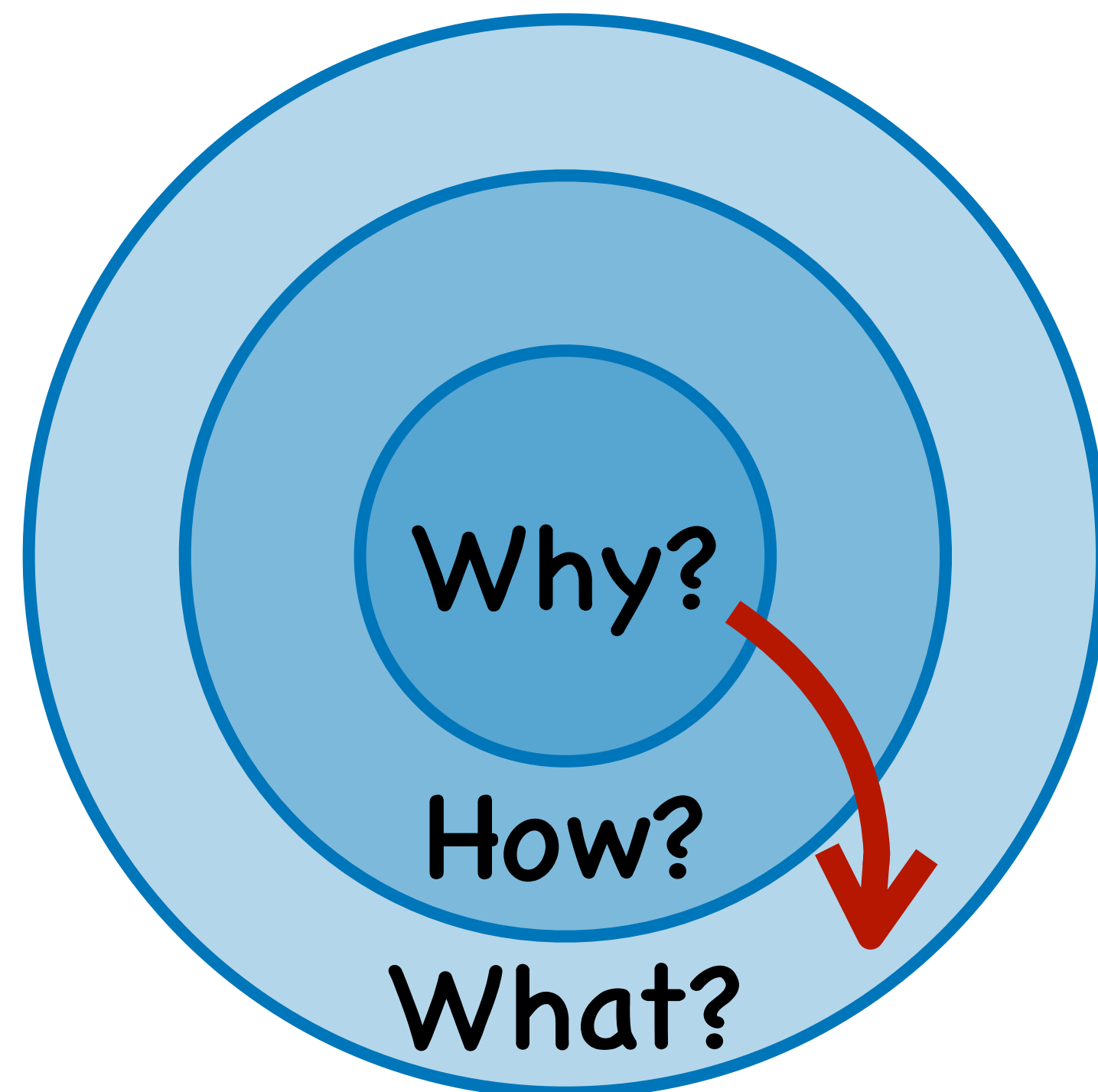


<https://www.smartinsights.com/digital-marketing-strategy/online-value-proposition/start-with-why-creating-a-value-proposition-with-the-golden-circle-model/>

The structure of the talk: advices



Golden circle rule



Why / what for? *What is the goal and purpose? What is the problem? What result do I want to get?*

How and by what methods *can I solve this problem / achieve the result?*

What *results did I get / what conclusions did I draw?*

The most successful way is from Why to What?

