

# Table of Contents

Acknowledgments	v
Foreword	vii
Introduction	ix
<b>Section 1</b>	
<b>Design Tools</b>	<b>1</b>
Why?	3
There Are Similarities Between Learners	12
There Are Also Differences Between Learners	33
There Are Other Agendas Too	50
The Recipe	58
<b>Section 2</b>	
<b>Tools for Teaching and Learning</b>	<b>61</b>
Introduction	63
Ambassadors	65
Assembly	67
Back to Back	69
Beat the Teacher	71
Bingo	73
Bodily Functions	75
Broken Pieces	78
Calling Cards	81
Centre of the Universe	83
Circus Time	85
Conversion	87
Corporate Identity	89
Delegation	91
Dicey Business	93
Discussion Carousel	95
Distillation	97
Dominoes	99
Double Take	101
Deadlines	103
Forum Theatre	105
Go Large	107
Guess Who	109
Hide 'n' Seek	111
Hierarchies	113
Hot-Seating	116
Information Hunt	118
Mantle of the Expert	120
Marketplace	122

Masterminds	126
Memory Board	128
Multisensory Memories	130
On Tour	133
One-to-One	135
Pairs to Fours	137
Pass the Buck	139
Question Generator	141
Question Time	143
Quick on the Draw	145
Ranking	148
Scrambled Groups	150
Silent Sentences	152
Spotlight	154
Stepping Stones	156
Still Image	158
Thumbometer	161
Value Continuum	163
Verbal Football	166
Verbal Tennis	168
Wheel of Fortune	170
Where There's a Will ...	172

### Section 3

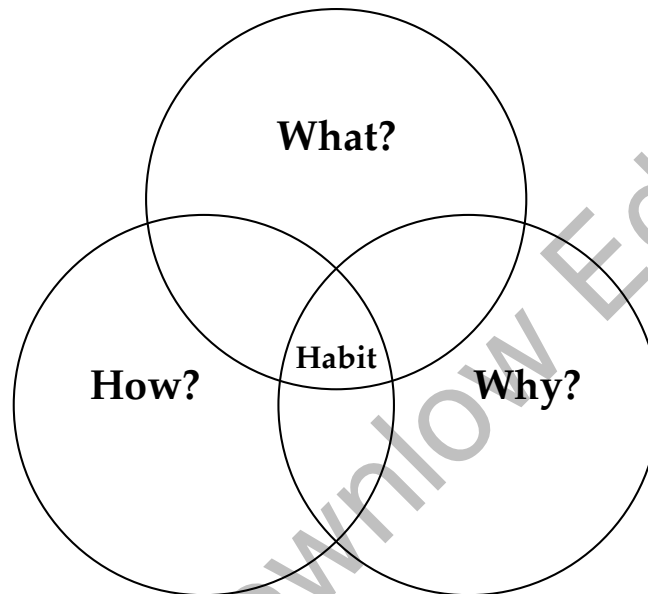
<b>Tools for Managing Group Work, Behaviour and Personal Responsibility</b>	<b>175</b>
Introduction	177
Murder Hunt	179
Framed	182
Observer Servers	185
Learning Listening	187
Sabotage	190
Games	192
Maintenance	195
Assertiveness	199
Groups Galore	207
Step On It	209
Help! How Do We Hold A Group Discussion?	212
Help! How Do We Make Decisions?	214
Proportional Representation	216
Triple Check	218
Think About It	220
Settled Starts	222
Tricks of the Trade	223

<b>Section 4</b>	
<b>Operating Tools</b>	<b>225</b>
Introduction	227
Overtime	228
Extended Horizons	231
Upwardly Mobile	234
Menu	246
Sole Search	253
Blank Cheque	261
<b>Section 5</b>	
<b>Audit Tools</b>	<b>271</b>
Introduction	273
Check Your Lesson Plans	274
Check Your Students' Learning Styles	279
Check Your Impact On Students' Self-Esteem	289
Check Your Delivery Of Independent Learning Skills	297
Check Your Language	307
Check Your Professional Development	314
Check Your Management Of Change	321
Appendix A: Starting Points for Research	331
Appendix B: Learning Styles Analyses	333
References	337
Select Bibliography	345
Index	351

# Why?

In his bestselling book *The Seven Habits of Highly Effective People*<sup>1</sup> Stephen Covey suggests that a habit is formed whenever a person knows *what* to do, knows *how* to do it and has a good reason for doing it – in other words knows *why*. Understanding why helps to create motivation. Covey says “A habit is the overlapping of *what* to do, or knowledge, *how* to do or skill, and *why* to do – want to or attitude. Where they overlap you’ll see a habit.”<sup>2</sup>

