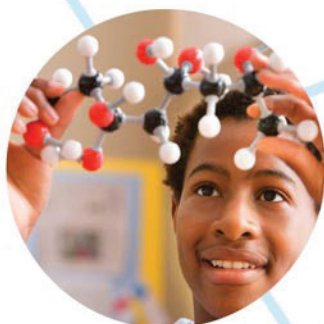


CROSS-CURRICULAR LEARNING 3-14

JONATHAN BARNES

THIRD
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London EC1Y 1SP

SAGE Publications Inc.
2455 Teller Road
Thousand Oaks, California 91320

SAGE Publications India Pvt Ltd
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Editor: James Clark
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Marketing manager: Dilhara Attygalle
Cover design: Naomi Robinson
Typeset by: C&M Digital (P) Ltd, Chennai, India
Printed and bound by CPI Group (UK) Ltd,
Croydon, CR0 4YY (for Antony Rowe)



© Jonathan Barnes 2015

First edition published 2007
Reprinted in 2008 and 2009

Second edition published 2011
Reprinted 2011

This third edition published 2015

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Library of Congress Control Number: 2014946302

British Library Cataloguing in Publication data

A catalogue record for this book is available from
the British Library

ISBN 978-1-4462-9703-2

ISBN 978-1-4462-9704-9 (pbk)

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CROSS-CURRICULAR LEARNING 3-14

JONATHAN BARNES

THIRD
EDITION



Los Angeles | London | New Delhi
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*‘... just help them find where they can be creative
and fulfilment will follow.’*

To Gerry Tewfik who said these words and inspired many of the principles which underpin this book and to Kay and Bill Barnes, my parents, to my wife, Cherry, my dear sister, Jane, and Jacob, Esther, Naomi and Ben who have patiently encouraged me towards clarity of values and personal creativity.

CONTENTS

About the Author	xi
Preface to the Third Edition	xiii
Acknowledgements	xv
Introduction	1
1 What Should Schooling in the Twenty-first Century Look Like?	19
2 Cross-Curricular Policy and Practice	49
3 What Does Good Cross-Curricular Practice Look Like?	84
4 Social Perspectives on Learning	110
5 What Does Neuroscience Tell Us About Cross-Curricular Learning?	128
6 Psychology and Cross-Curricular Learning	158
7 The Pedagogy of Cross-Curricular Learning	184
8 What Values Should We Apply?	206
9 What Themes Are Suitable for Cross-Curricular Learning?	228
10 How Can We Assess Cross-Curricular and Creative Learning?	245
11 How Should We Plan for Cross-Curricular Activity?	266
12 Key Issues for Debate	301
References	323
Websites	339
Index	344

ABOUT THE AUTHOR

Jonathan Barnes is senior lecturer in Education at Canterbury Christ Church University. He has lifelong interests in music, geography, history, religion and art. These cross-curricular leanings led him first to teach history and geography and the history of art in two Kent secondary schools in the 1970s, then to become a primary class teacher for most of the 1980s. His passion for relevance and engagement in learning led him to devise a ground-breaking interdisciplinary curriculum based wholly on the school locality in the Kent school of which he was head throughout the 1990s.

Since 2000, as a teacher educator Jonathan has researched links between the 'science of learning', cross-curricular and creative approaches and the well-being of teachers and children. He has taught both children and teachers for extended periods in India, Germany, Kenya and Malaysia, instituting innovative curriculum projects. In the UK he has worked with national organizations such as English Heritage, Engaging Places, the Victoria and Albert and Maritime Museums in London as well as being a popular speaker on creative and cross-curricular approaches to teaching. He brought together his wide and disparate experience in a ground-breaking autobiographical PhD entitled, 'What sustains a life in education?' He continues to be involved in teacher education and research involving the links between Arts and well-being at Canterbury Christ Church's Sidney De Haan Research Centre.

PREFACE TO THE THIRD EDITION

In the year that the second edition of this book was published our youngest son died of leukaemia. He was a sparkling, talented, humorous, friendly and confident individual, happy in his skin. He loved his education. In his primary schooling he identified that music and the piano was what he loved best. His family, friends, teachers and subsequent secondary school hugely encouraged that love. Though he succeeded easily at other subjects, it was music and music-making that really made his eyes light up. By the end of secondary schooling, with three excellent A levels, confidence, energy, loads of friends and the world ahead of him he was accepted at the Royal Academy of Music for piano studies. He finished his first year with a bunch of credits and prizes. He was never able to return.

The profound agony of his loss will never leave us. We, his parents, brother and sisters, have our every thought and action coloured by 2011. So as I re-write this book three years after his death and in the light of major policy changes in education, my personal experience colours every rewritten sentence, every new reference. For Jacob, education was all he had outside of friends, family and music. When I read policy documents about education *preparing* children for university, their role in society, adulthood, their role in the economy or even *for life* – I feel anger. My wife taught children with profound special needs most of her life and many of them only lived long enough to go to school. So our views on the meaning of education have become clear, sharp and less compromising because of an experience we would not wish on anyone, but find we have shared with many.

Education should be about learning *now*. The experience of childhood itself should be a rich, exciting and fulfilling one. The experience of school should be one in which every child finds their passion and is able to choose from a colourful palette of different ways of understanding and loving the world. Every child's happiness and well-being should be the *raison d'être* for schooling. Its curriculum and pedagogy should be the vehicles for assuring the child's personal, physical, social,

moral and intellectual health. This cannot be assured unless teachers and teaching assistants themselves feel in a similarly high state of well-being.

Well-being *in the present* can become an aim of education. Well-being can be found in activity, through intellectual stimulation in every subject available. It can be discovered in relationships encountered. Well-being should be nurtured by a healthy and sustainable physical environment and found in the clarity of a moral landscape shared. Well-being is created in the discovery of the passions that will make our eyes sparkle for the rest of our lives.

