

Adrian Wallwork

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# English for Writing Research Papers

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*Second Edition*

## Seminar 7

## Taboos

Introduction  
Methods  
Results



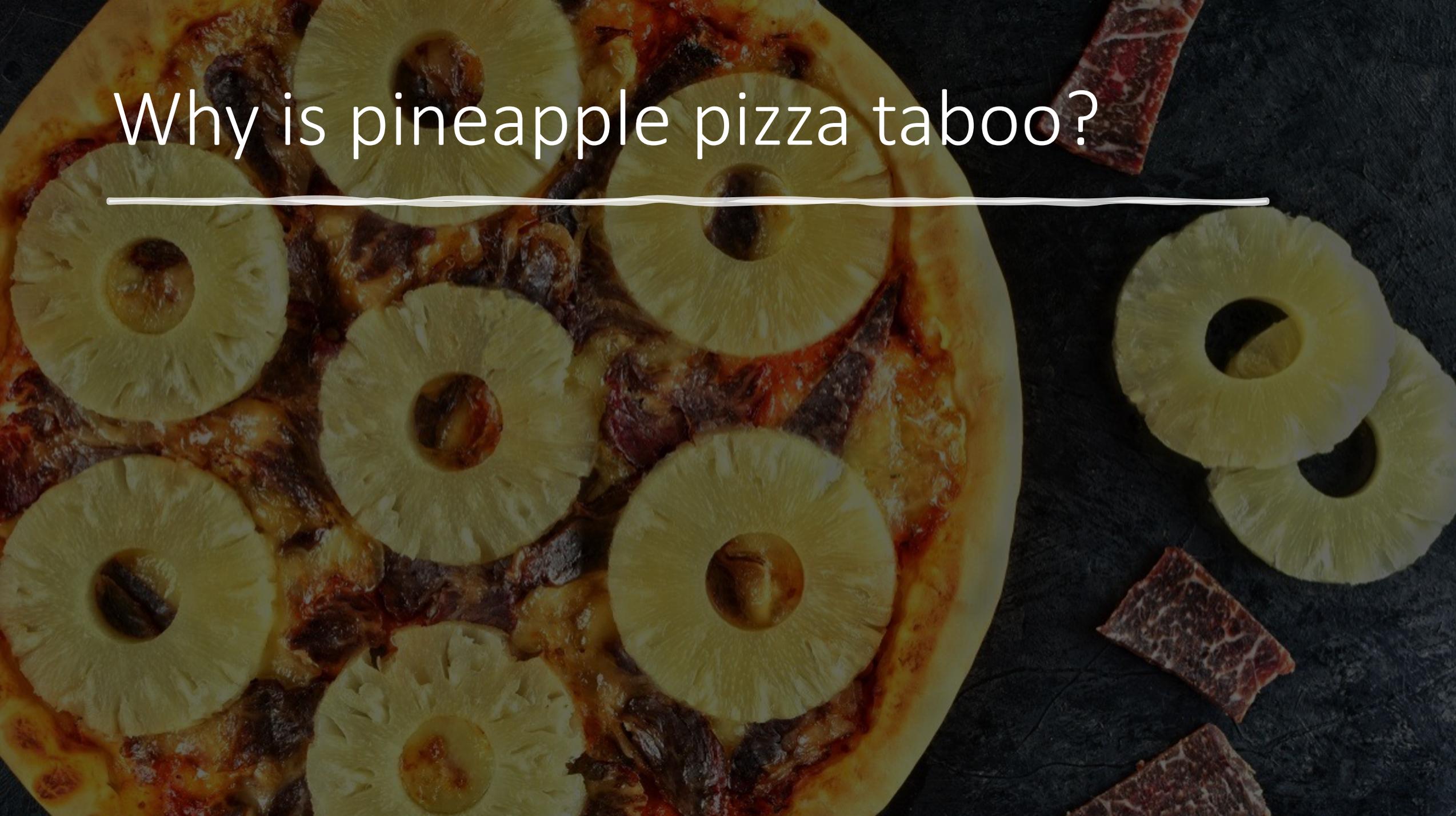
Audience  
attention online

England vs. Italy.



