


The Art of Scientific Writing and Publishing

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Overview

- Introduction
- Writing
- Publishing
- Marketing

Writing exercise*

1. Writing a summary
2. Discussing the summary
3. Taking in feedback
4. Exchanging information
5. Introducing your neighbour



*developed by Dr. C. Struijke

1. Writing a summary

- Take 10 minutes to write about your research (summary).
- Aim to write it such that it is clear to an educated lay person.



2. Discussing the summary

- Pass what you have written to your neighbour (preferable someone who is not from your department).
- Read your neighbour's research description.
- Give your neighbour feedback on the text.
- Are there any sentences or words that are unclear.
- Is your neighbour's text clear? Ask him/her clarifying questions so that you better understand the description.
- Is there any information you are missing?



3. Taking in feedback

- Take a minute to write down what you can take away from your neighbour's feedback. What should you keep in mind when you write? These notes can form the basis of your personal writing checklist.



4. Exchanging information

- Exchange information that you would like to give/know so that you can introduce each other to the group.



5. Introducing your neighbour

- Introduce your neighbour to the group.
- Keep in mind that there will be group members from different fields of study.



Tip!

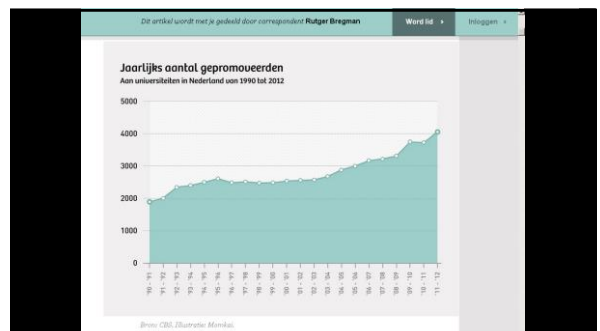
“Make the writing clear, simple, and concise; do not confuse people.”

Patterson-Hazley & Kiewra (2013)

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BSc → MSc → **PhD** → DSc, habilitation



Assignment

What factors influence productivity?

1. Generate success and failure factors (individually)
2. Rate factors: 1=unimportant to 5=very important (individually)
3. Select the Top 3 (individually)
4. Discuss factor lists in group and select Group Top 3 (triads)
5. Identify factor clusters (triads)



Assignment FEEDBACK

Type of attribution	Total attribution units	Number of authors that made the attribution
Collaboration	18	7
Curiosity/passion	11	8
Research skills	12	7
Time management	11	5

Note: Results based on 13 experts (Mayrath, 2008)

Primary category	Sub-categories
Collaboration	<ol style="list-style-type: none"> 1. Mentoring received 2. Mentoring given 3. Collaboration with colleagues 4. Collaboration as feedback in the writing process.
Passion/curiosity	<ol style="list-style-type: none"> 1. Passion for their work 2. Curiosity including skepticism
Research skills	<ol style="list-style-type: none"> 1. Focused research 2. Knowing the literature 3. Writing skills 4. Research management
Time management	<ol style="list-style-type: none"> 1. Elimination of distractions 2. Scheduled time to write 3. Social deadlines

Career advice
 Work at a major university with good colleagues, students, and resources.
 Align yourself with influential and productive people.
 Cut research teeth investigating familiar topics; later cut new paths investigating innovative topics.
 Develop a research program based on assembling, applying, or extending ideas.
 Self-regulate: set goals, choose effective strategies, and monitor performance.
 Work hard over a long career.

Time management advice
 Live every day as if it were your last.
 Preserve and protect your most productive times daily for research and writing.
 Take advantage of small pockets of time throughout the day and in the evenings.
 Do not just focus on publications; be a complete scholar.
 Maintain balance; make time for leisure and exercise.

Writing advice
 Self-regulate: set goals, plan, and evaluate.
 Suspend judgment when writing initial draft; let the ideas flow.
 Write for a common audience, not other experts.
 Begin with a metaphor or framework to gain interest and provide structure.
 Make the writing clear, simple, and concise; do not confuse people.
 Revise a lot.

