

Webinar

The Perfect Dissertation Defense: Tips and Tricks



Prof. Dr. Steve Burian



Dr. Maria Khalid

University Institute of Biochemistry and Biotechnology
Pir Mehr Ali Shah, Arid Agriculture University,
Rawalpindi



Dr. Steve Burian
 Professor, Civil & Env Eng
 Director, Water Center





Dr. Maria Khalid
Assistant Professor IPFP
Plant Biotechnology
University Institute of Biochemistry and
Biotechnology, Pir Mehr Ali Shah, Arid
Agriculture University



Pir Mehr Ali Shah, Arid
Agriculture University



Michigan State University,
Michigan, USA



Sabanci University, Istanbul,
Turkey



National University of
Sciences and Technology



University of Queensland,
Brisbane, Australia



Chinese Academy of Agriculture
Sciences, Beijing, China





Mentimeter

Go to www.menti.com &
enter code 5264407



 **Mentimeter**

Please enter the code

The code is found on the screen in front of you

Powered by Mentimeter [Terms](#)





CONGRATULATIONS!!





TeachingAcademia.com



Mentimeter

Go to www.menti.com &
enter code 9298935



Please enter the code

12 34 56

Submit

The code is found on the screen in front of you

Powered by Mentimeter [Terms](#)



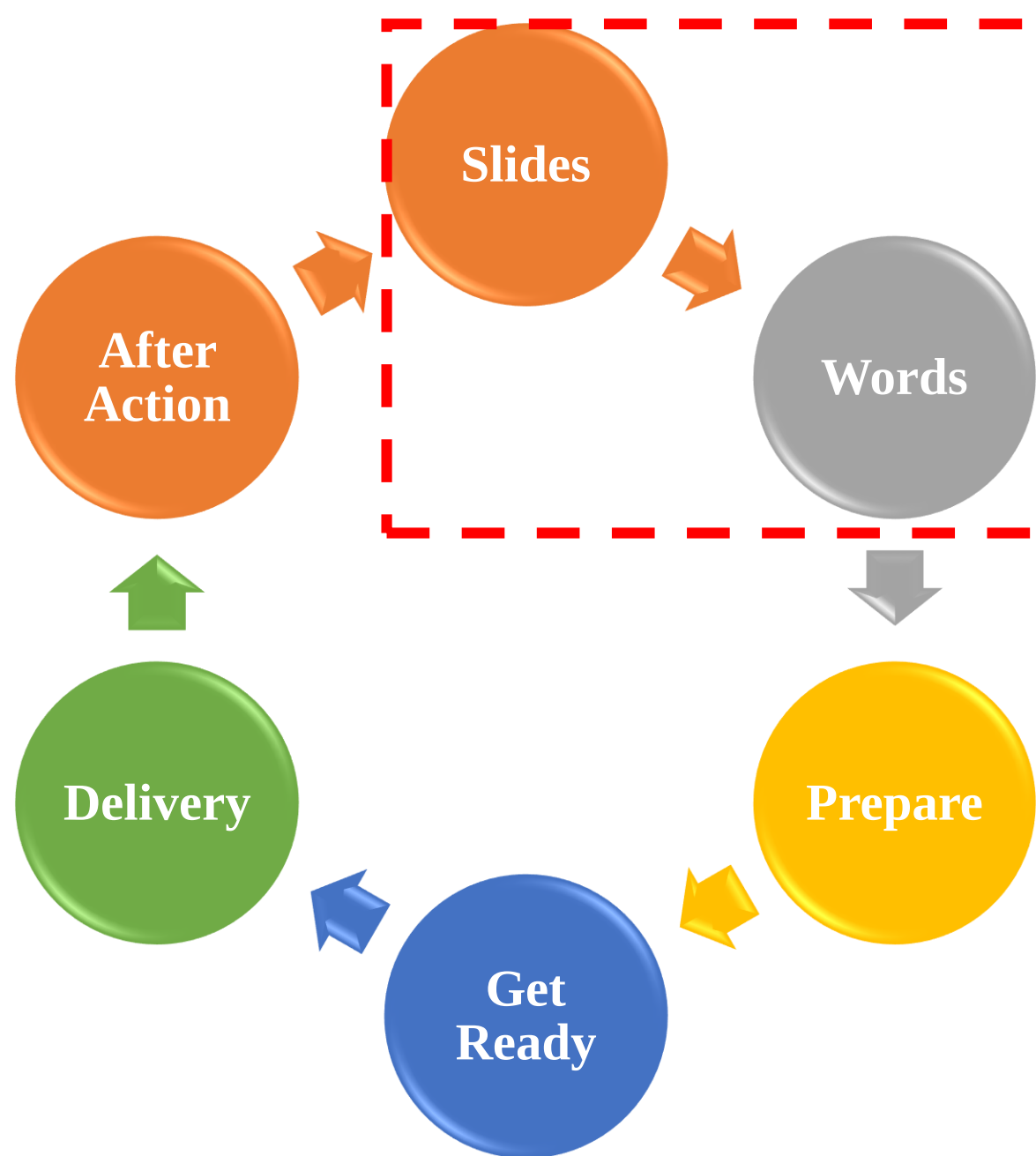
Go to www.menti.com and enter a code
9298935

**What do you think you must do to deliver a
remarkable presentation?**









Know the Process of Department and Institute

- Department culture
- Discuss with your advisor
- What are the norms?

DISSERTATION DEFENSE EVALUATION FORM

Student's Name: _____

Chair's Name: _____

Faculty Member's Name: _____

Faculty Member's Role (please circle one):

Chair Committee Reader

Date of Defense: ____/____/____

Proposal Defense Date: ____/____/____

Instructions: All members of the dissertation committee (chair, committee members, and readers) should complete this form by the end of the defense hearing and return it to the Dissertation Chair.

Dissertation Chair, please note: copies of all evaluations need to be:

- 1) Placed in the student's record,
- 2) Given to the student, and
- 3) Maintained by the Dissertation Chair.

