

Reviews in Computational Biology

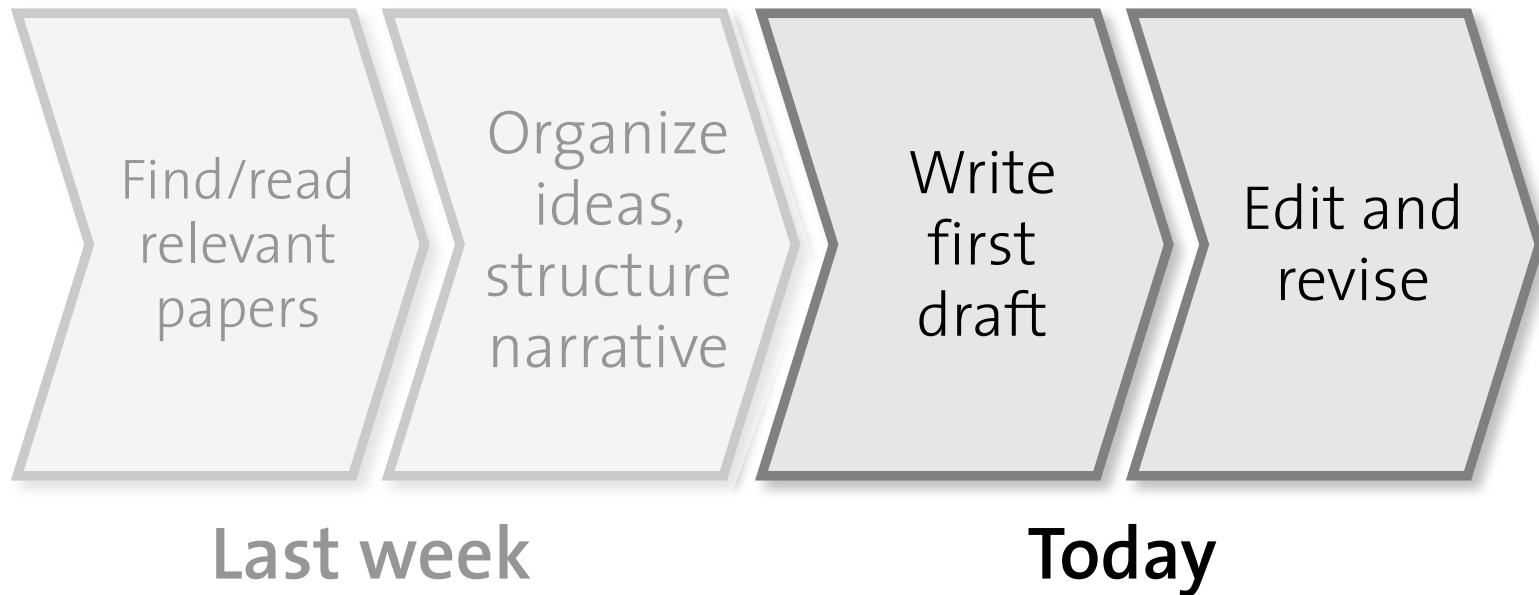
2. Review Writing



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January 2012

The Writing Process





Write first draft

Know your reader

- **What can the reader be assumed to know?**
 - Read the journal editorial policy
 - Read similar articles published there
 - Err on side of caution, but avoid condescending or educational tone
- **For this course, assume that your reader is a student of the CCBI Master's programme.**
 - But keep a formal tone

The Title

- Signals the field and scope
- Includes your main point
- Arouses interest of the readers

The Abstract

- **Introduces field in 1-2 sentence(s)**
- **Motivates your review**
- **Announces important points**
(reformulates subheadings and main point)
- **Includes relevant keywords** (for indexing)

The Introduction

- **Set the context from general to specific**
 - Show that the research area is important/interesting/relevant.
- **Establish a niche**
 - Show need for your work (the review)
- **Occupy the niche**
 - Announce your main point
 - Indicate structure of article

The Main Body

- **Use subheadings for each section**
 - One sentence summary/conclusion
 - Helps non-linear reading
- **If appropriate, use a figures and/or tables**
 - Review figs are often schema/cartoons
 - Use caption to make them self-descriptive

The Conclusion

- **Specific → general**
 - Mini summary
 - Broader implications, future directions

Drafting: outline

Introduction

Identity of research:

This report will discuss using solid particles as the heat transfer medium in a solar central receiver. Requirements for such a heat transfer medium include

- (1) Heat transfer medium must withstand temperatures up to 800°C
- (2) Convective losses from medium must not be too high (define "too high")
- (3) What else?

Reasons that research is important:

- (1) Diversifies solar energy applications by obtaining higher temperatures than those obtainable from current designs
- (2) Allows for high-temperature experiments and modeling

Background material (heat transfer media):

