

# **Primary Futures: connecting life and learning in UK primary education**

**By Dr Anthony Mann, Dr Elnaz Kashefpakdel  
and Steve Iredale**

**Occasional Research Paper 12**

**May 2017**

## About Education and Employers

[www.educationandemployers.org](http://www.educationandemployers.org)

Education and Employers is a UK charity created in 2009 to ensure that every state school and college has an effective partnership with employers to support young people. As well as undertaking research into the impact and delivery of employer engagement in education, the charity manages innovative programmes to enable schools and colleges to connect efficiently and effectively with employers including [www.inspiringthefuture.org](http://www.inspiringthefuture.org). The charity works in close partnership with the leading national bodies representing education leaders, teaching staff and employers/employees.

### Research into employer engagement in education

As well as publishing new research, Education and Employers provides a free online resource making easily available high quality materials investigating the impact and delivery of employer engagement in education. Resources include a library of relevant articles and reports, many of which have been summarised to pick out key findings, papers and videos its research conferences and free London seminar series as well as publications and a regular e-bulletin of relevant research announcements: [www.educationandemployers.org/research-main](http://www.educationandemployers.org/research-main).

To keep updated on the work of the Education and Employers research team and for news of international developments related to research into employer engagement in education, follow the team on twitter: [@Edu\\_EResearch](https://twitter.com/Edu_EResearch).

### About the authors

**Dr Anthony Mann** is Director of Policy and Research at Education and Employers. He is the author or co-author of more than thirty publications on employer engagement in education.

**Dr Elnaz Kashefpakdel** is Head of Research at Education and Employers. A quantitative analyst who received her Ph.D. from the University of Bath, she is the author of numerous works on employer engagement in education.

**Steve Iredale** was national President of the National Association of Headteachers during 2012-13 and led development of Primary Futures for the Association. Until 2015, he was Head teacher of Athersley South Primary in Barnsley, Yorkshire.

*For more information about this report, contact:* [Jordan.Rehill@educationandemployers.org](mailto:Jordan.Rehill@educationandemployers.org), Education and Employers Research, Quantum House, 22-24 Red Lion Court, Fleet Street, London, EC4A 3EB

## Primary Futures

In May 2014, the British trade union and professional association representing 90% of school leaders in primary schools, the National Association of Head Teachers, announced the launch of a new programme: *Primary Futures*. Developed with the London-based education charity, Education and Employers, the programme was designed to make it quick, easy and free for teaching staff in UK primary schools to connect with local employee volunteers. Delivered through a secure online match-making tool, [www.inspiringthefuture.org](http://www.inspiringthefuture.org), Primary Futures was designed to provide schools with easy access to individuals willing to provide free voluntary support across a range of areas, including:

- providing first-hand insight into jobs and careers, with many thousands of volunteers across the country identifying themselves as being able to speak with specific experience of
  - being an Apprentice
  - running their own enterprise
  - using Mathematics or modern foreign languages at work
  - working in the fields of science and technology
- being a potential reading or number partner, or
- being willing to be considered as a school governor.

By May 2017, more 5,600 school leaders and teaching staff from more than 4,400 individual primary schools across the UK had registered to take part in the scheme. Between them these teachers had issued more than 26,000 invitations to local employee volunteers through the Inspiring the Future platform. In terms of the numbers of schools involved, Primary Futures represents the most significant action to engage schools with local employers ever undertaken in the UK.

While Primary Futures has been developed with the encouragement of government, and, indeed, secured senior cross-party national support, the relevant departments of education in England, Scotland, Wales and Northern Ireland have as yet placed no expectations or requirements on primary schools to engage with the programme or to work with local employers. The programme represents therefore an experiment into how primary schools can be positively encouraged and enabled to engage with their economic communities without additional state funding or regulatory requirement.

Looked at from an international perspective, the programme aligns with wide ranging interest in securing greater employer engagement in education (Stanley and Mann 2014). While the focus of such interest from a policy perspective has been largely on secondary provision, increasingly interest has extended, if hesitantly, to primary education. To the OECD, for example:

Individual career guidance should be a part of a comprehensive career guidance framework, including a systematic career education programme to inform students about the world of work and career opportunities. This means that schools should encourage an understanding of the world of work *from the earliest years*, backed by visits to workplaces and workplace experience. Partnerships between schools and local firms allow both teachers and students to spend time in workplaces. (OECD 2010, 85. *Emphasis added.*)

The US Pathways to Prosperity team based at Harvard Graduate School of Education would also point towards beginning employer engagement before secondary education:

Our goal should be that beginning *no later than middle school*, all students should have access to [a] system of employer involvement [in their educational provision.] (Symonds et al. 2011, 30. *Emphasis added.*)

In this short essay, we describe the operation of Primary Futures, its rationale and locate its operation within international research literature. In so doing, it is widely recognised that research on employer engagement in primary education is limited to say the least (Knight 76; Flouri & Panourgia 4; QCDA 18). Research does, however, offer consistent insights of value to policy makers and practitioners. Available evidence, moreover, aligns with data on the perceptions of practitioners and relates coherently to the considerably richer literature to be found in relation to secondary provision both in terms of supporting skills acquisition and in careers education (Mann et al. 2014)

## **A short overview of employer engagement in British primary education**

In the UK, while there it has never been a legal obligation for primary schools to work with members of their local economic communities, there has certainly been a long history of engagement supported by occasional, if rare, bouts of state-sponsored encouragement (Smith 1988; Saunders et al. 1995; RSA 1989). Two surveys offer comparatively recent snapshots of engagement.