Why is pineapple pizza taboo?

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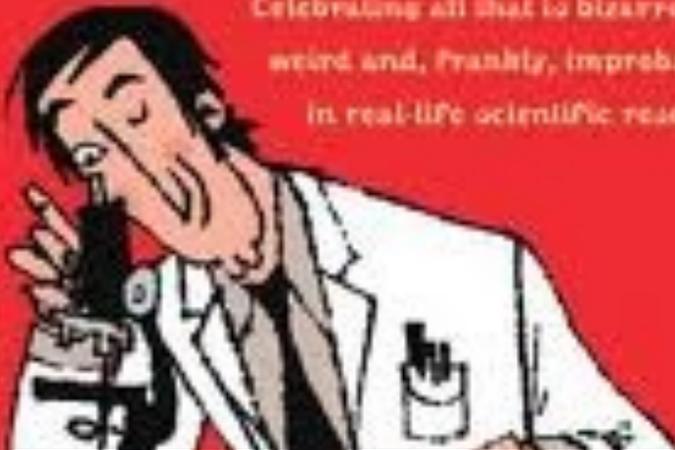


Why is  
breaking  
spaghetti in  
half a taboo?

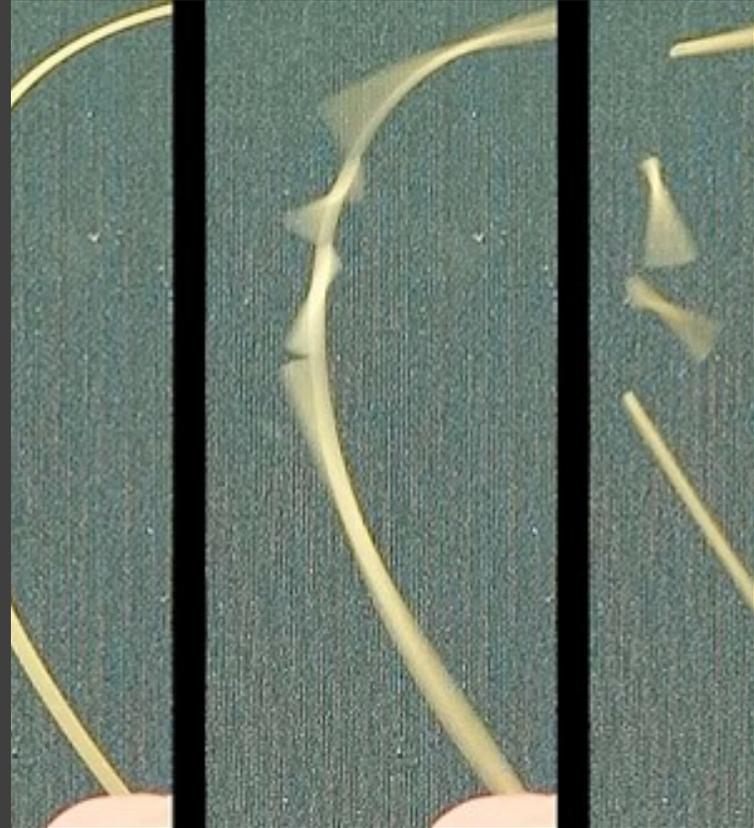
Marc Abrahams

# IGNOBEL PRIZES

Celebrating all that is bizarre,  
weird and, frankly, improbable  
in real-life scientific research



Do you know what the  
Ig Nobel prize is?



*Fragmentation of Rods by Cascading Cracks:  
Why Spaghetti Does Not Break in Half* by [Basile Audoly](#) and [Sébastien Neukirch](#)

ABS When thin brittle rods such as dry spaghetti pasta are bent beyond their limit curvature, they often break into more than two pieces, typically three or four. **JUST**

### **ONE SENTENCE FOR**

**BACKGROUND** With the aim of understanding these multiple breakings, we study the dynamics of a bent rod that is suddenly released at one end.