Please circle the most appropriate score for each item, relative to the student's research and the dissertation defense process. Narrative comment may be added.

NOTE: Ratings of "3" represent a student who is performing as would be expected and is on target. Ratings of "4" or above should be reserved for a student who is doing better than expected or is excelling, while ratings below "3" indicate a need for concern.

QUALITY OF CONCEPTUAL FRAMEWORK

1) The dissertation provides a solid rationale for the research question or hypothesis.

1	2	3	4	5
Falls to Meet Expectations	Below Expectations	Meets Expectations	Above Expectations	Exceeds Expectations

Comments:



Landing on the Moon:



Small Step → One Man

Giant Leap → Mankind

Getting a Ph.D.:



Giant Leap → One Person

Tiny, Insignificant Step → Mankind

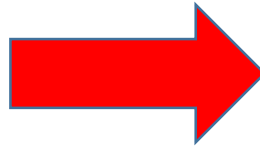
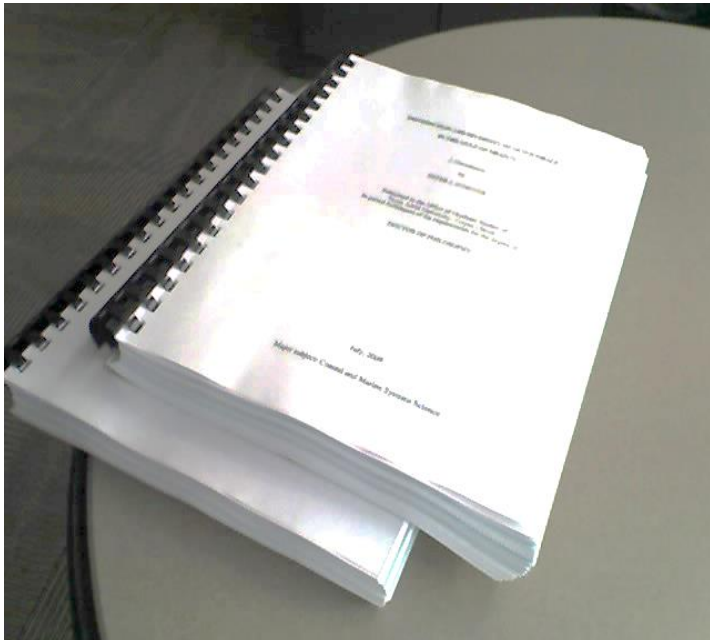
WWW.PHDCOMICS.COM

JORGE CHAM © 2014



Know Your Jury /Committee Members

- Expertise and interest
- What questions have they asked previously to you or others?
- What concerns have they expressed about your dissertation?

