Visible Learning
- John Hattie’s Research -
**Time table - Tuesday**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event Description</th>
<th>Session Details</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>D. Lindau-Bank Method Know-How-computer</td>
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<tr>
<td></td>
<td>Incl. Coffee Break</td>
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<tr>
<td>11.30</td>
<td>Plenary session</td>
<td>Chairs: Ch. Graack</td>
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<td></td>
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<td>D. Lindau-Bank</td>
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<tr>
<td>12.30</td>
<td>Lunch</td>
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</tbody>
</table>
# Time table - Tuesday

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Presenters</th>
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</thead>
<tbody>
<tr>
<td>13.30</td>
<td>Plenary session Presentation of the student’s survey</td>
<td>Presenters: Ch. Graack D. Lindau-Bank</td>
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<tr>
<td></td>
<td>8 Mindframes (Hattie’s conclusions)</td>
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<tr>
<td>15.00</td>
<td>Coffee break</td>
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<tr>
<td>15.30</td>
<td>Discussion and wrap up</td>
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<td>16.30</td>
<td>End</td>
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</tbody>
</table>
Concentration/Persistence/Engagement

Challenging Goals

Learning Intentions

Concept Mapping

Worked Examples

Direct Instruction

Teacher-Student Relationship

Deep on Top of Surface Learning

Spaced vs. Mass Practice

Self-Verbalization/Self Questioning

Deliberate Practice

Feedback

Emphasizing Success Criteria

Classroom Discussion

Micro Teaching

Response to Intervention

Student Self Assessment

Collective Teacher Efficacy

Teacher Estimates of Achievement

Highly Effective Strategies

Effect Size

0 0,2 0,4 0,6 0,8 1 1,2 1,4 1,6 1,8

0,48

0,56

0,56

0,57

0,57

0,57

0,59

0,62

0,64

0,71

0,71

0,72

0,75

0,77

0,82

0,88

1,07

1,44

1,57

1,62
Interconnecting Variables „Vester´scher Papiercomputer“

Group-Rating-Method

Goals:

• Reduction of complex interactions

• Visibility of complex interactions
Briefing

**Aim:**

This method is a simple tool that allows us to analyze the estimated impact intensities within a complex network of factors.

The results of this analysis can be used very well to help with making decisions on intervention possibilities and strategies for systematic change processes.
Required equipment:

Paper, pen, in group work flipchart

Time: Today 2,5 hours

depending on the number of factors to be analyzed, the size of the workgroup and the level of involvement of system members

• 1 hour (me alone with relatively few factors [<20])
• 2-3 hours (small group with relatively few factors)
• several weeks (complex change and involvement of system members)
Briefing

1. To model a change, we determine the factors that should change according to our objectives in a particular direction (outcomes or target factors).

2. This can be a single factor, but it can also be a bunch of factors.

3. From different perspectives, all possible influencing factors (influencing factors) are collected.

4. This refers to the factors that play a role in the "problem situation".

5. All elements of the situation analysis (target factors and influencing factors) are listed in a two-dimensional matrix, which contains all elements in both dimensions.
6. For the intensity of effect, a scale is set.
   - 0 = no effect
   - 1 = little effect
   - 2 = strong effect
   - 3 = very strong effect

7. The intensity of the effect between two factors ("What is the influence of ..... on .....?") is line by line estimated and entered with the appropriate number in the matrix.

8. Each line thus contains the effects that emanate from the "goal element" on all other elements, each column the measure of influenceability.
## Connecting influence factors

<table>
<thead>
<tr>
<th>Influence of</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong> Collective teacher efficacy</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td><strong>B</strong> Self-reported grades</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td><strong>C</strong> Teacher estimates of achievement</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>D</strong> Cognitive task analysis</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td><strong>E</strong> Response to intervention</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td><strong>∑ Influenceability</strong></td>
<td>3</td>
<td>0</td>
<td>10</td>
<td>1</td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

**0 = no impact**  
**1 = poor impact**  
**2 = average impact**  
**3 = high impact**
9. From the row and column sums, the median is formed.

10. Each factor is entered into a diagram with its two values (influence and influenceability)

- active factors (influence high / low influence),
- reactive factors (influence low / influenceability high),
- critical factors (influence high / influenceability high) and
- slow/dull factors (Influence low / suggestibility low).