INTRO The physical process of fragmentation is relevant to several areas of science and technology. Because different physical phenomena are at work during the fragmentation of a solid body, it has mainly been studied from a statistical viewpoint [1–5].

## Look at your chosen journal, and see:

- How Abstract and Intro are structured differently
- How sentences from the Abstract are paraphrased in the Introduction
- What elements from the Abstract the Introduction expands on
- What information is covered in the Abstract but not in the Introduction, and vice versa
- Relative word counts

# *TENSES IN THE INTRODUCTION*

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The physical process of fragmentation *is* relevant to several areas of science and technology. Because different physical phenomena *are* at work during the fragmentation of a solid body, it *has mainly been studied* from a statistical viewpoint [1–5]. Nevertheless a growing number of works *have included* physical considerations [6].

*simple present* to state accepted scientific evidence

*present perfect* for past-to-present background info



In this paper, we *explain* this multiple failure process and *point* out a general mechanism of cascading failure in rods.

*simple present* to outline what you will do in the paper



# typical mistakes



In the last few years Grammarly is becoming increasingly popular.



We believe that this is the first time that such a procedure is used for this purpose.



Since 2019 this method is adopted by the scientific community to investigate ...

ENGLISH FOR ACADEMIC RESEARCH

Adrian Wallwork & Anna Southern

## 100 Tips to Avoid Mistakes in Academic Writing and Presenting

 Springer

In the last few years Grammarly is becoming increasingly popular.

**In the last few years Grammarly has become** increasingly popular.

We believe that this is the first time that such a procedure is used for this purpose.

We believe that **this is the first time** that such a procedure **has been** used for this purpose.

Since 2019 this method is adopted by the scientific community to investigate ...

**Since 2019** this method **has been adopted** by the scientific community to investigate ...

These mean from some moment in the past until the present time.