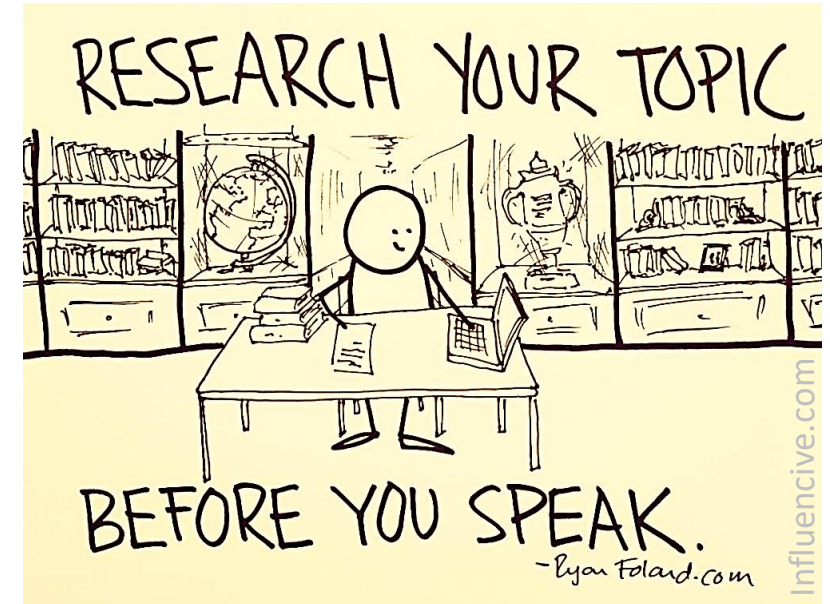


Know Your Topic

Challenge/
Opportunity

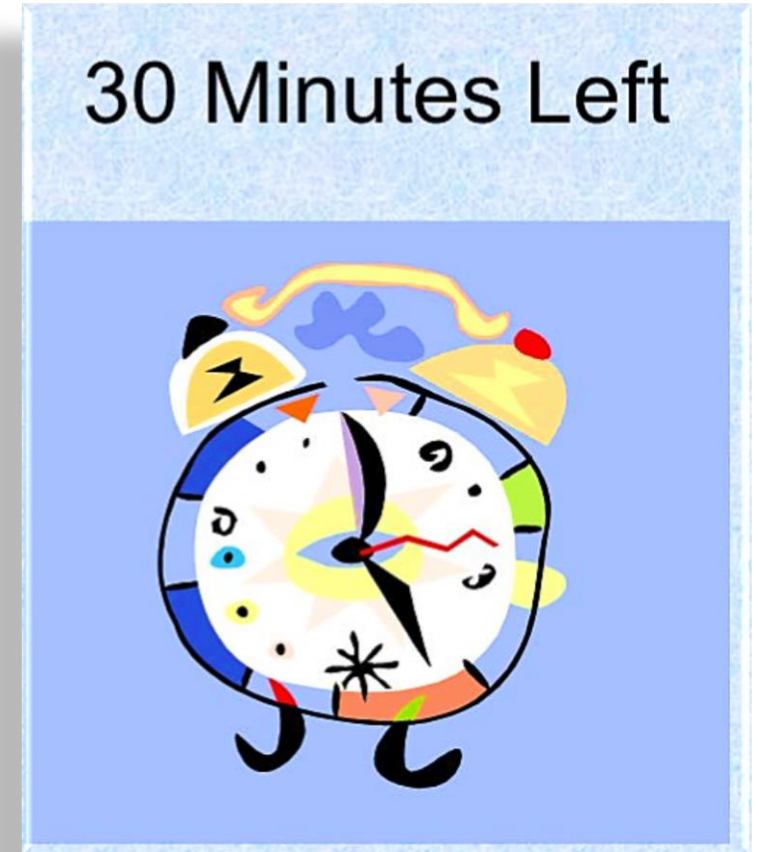
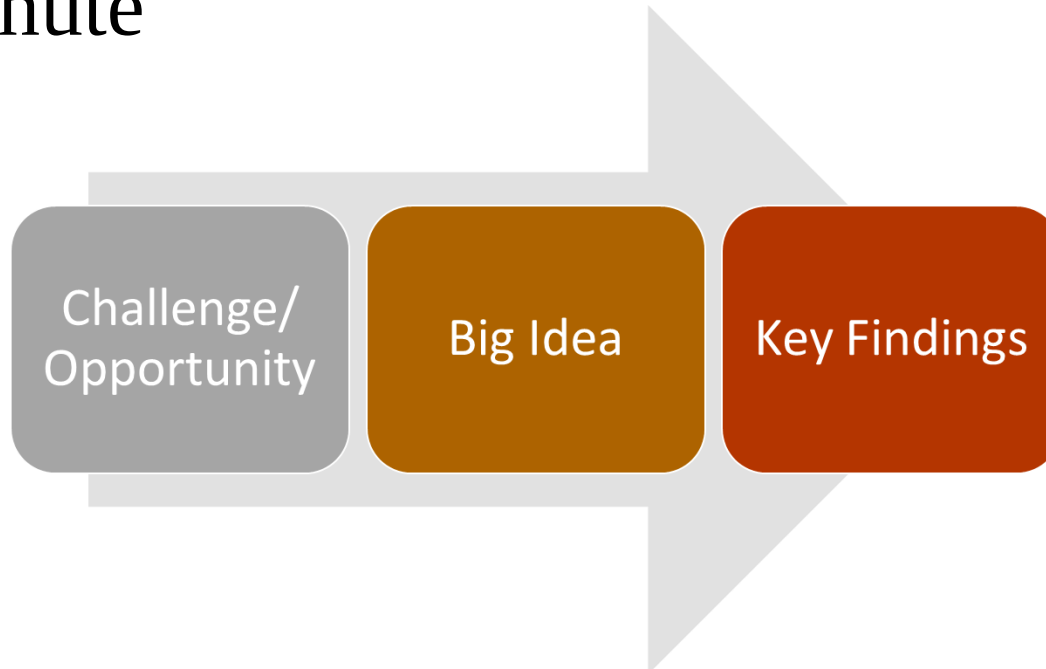
Big Idea

Key Findings



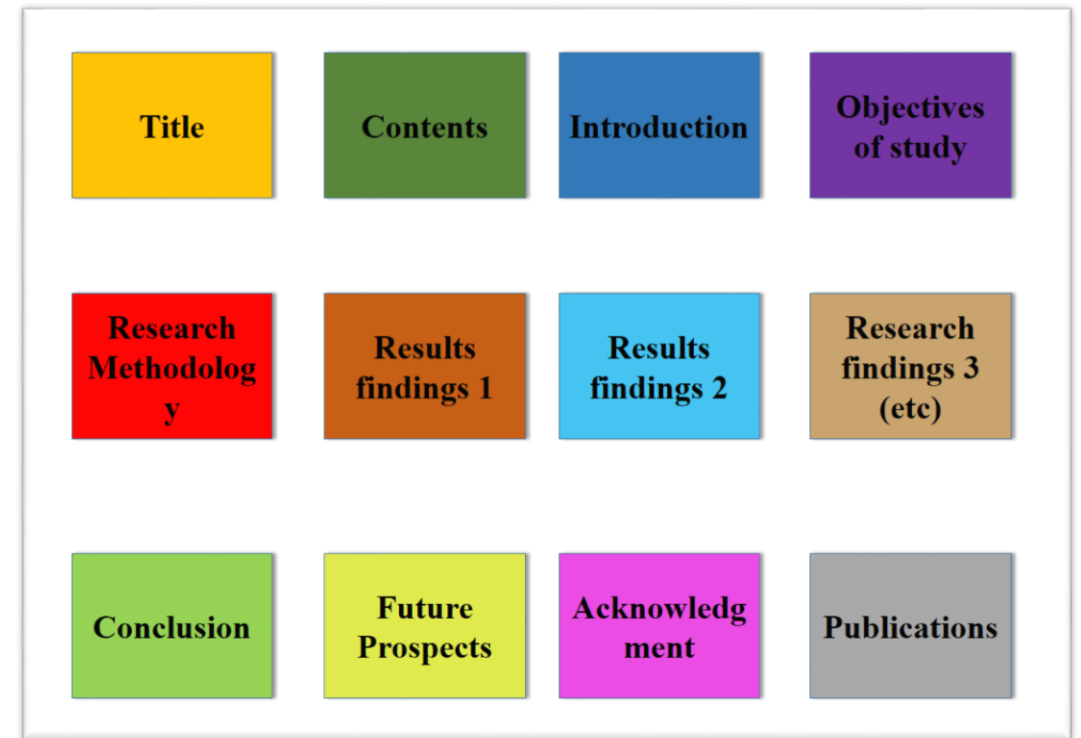
Create Presentation Outline

- Confirm expected length
- “Chunk” presentation
- Use guide of ONE slide per minute



Storyboarding

- Create structure of presentation flow
- Notes in slides to guide content, way to present, key takeaways of slide, etc.
- Tools: PPT, MS word, etc.