A 2007 survey, with unclear methodology, of 200 primary school leaders in England undertaken by research agency Edcoms (2008) found that over the over the preceding two years:

- 58% of schools had been involved in 'off-site' visits with local businesses
- 41% in 'work experience'
- 21% in 'enterprise days'
- 16% in 'mentoring'
- 6% in 'careers advice'

A second snapshot of practice is offered in a 2010 review by the now disbanded government agency, the Qualifications and Curriculum Development Authority into the delivery of work-related learning. The opt-in online survey of 95 primary schools found very high levels of engagement with local employers:

- 96% of schools offered at least one type of work-related learning over a given year
- 81% offered some form of enterprise activities
- 73% undertook activities designed to develop employability skills and financial capability
- 66% had employers or business representatives coming into school at least once a year
- 63% offered some form of careers education, such as running 'what's my job' careers fair with local employee volunteers
- 59% had children visiting workplaces
- 52% took part in work simulations
- 23% were involved in reading partner schemes
- 20% were involved in number partner schemes

For all activities, schools reported participation across all ages, but with concentrations among older pupils (QCDA 2010, 28-29).

While neither survey can be seen to be as properly representative of British primary schools, both indicate the ways in which many employer engagement activities have long been familiar aspects of educational provision. The QCDA concluded following consideration of semi—structured interviews with primary school leaders to support their review, that:

Work-related learning is important in the primary context and primary schools see this area as relevant to their own aims and agendas. Primary schools view preparing children for their life in the workplace as a significant part of the school's role and, importantly, this means that the provision of learning activities that relate to the world of work is not currently felt by primary staff to be imposed from above; instead these activities fit into what primary schools are already trying to achieve. (pp. 47-48)

The snapshots shed light too on the twofold purposes of employer engagement in primary education. It can be understood as a tool for both enhancing pupil knowledge and skills and for providing new information and experiences to enhance understanding about jobs and careers

commonly with an aim of influencing pupil attitudes and aspirations. Through Primary Futures, schools have access to human voluntary resource supporting both objectives.

## Why engage employers in primary education?

### 1. Pupil knowledge and skills

Employee volunteers have been used by primary schools across three coherent areas of knowledge and skills development: supporting literacy, numeracy and the development of 'enterprise' and 'employability' skills.

#### *Reading partners and literacy*

Reading partner schemes have been familiar in the US and UK for many years. Schemes are characterised by use of largely untrained employee volunteers brought into primary schools to hear children read on a regular basis (Torgerson 2002, 434-436). While, of course, programmes could be undertaken using parents or university students, employee volunteer schemes are very common and have been popular with schools for reasons of logistical simplicity as well as alignment, as will be seen, with ambitions to influence the career awareness and aspirations of children.

A 2002 review by Torgerson et al. looked at the results of eight randomised control trials using such reading partners provides one overview of types of programme historically delivered and the challenges of assessing impact. The review found results to be, when considered as a collective, inconclusive with all studies suffering from use of low numbers of participants. Studies showed that in some circumstances reading partner schemes are positively associated with improved learning outcomes, others suggest that this was not been the case. A likely explanation relates to variation in programme design and pupil selection as well as low participation numbers undermining statistical confidence.

More recent work by Queen's University Belfast has illustrated the difficulties encountered in selecting the appropriate methodological tools to test for impact. A 2011 study led by Sarah Miller used a revised methodology within a large trial of some 512 children aged 8-9 years, each identified as being below average in reading ability and lacking confidence in reading with 263 randomly assigned to participate in weekly one hour sessions with employee volunteers over a school year. When compared to a control group using statistical testing, the researchers found the programme to be "effective in improving a number of reading outcomes for pupils" with impact strongest in relation to decoding, reading rate and reading fluency.

While further studies are required to understand better the influence of such volunteer programmes on achievement of learning outcomes, it is notable that teachers with first-hand experience are supportive. An unpublished 2012 survey of a representative sample of 904 primary school teachers by the National Foundation for Educational Research for the Education and Employers Taskforce found 35% to have pupils who had "been involved in a one-to-one literacy scheme with non-expert volunteers who regularly hear them read." Of that group of teachers with direct experience of reading schemes, 68% felt that participation "slightly increased" the chances of pupils of reaching their literacy attainment targets for the year and 23% felt that it "very much" increased their changes. Only 6% felt that pupil chances had been reduced by participation.