Knowing *what* to do = awareness



Knowing *how* to do it = skill

Knowing *why* to do it = motivation

Those who work in the field of professional development, or whose job it is to manage change, know the truth of this. Simply exhorting people to alter their ways doesn’t work. Telling them what they should do differently, without giving them the necessary skills, leads to feelings of frustration and failure. Nor does it work in the long term to give people new techniques without a convincing rationale. Innovation is then short-lived. On the whole, new practice is not sustained unless people have:

- a **motivation** to keep doing it, which comes from conviction
- an **understanding** of the principles that underpin the practice so that the new methodology can be continually refreshed and reinvented.

Much of this book is about *how*. This, I hope, makes it attractive to teachers and trainers who are understandably eager for new practical ideas. The risk, though, is that it provides no more than a “box of chocolates”. Once the chocolates have been enjoyed, the box is likely to be thrown away and a fresh one demanded. The more taxing but ultimately more productive intention of *The Teacher’s Toolkit* is for readers to internalise the recipe so they can make their own confectionery when this particular selection runs out.

So this first section is about *why* – the rationale. Why push the boat out and do things differently? Why not just carry on as normal? My basic premise is that learning in schools is likely

to be at its best when teachers follow the natural laws of the learning process. This idea is presented strongly by the Scottish Consultative Council on the Curriculum in the introduction to their excellent *Teaching For Effective Learning*:

Some would argue that teaching is a different job depending on where you teach and whom you teach. Obviously there are differences but [we] believe that the basic principles of learning apply no matter where you teach and no matter what the needs or the age of the learners you teach.<sup>3</sup>

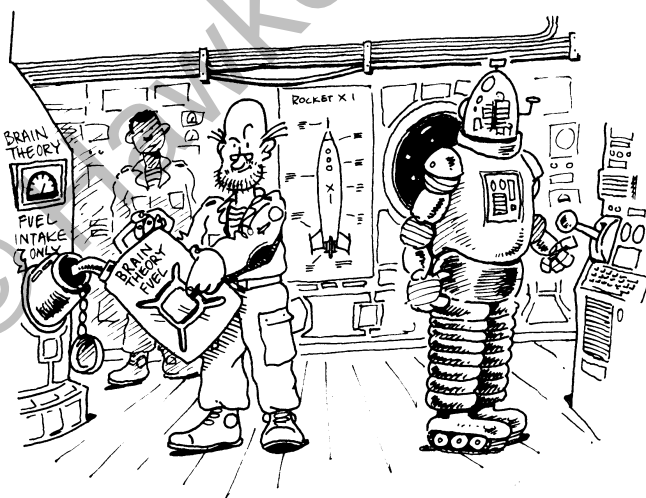
The title of Mike Hughes's book, *Closing the Learning Gap*,<sup>4</sup> says it all. In the past, teaching tended to be hit-and-miss because as a profession we were less certain about learning. Even now the way many teachers teach is out of step with the way most learners learn. The task of the modern, aware teacher and school manager is to bring teaching methods increasingly in line with the learning process. Herein lies the real solution to the apparent problems of under-attainment (measured narrowly) and underachievement (more broadly).

The difference between attainment and achievement is more than semantic. In *Effective Learning in Schools* Christopher Bowring-Carr and John West-Burnham stress

that learning must have a consequence for the learner. By "consequence" we mean that by learning x, the learner will see the world in a slightly different way, will alter his or her behaviour or attitude in some way. If the "learning" that has taken place is merely capable of being reproduced at some later date in answer to the demands of some form of assessment which replicates the original problem, and the context for that problem, then what is being learnt is "shallow learning" only.<sup>5</sup>

Deep learning involves the development of an increasingly sophisticated personal reality with matching competencies and disciplines. *The Teacher's Toolkit* attempts to provide some of the means of arriving at "deep learning" (achievement), even within a culture concerned largely with "shallow learning" (attainment).

There are many excellent books currently available providing surveys of modern learning theory. Alistair Smith's *Accelerated Learning in the Classroom*,<sup>6</sup> *Accelerated Learning in Practice*<sup>7</sup> and his myth-busting *The Brain's Behind It*,<sup>8</sup> along with Colin Rose's and Malcolm J. Nicholl's *Accelerated Learning for the 21st Century*<sup>9</sup> and Robin Fogarty's *Brain Compatible Classrooms*,<sup>10</sup> are ideal starting points. *The Learning Revolution*<sup>11</sup> by Gordon Dryden and Jeanette Vos is a recognised classic, and the many books by Eric Jensen, especially *The Learning Brain*,<sup>12</sup> *Teaching with the Brain in Mind*,<sup>13</sup> and *Brain-Based Learning*,<sup>14</sup> provide crisp, readable and, above all, applied insights into recent research.



