THE
TRUTH
ABOUT
TEACHING

THE TRUTH ABOUT TEACHING

AN EVIDENCE-INFORMED GUIDE FOR NEW TEACHERS

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CONTENTS

1

A SHORT HISTORY OF EDUCATION

Key Points

This chapter will:

- Outline some important developments in the history of education that affect teaching today
- Describe the philosophy of educational progressivism and attempt to explain its origins
- Look at how progressivism has waxed and waned in response to important events
- Ask how different education systems have been shaped by educational philosophies
- Show that investing more in education does not necessarily lead to gains in learning
- Suggest that we need to focus resources on initiatives that have a positive impact

A natural progression

As the new century advanced, key thinkers became increasingly concerned that school-based education was not adequately preparing young people for the demands of an unpredictable future. Some claimed that in the 20th century education would become ever-more important and take on a previously unknown 'burden of responsibility', but that this would require teachers to make use of new methods, materials and types of experiences (Bobbitt, 1918). One of the methods that showed promise was project-based learning.

William Heard Kilpatrick made the case for project-based learning in his 1918 essay 'The Project Method' (Kilpatrick, 1918). To Kilpatrick, involvement in a project was a 'purposeful act'. A girl engaged in dressmaking, for instance, is pursuing a project that has meaning, is motivating and has a clear objective. Similarly, a boy or a group of children who create a school newspaper will have a clear goal. The value of projects was that children would invest their 'whole heart' into them rather than acting through compulsion.

This stress on the motivational aspect of project work is in keeping with Kilpatrick's role as a leading light of America's Progressive Education Association. A key element of early 20th century progressive education philosophy was that learning should be natural – even joyful – and so must follow the contours of children's natural interests and be based in the activities they are naturally inclined to participate in (Egan, 2002). This implies a hands-off approach, where students figure things out for themselves with the teacher offering only guidance.

These ideas closely follow John Dewey who, in 1913, called time on the argument between those who wanted to make subjects interesting for students and those who preferred to emphasise the role of student effort. Instead, Dewey suggested that if we recognise there are 'certain powers within the child' that urgently need developing then, by following these natural, developmental impulses, students will be absorbed and whole-hearted, and learning will never be drudgery (Dewey, 1913). Dewey painted a picture of a unicorn that generations of teachers have been hunting.

As John Dewey later explained, while discussing the relative merits of different educational approaches, 'There is ... no point in the philosophy of progressive education which is sounder than its emphasis upon the importance of the participation of the learner in

the formation of the purposes which direct his activities in the learning process' (Dewey, 1938).

If any of this feels familiar, then that is because the philosophy of a natural form of learning, that follows the contours of children's interests, is still a powerful force in contemporary education, as well as being one that accurately attracts the 'progressive' label. And it is important that we pay progressive education its due, follow Dewey's example and describe it as a 'philosophy' rather than think of it as a bag of teaching tricks. Progressive education starts from principles and then selects curricula, teaching methods and even the objectives of education accordingly. Progressive education is ultimately about what educators *believe* education *is* rather than any classroom task.

Progressive education is not progressive politics. Instead, it represents a philosophy of learning that can be adopted regardless of political views. Although currently a default position of many on the political left, perhaps due to its name, progressive education was once the philosophy of Giovanni Gentile, Mussolini's education minister. As such, it drew criticism from the Marxist philosopher Antonio Gramsci (Mayo, 2014). Progressivism tends to emphasise the individual, something that is often more a concern of the political right. And it is important to note that a belief that education is about the unfolding of a natural plan does not compel us to believe that everyone has the same natural plan. Some students may be naturally fitted for leadership and others for factory work. This is the implication of any argument in favour of nurturing individual talents (e.g. Robinson, 2017).

