

# Pre-service teachers' use of textbooks in classrooms in England

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# Context

- In England there are no state or regionally determined textbooks
- Textbooks are commercially written, often in partnership with examination boards
- Design tends to be standardised with the national curriculum and examination syllabi

# Textbook structure

Commonly,

- Explanation or description of the mathematics
- Examples of how to present the mathematics
- Some questions in increasing difficulty for practice
- Occasionally, a context-situated problem to summarise learning

# Research design

- How do teachers use textbooks resources available to them to teach the national curriculum?
- Small-scale purposive sample of post-graduate pre-service teachers training to teach mathematics to 11-18 year olds
- Qualitative, and some quantitative, data from two cohorts
  - 25 on a university-based route spending 2/3 of their time in schools
  - 17 on a school-based route who spent 15 days in university over the year
- Survey undertaken 2/3 of the way through the course

## Analytical framework (Pepin & Haggarty, 2001)

- whether textbooks are actually used in the process of teaching and learning;
- how the authority of the textbook is viewed in the context of the classroom;
- where textbooks are used, who makes the decisions about use and whether these are used by the teacher or students;
- who makes the decisions about what textbooks are used for and what aspects of textbooks teachers value;
- how teachers mediate the textbook for learners;
- the culture of the classroom or educational institution and how this affects how textbooks are used in classrooms.

# Textbook use - Findings

Pre-service teachers use textbooks for a wide range of purposes, in particular:

- to support their planning for teaching;
- as a source of example problems;
- for determining the sequencing of topics;
- to provide activities;
- as a resource for individual students.

# Use of textbooks

- *“only used once”;*
- *“have not used a textbook to plan any lesson so far”;*
- *“not seen them being used within teaching”;*
- *“commonly used in lessons”;*
- *“great for lower ability classes”;*
- *“I don’t use textbooks much but the more established members of staff use them for most lessons”;*
- *“work is based on these textbooks”;*
- *“I was told to use textbooks to help plan and to use as a resource”.*

## The authority of the textbook in the classroom (1)

- *“for ideas on the order, the level and type of questions”;*
- *“good for sublevels”;*
- *“make the progression through the topic clearer”;*
- *“books say what within ratio I need to do”;*
- *“break down topics”;*
- *“questions are not always appropriate/well-planned....level of differentiation ... is not supported by textbooks”;*



## The authority of the textbook in the classroom (2)

- *“boring”;*
- *“jumps about a lot”;*
- *“topics separated”;*
- *“the approach of most textbooks denies the fundamental interconnectedness of mathematics .... dull, bland, generic .... culturally narrow, hard to read”.*

Decisions about use and whether use is by the teacher or students:

- *“I use pages from different books to produce own resources”;*
- *“tasks are selected for particular classes based on their skills/preferences/prior knowledge”;*
- *“varying use of textbook depending on topic and class”.*

## Decisions about what textbooks are used for and their value

- *“pupils can see progression”;*
- *“books say within ratio what I need to do;*
- *“good for questions to practice algebra” ;*
- *“good range of examples”.*
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## How teachers mediate the textbooks for learners

- *“no one textbook covers every topic [the] best way”;*
- *“I use pages from different books to produce [my] own resources”;*
- *“tasks are selected for particular classes based on their skills/preferences/prior knowledge”;*
- *“not a ‘ready to use’ resource as it stands”.*

## Culture of the classroom and how this affects how textbooks are used

- *“do not provide enough differentiated tasks”;*
- *“not enough examples”*
- *“examples progress too quickly”.*

# Discussion

- Under-use, in general, of mathematics textbooks by pre-service teachers
- Self-determining practice
- Varied use supports the findings of Haggarty & Pepin that teachers often use textbooks in ways not envisaged by their authors
- Suggests that they are imposing their own pedagogical judgments over those of the textbook author.

# References

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