

**Book title:** Good practice in science teaching. What research has to say.

**Author:** Monk and Osborne

**Publication date:** 2000

### **1. What is your overall impression of the book?**

The book has a clear layout of its content – each chapter is like a new journal. New topics are covered followed by a bibliography. Tables and graphs are clearly labelled and referred to in the passages. While a good read and very informative it can come across quite dry and hard to read for long in one sitting. Tips are given to improve teaching that are easy to follow. As its focus is on science and research on science education it is easily applicable to my work.

### **2. Who do you think would benefit most from reading the book? What will they learn?**

Teachers of science, either new to the British school system or NQTs will benefit most from this book. The main learning points from this book are the success of certain strategies assessed through research, taken from children's grades, enjoyment etc. The book also highlights the importance of teachers continually researching pedagogy to maintain proficiency in their chosen subject profession and using current research to link exam/mainstreamed subject content to highlight the importance of topics covered. Teachers can't just learn from each other, or education will never improve. They must also pioneer new teaching methods using research as a tool to gauge success.

### **3. What did you think about the quality of the writing? Please consider the tone, structure and ideas. Does it suit the audience?**

This book is written with an impartial tone, it lists methods used in science education, what the goals of science education are and what research has to say about these methods being successful or not to reach the goal. It gives, in the third person, experienced teachers observations of teaching methods which are successful in different classroom situations with numbers and figures to back it up.

The text is written in third person and often impartial. I think this suits the audience, mainly as before taking on such a vocational... the style of writing in science is very factual and focused on the facts rather than personal opinions. It is taking teaching from a more scientific approach and lets the readers use the evidence to help them trust and then use the techniques they read about, while throwing in a few of the authors' own opinions on favourite teaching methods.

### **4. Please discuss the research used to underpin the ideas. What evidence does the author use? Is it robust and up-to-date?**

Though this book is not the newest on the bookshelf, I believe it is up to date and still contains material relevant to teaching (especially science) in secondary school. In true scientific fashion, the author uses a range of data and evidence to provide a well-balanced argument for different teaching

techniques and approaches, allowing you to draw your own conclusions and select which approaches suit you as a person or which best suits particular classes. The breadth and width of content analysed to write this book was years in the making.

**5. What did you learn from reading the book? What ideas/approaches/practice will you change or adopt as a result of reading this book?**

Develop metacognitive behaviour: recognise what you don't know is just as important as what you know

Use student speak national curriculum

Talk about the process of thinking

Reciprocal teaching

Motivation – rewards/performance

Separate activities clearly

Keep a thinking journal

Self-evaluate using a checklist

Open practical – let students learn how to investigate

PACKS model

**6. Could you share a quote from the book that particularly resonated with you?**

“The notion that teachers can learn only from each other is akin to argue doctors might discover a cure for malaria by watching each other's valiant attempt to treat the symptoms”.