Thankfully most don't die young. An education that pays attention to building a fascinating and stimulating present, however, is the surest way to provoke the motivation and staying power that creates a happy and habitual lifelong learner. For me, that view has not changed in 42 years of teaching, but it now feels a million million times more important.

Jonathan Barnes
September 2014

ACKNOWLEDGEMENTS

There is no doubt that monumental thanks go to my wife, Cherry, who has loved, sustained, inspired and encouraged me throughout a difficult year so crammed with important family events that writing a book seemed impossible. Similarly, my children Ben, Naomi, Esther and Jacob have contributed in ways they are not always fully aware of. They have tolerated my divided attention and listened, always with love and patience, to my overexcited conversation on the topics raised in this book.

Many friends and colleagues have been generous with their time and attention. Stephen Scoffham, particularly, has courageously read chapters and generously commented in fine, informed and intelligent detail. But I must also thank Vanessa Young, Linden West, David Wheway, William Stow, Glen Sharp, Jane Stamps (my inspiring sister), Paul Thompson, Ian Shirley, Robert McCrea, Ken and Matt Miles, Andrew Lambirth, Robert Jarvis, Bryan Hawkins, Grenville Hancox, William Stow, Teresa Cremin, Tony Booth and Judy Baker who met my fervour for curriculum reform with enthusiasm and added their own wisdom to my thinking. I owe a great deal to them.

I have attempted not to identify individual schools who have helped, because the messages they give can apply across schools in many different locations and settings. The following schools, without their town or county, will know who they are when I thank them for accommodating me on my research. I admire them all for their immense energy, inspiration and hope: Astor Arts College, Bethersden Primary School, Bodsham C of E Primary School, Brockhill Performing Arts College, Brompton Westbrook School, Goodwill Primary School, Grange Primary School, Hythe Community Infants School, Nightingale Primary School, Ospringe Primary School, St Nicholas School, St Peter's Methodist School, St Stephen's Junior School, The Churchill School, The Coram School, The Priory School, West Rise Junior School and Woolmore Primary School.

Organizations and individuals have also helped in many ways and I have been grateful for moral support and photographic materials from

the Scottish Children's Parliament, Room 13, Future Creative, Kent, the HEARTS project, Siemens, Canterbury Christ Church University, Jane Heyes, Tony Ling, Dorothee Thyssen and Priory Sue.

Finally, I thank SAGE Publications for their patient and wise editorial and organizational support.

Publisher's Acknowledgements

SAGE would like to thank the following people whose reviews of the book helped to shape the new edition:

Anthony Barlow, University of Roehampton

Marion Hobbs, Edge Hill University

Dennis Howlett, University of Cumbria

Kate Hudson, University of Bedfordshire

Louise Wormwell, Newman University

INTRODUCTION

Curriculum freedom is high on the political agenda. I write this book to make a twenty-first-century case for placing cross-curricular experience at the heart of the school curriculum. It attempts to steer a path between the heavy emphasis on separate ‘core’ and ‘foundation’ subject disciplines which has characterized primary and secondary education since 1990 and the over-generalizing and usually adult-led tendencies of 1970s-style ‘topic work’. The book is intended for head teachers and coordinating teachers planning a securely based, cross-curricular approach to children’s learning, teacher education students, educationalists and education tutors. It is also for policy-makers wishing to understand the research behind the ‘child-centred’ and ‘progressive’ methods that are so often maligned in press and public statements. I offer a guiding rationale for cross-curricular teaching and learning, practical suggestions, planning formats, carefully chosen case studies, research evidence and issues for debate.

Innocence and experience

And Priests in black gowns, were walking their rounds,
And binding with briars, my joys and desires. (Blake, 1789 [1967])

Our experience of the world is cross-curricular. Everything that surrounds us in the physical world can be seen and understood from multiple perspectives. As adults we tend to perceive each aspect of the perceptible and imagined universe from a variety of more or less ‘experienced’ viewpoints. The ‘innocent’ eyes of the child have probably always seen a different world to that of their parents and elders. When, as experienced adults, we

look at the tree or bramble outside our window, depending on our education and experience we will each ‘see’ it in slightly different ways; we may ‘know’ something of its biology or its geographical implications – the part it plays in reducing the impact of pollution or releasing oxygen. We may, like Blake, think of the poetic or symbolic resonances of our bramble, its potential as an art object or the way it enhances or spoils a view. Perhaps a child is more likely to know the same tree as a quiet place for talking, a hiding place, a threat, a magical mine of fascinating moving things, a den, magic or just one side of a goal. Perhaps the bramble will represent an uncomfortable memory of scratches, a threat or a source of tasty blackberries – the possible associations are endless.

Children may need liberating from an adult-dominated curriculum. Perhaps a ‘relentless focus on the basics’ (Gov.UK, 2010a, website) is not the best way to include and enthuse all children in the aim to build a learning society. One of the threads that bind this book will be the suggestion that it is important for the child to enjoy being a child, to enjoy learning *now* for its own sake and not primarily for some future role they may or may not take on in the adult world. This emphasis on the child’s ‘here’ and ‘now’ will involve the examination of various research and curricular attempts to discover what is important to children in today’s school classes. The concentration on making connections between curriculum and children’s lives will result in considering how we as teachers might help to use children’s distinctly different viewpoints, as motivation, method and model for their learning. It seems from all we know about children learning, that motivation, self-esteem, personal relevance, authentic challenge and a sense of achievement are all crucial. So too is *time* to reflect and dream, time to finish what seems important and time to choose. Current research on emotional well-being and children strongly suggests that inner feelings of personal happiness including a sense of control over aspects of life, is not just a key motivator for now, but also central to future good health and security. Enjoying that same sense of well-being is just as important for their teachers and needs to be addressed centrally in staff development practices and teacher education. What experiences, attitudes and resources can we weave into our curricula that make the generation of positive feelings more likely for each child and teacher?