Collaboration advice
 Collaborate with colleagues and students; collaboration divides labor and improves quality.
 Help students carve out independent research programs.
 Meet regularly with students regarding team and independent projects.
 Model effective research, writing, and self-regulation techniques.

Career advice
 Work at a university with supportive administrators
 Recruit motivated graduate students
 Carve a well-defined research agenda, but do not be afraid to explore new domains
 Find a mentor who can help guide you early in your career
 Be prepared to make sacrifices


Time-management advice
 Work hard for many years
 Be prepared to work long hours
 Arrange your schedule around your natural body rhythm
 Take advantage of time between scheduled tasks

Research-management advice
 Collaborate frequently with students and colleagues
 Maintain multiple ongoing studies
 Revise frequently
 Embrace feedback from reviewers and peers
 Maintain accountability within your research group

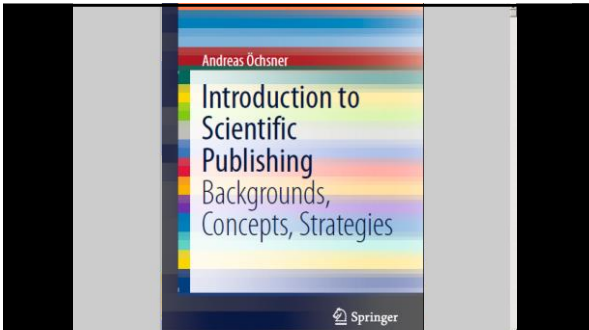
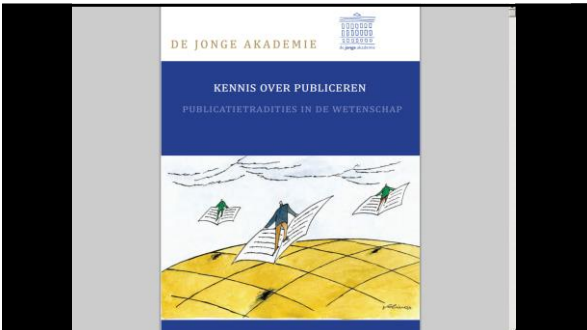
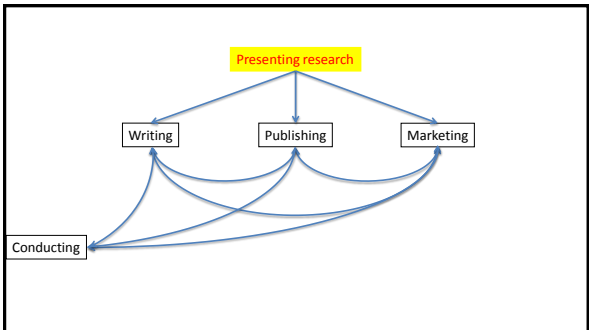
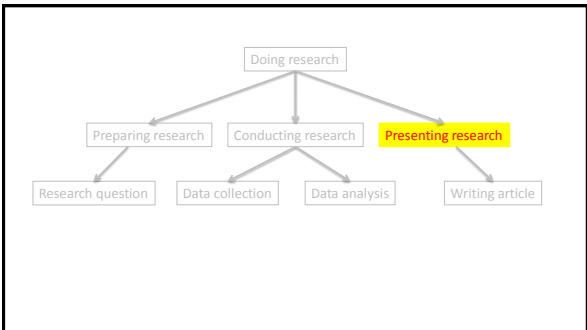
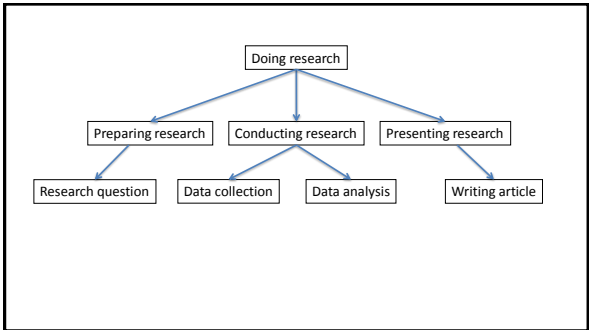
Question. 'Your writing statistics'

