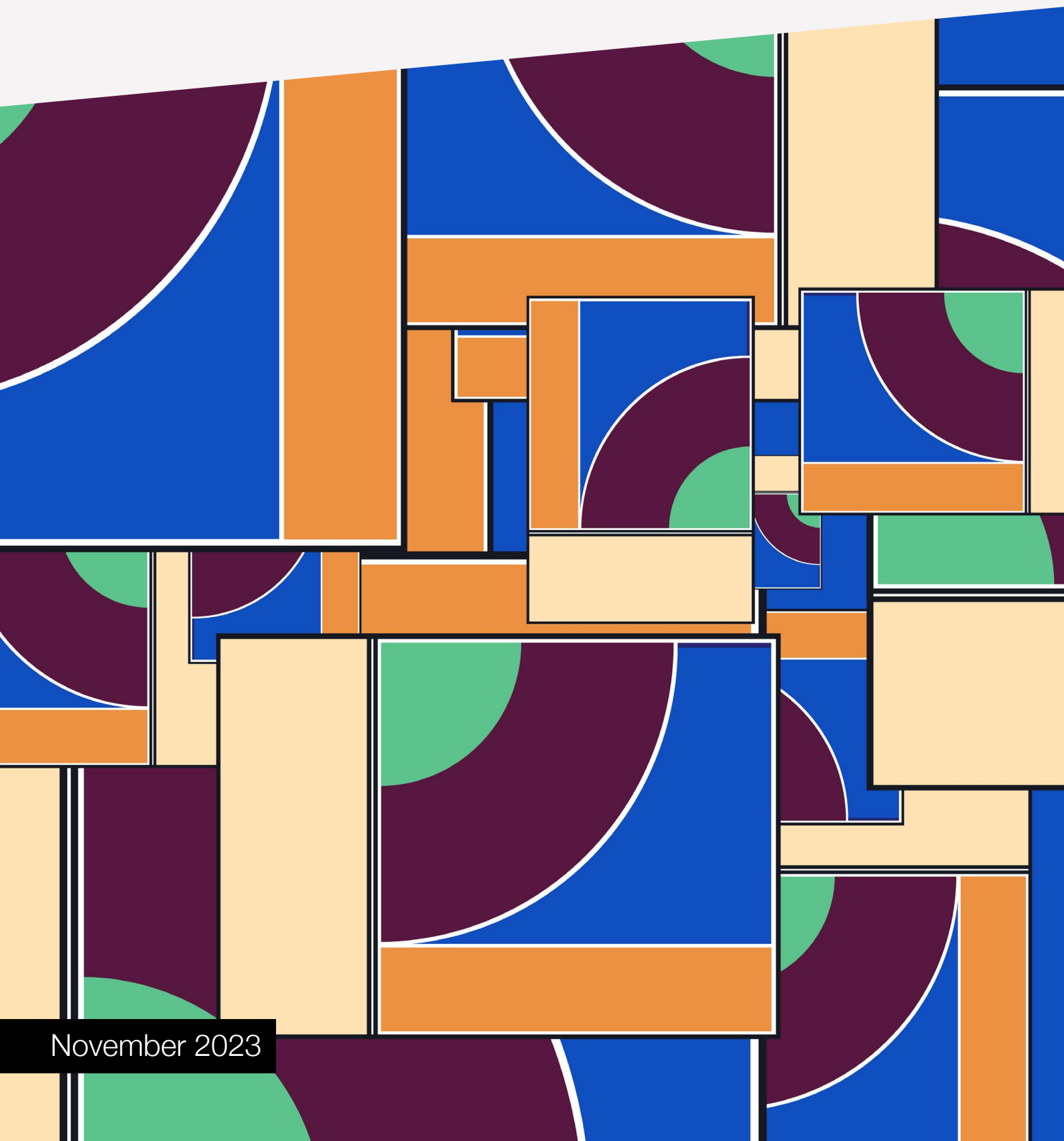




IOE Impact Stories



Contents

1	Introduction	8	Helping to answer the question: what is the best way to teach children to read?
2	Arts-in-nature practice improves children's mental health and connection with nature	9	Unlocking potential: transforming employers' support for autistic colleagues
3	Better supporting children who witness domestic violence	10	Promoting a human-centred approach to the application of Artificial Intelligence in education
4	Ensuring the measurement of educational standards is transparent and robust	11	Using longitudinal evidence to expose social inequalities and cycles of disadvantage
5	Understanding the impact of private schools	12	The Play Observatory: recording and valuing children's play experiences during the pandemic
6	Improving knowledge and self-efficacy to support children with Williams Syndrome	13	Transforming the design of student loan systems around the world
7	Narrowing educational inequalities by rethinking school inspection in disadvantaged contexts		

