

Tuula-Harriet Kotikoski

Jyväskylä University of Applied Sciences/ Language Centre
Finland

BOOSTING COLLABORATIVE LEARNING IN ENGINEERING EDUCATION WITH TEAM-E-PORTFOLIOS

21/07/07



1

1. Background and objectives of the study
2. Demands and needs of the Finnish industry → key competences for employment and for life
3. Competences defined by CEF/ for academic graduates
4. Portfolios in engineering studies + team-e-portfolio
5. Skills gained with teamwork
6. Conclusions and recommendations

21/07/07



2

- **Changes** in the surrounding society, needs of working life, better employability for graduates
- Working life requires comprehensive language and communication skills from graduates → challenges for the language policy and for schools
 - More languages to study during the education (too few presently)
 - More interactive students with better oral presentation skills, e.g. multicultural situation with speakers of many languages
 - More cross-cultural understanding → cultural aspect more into focus
 - More writing required (email, writing for the web)
 - Language is a tool for thinking and acting in multifield cooperation → integration of languages into professional studies
- Vs. limited **financial resources** → less contact classes

21/07/07



3

- According to the decree: "The task of language teaching at universities of applied sciences is to grant the students readiness to operate and communicate in **expert tasks in the international working life**. Language teaching should emphasize the students' readiness to develop cross-cultural interactive and personal professional skills." → the needs and demands of working life #1!

21/07/07



4

- Common European Framework as the theoretical frame for development of language teaching in Finland (however, no recommended methods how to reach the objectives!); all curricula are linked to CEF and the skills levels A1-C2
- CEF Leonardo project (at www.cefpro.org)
- Linguistic, sociolinguistic, pragmatic, cultural, existential competences → assessment should also be developed to be more versatile, creative and rewarding for the students

21/07/07

5

GENERAL COMPETENCES	SCIENTIFIC & CRITICAL THINKING SKILLS	PROBLEM-SOLVING SKILLS	COMMUNICATION & SOCIAL SKILLS	LIFE-LONG LEARNING SKILLS (i.e. ENABLING / TRANSFERABLE SKILLS)
SPECIFIC COMPETENCES/ EXPERTISE				
ACADEMIC/ DISCIPLINE-SPECIFIC EXPERTISE	<ul style="list-style-type: none"> *mastering terminology and discourse & cultural conventions of the field *analysing & reporting 	<ul style="list-style-type: none"> *using own expertise to identify, analyse and evaluate problems and solutions *making team decisions, negotiating 	<ul style="list-style-type: none"> *receptive and productive communication skills and strategies + discourse competence for language use in academic and social contexts 	<ul style="list-style-type: none"> *language learning & metacognitive strategies *self-assessment skills *academic study skills for task management
RESEARCH AND INFORMATION MANAGEMENT SKILLS	<ul style="list-style-type: none"> *searching & evaluating materials *classifying & note-taking *interpreting, synthesising & reporting 	<ul style="list-style-type: none"> *analysing & evaluating problems and solutions *sharing knowledge, networking & teamworking 	<ul style="list-style-type: none"> *ICT-mediated communication and collaboration *documentation & presentation skills 	<ul style="list-style-type: none"> *media literacy *cultural literacy *use of new learning environments *peer reviewing
PROFESSIONAL SKILLS	<ul style="list-style-type: none"> *acting in the profession – professional practice (e.g. as a doctor, teacher, programmer, marketing manager, teacher, etc.) 	<ul style="list-style-type: none"> *solving problems related to profession *collaborating ,networking and decision-making with other professionals 	<ul style="list-style-type: none"> *intercultural presentation & communication skills *strategic communication skills for e.g. team work, negotiations, interaction 	<ul style="list-style-type: none"> *cultural sensitivity & tolerance of uncertainty *self-directed learning for continuous updating of professional skills
JOB/COMPANY SPECIFIC SKILLS) developed at work 21/07/07	COMPANY IN-HOUSE SYSTEMS & FOCUSES e.g. value systems	COMPANY IN-HOUSE SYSTEMS & FOCUSES e.g. intercultural problems	COMPANY IN-HOUSE SYSTEMS & FOCUSES e.g. client encounters	COMPANY IN-HOUSE SYSTEMS & FOCUSES e.g. assessment skills

6

→ Introduction of team-e-portfolios



21/07/07

7

- Portfolios first introduced in Professional English courses at the School of IT in 2002
- Portfolio → E-Portfolio → Team-E-Portfolio
- **Language learning portfolio** is a folder of learning achievements of an engineering student in language programmes; **Learning passport** contains details of his/her personal development in a language.

21/07/07

8

What is Team-E-Portfolio?

University of Applied Sciences

- Students represent their learning outcome in a form of e-portfolio where every team member has an active role in learning and applying their skills and knowledge to gain the best possible *work*
- Ownership of one's own learning important for us → more meaningful learning together, helping peers!

21/07/07

9

Mixed e-portfolio model

University of Applied Sciences

- **The mixed e-portfolio model:** contact lessons, self-study, creating the learning portfolio in teams
- **Assessment** based on both portfolio work as well as on classroom activities (active participation in lessons valuable = 50-50)
- **Further tasks to encourage** creativity (drama used in simulating meeting and negotiation skills; digital story telling)

21/07/07

10

Portfolio tasks

University of Applied Sciences

For individual learners

- Assignments in class
- Assignments for the team portfolio provided by each team member
- Roles in simulation plays prepared individually first
- Presentations in professional subjects

For teams

- Assignments in class
- Putting together the team portfolio; a lot of time spent and a team leader needed to organize the timetable and publishing
- Deadlines to be met

21/07/07

11

Skills gained with team portfolios

University of Applied Sciences

- **Scientific & critical thinking skills**
- **Problem-solving skills**
- **Communication & social skills**
- **Team working skills, group dynamics**
- **Life-long learning skills**
- **(i.e. enabling/tranferable skills)**

21/07/07

12

- Both students and teachers should be aware of the process, aims and purposes of the portfolio course.
- Deadlines should be set and met.
- Teachers should: have good organisational skills, know their curricula, course contents and the demands emerging from the working life, be innovative, commit themselves to work WITH students, and be willing to take risks.

21/07/07

13

- Student response has been very positive thanks to more meaningfulness → Increased motivation as tasks resemble those in working life
- Concentration on key competences
- The mixed model has worked well for everyone
- A lot of extra-curricular learning, e.g. shooting and editing videos of meaningful topics, team work in and outside class; social contacts improved in groups

21/07/07

14

- Excellent method for both teachers and students
- Learning to learn will benefit the students their whole lives → **life-long learning**
- Even old dogs (=teachers) can learn new tricks...

Team-E-portfolio and languages click!



21/07/07

15

QUESTIONS?

THANK YOU!

kottu@jamk.fi



21/07/07

16