To date

So far

Until now

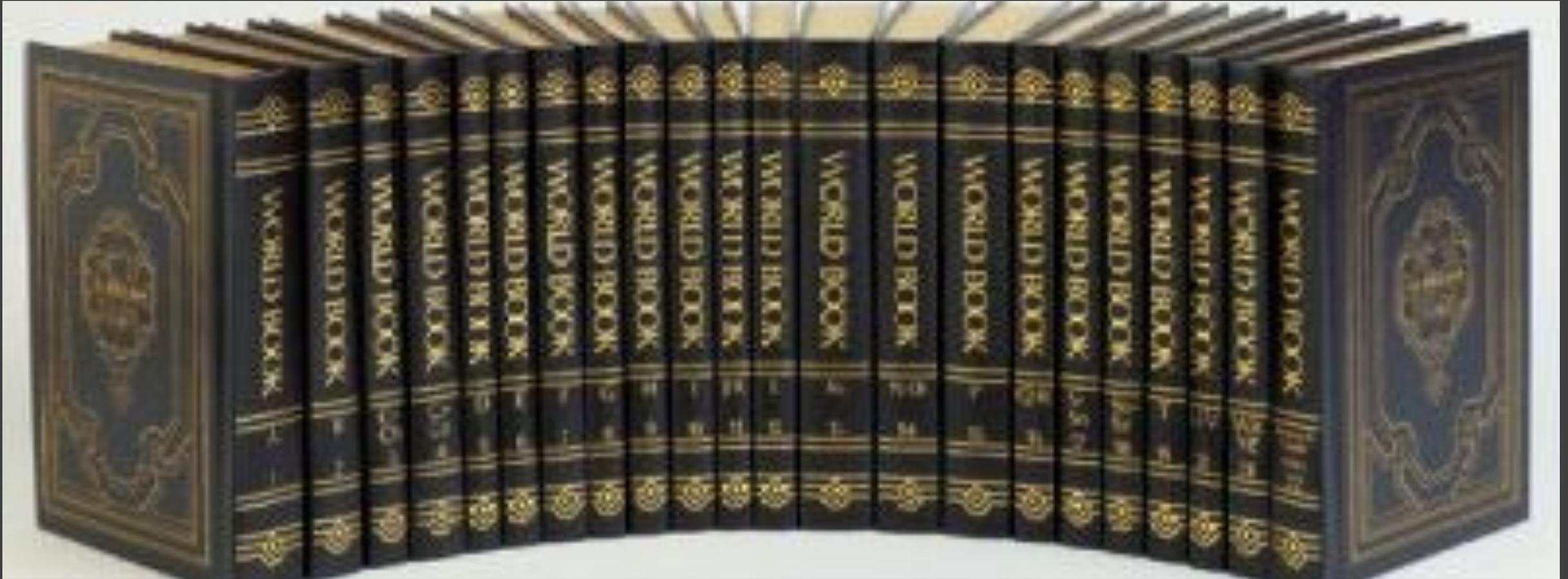
As yet

Not ... yet

A red neon-style number '31' is displayed against a black background. The numbers are glowing and have a slight shadow effect.

- 2) to date = finora (+ present perfect)

*8) Traditionally / Historically* give an idea of the past of our grandparents. So there is a past and present.



Intelligence test

- Each cover: 3mm thick
- Total pages of each vol: 6 cm





- Each cover: 3mm thick
- Total pages of each vol: 6 cm

If bookworm starts on page 1 of Vol I and stops on the last page of Vol II, how many centimeters will it travel?



Back to writing  
research papers

What is the point of  
the **Review of the  
Literature?**

What are you doing in  
your research that is  
**NEW?**

How can you compare  
your 'novelty' with the  
literature?



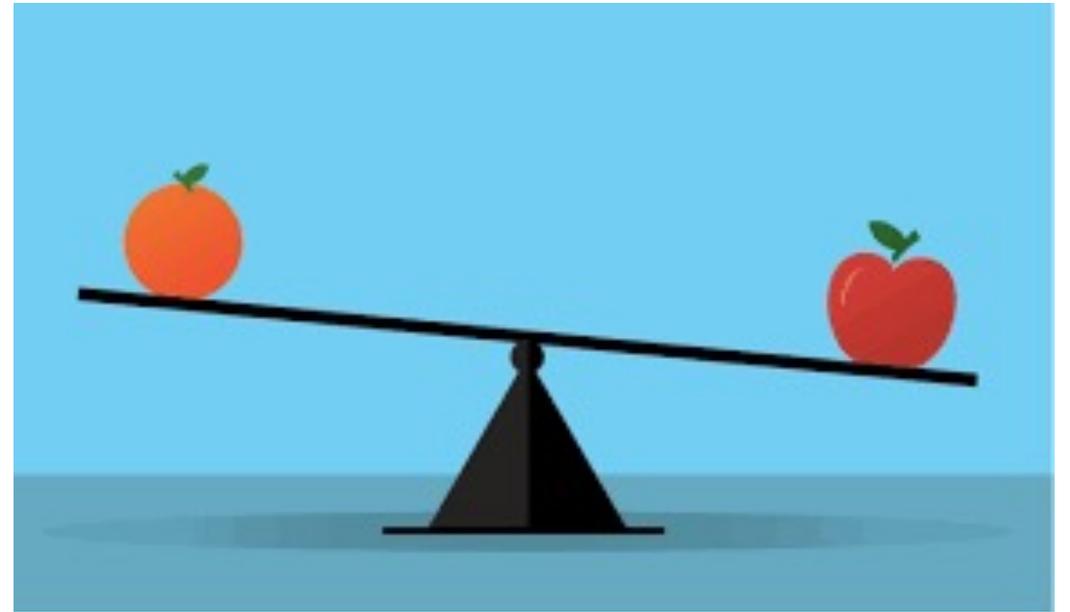
**Joining Breakout Rooms...**

Breakout Room 1

It may take a few moments.



Don't just create a list of previous studies.  
You **MUST** compare them with your study.