Research

This book is underpinned by a range of research projects involving teachers, student teachers and children aged 3–14. My own research was conducted in six recent projects:

- the Higher Education Arts and Schools (HEARTS) projects funded jointly by the Esmée Fairbairne Trust and the Gulbenkian Foundation (Barnes and Shirley, 2005, 2007)
- the Creative Teaching for Tomorrow (CTFT) project funded by Creative Partnerships and Future Creative (Cremin et al., 2009)
- the TRACK project, where primary school children tracked the development of creativity within their own schools (Powell and Barnes, 2008)
- a series of observations in case study schools between July 2005 and May 2014, followed up by email and telephone interviews with key members of staff
- two research studies on arts and children's well-being (Barnes, 2013b, 2014a, 2014b)
- my own PhD thesis on values and resilience in successful teachers (Barnes, 2013a, 2013b).

In addition to this empirically grounded work which I draw upon throughout the text, I include themed reviews of recent research by others, from which I draw tentative conclusions relevant to the classroom. The research has employed mixed methods, in particular interviews, observations and field notes, and *autoethnography* – thinking about the influence of my own history and character in the development of the values and educational practice I propose.

Interviews

I interviewed school heads and/or heads of curriculum in six of the case study schools about their views on curricula in general and their own school curriculum in detail. In each semi-structured interview, I asked about principles, views on creativity, cross-curricular links and the organization of principles into a curriculum. I also held a series of group interviews with children engaged in cross-curricular activity. Some children were given cameras, and in two cases a video, to capture key moments in their work at school. These images were used to guide conversations that were recorded and transcribed. I also made dated research notes on informal interviews or informal comments from children whilst engaged in cross-curricular activities in school. I interviewed teachers in 10 different schools, teaching 3–14-year-olds in cross-curricular settings. Some of these interviews were fully transcribed and analysed as part of a research study for Future Creative, Kent (Cremin et al., 2009) and in field notes in my research journal. These schools are acknowledged at the beginning of this book.

Many interviews were followed up with email conversations and enquiries, which also formed part of the evidence base for this book.

Observations

I have had the privilege of observing many lessons in many different indoor and outdoor settings (Barnes, 1994, 2014a, 2014b; Barnes and Hancox, 2004; Dismore et al., 2008; Engaging Places website, 2009; Powell and Barnes, 2008). Observations were, with permission, supplemented by photographs, many of which you will see in the text. Notes taken in observations were again analysed for themes and salient examples, which illustrated theoretical positions.

Autoethnography

The interpretations and viewpoints taken are my own. I come from a particular and unique history, like all of us. Take, for example, one moment in my life:

I am in St Paul's Cathedral, an 11-year-old school choirboy temporarily covering the services for the 'real' choir. Standing at the foot of the odd and fascinating monument to John Donne, I am waiting to process into the choir of the vast cathedral. The light is streaming in through gold-coloured windows to my right and the overpowering organ music of Olivier Messiaen is crashing and echoing around the colourfully mosaic-ed walls. I am fully aware and proud that minutes later I am to be altering the environment by my sounds and my presence in a daily ceremony once central to my culture.

The experience of joy was so positive, affirming, overpowering, almost transcendental that I have struggled ever since to re-create it in other forms for myself and the children I work with. That moment and many others profoundly influenced my attitude to the combining of subjects in interpreting experience.

Equally powerful was my experience 40 years later as a head teacher:

I am in a meeting with a school inspector who tells me that our creative and cross-curricular ideas are 'too risky' and I should only consider continuing them after the Standard Assessment Tests (SATs) results have achieved well above the expectations for our particular school. This painful and unnerving experience galvanized me to action. I decided I was in the wrong job and moved to teacher education.

I cannot fail to keep both (and many, many more) stories in mind as I examine the curricula of schools, and read prospectuses, learned papers and government proposals. The stories in my life profoundly influence the views I take. The views I take have been shaped by the very mind that holds those views. My mind is also part of a culture, indeed many cultures, part of a profession and part of a team of professionals and friends who deeply impact upon my thinking. In writing several versions of my own autobiography for my doctoral thesis, I have become very aware of such layers of influence. Reflexive study has shown that this book is an attempt to make sense of the aspects of my own life that might have a bearing on the curriculum. In research terms, therefore, I have used my fully written-out autobiographies as a further source of research data. These data have been used to maintain an awareness of the sources of my assumptions and sometimes to challenge or seek corroboration of them.

The chapters

Chapter 1 briefly explores some relevant aspects of the twenty-first-century world into which our children have been born. These aspects are highly selective, but chosen because of their implications for education and, particularly, potential plans for the curriculum that children will follow. There can be no escape from the fact that, currently, adults make the decisions, produce the plans and control the direction of learning. That this is as things should be does not seem unreasonable. The experienced adult perhaps might have the advantage of a wiser, longer and wider perspective. But the second thread running through this book is the proposition that adults in school should be easy with a more complex set of roles than simply planner, imparter and assessor of knowledge and ‘standards’. Perhaps a key distinction between a trainer and a teacher is that the teacher allows space for individual learners to be different from one another; indeed, such individual differences could be seen as the chief resource of the teacher. There may be times when power relationships in a class are more appropriately shifted towards the children. In a cross-curricular setting, conscious of the child’s cultural, spiritual, social, physical, personal and intellectual needs, the teacher may at different times be follower, co-learner, instructor, coach, observer, adviser, assistant, mentor, conscience, Master of Ceremonies (MC), servant or inspiration.

