



Perfecting Your Research Presentation

การเตรียมความพร้อมใน การนำเสนอผลงานวิจัย

Dr Sirawit Ittisoponpisan
FameLab Thailand 2021 Winner

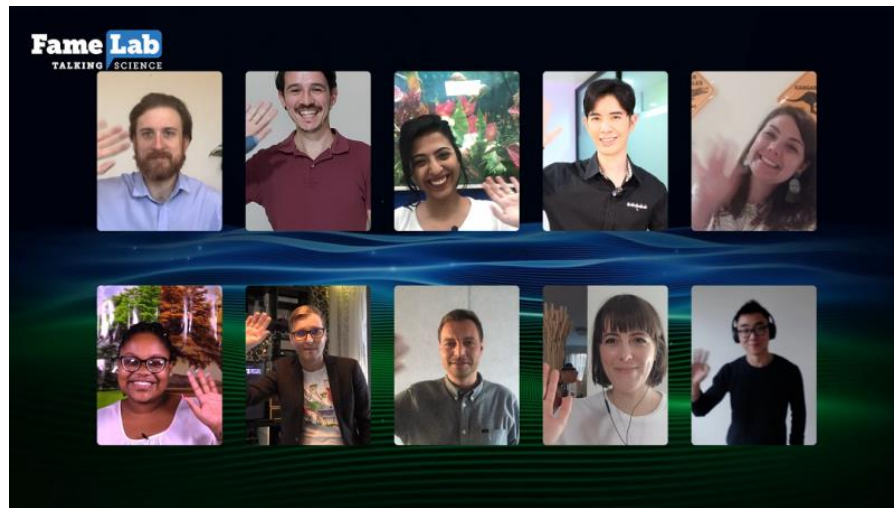
Faculty of Science
Prince of Songkla University

Sirawit Ittisoponpisan (AJ ICE)

- Lecturer and researcher at Faculty of Science, PSU
- FameLab Thailand 2021 **Winner** & People's Choice **Winner**
- FameLab International 2021 **Finalist** & Audience **Winner**

CHELTENHAM
Festivals

BRITISH
COUNCIL



>3 Million
followers on
social media

TikTok



How ready are you if your supervisor gave you one week to prepare your presentation?

I can't do it!

Are you serious?

Oh well...

Let's give it a try!

I'm ready for it!

OMG! I love it!



1



2



3



4



5



6

What we are covering today



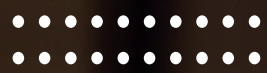
MESSAGE



VISUAL



DELIVERY



Science message

5



How people perceive



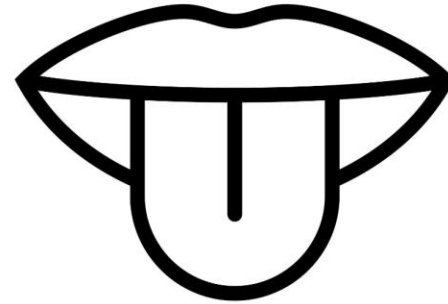
HEARING



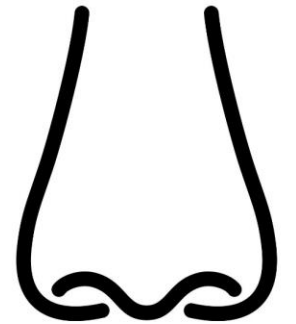
VISION



TOUCH

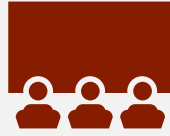


TASTE



SMELL

Questions to ask



Who is your audience?

To help you decide how complicated your talk should be



What do you want the audience to do (call-to-action)?

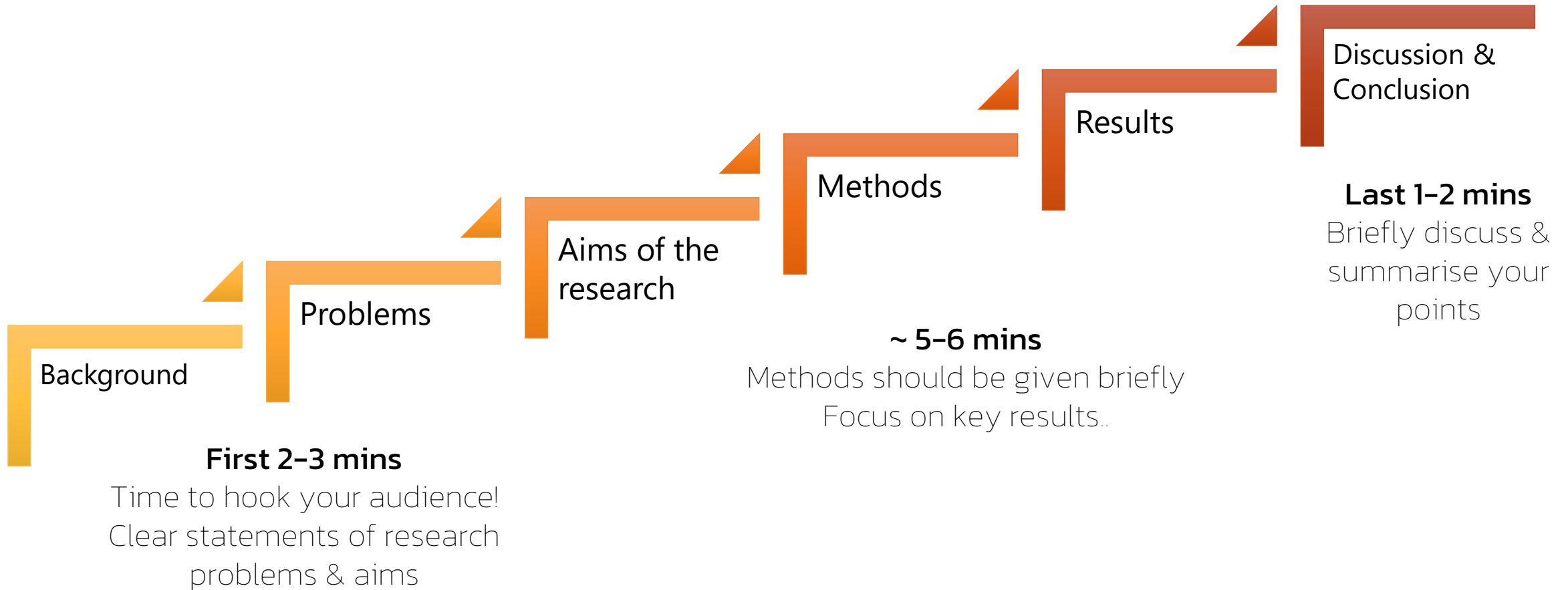
So that you can work toward it and "close the deal"



What do they know so far?

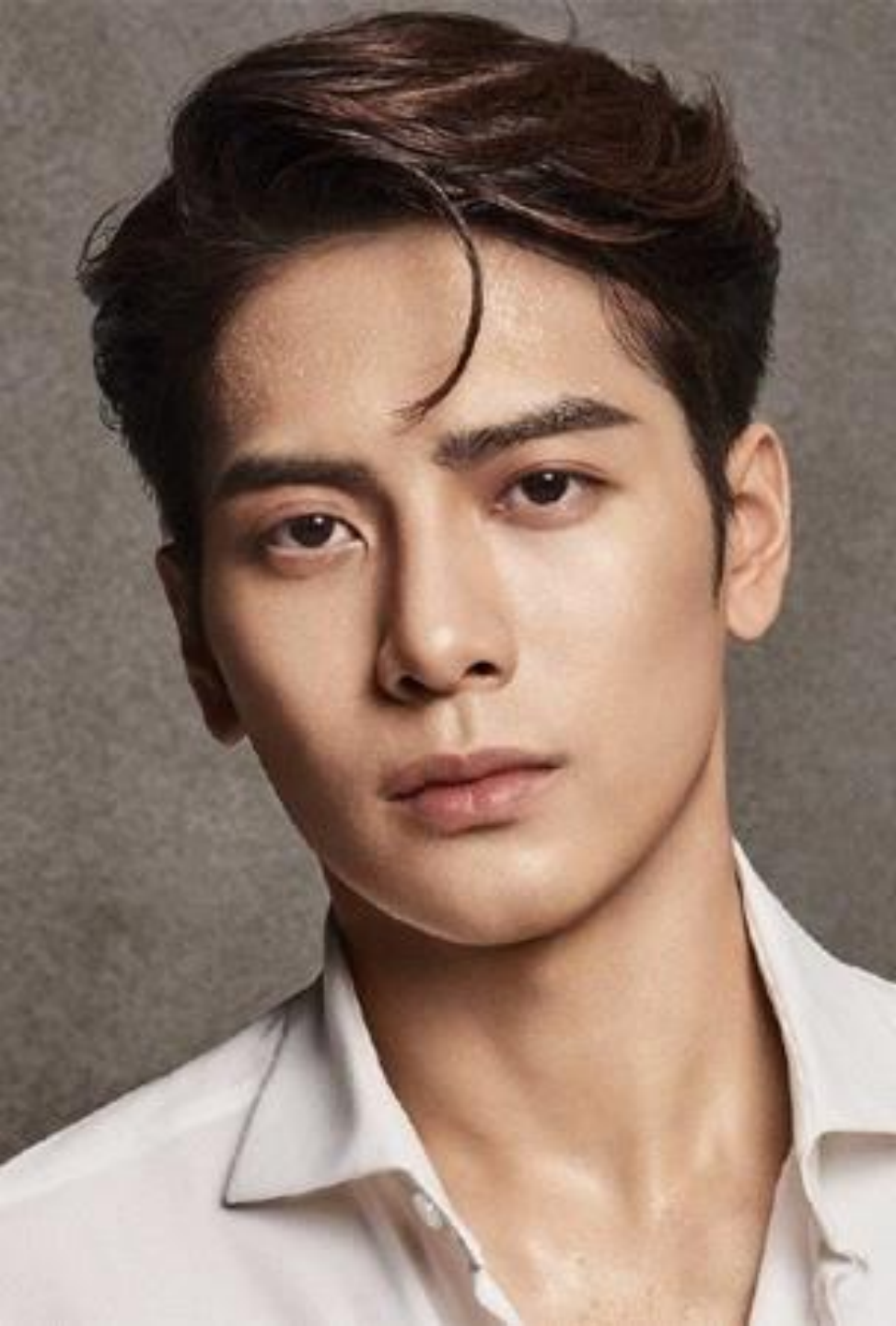
To help you design the best contents that attract them

Typical research presentation outline





Storytelling



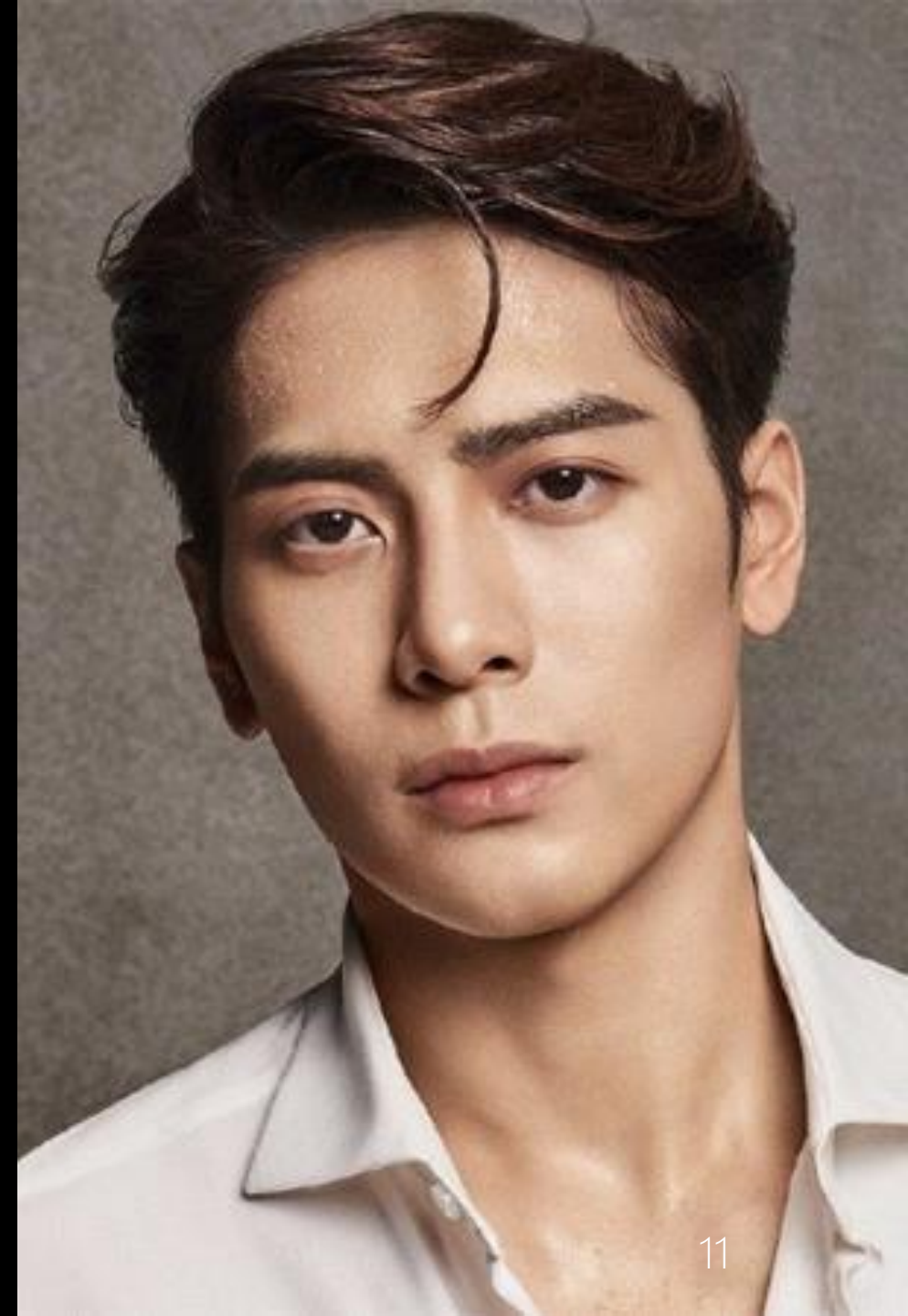
Tip: tell a story rather than just report data!

