

十步論文寫作法

拼圖式討論技巧

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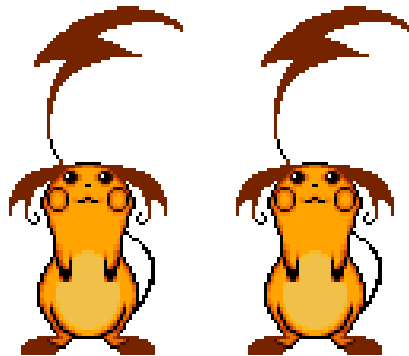
台中榮民總醫院

醫學研究部幹細胞中心



Writing is easy,

All you do is stare at a
blank of paper until
drops of blood form on
your forehead.

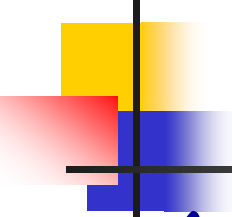


Gene Fowler

Why am I qualified?

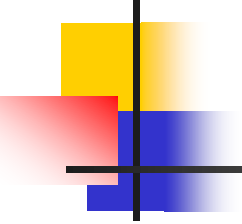
- 140 papers (1989-2011)
- 4 review articles
- 3 book chapters
- 1 patent
- Review 100+/year
- **Proposals/Manuscripts**
- Technical writing/Experimental design courses





What Do I Have to Say?

- A **clear question** must be posed before the research is planned.
- The **design** of the research plan must be adequate.
- The **data** must be properly collected and appropriately analyzed (Statistical procedures).



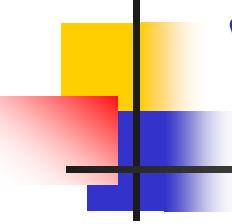
Time to write a paper?

- has a significant advancement been made?
- is the hypothesis straight forward?
- can you describe the study in 1 or 2 minutes?
- can the key message be written in 1 or 2 sentences?



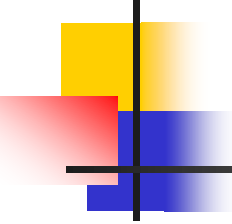
Consolidation the information

- The focus of main points & the target
- Drafts of tables and figures
- Preparation in your own voice
 - Treat each **table or figure** as a mini essay
 - Your **own** opinions & explanation, implications
 - Try to **write** or get it **right** !?
- Their sequencing tells **a story**
- **References**



What's the **point**?-Title ?

- Describe: **Succinct** and **reflect** study contents
- Raise: the **interest** toward the paper
- Think: **many** people read the title, **few** read the abstract, **very few** people read the paper
- Read: some "**titles** of the Journal"



