



Cambridge Assessment
International Education

Learning and achievement for all

Mastery: building the blocks for learning for all

Dr Alison Borthwick

8 - 9 December 2017



A journey into the world of mastery

In this presentation we will explore:

- ▶ What does mastery mean?
- ▶ How can mastery help all students to learn?
- ▶ Key ideas involved in this teaching approach.
- ▶ Ideas to take away to form your mastery toolkit.

- ▶ No prior knowledge of mastery is required!

Aims and outcomes of mastery

- ▶ Mastery aims to raise attainment for all pupils and close the attainment gap between pupils.
- ▶ Recent research shows that pupils being taught through a mastery approach make more progress than those who are taught in a more traditional way.
- ▶ Mastery may represent a cost-effective change for schools to consider.
- ▶ How we adopt a mastery approach is open to interpretation.
- ▶ Mastery is not a noun. It is a lens through which we consider effective teaching and learning.

True or false?

- ▶ Take a card.
- ▶ Discuss the statement on your card. Is it true or false?
- ▶ Answers revealed throughout the session!
- ▶ What are the mastery 'buzz words'?

What have *you* mastered?



- ▶ What does it mean to master something?
- ▶ A form of instruction that would reduce the achievement gaps between varying groups of students (Guskey, 2007)
- ▶ In mastery learning the students are helped to master each learning unit before proceeding to a more advanced learning task (Bloom, 1985)

What have you *not* mastered?



- ▶ You know when you've mastered something when you can apply it to a totally new problem in an unfamiliar situation (Drury, 2014)

Is there a definitive definition of mastery?

- ▶ No!
- ▶ Can you write one?
- ▶ What would mastery 'look like' in different curriculum subjects?





Mastery denotes a focus on achieving a deeper understanding of fewer topics, through problem-solving, questioning and encouraging deep thinking. Also sometimes associated with this ‘mastery’ approach is a belief that all children can achieve a high standard and that the purpose of assessment is not differentiation, but ensuring all children have grasped fundamental, necessary content.



Commission Without Levels, September 2015

- ▶ One idea per lesson
- ▶ Teach less (content) but well
- ▶ Keeping the whole class together
- ▶ Positive mindset
- ▶ Asking key questions
- ▶ Daily intervention
- ▶ Focus on thinking and understanding, rather than just doing

▶ How are these calculations different, yet the 'same'?

▶ $167 - 54 = ?$

$167 - 12 = ?$

▶ $167 - 58 = ?$

$167 - 99 = ?$

▶ $167 - 73 = ?$

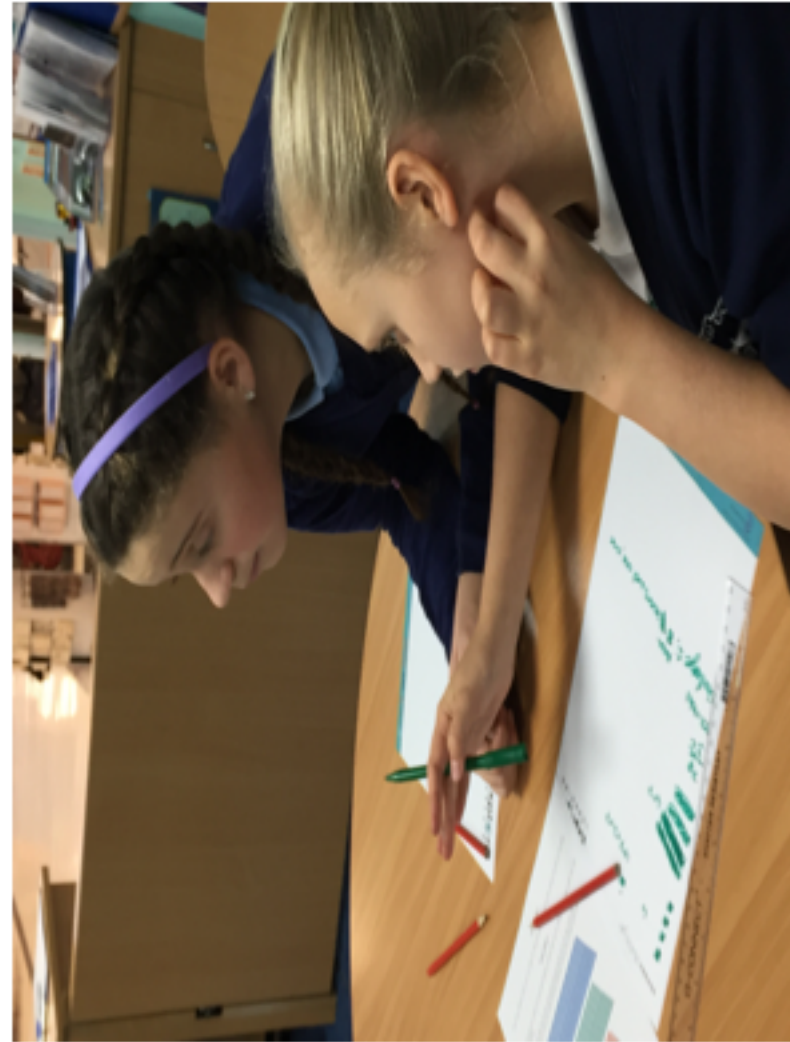
$167 - 10 = ?$

▶ $167 - 78 = ?$

$167 - 67 = ?$

- ▶ What are the key concepts your learners need?
- ▶ How much time do you spend on these?
- ▶ Discuss: which is more important - skills or content?

- ▶ How much together?
- ▶ Differentiation
- ▶ Setting



- ▶ Fixed or growth?
- ▶ Do you think all children from all backgrounds can succeed?

Levels of thinking	Guide questions
<i>Memory:</i> <i>recalls or memorises information</i>	<i>What have we been working on that might help with this problem?</i>
<i>Translation:</i> <i>changes information into another form</i>	<i>How could you write/draw what you are doing? Is there a way to record what you've found that might help us see more patterns?</i>
<i>Interpretation:</i> <i>discovers relationships</i>	<i>What's the same? What's different? Can you group these in some way? Can you see a pattern?</i>
<i>Application:</i> <i>solves a problem - use of appropriate generalisations and skills</i>	<i>How can this pattern help you find an answer? What do think comes next? Why?</i>
<i>Analysis:</i> <i>solves a problem - conscious knowledge of the thinking</i>	<i>What have you discovered? How did you find that out? Why do you think that? What made you decide to do it that way?</i>
<i>Synthesis:</i> <i>solves a problem that requires original, creative thinking</i>	<i>Who has a different solution? Are everybody's results the same? Why/why not? What would happen if....?</i>
<i>Evaluation:</i> <i>makes a value judgement</i>	<i>Have we found all the possibilities? How do we know? Have you thought of another way this could be done? Do you think we have found the best solution?</i>

- ▶ Same day intervention
- ▶ Led by the teacher
- ▶ Focused on the misconceptions
- ▶ Keep up ... not catch up!

- ▶ ... not just doing!



- ▶ This is key to a mastery approach

Real understanding not superficial understanding!

Mastery Myths!

Mastery myths

- ▶ There is one clear definition for mastery
- ▶ Mastery does not allow for any differentiation
- ▶ There is a special mastery curriculum
- ▶ Mastery involves repetitive practice
- ▶ To teach mastery you need a special mastery textbook

So, have you mastered mastery?



Mastery is more about ...



than ...



Any questions?

THANK YOU