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Research: [Art of Possibilities](#)

Artist: [Kristy Campbell](#) – IOE Doctoral candidate,
Department of Education Practice and Society

Introduction



I am delighted to introduce *IOE Impact Stories*, which showcases the broad range of research and impacts undertaken at the IOE. Engagement and impact are core aspects of the [IOE research strategic priorities](#). The stories highlight the distinct and significant ways in which we are contributing at a local, national and global level to inform new thinking and innovation in education, health and social research to benefit wider society.

The narratives featured in this publication present just a snapshot of the wealth of research conducted by the faculty. This year, we have featured examples from international comparative studies to studies of children's reading and literacy, child protection, school inspections and student loans, demonstrating the extensive reach and significance of our research for informing public policy, practice and debate.

As IOE Pro-Director and Vice-Dean Research, I am privileged to witness first-hand the dedication and enthusiasm of colleagues at the IOE in delivering research excellence, including our researchers and academics, and also the teams that support their work. The impact of our research can only be achieved, of course, with the support of our research participants, partners and funders which this publication also celebrates.

I am deeply grateful to everyone for their continuing support of the IOE's research and impact activities, and I would like to thank all those who have taken the time to contribute to *IOE Impact Stories*.

Professor Lynn Ang
Pro-Director and Vice-Dean Research
IOE, UCL's Faculty of Education and Society
November 2023

Championing an inclusive research impact culture

IOE Impact Stories is the product of a rigorous review and selection process, carried out by a group of experts following a wide range of submissions from across our academic departments. This publication is the latest in a series of initiatives we are championing to recognise the impact of research conducted by academics at all levels of seniority, from innovative early career researchers to distinguished professors, as we work towards a healthier, more sustainable and inclusive impact culture. We hope these stories will inspire you, as we raise awareness of the power of science to combat disinformation and enable real-world change.

Dr Becky Taylor
Academic Head of Engagement and Impact, IOE

November 2023



Arts-in-nature practice improves children's mental health and connection with nature

IOE researchers are interested in all aspects of children's learning – not just in the classroom, but at home and in other less formal settings. These 'out of the classroom' experiences are often rewarding and meaningful for young people.

The [AHRC-funded Eco-Capabilities](#) project, led by [Professor Nicola Walshe](#), explored arts-based interventions for children delivered outdoors ('arts-in-nature' experiences). It investigated how this kind of educational experience contributes to children's wellbeing; addressed their widely reported 'disconnect' with the environment; and helped tackle a lack of engagement with arts in school curricula. It has also contributed to making the case for greater investment in supporting this kind of practice.

The value of arts-in-nature learning experiences

The research team followed groups of children as they undertook a range of experiential arts-in-nature activities, including foliage-inspired collages, observational drawing, sculpting, stories, and performances. Making art happened alongside conversations that helped children feel part of nature and understand environmental issues. They discovered that these kinds of learning offer creative and inclusive means to promote children's mental health and connection with nature.

Findings indicated that following arts-in-nature experiences children felt happier with their life and were more optimistic about what the future holds for them. These activities were particularly beneficial for children with risk factors associated with adverse mental health, including those from low-income households, those with special educational needs/neurodevelopmental differences, or those who have had adverse childhood experiences, all of whom may feel excluded from existing education.

Children and their families reported significant benefits, with one child saying: *"I'm going to come back here with my mum at the weekend, because she hasn't been here before."* Participating schools also began to change

their provision for mental health: *"It has made me think differently, mental health support doesn't always have to be something that's gone through referral processes, that relies on external agencies and huge amounts of funding."* (Paul Jones, Hampton Primary School)

Acting on the learning

This research suggested that these practices should be an integral part of the primary education curriculum, as well as being incorporated into the wider mental health infrastructure, including integrated care services (ICSs). It also revealed key barriers to this being achieved: teachers lack confidence and expertise to teach in this way, and ICSs lack mechanisms for engaging with schools.

To tackle these barriers, a follow-up project, [UKRI-funded Branching Out](#), developed an innovative, sustainable way of embedding arts-in-nature practice into schools using Community Artscapers (volunteers), engaging with partners from government, local authorities, ICSs and third sector organisations to develop multi-professional ways of working which support children's wellbeing in schools.