Chapter 2 discusses recent education policy with regard to cross-curricular and creative learning. Chapter 3 examines a fairly detailed set of case studies in ordinary schools, which show some of the variety and

range of cross-curricular approaches. Chapters 4, 5, 6 and 7 consider the classroom implications of social, neuroscientific, psychological and pedagogical research.

The remainder of the book is devoted to practical guides on implementing a cross-curriculum in your school. The issue of the role of the individual subject disciplines must be discussed, however, before we begin to address the idea of teaching across them.

Discipline or not?

Howard Gardner, educationalist, psychologist and neurologist, and argued by some to be amongst the most influential of Western thinkers on education, once argued that the ‘scholarly disciplines’ were the most significant invention of the last two millennia. The subject disciplines represent for Gardner, ‘the most advanced and best ways to think about issues consequential to human beings’ (Gardner, 2004: 138). Yet it is clear from other areas of his writing and research that he also believes ‘any topic of significance can, and should, be represented in a number of different ways in the mind’ (Gardner, 2004: 141). Gardner, like Hirsch, his critic (Hirsch, 1999, 2007), is a great defender of subject skills and subject knowledge but sees twenty-first-century education as providing ‘the basis for enhanced understanding of our several worlds – the physical world, the biological world, the world of human beings, the world of human artefacts and the world of the self’ (Gardner, 1999b: 158). He follows this by a revealing statement about the relative importance of disciplined knowledge and skills:

the acquisition of literacy, the learning of basic facts, the cultivation of basic skills, or the mastery of the ways of thinking of the disciplines ... should be seen as means, not ends in themselves ... literacies, skills and disciplines ought to be pursued as tools that allow us to enhance our understanding of important questions, topics and themes. (Gardner, 1999b: 159)

British writers (for example, Alexander, 2010; Lucas et al., 2013; Robinson, 2001; Robinson and Aronica, 2010; Wrigley et al., 2012) argue with equal passion for the breakdown of subject boundaries. Some argue for a competencies-based curriculum to ‘open minds’ (RSA Opening Minds Curriculum, website), some the development of a curriculum that engenders ‘a creative and critical orientation towards experience’ (Abbs, 2003: 15), a curriculum that makes sense to pupils rather than teachers (Halpin, 2003: 113), more opportunities for play (Goouch and Powell, 2013), less

curricular prescription (Alexander, 2010), a stronger values base (Booth and Ainscow, 2011) or an emotionally literate curriculum (Morris and Scott, 2002). The sum of educational advice grows daily.

There are principles, however, which may well reach beyond specific cultural and institutional contexts, and these are examined in Chapter 8. There is no shortage of educational research and general advice on how to enhance the learning experience of a child, but few publications offer usable models within which the ideals of cross-curricular and creative learning may be realized in practice. This book hopes to address such a need in Chapters 9, 10 and 11.

Organization

You will read here an argument for a balance between the unique skills, knowledge and attitudes of each 'traditional' subject and the uniquely motivating effects of cross-curricular and child-centred learning. This book is written now because with new primary and secondary national curricula and many new self-governing schools, free schools and academies there is a massive opportunity to rethink the curriculum. The rapidly growing interest in thematic and cross-curricular approaches in primary schools has spread increasingly to Year 7 and 8 classes in secondary school. This interest was growing before the publication of the abandoned reports on primary and secondary education by Sir Jim Rose (2008, 2009), but more sustainably in the ongoing influence of Robin Alexander's Cambridge Primary Review (Alexander, 2010; CPR, 2014). A practical guide for the leaders of academies and academy chains, schools consortia, education, training and teacher development organizations, teachers in service and student teachers seems necessary because of concerns that guiding principles should be debated and established and direct guidance offered. I believe that the curriculum should be packed with opportunities for each child to find his or her strengths and activities which provide genuine challenge and multiple prospects for individual achievement. It is hoped that you will find workable examples of how such activities and experiences can be successfully planned and delivered.

The book is divided into chapters with clear foci. You do not have to read the chapters in any particular sequence, but can read them in order of their relevance to you. Each chapter is headed by a question or broadly descriptive title that indicates the theme:

- Chapter 1: What should schooling in the twenty-first century look like?
- Chapter 2: Cross-curricular policy and practice
- Chapter 3: What does good cross-curricular practice look like?

- Chapter 4: Social perspectives on learning
- Chapter 5: What does neuroscience tell us about cross-curricular learning?
- Chapter 6: Psychology and cross-curricular learning
- Chapter 7: The pedagogy of cross-curricular learning
- Chapter 8: What values should we apply?
- Chapter 9: What themes are suitable for cross-curricular learning?
- Chapter 10: How can we assess cross-curricular and creative learning?
- Chapter 11: How should we plan for cross-curricular activity?
- Chapter 12: Key issues for debate

There are summaries at the beginning and end of each chapter. Key questions continue the debate at the end of each chapter and there are full lists of references and websites at the end of the book.

You may already have noticed that this book is well illustrated. Most illustrations come from the schools consulted and researched in writing this book. If information, principles, examples and issues are shown visually as well as in text, a different, perhaps deeper and more personal, level of understanding may be gained. There seems little doubt that visual images form an increasingly important part in the world of communication and knowledge, and every advertiser knows that images and objects have a powerful effect upon our minds and imaginations. I argue that we also learn through the feelings and associations that images generate in us. I believe we vastly underestimate the power of the visual in our teaching and learning. By more fully exploiting our species' ability to make fine and wide-ranging visual discriminations, we access areas of knowing beyond words. Each chapter is therefore illustrated with examples of children's work and children working in a variety of contexts. Photographs and diagrams are used as models too, but names of individuals are changed and schools are identified only by their region.

