

## **How did you approach that reading task?**

“In reading the article I was looking out mainly for facts and examples. I read the article more carefully than I usually would, taking notes knowing that I was to answer questions about it. I thought the questions would be about the facts in the article... This did influence the way I read: I tried to memorize the names and figures quoted, etc”.

“I read more slowly than usual, knowing I’d have to answer questions but I did not speculate on what sort of questions they’d be. I was looking for the argument and whatever points were used to illustrate it. I could not avoid relating the article to other things I’d read, past experiences, and associations etc. My feelings about the issues raised made me hope he [the author] would present a more convincing argument than he did, so that I could formulate and adapt my ideas more closely, according to the reaction I felt to his argument” .

Marton, Hounsell and Entwistle (1984)

# Depth of Processing

Craik and Lockhart (1972) and Marton and Säljö (1976)

- Use the same terms: “levels” and “depth” of processing.
- But they come from quite different traditions and refer to quite different phenomena.

## **Craik and Lockhart (1972)**

- Information processing model of memory.
- Deep processing refers to semantic rather than sensory encoding and is reflected by ‘elaboration coding’ where the stimulus is associated or related to other material in the mind.
- Instructional material is more memorable and more meaningful when it is processed more deeply due to the cognitive strategy of elaboration where new information is related to prior knowledge.

# Depth of Processing

Marton and Säljö (1976)

- Based on context specific, phenomenographic case studies of students' learning processes.
- Conceptions, approaches and outcomes of learning.
- Students approach learning material using either deep-level or surface-level processing which describes how they negotiate a learning task and what they direct their attention towards.
- Surface-level processing is directed towards reproducing the learning material.  
Deep-level processing is directed towards comprehending the intended meaning of the learning material.
- Different “approaches to learning” (depth of processing) are associated with qualitatively different learning outcomes.

# Extending Approaches to Learning

	Approaches / Orientation		
Marton & Säljö (1976)	Deep	Surface	
Biggs (1987)	Deep	Surface	Achieving
Entwistle et al. (1979)	Meaning	Reproducing	Strategic

Entwistle et al. (1979) - Approaches to Studying Inventory  
Biggs (1987) - Study Process Questionnaire

“The hypothesis was that variation on factors such as cognitive style, personality, and values, would generate different emphases on coding and rehearsal strategies, as outlined in the author’s information processing model, and these would be manifest in the academic context by different ways of studying, which in turn would determine learning outcomes” (p. 4).

Biggs (1993)

## **Biggs' Presage, Process and Product (PPP) model**

- Approaches to learning seen in a broader context.
- Conceptual separation of 'Motive' and 'Strategy'; but used to create single measures/dimensions.

### **Shift in focus**

- From students' processes while engaged in specific tasks to the predisposition of learners.  
(“What did you do just now” -- “What do you typically do when studying”)
- From a holistic approach to a more atomistic one (albeit interactive).
- Led to mass, quantitative, diagnostic testing.

# Extending Approaches to Learning

## Prosser and Trigwell (1999)

- Draws on Marton and Säljö (1976), Ramsden (1992) and Biggs (1978).
- Emphasises the *relational* nature of students' perceptions and prior experiences of learning, their approach to learning and their learning outcomes.
- But it, goes further ...
  - “[The SAL approach] also suggests to university teachers that by altering the learning context it may be possible to improve learning by encouraging that [deep] approach” (p. 3).
- While not ignoring students (far from it!) there is an additional, explicit and ever present focus on the teacher.
- As a result the model presents an “overarching and systematic” analysis of teaching and learning in Higher Education more generally. (Haggis, 2003)

# Other Approaches to Approaches to Learning

## Pintrich and Schrauben (1992)

- Socio-cognitive model of students' classroom learning.
- Comes from a quantitative, experimental Educational Psychology tradition — Achievement Motivation (students' goals, interests, values → → → ).
- Conceptually very similar to Biggs' PPP model ...
  - Emphasises Motivational (Motive) and Cognitive (Strategy) components.
  - Places learning processes in a broader context ...
- But ...
  - Motive and Strategy components are conceptually *and* methodologically separated.
  - More linear, causal and predictive in nature.
- Where does this model fit on the continuum of information processing ← ----- → phenomenography?

## **So What?**

Do these differences have implications for the way we

- think about deep and surface approaches to learning?
- use this model (teaching interventions, assessment, policy in higher education)?
- research and evaluate student learning?



# Dimensions

## *Tradition*

IP ----- Socio Cognitive ----- Phenomenographic

## *Persistence and Stability*

Personality Trait ----- Individual State

Stable ----- Malleable

Predisposition ----- Process

## *Level of Conceptualisation*

General ----- Specific

## *Level of Measurement*

General ----- Specific

## *Dynamic of the Process*

Motive ----- Strategy