Abstract

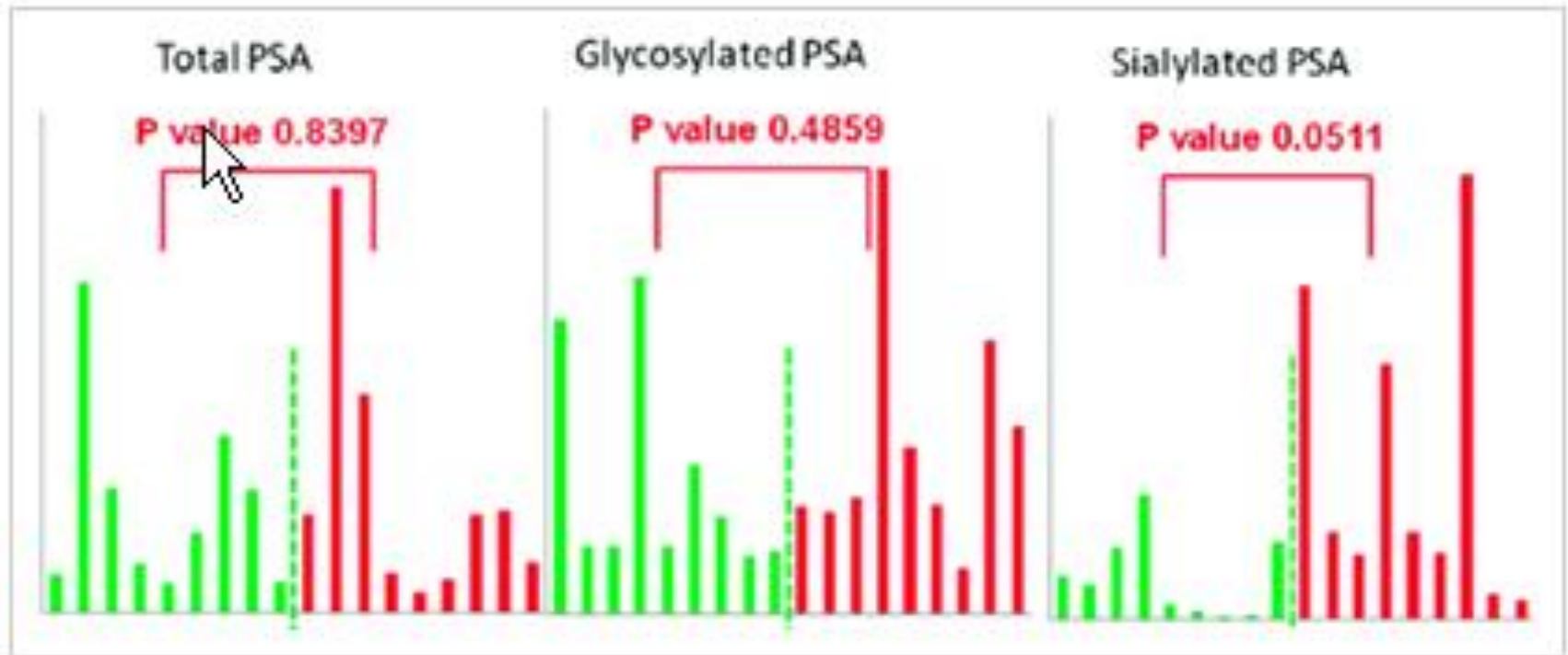
Introduction
(1) (2) (3) (4)

