

# Paper presentation

Frans van Gassel



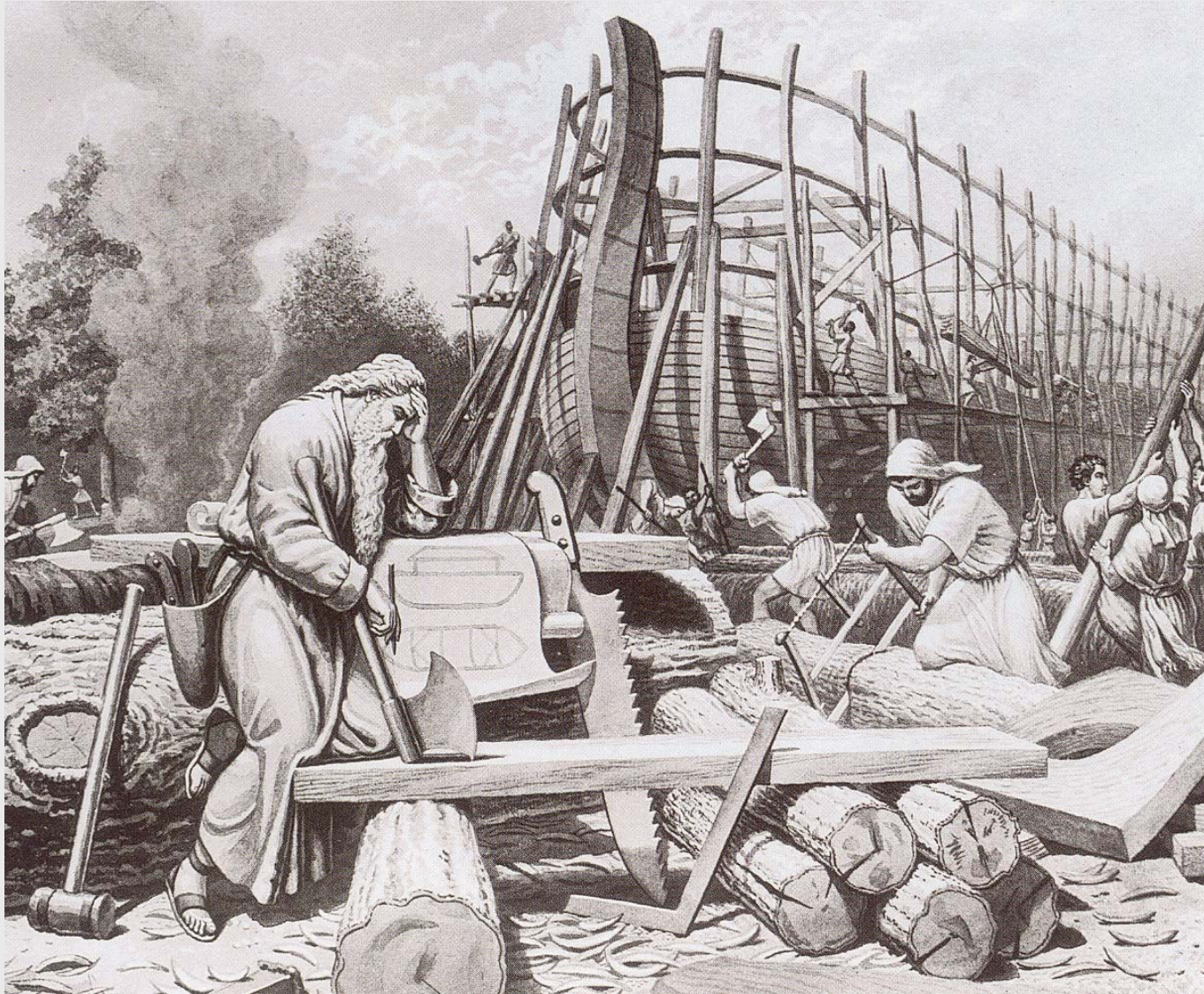
## ISARC2004 Korea

# **Experiences with a course on collaborative design on distance.**

## **Outline presentation:**

- Design.
- Collaborative design.
- Collaborative design on distance.
- Competences to design in a team and on distance.
- Course “Collaborative Design TU/e”.
- Evaluation.
- Conclusions.





