

In this session we will consider:

- ▶ What active learning is
- ▶ What active learning is NOT
- ▶ The benefits of active learning
- ▶ Practical classroom ideas



Getting Started

- ▶ What do you already know about active learning? What is it?
- ▶ What is it **not**?



What is active learning?

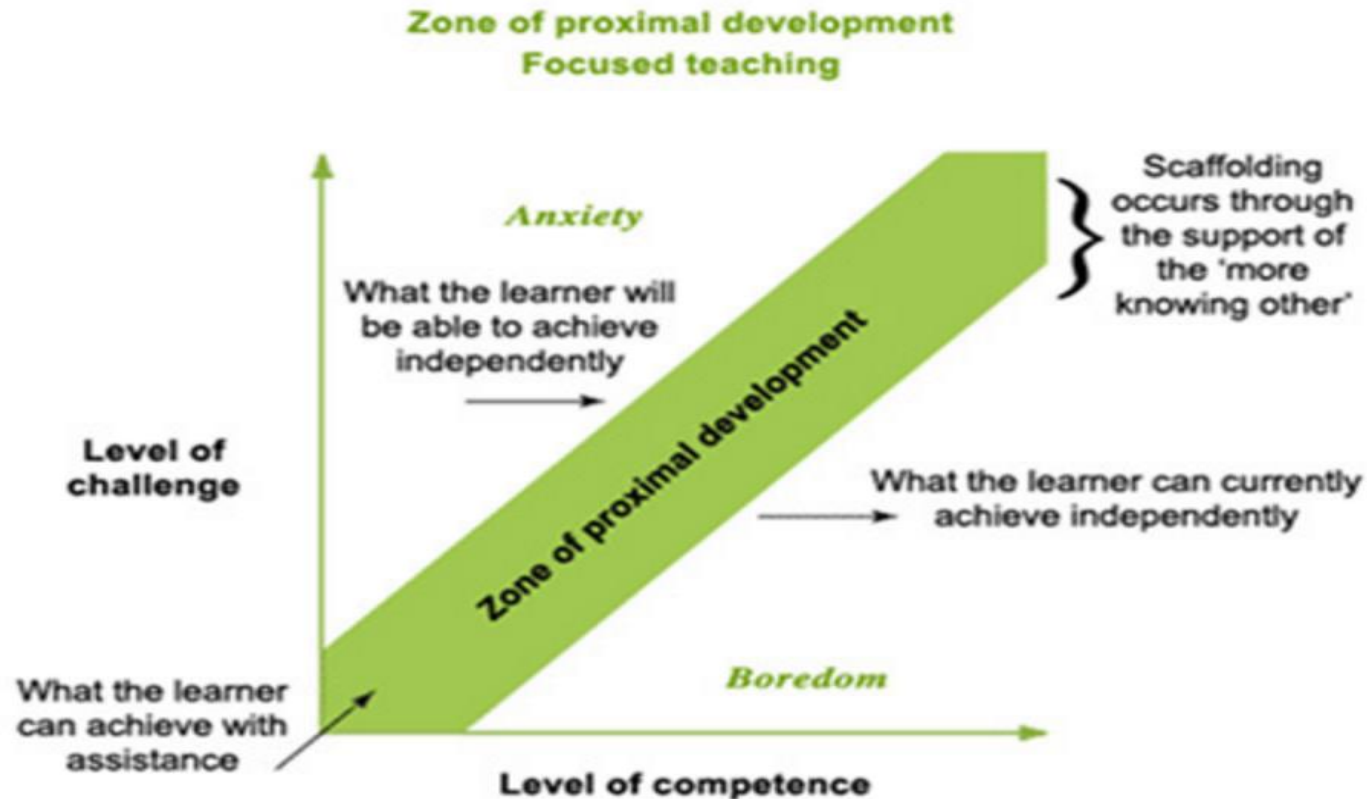
Active learning is an approach which understands that humans only learn when they are actively engaged in their own learning and made to think hard.