*Fuelled by the latest ideas, their journey began. Instinctively they knew... the future wasn't what it used to be.*

Behind all this is biology. For the last couple of decades neuroscientists have been telling us with increasing confidence about the workings of the brain. This is a direct consequence of advances in scanning technology, particularly fMRI (Functional Magnetic Resonance Imaging) and PET (Positron Emission Tomography), which allow us to see the brain in action to a very precise degree. For

those who are not very familiar with all the bits of the central nervous system, visit Eric Chudler's fresh and frequently updated website *Neuroscience for Kids* at <http://faculty.washington.edu/chudler/neurok.html>

For more advanced technical stuff about the structure of the brain, go to [www.vh.org/Providers/Textbooks/BrainAnatomy/BrainAnatomy.html](http://www.vh.org/Providers/Textbooks/BrainAnatomy/BrainAnatomy.html)

Alternatively, familiarise yourself with Susan Greenfield's work. Professor of Pharmacology at Oxford and a popular TV presenter, she describes the inner secrets of the grey matter in very readable texts such as *The Private Life of the Brain*,<sup>15</sup> *Brain Story*<sup>16</sup> and *The Human Brain, a Guided Tour*.<sup>17</sup> If you're ready for a detailed and fairly technical account of shifts in brain research from the 1940s to the present day, read John McCrone's *Going Inside: A Tour Round a Single Moment of Consciousness*. Towards the end of the text he sums up: "This book has tried to track what would be a fundamental change in the science of the mind: a shift from reductionism to dynamism."<sup>18</sup>

Nowadays the brain is thought of as dynamic, not as some sort of computer crunching its way through billions of inputs per second. It is considered to be a flexible, self-adjusting, unique, ever-changing organism that continually grows and reconfigures in response to each stimulus. Early in the 1990s researchers such as the neurobiologist Karl Friston of London and the psychologist Stephen Kosslyn of Harvard were instrumental in formulating this new paradigm. They realised that the brain operates rather like the surface of a pond. New inputs provoke a widespread disturbance in some existing state. The brain's circuits are drawn tight in a state of tension and when a pebble is thrown in (a sensory input) there are immediate ripples of activity. New pebbles create patterns that interact with the lingering patterns of previous inputs. Then everything echoes off the sides. Nothing is being calculated. The response of the pond to the input is organic, or more accurately *dynamic*.

Elissa Newport, psycholinguist at the University of Rochester in New York, uses another image: the brain can now be seen as working more like a beehive, its swarm of interconnected neurons sending signals back and forth at lightning speed. Sir Charles Sherrington, who has been described as "the grandfather of neurophysiology", says of the brain, "It is as if the Milky Way entered upon some cosmic dance". However you choose to describe it, the brain is characterised by activity, plasticity, responsiveness, interplay, speed, adaptability, continual reshaping and inexhaustible resources – a far cry from the computer-like comparisons of the not-too-distant past.

Aware of the vitality and fluidity of the brain, all made nakedly apparent by imaging, McCrone suggests that a complete understanding of consciousness can be achieved only if insights from a number of disciplines are combined:

Scanning technology has already had the beneficial effect of forcing the beginnings of a marriage between psychology and neurology ... But if the human mind is a social as well as a biological phenomenon, then yet further marriages are required with the "soft" sciences of sociology and anthropology, and their many sub-disciplines.<sup>19</sup>

Therefore, in our rush to embrace the main messages from brain science, it is vital that we do not bypass more established cultural and socioeconomic insights as if they were now old hat. Roland Meighan's *A Sociology of Educating*,<sup>20</sup> for instance, is as important as it ever was. The classic perspectives of Ivan Illich and Paulo Friere, along with the popular works of John Holt, most crucially *How Children Fail*,<sup>21</sup> and Postman and Weingartner in *Teaching As a Subversive Activity*,<sup>22</sup> may be middle-aged and unfashionable, yet they combine to present a powerful agenda for personal, social and ultimately political empowerment that is entirely relevant to our modern needs. In assessing Illich in *The Trailblazers*, for example, Professor Edith King of Denver concludes:

As the educational issues that Ivan Illich espoused now seem familiar at the close of the 20th century, teachers and parents can find strength ... from his writings in their advocacy of the democratic school and alternative educational futures.<sup>23</sup>