Methods

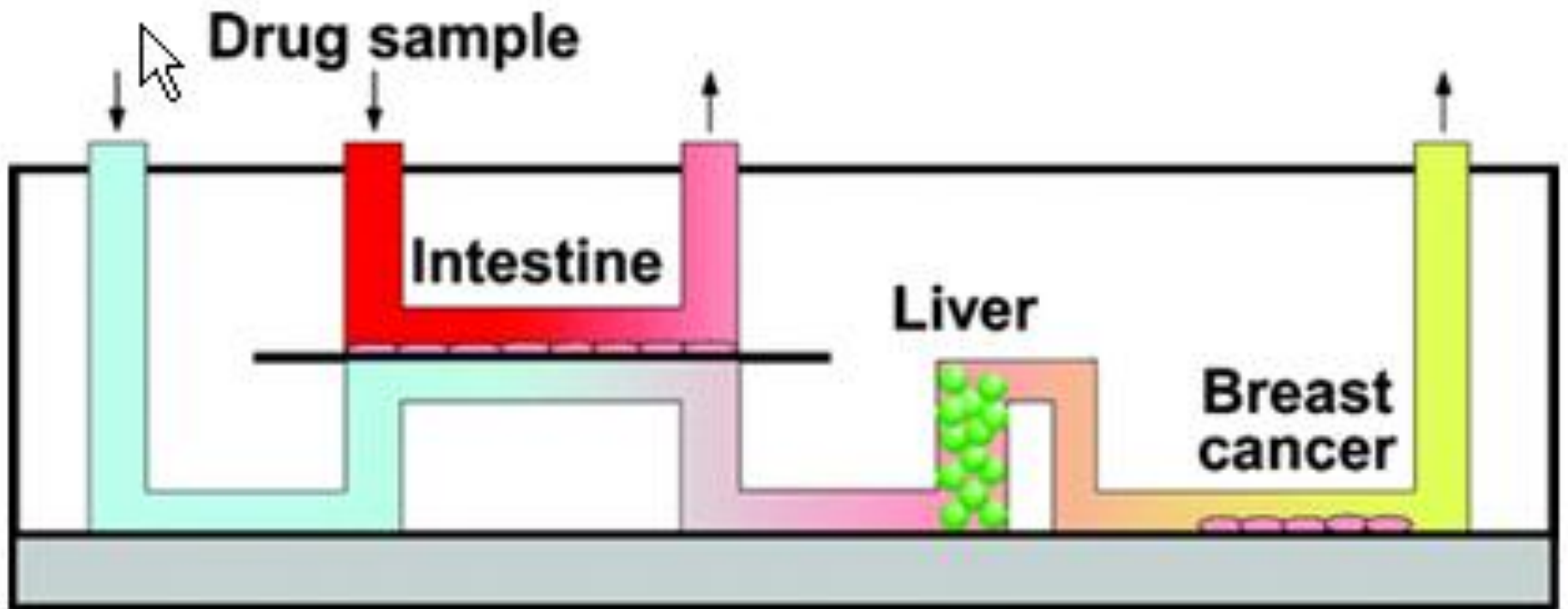
Results

Discussion
(1) (2) (3) (4)
Conclusion

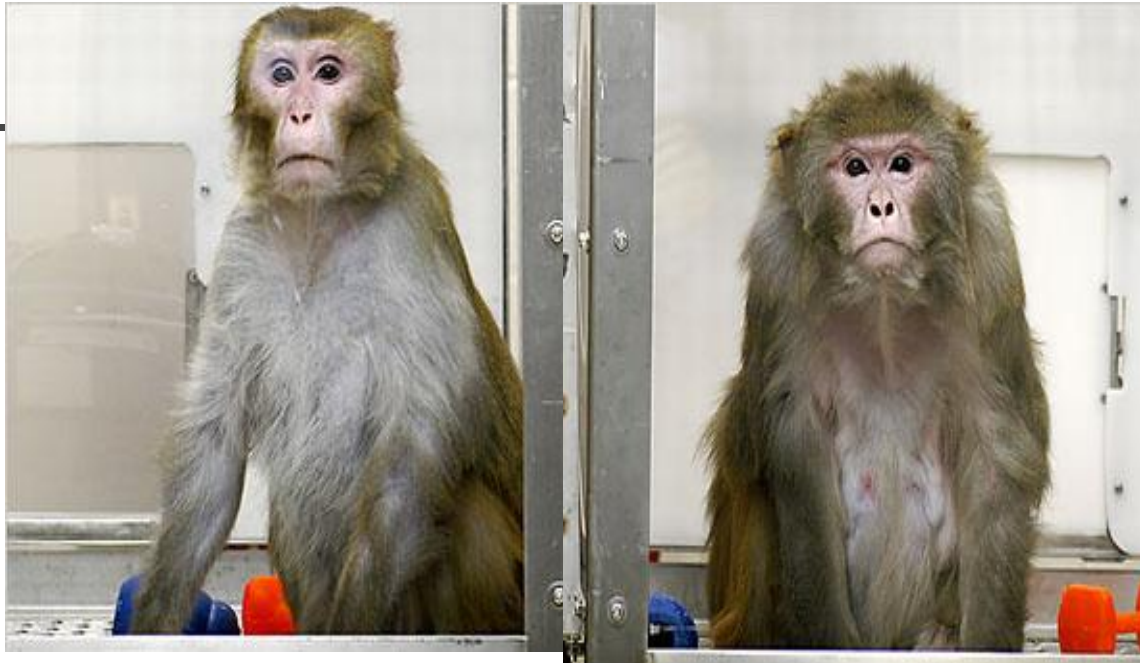
Simultaneous Analysis of Glycosylated and Sialylated Prostate-Specific Antigen Revealing Differential Distribution of Glycosylated Prostate-Specific Antigen Isoforms in Prostate Cancer Tissues



Between in vitro and in vivo?



Caloric Restriction Delays Disease Onset and Mortality in Rhesus Monkeys



RESTRICTION DIET

Canto, 25

Though a senior citizen — the average rhesus monkey in captivity is 27 — Canto, above, is aging fairly slowly. Outwardly, he has a nice coat, elastic skin, a smooth upright posture and an energetic demeanor. His bloodwork shows he is as healthy as he looks.

Human equivalent Meals prepared by Mike Linksvayer, 36



Breakfast fermented soybeans and garlic



Lunch tofu, konyakku and carrots



Dinner vegan sausage, kale, tomato sauce and salad



MONKEY MENU

Daily calories

445 885

Monkeys also receive an apple each day.

HUMAN MENU

Daily calories

2,000 3,000

Beverages, snacks and desserts not shown. Diet varies according to body type, sex and activity level.



