

# The challenge of making feedback improve student learning



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# What is meant by 'feedback'?

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- Commonsense understanding:  
comments (written or oral) to students' work with the purpose of improving their performance or explain/justify grades
- Wide definition:  
information provided by an agent (e.g. teacher, peer, experience) regarding aspects of one's performance or understanding (Hattie & Timperley, 2007)
- Feedback studies may focus on
  - Micro level – individual teacher or student (peer) comments
  - Meso level – how feedback is embedded in the study programme
  - Macro level – the disciplinary, institutional & cultural context

# Assessment and feedback

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- **Summative assessment:** at the end of learning process
  - **FEEDBACK** : justify grade? Transfer?
- **Assessment of learning:** often synonymous with SA
- **Assessment for learning:** *during the learning process.*  
Purpose: 1) strengthen the learning process a  
2) improve student learning and the final product.  
**FEEDBACK** reporting back to students the result of this assessment +  
guiding the student about what to do next.
- **Formative assessment:** AFL
  - NB! assessment information must actually be used (William, Sadler)

How to make feedback more productive for learning  
Some challenges:

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## **TEACHERS:**

What do I need to improve giving feedback?

## **SYSTEM:**

Does our study design support feedback and students use of it?

## **STUDENTS:**

What do students need to use feedback to learn?

# *TEACHERS*

*Perspectives on learning  
Belief in importance of feedback  
Know-how  
Time*



What perspective(s) on knowledge and learning informs your practices?

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**Svard : Two metaphors for learning:**

- **Acquisition**

- Individual enrichment
- Students as recipient of knowledge
- Teacher as transmittor

- **Participation**

- Community building
- Students as participants
- Teacher as expert participant and mentor

Svard's point:: Both metaphors needed (1997)

Where are you?

# Perspectives on feedback

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- Behavioristic
  - Transmission model: the *teacher's* effective delivery of feedback to students
- Cognitive
  - *Individual* constructivism: student autonomy and self-regulation
- Sociocultural
  - *Social* constructivism: dialogic interaction and participation in joint activity (community)

# Authoritative or/and dialogic feedback?

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- **Transmission model** of feedback traditionally most common
  - Authoritative and categoriacal feedback dominate (Hyatt, 2005, Mutch 2003)
  - "Students wants teacher to tell them what's right and wrong"
  - Research: student problems understanding teacher feedback (Channock, 2000; Hyland, 2000)
- **Dialogic feedback practices** -examples:
  - Teacher or peers give written feedback – open for discussion or shared in virtual learning environment (Stanford study, History UB)
  - Peer feedback groups, online or face to face(Vines 2008), Dysthe, 2009)
  - Small group break-out discussions
  - Collate student responses – peer discussion
  - **What are your experiences?**

*Belief in the importance of feedback*  
*- and understanding of its limitations*  
*(research based)*



# Meta studies: consensus about the importance of feedback

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- **Crooks (1988)**
- **Black & Wiliam (1998)**
- **Hattie & Timperley (2007)**
- **Shute (2008)**
- "What are the most powerful and efficient types of formative feedback, and under what conditions do these different types of feedback help a learner?"
- Convincing evidence of the effect of feedback on student achievement
- Not all kinds of feedback is productive
- "a fallacy that feedback is the critical element" (Sadler 09)

# *Know-how*

**What does research tell us about  
productive teacher feedback to  
individual students?**

## Sadler's simple recipe for good feedback

- **Tell students**
  - What's good
  - What's wrong and where
  - What they could have done to make it better
  - What they can do next time
- **Be constructive and supportive**

Figure 1

## A Model of Feedback to Enhance Learning

### Purpose

To reduce discrepancies between current understandings / performance and a desired goal



### The discrepancy can be reduced by:

#### Students

- Increased effort and employment of more effective strategies *OR*
- Abandoning, blurring or lowering the goals

#### Teachers

- Providing appropriate challenging and specific goals
- Assisting students to reach them through effective learning strategies and feedback



### Effective feedback answers three questions

*Where am I going?(the goals)*

*How am I going?*

*Where to next?*

Feed Up

Feed Back

Feed Forward



### Each feedback question works at four levels:



#### Task level

How well tasks are understood / performed

#### Process level

The main process needed to understand / perform tasks

#### Self-regulation level

Self-monitoring, directing and regulating of actions

#### Self level

Personal evaluations and affect (usually positive) about the learner

Gap

How

???

