Os *P* 's da Aprendizagem Baseada na Resolução de Problemas:

O exemplo da Universidade de Aalborg, Dinamarca

Aida Guerra

www.ucpbl.net



Tópicos:

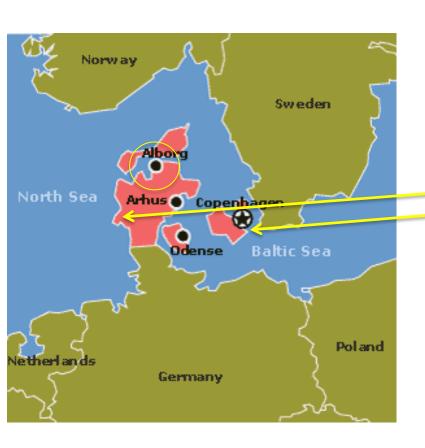
- Universidade de Aalborg e o seu modelo PBL*
- Definição de PBL
- Os seus P's e porquês

*Aprendizagem Baseada na Resolução de Problemas = Problem Basead Learning





Aalborg University, Dinamarca



Fundada em 1974

Polos em Esbjerg & Copenhaga

Faculdades de:

- Engenharia e Ciências
- Medicina
- Humanidades
- Ciências Sociais





Aalborg Centre for PBL in Engineering Sciences and Sustainability





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Global Network Investigação Educação





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Global network

RESEARCH SYMPOSIUM



WORKSHOPS FOR VISITORS



WEBINARS







INTERNATIONAL JOINT CONFERENCE ON THE LEARNER IN ENGINEERING EDUCATION (IJCLEE 2015)

San Sebastian, Spain 6 July - 9 July, 2015

THREE CONFERENCES:

ACTIVE LEARNING IN ENGINEERING (ALE)
PROJECT APPROACHES IN ENGINEERING EDUCATION (PAEE)
5TH INTERNATIONAL RESEARCH SYMPOSIUM IN PBL (IRSPBL)

HOSTED BY MONDRAGON UNIVERSISITATEA
ORGANISED IN COLLABORATION WITH THE AALBORG UNESCO CENTRE

The central theme of the joint conference is "the Learner in Engineering Education"

Call for Papers
Abstract submission until December 1, 2014

For more information visit:

http://ijclee2015.mondragon.edu/en

Conference contact:

j oint conference old an. aau. dk

Investigação

PBL

Themes

Collaborative learning New competences Curriculum and course design Management of change Assessment of learning outcomes Mathematics in engineering Engineering practice Work-based learning and lifelong learning Gender, diversity and culture Attractiveness of engineering education and outreach

EER ESD





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Formação contínua e desenvolvimento profissional



Master in PBL in Engineering & Science for staff development





PBL em Aalborg

PBL



Baseado em **P**roblemas Organizado em **P**rojetos



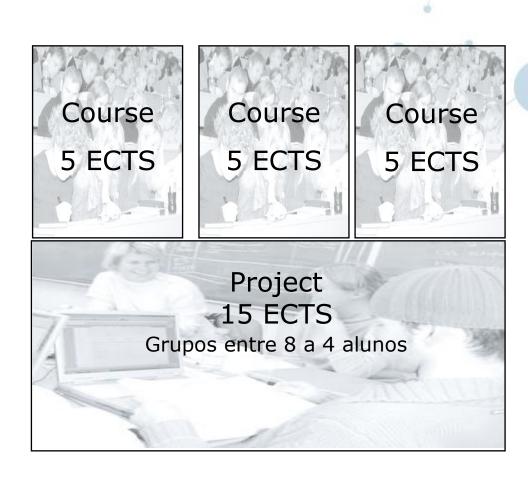


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Aalborg University: Modelo Curricular

50% Cursos

50% Projeto





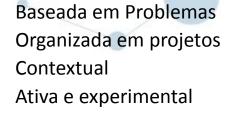


= 30 horas de trabalho

PBL e os seus Princípios

Aprendizagem

(learning)





Social

Conteúdo (content)

Relação Teoria – Prática Interdisciplinar Metacognição/ Double loop learning Exemplary learning



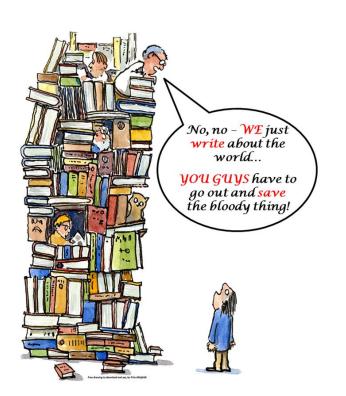


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Aprendizagem Baseada em Problemas

(Problem based/ problem oriented)