A classic opening

- Good morning everyone. My name is Jackson Wang. I'm a 4th year student from the Division of Biological Science, Faculty of Science, Prince of Songkla University. Today I would like to give you a presentation on the topic of **"The study of Probiotics Bacteria that can Stimulate the Growth of White Shrimps"**

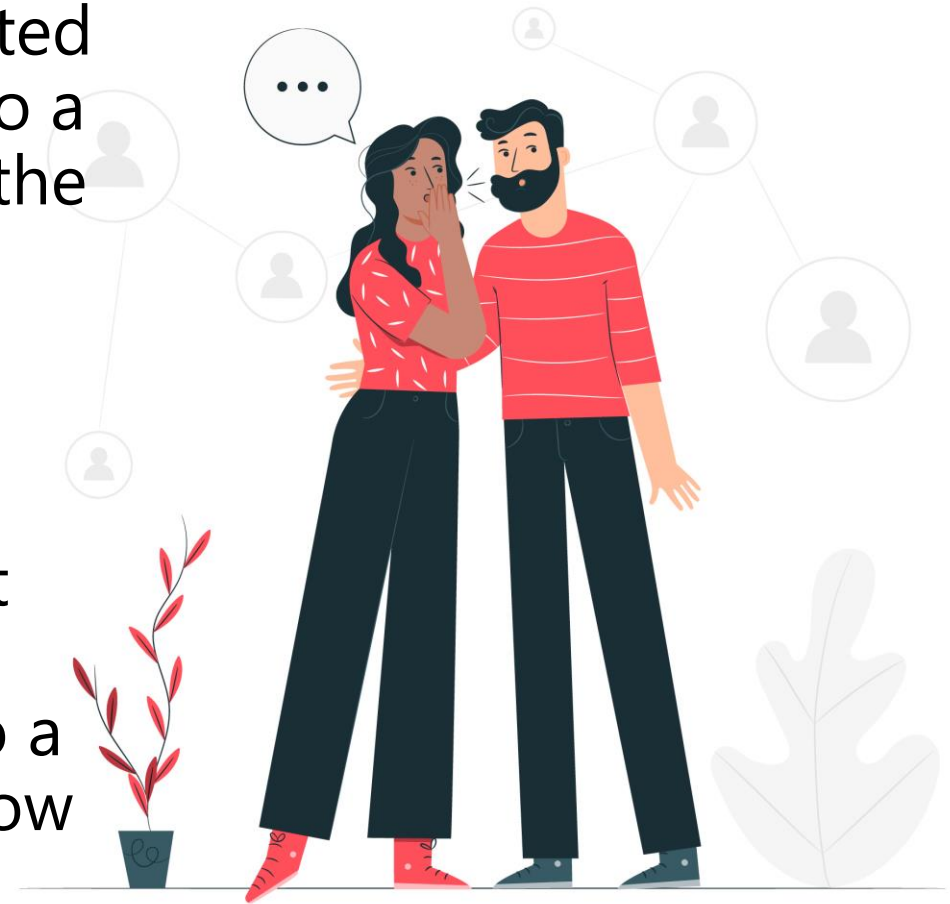
Tip: tell a story rather than just report data!

- Have you ever wondered what probiotics can do in shrimps? Recently, there's one research article that found that if you feed white shrimps with probiotics, it could affect not only their immune systems but also their growth! I'm Jackson Wang and my topic today is "**The study of Probiotics Bacteria that can Stimulate the Growth of White Shrimps**"



Tip: Tell a story

- I used to think that when a crime is committed the police dusted for fingerprints , put it into a computer, and up pop the driver license of the person who committed the crime...
- In 2004, a lawyer named Brandon Mayfield was arrested by the FBI because his fingerprints matched those found on the bomb that exploded, killing 191 people. But here's the catch. The fingerprint examiners made a mistake. They matched the prints to a wrong person. Mayfield was innocent. So how can this happen?



Link your ideas together



- **How can we link them together?**
- **CLASSIC STRATEGIES: split into sections**
 - My presentation today is going to cover backgrounds, methods, results, and conclusion...
 - For the background
 - Next, I would like to talk about methods
 - 1st... Study of 2nd... Study of ...
 - For the results, ...
 - This is the conclusion 1 2 3

No connection between slides / ideas

You can tell a story, even in science

- Antibiotics have a lot of disadvantages ... (background).
Therefore, the researchers decided to investigate if **they** can use probiotic bacteria to replace antibiotics in shrimp farms. (aims)
- **To test this**, **they** divided the experiment into 3 sections... (methods). **In the first section**, **they** wanted to study.... using and what they found was that... . **Next**, **they** did and found that (results)
- **Overall**, **they concluded that** using F1 probiotic is the best option.
- **Finally**, I believe that if F1 probiotic gets commercialised, it will be beneficial not only to the environment, but also to the economy, and people's health. Thank you. (strong ending)

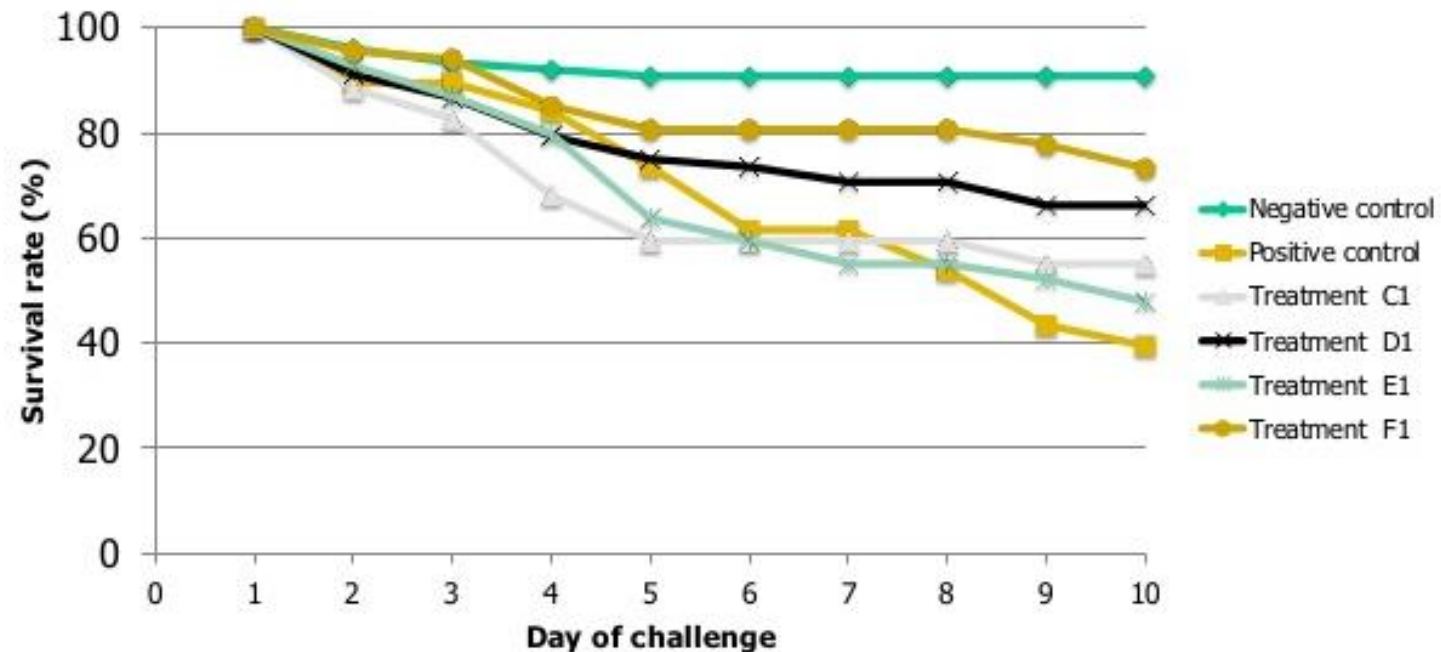


Tip: spark their curiosity!

- Have you ever wondered what would happen if you take too many antibiotics?
- I found that if you feed your shrimp with probiotics, it could greatly affect their growth! (How?)

Big Mistake: Read everything from papers

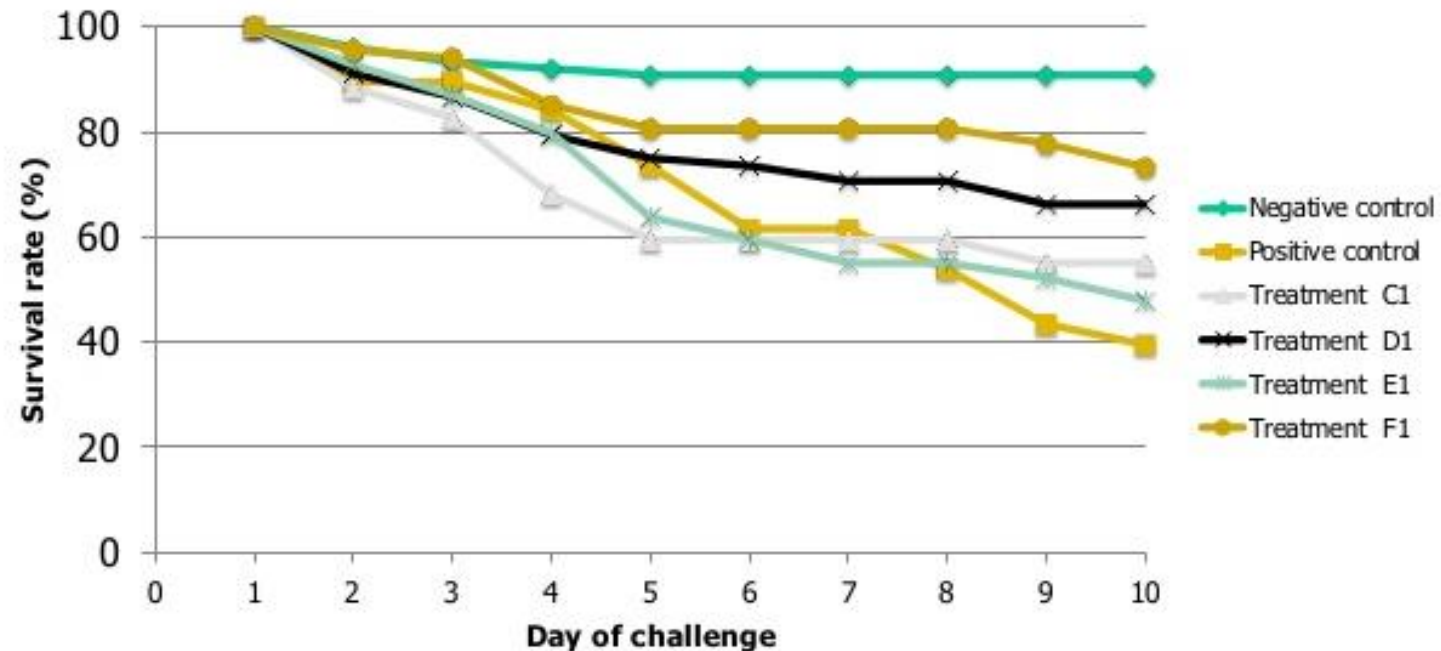
"The mortality rate of shrimp receiving Treatment C1, D1, E1, and F1 were 55%, 67%, 48% and 75% within 10 days post challenge, whereas in the positive control and the negative control group, the survival rates were 40% and 93%, respectively."



