FORUM
Volume 59, Number 3, 2017
www.wwwords.co.uk/FORUM
http://dx.doi.org/10.15730/forum.2017.59.3.477

It's All About the Teacher: why that 'truth' might not be all that it seems

LORNA SHIRES

ABSTRACT This article explores the contextual detail behind a widely used quotation about the differing impact of teachers. It finds that it originates from a single paper in the USA, and that it is unclear how the quotation arises from a very specific data set from a very specific context.

'Over a single school year, a strong teacher can help disadvantaged young people to gain as much as a whole extra year's worth of learning, compared to those taught by a weaker one.' It is a powerful statement, and even more so when it features on a Department for Education (DfE) PowerPoint slide for teachers and school leaders.

It has the sense of an 'educational truth', but in its use by the DfE it is part of its evidence base for recent education policy in England. It is a statement routinely quoted by government ministers, the educational press and educational reformers, and now it's all over eduTwitter; but where is it from? And what should teachers know about it when they see it put in front of them the next time they are being told that the failure of our education system is down to them?

Hanushek: an American economist

If you dig around a bit you find that the statement comes from the work of Eric Hanushek. Who is he? Hanushek completed his PhD at the Massachusetts Institute of Technology (MIT) on 'The Education of Negroes and Whites' in 1968. Now in his mid-70s, he has had a long academic career in economics and was educational adviser to Reagan and to Schwarzenegger. His recent work focuses on the cost to the US economy of not improving student outcomes; his earlier work looked at the failure of US schools and the educational performance of the poor, and at education and race.

Where Does the Quote Come From?

Although Hanushek has written hundreds of academic articles and scores of academic and general-audience books, it is this single quote from a single article published in 1992 by the *Journal of Political Economy* that has taken on a life of its own and is used by so many without reference to its source. It was popularised in Britain by the Sutton Trust (2011; Murphy, 2013) and most recently spotted in the Social Market Foundation's *Commission on Inequality in Education* (2017), and it is the second line of the government response to the Education Select Committee's Fifth Report (2017). It is beloved of policy-makers looking to justify economic-based education policies so that they can imply that the causal effect of the 'failure' in our education system rests with the individual teacher.

So, What Was the Article All About, Then?

Hanushek's research in the 1990s was contributing to George Bush's educational policy, and his key terms at the time are words such as 'efficiency' and 'effectiveness'. His articles sandwiching this particular one are: 'When School Finance 'Reform' May Not be a Good Policy' (1991) and 'Improving Educational Outcomes While Controlling Costs' (1992).

Next time you are presented with this aphorism (now most often reduced to 'a good teacher = a year's *extra* learning/progress') you may want to be aware of some contextual information, of which I suspect the user might not. The paper from which this assertion arises, 'The Trade-off between Child Quantity and Quality', was published in 1992 in the *Journal of Political Economy*. It looks at the 'trade-offs' between family size (quantity) and scholastic achievement (quality). Hanushek refers to this work as an empirical investigation because it works from a data set. The source of the data is very interesting, as is how he arrives at the assertion about the differing impact of a 'good' and 'bad' teacher. In America in the early '70s, four different experiments took place to investigate Negative Income Tax (NIT) as a potential economic policy – a single guaranteed income payment for all poor families that would gradually diminish as earnings increased. This is important because Hanushek worked on data gathered between 1971 and 1974 from one of those experiments: the Gary Income Maintenance Experiment. This was chosen to be a very particular sample: 1600 black households living in a ghetto (as described by the researchers at the time), 60% headed by lone women; Kelly and Singer (1971) refer to this sample as a 'rather unique group with special sets of conditions and problems'. The last of the four experiments (those taking place in Seattle and Denver) ended in 1982, but reports from Gary (Indiana) and Seattle and Denver were never published and ' the lessons of the experiments are neither widely known or understood'.[1] The four experiments were seen as having the potential to be landmark research into welfare reform at the time, but have been heavily criticised for their goals, design, execution and analysis (Zellner & Rossi, 1986): the experiments did not provide appropriate

information in relation to the goal of NIT; there were no pilots; measurement problems were not resolved; statistics experts were not involved in the design and execution; procedures were not satisfactory, researchers and policy makers did not share the same objectives; and the reporting 'left much to be desired'. Hanushek's first response to the Gary project looked at the housing and education choices of the families in the sample, but critically, 'He limited his review to these two areas because the experiments *were not designed to provide information on non-labor responses and these topics were ones where common findings could be generalised*' (Munnell, 1986, p. 7; original italics).