The research has also helped leverage further funding for supporting more schools and effected policy change at a regional, and increasingly national, level around arts, health and wellbeing, refocussing funding away from interventions to more preventative measures in schools:

'We believe that it is crucial to invest in providing more children and young people, especially those from impoverished communities, with the opportunity to engage in school and community-based enrichment activities and initiatives to improve emotional wellbeing, self-confidence, and build personal resilience. Investing in the Branching Out programme supports us in our ambition to have all schools in Cambridgeshire to embed a whole school approach to mental health.' (Amy Hall, Children's Public Health Commissioning Manager, CCC/PCC).

Better supporting children who witness domestic violence

Domestic violence can devastate families, but until recently the law only recognised those who experience abuse directly as victims.

In 2019, Action for Children commissioned new research from IOE's Centre for Longitudinal Studies (CLS) using the ESRC-supported Millennium Cohort Study (MCS) to study the relationship between early childhood experiences of domestic violence and outcomes in adolescence. CLS researchers [Prof Emla Fitzsimons](#), [Prof Praveetha Patalay](#) and [Dr Aase Villadsen](#) conducted the analysis, which was published in Action for Children's 2019 report, '[Patchy, Piecemeal and Precarious: support for children affected by domestic abuse](#)'.

The research successfully influenced the Domestic Abuse Act 2021 so that children who witness domestic violence are now recognised as victims themselves.

Why the law needed to change

Until the introduction of the Domestic Abuse Act 2021, the law did not formally recognise children who witness domestic violence as victims. This put limits on the support these children could access and meant that there was no statutory guidance for service providers supporting children from abusive households, apart from a generic safeguarding duty.

The CLS analysis provided compelling evidence of the impact that witnessing abuse has on children. Key findings were:

- At age 14, children whose parents reported experiencing domestic violence when the children were aged 3 reported 30 per cent higher than average antisocial behaviours.
- At age 14, parents who had previously reported experiencing domestic violence reported 13 per cent higher than average conduct problems for their children.

Influencing the legislation

The Domestic Abuse Bill was first promised by former Prime Minister Theresa May in 2017. Armed with evidence from MCS and other sources, Action for Children chaired a coalition of children's and women's charities to campaign for amendments to the Bill that would better protect and support children growing up in households with domestic abuse. They met with MPs and Peers across the political spectrum, making the case using the MCS evidence.

The MCS findings were cited repeatedly by MPs and Peers at multiple stages of the Bill's progression through Parliament. But it was at the House of Commons (HoC) Committee Stage that an amendment was formally proposed by Jess Phillips, Labour MP for Birmingham, Yardley, citing the MCS findings in her speech setting out the rationale for the amendment.

On 29 June 2020, following the completion of the HoC Committee Stage debates, Victoria Atkins MP and Alex Chalk MP wrote a letter to Ms Phillips to confirm that the Government had accepted amendment 50, and had changed the statutory definition of victim of domestic abuse to include children. At the Report Stage and Third Reading, Victoria Atkins MP announced the revised statutory definition in the new clause 15.

A step change in the support on offer to children and young people

The Domestic Abuse Act 2021 received Royal Assent on 29 April 2021. The Act states children are victims of domestic abuse if they see or hear, or experience the effects of the abuse, and are related to either the abuser or the person being abused.

The Children's Commissioner estimates that there are 831,000 children in England living in households that report domestic abuse. The Act, and the accompanying statutory guidance, will help ensure those children receive tailored support to protect them against the long-term effects of that trauma, testament to the impact research can have on improving children's lives.



Ensuring the measurement of educational standards is transparent and robust

Knowing whether a country's education system is succeeding is of massive importance to young people and their families, to teachers and to the reputation of incumbent governments. But finding robust ways to measure educational standards – and to provide meaningful comparisons with other countries – is hugely challenging.

IOE researchers with expertise in data science and quantitative social science have played a key role in ensuring that the UK's educational performance is robustly evaluated, and have exposed significant weaknesses in recent reporting, resulting in important changes to how this data is gathered and evaluated.