#### *Number partners and numeracy*

There is also a tradition in the UK of primary schools drawing on local volunteers to support numeracy teaching. In a similar way to reading partners, number partners are commonly employee volunteers who would regularly come into schools to play number based games with children to support Maths learning and financial literacy. The authors are aware of no studies using social

science methodologies which have tested the efficacy of such programmes. A 2014 Education and Employers survey of teaching staff in 28 primary schools with experience of participating in such a programme ([www.numberpartners.org](http://www.numberpartners.org)) found that volunteering was most commonly undertaken to support pupils aged 8 to 10 with weekly sessions of 15-30 minutes typical. Perhaps unsurprisingly, participants in the programme overwhelmingly valued it with two-thirds reporting that they felt that the scheme “very much” increased the pupils’ chances of reaching individual numeracy targets. Respondents highlighted increased pupil confidence as the single most powerful observable effect of participation in such programmes suggesting a relationship with feelings of heightened self-efficacy – children believing that if they applied themselves, they would be able to resolve Mathematical problems – an attitude which is strongly related to numerical achievement (OECD 2013). Through Inspiring the Future, schools have free access to thousands of potential volunteers who have indicated a willingness to have a discussion with a local primary school about the possibility of becoming a reading or number partner.

### *Enterprise/employability skills*

The most commonplace form of employment focused skill development in UK practice relates not to numeracy or literacy, but to enterprise education. Enterprise competitions are familiar within primary provision and are a growth area with programmes such as the Fiver Challenge ([www.fiverchallenge.org.uk](http://www.fiverchallenge.org.uk)) often drawing on local volunteers bringing personal experiences of running an enterprise to act as competition coaches and judges. Such projects have been undertaken by primary schools engaging children of all ages, for example:

- Providing pupils with small cash investment and the challenge of doubling the money through sale of products and services
- Whole school project with classes designing, producing and selling products such as flower pots and shopping bags
- Workplace visits designed to illustrate production techniques and occupational roles
- Cross-curricular activities such as the development and promotion of a healthy eating restaurant drawing on science, numeracy and ICT
- Writing, planning, producing and managing a publically-performed play
- Running a lunchtime enterprise club to support older pupils developing business ideas (SSAT 2010).

In spite of their popularity, robust studies looking at the impact of such provision on children are sparse. One important exception is a 2012 Dutch review (Huber et al. 2012) of the effect of taking part in a programme wherein 11 year old pupils ran their own enterprise over five non-consecutive full days. Using a randomised control trial evaluation, the study found that when compared to a control group, participants significantly improved non-cognitive skills, and changed attitudes, across a range of areas: self-efficacy, drive for achievement, risk-taking, analysis, persistence and creativity.<sup>1</sup>

School use of employee volunteers to support pupils’ development of knowledge and skills is widespread in the UK. Few studies, however, have transparently used social science methodologies to attempt to measure whether positive impacts on children can be evidenced. Where studies have

---

<sup>1</sup> A clear relationship can be seen between the development of such enterprise skills and ‘employability skills’ which are commonly described as the functional applied use of numeracy, literacy and ICT combined with effective self-management, thinking and solving problems, working together and communicating, understanding employers – see UKCES 2009. Huber et al. 2012 tested for and found no statistically significant variation in two areas: motivation and pro-activity.

been undertaken, and where teaching staff with first-hand experience of activity have been surveyed, significant links to positive outcomes have been identified.

## **2. Pupil attitudes and aspirations**

On its launch in 2014, Primary Futures was presented by the National Association of Head Teachers as a programme to connect schools with local employee volunteers with an express purpose of helping “to widen the horizons and aspirations of primary school children by helping them to make the connections between their lessons and their futures.” In this conception, access to employee volunteers is conceived as a resource which will shape the thinking of children – about who they might become and how what they do in classroom, even at the youngest ages, can relate to their adult lives. As such, employer engagement becomes a resource to influence both the aspirations of young people through addressing the assumptions which shape attitudes and expectations.

### *Aspirations and outcomes*

Primary Futures as a programme, consequently, can be essentially located within discourses relating to the concept of “aspiration” - an idea which has secured considerable interest from policy makers and researchers over recent years (Archer 2014). A run of recent quantitative longitudinal studies have drawn compelling relationships between school-age aspirations and both engagement in education and the achievement of adult economic outcomes (Mann 2014). Using data from the UK Millenium cohort, Flouri and Pangouria (2012) have, for example, looked at the career aspirations of children aged seven and found statistically significant associations between aspirational levels and pupil behaviour: looking at children from disadvantaged backgrounds, those with higher aspirations were less likely than comparable peers to act out (behave poorly) in class. US and Australian studies have found links, moreover, between the nature of occupational aspirations of primary school age pupils and later educational outcomes, with higher aspirations being positively related to higher levels of attainment and lower dropout rates (Knight 2015, 76; Gutman & Akerman 2008, iv, 16).

Studies have shown then that aspirations are important, but also emphasised how the “early years of a child’s life are a key time in [their] formation and development”. (Gutman & Akerman 2008, ii). The attitudes formed by children shape their later behaviour in ways of ultimate economic importance. Looking at interest in science, for example, a King’s College London research team led by Professor Louise Archer has shown that longitudinal tracking finds that students who do not express STEM related aspirations at age 10 are unlikely to develop STEM aspirations by the age of 14 – and are consequently less likely to pursue science subjects, achievement in which is related with higher adult earnings (Archer et al. 2013, 3).