Loc H Tran et al. 2016. Acute Hepatopancreatic Necrosis Syndrome (EMS/AHPND) and Enterocytozoon hepatopenaei - EHP, updates from the lab studies and hatchery

Take times to describe results

"I would like you to take a look at this figure. Here, the x-axis represents days post challenge and the y-axis is the shrimp's survival rate. You can see that shrimps that received Treatment F1, which is shown in brown, has the highest survival rate of 75% after 10 days of infection. But the positive control group got only 40% survival rate."



Loc H Tran et al. 2016. Acute Hepatopancreatic Necrosis Syndrome (EMS/AHPND) and *Enterocytozoon hepatopenaei* - EHP, updates from the lab studies and hatchery



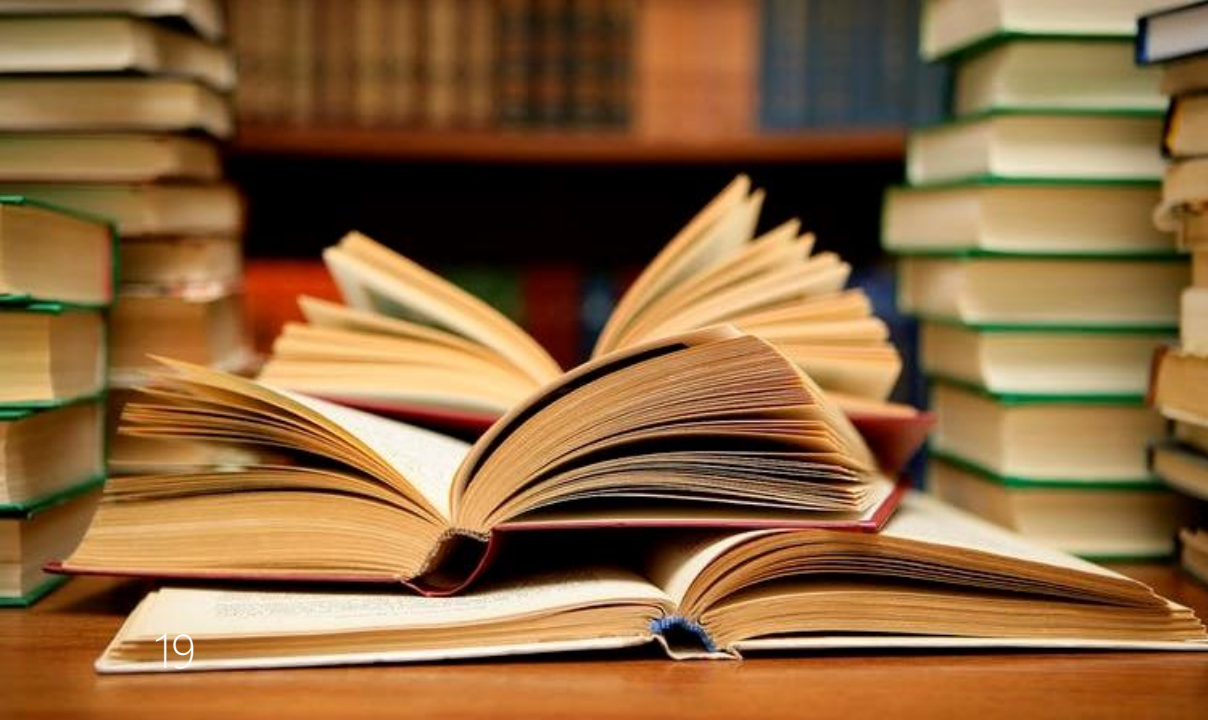
Technical terms

- Keep them at a minimum.
- If you need to mention any technical terms, take your time describing them first as the audience might not know what you're talking about.



Metaphor

- In human DNA, there are about 3 billion letters. How long are 3 billion letters? Well, in 2012, scientists at the University of Leicester wanted to find it out by printing the complete version of the human DNA. Surprisingly, they ended up printing 130 volumes of the textbooks which would take about 95 years to read if you do it one letter per second.



Tip: make a strong ending

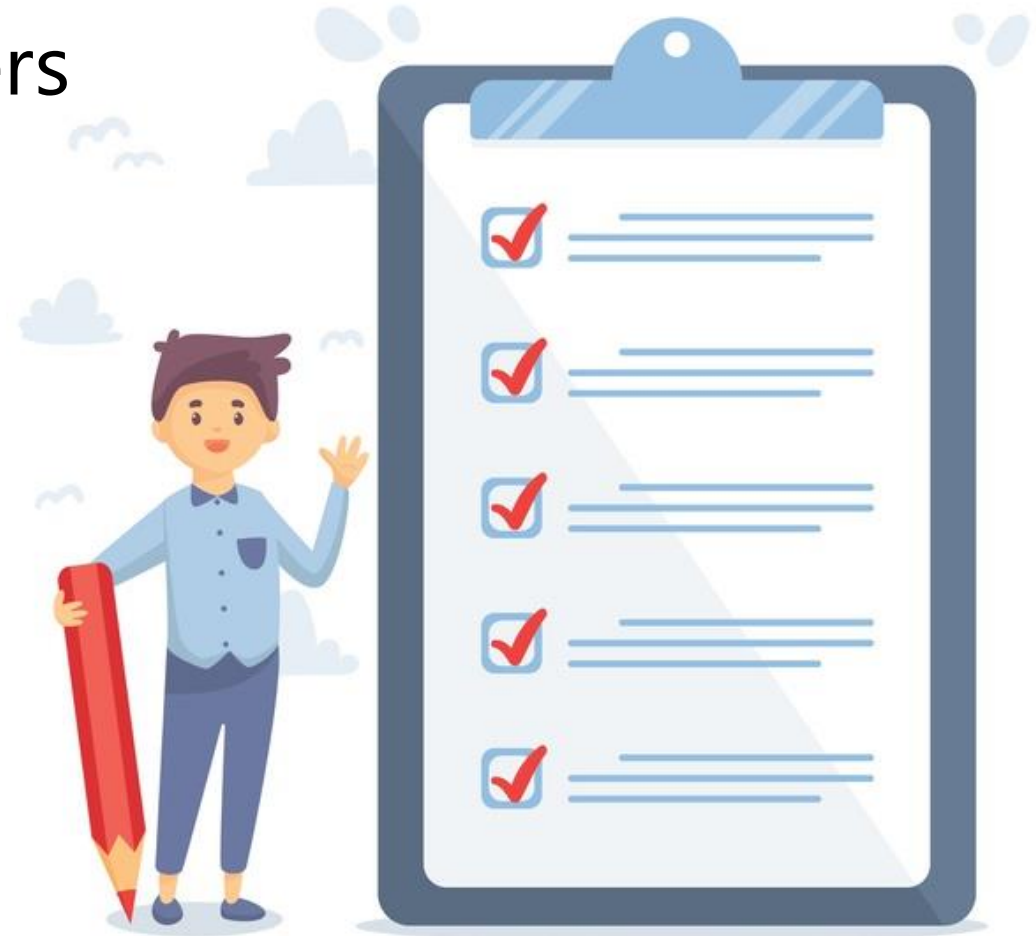
"I want everyone to look at this image. **Imagine** living the rest of your life with vision like this. So the next time you're with your loved ones, study their faces, their every feature, commit that to memory, cherish that image, because one in seven of you will lose that ability if nothing is done about this disease. With the use of micro RNA, my hope, and my goal, is that for millions of people this image can become clear. Thank you. "

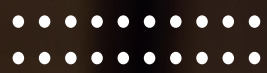


Joshua Chu Tan, ANU College of Medicine, Biology and Environment.

Checklist For Your Scripts

- ☐ Relevant background for listeners
- ☐ Tell a story, not just report data
- ☐ No written language
- ☐ Good linking between slides
- ☐ Length about right
- ☐ **Strong & memorable ending**





Visualise your research



slido



What makes a presentation so annoying to watch?

① Start presenting to display the poll results on this slide.

เหตุผลใดทำให้การพรีเซนต์ดูน่าเบื่อ/น่ารำคาญ?

The speaker reads the slides to us	60.4%
Text so small I couldn't read it	50.9%
Full sentences instead of bullet points	47.8%
Slides hard to see because of colour choice	37.1%
Moving/flying text or graphics	24.5%
Annoying use of sounds	22.0%
Overly complex diagrams or charts	22.0%

How PowerPoint is supposed to be used

- ✓ To be your visual aid
- ✓ To enhance your presentation
- ✗ To tell everything by itself
- ✗ To be read by you!
- ✗ To be read by the audience!



Key idea

"Let them see what you want them to see
at the right place and the right time"

Control your audience's attention



MOVING
OBJECTS



SIGNALLING
COLOURS



CONTRAST
RICH OBJECTS

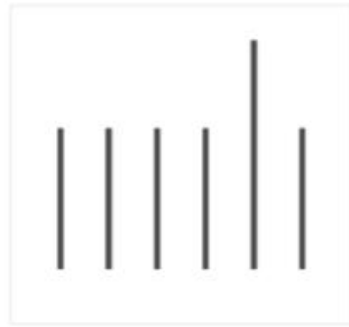


BIG OBJECTS

2 3 5 7 9 2 1 6 7 8 0 8 5 9 0
0 3 1 1 4 6 7 3 5 6 2 1 1 4 5 7
2 5 6 2 8 9 0 4 4 7 8 0 9 4 1
0 5 4 2 1 3 3 5 8 8 9 0 5 2 3
3 5 6 7 3 8 3 1 9 5 1 7 9 0 1

How many 3s are there?

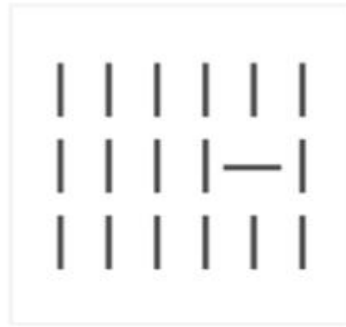
Play with pre-attentive attributes



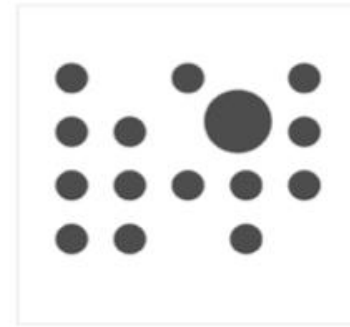
Length



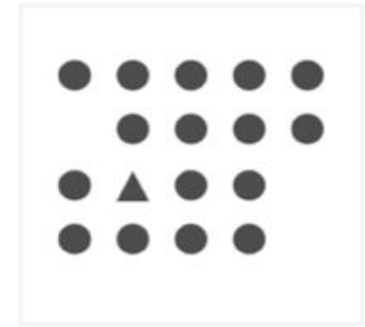
Width



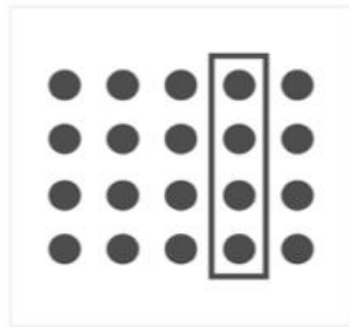
Orientation



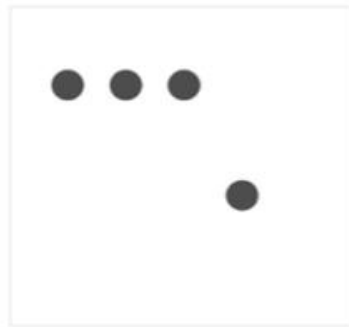
Size



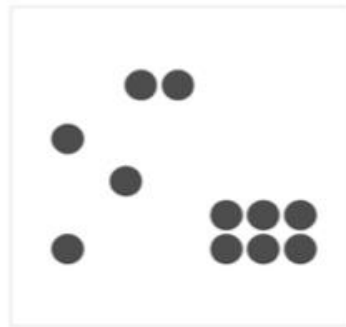
Shape



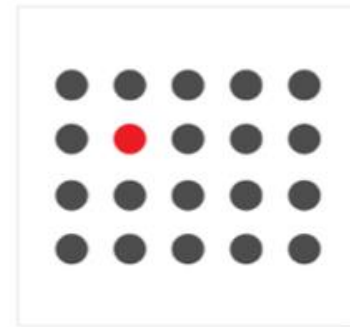
Enclosure



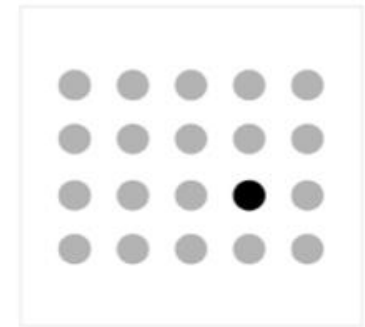
Position



Grouping



Color Hue



Color Intensity

And you will read this one at the end.

**You will read
this first.**

And then you will read this one.

20%

of children had a
Traditional stay-at-home mom
in 2012, compared to 41% 1970

Fonts & texts

- Easy fonts = easy to understand
- Different **colours**, **SIZES**, and ***styles*** to emphasise info.
- Use short phrases and keywords.
- Use bullet points or numbers.
- **No more than 6-8 lines (or 6 elements)**
- Use dark text on light background
or **light text on dark background.**

Two hands, one on the left and one on the right, are pointing their index fingers towards the center of the image. The fingers are pointing towards the text 'One slide' and 'One main idea'.