Definitions

It is fairly easy to define the unique qualities of each National Curriculum subject; the National Curriculum document (DfEE/QCA, 1999) provides a clear lead on this for each of the nine subjects of the curriculum, Information and Communications Technology, and (later) Citizenship, Personal, Social and Health Education and Modern Foreign Languages. The various Special Advisory Councils on Religious Education in Schools (SACREs) in each education authority have made their own definitions of Religious Education. However, definitions of the terminology used in discussions

on cross-curricular approaches are often vague and used interchangeably. In this book, the following definitions apply.

The curriculum

The narrow definition is the subjects, topics and emphases chosen (usually by adults) to be the focus of learning in a school. In the context of this book, however, a broader definition, which also includes the 'hidden curriculum' of attitudes, assumptions, environments, relationships and school ethos, is used.

A discipline

The generally accepted skills, knowledge, language and attitudes that characterize a traditional area of learning within a culture. A discipline differs from a subject in that the term 'subject' is generally confined to the knowledge belonging to a particular area of learning. The word discipline or subject-discipline suggests something more demanding – the 'rules', skills, thought processes, values and typical activities that distinguish one domain of learning from another. A discipline is both a broader and more active concept than a subject. Disciplinary learning concentrates upon aspects that are applied in the real world, often in combination with other disciplines. Each discipline is presided over by past luminaries and 'policed' by a field of experts, located in 'subject associations', academies, universities or colleges who judge where the discipline is moving and what constitutes knowledge and standards within it.

For progress within a discipline, traditionally creative advances have needed to be accepted by what Csikszentmihalyi (1997) calls 'the field', the groups of experts culturally accepted as the gatekeepers of the discipline. In this internet era, exclusive concepts like 'expert' and 'field' are under-challenge, but at present and in education the dominant and conservative view is that there is an established body of knowledge and skills for each discipline and there are arbiters of good practice within them. Disciplinary understanding is shown when students are able to use the knowledge and 'ways of thinking of a particular subject discipline, appropriately in novel situations' (Boix-Mansilla et al., 2000).

Various subject associations fight tirelessly and effectively for the maintenance of a disciplinary approach to teaching and learning in both secondary and primary schooling. The current emphasis on clear objectives and the carefully planned progression of skills and knowledge in the disciplines, championed by the subject associations, has significantly contributed to best teaching and learning in schools.

Meaningful experiences

A meaningful, or what some schools call a ‘wow’, experience (Ofsted, 2010a) is an encounter that emotionally engages and drives a child or children to want to understand and know more. This kind of experience is highly motivating for the recipient. A meaningful experience does not need to be a high-profile event, resource-heavy and weeks in the planning. Effective single-subject teachers daily utilize a wide variety of engaging techniques to motivate, enhance, illustrate and summarize learning. Some of these experiences are so powerful that for a time they fully engage the whole class – they are clearly meaningful. A meaningful experience is simply one that grasps learners’ attention at emotional, physical, sensory, social and/or intellectual levels. A story well read, an interesting visitor from the community, a visit to the school pond or the high street may be made personally meaningful, usually by fully engaging for a while the emotions or the senses.

Teaching

Teaching is the transmission of knowledge, skills and understandings from one source to another. In schools, we imagine that most teaching is done by teachers and other adults, though closer examination might show that sources like technology, environments, peers, accidental experience and personal interests teach as much. Those influencing teacher education (Abbs, 2003; Arthur and Cremin, 2010; Halpin, 2003; Lucas et al., 2013; Pollard, 2008; Wrigley et al., 2012) frequently remind us that didactic teaching does not automatically result in learning. Children have to ‘agree’ to enter into the learning their teacher wants them to achieve and therefore much teaching must involve motivating the child to want to learn.

Thinking

Thinking is the mental representation of ideas. Good thinking can be considered as the process in which people are mentally engaged in attempts to solve a difficult or challenging task and which results in improvement in a person’s intellectual power (Shayer and Adey, 2002).

Learning

Learning is the mental and physical internalization of knowledge, skills, language and attitudes. These learned features may then be transferred

and used in new contexts and combined with others to solve problems and understand issues. The learning of many life skills may not be related to any discipline, but be part of growing up into a particular set of cultures and communities. Learning arises, perhaps chiefly, from the everyday accidents and incidents of life, but schools specialize in passing on the learning of past generations in a planned and disciplined way. I have proposed that the real world is best understood through the lenses of a number of disciplines and that cross-curricular learning should be a significant part of the curriculum of every school, but there are several different ways of promoting learning across the curriculum.

Cross-curricular learning

When the skills, knowledge and attitudes of a number of different disciplines are applied to a single experience, problem, question, theme or idea, we are working in a cross-curricular way. The experience of learning is considered on a macro level and with the *curriculum* as focus.

Topic-based, project or thematic curriculum

These terms are used interchangeably to mean a curriculum where at least part of the week is devoted to the study of a particular theme or topic (like water, our school/village/community/marsh/forest/beach, 'beauty', India or the microscopic life in the school pond) through the eyes of several curriculum subjects. The *stimulus* becomes the focus for learning.

Creativity

The ability in all humans imaginatively or practically to connect two or more ideas together to make a valued new idea.

Creative teaching

Teaching that uses the teacher's own inherent and learned creativity to make learning accessible.

Teaching for creativity

The intention of the teacher is to stimulate and develop the creativity inherent in every child in any subject or experiential context.

