Learning and achievement for all

Mastery: building the blocks for learning for all

Dr Alison Borthwick
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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
Key ideas in teaching with a mastery approach

- 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’?

- $167 - 54 = ?$
- $167 - 58 = ?$
- $167 - 73 = ?$
- $167 - 78 = ?$
- $167 - 12 = ?$
- $167 - 99 = ?$
- $167 - 10 = ?$
- $167 - 67 = ?$
What are the key concepts your learners need?

How much time do you spend on these?

Discuss: which is more important - skills or content?

Keeping the whole class together
How much together?

Differentiation

Setting

Positive mindset
Fixed or growth?

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

Focus on thinking and understanding
... 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