Ensuring robust measurement of educational standards

The work has been led by [Professor John Jerrim](#), Director of the [Quantitative Social Sciences Research Centre \(QSS\)](#) at IOE, and has informed the way the UK government measures educational performance, informed the work of the Swedish Audit Office and contributed to improvements in worldwide comparative studies of educational achievement by the Organisation for Economic Co-operation and Development (OECD) and by the International Association for the Evaluation of Educational Achievement (IEA), which together provide the 'gold standard' in the measurement of international educational standards.

Raising serious concerns

The research team analysed results from the OECD's Programme for International Student Assessment (PISA) study in 2018, which drew on data for England, Wales, Northern Ireland, and Scotland, and presented a positive judgement of standards in the UK. The study looked at the robustness of the underpinning research and the sample used and highlighted serious concerns about the reported results and their validity. The analysis demonstrated that these results were based on unrepresentative samples of 15-year-old pupils. There were low levels of participation and lower-achieving

students were under-represented in the tests. According to Jerrim's research, around 40% of students had not been included in the UK's PISA data in 2018, inflating the UK's position in the rankings.

Increasing transparency and rigour

The findings led to calls for the Office for Statistics Regulation (OSR) to conduct an independent review of the UK's PISA data to ensure more transparent reporting in the future. Following the review, the UK statistics regulator ruled that the PISA reports "*had not been sufficiently transparent about the limitations of the data and potential sources of bias.*" Consequently, the OSR's Assessment Programme Lead wrote to the Department for Education, Department of Education Northern Ireland, Welsh government and Scottish government outlining how reporting should be improved in the future, as recommended by the IOE research.

The study also recommended that the OECD reconsider its technical standards and data adjudication processes. These concerns were relevant to other countries with low overall participation rates, such as Canada, Portugal, and Sweden. In Sweden, sample exclusions were particularly high; influenced by the research, the Swedish Audit Office worked with Jerrim to apply the simulation approach he developed and adapted it to their context. The Audit Director acknowledged that the research "*has had significant impact upon our work in this area and, in particular, ensuring trust in official statistics and the transparency with which PISA data are reported.*" Soon after, the Swedish government commissioned the National Agency for Education to strengthen its efforts regarding the implementation of future PISA studies.

In recognition of Professor Jerrim's work in this area, he was awarded the 2022 Public Engagement and Impact Prize by the British Educational Research Association (BERA).



Understanding the impact of private schools

A key feature of the UK's education system is the co-existence of private and state schools. The fairness of this and its impact on the performance of the education system as a whole frequently features in the media and acts as one of the dividing lines between political parties. But the debates are often driven by ideology, resulting in more heat than light.

IOE has played an important role introducing evidence-based argument into the public discussion, drawing on statistical analyses of data from the cohort surveys (British Cohort Study, Next Steps and Millennium Cohort Study) and other surveys.

How research can help illuminate the impact of private schooling

Professor Francis Green of the IOE's Centre for Research on Learning and Life Chances (LLAKES) has led a series of projects and published extensively on the topic. His research is concerned with the role of private schools within Britain's school system and, at its broadest with their role in Britain's society and economy, both historically and in the present day.

The ESRC-funded research has drawn on long-term cohort studies to show how access to private schools has continued to be socially exclusive in this century, driven by wealth inequality, with no trend towards opening up private education. It has also showed the effects of private schools on pupils' educational performance and on their subsequent careers and life chances, both for those at school in the 1970s and 1980s, and for younger generations.

The research has not only examined the impact of the current system, but it investigated possible reforms of private schooling that would reduce inequalities in education. It has helped to imagine a future where children from differing social backgrounds are not educated in two socially segmented sectors but are raised and educated together.

Influencing the debate

Injecting evidence-based argument into public discourse and policymaking in this area is important but challenging. Open and reasoned discussion about the issue is rare. Professor Francis Green has used a number of channels to ensure the research reaches different audiences, including both policy makers and parents making choices about their children's future. His co-authored book, Engines of Privilege: Britain's Private School Problem, has been widely cited, and he has contributed to many public debates and discussions in the media and through participating in conferences, festivals and events.

Professor Green has also co-founded a thinktank, the Private Education Policy Forum (PEPF). With other PEPF Board members, supported by many volunteers, the Forum holds events, runs a daily twitter feed, and undertakes practical research. The website hosts blogs, news, a digest of scholarly research, original PEPF-initiated research, fact checkers, and a selection of policy proposals. Professor Green is the Director of Research for the group.

The research has been taken up by the Labour Party, in formulating their policy position that business tax subsidies should be removed from private schools, and that VAT should be levelled on school fees. Through PEPF Professor Green has had regular communication with researchers for the shadow Education secretary and has reached out to policy makers in other parties.