Assumptions

It is impossible to write a book on aspects of the school curriculum without making many assumptions. You will become aware of many as you read this book and should apply a critical mind to them. Certain assumptions must be brought into the open from the outset, however. The previous definitions make it clear that, along with many other educationalists, I believe *all children and teachers are potentially creative in some aspect* (see Barnes, 2010, 2013a, 2013b; Craft, 2000, 2005; Craft et al., 2008; Csikszentmihalyi, 1997; Perkins, 1992; Sternberg, 1997b, 2008). This is an important assumption because cross-curricular work is often seen as a way of stimulating and nurturing creative thinking. I also believe that *creativity is best stimulated in cross-curricular and authentic contexts*.

It is assumed that *generating thinking is an important role of education*. Professor David Perkins summarized 20 years of research into children's learning in the following memorable phrase: 'Learning is a consequence of thinking' (Perkins, 1992: 34). Although this statement can sound blindingly obvious, when reflected upon in the light of much current practice, it provokes a number of key questions: do schools generally put children's *thinking* at the centre of the learning experience? Is there a difference between politely sitting, listening and following instructions (or not!) and thinking? Are trainee teachers taught to generate thinking in their classes or to pass on a body of knowledge and skills?

This book also assumes that *intelligence is not a single and measurable entity*, that in different times, cultures and settings different behaviours seem to be intelligent. Each psychologist and educationalist will have a slightly or dramatically varying view of intelligence, but few today hold the early twentieth-century view that it is something measured in intelligence tests alone. However we see intelligence – a combined working of several mental processors, our intellectual faculties, our natural mental and physical dispositions, a combination of memory, inherited 'g' factor and individualized creative, practical and analytical strengths – it is only a meaningful concept when it is applied in a relevant cultural setting. We use it when we attend, engage, think or act.

It is assumed that *not all children respond positively to the same style of teaching or the same stimulus*; it is therefore understood that cross-curricular approaches will not suit all children. The good teacher hopes to engage all children, but in Sternberg's words, 'he or she needs the flexibility to teach to different styles of thinking, which means varying teaching style to suit different styles of [student] thought' (Sternberg, 1997a: 115). Engagement *may*, for some individuals, be gained in setting up periods

of solitary, academic, convergent and purely cerebral activity, but experience and research (Abbs, 2003; Bandura, 1994; Barnes and Shirley, 2007; Csikszentmihalyi, 2002; Lucas et al., 2013) suggest it comes more often from a mix of social, practical, personally relevant and creative activity.

The final assumption is more contentious – it is that *education is at least partly about helping children appreciate, enjoy and understand their lives and worlds now*. Geographer Simon Catling has written persuasively of the ‘marginalization’ of children in both their school environments and their neighbourhoods, and he sees a ‘discontinuity between their real lives and the school curriculum’ (Catling, 2005: 325). A child’s world is clearly very different from an adult’s. A Western child’s world, which might well include an *iPod*, *Raspberry Pi*, which allows children to make their own computer, ‘blue tooth’ connections, satellite television, the internet, video and computer games, social networking sites, mobile phones and digital versatile discs (DVDs), is technologically and geographically more sophisticated than that of many adults that surround them. There are other worlds of the child too: of play, fantasy, playground morality, safe and unsafe places, people or products, unarticulated barriers, taboos, fashion, fast food, loud music, cheap drugs and earlier sexual maturity. These worlds are little seen or understood by many of the adults surrounding them. Indeed, such worlds of children may not even be acknowledged in some primary classrooms. This book is written to suggest ways in which adults can adjust the curriculum so that children’s worlds are represented and widened, and their views, concerns and interests allowed for, celebrated and developed. It is suggested that a major route towards a more child-centred education is through creative and cross-curricular responses to real experience.

The history

Cross-curricular learning has a long pedigree. Educators since the beginnings of formal education have been conscious that combined perspectives were required in order to understand aspects of the physical, social or personal world. More than two millennia ago, Plato promoted a mix of story, physical education and music in an early version of Personal, Social and Health Education (PSHE) and citizenship. In his curriculum, Plato combined subjects to serve a higher goal than simple disciplinary instruction: ‘Anyone who can produce the best blend of the physical and intellectual sides of education and apply them to the training of character is producing harmony in a far more important sense than any mere musician’ (Plato, *The Republic*, 1955: 155).

Cross-curricular pedagogies infer a particular set of values and attitudes. These are often liberal, inclusive, constructivist and perhaps more recently also relativist and intercultural. Plato, who despite many elitist and exclusive ideas on education, called it ‘the initial acquisition of virtue by the child, when the feelings of pleasure and affection, pain and hatred that well up in his soul are channeled in the right courses before he can understand the reason why’ (Plato, *The Laws*, 1970: 653b).

Seventeenth- and eighteenth-century pioneers: nature and meaning

Unlike Plato, the seventeenth-century Czech philosopher Jan Comenius believed that education was for *all* people and that nature was herself the great teacher. Comenius was an early champion of physical and outdoor education, and saw physical education, playing with ideas, artefacts and materials, and learning by easy stages as essential foundations for education. Sometimes known as the ‘father of modern education’, he was probably the first to illustrate children’s textbooks. But his views on internationalism in education, his belief that teachers should understand the developing mind of the child and his insistence on teaching ‘with the greatest enjoyment’ and *thoroughly*, put him at the forefront of influences on modern educational thought in Europe. His eloquent and humane approach to learning is captured by the following paragraph from his book *The Great Didactic*, published in 1649:

The proper education of the young does not consist in stuffing their heads with a mass of words, sentences, and ideas dragged together out of various authors, but in opening up their understanding to the outer world, so that a living stream may flow from their own minds, just as leaves, flowers, and fruit spring from the bud on a tree. (Comenius, 1967: 82)