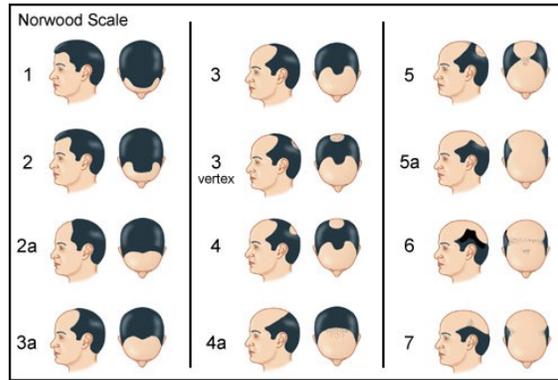


Before writing your review of the literature, create a table of pros and cons (limitations).

Name of other author	Pros	Cons	Your solution
Pallino et al. (2023)	Large sample	Wrong sample	Right sample
Smith et al. (2024)	Interesting method	Inconclusive results	Conclusive results

Dedicate a **separate** paragraph to each group of authors with a similar approach or who encountered similar difficulties.

Begin **new paragraph** talking about how your approach aims to **solve the cons** that you have discussed in the previous paragraph, or how your study **builds in an original way** on previous studies.



# Exercise 32

**Smith et al (2015)** reported that  $x = y$ . **However**, they were unable to prove that  $y = z + 1$ . **We prove** that ...

In 2016 **Jones et al** carried out a test on  $Z$ , **but only** with a relatively small sample. **In this paper, we use** a much larger sample ...

In a **previous paper [23] we** found that ... **In this paper, we** make a **further** contribution by showing that ...

**Note: It must always be clear to the reader when you are talking about your own work – even if this work was in a previous publication written by you.**

CLEAR:

In a previous paper [23] **We** found that ...

AMBIGUOUS:

In a previous paper [23] **it was** found that ... ..



REVIEW OF THE LITERATURE IS NOT A SHOPPING LIST OF PAST PAPERS. INSTEAD YOUR AIM IS TO STATE:



WHAT OTHERS HAVE DONE OR WHAT YOU DID IN A PREVIOUS PAPER



THE DOWNSIDE / LIMIT OF WHAT THEY DID



YOUR SOLUTION / IMPROVEMENT

The Introduction  
of your paper is  
**not** just a  
historical  
summary.

It is a constant  
comparison  
between what  
**OTHERS** have  
done and what  
**YOU** did or are  
proposing to do.



Use the same **us vs them** technique in the **Discussion** when comparing **your** results with those of **other authors**



# Totally new area of research (P, Q, R)

We believe that our work breaks new ground. In fact although researchers have focused on X, Y and Z [18, 19, 20], to the best of our knowledge no one has investigated P, Q and R.

However, P, Q and R deserve to be studied because ...

Our aim in this paper was thus to: i) ... li) ... lii) ...

We believe this is the best approach to PQR because ...



# Typical Referees' Complaints

“The Introduction is about 40% of paper - too many general statements that are already widely known.”

“No relationship between background and aim.”

“Essentially a cut and paste from the Abstract.”



How to avoid  
a cut and  
paste from  
your  
Abstract

# Breakout



Madonna Ciccone claimed that Italians do it \* better (Ciccone et al, 1998).



\* make love

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# Synonyms

- Ciccone proposed / suggested / stated / found / revealed that ...
- Italians perform preliminary reproductive activity / execute the coital task ...

**Active to  
passive**

- It has been claimed /  
proposed / suggested /  
stated / found / revealed  
that ... (Ciccone, 1998)

**Different  
form**

**Different  
word order**

- According to (Cicccone, 1998), Italians outperform the rest of the world in terms of levels of enjoyment between consenting adults in a bedroom scenario.
- The Italian race tends to perform the fornicatory act in an enhanced manner (Cicccone, 1998).

# Paraphrasing avoids:

- Plagiarism
- Repetition of phrases within your paper

## results

RS analysis was performed using a Raman imaging microscope (RIM) and was carried out for 10 patients, who underwent clinical treatments at our Institution, Azienda Ospedaliera Universitaria Pisana, Pisa. The experimental dataset for the 10 patients numbered consecutively from 1 to 10 is presented in Table 1 showing the distribution of four sample groups. Group EC, (cases 1-3), group CS G1 (cases 4-6), group CS G2 (cases 7-8) and group CS G3 (cases 9-10). Formalin fixed paraffin embedded tumor tissue sections collected on glass slides were submitted to RS analysis after de-paraffination step. A detailed description of sample preparation for Raman measurements is given in the Methods section Chondrogenic Tissues.

