

Looking for Atlantis

I've called this '*Looking for Atlantis – the search for great teaching and great teachers*'. It is based on some ideas I've shared via my web log which I've titled Seven Fallacies about Teaching. The first three chapters set out the core fallacies, as I see them.

As I say on my blog, I 'was inspired by Daisy Christodoulou's Seven Myths of Education. In her book, Daisy says that her central argument was "*that much of what teachers are taught about education is wrong, and that they are encouraged to teach in ineffective ways*". I agree, although I take a slightly different perspective.

Much like Daisy, who took a year out of her teaching career to do further study and was "*shocked to stumble across an entire field of educational and scientific research which completely disproved many of the theories I had been taught when training and teaching*", I have taken some time away from the front line and have also been shocked - and relieved - to find that the ideas I have developed over the past decade were not mine and mine alone.

I recall, in my second year of teaching, meeting with the Deputy Head of my school to discuss my goals for the year in a Performance Management meeting. "*You need to decide on three targets,*" I was told. "*One will be about your own development. One will be about a whole school area of development. And one will be a target based on the achievement of the children in your class.*"

I was used to the silliness of performance targets from my previous career, where they were largely used as a smoke screen for huge bonus payments to those in management positions. I was used to targets based on my performance. But on the performance of children in my class? How on earth could I be held responsible for that?

I'd been in class with the children for a month, and it was clear that - what with being 7 years old and everything - I had a wide range of aptitudes, ages and attitudes in my class. Some hadn't made much progress so far in school, some were flying. And the idea that whatever I did would automatically transfer to them was a ludicrous idea.

When I said this, I was regarded as been some kind of weirdoid from the planet Zog. "*But every teacher in the school has performance targets based on children's results!*". "*Maybe,*" I said, "*But I can't take responsibility for anyone's actions but my own. I'm not prepared to sign up for anything.*" And I didn't. I simply didn't sign anything with a target based on the children's performance.

But that has become increasingly difficult, and now I know why. As Daisy found, "*ideas which had absolutely no evidence backing them up had been presented () as unquestionable axioms.*" I've been digging a bit deeper into the foundations of many currently fashionable ideas about teaching and schools, and I hope that some ideas which have absolutely no evidence backing them up will topple as a result."

Now, as well as writing for myself, I've also written for others. This year, I was asked to contribute to David Didau's book, *What If Everything You Know About Education is Wrong?* David's book asks you as a reader - and I'm going to ask you today - to consider the question, "*What if we are wrong?*" What if what you think you know about teaching and teachers is wrong?

Now, one currently fashionable idea with which I have a great deal of sympathy is the idea that thinking hard about something is fundamental to learning something new.

So, for my relatively short time with you, I want you to think hard. These are the things I'd like you to think hard about:

What do we know about great teaching?

What do we know about great teachers?

Why are these ideas are being pushed onto teachers and teaching at the moment?

What should we really be doing?

By the end of the session I'd like you to have thought about what you know about teaching and teachers, and the limits and possibilities of what schools can do; I'd like you to think about the difference between schools in France and those in England.

I'd like you to think about the difference you think teachers make. The thought I'd like to put inside your mind is that most people learn to ride a bike. I'd also like you to consider why certain ideas have become fashionable.

So, differences, riding bikes and fashion.

But primarily, by the end of the session I'd like you to think about what great teaching and teachers might mean, and why we might simply be looking for Atlantis.

So. The search for great teaching and teachers has been something which I've been thinking and writing about for a while now. I'll give you a bit of my background. I'm a primary school teacher; I've been teaching for eleven years and I trained twelve years ago in 2003. In the training which I had, which was a PGCE which I came to after having worked in the corporate sector for a while, many ideas about teaching and teachers were presented as shibboleths; many ideas which have subsequently been criticised by many of those who've presented at previous Research Ed conferences.

I'll tell you a couple of stories which help to explain the questions I began to ask about some of the assumptions which seem to have been made about teachers and teaching.