There are many teachers who, if asked, would claim no educational philosophy. They would insist that they are pragmatists who draw upon different methods and tactics as required. But this is not true. Everyone has a set of beliefs about teaching, even if they lie largely hidden. You either believe that education should be a natural process, like the unfolding of a flower, or you do not. You cannot believe this for some of the time or for part of a lesson. Perhaps you disagree with Dewey and believe that some objectives of education are worth having but require an element of drudgery to get there, and that they therefore need to be set and monitored by the teacher? If so, that's part of your philosophy.

These are the two main ways of thinking about education. It is either a natural, drawing-out of something from within, or it is an effortful, sometimes painful process of passing knowledge from one

generation to the next; a process that is not particularly natural. The dispute between these two positions has echoed through the ages.

Empty vessels

Educators have long taken inspiration from Ancient Greece. In the writings of Plato, we have an early description of the ideal curriculum for philosophers and leaders, provided by a form of boarding school for which students would be selected by aptitude at an early age. These ideas influenced later educational thinkers such as Jean-Jacques Rousseau (Jackson, 2012).

Plato believed that truths were immutable, and that education was the process of drawing out truths that people once knew in a previous life but have forgotten due to the corrupting influence of the world. He disliked the format of an audience listening to a poet reciting Homer, because he thought this was too passive, with no room for challenge or discussion. Instead, he provided his own instructional model by writing down the dialogues of his teacher, Socrates. Socrates constantly questioned the assumptions of those he conversed with (Jackson, 2012). This style has become known as 'Socratic questioning' and has gained popularity as a teaching approach (see Paul and Elder, 2007 for an overview).

Plutarch, a first century Greek essayist, is also an influence on education today, if for no other reason than an often-misattributed quote that 'the mind does not require filling like a bottle, but rather, like wood, it only requires kindling to create in it an impulse to think independently and an ardent desire for the truth' (Babbitt, 1927). Versions of this saying have been attributed to Socrates as well as W.B. Yeats (O'Toole, 2013). For instance, Gert Biesta deployed the Yeats version at the opening of his influential book *The Beautiful Risk of Education* (Biesta, 2015). Plutarch's analogy is most often used to implicitly or explicitly support a theory of learning known as 'constructivism' (e.g. Kuhs and Flake, 1993).

The philosophy of constructivism asserts that people do not simply receive ideas from others. Instead, they must construct meaning for themselves, or perhaps as part of a group effort. Many educators then take the additional, if not inevitable (Mayer, 2004), step of drawing implications for methods of teaching; that we should avoid trying to transmit ideas through lecturing and instead focus on methods that allow students to figure things out and make connections for

themselves (see Perkins, 1999). In this sense, constructivism follows, and perhaps derives from, early 20th century progressivism.

Plutarch is an odd recruit to this cause. His famous quote comes from an essay about listening to lectures. It was written for Nicander, a young man who had finished formal schooling, and it consists of advice on how to continue with his education. Plutarch is concerned that young people are more interested in gossip or a 'wordy brawl' than they are in listening to serious advice about their duties. The quote is thus advice for the one who *listens* to a lecture rather than the one who delivers it. Plutarch is arguing for active listening rather than for simply basking in the glow of someone else's fine rhetoric. To some extent, this is supportive of constructivism.

However, Plutarch is generally in favour of listening and it seems unlikely that he would condemn the practice of lecturing. At another point in the essay, he concludes that, 'As skilful horse-trainers give us horses with a good mouth for the bit, so too skilful educators give us children with a good ear for speech, by teaching them to hear much and speak little' (Babbitt, 1927). This quote is less well known.

If we wish to understand Plutarch's attitude to formal education, an issue more relevant to the purpose of this book, then we should perhaps turn to a different essay, *The Education of Children*, although we should bear in mind that Plutarch's authorship is disputed. This essay sets out the case for education being built upon three components: nature, reason and habit. In other words, children have some natural capacities that can be improved by explicit training and then mastered through practice. As Plutarch, or the unknown author, states, 'Indifference ruins a good natural endowment, but instruction amends a poor one; easy things escape the careless, but difficult things are conquered by careful application'. This seems a surprisingly modern understanding of the process of learning.