Jean Jacques Rousseau (1712–78) was also deeply inspired by the natural world. The eighteenth-century ‘Enlightenment’ brought forth, and to an extent rested upon, powerful and romantic philosophies like his. Rousseau was a believer in the inborn good of humanity and was the originator of the idea of ‘the noble savage’. Typical of the intellectuals and artists of his time, he was awed and fascinated by nature. He believed that education was needed in order to learn how to live and that the best learning was accomplished very near to the natural world. Rousseau felt that experience

was the starting point for learning. He used very physical and sensory images throughout his writing: for example, the metaphor of education as plunging into the cold waters of the Styx, or feeling the warts on the back of the toad to illustrate natural learning. He saw education as a meeting of the natural, the practical and the cultural; as he put it in his education treatise *Émile ou de l'éducation*, of 1762:

This education comes from nature, from men or from things. The inner growth of our organs and faculties is the education of nature, the use we learn to make of our growth is the education of men, what we gain by our experience of our surroundings is the education of things. (Rousseau, 1762, website)

We are each taught by three masters. If their teaching conflicts, the scholar is ill-educated and will never be at peace with himself; if their teaching agrees, he goes straight to his goal, he lives at peace with himself, he is well educated. (1762, website)

First by using the senses, then by making and using artefacts and, finally, by seeking truth in arts, science and religion, Rousseau expressed a progression which was much later taken up by Piaget. But he also had strong views about the adult domination of the curriculum: 'We never know how to put ourselves in the place of children; we do not enter into their ideas; we lend them ours, and, always following our own reasonings, with chains of truths we heap up only follies and error in their heads' (1762, website).

Comenius and Rousseau among many thinkers of the seventeenth and eighteenth centuries suggested that education was lifelong, aligned with nature and, by implication, cross-curricular because it relied upon helping the child interpret and understand their day-to-day *experience* of the world. They argued that children should be allowed to be children before they were 'men' and accepted philosopher Locke's view that children were rational beings. Such thoughts on the meaning and purpose of education still underpin many of the arguments of those who defend cross-curricular, experiential and child-centred approaches to learning.

Nineteenth-century pedagogues: play, purpose and perfection

As formal and eventually state-run education developed throughout the Western world in the nineteenth century, Rousseau's educational

philosophies were added to by thinkers and teachers such as Johann Pestalozzi (1746–1827) and Friedrich Froebel (1782–1852). Pestalozzi wanted children to learn through activity and arrive at their own answers. The personality was all important and each child needed to be taught with love in the context of direct concrete experience and observation. Froebel's major contribution was the foundation of the 'kindergarten' and his powerful arguments for the importance of play. These early nineteenth-century progressives advocated primary education through practical activity, objects, 'natural' interest and spontaneity. Contemporary traditionalists, on the other hand, encouraged the pragmatic and efficient mass education techniques of textbook and rote learning required by religiously conservative and rapidly industrializing countries. In line with the times, however, even the radical pioneers maintained a religious justification for their ideas:

I wish to wrest education from the outworn order of doddering old teaching hacks as well as from the new-fangled order of cheap, artificial teaching tricks, and entrust it to the eternal powers of nature herself, to the light which God has kindled and kept alive in the hearts of fathers and mothers, to the interests of parents who desire their children grow up in favour with God and with men. (Pestalozzi, quoted in Silber, 1965: 134)

The purpose of education is to encourage and guide man as a conscious, thinking and perceiving being in such a way that he becomes a pure and perfect representation of that divine inner law through his own personal choice; education must show him the ways and meanings of attaining that goal. (Froebel, 1826: 2)

Twentieth-century child-centred education

Much modern education theory is still underpinned by the work of Jean Piaget. He and his followers suggested, from the 1920s, that humans go through distinct stages of learning (Piaget, 1954). Passing through periods of sensory-motor exercise and reflex actions, to exploratory activity consisting of either pre-conceptual or intuitive experimentation with tangible things, humans finally arrive at a state of 'formal operations', which relies upon reason, imagination and abstract thinking. At each stage, the child is said to be learning through *accommodation* and *assimilation* – essentially through making and understanding errors. Piaget likened the developing child to a scientist constantly making, testing and revising hypotheses. Piaget's theories still underpin much of our

educational and curriculum decision making, though many have recognized that the developmental stages he described need not be tightly ascribed to particular ages but apparently need to be passed through in sequence at *any* age if a new concept is to be fully learned.

Lev Vygotsky's (1962, 1978) and, later, Jerome Bruner's work on the centrality of social intercourse in helping children make sense of the world has also had profound impacts upon schools and curricular organization (Bruner, 1968, 1996). Under their influence, many school sessions have introduced forms of 'scaffolded learning', where 'more knowledgeable others' support the concept formation of the rest. Learning is seen by these psychologists as primarily a social activity: 'making sense is a social process; it is an activity that is always situated in a cultural and historical context' (Bruner and Haste, 1987: 4).

The current context

It has become almost a truism of educational criticism that in these times of perhaps unprecedented change we need to develop a flexible and learning society. The lifelong learning lobby is well accepted and strong, and organizations such as the Campaign for Learning (website) have much support from a broad spectrum including education, politics and industry. However, *what* is to be learned is very much more debatable. Homespun American philosopher Eric Hoffer noted in the middle of the twentieth century that current education may not be relevant: '*In times of change learners inherit the earth, while the learned find themselves beautifully equipped to deal with a world that no longer exists*' (Hoffer, website). But late in the same century, some of Britain's educated elite applauded heartily when Sir Roy Strong argued for a distinctly narrow and culturally exclusive definition of the curriculum:

It is more important for a young person to be made to wonder at the architecture of something like the Palace of Versailles or glimpse what underlies ... a single scene in a Mozart opera than to paint another bad picture or bang a drum in the false interests of self expression. (SCAA, 1997)

This debate rumbles on against a background of massive social, political and technological change, as you will read in Chapters 1 and 2, but it is an essential debate. What we teach, what we require children to know and understand, will without doubt significantly change the minds of the generations that will shape the twenty-first century.