A few years ago, I got to spend a few days finding out about education in France. I was part of a delegation of teachers and head teachers, and we were given the opportunity to visit schools, sit in on lessons, meet children, discuss similarities and differences between English and French schools with French teachers and to meet those responsible for providing education in France.

The English delegation was curious to begin with. The more we began to find out more about the system in France, the more bemused and confused we became. Inspections of teachers, not schools? No assemblies, sports teams or 'school community'? No differentiation, little ICT, primary schools which were more like English secondaries? Two hour lunches? No children in school on Wednesday? No league tables, competition between schools or public 'accountability'?

The whole system of education in France is completely different to the system in England. Just about the only thing schools have in common is that they are called schools and they have teachers and children. Almost everything else is unlike our system, on every level, in every detail. It seemed like we'd visited an alternative universe, where children were docile and obedient, textbooks ruled and nobody had ever heard of a Learning Objective, a WALT or a WILF, much less a 'learning style,' a plenary or a 'level'.

The English delegation began to ask each other how the two countries compared internationally. Given that the English system - based on data, OFSTED, socialisation and school communities - is so utterly different to the French model, surely there must be clear differences. One had to be better than the other. Surely?

When I returned to England, I had a look. I searched and searched to find out what had been researched and written. I looked at PISA and TIMMS, at international comparisons and indicators. I looked at books written by expat French writers living in England, and English writers living in France. I spoke to friends and acquaintances who had experience of each system. In the end, my research boiled down to this:

People spend about the same amount of time in full time education in both countries.

People get to roughly the same level of education in both countries.

Economically, we are very similar.

There is no real difference in outcome between an English and a French education, despite the two having virtually nothing in common.

If you know anything whatsoever about education, you probably won't be surprised by this. Just about everybody I discussed this with at the time *was* surprised. 'But surely school makes a difference? And teachers, they make a difference too, don't they? It must do. Everybody says so'.

But, as those who have researched these things can tell you, the thing which makes the difference is the child, and the economic circumstances in which you live.

This is skated over by those who should know better, from John Hattie to Barack Obama, but all the research into children's achievement at school says the same thing: 80% of a child's variation in attainment is explained by factors held in the child. Schools make little difference in comparison.

So, out of interest, I'd like you to consider what you think. Firstly, roughly how many of you are teachers? How many in primary? How many in secondary? Other? Consider these statements and see where you'd place yourself:

We can identify great teachers and teaching

We can't identify great teachers and teaching

Now, I've been enjoying reading a lot of psychology in the last year, and the ideas of both Daniel Kahneman and Jonathan Haidt have been eye-opening. Jon Haidt, in particular, has convinced me that humans make instinctive and then post-rationalise their gut reaction. He's also enabled me to understand why I think I'm right, even if I try to hold onto the firm belief that I might be wrong.

Daniel Kahneman has described, in detail, the biases to which I and most of you are susceptible – the anchoring effect, availability biases and much more.

And I'm aware that, in the short time I have, I can't explain exactly what is meant by these statements.

But I'd also expect you to have made a fairly quick decision as what you believe to be true, after which you will have justified your opinion to yourself, based on your experience and understanding of the question I asked.

So, who is where, roughly?

Now, I started here (We can identify great teachers and teaching), but I've moved over to here (We can't identify great teachers and teaching), and I'll explain why.

What do we know about great teaching?

This is a much researched area of the education world. The Sutton trust released an influential report last year, which was called 'What makes great teaching?'. It was written by Robert Coe and Steve Higgins of the Durham University and the EEF (with others), and it defined six components of great teaching:

1. (Pedagogical) content knowledge (Strong evidence of impact on student outcomes)
2. Quality of instruction (Strong evidence of impact on student outcomes)
3. Classroom climate (Moderate evidence of impact on student outcomes)
4. Classroom management (Moderate evidence of impact on student outcomes)
5. Teacher beliefs (Some evidence of impact on student outcomes)
6. Professional behaviours (Some evidence of impact on student outcomes)

You'll notice that this consistently refers to student outcomes. This is because the vast majority of research into 'great teaching' takes this as axiomatic: it's the definition of 'great teaching'. As the Coe report says upfront, "Great teaching is defined as that which leads to improved student progress." The area of School Effectiveness Research, with which I have serious disagreements, takes this further and posits the tautological argument that *great teaching* by definition gets *great outputs* and *great outputs* are the result of *great teaching*. Which would be fine, except that *bad outputs* must by this logic be as a result of *bad teaching*. And as anyone who has actually taught in schools with differential outputs knows, this is simply not true. That's because of one small flaw in the thinking behind school effectiveness research which is often glossed over: The biggest influence on pupil outcomes isn't school or teachers.

