



# Facilitation in Problem Based Learning

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# Facilitation in Problem Based Learning (PBL)

## Outline:

- 1) The PBL learning principles and philosophy
- 2) Facilitation – good and bad
- 3) Levels of and approaches to facilitation
- 4) Tools for facilitators
- 5) Situated facilitation

# PBL Learning Principles – 3 dimensions

## ➤ Cognitive dimension:

- Problem based
- Contextualised
- Action oriented
- Experience based
- (Project organised)

## ➤ Content dimension:

- Interdisciplinary
- Exemplary
- Theory – practice relation
- Critical

## ➤ Collaborative dimension:

- Participant directed
- Team organised
- Dialogic
- Democratic

*Graff and Kolmos 2003;  
Freire*



# PBL Philosophy

Based on a constructivist perception of learning and teaching:

- **Learning** is the student's individual process of constructing knowledge and meaning in collaboration with peers
- **Teaching** is the "setting up of a situation from which a motivated learner cannot escape without having learned" (Cowan)

In other words:

- PBL is **Student-Centred Learning**
- **not** teacher-centred teaching



## Facilitation in PBL

A change of role:

From course lecturer to project facilitator?

From controlling teacher to enabling facilitator?

A change of mind-set –  
maybe a change of personality?



# What makes a good facilitator ?

- Facilitator and students are interested in the project
- Students are facilitated "where they are"
- Both parties know what their roles are
- The facilitator shows empathy but does not act as a therapist
- Both parties are flexible in the perception of academic work
- The facilitator is concerned about all aspects of the project: content, methods, theories, structure, documentation and collaboration
- The facilitator is aware of academic quality and communicate the criteria to the group
- The facilitator prevents that the group is 'barking up the wrong tree'.



# What should be avoided ?

- Repeat from books what the students can read for themselves
- Comment on early drafts as if they were chapters in a report
- Suggest radical changes just before delivery
- Go into details with formulations in early drafts
- Act as a proof-reader
- Require an list of contents before students have an overview of the project
- Take over the group's decisions
- Restrict the focus to your own area of expertise
- Expect that everything that is said is understood and realized
- Base the judgment of students' knowledge on generalizations



# What rethoric should I use ?

ADVICING - A solution could be that you ...

THERAPEUTIC - it will be all right ...

QUESTIONING – How are you doing?

DIAGNOSTIC - What goes wrong is that you ...

LECTURING – If you had been to my course ...

PRAISING - Well done!

CRITICIZING - This is way too superficial ...

MORALIZING – This is not the way to study ...

COMMANDING - I must have a methodology section ...

ESCAPING – Lets talk about this later ...

IRONIC – This is easily done, right?





# Students' opinion on facilitation

## **The good facilitator:**

- Helps create overview in chaos
- Cuts through in critical situations
- Shows engagement and interest
- Does not present solutions
- Asks facilitating questions
- Does not take control of the project but leaves it to the group itself
- Is well prepared and well informed



# Students' opinion on facilitation

## **The bad facilitator:**

- Does not express opinions about affective questions
- Does not give constructive feedback and criticism
- Lacks interest and engagement in the project and/or the students
- Has poor knowledge about the students' work and work processes
- OR:
- Takes ownership of the project and tries to control the students' learning processes



## AAU students on facilitation:

- ”In the first year we had no idea what we can expect from them and how to communicate with them. ... Now we know what we can do on our part. If we have a specific problem we have to solve, we will tell him and be clear about what specific help we expect to get.”
- ”He was always there if you needed him. ... If there was something he did not know, he would try his best to find it out... he would come back to us with something”

# Facilitator traps

1. THE RESPONSIBILITY TRAP  
*Acting as project responsible*
2. THE ACADEMIC TRAP  
*Focus on content – not on students*
3. THE SENTIMENTALITY TRAP  
*Almost as good as Mum/Dad*
4. THE DROP-IN TRAP  
*Everything seems to be O.K.....*
5. THE POPULARITY TRAP  
*I hope for a nice evaluation*
6. THE IMPATIENCE TRAP  
*Since I know it – why not tell them....*