On the other hand, lacking our present knowledge of genetics and heredity, the essay associates a superior nature with nobility of birth, cautioning men against cohabiting with courtesans and concubines. There is even advice against having sex when drunk, for fear of producing offspring with a love of the booze.

Master of puppets

The modern concepts of progressive education and constructivism draw heavily on the work of Jean-Jacques Rousseau (Rosenow, 1980;

Krahenbuhl, 2016), an 18th century Enlightenment philosopher who in many ways anticipated the Romantic movement.

Rousseau's great work on education is *Emile*, a novel about the tutoring of the eponymous hero. Rousseau's aim is to show how a perfect citizen may be moulded and, frankly, it's a little creepy. Emile's tutor, Jean-Jacques, joins him as a baby and is with him day and night, shaping his thoughts and experiences. The objective is to convince Emile that he has total freedom, that he never has to do anything he doesn't seek to do. Yet, Emile is not free because he is constantly being psychologically manipulated in his choices, with the aim of producing the perfect citizen.

Rousseau gave inspiration to the later progressive movement with its aim of marrying the processes of education to a child's natural inclinations. However, it is debatable whether Rousseau's intentions have been fully understood (Rosenow, 1980). It is still an open question as to how we can follow a child's natural impulses and yet also shape them to a desired end.

In the years following Rousseau's death, the nature of childhood underwent a significant change in the popular imagination, or at least the imagination of the middle and upper classes. In literature, the rational and flawed child of the 19th century gave way to the innocent and perfect child, under the growing influence of the romantic movement (MacLeod, 1992; Austin, 2003). Once the view takes hold that children do not need correction, that they have an essentially benign nature that is corrupted only by adults, a hands-off form of education will widen and deepen in appeal.

Sputnik shock

By the 1950s, the philosophy of progressive education was dominant in the United States' public-school system and teacher education colleges, and this was starting to generate something of a backlash. One key area of concern was reading. Progressives tended to favour methods of teaching reading that focused on whole words, or even sentences, rather than breaking words up into their components and relating these to the sound of the word. This trend provoked Rudolf Flesch to write his 1955 classic, *Why Johnny Can't Read And What You Can Do About It* (Flesch, 1955). The teaching of reading is central to the story of education and we will return to it in Chapter 10.

Although it was the dominant philosophy, it is impossible to know how many teachers fully subscribed to progressivism and applied its methods. Elements of older teaching styles probably survived in many schools. Which is why the impact of progressivism on the curriculum is arguably more significant than its impact on the act of teaching itself. Indeed, E.D. Hirsch has argued convincingly that a progressive-inspired curriculum reform led to a decline in the educational performance of students in France (Hirsch, 2016).

At best, progressivism is ambivalent about traditional subjects. At worst, it is openly hostile, seeking to replace them with studies that are more closely aligned to the child and his or her immediate surroundings and interests. By the 1950s, these centred on generic 'life adjustment' goals, similar to the goals we might now term 'soft skills'. As Dewey explains, 'Not knowledge or information, but self-realization, is the goal. To possess all the world of knowledge and lose one's own self is as awful a fate in education as in religion. Moreover, subject-matter never can be got into the child from without' (Dewey, 1902).

An illustrative example of the attitude to traditional subjects is the way that history was largely replaced in America by the 'expanding horizons' model of social studies. Instead of young children learning about the Romans, a people too distant from their own experience to comprehend, they would be asked to find out about their family tree or explore their local environment, gradually working outwards until, at some stage they may never reach, they are developmentally ready to tackle other times and peoples. It is as if children cannot imagine themselves into other places. As Kieran Egan suggests, this does not seem tenable when you consider the love they have for fairy stories and tales about talking animals (Egan, 1980).

It is therefore understandable that the inevitable backlash against progressive education would include criticism of the effect on the curriculum.

