Last week's task: How did it go?

-- Fill comments here --

What is the situation of your paper?
- finished
- almost finished
- still under writing
- missing several pages
- only half written
- just started
- not yet started

Final check of your paper:
- Abstract
- ACM classification
- Table of content: page numbers
- Reference list layout
- Citations: for references, no reference without citation
- Language: spell check
- Final read through (if corrections, read again)

Practise steps towards MSc thesis

Step 1: Scientific writing
writing with support of small team and TA
Steps 2 & 3: seminars
Using and improving writing
Oral presentation
Final step: MSc thesis
Individual work about unique topic
Discussion support from supervisor
One (or two) draft feedback

Seminars

- Two themes:
  - Written scientific communication
  - Oral scientific communication
### Seminar structure

- **Oral presentation**
  - 2. period
  - 45 min each
  - transparencies

- **Written presentation**
  - 1. period
  - 10-15 pages
  - Based on articles

- **Study Diary**
  - conclusion, feedback
  - grading suggestion
  - "What did I learn?"

### What happens in a seminar

**Step 1: Written report**
- similar to the one in Scientific Writing course
- submission deadline given by the leader

**Step 2: Oral presentation**
- presenting the paper content to participants
- duration given by the leader (1/2 – 2 hours)

**Step 3: Opponent for the presentation**
- task to make questions about the presentation
- can be before own presentation

### Seminar Grading

- Active participation during the meetings
  - comments, questions, etc
- Presentation (obligatory)
- Grading based on
  - Written presentation
  - Oral presentation
  - Participation in the discussions
  - Study diary / paper reviewing / ...

### Teaching goals of a seminar

- The development of communication skills
- The development of intellectual and professional competence
- The personal growth of students (and the tutor)

source: Brown & Atkins: Effective teaching on Higher Education

### Goals (continue)

- Improving the presentation skills
  - practice written and oral presentations
- Study new subject
  - get an overview of the current trends
  - learn some part in more details
- Learn the research methods used in that specific field

### Some types of thinking

- Analyzing
- Logical reasoning
- Evaluating evidence or data
- Appraising and judging perceptively
- Thinking critically
- Synthesizing
- Speculating creatively
- Designing
- Arguing rationally
- Transferring skills to new contexts

- Problem-solving
What skills should the MSc thesis show?

- Ability to manage a large theme systematically, with a defined goal and valuation scheme in mind
- Independent work
- Research steps
  - Learning of the topic (search of information, critical reading)
  - Formation of a research question (single line focus)
  - Solution construction and evaluation
- Coherent and complete written report (precise scientific argumentation and ease of understanding)

What types of MSc theses there are?

- **Surveys**
  - Collection and critical evaluation of related works
- **Explorations**
  - Empirical approach, evaluation, construction of recommendations
- **Designs**
  - Small survey of related domains, combination of the findings to a design of a system, potentially construction, evaluation of the design

Always base your knowledge on articles published on scientific forums

Scientific publications after graduation

- Journal articles
- Conference or workshop papers
- (Technical reports)

- PhD studies require some number of scientific publications to be done during the studies
- These will form the core of the thesis

Publication process

- Different publishing schedules
  - Journal articles: several years from a manuscript to a published version
  - Conference or workshop articles: from few months to a year
- Different peer-reviewing processes
  - Level of refereeing (confidence on evaluation)
  - Journal, conference and workshop articles: reviewed by several objective referees
  - Technical reports and manuscripts: no peer review
  - At best, valuable feedback for authors

Publication forum

- Intended publication forum may influence the contents and form of the text
  - Length of the text
  - Layout and structure of the text
  - Approach perspective to be taken: theoretical or practical
- Authors should also take into account
  - the readers of the forum and their background knowledge
  - relevant work published on the same forum

Questions and feedback session

- Now is your last chance to get answers to any unclear issues!
- Feedback: How to improve the course
- Remember to fill the feedback form for this course and all other courses as well – For every course during your studies!
Internship 2014

(Use career services offered by Univ.)