Preparation of Slides

Which slide is better A or B?

Prediction Assessment
10-Fold Cross Validation for validity check

- 10-fold cross validation was applied by hiding 10% of the drugs associations in each iteration. The dataset was divided randomly into 10 parts with each part turning into a test set for once. We performed 50 independent runs in each of which a different random partition of the training set to 10 parts were used. We computed average AUC scores. The feature selection was applied to the dataset but the difference between the best feature set according to each feature selection method and using all the features was negligible hence the whole feature set was retained. We have employed Python implementation of logistic regression classifier for the prediction task.

21

A X

Prediction Assessment; 10-Fold Cross Validation for Validity Check

10 cross validation applied

- Hiding 10% drug association
- Dataset divided into 10 equal parts

50 independent runs were performed

- Average AUC scores were computed



Python of logistic regression classifier were employed

B ✓

Which slide is better A or B?

BIOTIC AND ABIOTIC STRESSES IN WHEAT

- Biotic stress are rust, smuts such as stem rust, yellow rust, leaf rusts, karnal bunt etc.
- Abiotic stress such as drought, heat, salinity, water logging
- These stresses can affect the physiological , biochemical, morphological and molecular factors

A



Biotic and Abiotic Stresses in Wheat

Stresses in Wheat

Biotic Stresses	Abiotic Stresses
Rust	Drought
Smuts	Heat
Karnal Bunt	Salinity
Viral diseases	Water logging

Wheat Matters, 2014 CGIAR



B



Which slide is better A or B?

Complete Dominance

Complete dominance occurs when one allele – or “version” – of a gene completely masks another. The trait that is expressed is described as being “**dominant**” over the trait that is not expressed. Most organisms are diploid – that is, they get two copies of each gene, one from each of their parents.