Let's have another look at "Great teaching is defined as that which leads to improved student progress." And let's reflect on the research which we have which says that, at most, teachers are responsible for less than 20% of the variation in student outcomes. Furthermore, let's reflect on the fact that those who achieve the highest grades in school have *by definition* made the most progress.

So Great Teaching is defined as that which leads to improved student progress becomes meaningless, since most progress is actually due to factors beyond the control of teachers who, let's not forget, do the teaching – not the progressing. To see how silly this idea is, let's look at the following:

Great Bikability training is defined as that which leads to improved cycling progress.

It becomes a meaningless statement because it denies the capacity and capability of students, it ignores the child's starting point and uses an end point which the child might have reached independently on their own. What's more, there's no accounting whatsoever for outside influences, beyond the control of the teacher.

So, what if a child has developed great balance and safe awareness prior to doing some bikability training? What if they already knew how to be safe on a bike? What if they really liked cycling beforehand, and had found out how to do it safely already, independently of their bikability trainers? What if they came from a family of bike nuts who'd taught them all this and more before school go round to teaching this stuff?

When you return to the list developed by the Sutton Trust, you can see how *little* influence this definition attributes to teaching, and how much this depends on underlying cultural attitudes and norms.

1. (Pedagogical) content knowledge (Strong evidence of impact on student outcomes)
2. Quality of instruction (Strong evidence of impact on student outcomes)
3. Classroom climate (Moderate evidence of impact on student outcomes)
4. Classroom management (Moderate evidence of impact on student outcomes)
5. Teacher beliefs (Some evidence of impact on student outcomes)
6. Professional behaviours (Some evidence of impact on student outcomes)

Essentially, teachers should know stuff and know how to teach. Great. So that's what we need from teaching. I can't see anyone disagreeing with that, so let's move on.

But at this point, things get murky. Because, actually, there isn't much agreement on this point. "Teachers should know stuff and know how to teach." Sounds simple. But hundreds of years after we began to put children in classes and try to teach them, we're still not sure the best way to do this.

As the Sutton Trust report says,

"In fact, there is some evidence that an understanding of what constitutes effective pedagogy – the method and practice of teaching – may not be so widely shared, and even where it is widely shared it may not actually be right (Strong et al, 2011; Hamre et al, 2009). Hence it is necessary to clarify what is known about effective pedagogy before we can think about how to promote it. Unless we do that there is a real danger that we end up promoting teaching practices that are no more – and perhaps less – effective than those currently used."

The report, in common with many other reviews of teacher effectiveness, fudges a hugely complicated area:

“We also acknowledge that ‘other things being equal’ may be open to different interpretations about what factors should or can be taken into account. A number of factors will influence students’ achievements, for example, pre-existing student characteristics (both of individual students and collectively), characteristics of the school and of the teacher (some of which may be alterable, others not), and of the context. In practice, the attribution of an ‘effect’ to an individual teacher or school is generally determined by what cannot be explained by factors that are judged to be outside the control of that individual (Raudenbush, 2004). This kind of ‘residual attribution’ – interpreting value-added simplistically as the effect of the teacher – is, of course, problematic (Newton et al, 2010; Hill et al, 2011; Dumay et al, 2013).

Despite these limitations, wherever possible, it makes sense to judge the effectiveness of teaching from its impact on assessed learning. If the assessments and value-added models available to us are not good enough, we need to improve them. In the meantime we must exercise some caution in interpreting any claims about teaching effectiveness.”