One slide
One main idea

Cannabis

What is cannabis?

- Cannabis, also known as marijuana among other names, is a psychoactive drug from the Cannabis plant. Native to Central and South Asia, the cannabis plant has been used as a drug for both recreational and entheogenic purposes and in various traditional medicines for centuries. Tetrahydrocannabinol (THC) is the main psychoactive component of cannabis, which is one of the 483 known compounds in the plant, including at least 65 other cannabinoids, including cannabidiol (CBD). Cannabis can be used by smoking, vaporizing, within food, or as an extract.

Medical benefits of cannabis

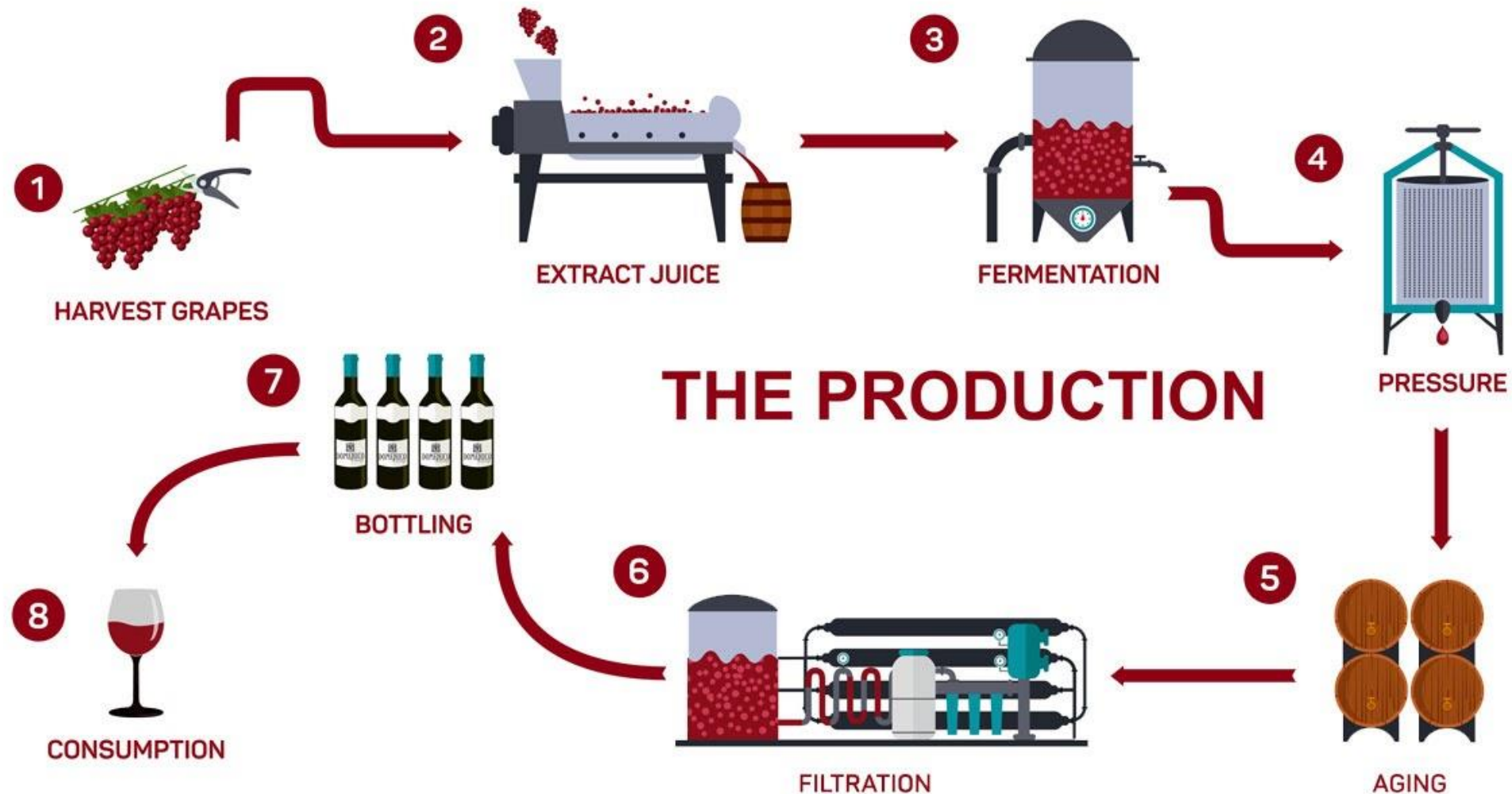
- There is limited evidence suggesting cannabis can be used to reduce nausea and vomiting during chemotherapy, to improve appetite in people with HIV/AIDS, or to treat chronic pain and muscle spasms. Its use for other medical applications is insufficient for drawing conclusions about safety or efficacy. There is evidence supporting the use of cannabis or its derivatives in the treatment of chemotherapy-induced nausea and vomiting, neuropathic pain, and multiple sclerosis. Lower levels of evidence support its use for AIDS wasting syndrome, epilepsy, rheumatoid arthritis, and glaucoma.

Cannabis



- Also known as "**marijuana**"
- Native to Central and South Asia
- Used as a **recreational drug** and in **traditional medicine**
- **Tetrahydrocannabinol (THC)** – main active component
- Can be used by smoking, vaporizing, within food, or as an extract.

Use flowchart to help explain method



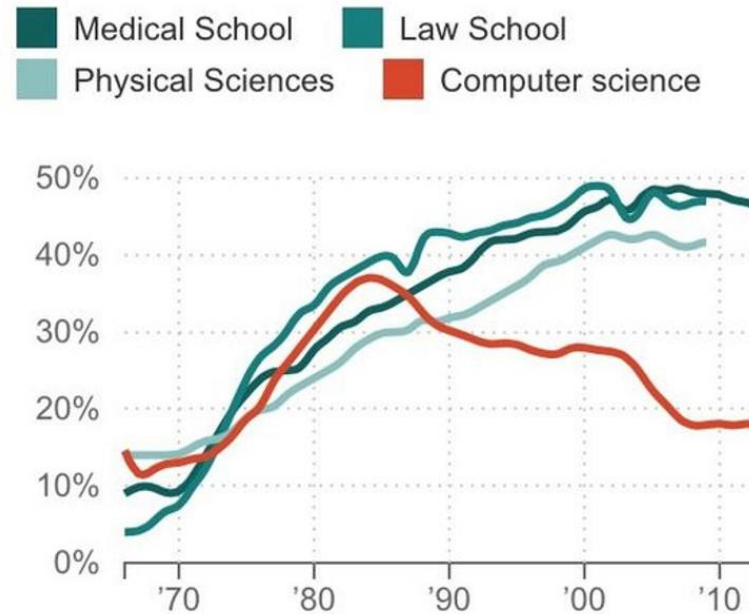
Choose appropriate charts

Investment by Area of Impact
2006 - Present



Bar chart

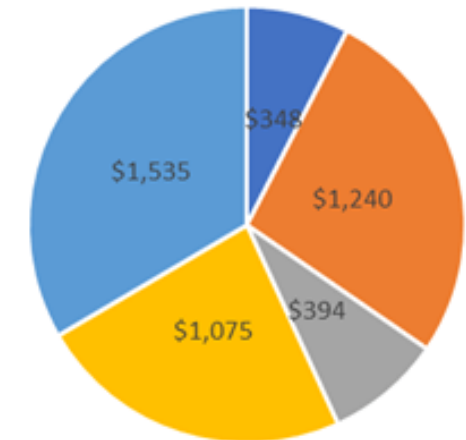
% Of Women Majors, By Field



Line chart

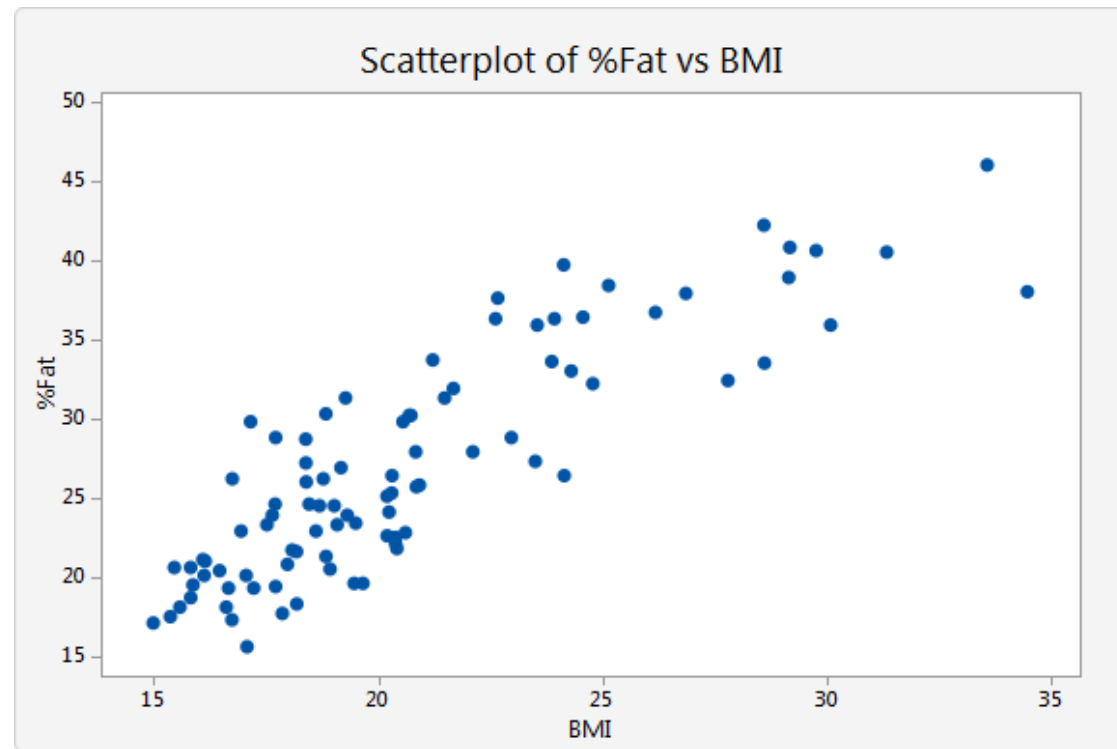
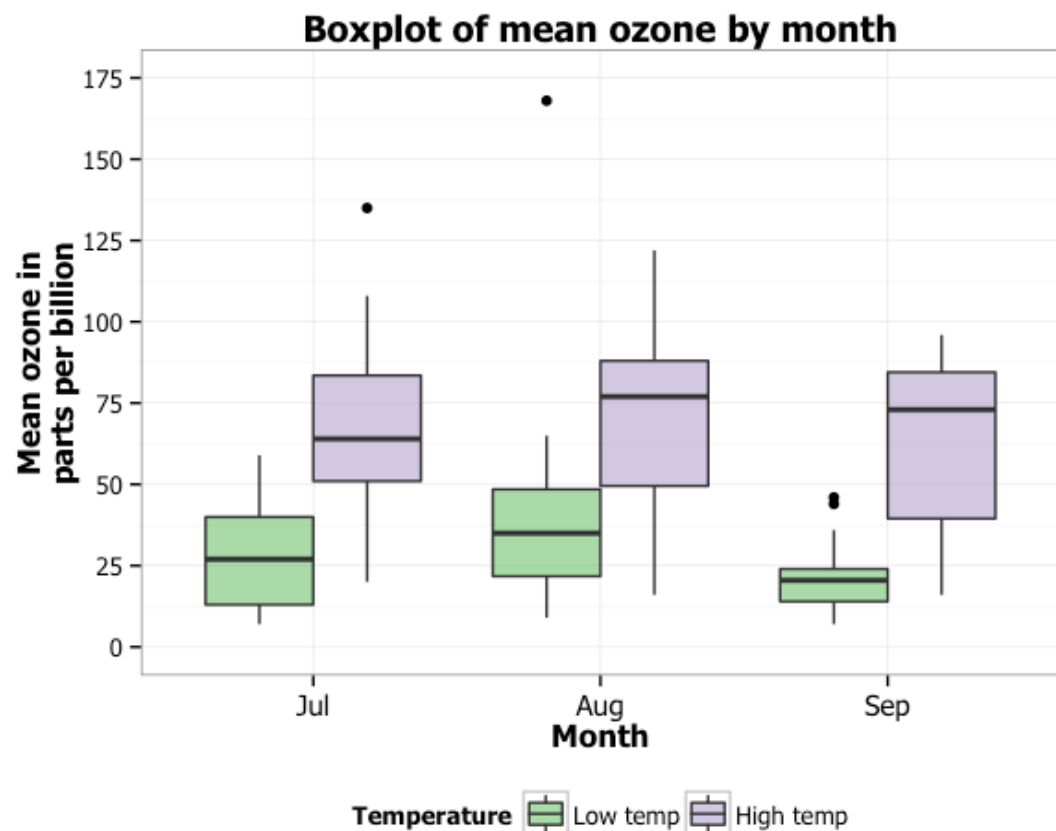
Expenditure