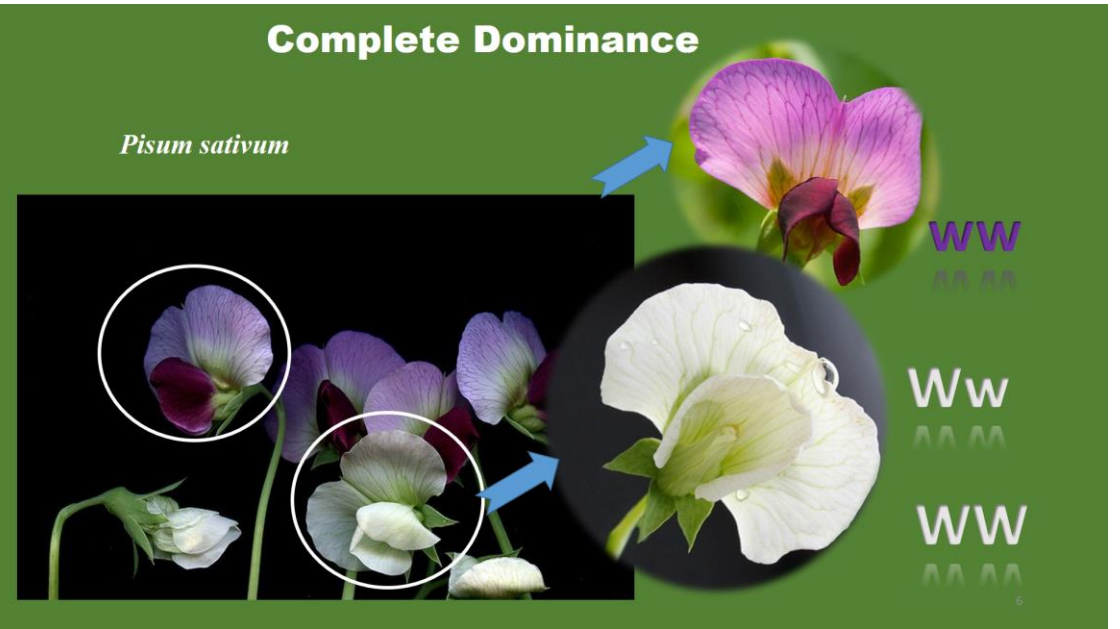
8

A



Complete Dominance

Pisum sativum



B





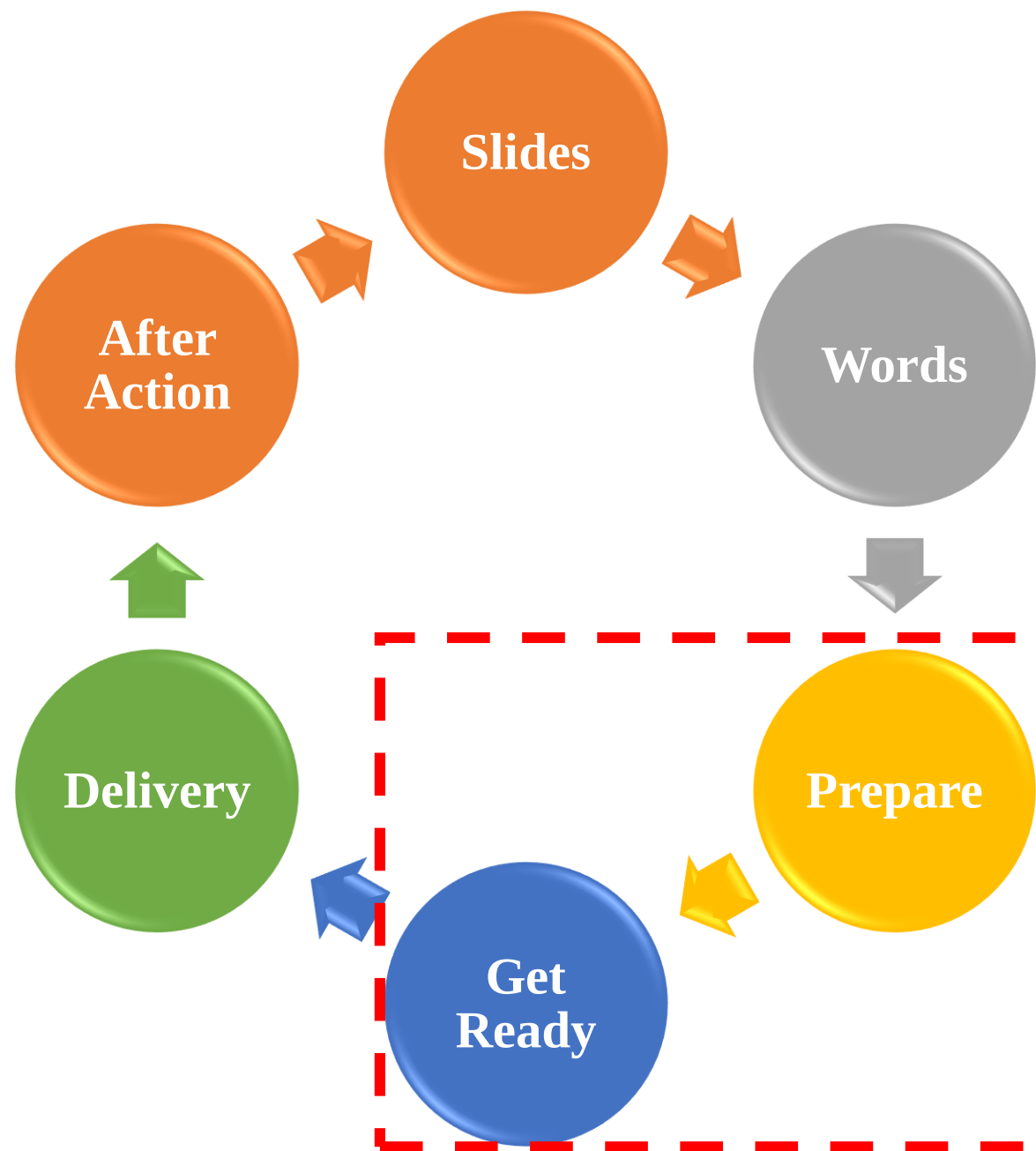
Preparation of Slides

- Slides should be >75% visual (graphics, pictures, etc.)
- If words necessary, use bullets
- **Irreducible minimum.**
- Format: clear, readable, digestible, attractive, creative
- Visuals should have meaning connected to info
- Slides are free
- Write notes in your notes section
- Provide extra slides at the end

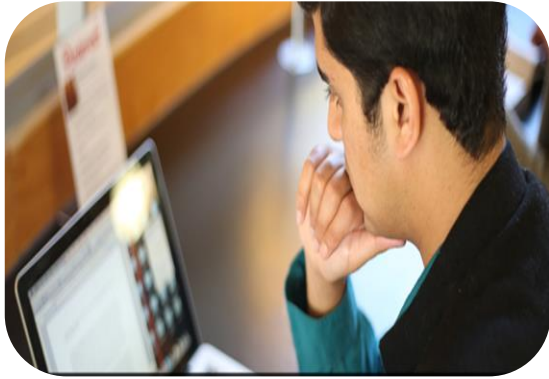
Go to www.menti.com and enter a code
1829244