Real, aberto, investigativo e contextual



Disciplina/ Semestre Tema

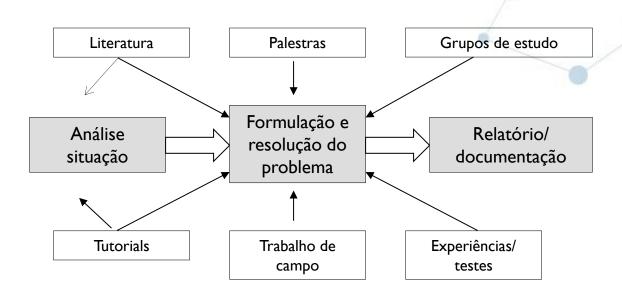
Caso/ situação problemática

Problema





Análise, formulação e resolução do problema



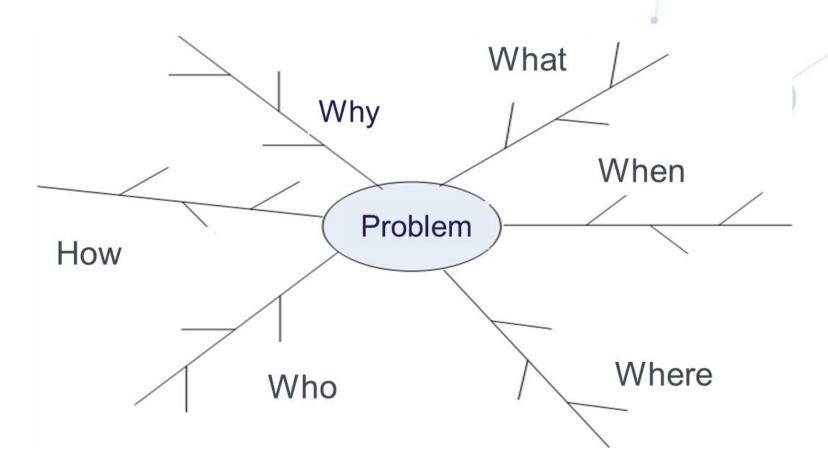
Modelo retirado de *The Aalborg PBL model - Progress, Diversity and Challenges*Anette Kolmos, Flemming K. Fink & Lone Krogh





Aprendizagem Baseada em **Problemas**

(Problem based/ problem oriented)

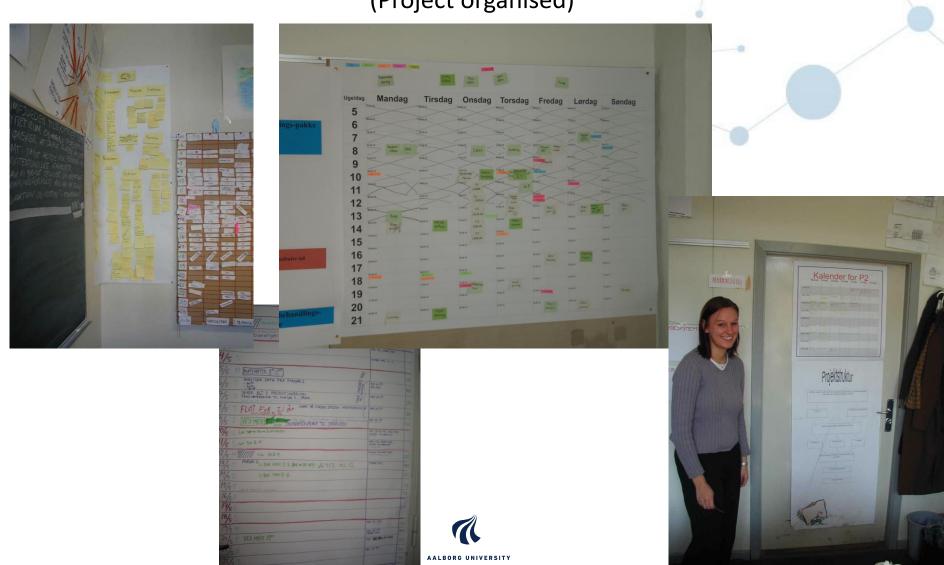






Organizada em **Projetos**

(Project organised)

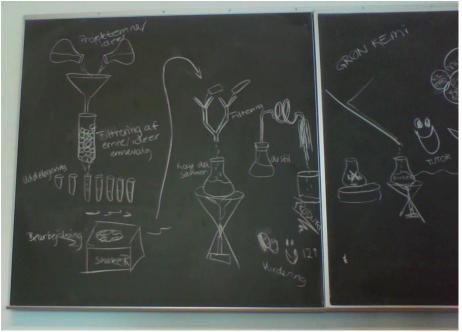


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Relação Teoria — **P**rática









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Participativo e colaborativo







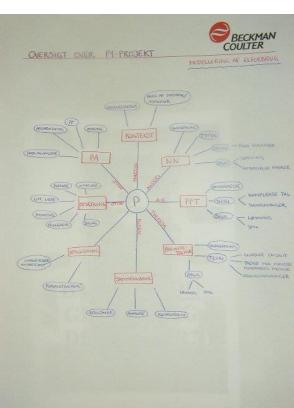


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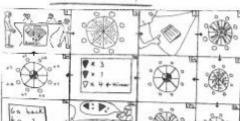
Processo vs. Produto

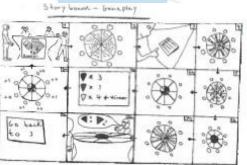


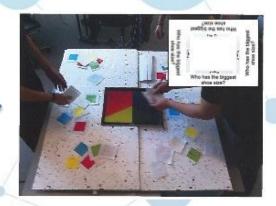








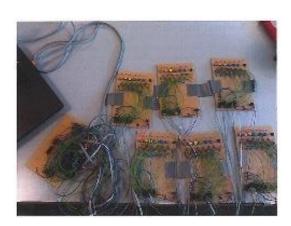














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Avaliação

Exame oral Em grupo









Organização geral

Students present the project (1 hour)

break

- A general question-based discussion with the group (2 hours)
 - 2. Specific questions for each student (1 hour)

break

The examiners agree on the grades

Announcement and justification of grades



PBL

Os seus P's

- Princípios
- Problemas
- Projetos
- Prática
- Participativo
- Processo vs. produto
- Pessoa







E os seus porquês...

Sistemas de acreditação Profissão Sociedade exigem um Profissional capaz de...

- Resolver problemas;
- Comunicar e trabalhar em equipa;
- Refletir e ser critico;
- Gerir, criar e inovar;
- Aprender ao longo da vida...





E os seus porquês...

Project and people management

Quality of engineering and technical skills

Contact and working relations to industry

Innovative and creative skills

Knowledge of business -life and -economy

Overall quality of education