To Archer, and to other researchers, the aspirations expressed by young people reflect the complexity of their own emerging identities. The character of aspirations is strongly rooted in young people’s sense of what is ‘reasonable’ and ‘natural’ for ‘people like me’ to pursue. Children come into schools with assumptions which have emerged out of their own day to day experiences: experiences which are routinely shaped by ideas surrounding gender, ethnicity and social class (Gottfredson 2002; Archer 2010; Archer et al. 2012). By the age of eight, girls and boys routinely develop gendered ideas about jobs and careers and with long term implications. Such “naïve early understandings have already turned them,” argue Gutman & Akerman (2008) from their review of research literature on gender and aspiration “towards some possible futures and away from others.” (p.5)

### *Employer engagement as a mechanism for challenging gender stereotyping and broadening STEM aspirations*

The subject of Science provides a now well worked example of how young people's career thinking relates to their social backgrounds and the powerful potential capacity of schools to intervene within this process of identity formation. Archer et al. (2013) have shown that those young people low in science capital<sup>2</sup> tend to develop narrow and highly limited understandings of the economic uses of science, struggling to see its relevance to careers beyond the stereotypes of doctor, science teacher and scientist. In spite of high levels of personal enjoyment, such children commonly struggle to see the long term relevance of science to their own lives. They fail to find an extrinsic value in its pursuit, reducing levels of engagement. As Archer shows through substantial survey and interview evidence, very many children see science careers as relevant overwhelmingly to 'brainy' white men (Archer et al. 2013, 3; Archer et al. 2012), a view echo by previous experiments where children have been asked to 'Draw-A-Scientist' and responded overwhelmingly by drawing a balding, bespectacled, white man wearing a lab coat and working with chemical tubes and vials (Newton and Newton 1998; Flick 1990).

Studies into the formation of careers aspirations stress, then, the long term consequences of attitudes and assumptions which are rooted in social backgrounds. Importantly, research suggests strongly that such thinking can be influenced by the actions of schools. In an interesting US study, children aged 9-10 drew very different images of scientists after exposure to real life working scientists coming into classrooms to engage. As Flick (1990) states, following the intervention (and in comparison to peers), children "perceived scientists more as regular people" capturing a much broader range of people and activities in their drawings (p. 240). Prior to the start of the intervention which involved seven hours of classroom visits from five working research scientists, children had been just as stereotypical as peers in expressing their assumptions around who scientists were and what they did.

To Archer and colleagues, schools have an important capacity to address the inherent inequalities of family background to influence children's attitudes and assumptions. Archer and her team call for efforts to broaden pupil STEM aspirations to begin in primary schools with STEM careers awareness embedded in science provision drawing readily on role models from local work places to challenge the stereotypical image of science careers as being 'only for the brainy' and for a limited cross section of society (Archer et al. 2013, 27-28; Archer et al. 2014; Archer et al. 2012; Archer et al. 2010; Archer and DeWitt 2017). By enriching their real-life experiences, pupils can be encouraged to think again about the meanings and implications of what they are being taught in class. "Children's career and educational choices," as Knight argues elsewhere in the academic literature, "are influenced by adult role models as well as by parental expectations" (p.77) and schools, as Gutman and Akerman (2008) state "can play a part in maintaining and realising ambitions, and the support they provide becomes more important when family resources are limited" (p. ii).

### *Connecting education and economy*

Through engagement with people who bring an authentic experience of the uses of subjects of study in the working world, schools can challenge the assumptions developed by children, allowing them to draw richer, more informed connections between education and ultimate economic and wider

---

<sup>22</sup> Archer et al. 2013, 3: "Science capital refers to science-related qualifications, understanding, knowledge (about science and 'how it works'), interest and social contacts (eg, knowing someone who works in a science-related job)"

success in adult life (Knight, 76). As Kelly (2004) has shown even very highly performing primary school pupils often struggle to see the meaning of academic learning, such as in Mathematics, to the real world. To mark the launch of Primary Futures, the National Association of Head Teachers invited members to respond to a short online survey testing the need to challenge the emerging assumptions of children about the purposes of education. The results support findings from research literature: that children’s assumptions about the purposes of learning are strong, meaningful and potentially malleable through richer engagement with workplaces.<sup>3</sup>