Writing in 1950, Mortimer Smith took on the curriculum issue. Smith described himself as a layperson, having not worked in education but instead having been a volunteer on a school board. He took the time to digest and explain his understanding of educational philosophy in general, and John Dewey in particular.

Smith's book, *And Madly Teach*, devoted a section to criticising the progressive 'doctrine' that 'the curriculum must be based upon the child's needs, interests and abilities'. He gives the example of a child who is passionate about history but whom maths fills with 'ennui',

and he asks whether we should really follow these interests or whether we should persist with teaching maths in the service of a broad and balanced education. Smith is sceptical when confronted with utopian visions of how a young farm-hand would learn through compelling practical experience on an idyllic farm, pointing out that many such farm-hands move to the city, if given the choice, and that most children do not enjoy work of any kind (Smith, 1950).

The 1950s saw the publication of similar tomes with similar aims to that of Smith. The historian and professor Arthur Bestor released *Educational Wastelands* (Bestor, 1953), and former professor Albert Lynd released *Quackery in the Public Schools* (Lynd, 1953). A reviewer in the *New York Times* found much to agree with Lynd about, particularly on the watering down of the curriculum, but he did not care for the title and Lynd's general impatience, an impatience worth reflecting on from our 21st century perspective (Duffus, 1953).

The temperature was therefore rising without quite coming to the boil. It took a 58-centimetre polished metal sphere to do that: Sputnik 1. The fact that, in 1957, the Soviet Union had been able to place the first satellite in Earth orbit seemed to highlight a worrying gap in science and technological advancement between the two superpowers.

In March 1958, *Life* magazine ran an article on the 'crisis in education'. Beginning with the words, 'For years, most critics of U.S. education have suffered the curse of Cassandra – always to tell the truth, seldom to be listened to or believed', before profiling two young men, one American and the other Russian. The Russian student is serious about studying and tackles challenging technical content with the goal of becoming a physicist, whereas the American student is likeable and doesn't take school too seriously. The Russian has read Shakespeare, but the American has only managed to read *Kidnapped*, by Robert Louis Stevenson. In America, 'A quarter century has been wasted with the squabbling over whether to make a child well-adjusted or teach him something' (*Life*, 1958).

The reaction to Sputnik saw the federal government intervene in education in a manner it usually avoided, sponsoring the production of curriculum materials and bringing academics and teachers together with the aim of the public-school system better serving the needs of higher education. However, as the years progressed, the panic faded. America developed its own space technologies, culminating in beating

the Soviet Union in the race to place people on the Moon. Over time, educational initiatives associated with the Sputnik crisis lost federal funding, fizzled out or became absorbed into the wider milieu (Rutherford, 1997) such that the intellectual and bureaucratic centres of American education largely returned to the pre-1957 consensus.

American education is periodically convulsed by panics like the Sputnik crisis, with similar arguments rehearsed and an eventual equilibrium restored. Another example is the response to 'A Nation at Risk', a 1983 report about lax standards of academic work and behaviour that was written in stirring language that captured America's attention (Ravitch, 2000). Arguably, the current focus on Science, Technology, Engineering and Maths (STEM) subjects is a panic in a similar vein.

Satellites

Ideas that took root in America would go on to influence education in Britain, Australia and eventually the whole world. However, each system had its own peculiarities and preoccupations.

The publication of the Plowden Report was a seminal moment in the UK. It was the work of the Central Advisory Council for Education (England) and was commissioned in 1963. Following several years of work that included visiting many classrooms, the council's report was finally published in 1967 and titled *Children and their Primary Schools*. Nevertheless, it is more popularly known as 'The Plowden Report,' after the influential chair of the council, Lady Bridget Plowden.

Many items addressed by Plowden are issues that would now represent a consensus position in education, such as a call for a ban on physical punishment, and demonstrate the forward-thinking nature of the Council. Other items addressed issues involving administration and management of schools. However, the report did not stop here. It also delved into the realm of teaching methods, arguing for a more child-centred, progressive approach.

