

Erasmus+ - Teaching in the Digital Age

Italian Team in Norway

Trondheim, 16-22 October 2016



“Teaching in the Digital Age” in Norway

- ☐ very interesting to have a taste of different school systems
- ☐ chance to see research work on education
- ☐ chance to discover new tools and methodologies for digital education

“Teaching in the Digital Age” in Norway

- ☐ Byåsen Skole: big investment on culture and education
 - ☐ huge, open and airy school building
 - ☐ spacious, well-equipped, soundproof classrooms



“Teaching in the Digital Age” in Norway

Byåsen: online education (Nettskolen)

- county project (18 out of 19 counties)
- teaching subjects that are uneconomical on a small scale
- addressing students who cannot be in the classrooms: working students, athlete students, students with learning difficulties

how it works:

- skype conferences for small groups of students
- homework to be sent back to teachers (exercises, essays, presentations)
- oral interviews online, written tests in the schools
- from 16 to 18 years just one online course

"Teaching in the Digital Age" in Norway

NTNU: faculty of technology

- research on learning spaces
- innovative rooms with curtains+interactive projectors (instead of smartboards). Projectors may be linked in a network.
- interactive projectors: cost 1/3 with respect to smart boards (about 15,000 EUR for a complete classroom)
- response teaching based on systems made of: iLike application, smartphones and interactive projectors. iLike free for teaching purposes.
- response systems: involvement, engagement, time saving.
- www.one2act.no
- histproject.no → projects → iLike → professional users
- keywords: distance learning, mobile learning, activity based learning

Byåsen: QR codes for laboratory activities

- mechanical workshop: every machine is labelled with several QR-codes.
- students are required to scan QR-codes with their smartphones in order to play short videos (about 1 minute) that explain basic operations
- possible further development: use EDpuzzle to verify comprehension of procedures; only students who pass the quizzes are allowed to work on the machines.

"Teaching in the Digital Age" in Norway

NTNU: PLU department presentations

- teacher training department: 300 people employed
- merger with NTNU's faculty of technology in course

"Teaching in the Digital Age" in Norway

NTNU: PLU department presentation/Fjørtoft

- blended learning using flipped classroom: mix hands-on, workshops and on-line activities
- build a shared repertoire of techniques, tools and practices through discussion, common goals and activities, leadership

“Teaching in the Digital Age” in Norway

NTNU: PLU department
presentation:
innovative teaching

- flipped classroom with videos to be used in classroom

"Teaching in the Digital Age" in Norway

NTNU: PLU department presentation/ Frederik Mørk Røkenes

- teaching language teachers on-line
- using Moodle platform: text and video resources
- Wordpress blog for students to teacher interaction
- Adobe connect used for online lessons (group working) and resource sharing.
- digital storytelling
- comics used as literary source
- rubriques used for grading

"Teaching in the Digital Age" in Norway

NTNU: PLU department presentation/ Alex Stromme

- smart blending based on MOOC's
- proposing blended MOOC (bMOOC)
- young people fast and passive digital consumer, low completion rate for MOOC
- solution: mix MOOC with active teaching

"Teaching in the Digital Age" in Norway

NTNU: PLU department presentation/ Jonas Persson

- video for quality: time investment for long-lasting video (fruition curve with time)
- thematic video, high quality, 5-7 minutes
- video must be edited and based on research
- video in language of watcher
- teacher must be on video, and use a verbal language (facial expression, gesturing)
- classical rhetoric subdivision: introduction, exposition, recap
- best would be an interactive e-lesson (video+quiz+comments+links)
- Mayer's multimedia learning principles

Byåsen: Norwegian Digital Learning Arena: Inga Rudi

- national project for content creation and distribution
- OER: open at all levels: source, standards, interface and methodology
- 50 subjects (growing)
- mostly texts, pictures, but also video and exercises
- competence oriented
- complete coverage of curricula (possible replacement for books)
- development cost per student and per course is a few tens of euro
- development work by teachers seconded at different fraction of time
- contents partly purchased or paid for

Final SWAT Analysis of what we learned

PROS

- Digital teaching is the inevitable future
- Digital teaching has to be carefully designed and mixed with individualized, active and in-presence teaching
- There is a big new challenge for teachers to create all needed and effective material



Our job is not among the few hundreds sentenced to disappear in the next years!

Final SWAT Analysis of what we learned

CONS

- The 'successful failure' of digital teaching can not be neglected
- We need to better understand and design digital teaching to move on from the actual 'failed success' to a complete learning success



Our job is not among the few hundreds sentenced to become easier in the next years!

Thank you to
all Norwegian staff from Byansenn Skole
and all colleagues of the project for this
completely successful meeting

***ITT BUONARROTI GROUP:
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