<https://www.smartinsights.com/digital-marketing-strategy/online-value-proposition/start-with-why-creating-a-value-proposition-with-the-golden-circle-model/>



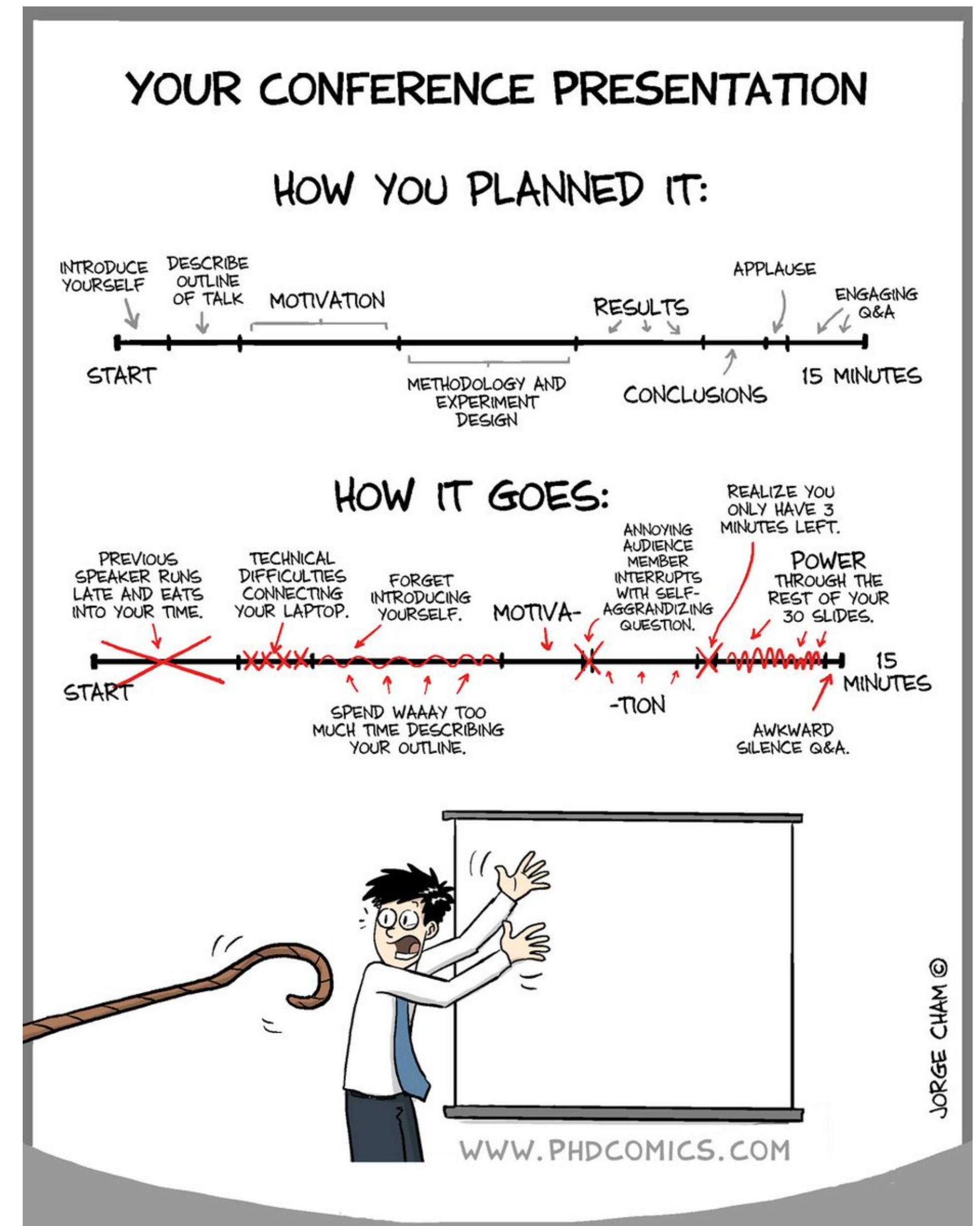
Talk: some advices

- enthusiasm and energy: do not let the audience fall asleep
- never apologize for poor preparation and knowledge
- monitor the progress of the report: do not let trivial issues stop you for long
- do **not** speak too quiet and try to avoid the filler words like "eeee, uuu..."
- "good" speed = 100 words per minute
- interact with the audience whenever it is possible
- avoid personal attacks on colleagues and/or research groups
- jokes — **OK**, but be careful with them (**NO jokes** about countries, nations, races, religions...)
- avoid slang
- do **not** stand with your back to the audience
- watch the movements of your body: no crossed arms on your chest or hands in your pockets
- **NEVER READ FROM SLIDES!**

More advices on the talk

- the report should be simple, clear and concise
- minimum amount of technical information
- the language is simple with a minimum of little-known terms
- when referring to an important point that you do NOT understand very well, it is better to admit it and provoke a discussion than to wait for the question

