



ESCOLA POLITÉCNICA DA UNIVERSIDADE DE SÃO PAULO

PMI-5932

***SCIENTIFIC WRITING FOR RESEARCH
PAPERS IN OIL, GAS AND MINING***

Class 06 – 2017

How to start

Prof. Giorgio de Tomi



ESCOLA POLITÉCNICA DA UNIVERSIDADE DE SÃO PAULO

PPMI 5932 – Scientific writing for research papers in oil, gas and mining

COURSE SCHEDULE

	03/out	04/out	05/out
13:00	01: Introduction	04: How to publish	07: Plan an article
	break 1	break 1	break 1
14:30	02: Why publish	05: Where to publish	08: Review the plan
	break 2	break 2	break 2
16:00	03: Practical aspects	06: How to start	09: Next steps
	close	close	close



ESCOLA POLITÉCNICA DA UNIVERSIDADE DE SÃO PAULO

PPMI 5932 – Scientific writing for research papers in oil, gas and mining

CONTENTS

- How to start?
- The 6-step strategy to plan a paper
- Example
- Review of DAY 2



How to start?

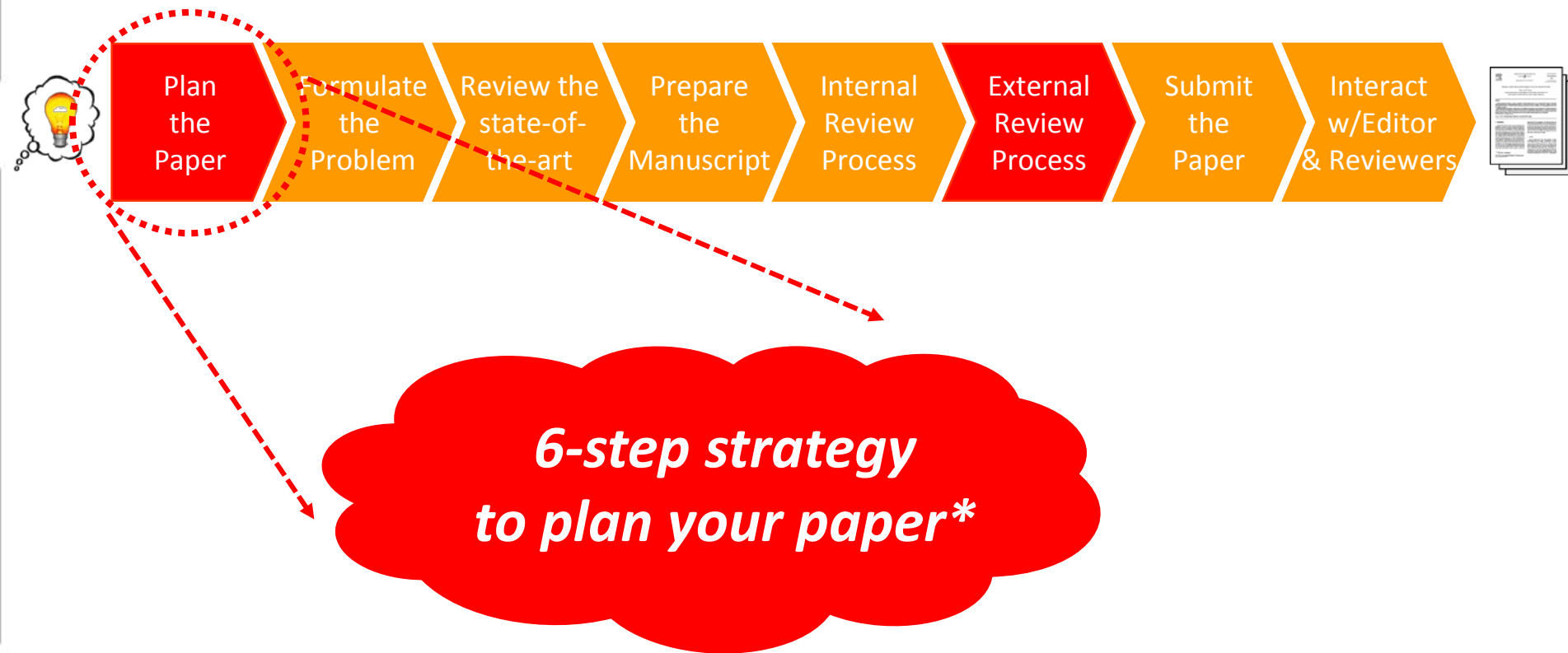
- We have already covered the **motivation for publication**, the **publication process** and **journal selection method**.
- We are now going to discuss an approach to kick off the **writing of your paper**.
- The recommendation is to use a **6-step strategy**, developed by NAP.Mineracao/USP research team.
- The resulting plan will be useful to guide the execution of the **paper preparation tasks** and to establish a **communication mechanism** between **authors and supervisors**.



ESCOLA POLITÉCNICA DA UNIVERSIDADE DE SÃO PAULO

PPMI 5932 – Scientific writing for research papers in oil, gas and mining

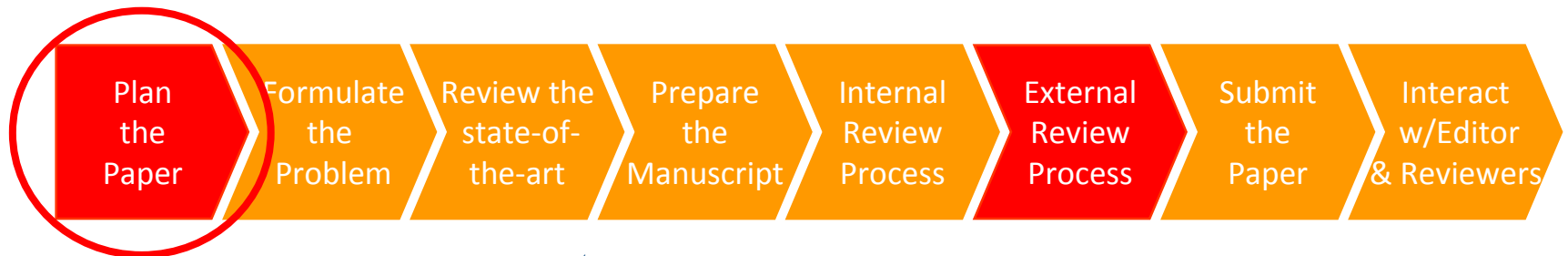
How to start?