This becomes clearest in Chapter 16 of Plowden, the chapter that describes the authors' understanding of learning. Play is heavily emphasised as desirable and as an activity that leads to learning. Teachers should see themselves as facilitators. The report's authors are concerned that previous advocates for experience-based education

have downplayed the value of knowledge. Instead, 'activity and experience, both physical and mental, are often the best means of gaining knowledge and acquiring facts'. Students should also be given plenty of choice. This is clear from passages in the report that sketch out approving vignettes. It is also made explicit. For instance:

> Skills of reading and writing or the techniques used in art and craft can best be taught when the need for them is evident to children. A child who has no immediate incentive for learning to read is unlikely to succeed because of warnings about the disadvantages of illiteracy in adult life. There is, therefore, good reason for allowing young children to choose within a carefully prepared environment in which choices and interest are supported by their teachers, who will have in mind the potentialities for further learning. (Central Advisory Council for Education, 1967)

As ever, it is difficult to tell exactly what effect these recommendations had on ordinary classrooms and whether teachers changed their approaches in response. However, by the time of the 1975 ORACLE project, a study of teacher behaviours in English primary schools, it was possible to start making some inferences. Teachers appeared to require students to complete a lot of individual work, some of dubious value, and teacher–student interactions were often at the individual level. There was little whole-class teaching and yet there was also little of the group work encouraged by Plowden (Galton, 1987).

Australian education continues to be informed by a progressive philosophy, particularly in the area of curriculum design. A notable initiative of the 1990s and early 2000s was, 'Outcomes Based Education' (OBE), which took an interesting philosophical stance. The idea was that curriculum cannot be designed until the ultimate outcomes of education have been established. It was not the job of teachers to deliver a specific curriculum but rather to design a curriculum to support these outcomes. OBE was highly individualised, with standardised tests being downplayed in favour of students being given as many attempts as they need to demonstrate an outcome. Moreover, priority was placed on students enjoying the process of learning, which was seen as more important than the content being learnt.

In OBE, we can see some key progressive principles, such as individualisation, enjoyment and a downplaying of traditional curriculum

subjects. However, these are mixed with novelties arising from antipathy towards standardised testing, such as the idea of defining many outcomes and identifying them on a continuum. If this sounds bureaucratic, it was. OBE was presented idealistically rather than practically. The main complaint of teachers seems to have been about the lack of guidance on implementation and the vague nature of the outcomes, particularly given that each school was intended to write its own curriculum, rather than a critique of the ideas behind OBE (McNaught and Berlach, 2007). In this sense, the current bureaucratic problems associated with Scotland's 'Curriculum for Excellence' seem to echo those of OBE (Ashman, 2017).

More recently, Australia's national curriculum has drawn heavily on progressive philosophy. While maintaining some traditional subject areas, and specifying the use of phonics over whole-word methods of reading, it has added lots of generic 'life adjustment' goals such as 'personal and social capability' and, for primary age children, it has collapsed humanities subjects together into an expanding horizons social studies curriculum reminiscent of 1940s America. Even within traditional subjects such as science, academic content is downplayed, and experience-based objectives are emphasised, such as 'With guidance, plan and conduct scientific investigations to find answers to questions' (Australian Curriculum, 2018).

In addition to curriculum design, Australian education academics have tended to favour more progressive, experiential teaching methods. One popular approach is known as 'productive pedagogies'. Based upon ideas originally developed in the United States, productive pedagogies is an attempt to define quality teaching, research its prevalence in schools and train teachers to use these strategies.

