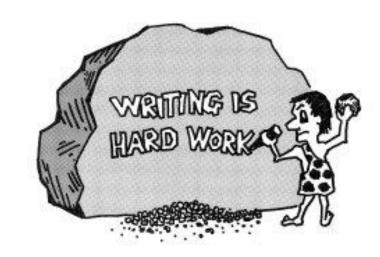


# Scientific writing & Publishing

**Hoang Thi Thu Duyen** 

Dept. of Climate change and Development





# TEACHING CONTENT AND EVALUATION

# TEACHING CONTENT

- Part 1: Scientific journals and articles (Concepts and Evaluations)
- Part 2: Do and Don't in scientific writing
- Part 3: Master's thesis structure and format
- Part 4: Introduce some research orientations for Master's thesis

# **EVALUATION**

- Attendance: 10%

- Mid-term exam: 30%

- Final exam: 60%

# - Part 1: Scientific journals and articles (Concepts and Evaluations)



# Q1. What are differences between two PAPERS you have in your hands?

- Format
- General Content

Q2. Which one is a Scientific Paper (Manuscript)?

A Novel Coronavirus from Patients with Pneumonia in China, 2019

Na Zhu, Ph.D., Dingyu Zhang, M.D., Wenling Wang, Ph.D., Xingwang Li, M.D., Bo Yang, M.S., Jingdong Song, Ph.D., Xiang Zhao, Ph.D., Baoying Huang, Ph.D., Weifeng Shi, Ph.D., Roujian Lu, M.D., Peihua Niu, Ph.D., Faxian Zhan, Ph.D., et al., for the China Novel Coronavirus Investigating and Research Team

Figures/Media

17 References 132 Citing Articles

Summary

In December 2019, a cluster of patients with pneumonia of unknown cause was linked to a seafood wholesale market in Wuhan, China. A previously unknown betacoronavirus was discovered through the use of unbiased sequencing in samples from patients with pneumonia. Human airway epithelial cells were used to isolate a novel coronavirus, named 2019-nCoV, which formed a clade within the subgenus sarbecovirus, Orthocoronavirinae subfamily. Different from both MERS-CoV and SARS-CoV, 2019-nCoV is the seventh member of the family of coronaviruses that infect humans. Enhanced surveillance and further investigation are ongoing. (Funded by the National Key Research and Development Program of China and the

February 20, 2020

N Engl J Med 2020; 382:727-733 DOI: 10.1056/NEJMoa2001017 Chinese Translation 中文翻译

**Related Articles** 

EDITORIAL FEB 20, 2020

Another Decade, Another Coronavirus

S. Perlman

(NEJM CareerCenter

DHYSICIAN IORS

# BBC Coronavirus alert: Over half a million Brits at risk of death amid COVID-19 spread

CORONAVIRUS could kill more than half a million Britons should the epidemic continue to spread across the UK, England's Chief Medical Officer Chris Whitty warned.

By AURORA BOSOTTI

PUBLISHED: 08:48, Wed, Mar 4, 2020 | UPDATED: 09:10, Wed, Mar 4, 2020

















# Q3. What is a scientific paper?

A written and published report describing original research results

# Q4. Who are the audiences?



The referees, who help the journal editor decide whether a paper is suitable for publication



Other scientists or readers.



# **Past**

- \* 1650 1950: 60.000 Journals (Price, 1961)
- \* 1966: Systematic peer review was first introduced by John Maddox
- \* 2004: 250.000 Journals/ of which 21.000 were refereed (Dalen and Klamer, 2005)
- \* Annual growth rate of publication: 3.25 % (Mabe 2003)
- \* 2000 ... → : Many "Open Access Journal"

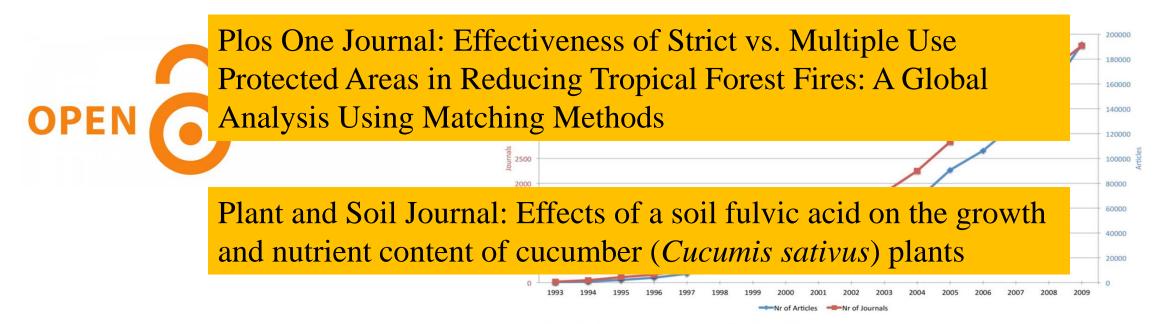


Figure 2. The development of open access publishing 1993–2009. doi:10.1371/journal.pone.0020961.g002