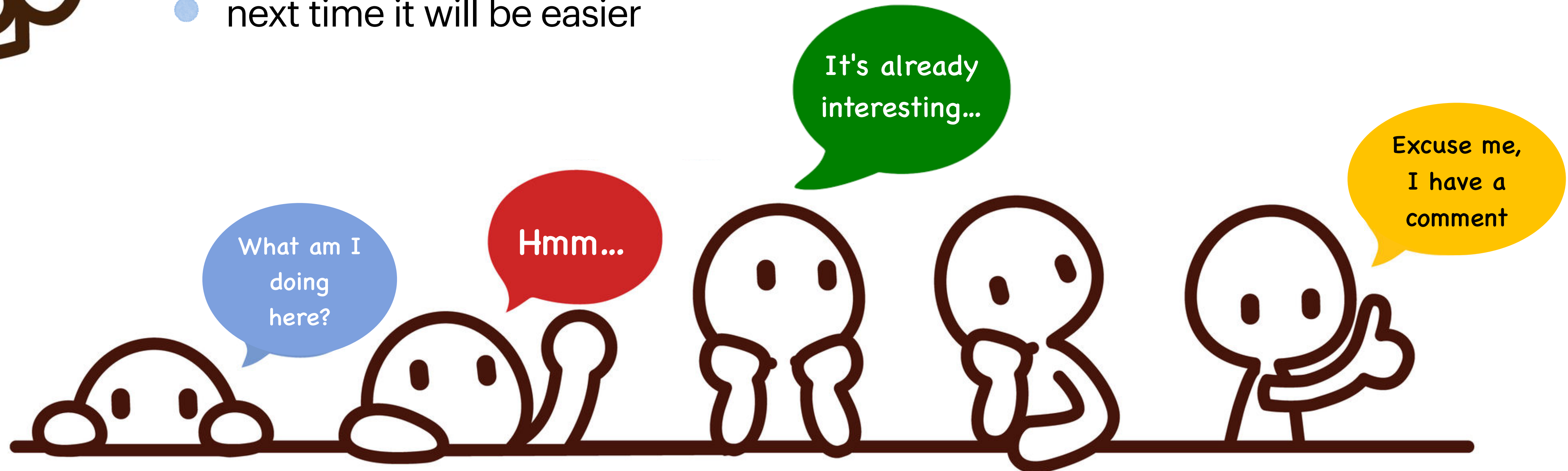
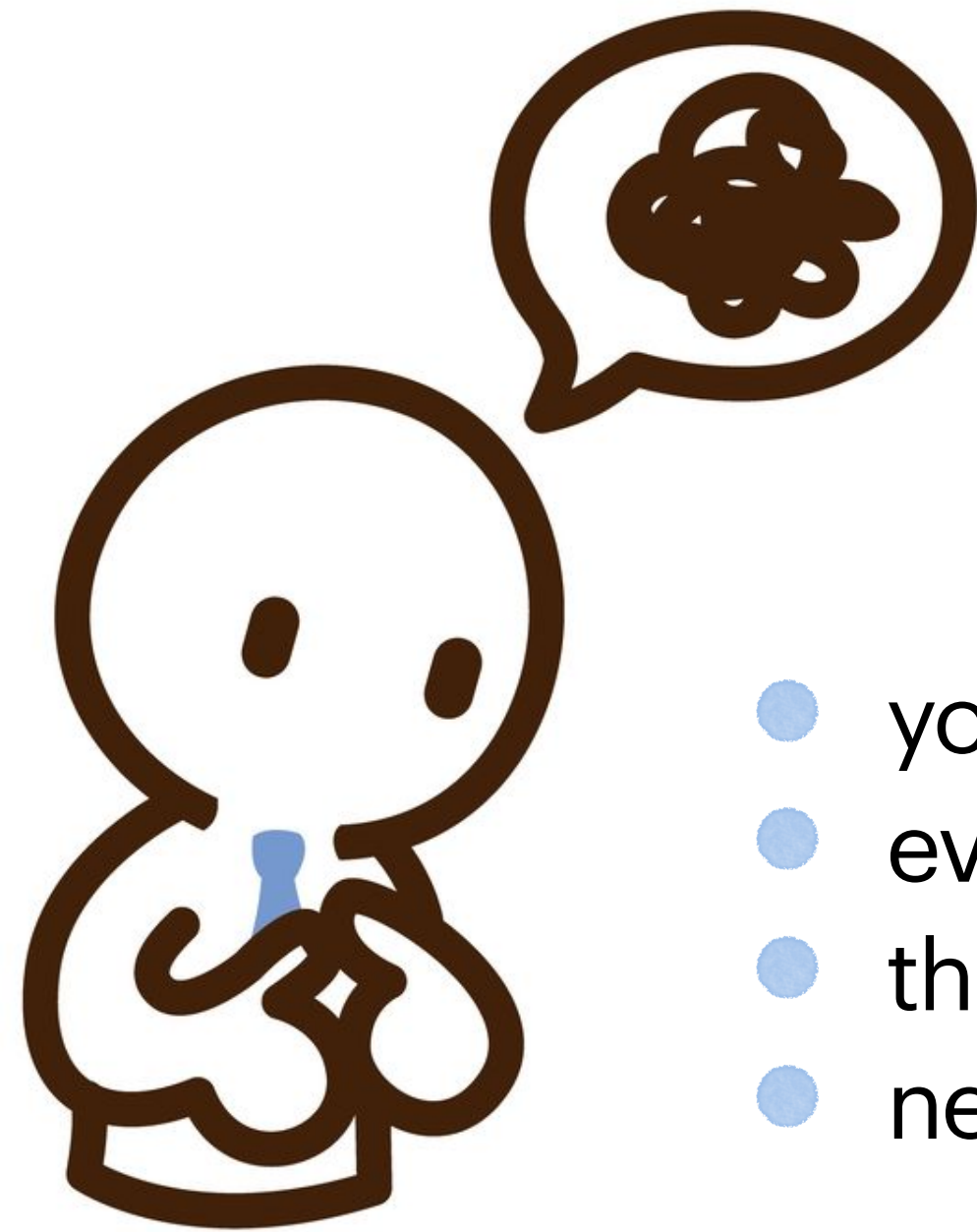
And remember, everything can go wrong...
There are always things that cannot be predicted!