Water Electricity Gas Petrol Groceries

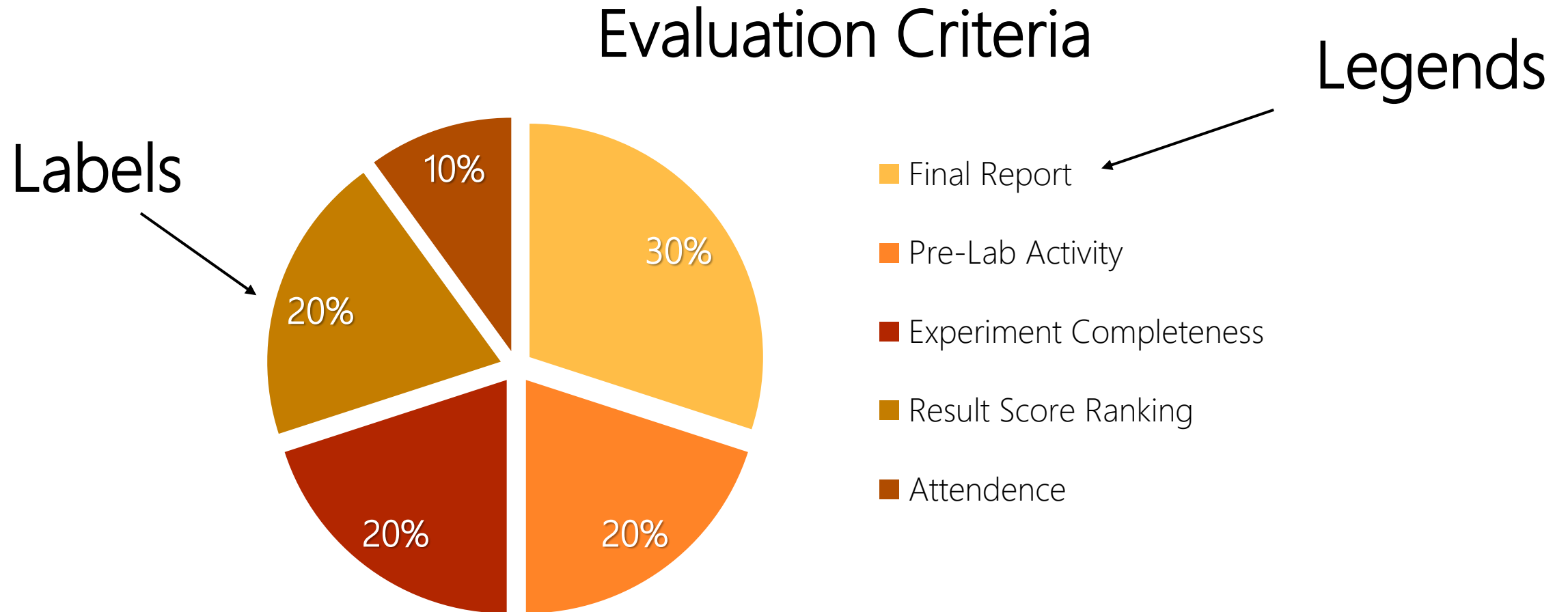


Pie chart

Choose appropriate charts



Important elements

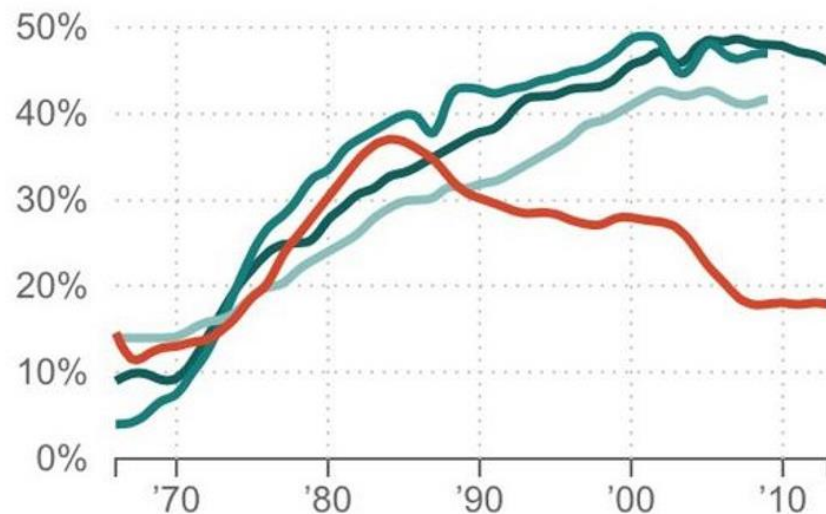


Simplify your chart

What Happened To Women In Computer Science?

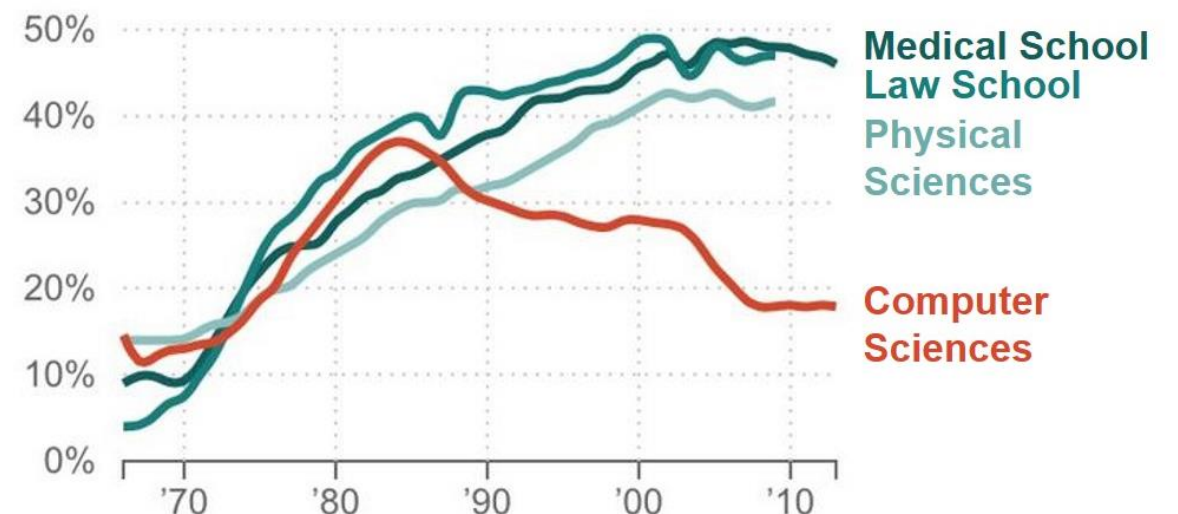
% Of Women Majors, By Field

Medical School Law School
Physical Sciences Computer science



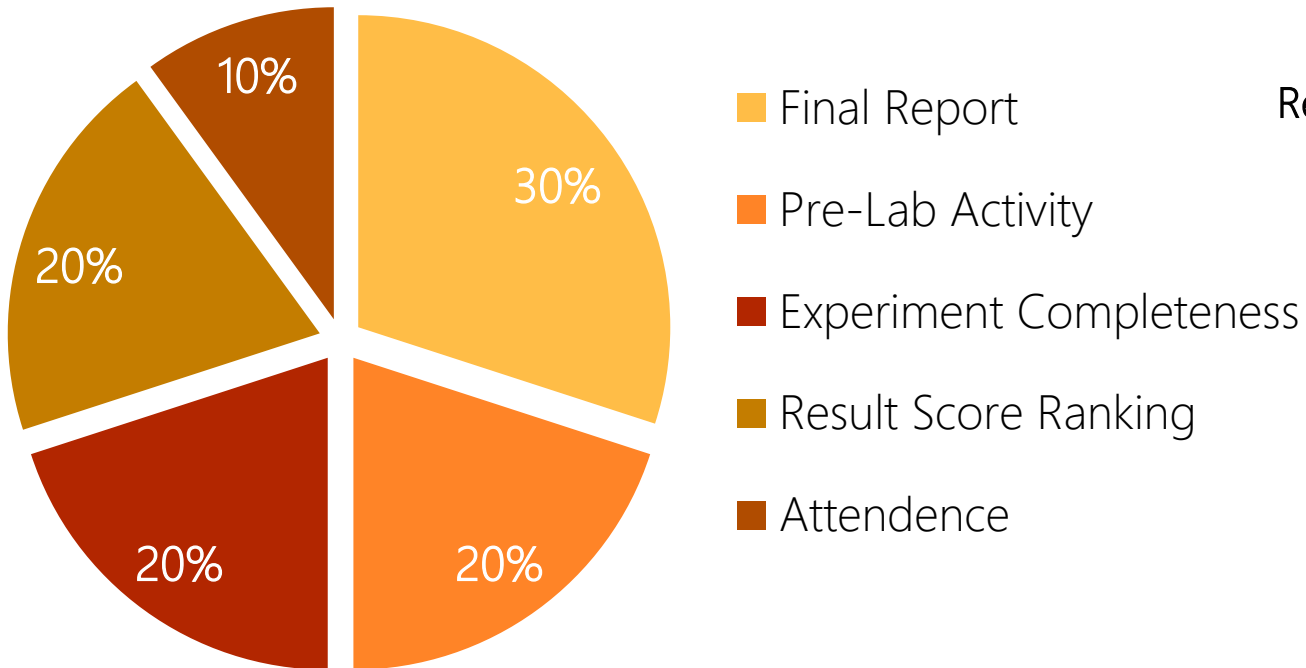
What Happened To Women In Computer Science?

% Of Women Majors, By Field

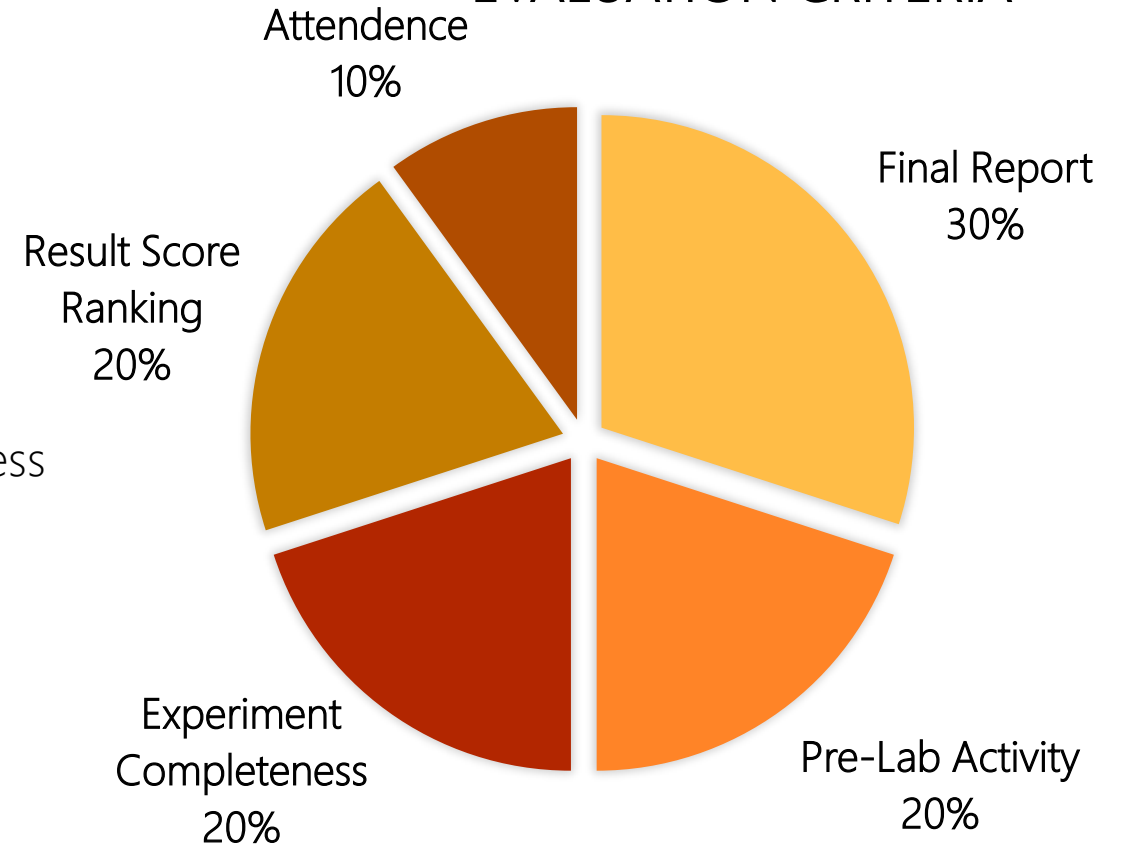


Simplify your chart

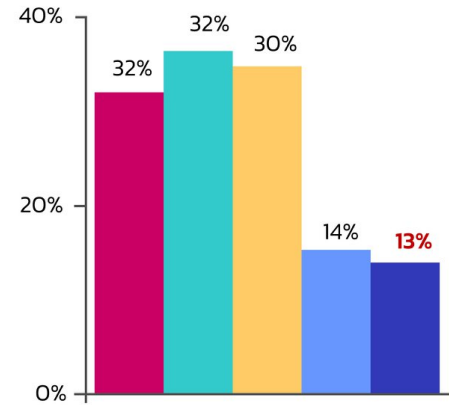
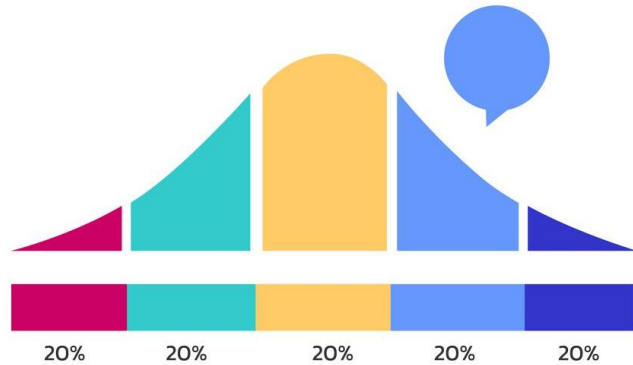
Evaluation Criteria