NORMAL DIET

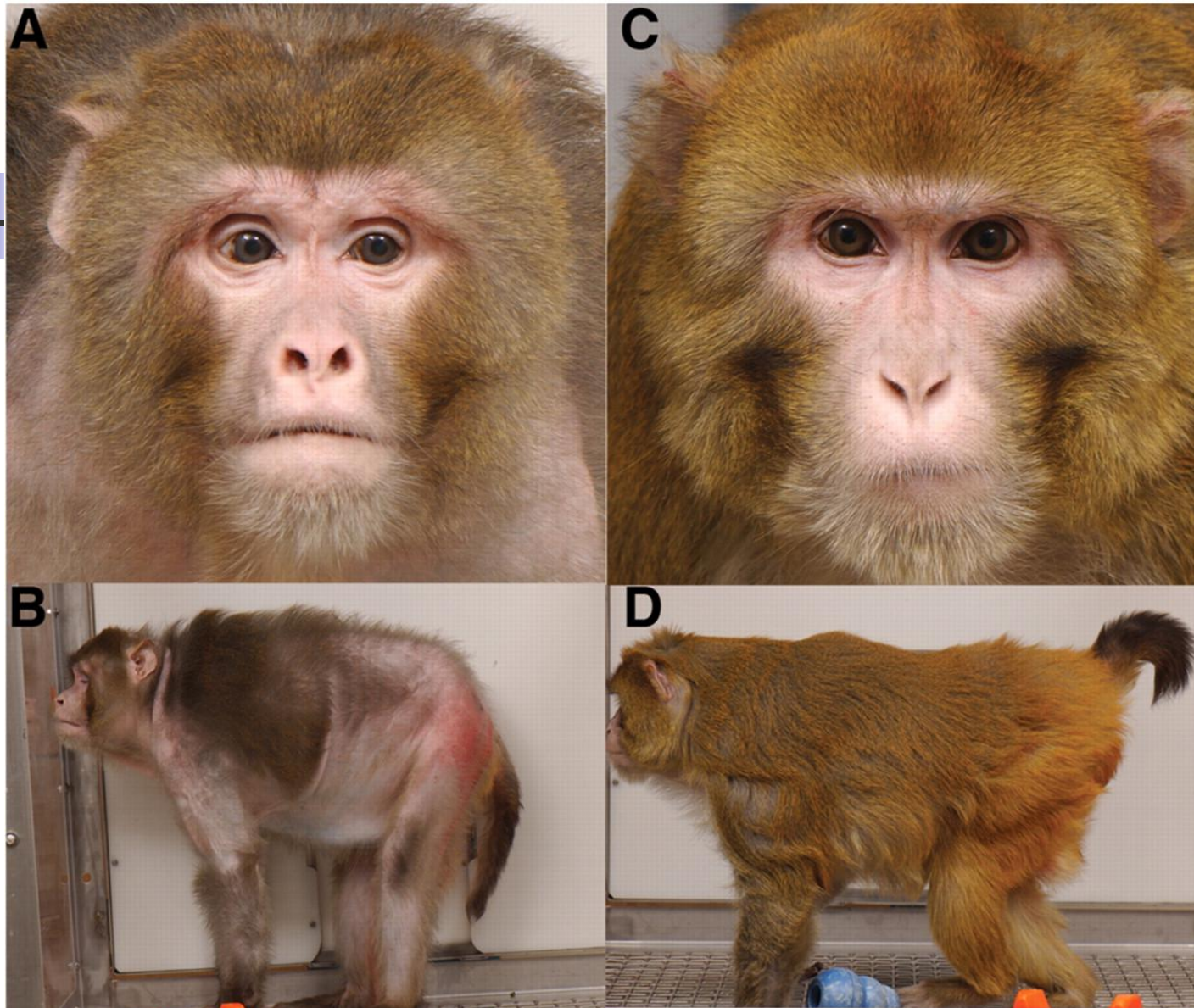
Owen, 26

He gets more food, but Owen, above, isn't aging as slowly. His posture has been affected by arthritis. His skin is wrinkled and his hair is falling out. Owen is frail and his bloodwork shows unhealthy levels of glucose and triglycerides.

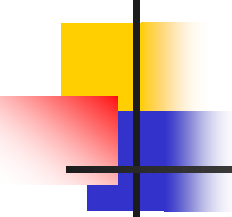
Diet of an average, active human male of 36



Animal appearance in old age.