Based on Lauvås & Handal 2006

# Three levels of involvement

1. The group member
2. The attentive visitor
3. The consultant



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## The group member

- Tends to be more product oriented and less process oriented
- Gives discipline oriented facilitation with focus on product
- Tends to take over responsibility for the project work
- Is very active in choice of theories and methods
- Gives answers instead of asking questions



## The attentive visitor

- Gives both discipline and problem oriented facilitation with focus on process
- Asks facilitating questions to students' work
- Stands at the side line, ready to step in or to withdraw depending upon the situation
- Points out directions to solutions rather than answers
- Lets the students own the project



# The consultant

- Is only activated on request
- Only answers the questions asked by the group
- Leaves all decisions in connection with planning and control to the group



# Four approaches to facilitation

- **Product facilitation**
- **Process facilitation**
- **Laissez-faire facilitation**
- **Control facilitation**





# Product facilitation

- Traditional master-apprentice relationship
- Focus on the solution
- Focus on documentation
- Provide tips-offs and answers
- Feels ownership towards the project
- Risk: Students do not learn to work independently.





# Process facilitation

- Leaves the ownership of the project to the students
- Facilitates the students' learning processes
- More questions than answers
- Values reflections on process, theories and methods higher than a flawless product.
- Risk: Students fear that lack of product orientation results in an unsatisfactory product.

Try to formulate some questions - revise them continuously to manage your project





# Laissez-faire facilitation

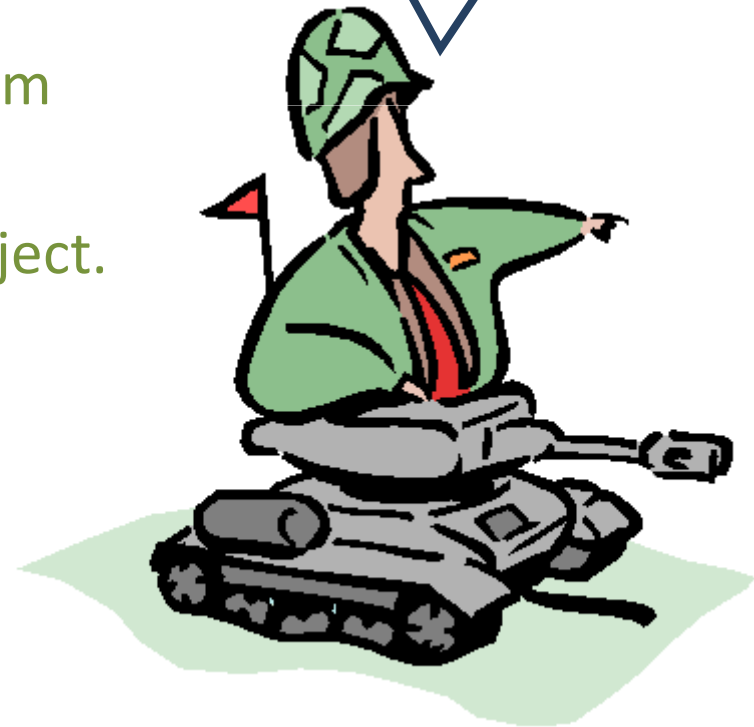
- Facilitates group members' interest
- Praises and encourages the group to be independent and take responsibility for the project
- Interferes only on request
- Risk: Students feel a lack of engagement; facilitator uses this strategy to minimize time spent on facilitation.



# Control facilitation

- Facilitation is like being in an exam
- The focus is on the forthcoming exam
- The focus is on the individual knowledge obtained during the project.
- Risk: Students keep facilitation at a minimum because it is scary

Can you please go to the blackboard and derive the formula on page 10





# Four tools for facilitators

- Contract of cooperation with group
- Learning outcomes of the project work
- Regular meetings with the group, focussing on
  - facilitating project work
  - questioning team work
- Process analysis

# Contracts of cooperation

## *Why ?*

- State explicit, mutual expectations to cooperation

## *What?*

- Written document or oral agreement

## *How?*



<http://www.jacatools.dk/aftale.jpg>



# Contracts of cooperation

## *How?*

Contents could be:

- Meetings (Frequency; duration; preparation; procedure; follow-up)
- Communication between meetings
- Feedback and criticism (Response to working papers; response to the group process)
- External contacts
- Mutually agreed project learning outcome





# Contracts of cooperation

- ***How?***
- Ask students formulate their expectations and their obligations to you in writing
- Formulate your own expectations and obligations to the students in writing
- Match the two contract drafts in a meeting with students and agree upon a mutually binding contract



# Tools for facilitators

- Contract of cooperation with group
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# Learning outcomes - Bloom's taxonomy

## Lower level skills:

- 1) Know-what  
memorize
- 2) Comprehension  
translate, interpret
- 3) Application  
use in new situations

**Comprehension**  
**Know-what**

**Application**

**Analysis**

**Synthesis**

**Assessment**

## Higher level skills:

- 4) Analysis  
uncover relations between entities
- 5) Synthesis  
build something new of the entities
- 6) Assessment  
judge, evaluate

*Bloom, 1956.*



# Tools for facilitators

- Contract of cooperation with group
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# Facilitating project work

- Asking open-ended questions
- using what, why, how, who, where, when
- Encouraging students to do Post It-brainstorming
- Mirroring students' work and questions
- Summarizing students' work
- Encouraging students to keep a dynamic list of question
- Giving feedback by (re)thinking aloud



# Questioning team work

## **When starting the project:**

- Encourage students to put on the agenda discussion of:
  - level of ambitions
  - how to share the work
  - how to cope with the work load
  - discipline of meetings
  - how to solve conflicts
  - social relations in the group



# Questioning team work

During the project:

- ask to the ways students organize their work and discuss the working process
- ask to special project functions
- discuss objectives for the organizational aspects
- give individual consultations
- 'feel' the atmosphere - be present
- let the students discuss
- let students be in control
- try to involve all the students



## Project facilitation - preparation

### **The Group (two days in advance) :**

- **What have we accomplished (working papers)**
- **What are we doing right now/where are we heading**
- **Requested facilitation**
- **Agenda for the meeting**

### **The facilitator :**

- **Read the working papers**
- **Reflect upon and formulate questions to structure and contents, overall and/or detailed as requested**
- **Prepare for input to requested facilitation**





## Project facilitation – meeting

### **The Group :**

- **Chairs the meeting**
- **Takes minutes**
- **Presents the points of the agenda**
- **Ensures that all members participate in the discussions**

### **The facilitator :**

- **Facilitates the students' own reflection by asking questions**
- **Involves all students in the discussions**
- **Secures reflections on:**
  - **Contracts, working processes, progress, time schedule**



## Project facilitation – follow up

### **The Group :**

- **Sends minutes of the meeting to the facilitator**
- **Discusses and assesses the input from the facilitator**
- **Revises working papers, time schedules etc.**

### **The facilitator :**

- **Reads the minutes and replies**
- **Follows up on requested tasks**



# Tools for facilitators

- Contract of cooperation with group
- Learning outcomes of the project work
- Regular meetings with the group, focussing on
  - facilitating project work
  - questioning team work
- **Process analysis**



## Process analysis

The underlying idea is reflection prompted by questions:

- Description: WHAT did we do?
- Analysis: HOW well did it work – and WHY?
- Synthesis: What will we do differently in the next project?

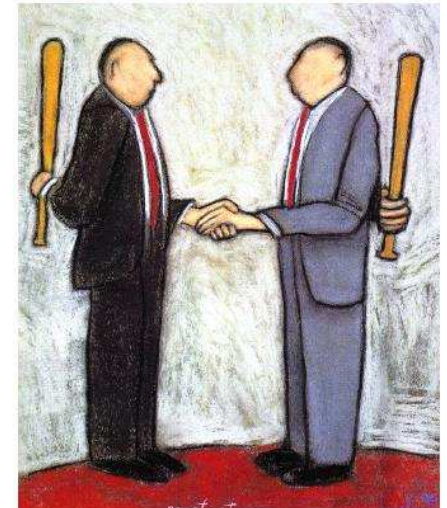
Written at the end of the project period after handing in the report, but before the project exam. May be part of documentation for the exam.