Overall, the IOE research and the book authored by Professor Green tackling this issue have led to a better-informed discourse in an area of policy making which is largely driven by ideology, rather than evidence.



Improving knowledge and self-efficacy to support children with Williams Syndrome

Williams Syndrome (WS) is a rare congenital disorder that occurs randomly and affects around one in 18,000 people in the UK. It is non-hereditary and causes distinctive facial characteristics and an uneven cognitive profile with strengths in language and auditory memory and severe difficulties in visuo-spatial cognition, working memory and inhibition. Infants often have delayed development and can develop physical and mental health problems, including anxiety and depression in later life. WS people tend to be talkative and excessively friendly towards adults.

Despite research at IOE showing that children with WS have significant difficulties with mathematical development and require educational support in a number of cognitive, behavioural and health related areas, evidence-based support for parents and teachers has been minimal.

Using research to improve support for children with WS

A research team at IOE has sought to address this lack of provision by developing new evidence-based support materials for parents and teachers supporting children with WS. The research, led by [Professor Jo Van Herwegen](#) and supported by the [Williams Syndrome Foundation](#), was motivated by a desire to influence policy and practice, while also providing children and families with hands on help and advice.

The research has directly informed a number of guidance documents for parents and teachers that provide them with greater knowledge of the strengths and difficulties of children with WS, how these may impact on behaviour and performance in the classroom as well as how these difficulties can be supported by teachers and parents and should be provided for in their Education and Health Care Plans.

Surveys and statements by parents and teachers have shown that these guidelines have improved knowledge and self-efficacy of teachers, parents, and other health professionals who work with them. They have also benefited the children with WS in the support they receive, for instance in the award of Education and Health Care Plans and by securing school placements.

In addition, the research has informed a new booklet for learners with WS ([My Own Williams Learning or OWL](#), created in 2022) that helps children to identify their strengths and weakness and to make them think of strategies to improve their learning and educational journeys.

This booklet is the first of its kind and was co-created with young people with WS. Feedback from parents and young people with WS has shown that these guidelines help them to understand their own strengths and difficulties better as well as try new things to support themselves and become more independent learners. In the long-term, it is expected that these guidance documents will improve children's educational outcomes and experiences.

These guidance documents have been distributed to all families of children with WS in the UK. The educational guidelines have now also been translated and distributed by other European charities that support children with WS and have informed the creation of new international guidelines for practitioners working with children with WS.

Narrowing educational inequalities by rethinking school inspection in disadvantaged contexts

School inspections are a vital way to ensure that schools are functioning well: at their best, they provide accountability, recognise excellence, and draw attention to ways in which schools might improve. But there is also public concern about the possible detrimental effects of inspection.

IOE research has been tracking the possible negative effects of inspections for a number of years, looking at their impact on schools in disadvantaged communities. Research led by [Dr Bernardita Munoz-Chereau](#) with the Education Policy Institute and Prof Melanie Ehren, supported by the [Nuffield Foundation](#), has informed public debate about inspections and, in Chile, influenced the ongoing reform of Law No. 20,529 oriented to reduce the detrimental consequences of inspections which 'fail' schools. Her work has benefited more than four million students, 32000 educators, 18000 schools and dozens of policy makers in UK and Chile.

Implications of inspections for schools

The landmark study ([‘Stuck’ schools: Can below good Ofsted inspections prevent sustainable improvement?](#)) has provided compelling evidence of the unintended effects that inspections can cause by making it more difficult for schools to improve.

The study examined the consequences of Ofsted inspections for so called ‘stuck’ schools (which fail inspections continuously). The research used quantitative methods to identify factors associated with improving or remaining ‘stuck’ by analysing a sample of 580 primary and secondary ‘stuck’ schools. It compared schools similar in their location and deprivation but with a different inspection history. This was followed by qualitative multisite case studies in 16 ‘stuck’ and ‘un-stuck’ schools to understand stakeholders’ views and experiences of inspection.

The quantitative research found that geographical location, student population and deprivation play a

part when explaining why schools can become stuck and struggle to improve. The study shows schools in disadvantaged communities are more likely to receive lower Ofsted grades, which shape a school’s reputation, increase teacher turnover and result in increasingly deprived pupil intakes. These changes then contribute to lower Ofsted grades. The study called for greater consideration of school location and student composition when inspecting schools.