**Survey of 193 members of the National Association of Head Teachers, 2014.**

<b>Statement</b>	<b>Strongly agree</b>	<b>Agree</b>	<b>Unsure</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<i>1. Many primary aged children struggle to see the relevance of numeracy and literacy and why they are so important for later life</i>	25%	39%	7%	27%	3%
<i>2. In my experience, children tend to achieve more in numeracy and literacy is they understand how they are relevant to their adult lives</i>	45%	42%	10%	3%	0%
<i>3. Helping children understand the link between their learning in school and the world of work will help motivate them to improve their academic performance</i>	42%	49%	8%	2%	0%
<i>4. An effective way of illustrating the relevance of literacy and numeracy to children is to get adult volunteers to talk about their job, and how they use these skills at work and the relevance of their primary school education</i>	33%	58%	8%	1%	0%
<i>5. Historically, it has been difficult and time-consuming to find local volunteers able to help children see the relevance of numeracy and literacy</i>	30%	47%	18%	4%	1%
<i>6. Employers have an important role to play in helping children succeed at primary school and should be encouraged to do so</i>	41%	49%	7%	3%	0%
<i>7. If it were easy to do, I would be happy to work more closely with local employers</i>	47%	48%	4%	1%	0%
<i>8. Most primary aged children think numeracy and literacy are important because they need to pass their SATs rather than because they need these skills for later life<sup>4</sup></i>	37%	43%	13%	5%	1%

<sup>3</sup> During 2017, Education and Employers Research will be publishing details of a survey of more than 400 primary school teachers exploring their perception of the relationship between employer engagement and the academic achievement of children.

<sup>4</sup> SATs (Standard Assessment Tests) are government administered external, national tests undertaken by pupils at age 7 and 11 in England.

## Conceptualising employer engagement in primary education

Employer engagement in primary education can be seen, therefore, as a resource which can be harnessed in the development of knowledge and skills and applied as a mechanism to influence the attitudes and aspirations of pupils. At one level, the employee volunteer can be seen as simply supplementing the work of teachers: providing access to extra resource to achieve core teaching objectives (eg, reading and number skills). At a second, we can conceive engagement as a resource which enables access to additional objectives: developing enterprise or employability skills, raising or broadening aspirations, challenging thinking about the point of education. Across these areas, it makes a very significant difference that the human resource in question is someone bringing real-life, authentic experience of the workplace (Stanley et al., 2014). When they engage with children, volunteering are routinely perceived as speaking from a vantage point of real authority: who better to testify how numeracy is used outside of the classroom, after all than someone who earns a wage to apply it in a workplace?

Such a conceptualisation speaks to a well-developed understanding of how teenagers react to engagements with workplace volunteers. Drawing on the work of US sociologist Mark Granovetter, employer engagement has been conceived as providing a form of social capital. To Granovetter, there is economic value to an individual in having a social network which is broad because friends and acquaintances are a resource. They provide access to trustworthy information about jobs, careers and routes into them and when numerous and wide, the information collectively available much more likely to be deemed useful. Drawing on a close study of Manchester pupils aged 14–16 in extended school-mediated work experience placements, for example Raffo and Reeves (2000) argue:

What we have evidenced is that, based on the process of developing social capital through trustworthy reciprocal social relations within individualized networks, young people are provided with an opportunity to gain information, observe, ape and then confirm decisions and actions with significant others and peers. Thus, everyday implicit, informal and individual practical knowledge and understanding is created through interaction, dialogue, action and reflection on action within individualized and situated social contexts.

...there is also evidence in our research of individual young people having their social relations enriched by outside, yet authentic and culturally appropriate, significant others. In these situations, individual strategic decisions about life choices are being affected by external agencies and actors – external in that they are potentially beyond the structuring influence of locality and class. This results in these individualized systems of social capital for individuals becoming more open and fluid, with outside, symbolically rich, resources impacting more freely on their lives. (151, 153)

As Mann and Percy (2014) have shown, teenagers engaging in higher volume incidents of employer engagement through their schools go on to earn more as young adults. For young people, access to new and useful information about the labour market allows them to draw better links between their current and future imagined lives (Raffo; Mann & Dawkins). Such a change about what is considered reasonable, desirable or obtainable can be seen as a change in fundamental sense of personal identity within a social context, influentially described as 'habitus', a form of cultural capital by French sociologist Pierre Bourdieu (Archer et al. 2014). Access to such resource is not equitably distributed across society, it is found in different formations across different social groups - and employer engagement provides schools with a means of democratising access to trustworthy insights and personal experiences of ultimate economic relevance to address disadvantage.

### *A worked example: the Key Stage 2 Career-related Learning Pathfinder*

Such a conceptualisation has featured explicitly in one of the most significant and well evaluated government-funded interventions bringing employers and primary schools together. The Key Stage 2 Career-related Learning Pathfinder was delivered in seven different English local authorities, each urban areas with high levels of social and economic deprivation, over 15 months from July 2009. The programme was aimed at pupils in Key Stage 2, a learning stage covering children between the ages of 7 and 11 with a particular emphasis on children aged 10 to 11 (Year 6). Within the programme, participating schools secured access to limited resource (£60,000 per local authority area) which funded external support to help engage with community-based resources. Schools undertook needs analyses and reviewed existing provision before planning a programme of career-related learning. Practice between schools varied, but consistently included bringing visitors (typically employee volunteers) into schools to meet with pupils, visits to local workplaces, universities, enterprise projects, exploration of careers issues in drama, games and subject teaching. An independent evaluation of the programme was undertaken by the National Foundation for Educational Research (Wade et al.).