### What next?

Revolutionary insights into the brain are only part of a more general overhaul of thinking that has gathered momentum in the last fifteen years. An increasing number of commentators are now weaving global social, economic, commercial and technological "megatrends" together with modern insights into the brain to present us with new visions of the future. Dryden and Vos's "16 major trends that will shape tomorrow's world"<sup>24</sup> provides as good an overview as any, while Charles Handy, the internationally renowned business and social commentator, established some time ago that change is now discontinuous. He said, "the success stories of yesterday have little relevance to the problems of tomorrow ... The world at every level has to be reinvented to some extent. Certainty is out, experiment is in."<sup>25</sup> Guy Claxton's reflective *Wise Up: The Challenge of Lifelong Learning*<sup>26</sup> makes the persuasive case for major shifts in our thinking about learning, schooling, training and parenting. He argues that the ultimate life skill for the 21st century is the ability to face difficult and unprecedented challenges calmly and resourcefully.

Worldwide, information and communications technology is being increasingly understood and utilised by ordinary people. This brings two major, positive benefits to learning. First, teachers are gradually being released from having to be the main transmitters of information, ideas and skills, enabling them instead to concentrate on the facilitation of learning, on being learning coaches. Second, students are being empowered to learn independently. They can access most of the information they need, and often whole courses, on CDs or online. Learning, even of regular examination subjects, can take place in the school's learning centre, at home or in the local cyber café, meaning that students can control when and where they learn, and often how. The visual and interactive nature of most hi-tech resources makes them appealing to learners who struggle with academic routines. Information and communications technology (ICT) is free of time, space and tradition. All students need to do is learn how to learn.

In fact, Doug Brown, chairman of the British Computer Society's School of the Future Project, commenting on his final report back in 1998, said:

The current school model, with its rigid classroom, has been useful only because there was no alternative. The millennium school will be vastly different ... the concept of a nine-to-four school day will become obsolete ... In order to use ICT successfully, schools must change their culture – how students learn and how teachers teach.<sup>27</sup>

In the United States, Don Glines, director of the California-based Educational Futures Project, has argued for years that "there is only one overriding issue facing educators today: the transformation to communication age learning systems."<sup>28</sup> In Britain, John Abbott and Terry Ryan's superb *The Unfinished Revolution: Learning, Human Behaviour, Community and Political Paradox* presents a complete raft of compelling reasons for declaring that "the current structures of formal education are fundamentally flawed" and that "societies now stand at an evolutionary crossroads where the way ahead must be to capitalise on fresh understandings and remedy ... upside down and inside out education."<sup>29</sup> The 21st Century Learning Initiative ([www.21learn.org](http://www.21learn.org)) sums up the situation in its published vision:

New understandings about the brain; about how people learn; about the potential of information and communications technologies; about radical changes in patterns of work as well as deep fears about social divisions in society, necessitate a profound rethinking of the structures of education.

This UK network and others like it, such as Education Now ([www.gn.apc.org/educationnow](http://www.gn.apc.org/educationnow)) give penetrating insights into the shortcomings of the current education system and offer constructive, radical alternatives.

Such thoughts raise big questions – two in particular. In this day and age, **what** should be the purpose of education? And **how** should it be organised? Over recent decades a view has crept to dominance in Britain that education exists primarily to serve the economy. This premise currently drives almost all current policy. Early in the reign of New Labour, Tony Blair declared in *The Learning Age: A Renaissance For a New Britain*<sup>30</sup> that “Education is the best economic policy we have.” At the start of his second term of office the Prime Minister sounded the same note: “The world’s fourth largest economy cannot advance without a world-class education system.”<sup>31</sup> The economy has become the politician’s first and foremost, and unquestioned, reason for pursuing quality in education, but where does such functionalism lead?

Even educationalists in the “learning-to-learn” camp often argue their case on economic grounds – they say that people are often required to learn on the job and will inevitably have to retrain at least once in their working lives, so they need the skills to do it. It’s true, companies increasingly expect employees to learn, and employees increasingly expect companies to provide for their learning. Many multinationals now have their own in-house universities and even a relatively small outfit such as Bulmer’s Cider in Hereford has a learning centre open 24 hours a day. The British government’s University for Industry, Learning Direct advice service and Lifelong Learning Partnerships, along with the Learning and Skills Councils, are designed to facilitate continuous work-based or work-related education.