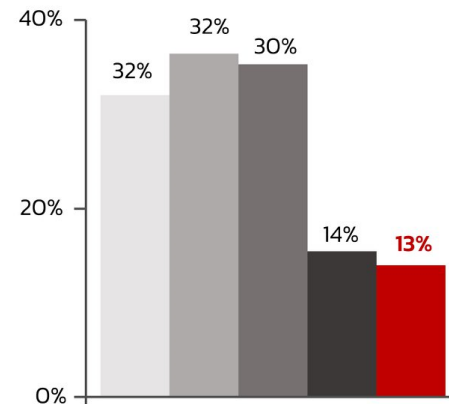
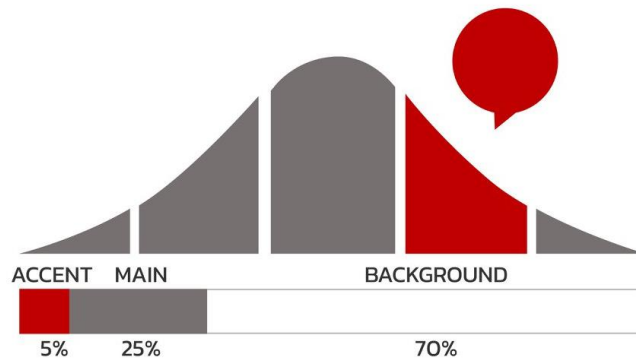
EVALUATION CRITERIA



Emphasise important info with colours



Color



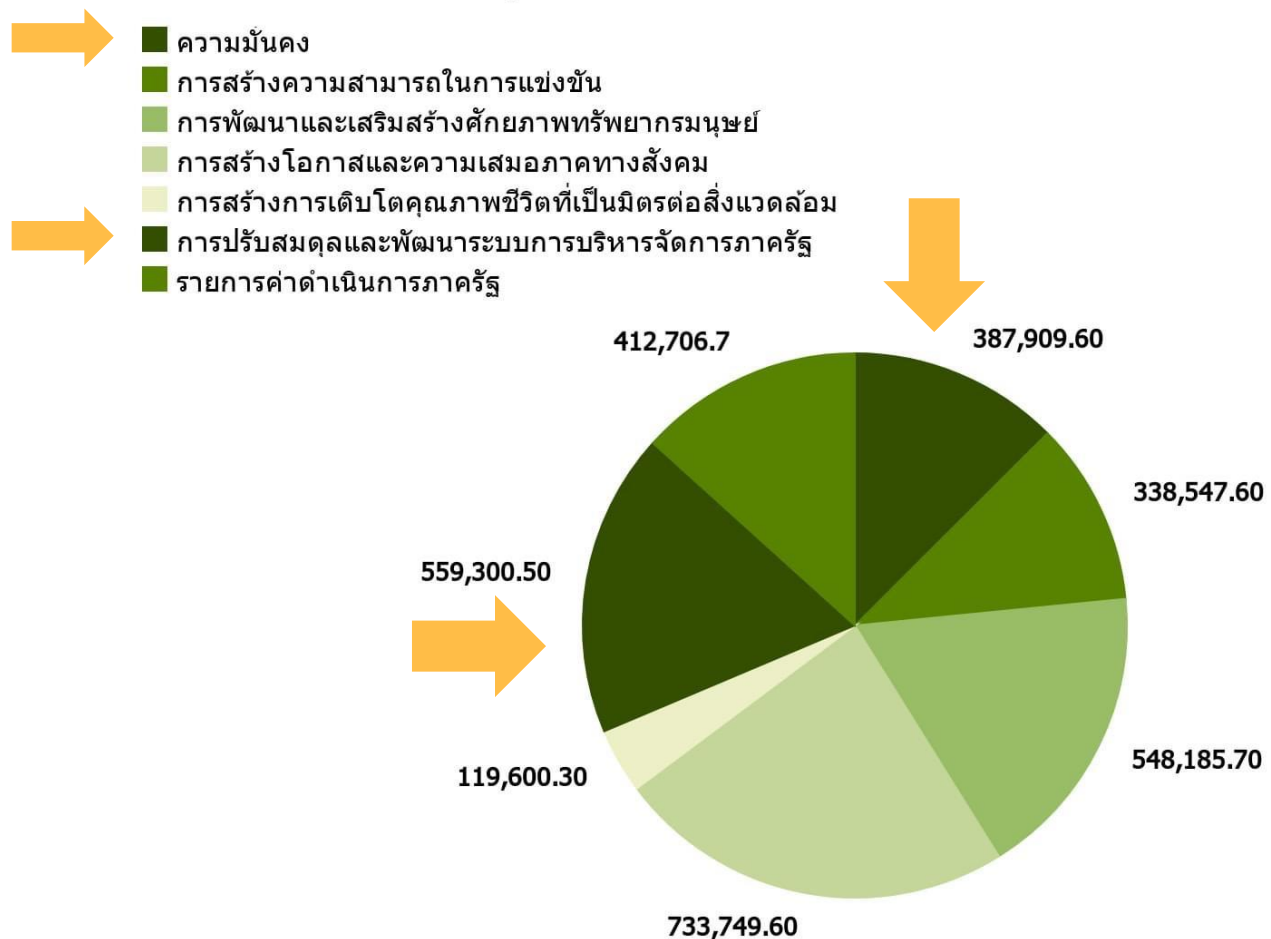
Color



Using contrast-rich colours can draw attention.

Be careful of colour choice!

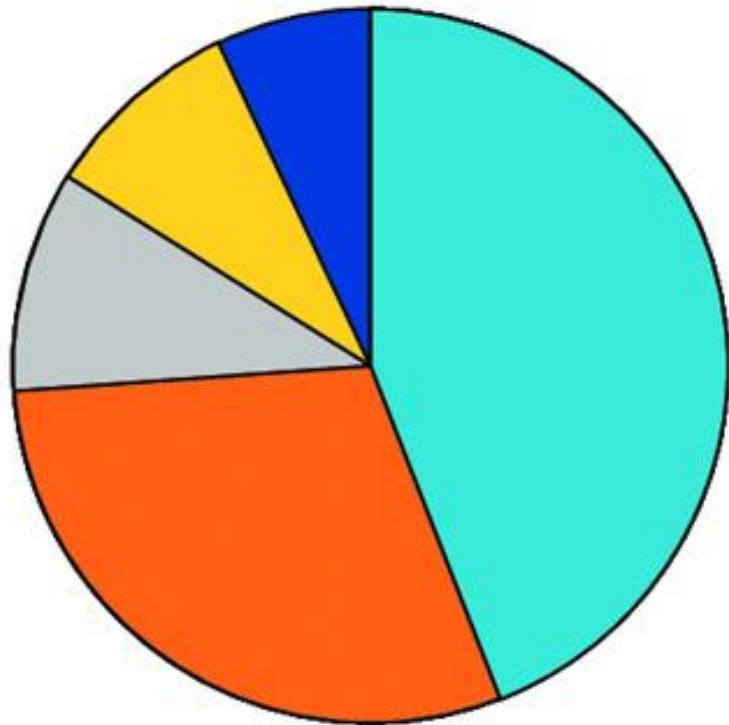
งบปี 65 จำแนกตามยุทธศาสตร์



Beware of misleading scale

A

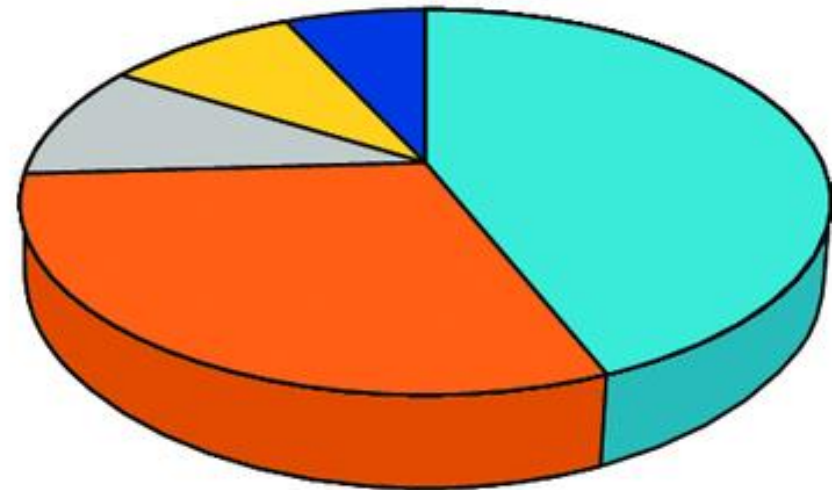
Cause of death



A B C D E

B

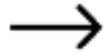
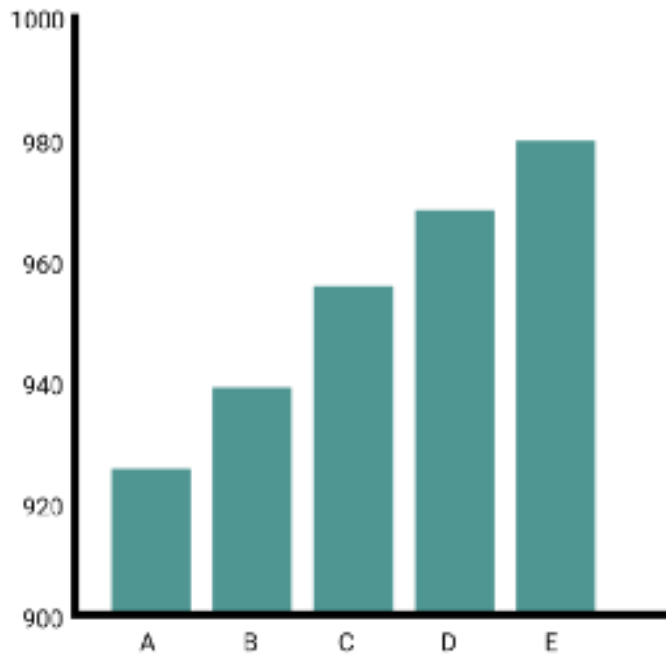
Cause of death