The programme designed offered a conceptualised understanding of careers provision located in cultural capital theory:

[The programme] focused on developing pupils' growing perception of their own place in the world of work. By enabling pupils to learn about themselves and the occupational choices they could have, through a programme of career-related learning, the intention was to help them develop a better view of their self-efficacy. This, according to Bandura et al., (2001) and reflected in Blenkinsop et al. (2006), is a key factor in raising young people's aspirations. In addition, the [programme] aimed to help pupils learn about the ways in which they could bring about their preferred occupational outcomes, even though they may live in disadvantaged areas. Such career-related learning may have the potential to ameliorate the likely restrictions arising out of limited cultural capital, thus widening horizons and encouraging pupils to think beyond 'known' familial or experienced occupations. (p. iv.)

Using a multi-method approach combining data collection from adult stakeholders and pupils in 38 treatment schools and 120 comparison schools, researchers secured a significant body of qualitative and quantitative evidence within a very positive evaluation. The reviewers found evidence that pupils participating in the programme did increase their awareness of career/work opportunities compared with peers in other schools with effects greatest for children from low income families or with Special Educational Needs. The reviewers found evidence, moreover, of increased pupil confidence, resilience and improved understandings of the links between education, qualification and work opportunities, often developing more realistic career expectations. Participation in the programme was also associated with decreased stereotypical thinking about jobs, challenging gendered assumptions about the workplace. It was also felt that the positive impact on pupil behaviour was linked to improved patterns of attendance and increased attainment. As with any evaluation, an ultimate test of efficacy lies in whether schools planned to carry on with the programme after special funding has ceased, and this was the intention of all evaluated schools:

[The programme] had helped to bring together schools, parents/carers, the local community and local businesses and so tapped into the social capital of local communities. Contact with local places of work and further and higher education had not only increased pupils' awareness of different career options and pathways, but also provided them with positive role models, some of which were particularly useful in challenging gender-based stereotypes. (p. viii)

## **Delivering employer engagement: *Primary Futures* and *Inspiring the Future***

Inspiring the Future works on the premise that there is a latent willingness in schools and places of employment to collaborate if barriers can be removed (Mann 2015; Mann & Virk). For most employer engagement activities, the key transaction cost is finding a suitable person in a workplace and making a clear ask of them. If only schools could find the right people, on their own terms, it is argued, we would open the way to high volume employer engagement across education, including in primary. As researchers for the QCDA reported from their investigatory interviews with school leaders in 2011:

Primary schools report that persuading people, including employers and business representatives, to give their time is one of the greatest challenges facing them in their provision of work-related learning. It is not surprising therefore that although schools most frequently have employers or business representatives coming into school between two and five times a year, only a small number of schools (six per cent) have visits more than five times a year. (pp.34-35)

Respondents suggested that often links [with employers] were informal and depended on relationships with individuals. When an individual moved on from either the school or the organisation or business, the link would disintegrate. Primary schools thus spoke consistently of the need for support in developing more formal links with the local community. (p.43)

The biggest barriers cited by primary schools in offering more work-related learning was a perceived lack of interest from businesses/employers – cited by 48% of schools. A further 43% cited lack of time suggesting that more would be done if it was easier to do (p.45).

Through Inspiring the Future, primary schools have immediate access to a rapid growing number of volunteers willing to entertain approaches from teaching staff. Volunteer polling shows that the overwhelming majority of volunteers are open to the idea of being approached by primary schools – and over the last 12 months, they have been invite on more than 7,500 individual occasions by primary teachers to engage with their schools. If it is assumed that events organised through Inspiring the Future have the same characteristics of those undertaken at secondary level (where, at time of writing, data is better), it can reasonably estimated that some 70,000 primary age children took part in Primary Futures events over the first year of the programme's operation.

By registering on [www.inspiringthefuture.org](http://www.inspiringthefuture.org), volunteers are indicating their willingness to be approached by state schools in specified geographic areas. Any numbers of teaching staff can registered and search for local volunteers. They can contact volunteers directly through the secure website. With volunteers recruited through large employers, professional bodies and low cost national campaigns, operating costs are minimised. Over its first four years of operation, well over one million children and young people (at primary and secondary level) have engaged with Inspiring the Future volunteers at an operational unit cost of less than £3 per interaction, a fraction of the costs involved in traditional brokerage. Teachers using Inspiring the Future report that they are happier with the volunteers they secure through the programme when comparing them to other initiatives they may have used. The developers argue that this is unsurprising, because with Inspiring the Future the teacher is given considerable more influence over which individual volunteers are approached than is historically the case.

### **Primary Futures: the head teacher perspective**

The National Association of Headteachers (NAHT) is the largest school leaders association in Europe with over 29,000 members. Whilst we are a trade union focussing on typical member based issues with packages of guidance and support we are also a professional association working to improve the success and quality of our schools in a variety of ways. The NAHT see this as a key element in taking back ownership of the educational agenda which in our view has become far too political, often forgetting the needs of the children, communities and the profession as a whole. Would successive governments tell surgeons how to carry out operations? Our strap line 'For Leaders for Learners' very much encapsulates what we are about.

