

Book Review

European Journal of Orthodontics 30 (2008) 327
doi:10.1093/ejo/cjn033

Critical thinking. Understanding and evaluating dental research, 2nd edition (2007)

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Publisher: Quintessence Publishing, New Malden, Surrey, UK

Price: £25.00

ISBN: 978-0-86715-426-9

The first glance of the title reminded me of the boring experience I had with such books previously. However, I became intrigued after reading the preface.

To locate, understand, and critically evaluate literature, as required of evidence-based medicine, is not straightforward. However, we might not have realized that the sophisticated nature of understanding and evaluating research is related to the changed profile of scientists in the last decades. As described by the author, scientists used to be laboratory workers, looking through a microscope, running a polyacrylamide gel, or analysing data. Nowadays, scientists write papers, referee the papers of others, write grant applications, evaluate other people's grant applications, give lectures, and attend lectures to keep abreast of the research frontier. Without realizing, we, as researchers and scientists, spend a large part of the day either 'persuading or being persuaded'. Therefore, we are also consumers of research, and must understand the principles of persuasion applied to science in order to detect and separate the scientific signal from the rhetorical noise.

In this book, the concept and necessity of 'critical thinking' are introduced and outlined in such a context, which is refreshing and thought provoking.

Critical thinking is deciding rationally what to, or what not to, believe. It is about recognizing top-quality dental

literature, evaluating study design and strategy, and detecting common errors and abuses of statistical data. Only those who think critically can survive the ever increasing literature and extract the best evidence available for dental practice.

This 312 page book has 22 chapters followed by seven appendices and a clear index. The main topics covered in this book are reasoning of critical thinking, logics, statistics, science in publication, the behaviour of scientists, and research/experimental design. Some readers may find the chapters on statistics less interesting, but as the author indicates it was as a result of some other persuasive readers who wanted more information on this aspect. In this part, the most common concepts and tests used in dental research have been illustrated.

The last chapter on 'Exercises in critical thinking' is very useful for students and teachers alike. The layout and coloured (sub)headings, highlighted key points, and tables, as well as figures, are well constructed and reader friendly.

Reading this book is anything but boring! The literary writing style and the philosophical quotations at the start of each chapter are truly enjoyable, which may remind us of the feeling of reading a book by Jane Austen.

Yijin Ren

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