How we teach is equally important. Governments have become newly concerned with individual well-being, partly as a result of alarming statistics on depression (Children's Society, 2014, website; Layard, 2006; Layard and Dunn, 2009; UNICEF, 2013, website; WHO, 2012, website). The new interest in well-being has sparked a number of initiatives directed at a more holistic view of health. Education is now seen to play a key role in the physical and mental health of children and the curricular implications are wide.

The curriculum in today's schools is increasingly complex. It is set to become more diverse and less centralized. Those responsible for schools have to respond to concerns about falling standards in 'basic' as well as 'general' knowledge. Teachers feel they should address public and political perceptions of declines in behaviour and morality. At the same time, parents have become empowered to demand individualized solutions for the barriers their children face. Yet schools often feel starved of the resources, training, support and recognition that would help them meet such demands. As governments have increasingly involved themselves in the minutiae of educational practice, they have been expected to provide general solutions to these challenges – Chapters 2 and 3 discuss the progress of government intervention as well as providing guidance for those in academies and 'free schools' seeking curricular freedom.

CHAPTER 1

WHAT SHOULD SCHOOLING IN THE TWENTY-FIRST CENTURY LOOK LIKE?

Chapter aims

This chapter will discuss global, technological, social, economic and personal change and reflect upon some implications for schools and schooling. It suggests that children's development, priorities and rights should be taken seriously in any decisions about the curriculum. The chapter also shows how the issues relevant to children are cross-curricular in nature. By the end of this chapter you will have been introduced to the values that underpin this book under the following headings:

- education about and for the future
- learning that maximizes children's interest in technologies
- a curriculum that recognizes global inter-relationships
- a curriculum that recognizes the importance of personal relationships
- a curriculum to support the development of character and positive identity.

What you think a school should be like depends on the values you hold. What a school *is* like results from the values of those who dominate it. Values – the fundamental beliefs that guide all levels of action – are particularly reflected in the curriculum a school offers. *Curriculum*, as used throughout this book, is defined broadly to include not just the subjects taught, but also the choices made within those subjects, the styles and means chosen to teach them, the activities, attitudes, environments, relationships and beliefs that pervade a school. Successful school communities work hard to clarify their fundamental beliefs before considering

their curriculum. This book explores cross-curricular and creative developments in primary and secondary curricula because of my experience that connection-making and creativity are essential to a morally and intellectually good education.

We are constantly reminded of the unprecedented rates of change we experience as we travel through the twenty-first century (for example, Greenfield, 2010; Robinson and Aronica, 2010; Hicks, 2014). Illustrations of the exponential growth of knowledge, the development of technology, nanotechnology, micro-biology, robotics, artificial intelligence and the rest, pepper most writing and thinking about the future. This is not the place to comment on predictions, but it is safe to say that the world the children of today will inherit will be very, very different from our present one. Our children will have to face the results of climate change, rising sea levels, pandemics, human cloning, increased population pressures, global terrorism, economic instability and rapidly changing job markets. Forecasters predict water, oil and food shortages, mass migrations and ensuing warfare. Taking a more optimistic view, whilst climate change is inevitable our children may witness more concerted international cooperation to address it. They may also experience just government, longer, healthier lives, a more equitable sharing of the earth's resources and the global development of sciences and technologies to address new and old challenges. Either way, today's children live in times of rapid and global



Illustration 1.1 Teachers can have a major influence on children's futures. School children from a village in south India

transformation that will quite literally change human minds and societies. The well-being of a significant minority in the UK and US seems to be in decline. Since 2009, measures of well-being measured by the Children's Society have fallen steadily so that in its latest report some 20% of children aged 8–15 describe their well-being as below the mid-point of two standardized scales and 10% place themselves as 'low' (Children's Society, 2014, website). What curriculum can do to address the uncertainties and unhappinesses of children is the subject of this book. How we can empower children with values, hope, meaning and confidence in addition to knowledge, are the underlying themes.

Preparing for an uncertain future

The future has always been uncertain. Rapid advances in technology and global communications have made us hyper-sensitive to the speed and unpredictability of change. The education we currently offer our children may not be good enough to help them thrive in, and live fulfilling lives through the twenty-first century (see Beetham and Sharpe, 2013). Aside from Computing, Modern Foreign Languages (MFL), Citizenship and PSHE, the 2014 National Curriculum for England (DfE, 2013a) contains the same subject requirements as an early twentieth-century primary school. By contrast, the curricula of Scotland and Northern Ireland, the abandoned Rose recommendations (2009) and the Cambridge Primary Review (Alexander, 2010) all claim that cross-curricular themes or groupings more properly address our changing times and uncertain future. Whilst legislating for increased emphasis on separate subjects and a stronger focus on English, Mathematics and Science for English local authority schools, the coalition government of 2010 stressed that a percentage of curriculum time (up to 30%) could be seen as the 'school curriculum'. Academies, free schools and independent schools are given more freedom to decide on their curricula though inspection and the continued use of 'league tables' will ensure that subjects are not treated equally.

Schools are guided towards making more partnerships with the community. As schools and their communities become more involved with each other, the issues and concerns that dominate lived experience should be reflected in the curricula and pedagogies they develop. To be understood fully each question or problem inevitably requires insights and skills of several subject disciplines. As education becomes less centralized and teacher education more centred on schools via Schools Direct, Teaching Schools and Teach First, teachers at the chalkface will need more guidance on how to link subject learning authentically to the real world.