The focus for further planning is on the active factors: if we manage to change them, we will create changes throughout the system.
**Active Variable** = Influences other factors strongly, low influenceability

**Critical variable** = Influences other factors strongly, influenced by other factors strongly as well

**Reactive Variable** = Low influence on other factors, influenced by other factors strongly

**Slow/dull variable** = Low influence on other factors, low influenceability
How to interpret the results

• Active element offers best intervention possibilities – go for it!

• Reactive element is least suitable for influencing – forget it!

• Critical element acts as an "accelerator“ – be careful!

• Slow element dampens self-reinforcing processes – have an eye on it!
MINDFRAME 1 of 8  Teachers/leaders as evaluators

A disposition to asking ...

• How do I know this is working?
• How can I compare ‘this’ with ‘that’?
• What is the merit and worth of this influence on learning?
• What is the magnitude of the effect?
• What evidence would convince you that you are wrong?
• Where have you seen this practice installed so that it produces effective results?
MINDFRAME 2 of 8 - it’s about the teacher’s /leader’s mindset, not the kids

- All students can be challenged
- Strategies not styles
- Develop high student expectations
- Enhance help seeking
- Develop assessment capable students
- The power of developing peer interactions
- The power of critique/error/feedback
- Self-regulations and seeing students as teachers

Do not blame students
MINDFRAME 3 of 8  teachers/leaders as CHANGE AGENTS

- Achievement is changeable and enhanceable vs. immutable and fixed
- Teaching as an enabler not a barrier
- Engage in the total learning and
- not break into steps and chunks
- The Power of learning intentions
- The Power of success criteria
MINDFRAME 4 of 8
Teachers/leaders gaining feedback about themselves

Feedback is

- information provided by an agent (e.g., teacher, peer, book, parent, self/experience)
- regarding aspects of one’s performance or understanding.
MINDFRAME 5 of 8

AFT = Assessment as feedback to teachers

- Who did you teach well, who not so well?
- What did you teach well, not so well?
- Where are the gaps, strengths, achieved, to be achieved?
- Levels and Progress
- Developing a common conception of progress
- Use assessment info not to make judgements about your efficacy as a person but what you need to work on as a teacher!!
MINDFRAME 7 of 8

Dialogue not Monologue

What can I say – we talk too much!

80% of classroom time is estimated as being teacher-talking – needs to be reversed
MINDFRAME 8 of 8
It’s about “not knowing”/error: relationships in classrooms

The importance of error and not knowing

• Build trust and rapport
• Student more than teacher questioning
• Teacher clarity, support, and What’s next
• Peer teaching, assessment, learning
• It’s more about the learning than the teaching
• We don’t have to be the experts!!
The three major messages for teachers

**Transparent goals**
- The more transparent the teacher makes the learning goals, then the more likely the student is to engage in the work needed to meet the goal.

**Success criteria**
- The more the student is aware of the criteria of success, then the more the student can see the specific actions that are needed to attain these criteria.

**Rapid formative feedback**
- The more there is feedback about progress from prior to desired outcomes the more positive attributes to learning are developed.
What some teachers/leaders do!

• Clear learning intentions
• Challenging success criteria
• Range of learning strategies
• Know when students are not progressing
• Providing feedback
• Visibly learns themselves
Such that students …

- Understand learning intentions
- Are challenged by success criteria
- Develop a range of learning strategies
- Know when they are not progressing
- Seek feedback
- Visibly teach themselves
Students need to learn to ask of themselves

- Where am I going?
- How am I going (progress)?
- Where to next?

The students can’t ask the questions unless we teach them how to ask them, that means we need to frame the way we structure our lessons around that sort of immediate feedback.
Where to start this change process?

- invite teachers to evaluate their own mind frames to see whether they are shared by other teachers.
- asking teachers about their ideas about feedback.
- look at the effect sizes of practices at your school.
- examining the mind frames of the school leaders.

Do not start by lecturing staff.
Helpful questions

• What does Hattie mean by “visible” learning and teaching?

• In what ways is your teaching visible to students?

• In what ways are you able to make student learning visible?