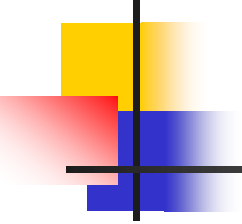


R J Colman et al. Science 2009;325:201-204



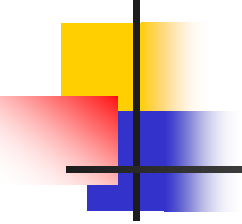
Discussion

- The **heart** of the paper
- State the **interpretations and opinions**, explain the implications of findings and make suggestions **for future research**
- Outline and organization of discussion
 - Outline items from **specific to general**
 - Expand each item
 - Cluster map and issue tree...etc



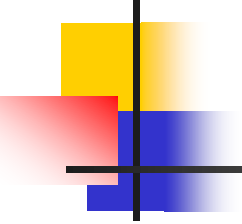
Discussion

- Often **begin** with a brief summary of **the main findings**
- Should **answer** the question stated in the introduction
- Some other items commonly addressed:
 - **Limitations of the study**
 - **Relationship to findings of other research**
 - **Other research needed**



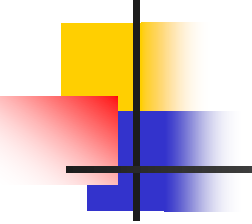
Discussion

- Revisiting previous sections & summarising **key results**
- **Mapping** (relationship to existing research)
- Achievement/Contribution refining the **implications**
- **Limitations**/current and future work/**applications**



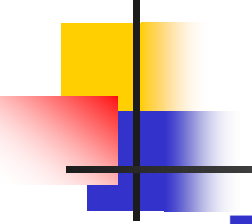
Revisiting previous sections & summarising key results

- In sentence **1**, the writer revisits the methodology used in this study.
- In this study **we tested** the extent to which an extended three-month stress management program improve QoL among a group of patients being treated for stress-related skin disorders **such as eczema**.



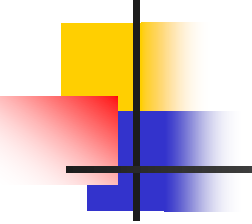
Revisiting previous sections & summarising key results (cont-)

- Prior work has documented the effectiveness of psychosocial intervention in improving quality of life (QoL) and reducing stress in patients suffering from various disorders.
- Epstein, for example, reports that orthopedic patients participating in a **two-week multimedia intervention** program improve across several QoL indices, including interpersonal conflict and mental health.



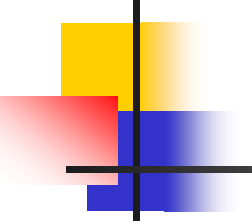
Mapping (relationship to existing research)

- In sentence **3**, the writer shows where and how the present work fits into research “**map**” of this field.
- These findings **extend** those of Kaliom, confirming that **a longer, more intensive period** of stress-management training tends to produce more effective skills than when those skills are input over a short period via information transfer media such as leaflets and presentation (kaliom et al, 2003)



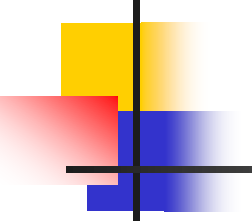
Mapping (relationship to existing research)

- In sentence 4, the writer represents a positive achievement or contribution of this work.
- In addition, the improvement noted in our study were unrelated to age, gender or ethic background.



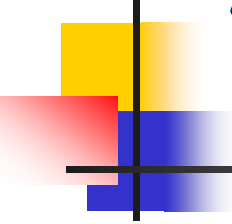
Mapping (relationship to existing research)

- In sentence **5**, the writer focuses on the meaning and implications of the achievements in this work.
- This study therefore **indicates** that the **benefits gained** from stress-management intervention may address QoL needs across a wide range of patients.



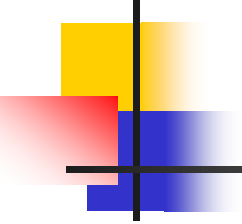
Mapping (relationship to existing research)

- In sentence 6, the writer notes that one of the achievements or contribution of this work is its **originality**, (or **novelty**, or **significance**).
- **Most notably**, this is the first study to our knowledge to investigate in patients whose disorder is itself thought **to be stress-related**.



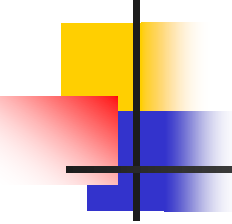
Achievement/contribution refining the implications

- In sentence **7**, the writer **refines** the implications of the results including **possible applications**.
- Our results provide compelling evidence for **long-term involvement** with such patients and suggest that this approach appears to be **effective in counteracting stress** that may exacerbate the disorder.