# Situated facilitation

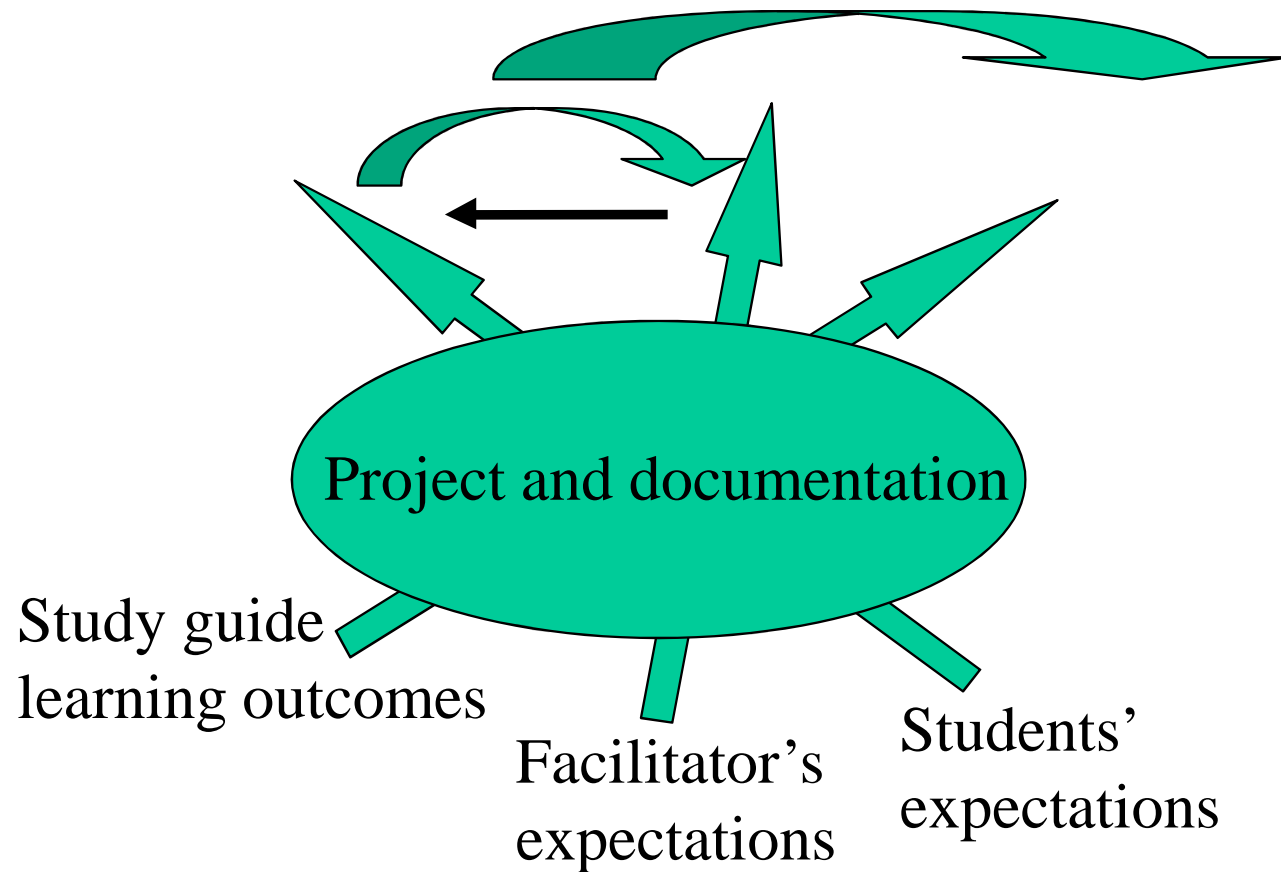
- Where in the education?
- What type of projects and objectives .
- Where in the project work process?
- What type of students?

All collaboration holds potential conflicts

**Needed: Ability to read the situation ....**



# ...and aligning different expectations





This was all for now –  
Thank you for your attention

**NOW OVER TO YOU  
AND YOUR QUESTIONS, PLEASE.**