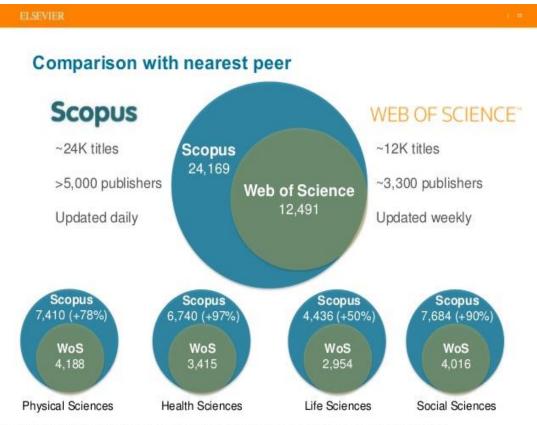


# ISI vs. Scopus

Web of Science (WOS), products from "Thomson Reuters Institute of Scientific Information" (ISI),

created by Eugene Garfield in 1960s

10,000 journals



Scopus, officially named SciVerse Scopus, has introduced by Elsevier

introduced by Elsevier in November 2004

20,500 peer-reviewed journals

1200 Open Access journals

Source: Web of Science Real Facts, Web of Science title list and Scopus' own data (April 2014)

- Rank journals in terms of:
- + their productivity
- + total citations received to indicate the journal impact





# ISI vs. Scopus

# WEB OF SCIENCE

1.If you use "Web of Science", you will be asked to login.

CSI

Science Citation Index

https://mjl.clarivate.com/home?PC=K

ISI database

https://mjl.clarivate.com/home?PC=H

Social Sciences Citation Index

https://mjl.clarivate.com/home?PC=D

SSCI

AHCI

Arts and Humanities Citation Index



# **Scopus Database**

https://www.scopus.com/sources.uri



- Q1. Use Scopus database to check CiteScore, CiteScore Trend, Quartile of These Journals
- 1) Remote Sensing of Environment
- 2) Geology
- 3) Soil Biology and Biochemistry
- 4) Social Philosophy and Policy
- Q2. Use ISI database to check CiteScore, CiteScore Trend, Quartile of These Journals

# ISI vs. Scopus

the most depth and the most quality

the biggest database with the wide range of records



# How to measure a scientific journal?

# **Citation**

# **Journal Impact Factor (IF)**

Journal Impact Factor 1

The 2010 IF of a journal is calculated as follows:

IF: is a measure of the frequency with which the average article in a journal has been cited in a particular year..

JIF2010= A/B

where

A = the number of times the that journal in 2008 and 200 in indexed journals during 2

Check IF of the below Journals:

- 1) Remote Sensing of Environment
- 2) Geology
- 3) Soil Biology and Biochemistry
- 4) Social Philosophy and Policy

B = the total number of "citable items" published by that journal in 2008 and 2009.

Calculation: Cites to recent items 231 = **8.556**Number of recent items 27



# How to measure a scientist?

# h-indexed score

based on the number of publications they have published and their citation rates

The h-index is calculated by counting the number of

Ex. What is H-index of this researcher?

Publication	Number of citation
1	33
2	30
3	20
4	15
5	7
6	6
7	5
8	4

Search ID: cgan281338	
She didn't want to go out with you	

She didn't want to go out with you even though you told her you had a h-index of 37
Boy I don't understand women!

Paper	Number of citations
Paper 1	101
Paper 2	86
Paper 3	77
Paper 4	56 <b>h</b> = 7
Paper 5	16
Paper 6	12
Paper 7	8
Paper 8	4
Paper 9	4
Paper 10	1



# Why international journal?

- International readership
- Natural law has no political borders
- There is no national science (but there are national interests)
- To make available own results for other scientists
- No published results = completely lost work, time & money

### For scientists themselves

- Natural law has no political borders
- To attract attention to own studies
- To get satisfaction from own work
- To finish the work

### On the next level

- To affect development of science according to own image.



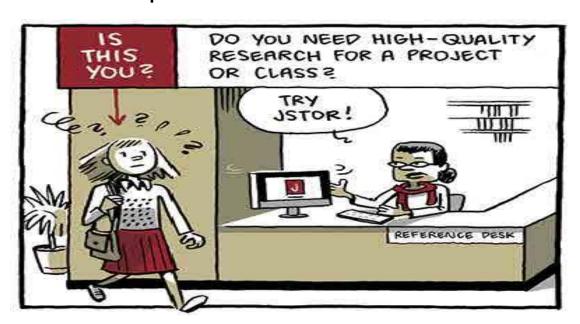
# Why Not To Publish in poor Journals?

