Review

A Practical Guide to Teaching Design and Technology in the Secondary School

Title:	A Practical Guide to Teaching Design and Technology in the Secondary School
Author/Editor:	Gwyneth Owen-Jackson
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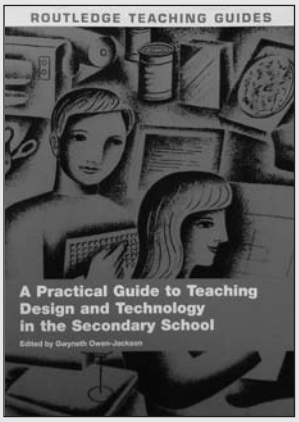

All those who contribute to design and technology initial teacher education (ITT) programmes either as tutors or mentors value publications that can be used to underpin what they do. This workbook is part of a series of textbooks for student teachers, NQTs and beginning teachers and complements and extends the range of publications including *Learning to Teach in the Secondary School: A companion to School Experience* as well as the subject specific textbook *Learning to Teach Design and Technology in the Secondary School*. It is a practical book and as such fills a relatively unfilled gap in the market.

Often this type of text is generic but those studying the subject will find its focus entirely on the teaching and learning of design and technology engaging and a perfect complement to the taught aspects of the courses they deliver. Indeed, it is likely that many ITE providers will choose to integrate this text with their programme, using it to provide a range of excellent background investigation and activity to support subsequent seminar activity. Some of the activities are designed to be undertaken individually and others as joint tasks working with other students. The book has been designed so that students can write directly into it. Those familiar with Open University course material will recognise the style. This is not surprising considering the Editor Gwyneth Owen-Jackson's contribution to developing teacher education at the OU and associated publications and resources.

The book is very well referenced and encourages the student to investigate topics further through a variety of media, not least web based materials.

The list of contributors is impressive. All have substantial experience in ITE and work in the leading D&T ITE institutions. Their collective wealth of experience ensures that each section of the book has been written by an expert well versed in both the pertinent issues of the current times but also how best to engage and develop students' understanding.

For those teacher educators who work on smaller programmes such as SCITT schemes that typically have small numbers of students and often a single member of specialist staff, this book is a must. It goes some way towards pointing the way to acquiring an understanding of each of the design and technology product areas: food technology, resistant materials, textiles and systems and control. It is important to ensure that trainees enter the profession with expertise in two fields of knowledge (as set out in the D&T Association's *Minimum Competencies for Students to Teach Design and Technology in Secondary Schools)*, but also to ensure they engage with the professional responsibility to develop their understanding of the subject further through focused continued professional development.

Some practitioners will consider that the one area that is perhaps missing from the book is to do with graphics. As stated, graphics is not a focus area within ITE or within the national curriculum so it is entirely correct that it is not given a section on its own. Indeed doing so would go someway toward supporting the lobby that considers it should be! Although there is some reference in the text to the use of graphics (particularly computer graphics) and also 3D modeling, there is little to help focus the beginning teacher on how and when graphical skills can best be developed to support designing and making. 'Graphicacy' is an important competence to develop and understanding its role in communicating thinking is an important aspect of a trainee's course.

The final chapter written by John Lee and Rowan Todd, Sheffield Hallam University (SHU), addresses issues to do

with professional development. It refers to the use of a radar diagram developed by Peter Grover also of SHU to help students monitor their development as they audit their subject knowledge against the competencies. It also makes reference to practical reflection activity and in particular the use of an electronic portfolio both to encourage refection and also provide evidence to inform and promote further activity. In this and previous chapters, we can see ample illustration of excellent practice in teacher education taken from the recognised leading HEIs with design and technology departments.

This book sits well alongside the author's other publications in the field which have become standard texts for those embarking on a career in design and technology. It is likely to become recommended reading on the majority of design and technology ITE reading lists.