It respects the fact that knowledge and understanding cannot be transmitted from a person, or a learning resource, to another person.

- ▶ Based on theory of constructivism:
 - ▶ Students construct or build meaning *based on their existing understanding* which may be wrong or inadequate.
 - ▶ Building accurate meaning allows students to access the ‘higher order’ skills of analysis, synthesis and evaluation based on a solid foundation.
- ▶ Linked to Vygotsky’s theory of the “Zone of Proximal Development”

Skilled teaching stretches student thinking, correcting misunderstanding, supporting the development of more sophisticated understanding and helping students to become their own teachers

Graph: Zone of proximal development: Vygotsky



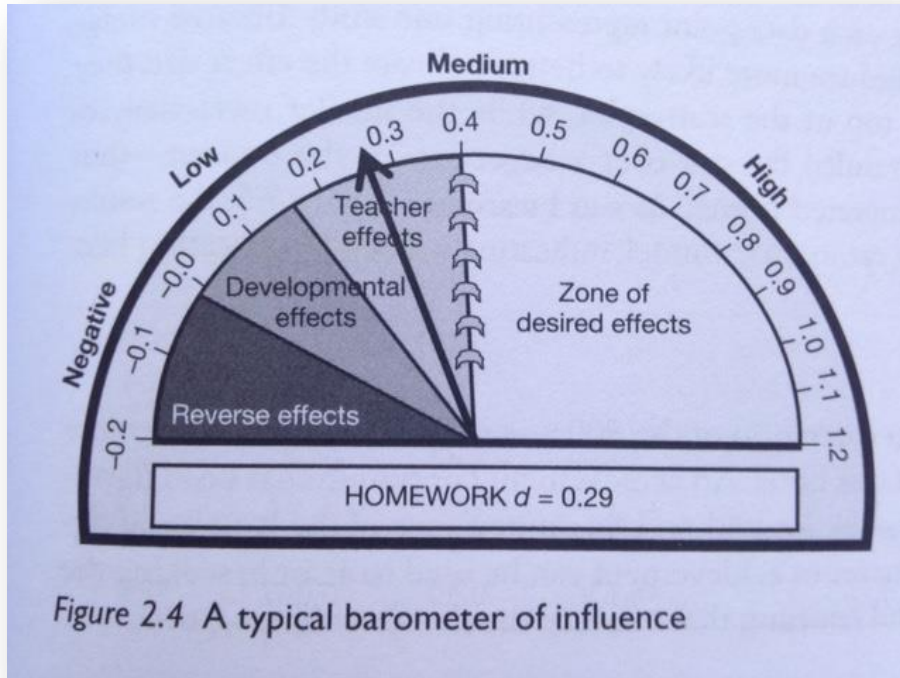
Active learning is NOT . . .

- ▶ . . . students passively ‘receiving’ information from their teacher.
- ▶ . . . always a group-work activity – whole-class discussions can be just as ‘active’.
- ▶ . . . any particular TYPE of activity. Active learning is about the learning that happens, not the task students are doing.
- ▶ . . . students breaking up their studies with exercise.
- ▶ . . . the same as students ‘having fun’. Students should love learning, but not all entertaining activities encourage learning. Diligent and deliberate practice is essential and should also be active.
- ▶ . . . teachers being facilitators in student learning.