Changing inspection guidance

The research has had a galvanising effect on debates about school inspections, in the UK and in Chile where Munoz-Chereau has also been working. It has helped to reduce stigma, by highlighting factors out of the school’s control that affect inspection outcomes.

In England, the study was part of the Education Committee’s inquiry into Ofsted’s work with schools where Munoz-Chereau was a witness. It also reached over 32000 educators in 1700 schools as part of the National Education Union inquiry *‘Beyond Ofsted’* where Munoz-Chereau is an advisor.

Internationally, it was a key piece of evidence underpinning the ongoing reform of Law No. 20529 in Chile, which determines the consequences of inspection in 11000 primary and secondary schools educating over four million students aged 6-17. Ministers and policymakers from Quality Agency (the Chilean school inspectorate) acknowledged its influence on the redesign of the inspection policy, informing a bill that replaces the closure of schools categorized as ‘insufficient’ with better improvement support.

Where next? Everyone wants schools to succeed, and there is a particular imperative to ensure schools serving disadvantaged communities can thrive.

By contributing evidence and insight, and by playing an active role in debates, IOE will continue to influence more effective policy.



Helping to answer the question: what is the best way to teach children to read?

Teaching children to read is one of the most important elements of primary education because it is fundamental to children's development. If children are not being taught to read in the most appropriate way, it will impact on their progress right across the curriculum. Reading, and literacy more generally, are also 'hot' political topics: there are frequent calls to go 'back to basics,' and in the case of teaching reading, this results in calls to prioritise teaching phonics (teaching sounds and letters) over more 'progressive' approaches that focus on the enjoyment of whole texts.

Recent years have seen a major shift in England to one version of phonics: 'synthetic phonics.' Is this the best way to teach children to read? IOE researchers have provided compelling evidence to help answer that question.

Taking stock of the recent changes

For more than one hundred years children in England had been taught to read through a balanced approach where teaching about the relationships between phonemes (sounds) and letters was carefully balanced with teaching about whole texts and other aspects of reading. The main focus of the balanced approach to teaching reading is comprehending the meanings of texts. In effect, 'traditional' and 'progressive' approaches were woven together in a relatively stable way.

However, a new survey of more than 2,000 teachers conducted by researchers from IOE shows that synthetic phonics has now become the dominant approach. Synthetic phonics focuses primarily on teaching about phonemes and how they are represented by letters in words. The survey showed that teachers are devoting increased time to teaching phonics, rely on a limited number of phonics schemes to do so, and are increasingly separating phonics from other literacy activities.

Using research to inform the future of reading policy

The survey was part of a comprehensive study led by [Professor Dominic Wyse](#) and [Professor Alice Bradbury](#), directors of IOE's [Helen Hamlyn Centre for Pedagogy \(0-11 years\) \(HHCP\)](#). Their goal was to assess whether research evidence supports this historically significant change in reading pedagogy.

As well as surveying teachers, the team conducted a systematic review of other research studies and experimental trials looking at the impact of different approaches to teaching reading. They also looked outside England to compare how other high performing English-dominant nations approached the teaching of reading.

Are the changes for the better?

The findings of the study were stark: research does not support England's narrow synthetic phonics orientation to the teaching of reading. It also provided valuable insights into what does work best in the classroom.

The researchers found the most effective interventions carefully connected the reading of whole texts with the teaching of phonics and other relevant aspects within all lessons. They call this 'contextualised teaching of reading,' and stress that separating the teaching of the alphabetic code from the context of whole texts is unlikely to be as effective as contextualised teaching of reading.

Influencing future policy

The study has galvanised widespread debate about the wisdom of current approaches to teaching reading. It has featured in mainstream newspapers and specialist education media in the UK and internationally and is being drawn on by politicians and advisers. It demonstrates the vital contribution research can make to shaping education policy.

Unlocking potential: transforming employers' support for autistic colleagues

It is estimated that around 700,000 people in the UK have a diagnosis of autism. Many face difficulties securing work, as countless employers assume they will not be able to succeed in the workplace. Recruitment processes and day-to-day working conditions in many workplaces also create significant barriers.

The decade-long research conducted by [Professor Anna Remington](#) at the [IOE Centre for Research in Autism and Education \(CRAE\)](#), together with autistic and non-autistic colleagues, has thrown a spotlight on these issues and their negative consequences. Working closely with autistic people, employers and charities, the team has galvanised fresh thinking, deepened public understanding of autism, improved the employment experience for hundreds of autistic people, and contributed to significant improvements to employment policy and practice across a range of organisations.