## Biochemical study

The spectra obtained by averaging the Raman maps have been classified according to the different malignant tissue grades corresponding to 10 patients. In Fig. 2, the spectra correspondent to the 4 different groups for the 10 patients under investigation are displayed. One first evidence is that the spectra corresponding to the same CS grade, but belonging to different patients, are very close one each other, denoting a remarkable homogeneity in the same grade of malignancy. Conversely, spectra corresponding to different grades present significant differences.

The assignment of Raman bands present in our spectra is made with the help of reference<sup>23-25</sup>, are reported in Table 2. Available Raman literature studies regarding cartilaginous tissues are recent<sup>26,27</sup> while analogous Raman studies for CS are rather poor<sup>28</sup>.

The most relevant differences regard the bands due to collagen (strong band at  $1035\text{ cm}^{-1}$  present in EC, CS G1, CS G2, but absent in CS G3) and Proline (strong band at  $1065\text{--}7\text{ cm}^{-1}$  present in EC, CS G1, CS G2, but absent in CS G3). Relevant strong Raman bands for collagen and Proline common to all tissues are at  $728\text{ cm}^{-1}$  (very strong), at  $830\text{ cm}^{-1}$  and at  $1206\text{ cm}^{-1}$ . Several common bands correspond to non-collagenous aminoacids such as Phenylalanine (Phe), Tryptophan (Trp) or Tyrosine (Tyr), which are also efficient Raman scatterers. Common bands correspondent to chondroitin sulfate are revealed by a strong band at  $4380\text{ cm}^{-1}$  of Glycosaminoglycan (GAG) and a medium band at  $604\text{ cm}^{-1}$  of Glutamate. These results are not surprising, since collagen and chondroitin sulfate are the main constituents of cartilaginous tissues. GAGs consist of linear polysaccharide chains composed of repeating disaccharide units and form proteoglycans by covalently attaching to their core proteins. Chondroitin sulfate is a sulfated GAG with the disaccharide unit of beta-D-galactosamine (GalNAc) and beta-D-glucuronic acid (GlcA), and often modified with ester-linked sulfate at specific positions. A significant result highlighted by Table 2 is the band (strong intensity) at  $1450\text{ cm}^{-1}$  assigned to  $\text{CH}_2$  bending mode in malignant tissues and evidenced only by CS G2 and CS G3.

Another significant result represented in Fig. 2 is that, in agreement with previous studies on cartilage biochemical composition,<sup>29,30</sup> increasing of degradation of collagen is strictly connected to the decreasing of the whole Raman spectrum, although most of the representative collagen Raman bands are still present. Characteristic DNA bands present common peaks at  $737\text{ cm}^{-1}$ , very strong and corresponding to thymine, and medium intensity bands at  $969\text{--}70\text{ cm}^{-1}$  and at  $1609\text{ cm}^{-1}$  corresponding to cytosine. A medium intensity band at  $1373\text{ cm}^{-1}$  corresponding to ring breathing modes of DNA/RNA bases is, on the contrary, present only in CS G3. Similarly, even the medium intensity bands at  $1313\text{ cm}^{-1}$  and  $1346\text{ cm}^{-1}$ , assigned to  $\text{CH}_3\text{CH}_2$  twisting mode of lipids and  $\text{CH}_3\text{CH}_2$  wagging mode of lipids, respectively, indicate a greater cell proliferation, since the lipids constitute about 50% of the mass of the plasma membrane.

The progressive degradation of collagen from EC to CS G3 was tested considering the ratio among three bands assigned to collagen ( $728\text{ cm}^{-1}$ ,  $830\text{ cm}^{-1}$  and  $1206\text{ cm}^{-1}$ ) to Phe.  $1003\text{ cm}^{-1}$ , this last band used to normalize the Raman intensity.