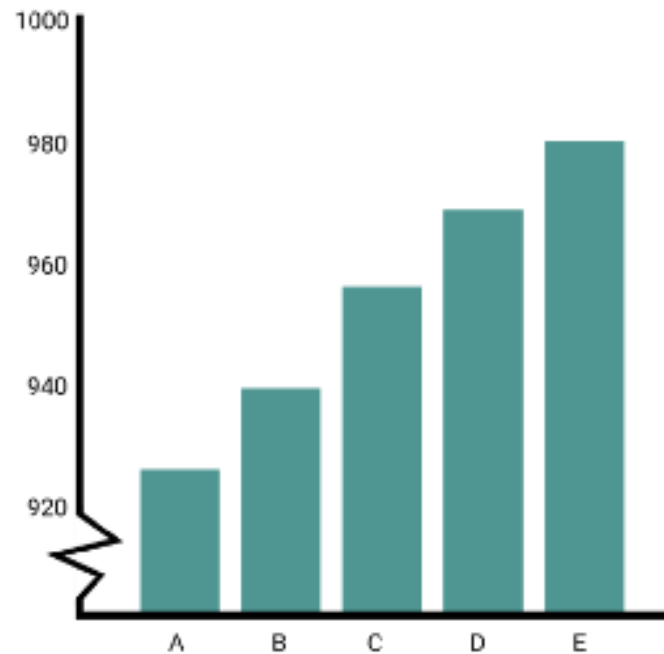
A B C D E

Beware of misleading scale

Misleading Graph

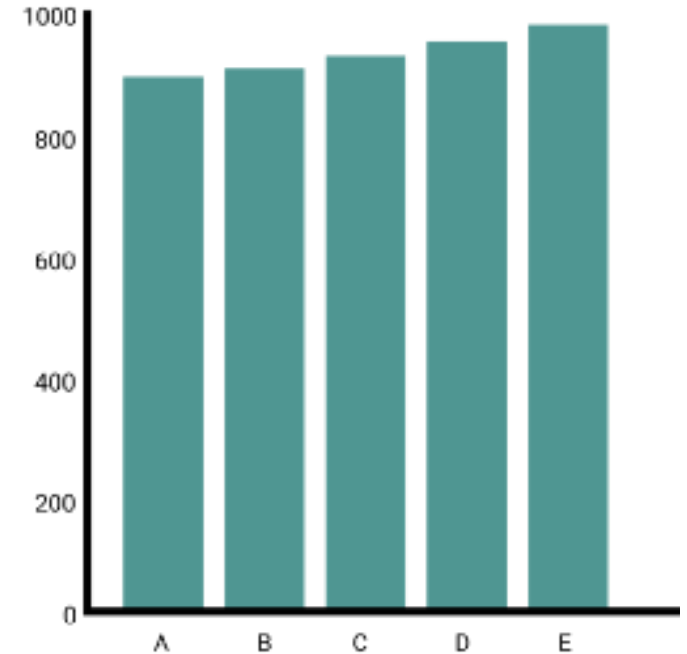


Adding Zero-Break



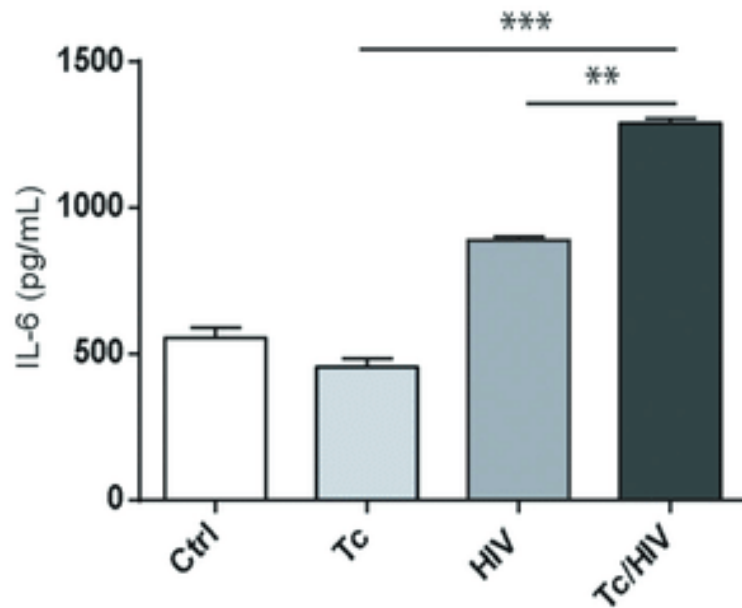
or

Starting from Zero



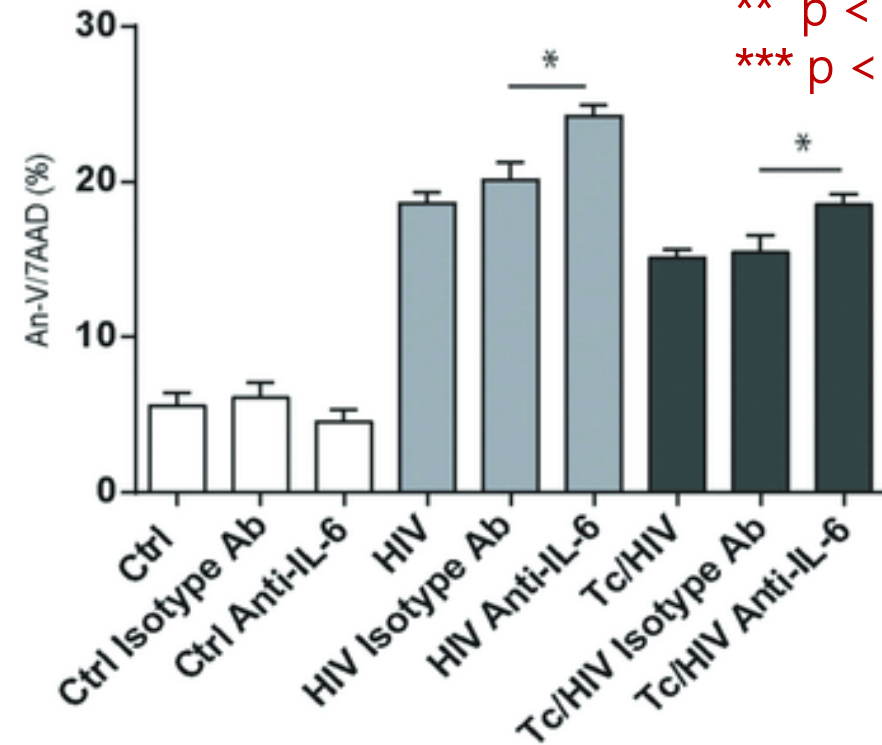
Pay attention to the details

B IL-6 in culture supernatant



different papers usually have different interpretations for *

C IL-6 blocking effect on apoptosis



* $p < 0.05$
** $p < 0.01$
*** $p < 0.001$

Presenting data & table

- Focus should be on data.

Heavy borders

Group	Metric A	Metric B	Metric C
Group 1	\$X.X	Y%	Z,ZZZ
Group 2	\$X.X	Y%	Z,ZZZ
Group 3	\$X.X	Y%	Z,ZZZ
Group 4	\$X.X	Y%	Z,ZZZ
Group 5	\$X.X	Y%	Z,ZZZ

Light borders

Group	Metric A	Metric B	Metric C
Group 1	\$X.X	Y%	Z,ZZZ
Group 2	\$X.X	Y%	Z,ZZZ
Group 3	\$X.X	Y%	Z,ZZZ
Group 4	\$X.X	Y%	Z,ZZZ
Group 5	\$X.X	Y%	Z,ZZZ

Minimal borders

Group	Metric A	Metric B	Metric C
Group 1	\$X.X	Y%	Z,ZZZ
Group 2	\$X.X	Y%	Z,ZZZ
Group 3	\$X.X	Y%	Z,ZZZ
Group 4	\$X.X	Y%	Z,ZZZ
Group 5	\$X.X	Y%	Z,ZZZ

Presenting lots of data in a table

<u>Country</u>	<u>Total Cases</u>	<u>New Cases</u>	<u>Total Deaths</u>	<u>New Death</u>
USA	5,655,974	43,999	175,074	1,358
South America	5,409,711	80,785	179,748	2,176
Brazil	3,411,872	48,637	110,019	1,365
Europe	3,223,010	19,325	203,716	338
India	2,766,626	65,022	53,014	1,089
Africa	1,140,775	8,674	26,357	415
Russia	932,493	4,748	15,872	132
South Africa	592,144	2,258	12,264	282
Peru	549,321	7,828	26,658	177
Mexico	525,733	3,571	57,023	266

COVID-19 cases by worldometers.com

Use contrast-rich object technique

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COVID-19 cases by worldometers.com

Use **highlighter** to draw attention

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COVID-19 cases by worldometers.com

Use **highlighter** to draw attention

<u>Country</u>	<u>Total Cases</u>	<u>New Cases</u>	<u>Total Deaths</u>	<u>New Death</u>
USA	5,655,974	43,999	175,074	1,358
South America	5,409,711	80,785	179,748	2,176
Brazil	3,411,872	48,637	110,019	1,365
Europe	3,223,010	19,325	203,716	338
India	2,766,626	65,022	53,014	1,089
Africa	1,140,775	8,674	26,357	415
Russia	932,493	4,748	15,872	132
South Africa	592,144	2,258	12,264	282
Peru	549,321	7,828	26,658	177
Mexico	525,733	3,571	57,023	266

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What are the top 3 regions with the highest total deaths?

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COVID-19 cases by worldometers.com

Use **gradient** for multiple selection

<u>Country</u>	<u>Total Cases</u>	<u>New Cases</u>	<u>Total Deaths</u>	<u>New Death</u>
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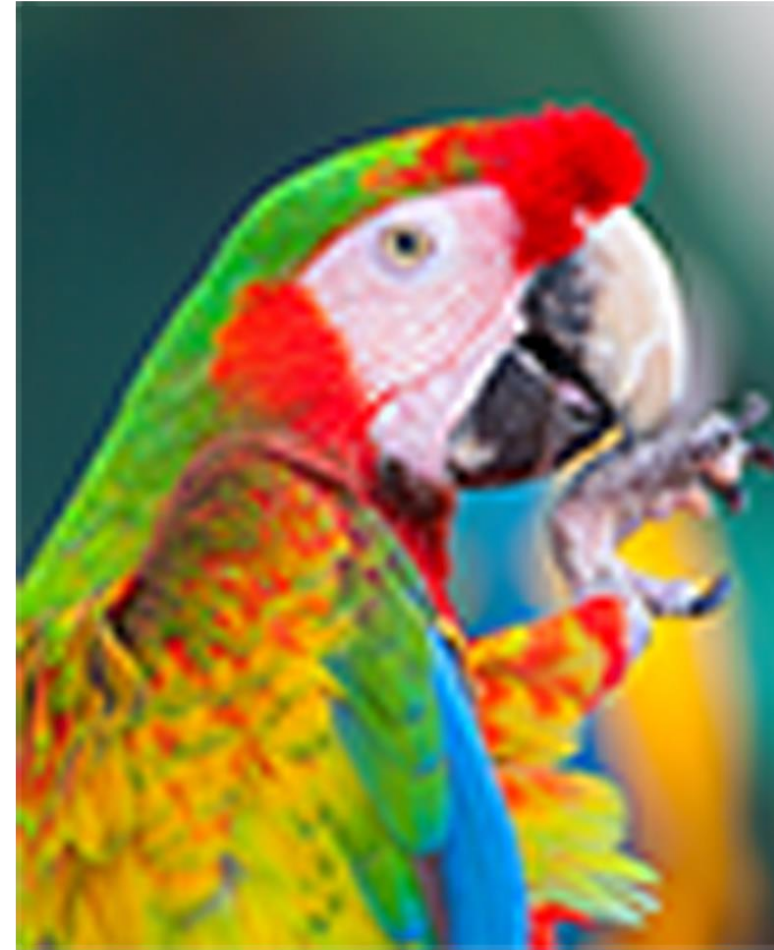
COVID-19 cases by worldometers.com

High Resolution



300 DPI

Low Resolution



72 DPI



Animation:
only use when
needed.



jeon jungduck 4 years ago

me trying to use all of powerpoint transitions for my presentations



20K



REPLY

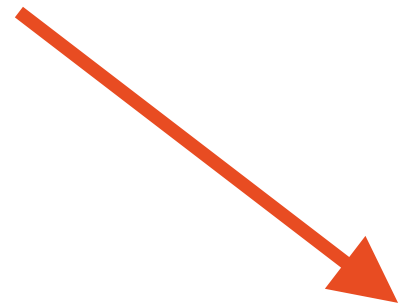


[View 103 replies](#)

Page number

DON'T FORGET!

In case an audience has a question he/she can refer to the slide that needs further clarification.