- \* One material is allowed to publish once only!
- (- but is possible to publish various part of one study)
- \* Your paper will be read very seldom
- Low citations
- Low response to your work

# **Predatory open-access publishing**

Real journal	"Fake" journal
Journal of Economics and Finance (Springer)	Journal of Finance and Economics
Journal of Engineering Technology (American Society for Engineering Education)	GSTF Journal of Engineering Technology

- \* But is possible if:
- You look how to increase the level of the journal
- → good paper
- \* If other Journal(s) rejects your manuscript

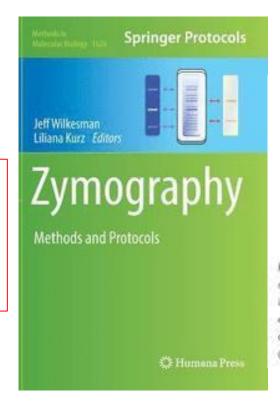




# **Options for Paper submission**

# Editor's invitation to write a paper

- Review
- Original paper
- \* Preparation of Original paper
- \* Participation in conferences
- → paper in a special issue
- \* Preparation of Short Communication



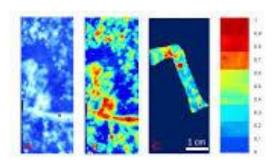


Fig. 5. An example of phosphatase activity [MUF-phosphate], A) initial zymogram of soil surface and biopore edges; B) zymogram of soil surface and biopore edges after image processing. C) zymogram of inside biopore after image processing. Side colormap is proportional to the calibration line of MUF substrate. Red color demonstrated high color intensity (high activity) and blue shows low color intensity (low activity). Asterisk (\*) shows another source of hotspots i.e. root.



- 1. Global Change Biology
- 2. Journal of Materials Science
- 3. Journal of Land Degradation & Development
- 4. Journal of Economics and Finance
- 5. Journal of Plant Nutrition

# Manuscripts

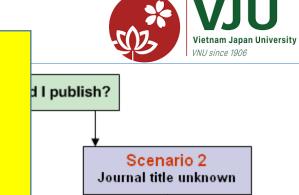
Effect of Silicon on Plant Growth and Mineral Nutrition of Maize Grown
Under Water-Stress Conditions

- Soil aggregates as biogeochemical reactors and implications for soil—atmosphere exchange of greenhouse gases—A concept

Remittances and economic growth in Africa, Asia, and Latin American-Caribbean countries: a panel unit root and panel cointegration analysis

**Evaluating the potential of Bayesian networks for desertification assessment in arid areas of Iran** 

A facile route to synthesize boron-doped g-C<sub>3</sub>N<sub>4</sub> nanosheets with enhanced visible-light photocatalytic activity



Identify list of journals



# Prerequisites for international publications

# Scientific

- New results
- Use of the modern methods and standards
- Good knowledge of international literature to the research topic

# **Formal**

- Precise structure of the paper
- Follow ALL requirements of the Journal
- Figures (and Table) of good quality
- Flawless English language

# Non-Formal

Good nerves

# **Paper Publication Process**



- · Identify the original work
- Record the data either in graphs or tables
- Write the paper as per journal or conference formatting
- Use good quality images
- Upload the paper in the portal of journal/conference
- 2-3 persons review the work.
- · Feedback needs to be considered and applied.
- Depending on the feedback by the reviewer the paper is rejected, asked to be revised or accepted

### Reject

the paper Final Checks of quality.

Placed in the queue for publication

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# Thank You

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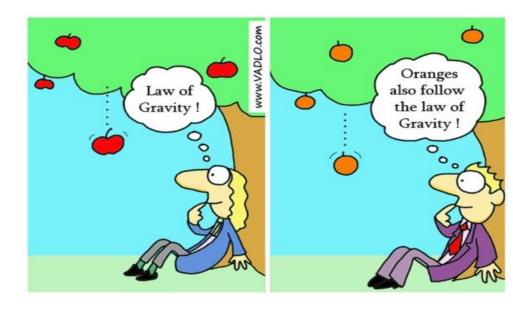


# Results' preparation:

Use all of your brain to develop the topic

- Objectives
- Main hypotheses
- Collect all results
- Present All possible results as graphs/figures
- Left only the BEST
   Choose only that focused on the objective and confirming/rejecting hypotheses (3-6 figures)
- Make the results easy to understand for the non-professionals

- Make a story



High impact factor

Low impact factor

- Write ALL results as ONE sentence – central message → This is the title