- Your own responsibility – not organised by dept
- HIT&dept offer some positions – application-based
- Companies announce positions, but accept open applications also
  - Helsingin sanomat (may be)
  - oikotie.fi
  - via personal connections
  - tkо-аly mailing list
  - bulletin board at department

General information

- guidetoworkinginfinland.fi
- www.tek.fi
  (Harjoittelupalkkasuositukset)

Unemployment funding requires voluntary membership in union or unemployment cash

Course exams and separate exams

Examination sessions:
- start sharp at the hour
- no bags near your
- turn of your mobile phone and put it in bag

You may have with you:
- pencils and rubber (and/or pens)
- small amount of snacks
- ID card (student ID is not official, but might be accepted)

Preparation for exam

- Do the weekly exercises and relate them to the study goals of the course
- Understand the course content, both details and the ‘big picture’ – memorising is not enough for a master’s
- Study the slides and the exercise questions
- Read and learn the book (but not just memorizing!)
- When available look at the older exams

Answering

- Not just overview, but justifications and reasoning also
- Offer questions require applying the knowledge, not just repeating
- Most courses: exercises give hints on the key points on the course
- A single right answer might not give you full points, if you have not explained how you reached the answer

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Finnish Winter is coming

October: A lot of rain, first snowstorms, no snow cover, but can be icy
November: Very short days and cloud cover, a lot of rain or snow, or wet snow, or… usually in Helsinki no snow cover
December: Very, very short days, snow or wet snow, snow cover in Finland, might be also in Helsinki/Espos
January: Days slightly longer, snow cover in Helsinki also. Gulf of Finland ice covered
February: Nice winter days, sun shine and blue sky, maybe skating above sea
March: Nice winter days. The snow starts melting
April: Days longer than night, Snow melts, still some snowstorms
May: Long days, no snow, green trees and grass

Oral presentation

- Prepare
- Clear goal and message
- Not everything in the paper to the presentation
- Focus on key points
- Make transparencies or some other visual support

Oral presentation: Transparencies

- key words, no sentences, mistakes
- Figures, pictures
- Tables, lists
- Numbers (used in the presentation)

Examples

- Do not overfill one page

Font size

- 32 points: automatically offered by PowerPoint
- 28 points
- 24 points: smallest useable in Auditorium
- 20 points
- 18 points: smallest useable in any presentation (occasionally too small)
- 16 points
- 14 points
- 12 points: Normal size in written papers
- 10 points: A bit small even for printed reports

Slide layout

- Please, try to avoid full written sentences. They make the work for the audience very difficult. There is no time to follow the speech, because all the time and concentration goes to reading the slide.
- This becomes even worse, if the presentation is directly read from the transparencies. There is no point in listening anymore. Also, the presenter eagerly uses very complex sentences that try to cover in one extremely long sentence most of the material without losing any details and facts.

Example: Portable and handheld devices in a distributed system

- Devices
  - Mobile phone
  - Laptop
  - Camera
- Connection points
  - WAP
  - WLAN
  - USB
- Intranet, Internet

How to clarify?

Figure!
Oral presentation: speech

- Based on the transparencies
- Each item on the transparencies covered
- Nothing else is handled (except shortly)
- Other notes
  - to remember facts, extensions
  - presentation hints
- Use short sentences

Oral presentation: voice

- Clarity and strength
- avoid sitting
- speak to the furthest person
- Voice makes the structure
- Stressing
  - importance
  - new theme
- Pauses
  - new theme

Oral presentation: Other things

- Computer, transparencies, blackboard
- Notice the audience
- Movements
- Hands

Practice, practice,

NEVER write down the whole oral presentation
- If uncertain, speak (and time) the whole presentation on your own or for a small audience

One last time:

Examples of probing questions

- Does that always apply?
- How is that relevant?
- Can you give me an example?
- Is there an alternative viewpoint?
- How reliable is the evidence?
- How accurate is your description?
- You say it is x, which particular kind of x?
- What's the underlying principle then?
- In what situation would this rule break down?
- What distinguishes the two cases?