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Conceptual-practical training

- Aim
  - Develop a first version of a complete sequence of instruction for Assignment 1
- Literature
  - Textbook chapter 2

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Courses versus supervision

- Instruction during training courses

Transfer of learning

www.megabyte.net

- Supervision
  at the workplace

techcallforhelp.com

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Conditions for learning

Courses

- Contents
  - Presentations of concepts and principles
  - Hands on training
- Course conditions
  - Determined by course leader
  - Classroom
  - Classmates and teacher
- **Transfer of competence from school to work**
- Work conditions
  - Determined by task
  - Workplace
  - Colleagues and superiors/subordinates

Transfer doesn't happen easily
→ **Make courses similar to work** How?

Supervision

- Contents
  - Solving the problem
- Conditions
  - Determined by user
  - Workplace

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Organising training

- Timing
  - When the system can be used immediately after the course
  - Because
    - Forgetting half of what's learnt in one month
    - Waiting is demotivating
- Selection of learners
  - Participants at the same level of computer literacy
  - Because
    - Too advanced – learners do not understand
    - Too simple – learners get bored or disturb others
- Location
  - Where you don't get disturbed
  - Where people can't run away to their daily activities
  - Where there are no mobile phones

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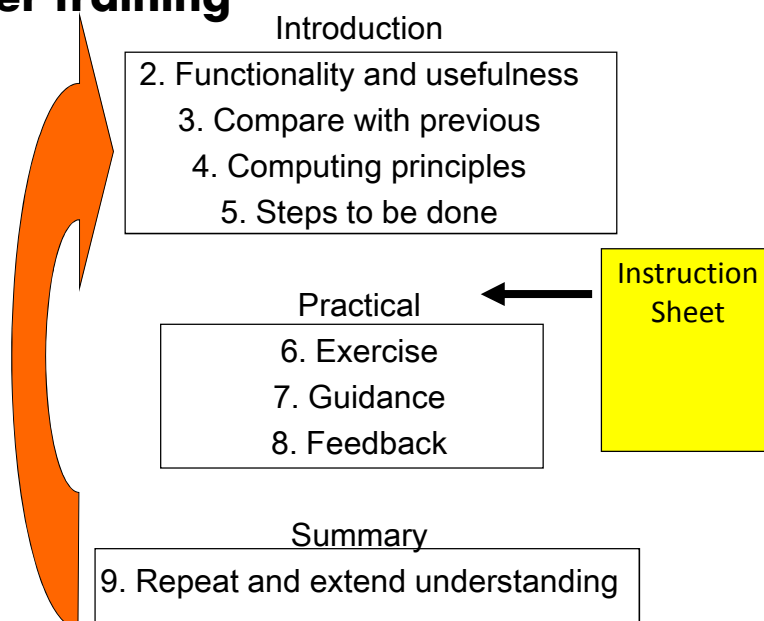Jens Kaasbøll, Department of Informatics, University of Oslo

Sequence of instruction

1. Gain attention
2. Inform the student of the goal
   – What are they supposed to be able to do after the session
3. Stimulate recall of prior relevant knowledge
   • Bringing attention to what the session builds on
4. Present material
   – Lecture concepts and principles
5. Provide guidance for learning
   – State problems to be solved
6. Trigger performance
   – Get the students to carry out a task very similar to what the lecturer has presented
7. Provide feedback
   – Positive, immediate and informative
8. Assess performance
   – Observe, ask questions
9. Enhance retention and transfer
   – Review

Gagné-Briggs model

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IT user training

Introduction
2. Functionality and usefulness
3. Compare with previous
4. Computing principles
5. Steps to be done

Practical
6. Exercise
7. Guidance
8. Feedback

Instruction Sheet

Summary
9. Repeat and extend understanding

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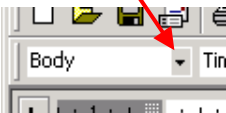
Introduction
No "follow me at the projector"

2. Inform the learner of the objective
   – Explain the functionality
   – Explain the usefulness
3. Stimulate recall of relevant competence
   – Compare new IT functionality with previous
   – Compare IT functionality with experience outside IT
4. Present IT principles
   – Explain how data is stored and processed
5. Provide guidance to the learner
   – Present steps with obervable results
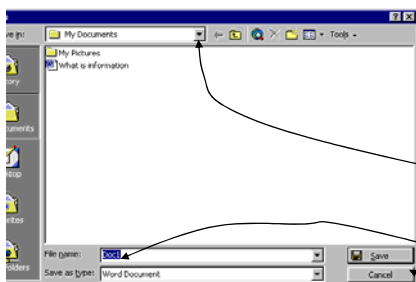
Visualisations

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An instruction sheet

| Phase	Why	Interaction
Applying style		Highlight the paragraphs(s) Click the down-arrow in the style menu Move mouse and click the style to apply
Modifying style		Click Format Click Style … A new window appears Click the Modify … button A new window appears Click the Format ? button Click the property of the format to change, eg, the Font Change the font Click OK Click OK Click Apply

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An instruction sheet for novices

- Save and open
- Aim
  - Finding data next time you use a program
- Rationale
  - The computer stores data in named files in folders. In order to open a file that you have been using before, you have give it a name the first time you save it and remember which folder you save it in.
- Operations
1 Saving. Before quitting a program:
  1.1 Click the 🖫 button. **Why?**
  1.2 Click the down-arrow in the "Save in" box. **Why?**
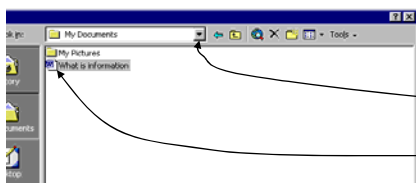
  1.3 Type the name you will give the file in the "File name:" box. **Why?**
  1.4 Click the "Save" button **Why?**

2 Opening. The next time you have opened the

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Practical

- Hand out the instruction sheet after the introduction
6. Elicit performance
   - Learners develop skills through exercising
     - Introductory
       - One participant per computer
     - Advanced
       - Two participants working in pair in front of a computer
7. Provide feedback
   - Guide learners in need
   - Confirm correct results
8. Assess performance
   - Observe learners' progress
   - Ask learners about their results

Simultaneously

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Summary

9. Enhance retention and transfer

- Additional details of the interaction
- Issues of understanding
    - Reminding of steps (5) with visualisation
    - Reminding of IT principles (4) with visualisation
    - Responding to questions from participants
- Relating the task to the participants' work
    - How can computer functionality be utilised?
    - How can work routines be adjusted?

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In which ways do **Conceptual-practical training** enable transfer?

Assignment 1
Make an initial choice of a topic to teach.
Design a full session of teaching for this topic.

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