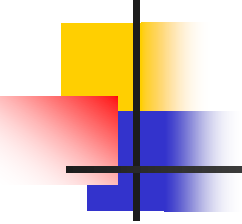
Achievement/contribution refining the implications

- In sentence 8 & 9, the writer describes the limitations which should direct future research.
- However, some limitations are worth noting. Although our hypotheses were supported statistically, the sample was not reassessed once the program was over.



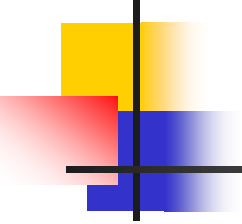
Limitations/current and future work/applications

- In sentence 10, the writer **suggests** a specific area to be addressed in future work.
- Future work should therefore **include follow-up work** designed to evaluate the skills are retained in the long term and also whether they continue to be used to **improve QoL**.



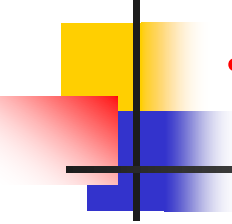
Discussion

- **Point out** findings/contribution
- **Explain** how your results relate to expectations and literature
- **Discuss** and evaluate conflicting explanations of the results
- **Defend** your answer, **if necessary**, by explaining both **why** your answer is satisfactory and **why** others are not



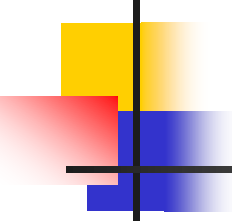
Discussion

- State the **central conclusion** from your data in this study – **first paragraph**
- Provide **evidence-base data** from other papers
- Raise **viewpoints** and findings from your interpretation of these data (**do not over-rule**)
- Support your **hypothesis** or tentative **mechanisms**



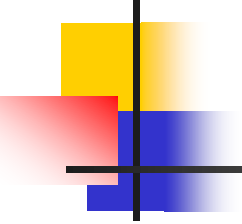
State the central conclusion- first paragraph

- The main question...was (whether)...
- Our results shown...
- It is hypothesized that....
 - We hypothesized
 - Two possible mechanisms may...
 - Supplemental magnesium enhances..
- Some evidence support (or argument)...



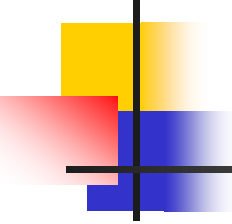
Provide evidence-base data from us and other papers

- **First**, our data...
- **Second**, Ahmet Uzun explores the effects of
- **Third**, zinc deficiency animal model demonstrated...
- Our study investigate three questions. **The first, ..The second...**



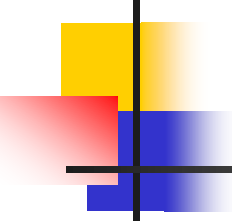
Raise viewpoints from the interpretation of our data (I)

- A possible mechanism...
- Another possible mechanism..
- A few studies...For example...
 - One does not support
 - One supports but ...
 - No significant variation was found in
- Most of studies have been carried out in



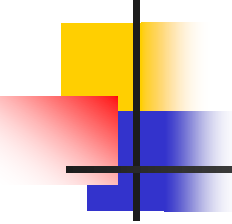
Raise viewpoints from the interpretation of our data (II)

- We observed that...
- Interestingly, (Unexpected data...)
- A possible explanation of our data...
- Several advantages of this study are
 - First.., Second..Third..
 - Precision, accuracy, detection limit, and sensitivity, ...



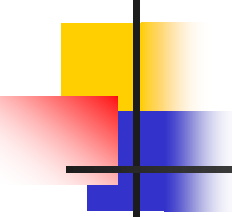
Raise viewpoints from the interpretation of our data (III)

- One limitation...
 - In animal models only (mice, rats..)
 - Certain fixed conditions
 - Other studies needed..
- These data illustrate (indicate..... demonstrate..)
- Our results suggest (imply)...but not...
- In **conclusion** (summary), ...