**How long ahead of defense date should you
have presentation finalized and ready?**





Preparation for your Final Defense



Get ready one month before
your final defense

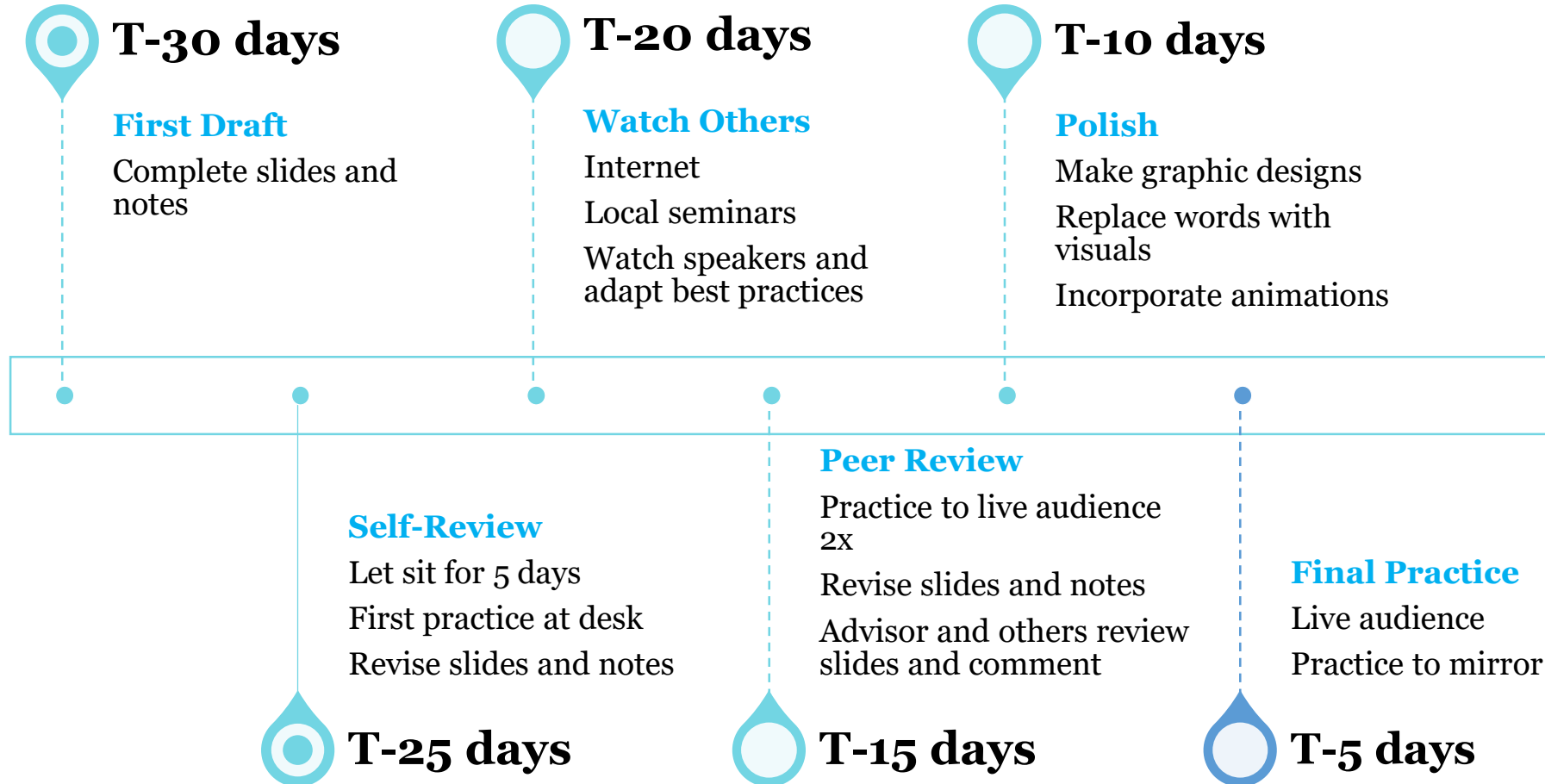


Give departmental and
pre- defense



Take suggestion from
mentors and jury
members

Countdown to Presentation



Preparation for Oral Presentation



Prepare answer to your questions you anticipate.



Practice answering them loud.



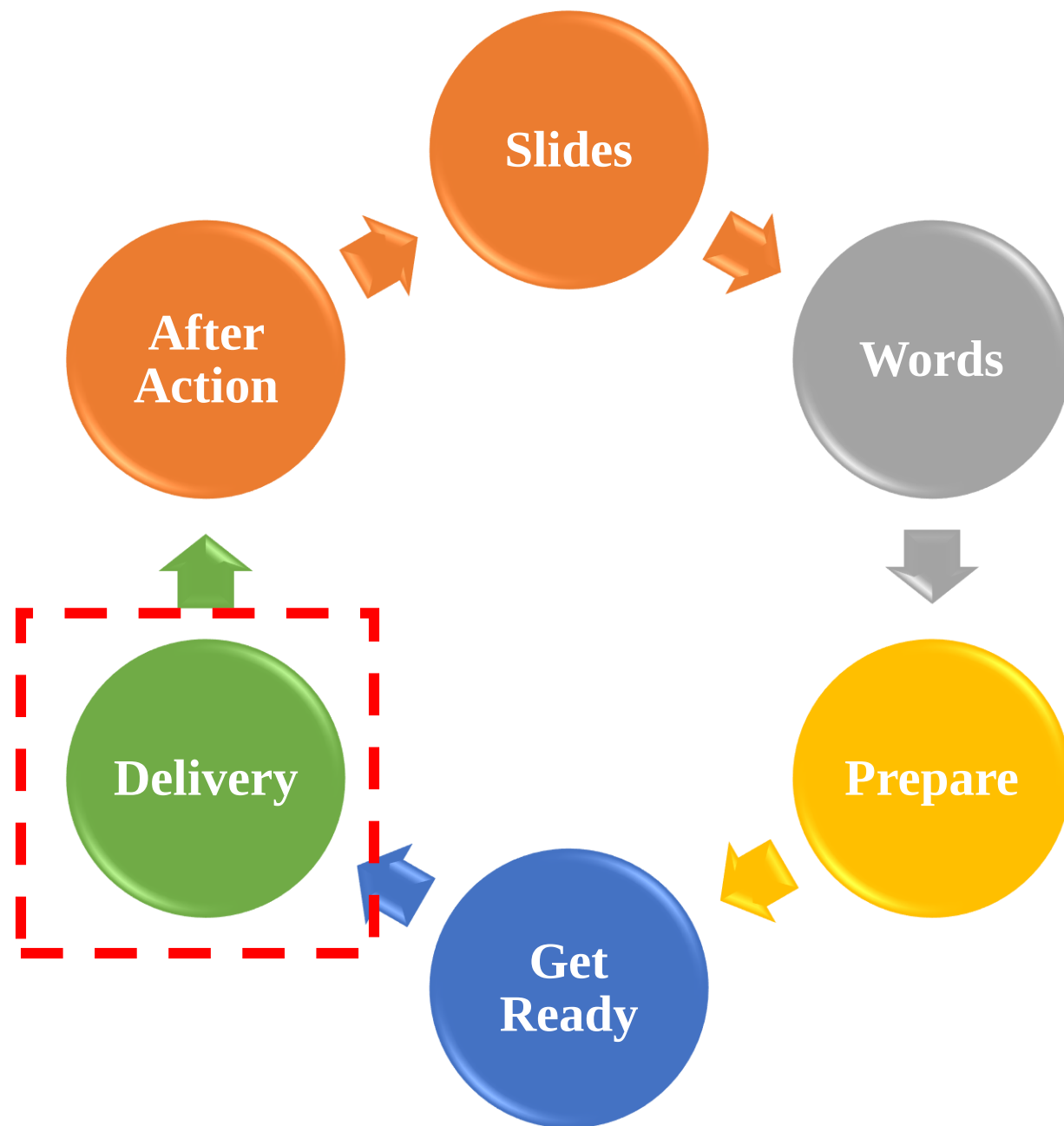
Avoid AAAAAA sound.



Voice should be clear while presenting.

Get Ready Its time for Defense





**What are the best practices to
engage your audience?**



Use Stories

Is my research
making an
impact?



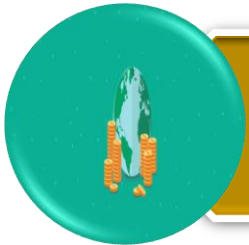
Great stories are:



Tell yours.