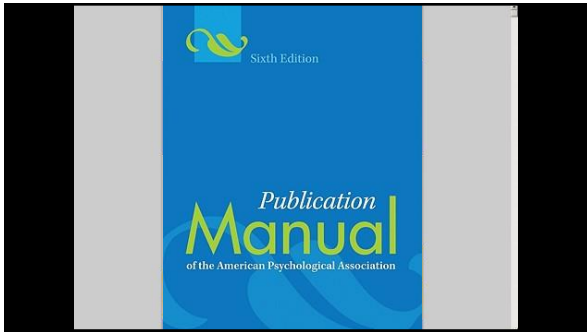
How many hours a week do you write 'scientifically' on average?

1. 0 – 4 h
2. 4 – 8 h (towards a day per week)
3. > 8 h

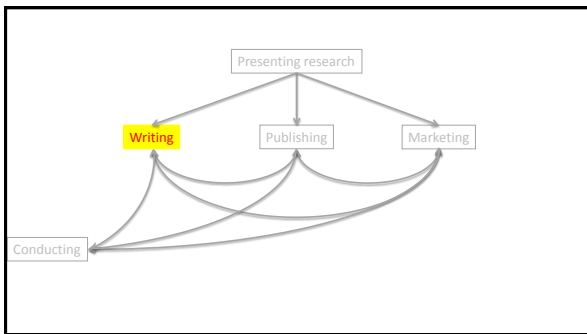


Tip!
 “Be prepared to make long hours.”
 “Arrange your schedule around your natural body rhythm”
 Flanigan et al.(2018)





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- ### Writing MARKETING
- Title
 - Abstract
 - Keywords

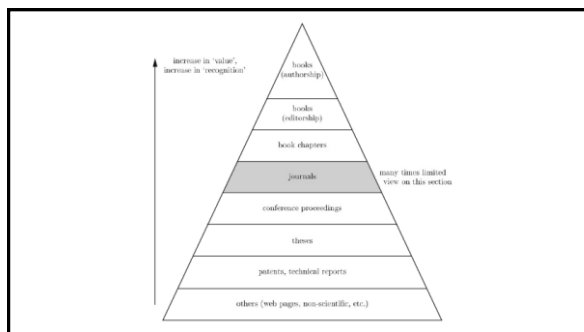
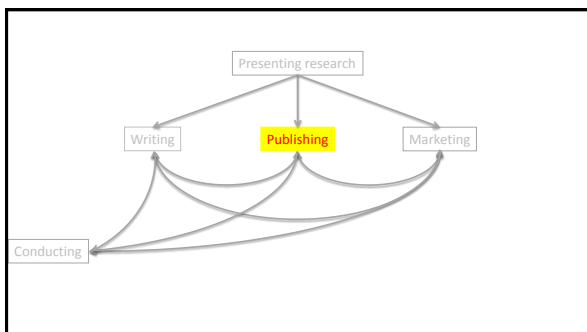


Tip!

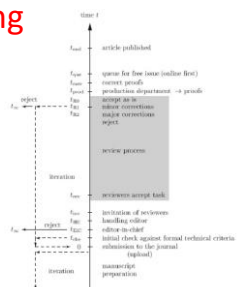
“Write your abstract first, as it includes the main message of your work”

Overview

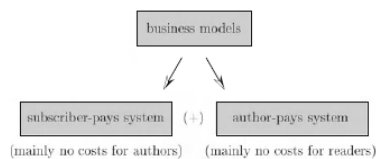
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Publishing