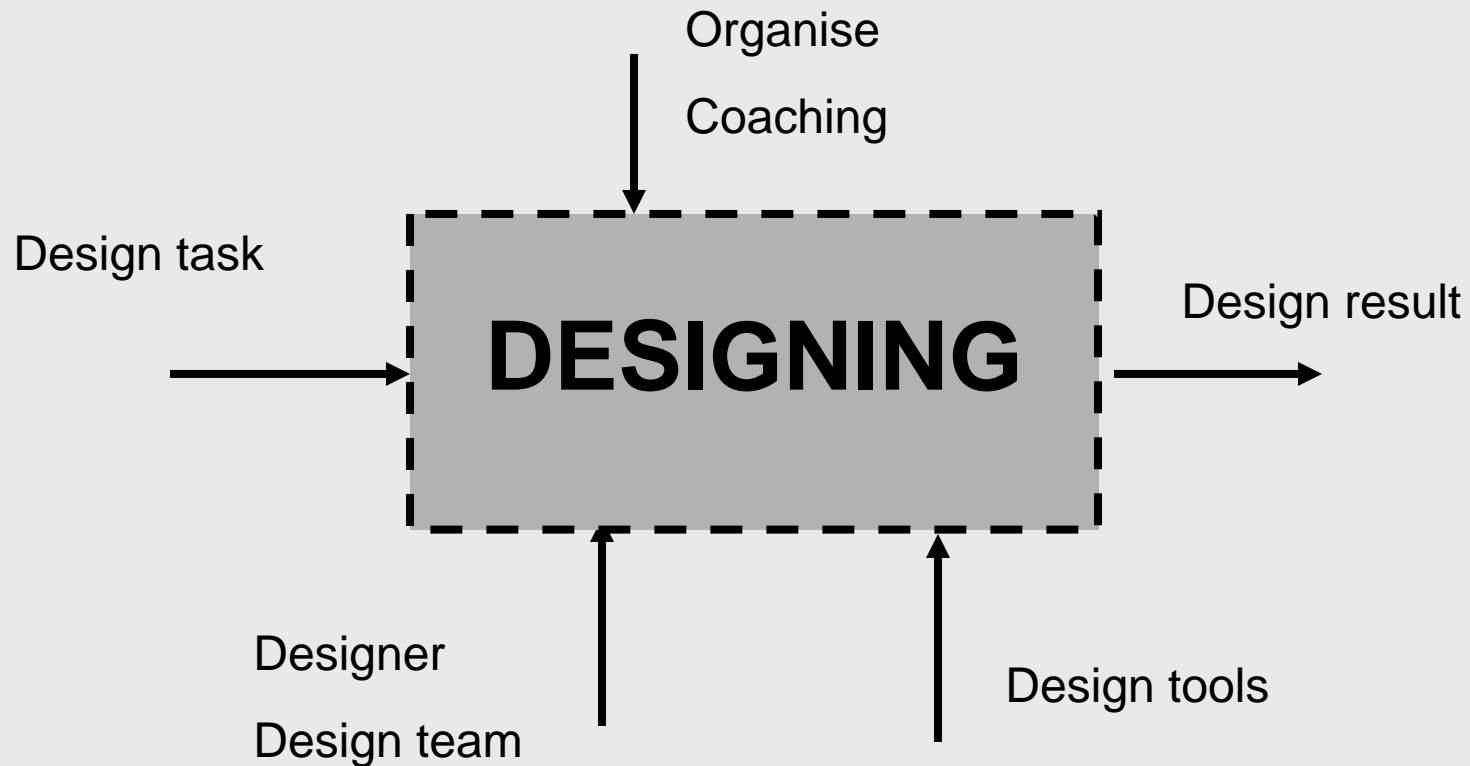








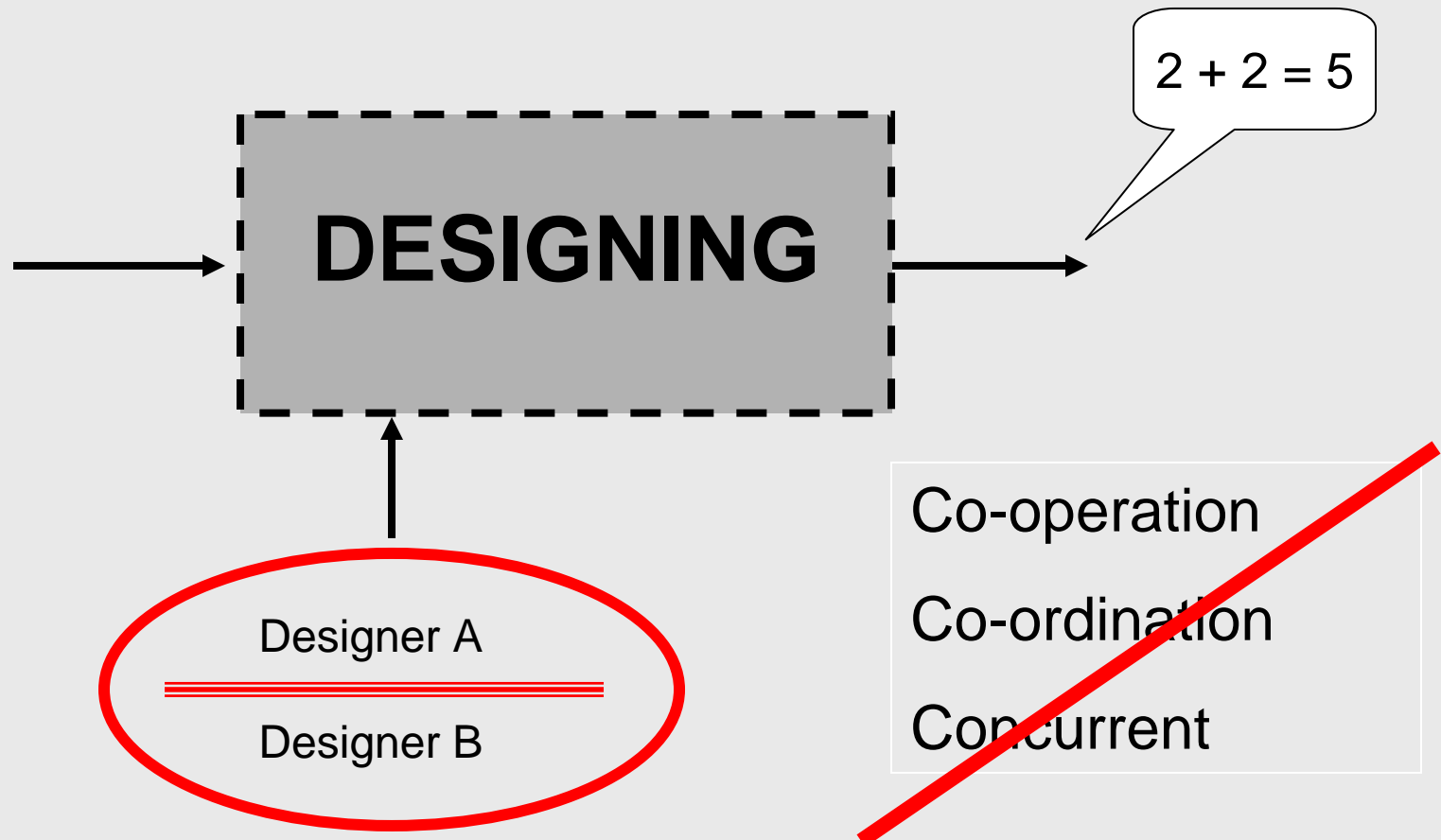
## Design process and session



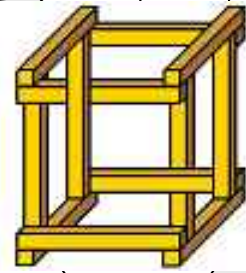


# Collaborative Design

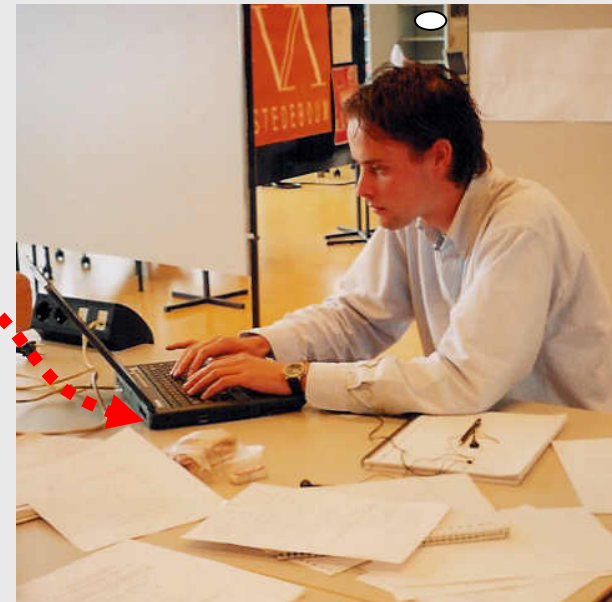
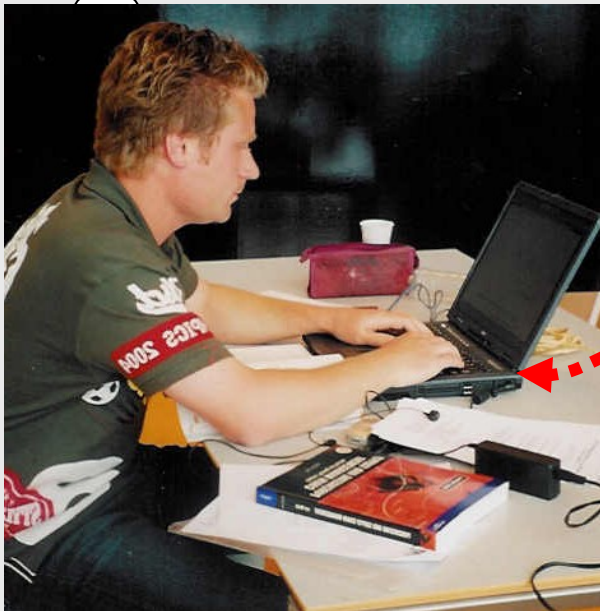
Col lab ore = to work along side one another







## PROBLEM





**Competences to design on distance in a team:**

- To play an organisational role in a team.
- To play a professional role in a team.
- To work together in a design team.
- To be able to use, assess, and select relevant ICT tools.
- To reflect on the work of the team and its own contribution.

## **Course “Collaborative Design” (1)**

### **Objectives:**

To gain insight in the problem domain of collaborative design and to know the possibilities of methods and techniques to approach this problem domain.

### **Educational approach:**

Experiential learning: this means that students act as active learners while the teacher's coaching role is focused on observing students activities.

Three components: activity, reflection and then knowledge.

## **Course “Collaborative Design” (2)**

Thematic lectures:

1. Organisational and social aspects of designing in teams.
2. The use of ICT tools for collaborative design.
3. Organisation and managing the design process.
4. Collaborative design in practice.



