



Designing sessions for effective learning

Sharon Markless

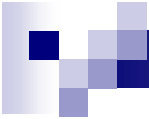
King's College and IMA



What are we trying to achieve?

- analytical and critical information users
- problem-solvers, applying strategies, skills and concepts appropriately
- synthesisers, able to see connections
- independent learners
- flexible thinkers

How do people learn to behave like this?



What influences the effectiveness of students' learning IL?

- *Needing to learn* (relevance/real needs/ real consequences/timeliness)
- *Wanting to learn* (intrinsic motivation, feeling valued (self-esteem), ownership, choices)
- *Experience/practice/ having a go* (active engagement, learning by doing, challenge)
- *Feedback* answering 'what can I do to improve?'
- *Making sense of things/digesting* (time for reflection, clear achievable goals)



Prior knowledge and experience: key influences

*“The most important single factor influencing learning is what the learner already knows; ascertain this then you can determine where the gaps are and teach him accordingly”
(Ausubel: 1968)*

“Establish what meanings and concepts the learner has already generated from their backgrounds (etc),... this is where teaching starts.” (Wittrock: 1986)

How do we scaffold learning?



Learning preferences as an influence on learning

Activist

Reflector

Random learners; open ended; self-directed

Pragmatist

Theorist

Logical sequential learners; clear structure and direction



Style, personality and information behaviour

- **Fast surfers:** minimum time and effort, access over quality, problems with critical evaluation (surface learning)
- **Broad scanners:** wide range of sources. flexible browsers, acquire information by chance (serendipity), open to experience
- **Deep divers:** motivated/lots of effort, intellectual curiosity, high quality information only (strategic learning)



The Processes of Learning?

Learning as acquiring competence or skills

Developed through the process of **association** *i.e.* building ideas or skills step-by-step. Uses strategies such as mnemonics, training drills, imitation, direct instruction

Associative learning (Behaviourism) leads to recall or accurate reproduction



Learning as achieving understanding/ knowledge

Developed by **constructing** ideas and skills through *individual* exploration/ active search for meaning or through dialogue/social interaction/ collaborative research. Uses exploration, experimentation, guided discovery, problem-solving, reflection; discussion, debate etc.


Constructive learning leads to integrated skills and deep understanding



The process of learning as construction

Constructivism has a fundamental core component: ***understanding and knowledge are actively constructed*** within the individual as a result of the activation of the senses.

It involves ***integrating new knowledge*** and understanding with existing knowledge and understanding (or perhaps supplanting existing knowledge with new insights).



It is important to remember that what the student does is actually more important in determining what is learned than what the teacher does...



What should students *do* in order to learn?

- talk to each other to: clarify their ideas, analyse their strategies, formulate questions to ask you, correct each others' answers, form hypotheses, develop own interpretations...
- solve real problems related to subject content
- reflect on their strategies linked to their effectiveness



Implications for designing and structuring sessions?

In effective information literacy sessions students are put into the role of 'the learner' rather than 'the taught'



Teaching for constructive learning:

- Start with authentic tasks/real problems (not sequence of instruction “this is how to...”)
- Provide high quality support materials for use when solving problems (guidelines, information on search engines etc.)
- Enable focussed feedback: peer & ‘expert’
- Build in critical reflection (time and questions)
- Support active thinking; developing learners’ own viewpoints, not just ‘doing’



Set meaningful research tasks

Move students away from gathering facts, and more facts, and more facts... and then sorting and organising them! Making a product rather than developing knowledge

Collecting facts as the beginning not the end; use them to build explanations, develop opinions, explore differences; transform information and create content



The Information Base	Creating the Text	Transforming the Text
AMNESTY INTERNATIONAL	Synthesise sets of ideas into your own words (150)	Create a bullet point summary (2xpower points)
History of Organization		
Vision and Goals of Organization “research and action focused on preventing and ending grave abuses of the rights to physical and mental integrity, freedom of conscience and expression, and freedom from discrimination, within the context of its work to promote all human rights” http://web.amnesty.org/pages/aboutai-index-eng		
Significant Achievements Barriers		



Provide structures to move students beyond stockpiling facts

- Build big picture from individual foci (concept jigsaw; concept map software)
- Synthesise four answers to the same question-what to believe? Whose version?
- Give advice on basis of information found
- See patterns/trends (information matrix on strategies of dictators; good and bad in fairy tales etc)



Roles for students in small groups

Word hunter: finds key words, definitions

Evaluator: evaluates sources

Communicator: summarises big ideas/main points

Quiz kid: Raises questions

Image maker: creates visual schemes (charts, diagrammes etc)

Challenger: Asks “why is it important? Do we need to include it? What does it really mean?” Etc.



Advice from Ross Todd...

Don't water rocks; focus on curriculum areas that lend themselves to enquiry

Don't be accomplices to mediocrity through being tactful (Ban those bird units!)

SLA Course, London. May 2008