Publishing MODELS



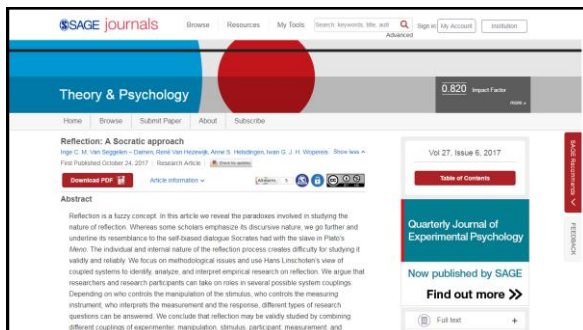


Table 6.14 Evaluation methodology for major international university rankings

Ranking	Performance indicators	Weight (%)
Times Higher Education	Teaching—the learning environment	30
	Research—volume, income and reputation	30
	Citations—research influenced (i. in WoS)	30
	International outlook—staff, students, research	7.5
	Industry income—innovation	2.5
QS	Academic reputation (global survey)	40
	Citations per faculty (j. in SCOPUS)	20
	Faculty student ratio	20
	Employer reputation (global survey)	10
	Proportion of international students	5
Shanghai Jiao Tong	Proportion of international faculty	5
	Quality of faculty	20
	staff with Nobel prizes and fields medals	20
	Highly cited researchers	20
	research output	20
Papers in Science and Social Sciences Citation Index Expanded (SCIE) and Social Sciences Citation Index (SSCI)	Papers in SCIE and SSCI	20
	Quality of research	20
	alumni with Nobel prizes and fields medals	10
	per capita performance	10
	per capita academic performance	10

The listed criteria is based on the 2012 rankings

Publishing IMPACT – METRICS

- Views
- Citation count
 - Scientific journals
 - Books, reports
 - Alternative sources (e.g., social media) – altmetrics)
- H-index (Hirsch-index)

Paul A. Kirschner
 Distinguished University Professor (Educational Psychology) | Open University of the Netherlands
 Geveerdienst e-matrices voor ouw | 1822222222
 Instructional Design | Educational Psychology | Educational Technology | Computer-Supported Colla.

TITEL	GEDETEREERD DOOR	JAAR
Why minimal guidance during instruction does not work: An analysis of the failure of constructivist, discovery, problem-based, experiential, and inquiry-based teaching	5405	2006
Identifying the pitfalls for social interaction in computer-supported collaborative learning environments: a review of the research	1401	2003
Facebook® and academic performance	1191	2010
Taking the load off a learner's mind: Instructional design for complex learning	926	2003
Ten steps to complex learning: A systematic approach to four-component instructional design	804	2017
Cognitive load theory: Implications of cognitive load theory on the design of learning	763	2002

Geïcendeerd door ALLES VERGEEVEN

ALLES VERGEEVEN	2013
Citates	26204
Index	23
H-index	209
10-index	168

Mede-auteurs: ALLES VERGEEVEN

- James J. G. van Merriënboer
- Leifvicki Kester
- Geert Peeters

Assignment

- What are Paul's most cited articles in Google Scholar and Web of Science?
- Are there striking differences regarding these metrics?

Publishing IMPACT – METRICS – 1

- H-index (Hirsch-index)

H-index is the largest number h such that h publications have at least h citations

Assignment

- Calculate the following h-indexes

**Publishing** IMPACT – METRICS – 2

- Impact factor (IF)

$$IF_{\text{year 3}} = \frac{\text{number of citations (source and non-source items)}_{\text{year 1 and 2}}}{\text{total number of source items published}_{\text{year 1 and 2}}}$$

Assignment

- What are the impact factor's of the top journals Paul published in.
- What is the impact factor of the journal that is top ranked in your domain?

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Marketing

- Be good
- Be productive
- Be accessible
- Be present

Marketing

- Be good
- Be productive
- Be accessible
- Be present

Marketing ACCESSIBLE

- Publish open access (if possible)
- Store your work in repositories of your university (DSpace / PURE)

Marketing PRESENCE

- See 'accessible'
- Social Network Sites (in Academia)
 - ResearchGate
 - Academia
 - Mendeley
 - LinkedIn
- Profiles (e.g., in Google Scholar, Mendeley)

Tip!

“Use Web 2.0 for communicating and disseminating your work”

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Questions...

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