## **Course “Collaborative Design” (3)**

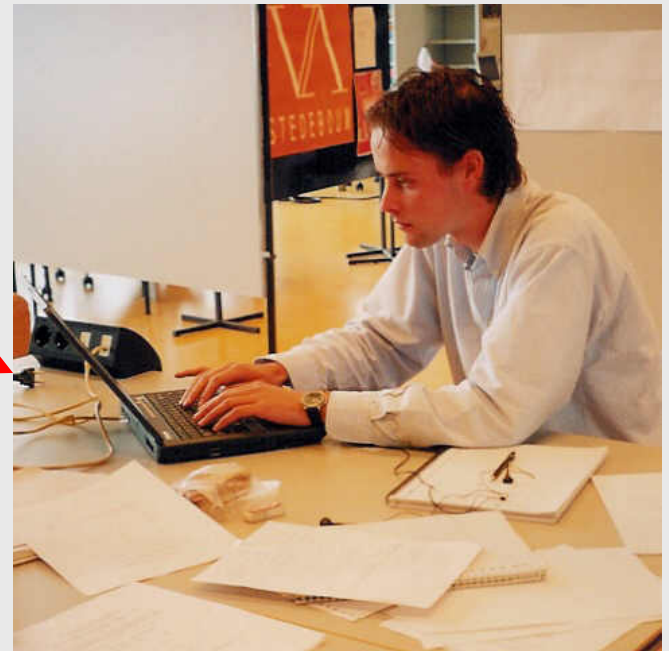
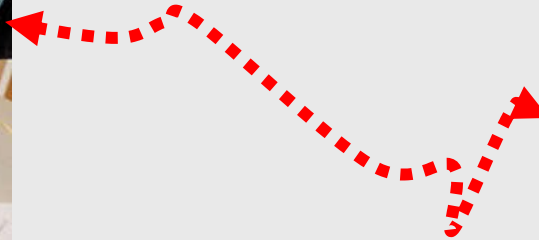
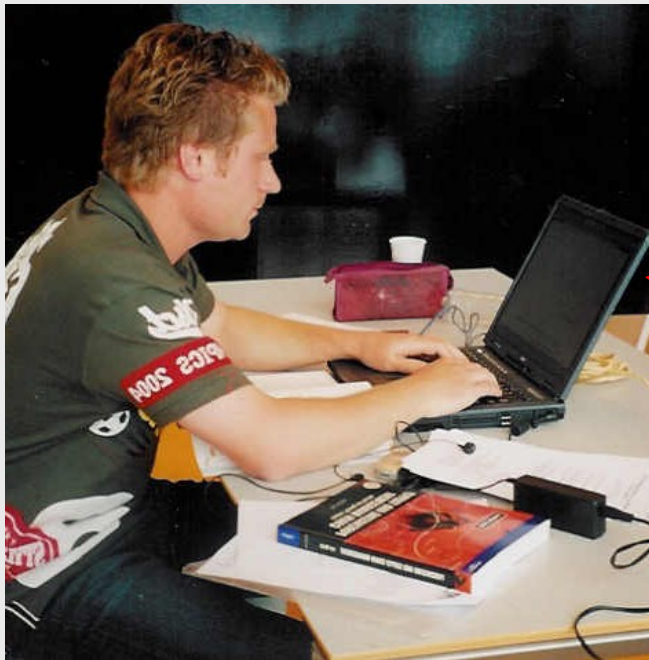
Tasks:

1. Individual literature review and presentation.
2. Designing in collocated team.
3. Designing in distributed team.
4. Designing in a distributed organisation.
5. Individual final reflection report.

## Collocated design team

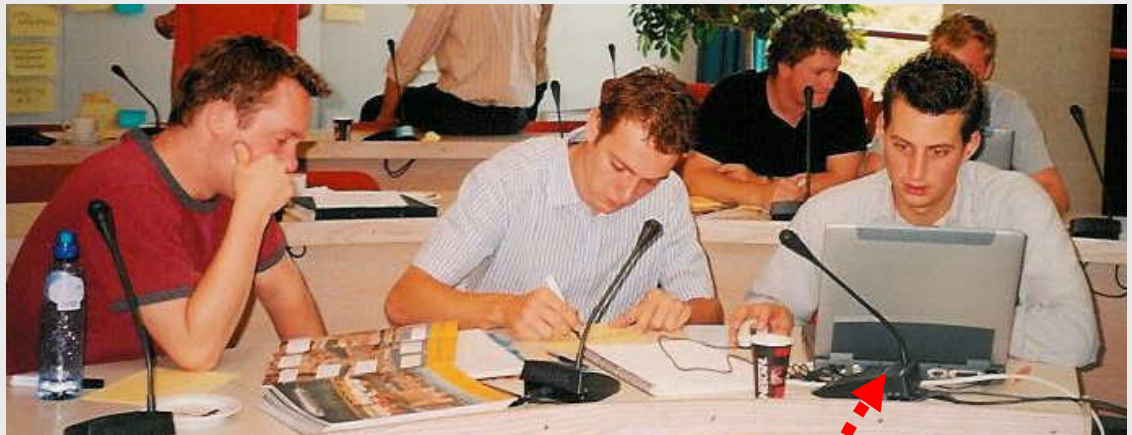
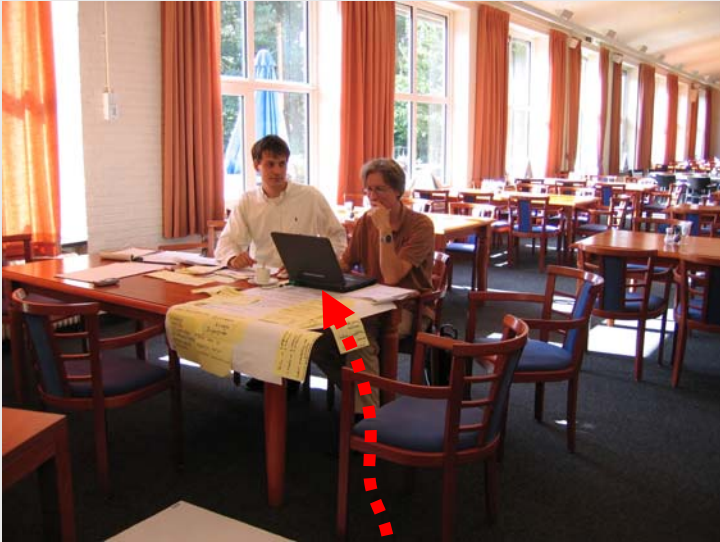