Clearly, education and the economy are in a mutually dependent relationship: each needs the other, and this will remain so. Individual livelihoods and the continuance of national life depend on it. But there are two issues to debate. First, the *prominence* of the economy in the nation’s thinking about education: currently it dominates and dictates. National education and training targets are set explicitly to improve competitiveness; the national numeracy and literacy strategies and the current attention given to thinking and learning skills are intended to serve the same purpose. The second debate concerns the nation’s understanding of *what* the economy now needs from education. According to Abbott and Ryan,

Today’s social and economic needs argue for a new model of learning that entails:

1. mastery of basic skills;
2. the ability to work with others;
3. being able to deal with constant distractions;
4. working at different levels across different disciplines;
5. using mainly verbal skills, and;
6. problem-solving and decision-making.<sup>32</sup>

By contrast, most political thinking about education is driven by an out-of-date understanding of business needs. Current education policy is way behind the times, serving the old factory age, not the new information age. Attendance, punctuality, compliance, acceptance of the “manager’s” decisions, an understanding of one’s place in the pecking order, a sufficient general knowledge and the ability to use a few basic skills make up the current curriculum (as they did a hundred years ago), whereas businesses are currently crying out for flexibility, responsiveness, creative problem-solving, teamwork, self-management and sophisticated communication skills. The reason for the yawning gap is clear. The modern business agenda chimes with the modern learning agenda, and there’s a deep-seated stubbornness about accepting modern educational ideas, even those grounded in the most credible neuroscientific research. Why? Because they resemble the progressive child-centred practices that have been so successfully rubbished in the popular mind. In a private conversation with Professor

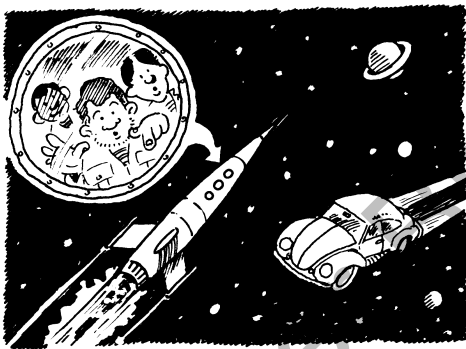


Howard Gardner, a recent British Secretary of State for Education irrationally said, "I simply don't believe in your multiple intelligence theory." End of story.

Compounding the problem is the simplistic idea that educational outcomes can be fundamentally altered by changing the curriculum and its content. This of course is nonsense. Since the UK's Education Reform Act of 1988 there has been nothing but curriculum change, and yet the outcomes that matter – attitudes and skills – remain more or less the same. The kind of changes required for modern economic success, for a healing of social ills and for personal fulfilment are rooted in the *way* learning is conducted, not in *what* is learned. In other words changes to teaching and learning methodology and to education structures are required. No wonder John Bruer, a cognitive scientist, said that "we should be as concerned with how we teach as we traditionally have been concerned with what we teach".<sup>33</sup>

Take creativity, for example. *All Our Futures: Creativity, Culture and Education*,<sup>34</sup> the report of the National Advisory Committee for Creative and Cultural Education, headed by Professor Ken Robinson of Warwick, points out that employers are "saying that a degree is not enough, and that many graduates do not have the qualities they are looking for: the ability to communicate, work in teams, adapt to change, to innovate and be creative". Robinson concluded that:

this is not surprising ... the traditional academic curriculum is not designed to promote creativity. Complaining that the system does not produce creative people is like complaining that a car doesn't fly ... It was never intended to. The stark message, internationally as well as nationally, is that the answer to the future is not simply to increase the amount of education, but to educate people differently.<sup>35</sup>



*Once free of the Earth's gravitational pull,  
many things became possible.*

He provides a clear way forward: "Creative learning is made possible by creative teaching. This is not an easy process and calls for sophisticated skills in teachers."<sup>36</sup> Robinson argues that substantial changes to the curriculum, to assessment and to teacher training will be needed to support this.

Presently teachers tell us that creativity is crushed in Key Stage 2 as they focus on preparation for SATs, and we see the natural learning processes of childhood – free play and random exploration, for example – abandoned by zealous teachers and parents in their desperate attempts to give children an "advantageous" start. Secondary schools are using increasingly bizarre bribes (such as offering McDonald's meals and mountain bikes as prizes) to get students to attend. The national teacher shortage suggests that adolescents are not the only ones who don't want to go to school any more. How long will this position be tenable in a country that still harbours deep divisions (the North of England race riots of summer 2001) and signs of serious disaffection (the turnout in the 2001 General Election was a shocking 59%) and in which we now know enough about learning to address these issues successfully? The snag is that politicians get stuck. Once they've declared their course they can't backtrack. They fall prey to a great British habit: if something doesn't work, do it harder and more often (homework clubs, holiday schools, evening revision classes). Politicians are simply not allowed by the media and the public to learn from mistakes and adapt to fresh evidence – what a role model for a "learning society"!