So he focused on school attendance and scholastic performance, but 'the evidence on scholastic performance is mixed and weak, the experiments do appear to have affected attendance' – the finding was that more black boys in these families stayed on at school; they couldn't see the impact on girls because they tended to stay on at school anyway. Hanushek then undertook a side data collection from the schools which the participants attended, and it is from this that he writes the 1992 paper.

What Does Hanushek Have to Say in the Original Paper?

This particular paper concerns itself with the issue of birthrate, increasing family income and the 'quantity-quality trade-off' (Hanushek, 1992, p. 85) and how the Gary data 'can investigate how specific family and school factors combine over time to determine a student's performance' (p. 85). The majority of the paper examines the 'production functions' of the family, quantifying parental time. However, he does merge the Gary Income Maintenance Data with information about the school experience of the children from the families. These latter school data take the form of tabulating which teachers taught which children from which families in which grade between 1971 and 1975, and the test scores those children achieved in Iowa Reading Comprehension and Vocabulary tests. Hanushek defines teacher quality as 'skill' (p. 90) as measured by value-added scores, in its infancy then, and heavily contested since: a good teacher is in the top sixth (84% percentile) and a bad teacher in the bottom sixth (16% percentile) of test score outcomes, although he acknowledges that classroom performance may not be solely attributed to test scores, but also to more complicated interactions between teachers and classes. Hanushek himself describes the samples as 'thin' (p. 107) and 'stretched considerably' (p. 108). There are two sample groups of teachers: one of 22 teachers teaching different grades through the period of 1971 to 1975 and with at least three students (from the Gary study) in each grade, and the second sample of 39 teachers teaching the same grade during those years. For both samples, there is variation across grades and years and test scores for the two tests in terms of stability of teacher 'skill', and although the teachers were a mixture of race and gender, all the children in the sample were black. The paper considers the impact of the experience and qualifications of the teachers (as measured by their pay and whether they had a master's degree) on the reading and vocabulary test scores,

which links to later much-repeated quotations about whether teachers 'improve' over time, and on percentage differences in test scores. I think Hanushek identifies in this paper why his quotation comes to be so widely repeated in the decades that follow its publication: the impact of schools and teachers receives more attention from policy and policy makers (than wider social issues such as housing and welfare) because '[t]his reflects simply that the characteristics of schools are generally more easily manipulated than what goes on in the family' (Hanushek, 1992, p. 106).

Finally, and most importantly, there are two variations of 'that' quote:

> the estimated difference in annual achievement growth between having a good and having a bad teacher can be more than one grade-level equivalent in test performance. (Hanushek, 1992, p. 107)

> The *difference* in student performance in a single academic year from having a good as opposed to a bad teacher can be more than one full year of standardised achievement. (Hanushek, 1992, p.113; original italics)

But *neither* quotation is related to or explained by the tables of data or equations that litter the rest of the paper. Instead, they are introduced by assumptions and assertions: 'differences among teachers are unquestionably large and significant, indicating their potential for decisively altering student achievement' (Hanushek, 1992, p. 106), and 'specifically, there is no doubt that teachers vary dramatically in effectiveness' (p. 113).