## Distributed team



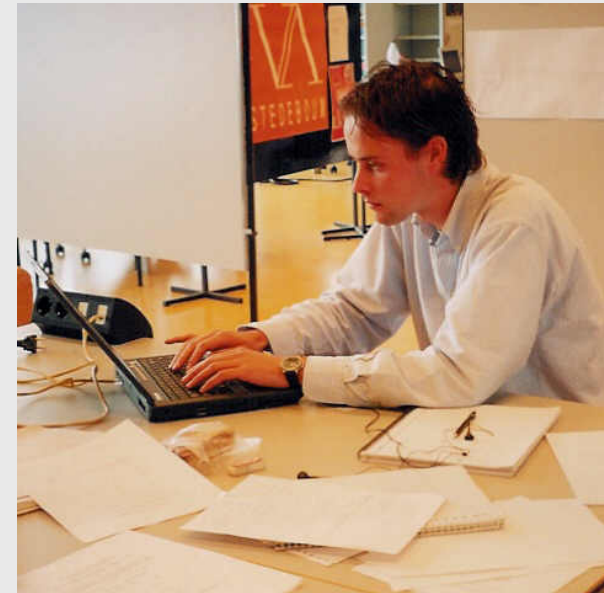
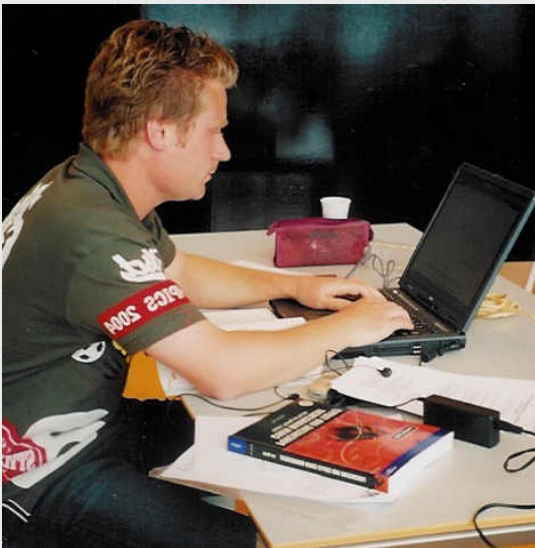


## Distributed organisation



## ICT tools

- E-mail
- Instant messaging tools
- Net meeting
- Architectural Studio
- Automanager Meridian



## **Evaluation results (1)**

- Most students were aware of having experienced different organisation of design processes as well as using different organisational instruments and ICT tools to be effective.
- Students were effectively aware of the roles they played in the team; this concerned both the role as a team member and the professional role.
- It appeared difficult to be aware of, or even to play, both types of role at the same time.



## **Evaluation results (2)**

- Organisation of the collaboration is crucial for the success of the process.
- Reflection is the most difficult part of the experiential learning format that was applied in this course. A reason might be that students don't have much experiences with this instrument.
- Teamwork on the assignments was largely untutored. 60% of the students agree with this approach and have no need for intense guidance during the design tasks.

## **Evaluation results (3)**

- Students appreciate the combination of social and technical aspects of the course:
  - 50% of the students appreciate the balance between technical and social/organisational issues in the course. 25% find the course too social, 25% find it too technical.
  - Around 50% of the students find the combination of these issues the most interesting aspect of the course.

## **Conclusion**

- Students are traditionally trained in cooperation and coordination. To switch to collaboration is difficult and need much explanation.
- Experiential learning is a good way for the students to learn the need for, e.g., organising effective collaboration processes.