Effect Sizes for teacher as activator and teacher as facilitator

Teacher as Activator	d	Teacher as Facilitator	d
Reciprocal teaching	.74	Simulations and gaming	.32
Feedback	.72	Inquiry based teaching	.31
Teaching students self-verbalization	.67	Smaller class sizes	.21
Metacognition strategies	.67	Individual instruction	.20
Direct instruction	.59	Problem based learning	.15
Mastery learning	.57	Different teaching for boys and girls	.12
Challenging goals	.56	Web based learning	.09
Frequent / effects of testing	.46	Whole language reading	.06
Behavioural organizers	.41	Inductive teaching	.06
Average activator	.60	Average facilitator	0.17

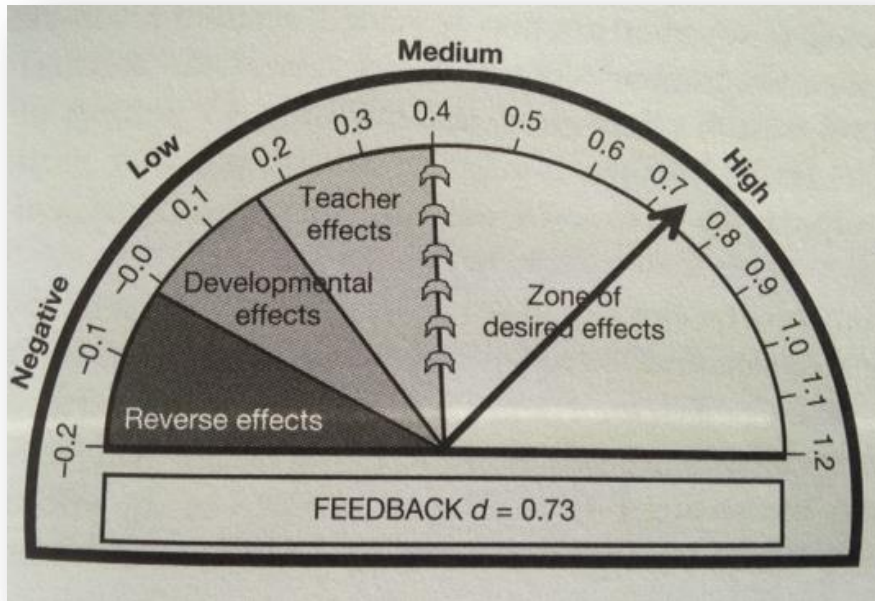
Interpreting the effect size



- ▶ An effect size above zero is positive, but in education is that enough?
- ▶ Children's maturation alone will lead to some enhancement of learning
- ▶ Not just 'what works' but **'what works best'**
- ▶ 'Hinge point' of 0.4 effect size

An effect size of 1.0 is the equivalent of advancing a learner's achievement by 2-3 years.

One example: Feedback (effect size 0.73)



- ▶ Ranked 10th of all the interventions listed
- ▶ Evidence from 23 meta-analyses covering 1,287 studies, involving 67,931 people
- ▶ Most powerful feedback is from learners to teachers – about their progress in learning
- ▶ Good feedback on learning is intertwined with the teaching process
- ▶ It should focus on task information and needs to be well pitched

Learning habits or dispositions that support active learning

Building Learning Power

Source: Guy Claxton, adapted from *building learning power*

Move From:

- ▶ Retention
- ▶ Discussion
- ▶ Justification
- ▶ Calculation
- ▶ Tight manipulation
- ▶ 'Knocking out small essays'
- ▶ Accepting criticism
- ▶ Achieving targets

Move To being an Expansive school:

- ▶ asking interesting questions
- ▶ checking what we are told
- ▶ thinking on our feet
- ▶ making good use of resources
- ▶ harnessing our imaginations
- ▶ unearthing problems
- ▶ being bold and trying new things
- ▶ helping ourselves when we are stuck
- ▶ checking and improving our own work
- ▶ seeking and valuing feedback
- ▶ working well in different groups
- ▶ listening carefully and respectfully
- ▶ concentrating despite distractions
- ▶ becoming our own teachers



The benefits of Active Learning

- ▶ It is the only efficient and effective way to learn
- ▶ Creates strong student engagement
- ▶ Encourages higher-order thinking: analysis, synthesis, evaluation
- ▶ Active Learning approaches support success:
 - ▶ Success in Cambridge examinations.
 - ▶ Success in degree-level study and beyond.
 - ▶ Creates lifelong learners. Students develop the ability to learn for themselves.
 - ▶ Essential base for developing Assessment for Learning work.

