Facilitated Work Based Learning (FWBL) - Methodology and examples

Prof. Flemming K. Fink
Director of ELITE
Aalborg University, Denmark
- Engineering, Science and Medicine
- Focus on needs in the workplace (strategic CE)
- Developing new methodologies
- Delivering courses and facilitating learning
- Established 2001
Background

• Increasing Need for Continuing Education (CE)
• Time for CE is limited
• Courses expensive for SME’s
• Focus on professional relevance
• Need for just-in-time learning
• Quick transfer of new knowledge
CE – for who?

- Individual CV improvement?
  - Earning Credits (programmes)
  - Long-term planning
  - Academic/theoretical education

- Company need?
  - immediately
  - application oriented
The Idea

- Combine experience from **Work Based Learning** with experience from **Problem Based Learning**
- Facilitate learning as integrated part of engineering problem solving
- Learning objectives defined from identified competence needs – not academic defined
Work Based Learning

• Active learning through performing tasks in the workplace
• Planned learning outcomes derived from the experience of performing a work role or function
• Gaining credit towards a degree based on agreed projects/learning goals carried out by the candidate in the workplace under academic and mentor supervision
PBL at AAU

50% courses

50% project

- Project related courses
- Individual exam
- Project work
- Group exam

Model from The Aalborg PBL model - Progress, Diversity and Challenges
Anette Kolmos, Flemming K. Fink & Lone Krogh

Learning in the Workplace
Flemming K. Fink – fkf@es.aau.dk
WBL + PBL => FWBL

- **Work Based Learning**: Learning based on performing work tasks
- **Problem Based Learning**: Team organised learning based on applying theories in engineering problem solving
- **Facilitated Work Based Learning**: University facilitation of learning and application of new knowledge
WBL ~ FWBL

- In **WBL** the Learner is learning by/from his workplace
- The purpose is to obtain Credits or get a Degree
- Academic assessment

- In **FWBL** the workplace is receiving new knowledge through the learner
- The purpose is to obtain competences
FWBL as we see it

focus on individual skills
based on team-working
to meet organisational needs
The FWBL process

- The contact phase
- Defining learning objectives
- Defining learning contract
- Implementation
- Evaluation
STEP 1: Contact phase

Company/Organisation

- Manager
- Tech. Director
- HR-dept.
- Line Manager
- Team Manager
- Engineer/learner

Competence Centre

- Manager
- Adm. staff
- Researcher
- Teacher
- Student

1) who is taking the initiative, and why

2) what kind of learning is needed – fwbl, traditional course, consultant etc.
FWBL contract

A contract must be signed by

• The Learner
• The Company
• The University

First task in developing the contract is: Definition of learning objectives – difficult!
Definition of Learning Objectives

Common Language?
- Company level language (products)
- Engineering language (tools)
- Academic language (theories and methodologies)

Learning Content
- learner’s background
- team diversity
- team-member task’s
- ambitions
- timeframe + priority
FWBL contract - dynamic

- Definition of learning objectives – difficult!
- Specification of learning methods
- Specific. of milestones/task for the learner
- Definition of success criteria
- Specific. of Process and outcome assessment
- Specific. of company involvement
- Specific. of university involvement
Implementation

• Detailed learning plan
  – Between learner and facilitator

• No specific learning philosophy !!
  – Using different learning methods as specified in the learning contract

• Learner centred

• Process monitored as part of process administration (very important)
Facilitated Work Based Learning

- Integrated in work situation
- No need to leave work place or family at a specific time
- Guarantee of professional relevance
- Integrated as workplace learning
- Contents, size and speed individually adapted
Main challenges

- Academic versus user needs defined content?
- Individual or organisational needs?
- Teacher’s readiness?
- Industrial priority
- Competence strategy or vision?
- Administration of the partnership?
Results - examples

• Combining PBL and FWBL
  – 4th year student-team started
  – Engineers from company continued
• Focus on company competence needs
  – All team members replaced in the process
  – FWBL process continued
• Lonely Wolf project ~ 75 companies
75 Lonely Wolves
Engineers in Small Enterprises

- 10 taught courses (23 days)
- 42 individually planned learning activities
- 25 participated in other planned courses
- Large diversities:
  - business areas
  - position in enterprise
  - professional areas
Benefits

• New knowledge to engineer and enterprise
• New opening to university and research
• New networks – new sources of experience and skills
• Improved employability and value
• New possibilities for knowledge exchange
• New possibilities for exchange of ideas
• Time to reflect
Further steps to take

- Assist companies in defining the steps from vision to identifying competence needs
- Improve management of the contract – commitment from all partners
- Teacher training – learners and learning style different from on-campus students
- Marketing, opening dialog
Thank You for listening

http://elite.aau.dk/fkf/