Rooted in constructivism, productive pedagogies draws a distinction between 'lower-order thinking' and 'higher-order thinking'. Teachers should aim to induce higher-order thinking in their students by asking them to manipulate or synthesise ideas in order to create new meanings, solving problems and discovering new understandings in the process. Lower-order thinking is characterised by students being asked to receive factual information (pre-specified knowledge) or to complete processes using specific routines and algorithms (Lingard et al., 2001; Gore et al., 2017). The caution against algorithms is a common one in the field of mathematics education where some commentators draw on constructivism to argue

that students should figure out problems for themselves rather than apply standard procedures such as column addition or long division (e.g. Kamii and Dominick, 1998).

Things can only get better

I began training as a teacher in London in October 1997, five months after Tony Blair first won office as Britain's Prime Minister. One of Blair's election slogans was 'Education, Education, Education', and he certainly made it a priority. From 1997 until Blair's Labour Party finally lost office in 2010, education spending grew dramatically. From the 1999–2000 financial year to the 2009–2010 financial year, education spending increased by 5.1% per year, once inflation is taken into account (Chowdry and Sibieta, 2011).

The headline attainment figure that was usually quoted by English newspapers over this time was the percentage of students gaining five or more A* to C grades in GCSE examinations, a set of elective exams taken at age 16. According to this figure, attainment rose dramatically in England from 1997 to 2010, giving encouragement that standards had risen. However, a separate analysis based upon English students' performance in various international assessments shows a fairly stable level of achievement across this period (Coe, 2013). What actually happened? Which measure is right?

The obvious explanation is to pay more heed to the international results and suspect that GCSE grades became subject to grade inflation. England's GCSE examinations were not cohort-referenced during this time. Cohort-referencing is the practice of always awarding the same proportion of each grade. For example, you might always give 5% of students an A* grade, regardless of the quality of work. Clearly, if grades had been cohort-referenced then we could not have seen a rise in the headline figures. Instead, they were intended to be criterion-referenced, with criteria describing the quality of work required for each grade. Yet it is hard to see how we can decide that an assessment criterion in, say, graphic design represents the equivalent academic standard of a criterion in physics. Without anything to nail these exam grades to the wall, it became possible for exams to gradually become easier and for grade boundaries to drift downwards. Add to this the fact that different exams were created by exam boards who

competed for custom, and that schools were incentivised by account-ability measures to gain the best possible results, and we can see the systemic motivation for why this might occur, even if nobody ever made a conscious and explicit decision to dumb down the exams.

On reflection, the finding that standards did not improve seems extraordinary given the increase in expenditure. Why didn't we get what we had paid for? The answer seems to be that the extra money was not spent wisely.

Some early initiatives of the Blair government, such as the National Numeracy Strategy, were clearly based upon the best avail-able evidence (Reynolds and Muijs, 1999). However, as time passed, it became clear to me, as a teacher working in the system, that two factors were driving much of the reform: a bureaucratic approach that saw good ideas such as formative assessment (Black andWiliam, 1998) developed into complicated compliance systems that few teachers really understood, and a diversity of focus that furthered the aims of those with philosophical agendas or products to sell. The revised National Curriculum of 2007 was vague, and the knowledge component was downplayed. 'Personal Learning and Thinking Skills' were introduced. So were the 'Four deeps'. Students donned Edward de Bono's thinking hats, pressed their brain buttons and completed learning styles questionnaires. Despite superficially sub-scribing to many progressive preoccupations, such as a focus on the individual, these innovations resembled less a principled philosophy and more a symphony played on kazoos.

Conclusion

The purpose of this chapter has not been to provide a comprehensive history of education, but to equip you with some context to help you understand the ideas that you will encounter in the rest of this book and in your teaching career. Although the term 'innovation' is usually used positively in schools and at education conferences, it is often used inaccurately. Much of what is considered innovative today can be traced back through time. It is only because we have a strangely ahis-torical profession that such claims can go unexamined. It is clear from the experience of England, that simply investing more money in edu-cation will not necessarily deliver an improved quality of education.

Increased spending may be desirable but there is a moral imperative to ensure that additional money is spent on initiatives that will have a positive impact rather than on innovations that sound plausible, promise much, but deliver little.

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