The NAHT was very much attracted to the concept of Primary Futures particularly as the project focusses not just on volunteers from the world of work sharing information in a variety of ways about their jobs but more importantly helping to raise aspirations by bringing learning to life whilst also stressing the practical value of English and maths. Through Primary Futures children can see their learning has real purpose with reference to their futures as opposed to seeing learning as a vehicle to help them to 'pass' national tests which sadly many do.

Primary Futures at my school and the growing numbers of others I have worked with has been a positive experience. It is clear, although perhaps no surprise, that the aspirations of many children particularly although not exclusively from more challenging backgrounds are low. Breaking that mould and providing an insight into a world that for many of them would seem untouchable is a remarkable experience. When you add the link between learning in the classroom and future possibilities a new horizon becomes attainable. I have witnessed first-hand children suddenly seeing the light! To give two examples: Jack (aged 10) couldn't be bothered with the poor quality of his handwriting as he can use a word processing package. When he saw the handwritten notes of a solicitor his attitude changed. Becky (aged 9), a child with Special Educational Needs, couldn't be a high flying executive (she said) but began to see that there are other opportunities working in an office environment. Her eyes lit up!

It's fair to say the most important element and that which makes Primary Futures unique is that subtle link between the importance of current learning and how it can open doors in the future. Hard work does pay off! Briefing volunteers carefully ahead of Primary Futures activities using their own primary school experience as a basis has proved highly successful. The positive feedback from the children made it very clear Primary Futures has a massive role to play in inspiring the next generation.

**Steve Iredale.**

## Conclusion

From a schools' perspective, as the 2010 QCDA review showed, while employer engagement or work-related learning can often be found in primary schools it is not always known as that. Primary Futures offers a new means of naming and framing employer engagement to schools, giving them a shared language and enabling coherent and achievable asks to be made of employer volunteers. Inspiring the Future has removed barriers preventing primary school access to community volunteers and schools have responded, registering to access a resource which can be used in multiple ways. Demand from teachers is in keeping with limited and imperfect survey evidence which has pointed to high levels of interest across British primary schools in accessing such resource. Many schools clearly do see employer engagement as a means to access human resource to support the acquisition of knowledge and skills and to broaden and raise career aspirations, challenging pupil assumptions and influencing attitudes about the relationship of education and employment.

Research into the impact of employer engagement activities on the learning and progression of children is limited. Only a small number of projects using methodologies sufficiently robust to allow meaningful conclusions to be taken from their results. Where good quality evidence does exist, it suggests that the instincts of surveyed teachers are right: that employer engagement, if done correctly, is positively associated with improved attainment, the development of non-cognitive skills demanded by twenty-first century employers and changed attitudes towards the world of work and the relationship between the classroom and the workplace. Clearly, further research is required looking across the range of employer engagement activities undertaken in primary schools, with a priority candidate for examination given the heavy influence of numeracy on adult economic outcomes being number partners. Further research should, however, explore too questions surrounding delivery. How are positive impacts optimised? What age should learners engage with volunteers? How can interactions be best related to wider curriculum delivery?

One conclusion which can now be made is that demand in British primary schools for employer engagement is meaningful. Witnessed in Inspiring the Future registration figures and the enthusiasm of the National Association of Head Teachers to promote engagement, in the absence of any monetary incentive or regulatory requirement, over Inspiring the Future's first year of operation, thousands of teachers have used a free, trustworthy resource to connect volunteers with tens of thousands of pupils. In this new approach, significant opportunity lies.