Delivering your presentation

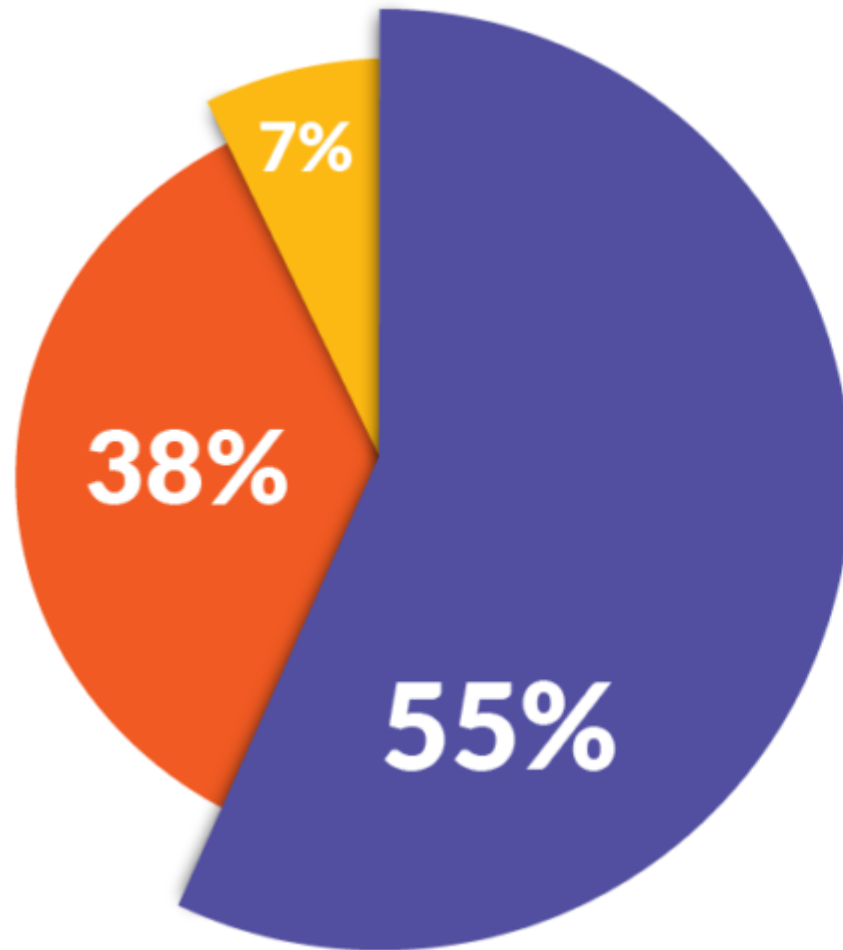


It all starts with how you look





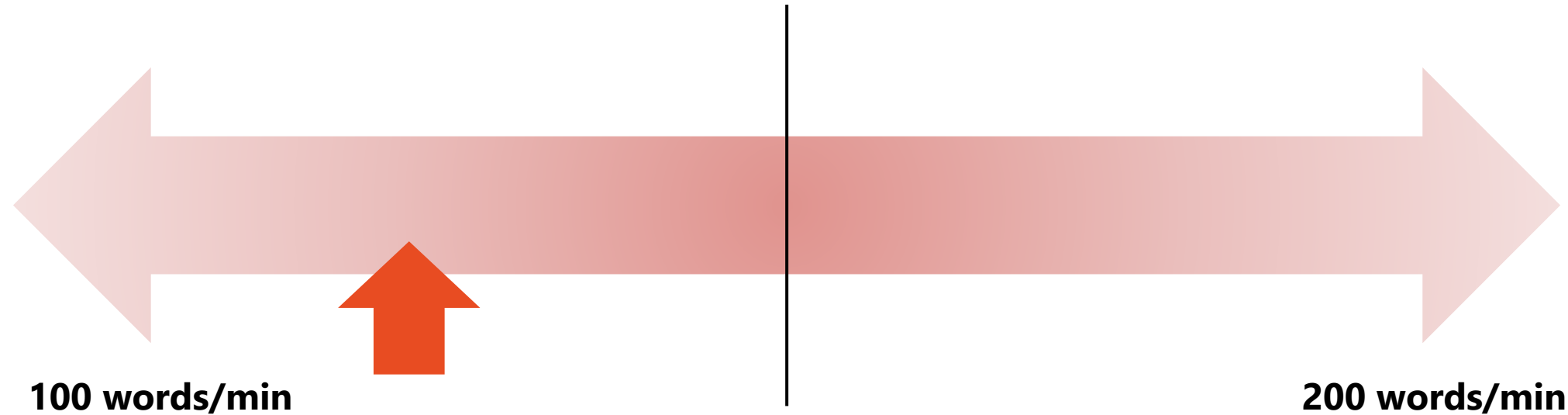
**Your voice
matters!**



- Words used (verbal)
 - Tone of voice
 - Body language
- } (non-verbal)

- Albert Mehrabian – your voice has a **38% impact** on the meaning.
- If there's a conflict between words and tone of voice => tone wins.

Find your right speed



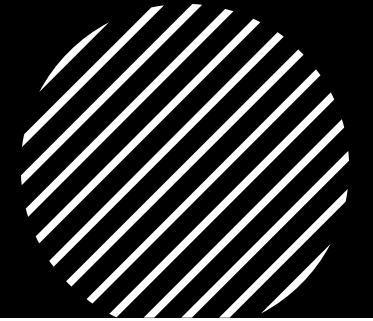
Fewer messages to communicate
Easier to understand for listeners



More messages to communicate
Harder to understand for listeners



Tip: play with your voice



01

Speed up for
fun and
excitement.

02

Slow down
when it comes
to important
info.

03

High pitch to
give a fun and
exciting feel.

04

Low pitch to
give a serious
feel.

Eye Contact

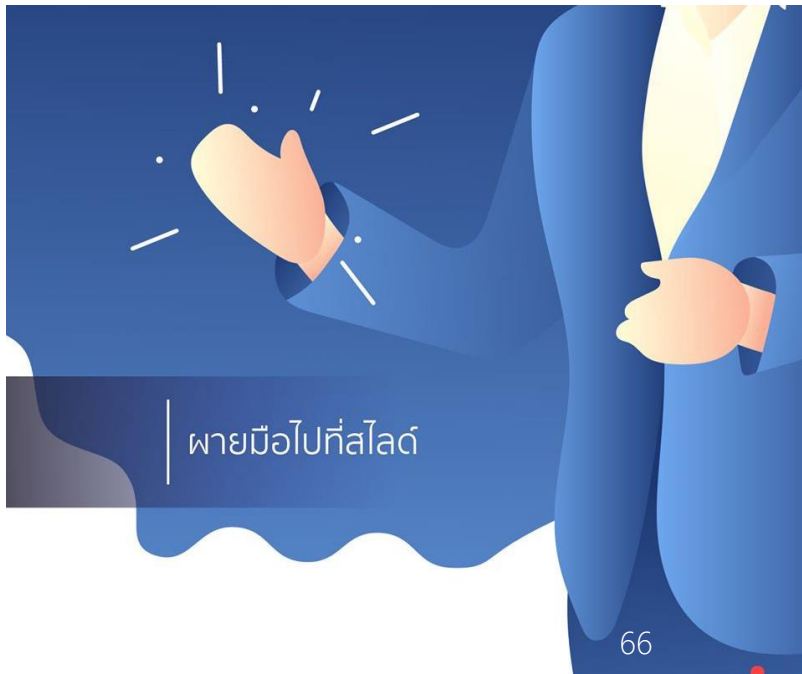
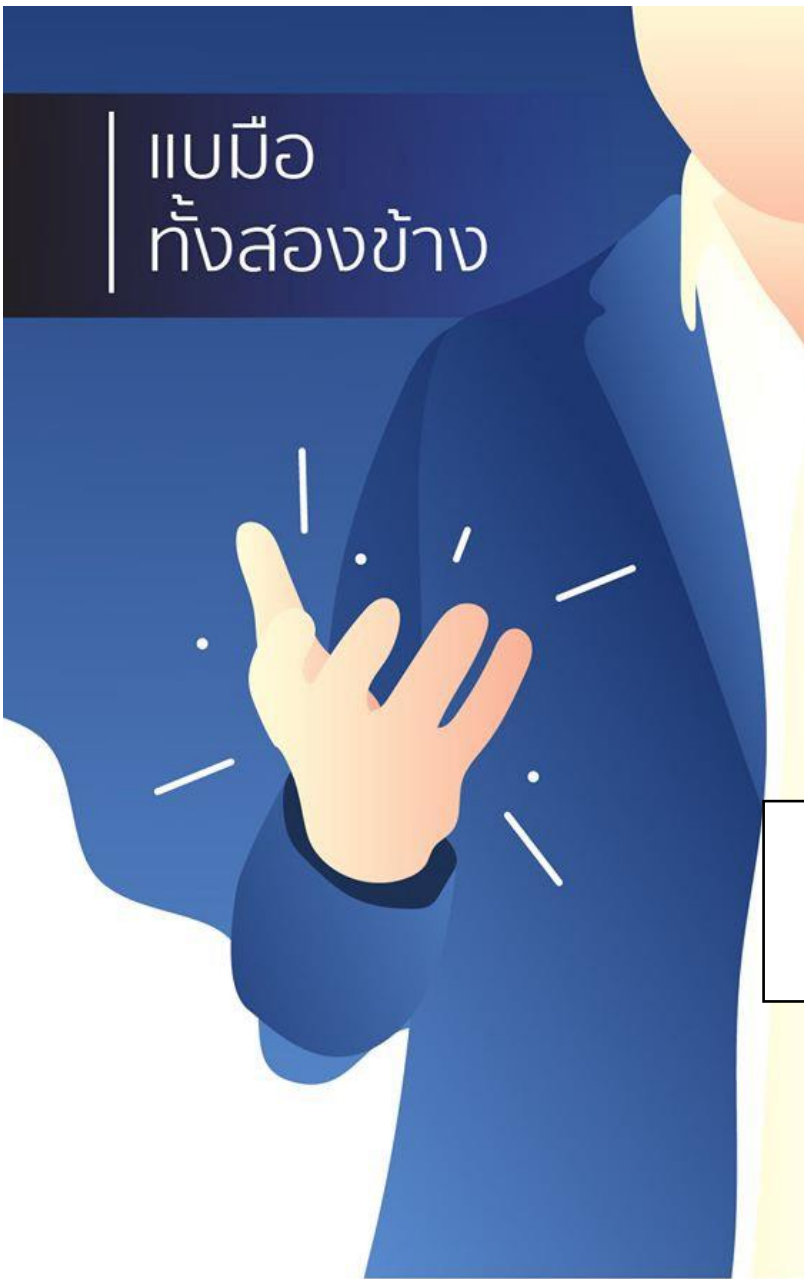
It communicates confidence.

It increases focus.

It fosters connection.

Look – Lock - Talk



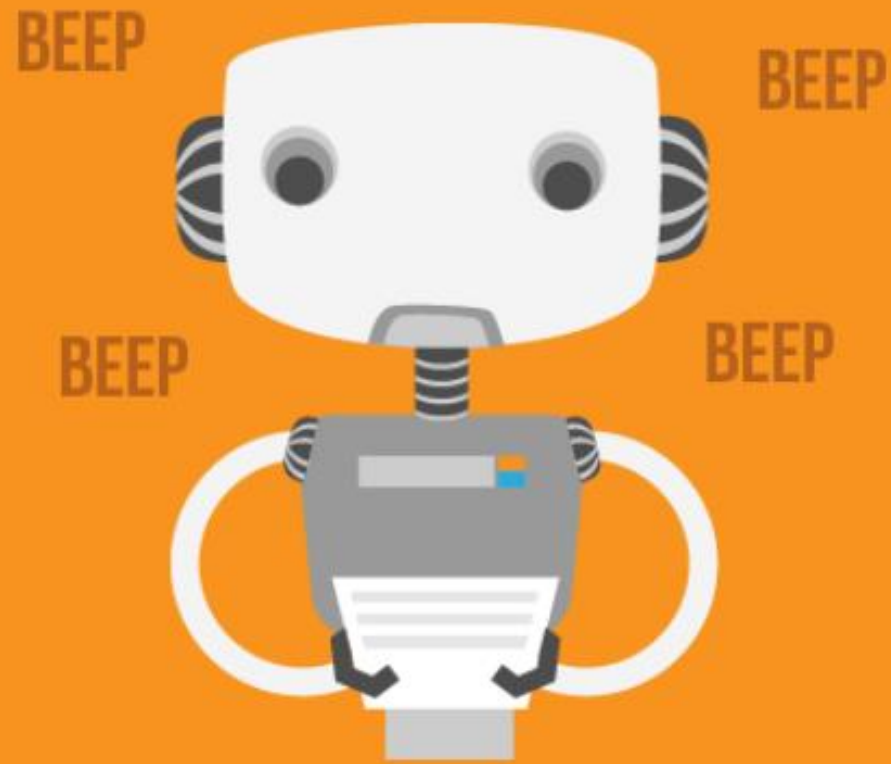


Nail your online presentation

- ❑ Present with **camera on** and in a **well-lit room**.
- ❑ **Dress smart** like in the actual seminar.
- ❑ Test your audio and camera system.
And standby 10-15 mins before your talk.
- ❑ **Smile** and **look** at the camera to help connect with the audience.




Scripts...



**DON'T READ WORD BY WORD
FROM YOUR SCRIPT.**



Anticipate questions



Build your confidence

I am the best. Look at me now!

Fake it till you make it.

Be over 100% prepared.

Find your charisma

People indeed have different charismas

Eye contact

Beautiful voice

Energy

Smiles

Surprise

Body language

Personality

Fun

Charm

Warmth

What's the charisma of a person sitting next to you?



Dealing with nervousness

Solutions

- Practise as much as possible.
- Get to know your audience.
- Breathe slowly.

ตื่น ไม่น่ากลัว ถ้าตื่น "ตัว" ไม่ต้อง "เต็น"



Relax and Enjoy

Whatever happens, happens.
The show must go on.



**Science
communication
is like cooking**



Summary

Tell a story

Emphasise
aims and
impacts

Link your
ideas together

Take time to
explain

Use graphs
wisely

Practice!

The background of the slide is a blurred photograph of a conference or seminar. In the foreground, the backs of several audience members' heads are visible as they sit in rows of chairs. In the background, a man in a dark suit and light-colored shirt stands on a stage, gesturing with his hands while speaking. The stage is lit, and the background wall is a neutral color.

Thank You

Questions & Answers