Only  
write  
what  
you  
KNOW  
is  
100%  
correct



Adrian's fantastically obvious rule #2:



ONLY WRITE WHAT YOU KNOW IS  
CORRECT



When you are NOT sure that a sentence you have written is correct, paraphrase the sentence using a form that you know is correct.

# Giving Presentations Online: How to gain and keep attention



How can you gain and keep audience attention online?



# Difficulties of getting audience attention



So what can  
you do to  
gain  
attention?

Smile.

Look at camera.

No headphones.

Talk like you're talking to a good friend.

Be enthusiastic.

Use a graphic pen.

Prepare visually pleasing and **varied** slides.

Easy-to-follow slides and explanation.



- KISS (keep it short and simple)
- Emphasize key words
- Seem / Sound / Look like a nice person
- Don't make anyone feel stupid
- Connect first slide with last slide to create a sense of completion

Tips on doing a research presentation. Take notes while you watch.

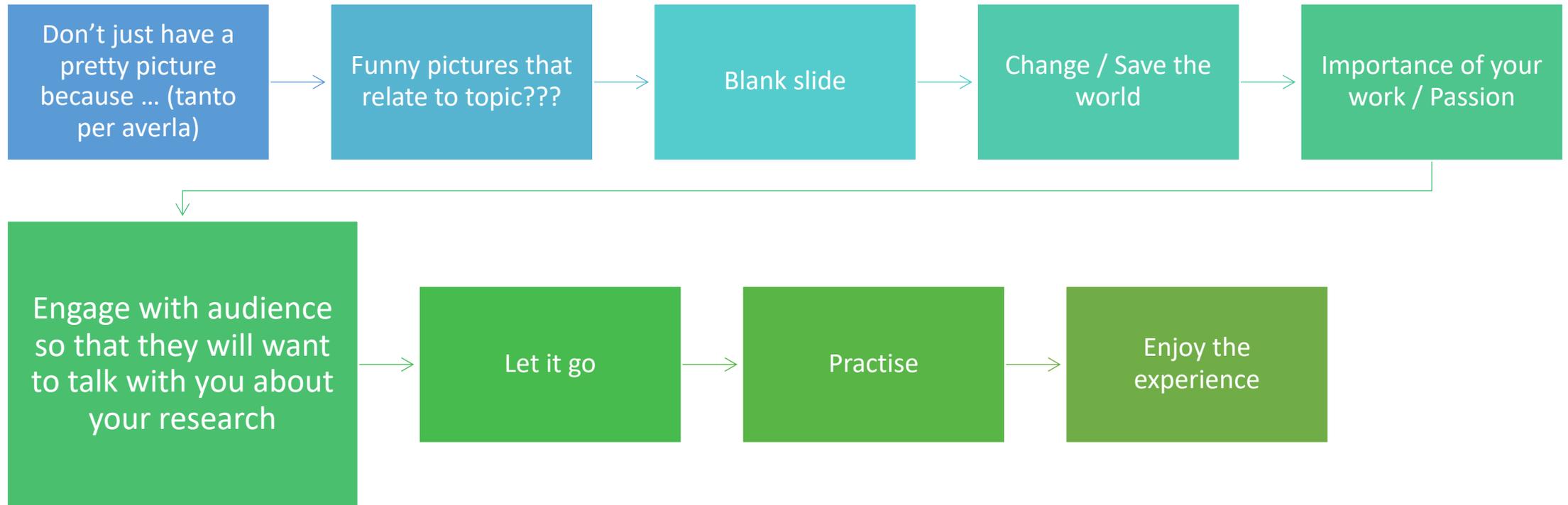


Start at 48 secs

# Breakout



Discuss the three tips and whether/how you could implement them into your research.



# How can you be convincing?

First, this is **YOUR** research - it is NOT your supervisor's research. Accept responsibility for it.

Understand the importance of the research you are doing.