And when it comes down to it, it acknowledges the fact that we simply don’t really know:

“One of the features of research on effective practices is that there are a number of reviews available with quite different claims about what characteristics of teacher practice are associated with improved outcomes.”

“We acknowledge that the question of what teaching practices are shown by research to be effective remains contested.”

We don’t actually know. The question I’m interested in is: Why not?

What do we know about great teachers?

Well, there’s lots of research into this question too. Researchers have looked at teacher’s content knowledge, their beliefs, so-called ‘value-added’ measures and student’s evaluations of teachers, amongst other things.

Teacher knowledge doesn’t seem to be related to pupils’ outcomes.

“The search for a relationship between characteristics such as academic qualifications or general ability and student performance has been rather disappointing: correlations are typically very small or non-existent (Rockoff et al, 2011).”

The research into belief isn’t conclusive either, with researchers reporting both positive and non-existent correlation between belief and pupil progress.

In fact, when it came to it, the Sutton Trust report chose to focus on areas which the researchers suggested were *not* related to student gains rather than any areas which *were*.

Curiously, despite the lack of conclusive evidence that great teachers have anything in common, there is a whole industry which makes money by selling programs for conducting classroom observations. There’s money in things which clearly have little effect on children’s outcomes.

The wonderful world of Value Added analysis, in which students are compared at two different points in time and – broadly - whatever the difference between the second point and an ‘expected’ value is assumed to be solely due to a child’s teacher, is riddled with holes, and has shown on many, many occasions to be utterly silly and simply wrong. Not Even Wrong, as I’m fond of saying.

Pupil evaluations can be interesting, but they have mainly be researched for HE and not for school setting, possibly because immature children are possibly not the best judges of teachers’ effectiveness.

There have been some other attempts to use technology to assess teachers, notably by the massively expensive Measures of Effective Teacher project, which used video-based technology as part of its failed attempt to identify effective teachers.

Most researchers seem to come back to the observation that teachers increase in effectiveness over the first few years of their careers, and then plateau. Most researchers are at a lost to explain which this might be.

The fact of the matter is that teaching, and children’s learning, is complex activity, and it isn’t easily explained. As the Sutton Trust report says:

“How teaching leads to learning is undoubtedly very complex. It may be that teaching will always be more of an art than a science, and that attempts to reduce it to a set of component parts will always fail. If that is the case then it is simply a free-for-all: no advice about how to teach can claim a basis in evidence.”

Despite this, the report fudges the issue and claims that, well value-added might be not much cop, but, *“it does seem that at least part of what is captured by value-added estimates does reflect the genuine impact of a teacher on students’ learning.”* It neglects to say that that part which is captured is probably wrong and misleading.

They are up-front about observing teachers: *“Classroom observation seems to have face validity as an evaluation method, but the evidence shows that the agreement between different observers who see the same lesson is not high; neither is agreement between estimates of teaching quality from lesson observation and from other methods.”*

Joyously, whilst *“There is some evidence that principals’ judgements about teacher quality have positive but modest correlations with other evidence.”* The report says, *“ Inferring the quality of teaching and learning from looking at artefacts such as student work, marking or lesson plans, or from assessing teacher portfolios, is not currently supported by research as valid.”* Which makes Ofsted’s criticisms or praise of schools somewhat silly and expressly invalid according to the research...

It’s of interest to note that the Sutton trust report – written by researchers who also provide assessment systems - recommends using ‘the best assessment available’, whilst cautioning that *‘lesson observation, student ratings, artefacts and principal judgement’* should be used *‘cautiously’*.

What ideas are being pushed onto teachers and teaching at the moment, and why?

Having gone through the kinds of things which are being pushed on those of us who are teachers and are teaching at the moment, it's worth looking at what is currently being promoted.

Why are these ideas are being pushed onto teachers and teaching at the moment?

Well, my short answer to that is money, and politics. It appears that some people do really believe that they know the answers, and that teachers are essentially lazy, incompetent and actively harm the children they teach. I hope that these people are in the minority, but even if they are, we seem to hear a lot about them. This clearly can't help in a time of impending crises in teacher recruitment and morale.

