## IDEAS TO GO FORWARD

Help students to go to a deeper level of understanding. Help them to really look.

What are cues Lecturers can use to identify 'not understanding'

Quality of the conversation might be defining the quality of the learning. Helping students to a rich vocabulaire to give words to thoughts and reflections.

In designing the course/curriculum it is useful to design cues to support "who needs what and when' and relating to the type of learning / level of learning. To create flexibility for learners.

It is necessary to build in time needed for task/content reflection to make sure it happens and to make it

Help students get a better idea on what quality they are striving for for their work. Learn students (how) to look at their own work.

Learn students that sometimes you first have to feel really incompetent before learning takes place

Scaffolding can help in designing diagnostic cues.

## RELATING TOPICS

4C/ID model; with the note that it is a fairly 'technical' approach to reality.

Four Component Instructional Design (Vier Componenten Instructie Ontwerp) (Van Merriënboer 1997)

Trends in self regulation (conference 2017)-> speaker ML Nugteren

Peer Review; How do you evaluate yourself/ your peers.

Formative feedback;

Learning from examples (Alexander Renkel). Use a good example together with an assignment. What do students think about why it is a good example for instance.

Learners have a tendency to use invalid/ superficial cues (high utilization & low diagnotic value). Metacognitive monitoring Controlling For instance: recalling misinterpreted for deep of Learning Proces the learning proces understanding -the thoughts of learners--how the learners respond to the -> leading to 'Overcompentent' feeling thoughts--> negative consequence for control decisions Aim: stimulate learners to use cues with higher Metacognitive Promts to help diagnostic value. using the diagnostic cues Diagnostic Cues to support the student's Transfer paradox: High diagnostic cues may have a monitoring & controlling negative effect on immediate performance... Elaboration: connecting to what is known The use of cues depend on the desired type of learning Inductive learning: constructing new knowledge by solving problems Task/ topic level The use of cues depend on the level Cue-based facilitation of self-regulated learning: at which the learning takes place series of tasks | instructional/ sequence A discussion of multidisciplinary innovations and Jeroen J.G.van Merriënboer | Anique B.H.de Bruin

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Examples of metacognitive prompts for facilitating self-regulation of different types of learning at the task/topic level and the instructional-sequence level.

Schema Construction Inductive learning/learning · Would you be able to perform this task in an alternative . Can you explain how this task is different from Can you indicate any risks or subontimal approaches for · Which future task will help you work on points of performing this task? Elaboration/supportive Can you self-explain the information you just studied? · What additional learning resources might help information · Can you summarize or build a diagram of the information you just studied? Rule formation/procedural information without the availability of just in time instructions?

Examples of Metacognitive Prompts

Strengthening/part-task

practice

Type of learning/instructional Task or topic level

- · What resources should you re/study in order to be shie to perform future tasks? Would you be able to perform this routine aspect of the task
   Which how-to instructions can help you become more accurate and make less errors?
- If you make an error, would you be able to recover from this
  Will you be able to perform this task next time. error without asking for help? without the learning aid? Does it cost you any mental effort to perform this task? Did your investment of effort decrease over the . Would you be able to perform it simultaneously with other last practice sessions?
  - · Should you continue practicing under higher speed stress and time sharing conditions?

Jeroen J.G.van Merriënboer | Anique B.H.de Bruin

Instructional sequence level

previous tasks you performed?

you to increase your understanding?

## Ouestions Raised in relation to the article:

Cues for Individuals versus cues for Groups. Does everyone need a different individual cue? It is thinkable that on some levels generic questions might do it "am I on track with this topic"

What about underestimating/ insecurity that leads to 'over-learning'

And under performance whilst not realising where you stand compared to your fellow students.

Taking the step from monitoring to controlling/ actions What makes a student to follow an advise/cue

What cues are important & how to act on them? How to effectively use 'cues' in designing a course?

## EXAMPLES SHARED TO PRACTICE REFLECTION

Giving feedback to students via a reaction video (frame in frame) in such a way that they have to watch their own presentation, (might be confronting but definitely useful)

Let students make 'a making of'. How did you approach it? Ask guestions like: what do you want feedback on, why?

What is still missing according to you? What are you satisfied with?

What should I leave out in my feedback (what are you still working on? What does still needs attention?)

Let students make a self assessment before they come to you. And ask them about their findings based on the self assessment.

Make sure students use available 'benchmarks' (rubrics/ peers/ different perspective). Suggest to students to look at their own work with a rubrics next to it and let them do that together with a peer.

Asking questions like: Can you explain how this task is different from previous tasks you performed. This helps student's understanding but does not provoke elaboration or collaboration

If you have a student handing in work that is not matching the requirements you might want to think about sending it back with the question to first have a closer look themselves (with a check on the actual assignment) before handing it in and receiving feedback

Use examples in a way that they contribute to the 'thinking process' instead of copying and reproducing,