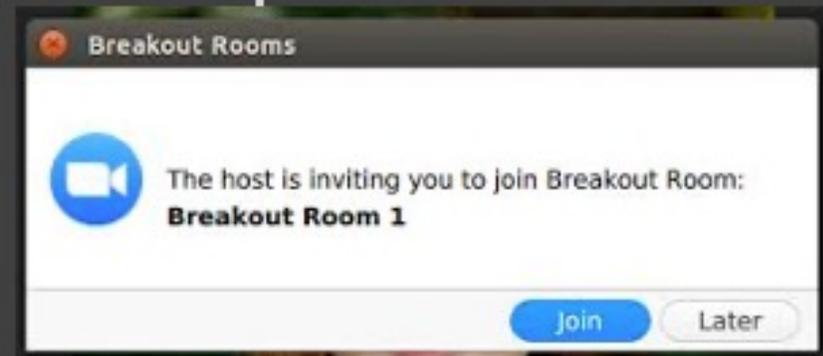
Believe in yourself and in your research.

Why are you doing your research?  
Why is it vital?

How can your research save the world?



# Breakout



What makes your research 'vital'?

How does your research 'change the world'?

What would happen if you're your research was NOT conducted?

Do you need an agenda slide?  
Why (not)?

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Is the next slide an effective agenda slide?

# Agenda



Introduction



Methods



Results



Discussion



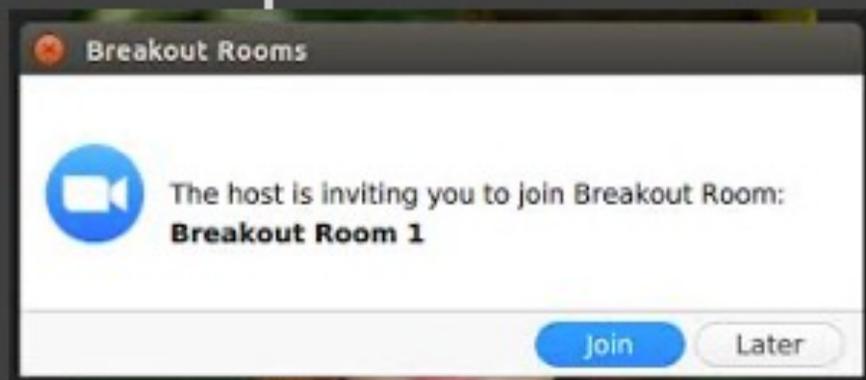
Conclusions

Is the next slide an effective agenda slide?

HOW CAN I USE  
ORGANIC  
SYNTHESIS TO  
MAKE THE  
WORLD A  
BETTER PLACE?



# Breakout



I study green chemistry. I want to tell you about a new way to reduce the impact of industrial processes and help sustain the environment. **But don't worry, I am not going to be giving you lots of worrying statistics on climate change.** **Instead** I am going to talk about catalysts and ligands, and how we can replace toxic metals with ones that are safe and also cheap and easy to find. **Then** I'll show you I plan to create my green catalysts. **And finally**, I'll explain how I think they could be applied to do x, y and z. **I haven't found the perfect solution yet.** **So while you're listening, if any ideas come to you, then please let me know. I will give you my email at the end.** *moves to next slide.* So here is the problem. At the moment we use a lot of toxic metals – the ones you can see in the slide ...

How much and how well do you listen?

How can you encourage your audience to listen carefully?

green catalysts. **And finally**, I'll explain how I think they could be applied to do x, y and z. **I haven't found the perfect solution yet.** So while you're listening, if any ideas come to you, then please let me know. I will give you my email at the end. *moves to next slide.* So here is the



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*The end*



A black and white photograph of a theater stage. The stage is covered with dark, vertically pleated curtains. In the center of the curtains, the words "The end" are written in a large, white, elegant cursive font. Above the curtains, there is a decorative archway with a central crest or emblem. The theater seats, which are dark with light-colored circular patterns on the backrests, are visible in the foreground, arranged in rows on either side of a central aisle. The overall scene is dimly lit, focusing attention on the text on the stage.

*The end*

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*The end*