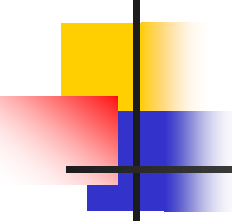
Raise viewpoints from other studies (I)

- Recent studies demonstrate that...
 - These highest metabolic activity..
 - In human, these area overlap...
 - However, the additional burden associated..
 - The possible mechanism (possibility exists).
- It has been shown that...
- Based on previous studies, the speed and magnitude...



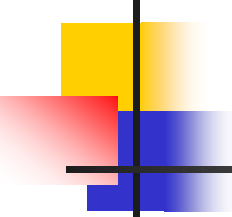
Raise viewpoints from other studies (II)

- It is unlikely that ..Similarly, it is unlikely that...
- If dopamine were being released into the extracellular space as a consequence of...we would have expected...
- This is the opposite of what we observed.
 - **We recognize** that ..because..
 - Likewise, transient rise in brain **would not.. because.**
 - **Our results provide** direct information on ...
 - To our knowledge, all but one of our animals (patients) **had....**



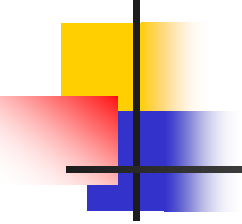
Topic sentences (I)

- The results presented here reveal that ..
- A major finding of this study is that..
- Several lines of evidence support the hypothesis that...
- It follows that
- Our results are in line with (in accord with) those reported...



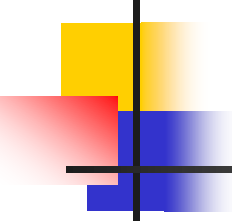
Topic sentences (II)

- These results corroborate that studies of
- The forgoing discussion indicates that...
- The mentioned activities suggest...
- Nonetheless, this information is useful when considering..
- In sum, our findings demonstrate that ..