Relate the Impact



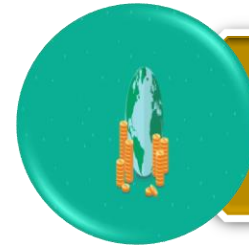
Economic Impact



Social Impact



Cultural Impact



Threshold



Risk



Surprises

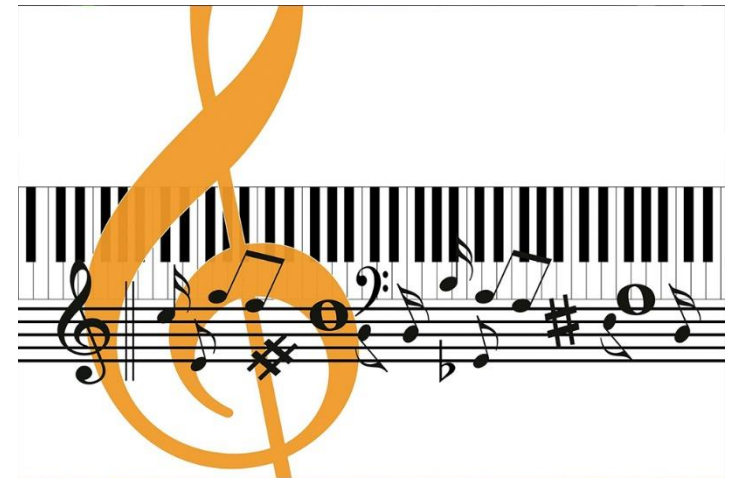
Communicate Effectively – Verbally



Loud & Project



Articulation



Vary volume, speed,
intonation

Communicate Effectively - Nonverbally



Be Confident

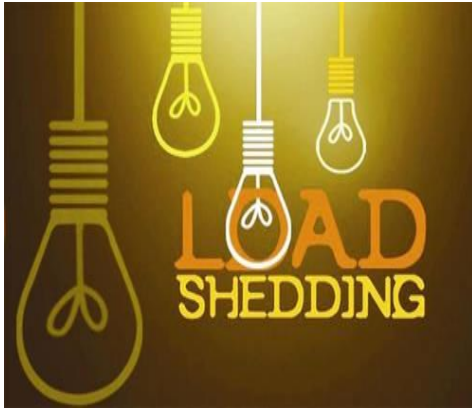


Smile and Raise Eyebrows

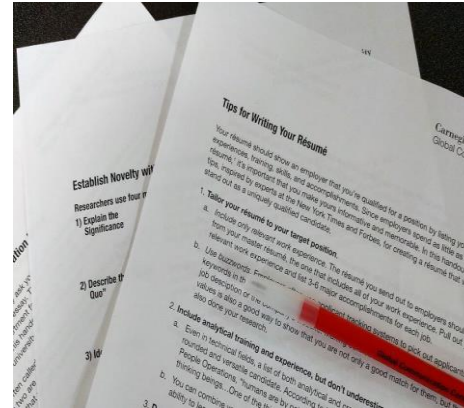


Eye Contact & Genuine Gestures

Expect the Unexpected



Be Prepared for
technical difficulties.



Considered handouts
if you are presenting
graphically.



Keep track of time.

You should feel good if committee members



Talk to each other.



Disagree or even challenge your
ideas.

Listen!

- Committee members will preface their questions with their own theories or ideas.
- Sometimes they formulation the questions as they ponder.



When you don't know the answer?

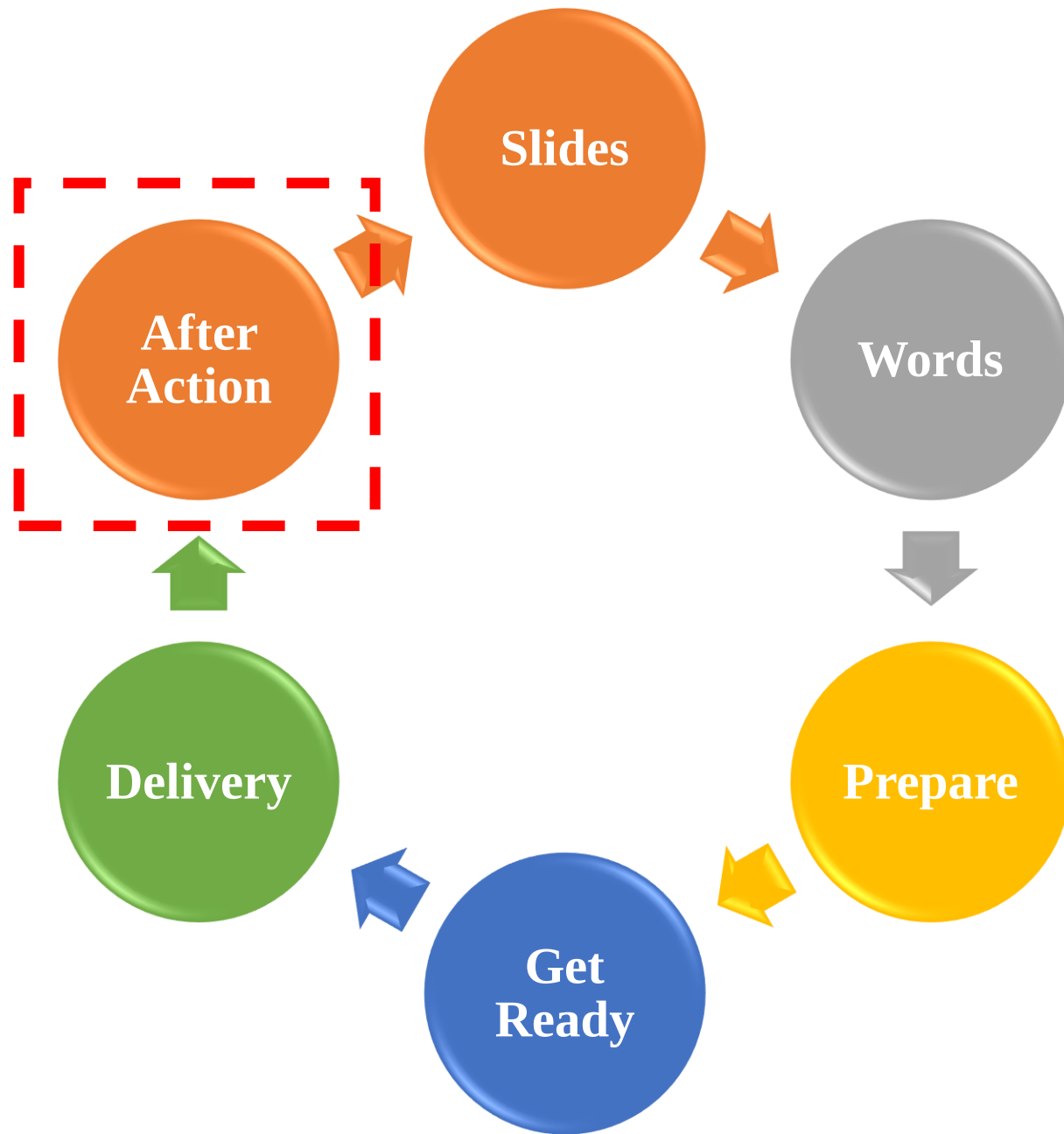
- You asked me (repeat the question), and I am not sure but I think?
- If I knew X, I would say Y.
- I don't know, but that question has interesting implications, for example if I knew that I could.....