And what if I'm still scared?

All speakers experience fear and severe insecurity during their first speech, but...

- you are not alone
- everyone started from this
- the audience is friendly (at least most of it)
- next time it will be easier



And what if I'm still scared?



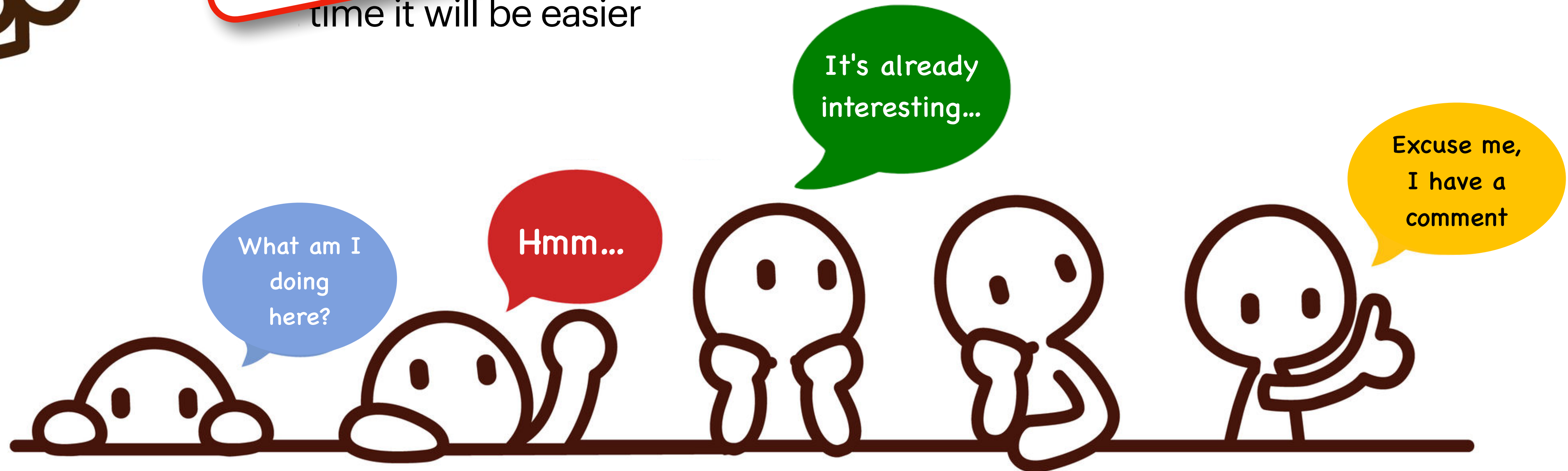
All speakers experience fear and insecurity during the

are not

friendly (at least most of it)

time it will be easier

The only solution is to DO IT!