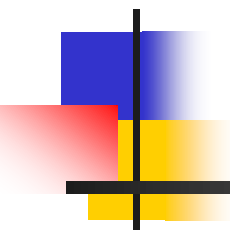
十步式論文寫作工作坊

簡介實作



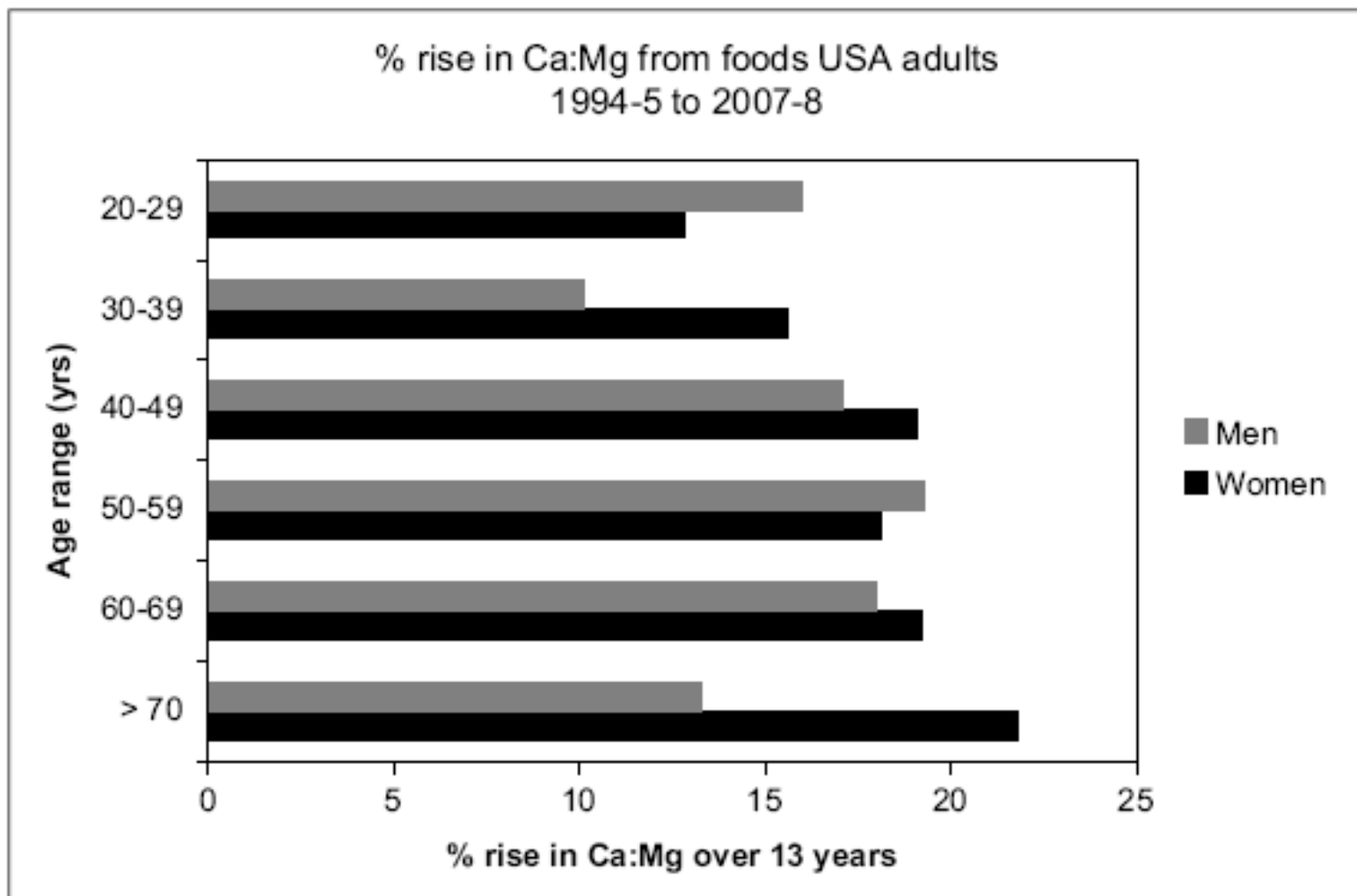
Introduction

- Establish facts and problems
- Provide previous and current research
- Locate a Gap to solve the problems
- Describe the present work



Rising **Ca:Mg** intake ratio
from food in USA Adults:
a concern?

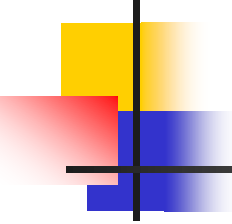
10-20 % rise in Ca:Mg





1. Establish Facts and Problems

- The majority of the genetically variable population has recently been shown to consume, with foods, well below their daily Estimated Average Requirement (EAR) of magnesium (Mg) [1].
- Many also consume below the amount of calcium (Ca) considered to be an adequate intake with their foods [2].
- The ratio between these two nutrients (Ca:Mg) is rarely calculated, monitored or reported.



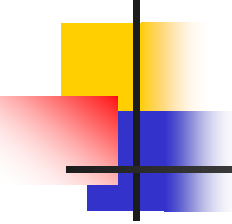
2. Previous & Current Research

- As early as 1964, in a quantitative review of human balance studies, M.S. Seelig reported dietary Ca to be a factor in the retention of dietary Mg [3].
- ... In 1989, Durlach warned against excessive Ca relative to Mg intakes and recommended that total dietary Ca:Mg ratios remain close to 2.0 [8].
- These authors found “that total magnesium consumption was linked to a significantly lower risk of colorectal adenoma, particularly in those subjects with a low Ca:Mg intake [9,10]....

3. Locate a research Gap

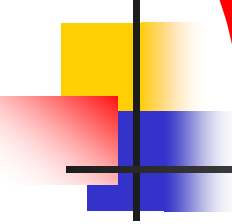
- It's appropriate to assess any trend of dietary **Ca:Mg ratio** in human populations.





4. Describe the Present work

- This study is a preliminary attempt to assess the Ca:Mg intake ratio from food over time in USA adults.
- A large, genetically variable population with decades on a modern, processed food diet which does not provide adequate Mg intake for many was investigated.



Writing introduction ASAP

- Start writing the paper **as soon as possible** – view it as a tool of your research.
- Write the **introduction** as you engage into your research
 - **What** are you trying to do?
 - **Why** is it important?
 - **What** has been done before?

No short cut!

- Read More?!
- Learn More?!
- Think More!?
- Write More!?

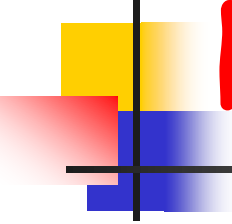




Good Luck !



After service
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Review a manuscript

- READ Title & Authors
- READ Abstract
- LOOK 1st Paragraph
- LOOK 1st Sentence of Each paragraph
- LOOK Figure/Table and its title
- READ The last paragraph



當將你的事交託耶和華，
並倚靠他，他就必成全。