I'd like to believe that the silly idea that teachers are solely responsible for children's academic progress is so simple, it appeals to a certain kind of person, one who looks for simple levers to pull to magically make things better.

As Robert Coe pointed out in his inaugural lecture as head of Improving Education is really a triumph of hope of experience.

"Despite the apparently plausible and widespread belief to the contrary, the evidence that levels of attainment in schools in England have systematically improved over the last 30 years is unconvincing. Much of what is claimed as school improvement is illusory, and many of the most commonly advocated strategies for improvement are not robustly proven to work. Even the claims of school effectiveness research – that we can identify good schools and teachers, and the practices that make them good – seem not to stand up to critical scrutiny. Recent growth of interest in evidence-based practice and policy appears to offer a way forward; but the evidence from past attempts to implement evidence-based approaches is rather disappointing. Overall, an honest and critical appraisal of our experience of trying to improve education is that, despite the best intentions and huge investment, we have failed – so far – to achieve it."

What should we really be doing?

It seems to me that what is left out of all of the discussions about schooling and education is the child's central role in proceedings, and the fact that children are not alike, in capability, aptitude, community and family values and much, much more.

More than that, it seems to escape many people that many children are actually very good at learning things, and many children are really good at learning what school wants them to. Equally, some children are *not* very good at learning what school wants them to, for reasons which should seem fairly clear to any experienced teacher.

Furthermore, if we want to test whether certain people are good at teaching, we need to stop using children's end of year assessments to try to find out if this is true. We also need to stop judging teachers on arbitrary lists of things which we think teachers should do, "*because that's what good teachers (who we can't actually identify) do.*"

My view is that teachers need to be knowledgeable, yes, and they need to know how to help children the children they teach to learn as best as the children can. My hypothesis is that, after an initial period of learning how to coordinate the learning of 30 or so children at a time, most teachers are – largely – equally effective, in the same way that, once you have learned how to teach children to ride a bike safely, you can enable most children to ride a bike safely – provided the child has the incentive, desire and capacity to do so, and understanding that they may have learned to do this already through their own endeavour or that of others close to them. I'd like to see some research which tested this hypothesis in some way, using a rigorously designed study rather than dubious end of year assessment data.

My current view – which I'd happily change if I was to be convinced otherwise – is that teachers teach and children learn; and the link between the two is subject to a huge number of very complex variables. It isn't a direct input = output. But whilst people continue to believe that we can measure teachers' effectiveness by the output of the children they teach, we are simply looking for Atlantis.

The Atlantis Myth

“This power came forth out of the Atlantic Ocean, for in those days the Atlantic was navigable; and there was an island situated in front of the straits which are by you called the Pillars of Heracles; the island was larger than Libya and Asia put together, and was the way to other islands, and from these you might pass to the whole of the opposite continent which surrounded the true ocean; for this sea which is within the Straits of Heracles is only a harbour, having a narrow entrance, but that other is a real sea, and the surrounding land may be most truly called a boundless continent. Now in this island of Atlantis there was a great and wonderful empire which had rule over the whole island and several others, and over parts of the continent, and, furthermore, the men of Atlantis had subjected the parts of Libya within the columns of Heracles as far as Egypt, and of Europe as far as Tyrrhenia. This vast power, gathered into one, endeavoured to subdue at a blow our country and yours and the whole of the region within the straits; and then, Solon, your country shone forth, in the excellence of her virtue and strength, among all mankind. She was pre-eminent in courage and military skill, and was the leader of the Hellenes. And when the rest fell off from her, being compelled to stand alone, after having undergone the very extremity of danger, she defeated and triumphed over the invaders, and preserved from slavery those who were not yet subjugated, and generously liberated all the rest of us who dwell within the pillars. But afterwards there occurred violent earthquakes and floods; and in a single day and night of misfortune all your warlike men in a body sank into the earth, and the island of Atlantis in like manner disappeared in the depths of the sea. For which reason the sea in those parts is impassable and impenetrable, because there is a shoal of mud in the way; and this was caused by the subsidence of the island.”

Plato