School and Teacher Effectiveness

As Chris Husbands said in his 2013 blog, school effectiveness research has shown that schools and teachers make a difference, whereas before that it was felt that pupil outcomes were determined by social factors: 'But the key lesson is that it's teaching, not teachers, which matters' (Husbands, 2013). But perhaps the reference from Hanushek's article that should be getting at least as much attention as the one routinely trotted out is the one where he points out that it is easier for policy-makers to involve themselves with manipulating schools rather than with making society fairer. His quotation from this single study has been embraced by policy makers to support a folk wisdom we all might share, having gone to school: some teachers are 'better' than others. The issue with how this has come to be used is that it both makes a causal connection and quantifies the impact on children. This has proved irresistible to policy makers and those seeking funding to research education through particular methodologies. In addition to using economic modelling to judge the impact of teaching, it does this through making value judgements of teachers – good and bad – which is one step away from blaming teachers for the 'failure' of education to achieve social mobility.

So, What Should We Make of This?

Part of the reason I looked into the background of the quotation and its context was because I sat in a presentation to schools and universities by an official from the DfE and saw this quotation on the very first slide they used. It was not attributed in any way, but was presented as a universal truth. Mindful of Ian Menter's comments about the 'use, misuse and abuse of research in the education white paper' (Menter, 2016), I decided to apply some basic principles of academic reading and writing to ensure that I, at least, was clear about how to interpret it. Next time this quotation is presented to me as an educational 'truth' I will now be in a position to ask the presenter some basic questions: where is this from? What can you tell me about the research underpinning it? Why are you using it? Is this the most helpful way to understand teachers and teaching? In an act to support the reclamation of teaching by teachers and to value the role of universities in developing critical awareness, perhaps you might like to do so, as well?

Note

[1] In 1986, the Federal Reserve Bank of Boston and the Brookings Institute sponsored a conference where the experiments were viewed from the perspectives of a sociologist, a political scientist, a public administrator and an economist; the economist was Hanushek.

References

Government Response to the Education Select Committee's Fifth Report (2017) *Recruitment and Retention of Teachers*, 21 April.

Hanushek, E. (1991) When School Finance 'Reform' May Not Be a Good Policy, *Harvard Journal on Legislation,* 28(2), 423-456.

Hanushek, E. (1992) The Trade-off between Child Quantity and Quality, *Journal of Political Economy*, 100(1), 84-117. https://doi.org/10.1086/261808

Hanushek, E., Rivkin, S.G. & Jamison, D.T. (1992) Improving Educational Outcomes While Controlling Costs, *Carnegie-Rochester Conference Series on Public Policy 37*, December, 205-238.

Husbands, C. (2013) *Great Teachers or Great Teaching? Why McKinsey Got It Wrong?* IoE London Blog, posted 10 October.

Kelly, T.F. & Singer, L. (1971) The Gary Income Maintenance Experiment Plans and Progress, *American Economic Review*, 61(2), 30-38.

Menter, I. (2016) Use, Misuse and Abuse of Research in the Education White Paper, *Times Higher Education*, 1 April.

Munnell, A. (1986) Lessons from the Income Maintenance Experiments: an overview, in A. Munnell (Ed.) *Lessons from the Income Maintenance Experiments*. Federal Reserve Bank of Boston & Brookings Institute.

Murphy, R. (2013) *Testing Teachers: what works best for teacher evaluation and appraisal*. London: Sutton Trust.

Social Market Foundation (2017) *Commission on Inequality in Education*. smf.co.uk

Sutton Trust (2011) *Improving the Impact of Teachers on Pupil Achievement in the UK: interim findings*. London: Sutton Trust.

Zellner, A. & Rossi, P.E. (1986) Evaluating the Methodology of the Social Experiments, in A. Munnell (Ed.) *Lessons from the Income Maintenance Experiments*. Federal Reserve Bank of Boston & Brookings Institute.

LORNA SHIRES is Principal Lecturer at Oxford Brookes University following 35 years as a secondary school English teacher and head teacher. She educates student teachers and is undertaking a doctorate in education: 'Expert Teaching: what matters to expert teachers'. *Correspondence*: lshires@brookes.ac.uk