Over to you:

- ▶ What active learning approaches have you used in your own teaching?



Focus on a learning rather than a performance orientation

Source: Watkins, C. [2010] Learning Performance and Improvement. *Research Matters*. The London Centre for Leadership in Learning issue 34, summer 2010. www.ioe.ac.uk/insi

We need to challenge and change culture

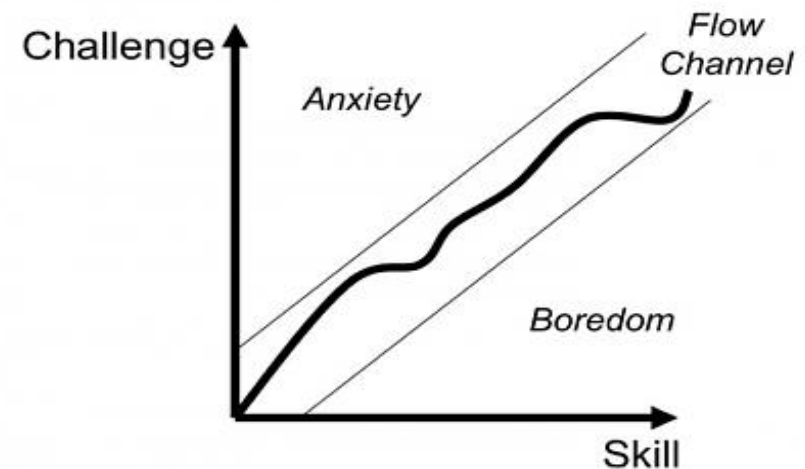
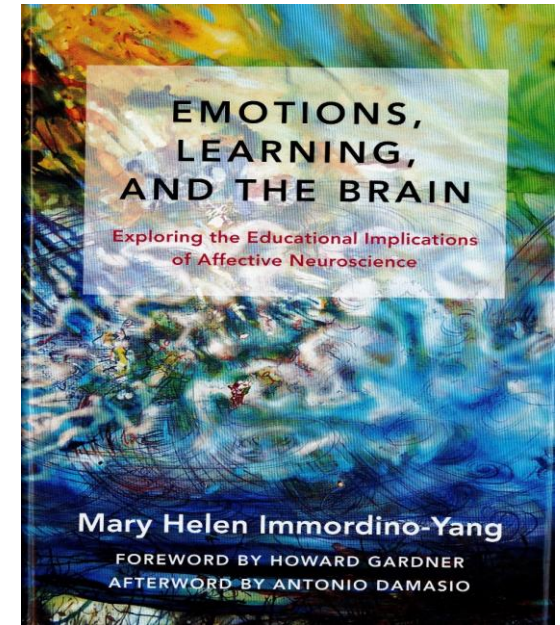
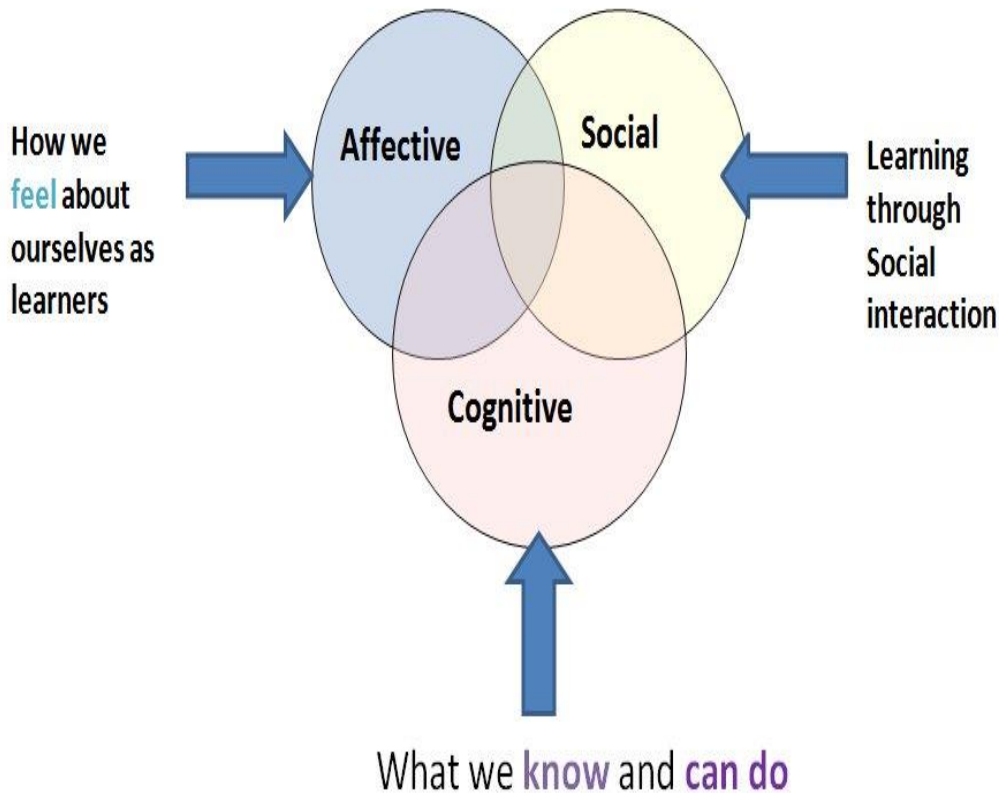
From	To
Proving Competence	Improving Competence
Performance orientation	Learning Orientation
'Looking good'	'Learning Well'
	Making Learning an object of attention, conversation and reflection