Connect

<https://www.elsevier.com/connect/how-to-give-a-dynamic-scientific-presentation>

Home > Elsevier Connect > How to give a dynamic scientific presentation

How to give a dynamic scientific presentation

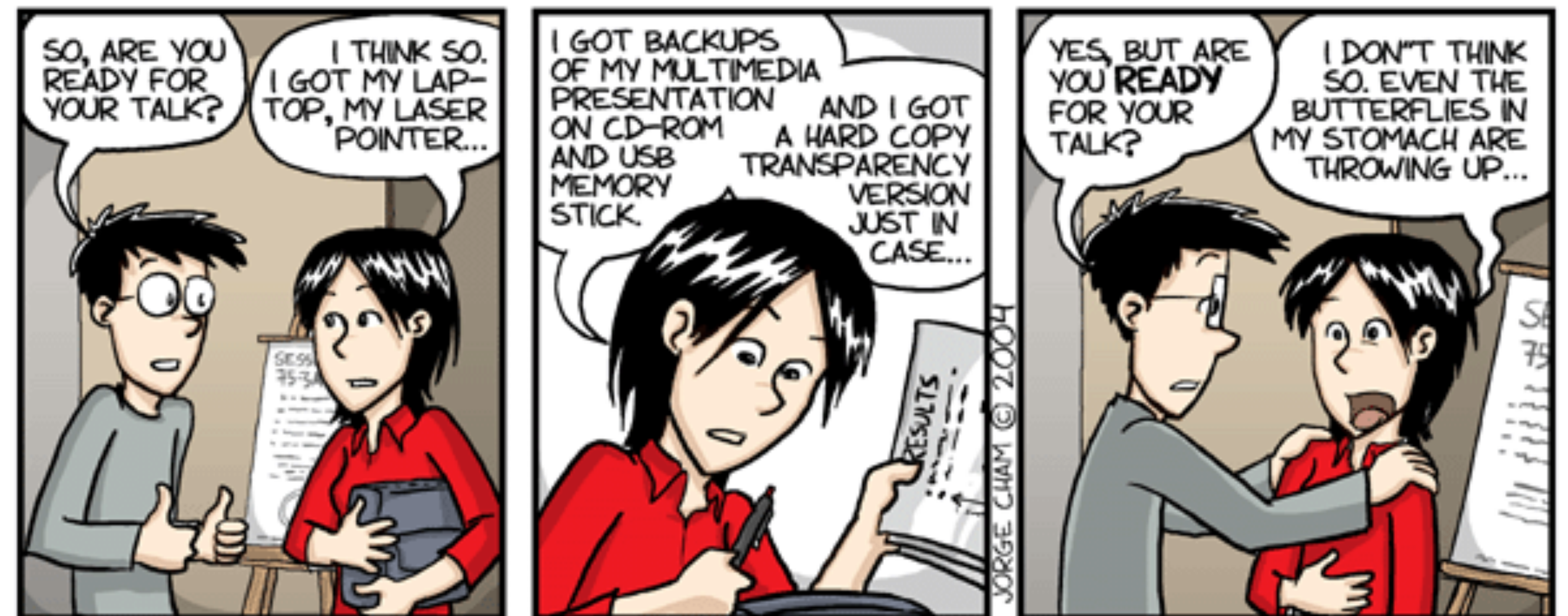
Convey your ideas and enthusiasm – and avoid the pitfalls that put audiences to sleep

By [Marilynn Larkin](#) - August 4, 2015

Giving presentations is an important part of sharing your work and achieving recognition in the larger medical and scientific communities. The ability to do so effectively can contribute to career success.

However, instead of engaging audiences and conveying enthusiasm, many presentations fall flat. Pitfalls include overly complicated content, monotone delivery and focusing on what *you* want to say rather than what the audience is interested in hearing.

Effective presentations appeal to a wide range of audiences — those who work in your area of interest or in related fields, as well as potential funders, the media and others who may find your work interesting or useful.



www.phdcomics.com

Useful videos:



The 110 techniques of communication and public speaking

youtube.com/watch?v=K0pxo-dS9Hc

How to avoid death by PowerPoint

youtube.com/watch?v=lwpi1Lm6dFo

The magical science of storytelling

youtube.com/watch?v=Nj-hdQMa3uA

How to speak?

youtube.com/watch?v=Unzc731iCUY

How to become a master in the Art of Public Speaking?

youtube.com/watch?v=dHAbmoFHqgA

Think fast, talk smart: Communication Techniques

youtube.com/watch?v=HAnw168huqA



And...

Thank you for your attention!

Questions?

