



**Analysing Practical Science Activities to Assess and Improve their Effectiveness**

Robin Millar

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Published as part of 'Getting Practical', the flagship consortium led by ASE, this short and well-presented volume

'does what it says on the tin', challenging, providing insights and delivering solutions.

Robin Millar challenges the value of practical work and clearly distinguishes effective practical work and what it requires from both the teacher and their students. Citing Tiberghien, he nails (p. 7) the 'purpose of such practical work' as 'to make links between two domains' and continues to describe these as 'objects and observables' and 'ideas'. Striking distinctions are made between 'hands-on' and 'minds-on' activities.

Insights, captured in useable checklists, are supplied to assist the analysis of practical activities, and these relate to learning outcomes, experimental design and 'presentation' – what happens following the practical activity in terms of discussing, recording and reporting, thereby providing opportunities for

resolving identified pedagogical issues.

This book is informed by research, without being dogmatically driven by the underlying studies, and may be used as a springboard to inform practice, at the starting point in a career, or as orientation for personal or academic research. It is an extraordinarily valuable piece that is worth the small sum charged.

Readable and brief, the strength of this publication lies in its potential to impact practice. Professional development should be planned around this publication to disseminate the good practice contained within it. Impact would be greater if ASE were to present this online as a 'free to members' PDF.

Nicky Souter