Levels

# Feedback is evidence about:

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- Where am I going?
- How am I going?
- Where to next?



Hattie & Timperley 2008

# Effective feedback answers 3 central question:

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- **Where am I going?** (What are the goals?)
  - **FEED UP**
- **How am I doing?** (What progress is being made?)
  - **FEED BACK**
- **Where to next?** (What activities do I need to do to improve?)
  - **FEED FORWARD**

**Where is your feedback strongest/wakest?**

# 1. "Where am I going?"

- goals, criteria, expected standards

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- Goals and expectations often not clear for students (Dysthe 09)
- Students different conceptions from teachers about goals & criteria (Hounsell, 1997; 2006)
- Students must share commitment to goals (Locke & Latham 90)

## ● What works?

- 1. Description (explicit criteria)
- 2. Exemplars of performance
- 3. Development of tacit knowledge about quality
  - Discuss & reflect
  - Use, practice (workshops, peer assessment, negotiations) (Sadler, 1989, 2009; Rust et al, 2003; Yorke, 2003)

**How do you communicate and discuss goals, expectations and criteria with your students? Do they get a chance to practice?**

## 2. "How am I going?"

### How to give useful feedback on performance

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- Consensus in research literature of important factors in high quality feedback
  - **Timely**
  - **Understandable**
  - **Goal related**
  - **Relevant**
  - **Concrete and specific**
  - **Not too much**
  - **Encouraging tone**
  - **Involves both praise and constructive criticism**
  - **Helps close gap between expectation & performance**
  - **Tailor feedback differently to high and low ability students**

Where are your strong/weak points?

### 3. "Where to next?" Feedback as guidance (feed-forward)

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- **Findings from our recent analysis of teacher feedback:**  
Feedback almost exclusively on performance

#### **Implicit feed-forward:**

"Your conclusion is 'common sense' "

"Who talks in the text,- you or the literature?"

"Where is your argument"

Do students recognize what to do? Do they know how?

(cf. Chanock, Hounsell )

#### **Explicit:**

- "formulate your own controlling questions"
- "present your own viewpoint"
- "write in your own voice"

**What characterizes the feedback you give your students?**

Each feedback question works on 4 levels

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Task level

Process level

Regulatory level

Self level

**Which level do you need to focus more ?**

## Foster student self regulation

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- **”Good quality external feedback is information that helps students troubleshoot their own performance and self-correct”**  
(Nicol & Macfarlane-Dick 06)
- **Important for students:**
  - Understand the goals & criteria what quality means
  - Not overwhelmed by feedback
    - ”Three well-thought feedback comments per essay the optimum if the expectation is that students act on these comments”
  - Understand which areas to prioritize
  - Chances to practice evaluative skills

# From our analysis of feedback: What works – and not

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**1. Explicit praise in marginal comments (refer to specific points in students' texts)**

- **"This claim is well supported"**

**2. Explicit criticism which is explained**

- **"Your text is fragmented" + example**
- **"You use theory normative" (+ example)**

**3. Use of personal examples from own research**

**4. Example from student texts to illustrate a point**

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**Vague, general and not specific feedback**

- **Much reformulation of what the student has done**

# *Peer feedback - individual and in groups*



## Students' list of crucial factors for good feedback in groups (Uof Bergen)

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- Trust and safety
- Sensitivity
- Respect
  - mutual respect regardless of intellectual capacity
  - Respect for the dynamics of the group process
- Preparation
- Dialogue
- Engagement: personal, positive, critical

# Findings from study of peer feedback (law)

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- Data: a corpus of 1526 student comments from 20 first year law students

## Three categories of comments

- **Affirmative feedback:** fairly short comments that convey unconditional praise and support: “Agree“ ”Much relevant here!“ ”Good discussion”
- **Evaluative feedback:** positive, but reformulates and identifies gaps: “Excellent that you present the current problem and the legal basis in the introduction”, “Good point” + reformulation
- **Challenging feedback:** challenges the original text by pointing at weaknesses, inconsistencies + points at alternative solutions & suggestions. “I do not agree ... because...”