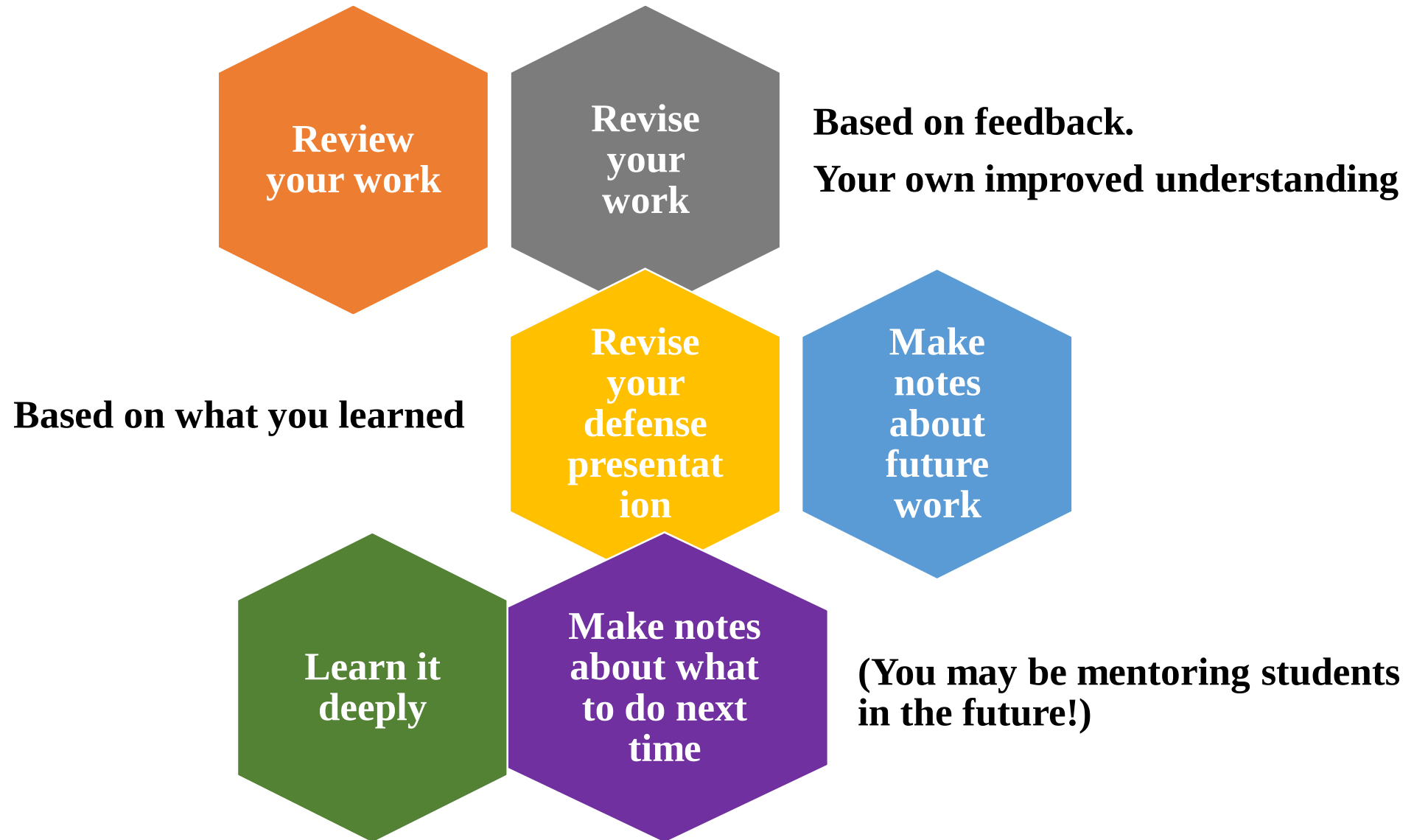
When you don't know the answer?

- I just need a minute to gather my thoughts
- Did you ask me (repeat the question)?





REFLECT, REVISE, AND LEARN DEEPLY



Slides should be

- A. Mostly text so audience can read it
- B. Mostly visual



An essential step to deliver a great presentation

- A. Create presentation the night
before
- B. Practice







**THANK YOU
& GOOD LUCK**