• What are some ways teachers can make their teaching more visible to students?
Guiding lines for change

The more the student becomes the teacher and the more the teacher becomes the learner, then the more successful are the outcomes.” (p.17)

Schools and teachers must evaluate the impact of their effect on student learning, become “evaluators of your effect.”
## Visible Teaching, Assessing, Learning and Leading Model (VTALL)


### Visible Teaching
- Shows caring and respect for students' needs, responses and diversity.
- Uses small group options: pairs, cooperative learning, guided reading, reciprocal teaching, etc.
- Assigns/uses leveled and varied texts/articles, magazines, fiction, non-fiction, internet, etc.
- Uses management strategies to reduce disruptions in learning: clear expectations, rules and procedures, etc.
- Clarifies and articulates specific learning objectives/learning intentions.
- Provides direct/explicit instruction and models what students should know or do to master objectives.
- Develops vocabulary and connects concepts and ideas.
- Questions for high level thinking and deep learning.
- Maintains instructional clarity across less organization, explanation, examples and guided practice.
- Differentiates through re-teaching, acceleration and enrichment, etc.

### Visible Assessing
- Identifies and communicates challenging success criteria in checklists and rubrics.
- Pre-assesses to determine what students already know and can do.
- Checks for understanding and achievement of learning intentions.
- Provides specific descriptive feedback.
- Engages students in self-assessment of their work, what they learn, and how they learn.
- Uses existing products or samples as models for student products.
- Uses assessments aligned with objectives/learning intentions/standards and instructional processes.
- Provides choices in assessment products.
- Engages students in giving specific feedback to peers and to the teacher.
- Involves students in setting learning goals.

### Visible Learning
- Uses manipulatives and technology.
- Engages in making decisions and choices.
- Applies cognition strategies: make connections, question, summarize, infer, synthesize, visualize, big ideas.
- Engages in reading.
- Engages in writing.
- Engages in discussing text.
- Engages in problem solving or creates products.
- Engages in peer tutoring, cooperative learning, reciprocal teaching and other cooperative structures.
- Creates/uses advanced/graphic organizers, concept mapping, logs, interactive notebooks and foldables.
- Engages in relevant, real-world learning experiences that advance 21st Century Skills.

### Visible Leading
- Articulates a vision of high expectations for 21st Century Schools.
- Builds capacity through modeling, supervision and coaching.
- Redesigns structures, roles, and functions to support visible assessing, teaching, learning and leading.
- Provides feedback by using observation protocols to “look for” and discuss visible assessing, teaching, and learning.
- Creates structures that promote collaboration and inquiry.
- Designs/relieves high quality individual and school professional development, based on performance data and standards.
- Analyzes policy to determine those that may impede visible assessing, teaching, learning and leading.
- Uses assessments, data, and research to improve practice and student learning.
- Provides open, honest communication to foster improvement.
- Promotes a culture of efficacy and optimism for improving visible assessing, teaching, learning and leadership.
Teachers shared belief that through collective action, they can positively influence student outcomes, including impacting those who are disengaged and/or disadvantaged.
Students knowing about their chance of success
Awareness of what they know about a subject
- Teachers ability to identify essential representations of subject
- Guiding learning through classroom interactions
- Monitoring learning and providing feedback
- Influence student outcomes

Instructional Quality

1.00 effect size
You had the child for a year, and you failed, now you’re going to give him the same kind of curriculum, the same kind of strategies…

What that kid needs is not more, he needs different. - John Hattie
The problem with tracking is the expectations it sets for kids.

It says to them very clearly, this is where you perform...

Quite often teachers only teach material that is relative to that tracking. - John Hattie

Ability Grouping
If you are going to reduce class size, the first thing we have to do is change **how we teach**. - John Hattie
Components of Effective Implementation

Vision • Mission • Beliefs

- Leadership
- Competency
- Organization
Continuous School Improvement Process

**Student Achievement**

**Plan**
- Develop School Improvement Plan

**Gather**
- Get Ready
- Collect School Data
- Build School Profile

**Do**
- Implement Plan
- Monitor Plan
- Evaluate Plan

**Study**
- Analyze Data
- Set Goals
- Set Measurable Objectives
- Research Best Practice