## References

- Archer, L. 2014. "Conceptualising Aspiration" in Mann, A., Stanley, J. & Archer, L. eds. *Understanding Employer Engagement in Education: theories and evidence*. London: Routledge
- Archer, L., DeWitt, J., Osborne, J., Dillon, J., Willis, B. & Wong, B. 2010. "'Doing' Science versus 'Being' a Scientist: Examining 10/11-Year-Old Schoolchildren's Constructions of Science through the Lens of Identity" *Science Education* 94: 617-639
- Archer, L., DeWitt, J., Osborne, J., Dillon, J., Willis, B. & Wong, B. 2012. "'Balancing Acts': Elementary School Girls' Negotiation of Femininity, Achievement, and Science" *Science Education* 96:6, 967-989
- Archer, L., DeWitt, J., & Wong, B. 2014. "Spheres of Influence: what shapes young people's aspirations at age 12/13 and what are the implications for education policy?" *Journal of Education Policy* 29:1, 58-85
- Archer, L., Osbourne, J., DeWitt, J., Dillon, J. & Wong, B. 2013. *ASPIRES: Young People's science and career aspirations, age 10-14*. London: King's College
- Bandura, A., Barbaranelli, C., Caprara, G.V., and Pastorelli, C. (2001). Self-efficacy beliefs as shapers of children's aspirations and career trajectories, *Child Development*, 72, 187-206.
- Blenkinsop, S., McCrone, T., Wade, P. and Morris, M. (2006). How do Young People Make Choices at Age 14 and Age 16? (DfES Research Report 773). London: DfES.
- Edcoms. 2007. *Business in Schools research findings*. London: Business in the Community
- Flick, L. 1990. "Scientist in Residence Program Improving Children's Image of Science and Scientists." *School Science and Mathematics* 90:3, 203-214
- Flouri, E. & Panourgia, C, 2012. *Do primary school children's career aspirations matter?* London: Institute for Education Centre for Longitudinal Studies
- Gottfredson, L. 2002 "Gottfredson's Theory of Circumscription, Compromise and Self-Creation" in Brown, D. ed. *Career Choice and Development*. San Francisco: Jossey-Bass
- Gutman, L. M. & Akerman, R. 2008. *Determinants of Aspirations*. London: Institute of Education Centre for Research on the Wider Benefits of Learning
- Huber, L. R., Sloof, R. & Van Pragg, M. 2012. *The Effect of Early Entrepreneurship Education: Evidence from a Randomized Field Experiment*. Bonn: Institute for the Study of Labor
- Kelly, P. 2004. "Children's Experiences of Mathematics." *Research in Mathematics Education* 6:1, 37-57
- Knight, J. L. 2015. "Preparing Elementary School Counselors to Promote Development: Recommendations for School Counselor Education Programs." *Journal of Career Development*, 42:2, 75-85
- Mann, A. July 2014. "Great Expectations" *DEMOS Quarterly*, Issue 3
- Mann, A. 2015. *Key Issues in Employer Engagement in Education: Why it makes a difference and how to deliver at scale*. Edinburgh: Skills Development Scotland

- Mann, A. & Dawkins, J. 2014. *Employer engagement in education: literature review*. Reading CfBT Education Trust
- Mann, A. & Percy, C. 2014. "Employer engagement in British secondary education: wage earning outcomes experienced by young adults" *Journal of Education and Work* 27:5, 496-523
- Mann, A., Stanley, J. & Archer, L. Eds. 2014. *Understanding employer engagement in education: theories and evidence*. London: Routledge
- Mann, A. & Virk, B. 2013. *Profound Employer Engagement in Education: What It Is and Options for Scaling It Up*. London: Edge Foundation
- Miller, S., Connolly, P. & Maguire, L. K. 2011. *A Follow-Up Randomised Controlled Trial Evaluation of the Effects of Business in the Community's Time to Read mentoring programme*. Belfast: Centre for Effective Education, Queen's University
- Morris, K. 2014. *Number Partners – Impact Report 2014*. London: Education and Employers Taskforce
- Newton, L. D. & Newton, D. P. 1998. "Primary children's conceptions of science and the scientist: is the impact of a National Curriculum breaking down the stereotype?" *International Journal of Science Education* 20:9, 1137-1149
- OECD. 2010. *Learning for Jobs*. Paris: Organisation for Economic Co-operation and Development.
- OECD. 2013. *PISA 2012 Results: Ready to Learn: Students' Engagement, Drive and Self-Beliefs (Volume III)*. Paris: OECD Publishing
- QCDA. 2010. *QCDA review of work-related learning for young people aged 5-19*. Coventry: Qualifications and Curriculum Development Agency (unpublished)
- RSA. November 1989. "Primary School/Industry Links Increase." *RSA Journal* 137: 54, 762
- Raffo, C. 2003. "Disaffected Young People and the Work-Related Learning Curriculum at Key Stage 4: Issues of Social Capital Development and Learning as a Form of Cultural Practice." *Journal of Education and Work* 16 (1): 69–86.
- Raffo, C., and M. Reeves. 2000. "Youth Transitions and Social Exclusion: Developments in Social Capital Theory." *Journal of Youth Studies* 3 (2): 147–166.
- Saunders, L. Hewitt, D. & MacDonald, A. 1995. *Education for Life: the cross-curricular themes in primary and secondary schools*. Slough: National Foundation for Educational Research
- Smith, D. 1988. *Industry in the Primary School Curriculum*. Lewes: Falmer Press
- SSAT. 2010. *Enterprise education in primary schools*. London: Specialist Schools and Academies Trust
- Stanley, J. & Mann, A. 2014. "Conceptualising Employer Engagement in Education" in Mann, A., Stanley, J. & Archer, L. eds. *Understanding Employer Engagement in Education: theories and evidence*. London: Routledge
- Symonds, W. C., Schwartz, R. B. & Fergusin, R. 2011. *Pathways to Prosperity: Meeting the Challenge of Preparing Young Americans for the 21<sup>st</sup> Century*. Cambridge: Harvard Graduates School of Education

Torgerson, C. J., King, S. E. & Snowden, A. J. 2002. "Do volunteers in schools help children learn to read? A systematic review of randomised controlled trials." *Educational Studies* 28:4, 433-444

UKCES. 2009. *The Employability Challenge*. London: UK Commission for Employment and Skills

Wade, P., Bergeron, C., White, K, Teeman, D., Sims, D. & Mehta, P. 2011. *Key Stage 2 career-related learning pathfinder evaluation*. London: Department for Education