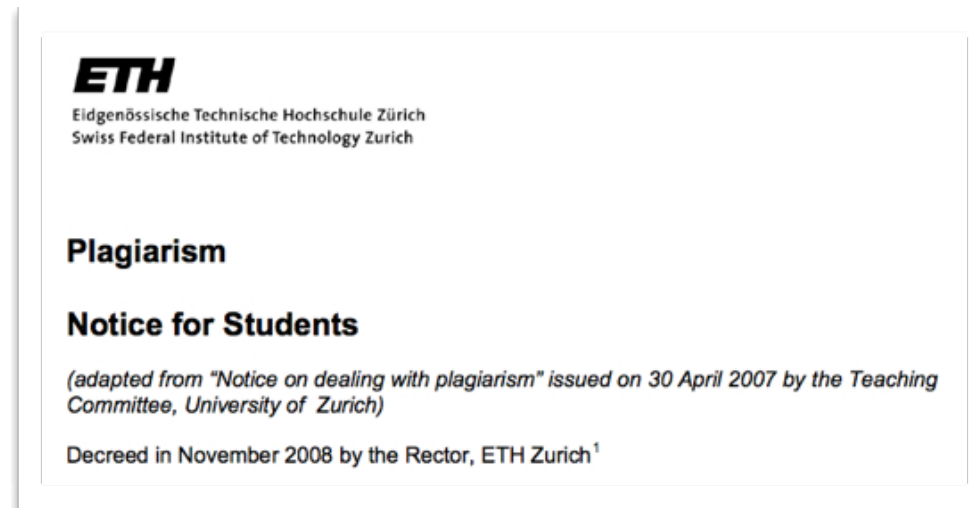
- (1) *Water/steam*. Advantages: utilities familiar with; test data available. Disadvantages: not efficient enough; difficult to control in two-phase flow.
- (2) *Molten Salt*. Advantages: relatively high heat capacity; high storage capacity; single-phase fluid. Disadvantages: freezing in pipes; corrosive nature.

Drafting (con't)

- **Keep in mind that every claim needs to be backed by some evidence (in reviews, typically a reference)**
 - Either report the findings only
 - or paraphrase their approach and findings
 - or use quotations (do not distort context)
- **Best way to start writing is to start writing**

Beware of Plagiarism!

- If you include exact wording, use quotation marks and reference
- If you paraphrase, use a reference only



(Full text linked from course homepage)

WETTER: Zürich 4°



«Outdoor»: Der Sportmarkt ignoriert Menschen ab 50. Schön blöd.



«Sweet Home on Sunday»

«Mamahlo» · Ein Märchen



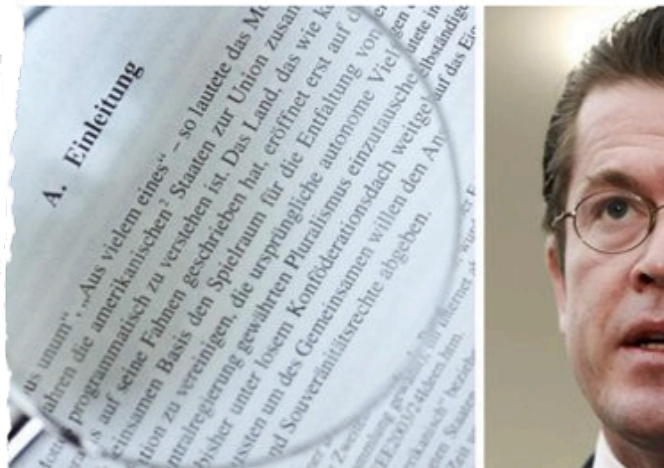
ZÜRICH SCHWEIZ AUSLAND WIRTSCHAFT BÖHMEN

NEWS OPINION ENVIRONMENT SPORT LIFE & STYLE ARTS & ENTS TRAVEL MO

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Hot Topics Lobbying Europe North Korea Phone Hacking

Kantone starten Technologie-Offensive gegen Plagiate



Der Plagiatsvorwurf an Gutenberg bringt Schweizer Bildungsbehörden zum Handeln: Zehn Kantone ergreifen konkrete Massnahmen gegen Schummelschüler – mit Hilfe von modernster Technik. Mehr.

News

Plagiarism case professor hanged himself

MATTHEW COOPER | TUESDAY 10 NOVEMBER 1998

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Latest in News

Up to 25 killed in Damascus blast, says Syria

David Cameron targets patient care improvement

Rebekah Brooks' former PA arrested by phone hack police

From Afghanistan to the ambulance: the warzone drug that will save hundreds of lives

Independent Appeal: Working with terminally ill children is Lucy's dream job – but it takes its toll

A DEPRESSED university professor hanged himself in front of his girlfriend after being sacked for plagiarising a student's work, an inquest heard yesterday.

Birmingham Coroner's Court heard Ian Connell "walked into" a makeshift noose at his home after telling his partner: "I've got something to show you."

He died almost immediately.

The academic felt he had been "left high and dry" after losing his position at Wolverhampton University, his long-term partner said.

Suzanne Orsler told how Dr Connell, 49, hanged himself with a

Suggested Top

Wolverhampton

University Of The Arts London

Higher Education

Unemployment



Edit and revise

Improve Flow

- **Start each paragraph with a topic sentence**
It signals paragraph content to the reader
- **Improve cohesion**
Connect sentences through conjunctions, parallel structures, repeated keywords, pronouns, “old-new” pattern, etc.
- **Remove unneeded/redundant words**

Final checks

- **Spelling:** use automated spell-checker (e.g. ispell) *and* proofread your text carefully.
- **Verify one more time**
 - that references are accurate and complete
 - that each claim backed by citation
 - that your narrative is coherent
 - that the article meets editorial policy (in particular length requirements)
- **Ask a colleague for feedback on draft** (thank for his/her help in Acknowledgement section)

Resources

Joseph M Williams, “Style”, 1990

Diana Ridley, “The Literature Review”, 2008

Rowena Murray “Writing for Academic Journals”, 2004

Cargill and O'Connor, “Writing Scientific Research Articles: Strategy and Steps”, 2009

Scott Montgomery, “The Chicago Guide to Communicating Science”, 2002

Michael Alley, “The Craft of Scientific Writing”, 1996