“Students with more elaborated conceptions of learning perform better in public examinations”

“The evidence leads to the conclusion that learning about learning is a practically viable and educationally important strategy which also has the effect of improving performance”

Importance of emotional thought

Self concept is an amalgam of....



"Flow" concept by Mihaly Csikszentmihalyi. Drawn by Senia Maymin.

Cambridge learner and teacher attributes

see: <http://www.cambridgeinternational.org/teaching-and-learning/cambridge-learner-attributes>

Cambridge learners	Cambridge teachers
Confident in working with information and ideas – their own and those of others.	Confident in teaching their subject and engaging each student in learning.
Responsible for themselves, responsive to and respectful of others.	Responsible for themselves, responsive to and respectful of others.
Reflective as learners, developing their ability to learn.	Reflective as learners themselves, developing their practice.
Innovative and equipped for new and future challenges.	Innovative and equipped for new and future challenges.
Engaged intellectually and socially, ready to make a difference.	Engaged intellectually, professionally and socially, ready to make a difference.

Making learning and thinking visible: What does a good one look like?

Through assessment for learning, the learner:

- 1. comes to hold a concept of performance similar to that held by the teacher**
 - ▶ ***i.e. develops the notion of a standard***
- 2. monitors the quality of his/her own performance**
 - ▶ ***i.e. can compare own performance with the standard***
- 3. sees how the quality of performance can be improved**
 - ▶ ***i.e. engages in the action that closes the gap between own performance and the standard***

[adapted from Professor David Hargreaves]

Key Points in Lesson Planning

- ▶ Think **first** about what the student needs to learn. Include skills as well as content.
- ▶ **Then** think about which tasks would support this learning.
- ▶ Make sure that you consider how all students will be encouraged to think hard.
- ▶ Use your knowledge of the students to focus on what works for them.
- ▶ Constant adjustment depending on ongoing feedback as the class progresses
- ▶ Summary review led by students at the end and beginning of lessons

Over to you:

- ▶ What would you like to know now? How will you find out more?
- ▶ What will you try out in your teaching as a result of this session?

