Videoconferencing in Surveying Education Programmes Needs New Institutional Capacity  
- From One-campus Activities to Multi-campus Functions

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Aalborg University

- Founded in 1974 and all curricula: Problem Based Learning in studentgroups (collaborative teams).
- Full Range University (B/M/PhD)
- Faculties for Humanistic, Social, Law, Engineering, Nature and Medical Science.
- 14.000 Students, 2000 staff (1200 Scientific).
- Member of Europen Consortium of Innovative Universities (ECIU).

Campus in 3 danish cities:  
Esbjerg, Aalborg and Copenhagen,

M. Sc. - Chartered Surveyor Study Programme

AALBORG

KOBRHNAVN

- Real Test  
- Field Test  
- Land Surveying  
- Land Management  
- Surveying Software and Equipment  
- Urban Planning and Land Use Management  
- Surveying

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FIG Congress 2010  
Facing the Challenges – Building the Capacity  
Sydney, Australia, 11-16 April 2010
Learning infrastructure:
- Modern/smart surveying.
- 3D modelling
- e-Governance and -ment

Learning infrastructure:
- Spatial Data Libraries
- Student always fired
- High level of ICT-skills
- Problem Based Learning
- Blended Learning
- Collaborative Learning

Status
At the Bachelor/Masterprogramme for cadastral surveyors realtime videofacilities to run courses at the same time at two campuses.
Right now for 1st, 2nd and 3rd year.
Experiences are done.
Team of student-coaches have been selected at trained for the job to guide the teachers.
The method

- Never finished - always along new roads
- Play and Learning 😊
- “Mudling through”
- Listen to and learn from students
- Enjoyable collaboration E-LearningLab

AAU Learning Model - Classic

**AAU Learning Model - 2.0**

- The model integrate moderne ICT and represent also blended learning.
- The pedagogical model has shown value.
- Model for future learning
- Learning on courses and projects integrate Internet-ressources.
- The model means permanent innovation of courses and projectwork
Major challenge for universities.

- Real-time video conferencing and video streaming will mean dramatic changes in the university environment around the world.
- Technology ready: Media Integration, IP standards and R/W broadband.
- Innovation needed: Competence, pedagogy and organization - and the economy.
Videokonference between Melbourne and Aalborg. 1997 (- and First Class).

Videoconference between Aalborg University (DK) and Melbourne University (AU).


IP-mode is MUCH cheaper (0€/hour) and with same quality as ISDN-mode (1000 €/hour).

The challenge with CIT
Cross Campus Networking and communication

Aalborg
Esbjerg
Copenhagen

Courses on twin-campi
Courses on twin-campi

Courses on twin-campi

Courses on twin-campi

Courses on twin-campi
Courses on twin-campi

Essential tutors! !!

Discussions!

Discussions!
Discussions!

Individual break-offs
Examination and seminars

Examination and seminars

Examination and seminars

Examination and seminars
Along the way, other experiences

Along the way, other experiences

Common lectures by key-persons

More spin-off activities.
Opening workshop - juni 2008
Main recommendations

- Promote adaptability for the involved.
- Motivate for learning.
- Create environment for development and change of learning methods – resource centers.
- Use students as assistants.
- Prepare for using streaming technologies for still more of the lecturing.
- Interact with other Information and Communications technologies for individual and collaborative learning.

The purpose of the VC may differ.

Awareness on:
- One-to-one.
- One to many isolated individuals.
- One to both near-class and distance class.
- Isolated individuals to isolated individuals
- Group to group communication.

Real-time versus asynchrony communication

Real-time is for interaction!

Lessons Learned

Strengths

- Lecture and study without travelling long distances
- Integrate teachers from abroad and from long distances
- Distance students can be real-time active.
Weaknesses/Challenges

- The sound cannot be good enough.
- Distance students to feel presence
- Difficult to feel contact with distance students
- Teachers may not be prepared enough
- Technical challenge to manage the system

Basics

- The lesson has to be planned.
- Focus on interaction and screenplays
- A new/different way of managing courses

Awareness on:

- Be polite.
- Don’t let students disturb
- Tell what you are doing about delays, surprise, interactions.
- Be aware of not leave the screen.
- Communicate with persons.

Focus on interactions

- Varied pedagogical methods
- Groupworks with tasks, solutions and presentations.
- Prepared discussions online and off-line.
- Breaks with actions, pauses.
- Let students be active in front of others and the camera.
Variations

- Internet-interaction.
- Show videoclips, demonstrations.
- Write on the boards – smarts and old blacks.
- Brainstorms
- The audience to be active.
- Digital Hands-outs to the audience by mail when starting

Start softly – learn to use the systems.

- If possible – create IRL-meetings for the different audiences - near and distance
- Focus on contact to the distance students – visit the distance students
- Look directly into the camera – not on the screen.
- Comment on things to the distance students.
- Promote small-talk and questions from the distance students.
- TEST the equipment and start EXACTLY on time.

Thanks for attention.

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