## Findings from study of peer feedback (education)

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- Giving feedback is more important for learning than getting feedback (Dysthe & Lillejord)
- *“Giving feedback has been even more of a learning process because then I need to go into the text in a different way, interpret it and see what it really says “  
“I think it has been extremely demanding, but at the same time it has contributed enormously to my learning”*
- *It has been a steep learning curve. [It is demanding] to find out enough about my fellow student’s text and to be competent to give feedback. There is no doubt that this results in several hours extra reading. For those of us who have taken this task seriously, it has worked extremely well ”*

# *SYSTEM*

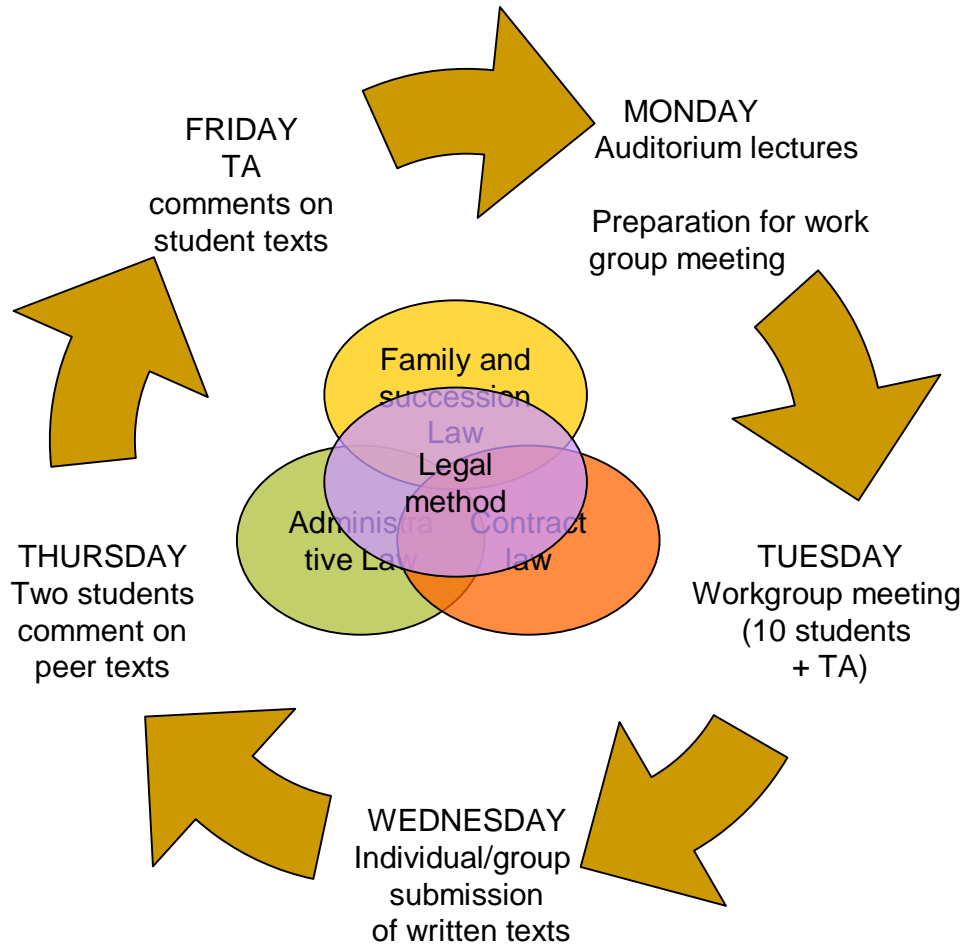
*meso level (department, study programme)*  
*macro level (disciplinary & inst. culture)*