(*) the 6-step strategy for planning research papers has been developed by the research team of NAP.Mineração/USP (www.usp.br/nap.mineracao)



6-step strategy



1. Pick a **TOPIC**

Choose a topic associated to the proble

2. Choose a **TITLE**

Define a short, robust title in English

3. Answer **WHAT?**

What is the innovation in the proposed solution

4. Answer **WHY?**

The proposed solution is relevant to the area of knowledge?

5. Answer **HOW?**

How was the proposed solution developed

and

6. Pick the **JOURNAL**

Now it makes sense to choose a journal....



ESCOLA POLITÉCNICA DA UNIVERSIDADE DE SÃO PAULO

PPMI 5932 – Scientific writing for research papers in oil, gas and mining

6-step strategy



TOPIC	Application of geophysical methods to assist mine planning in small-scale mining
TITLE	<i>Resistivity and induced polarization for geological modeling in limestone mining</i>
What?	<ul style="list-style-type: none">• One of the main challenges in mining is to manage mineral exploration costs• Traditional exploration methods (core drilling) is expensive and takes time• The application of geophysics may contribute towards more competitive exploration
Why?	<ul style="list-style-type: none">• Indirect methods such as geophysics can be employed in a quick and cheap fashion• The use of geophysics allows a rapid response to geological modelling• With a geophysics-based model, it is possible to optimize core drilling campaigns
How?	<ul style="list-style-type: none">• Study the geological setting and the mineralization type• Choose the appropriate geophysics methods for mineral exploration• Apply geophysics to build a preliminary geological model• Use the resulting model to plan additional core Drilling in an optimized fashion
Journal	<ul style="list-style-type: none">• Geofísica Internacional (Mexico)



2016



ESCOLA POLITÉCNICA DA UNIVERSIDADE DE SÃO PAULO

PPMI 5932 – Scientific writing for research papers in oil, gas and mining

6-step strategy



TOPIC	
TITLE	
What?	
Why?	
How?	
Journal	



ESCOLA POLITÉCNICA DA UNIVERSIDADE DE SÃO PAULO

PPMI 5932 – Scientific writing for research papers in oil, gas and mining

6-step strategy



TOPIC	Summary of the research topic for publication
TITLE	<i>Write a robust title that will allow you to “SELL” your article</i>
What?	<ul style="list-style-type: none">• What are the key-issues of the research?• What is the problem to be solved?• What is the innovation associated to your paper?
Why?	<ul style="list-style-type: none">• Justify the importance of the problem• Present a tangible perspective of the impact of the solution• Discuss the limitation of the other solutions available in the literature
How?	<ul style="list-style-type: none">• Explain the data (new data) that will be used in the research• Justify the importance of the proposed solution• Detail the expected results and benefits associated to the innovation
Journal	<ul style="list-style-type: none">• Check the Webqualis list and the requirements of your program• Read the editorial guidelines of the journal• Read recent articles (not only those within your topic)



ESCOLA POLITÉCNICA DA UNIVERSIDADE DE SÃO PAULO

PPMI 5932 – Scientific writing for research papers in oil, gas and mining

NEXT CLASS

- Use the 6-step strategy to plan your article
- Discuss your plan with the class
- Review and suggest improvements to a colleague's plan



ESCOLA POLITÉCNICA DA UNIVERSIDADE DE SÃO PAULO

PPMI 5932 – Scientific writing for research papers in oil, gas and mining

REVIEW OF DAY 2

- Overview of the publication process
- Your publications vs. your citations
- Impact factor of journals and CAPES' Webqualis
- The 6-step process to plan your article



ESCOLA POLITÉCNICA DA UNIVERSIDADE DE SÃO PAULO

PPMI 5932 – Scientific writing for research papers in oil, gas and mining

COURSE SCHEDULE

	03/out	04/out	05/out
13:00	01: Introduction	04: How to publish	07: Plan an article
	break 1	break 1	break 1
14:30	02: Why publish	05: Where to publish	08: Review the plan
	break 2	break 2	break 2
16:00	03: Practical aspects	06: How to start	09: Next steps
	close	close	close



ESCOLA POLITÉCNICA DA UNIVERSIDADE DE SÃO PAULO

PPMI 5932 – Scientific writing for research papers in oil, gas and mining

6-step strategy



TOPIC	Summary of the research topic for publication
TITLE	<i>Write a robust title that will allow you to “SELL” your article</i>
What?	<ul style="list-style-type: none">• What are the key-issues of the research?• What is the problem to be solved?• What is the innovation associated to your paper?
Why?	<ul style="list-style-type: none">• Justify the importance of the problem• Present a tangible perspective of the impact of the solution• Discuss the limitation of the other solutions available in the literature
How?	<ul style="list-style-type: none">• Explain the data (new data) that will be used in the research• Justify the importance of the proposed solution• Detail the expected results and benefits associated to the innovation
Journal	<ul style="list-style-type: none">• Check the Webqualis list and the requirements of your program• Read the editorial guidelines of the journal• Read recent articles (not only those within your topic)