1. Feedback & assessment as part of the total teaching-assessment design
2. 'The feedback loop'

# The importance of study design

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- Findings from a comparison of three study programs
- Norway
  - 5 written assignments, extensive feedback on each, unclear goals and criteria
  - The study design counteracted students' use of feedback
- England
  - Very structured assignments, clear criteria, institution wide feedback system adhered to by all teachers. Feedback after grade
  - The assessment regime counteracted students' use of feedback
- USA
  - Term paper, criteria negotiated, challenging feedback, 'mock grade', revisions encouraged
  - The study design made students' use of feedback meaningful



Multi-group meetings  
every third week

Discussions between 3  
student groups lead by  
one law teacher/PhD-  
student

Auditorium lectures

**Take-  
home  
exam**

**Sit-  
down  
exam**

# Supervision & feedback loop

1. Students' earlier experience of feedback

## 2. PRE-SUPERVISION

About expectations and standards

- A. Course work, portfolios, assignments
- B. Exams & tests

## 6 FEED-FORWARD

i.e. how students can use the feedback to improve their performance

## 5. FURTHER SUPPORT

- resource material
- access to earlier exams w/comments

## 3 CLARIFYING

Expectations during course

4. FEEDBACK on specific assignments

Individual or in groups  
Peers

Hounsell et al 2006

# Alternative feedback designs in large courses

## 1. Stratclyde Psychology (Nichols)

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- Context: 550 stud pr class, 2 MC tests + 3 essay
- Netbased groups of 6
- 3 compulsory assignments, increasing difficulty
- 1.assignment:
  - Answer (50-words) posted in discussionforum
  - Groupdiscussion: argue for best answer
- 2. assignment: group discussion – post answer (100 w)
  - Exemplary answer available
- 3. assignment: discussion, 300 w text
  - Model answer

# Alternative feedback designs in large courses

## 2: Mechanical engineering

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- Use of electronic voting (motivation & feedback)
- Ex.1: **Video** demonstrates a central concept
- **Multiple choice test** - stud "vote", graphic display of result
- Assignment: justify own answer
- New electronic test
  
- Ex. 2: register elektronically how sure studnets' are of the correctness of their answer and their reasons
- **Peer discussion: justify answer**
- Important:
  - Design of good assignments
  - Progression

# *STUDENTS*

*A. How to make students' engaged in peer feedback?*

*B. How to ensure that students' use feedback?*



# Motivation: usefulness and community

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**Findings** from research studies at the University of Bergen

## 1) "What is in it for me?"

- Peer feedback runs against the individual culture – only experience of usefulness can make students invest time:
- "You need to experience it, you need to 'see the light'.  
And then: "oh my God, I learn incredibly much" (student UiB)

## 2) "Breaking the loneliness"

- Community develops through sharing tasks and assignments in groups + peer feedback

# Know how

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- Systematic training of students in sharing their work and giving feedback in groups and individually
- Systematic discussion of criteria. Training in using them to assess peer work (Slujisemans et al 2002)
- "Develop tacit knowledge of quality" (Sadler) Skills not enough
- Training in revision of texts or how to improve presentations

# Questions for discussion

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- Institutional level
  - Has your discipline and your institution a strong feedback culture?
  - What can be done to improve it?
- Individual level
  - What are your strong and weak areas as feedback giver?
  - What ideas did you get that you will try out?
- Study program level
  - Is feedback built into the study design of the program you teach in? (When? How? Who?) From individual to collective responsibility?
- Students' involvement
  - Are your students engaged in discussing/developing criteria?
  - In peer feedback? (How?)
  - What will you do to develop their 'tacit knowledge of quality'?
  - What can be done to help students *use* the feedback they get?

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