Challenging the deficit view of autism

The research has provided compelling evidence of the distinctive abilities of autistic employees (for instance, high levels of concentration, close attention to detail and superior information processing). The team has shared their findings widely, bringing them to the attention of millions of people, through widespread media coverage, public lectures, and events (generously supported by [Pears Foundation](#)). Remington's public talks have helped to re-frame how autism is viewed.

Changing corporate policy/practice

The research also identified autism-specific challenges in the workplace, for instance the ways in which conventional interview processes, which rely heavily on inter-personal cues, can disadvantage autistic people.

Working with large employers, the team has developed evidence-informed practical adjustments such as alternative recruitment processes, modified interview questions, and providing candidates with precise and detailed advance information at every stage of the process.

The findings have been used to inform and train over eight hundred representatives (often CEOs) from UK/ international companies governing an employee population of over two million people. This has led to the implementation of a host of initiatives to support autistic employees. One example is Deutsche Bank UK, which changed their approach to running internships for autistic graduates. The findings have also been translated into a widely used toolkit, with >2,500 downloads.

A collaborative approach to using research to support autistic employment

A distinctive feature of the research was the collaborative way in which it was undertaken, working closely with autistic people, autism charities and employers to better understand the challenges and how they might be tackled. Over three thousand people have contributed to the research to date.

There is still a long way to go to fully understand the experiences of autistic people in the workplace, and to encourage more organisations to adjust their policies to increase accessibility. A key platform for this is the employer-facing research service called [Discover Autism Research and Employment \(DARE\)](#), which the UCL team has founded with the Autism charity [Autistica](#). The team working on phase 1 includes Jade Davies, Brett Heasman, Adam Livesey, [Elizabeth Pellicano](#), Anna Remington, [Anna Melissa Romualdez](#) and Amy Walker.

Companies can opt into the study and receive guidance about support provision for autistic employees, along with bespoke reports on their company practices. In return, they provide anonymised data to help the team build the national evidence base and better value the meaningful contributions that autistic people make in the workplace.



Promoting a human-centred approach to the application of Artificial Intelligence in education

Since its public release at the end of 2022, ChatGPT – the artificial intelligence chatbot – has experienced rapid growth and widespread adoption, with other similar AI platforms following hard on its heels. There has been massive public interest and media speculation about the impact on our lives, and on education. It is all too easy for these kinds of debates to fixate on the technology, and not on the complex ethical dimensions to their application.

IOE research helps policy makers navigate the territory

IOE researchers have been working on the role of Artificial Intelligence in education (AI & ED) for a number of years, providing policy makers with evidence and insight to help them to navigate these ethical challenges and guiding their decision making. A central role has been played by [Dr Wayne Holmes](#) from the [UCL Knowledge Lab](#). Working in partnership with international organisations, including [UNESCO](#) and the [Council of Europe](#), he has authored research reports which promoted a critical and human focus on AI and education, increasing the possibilities for inclusion, equity, and social justice.

Holmes was a lead author of the 2021 UNESCO report '[Artificial Intelligence and Education: Guidance for Policy Makers](#)'. This outlined a radical plan to harness the potential of AI technologies for achieving the UN Sustainable Development Goal 4, which aims to “ensure inclusive and equitable quality education and promote lifelong learning opportunities for all”.

The Chief of the Technology and Artificial Intelligence in Education Unit at UNESCO praised Holmes for his leadership, and recognised the vital contribution of his research in the ethical and social justice impacts of AI in Education: “*Through this publication, his valuable research and views have greatly enhanced the understanding of policymakers and other categories of audience on AI's potential in and challenges for education, and have contributed to UNESCO's mission of promoting inclusion and equity*”.

The report has been translated into six languages and is ranked as one of UNESCO's most downloaded publications over the past year. A series of seminars was organised to launch the Arabic, French and English versions of the publication, which directly reached more than one thousand policy makers from around fifty countries.

Putting people's interests first

In parallel, Dr Holmes leads the AI & ED expert group of the Council of Europe, the continent's leading human rights organisation comprising forty-six member states and a population of 675 million. A preliminary research report, entitled '[Artificial Intelligence and Education: A Critical View Through the Lens of Human Rights, Democracy and the Rule of Law](#)', and the development of a legal resolution to protect the human rights of users of AI in education, were led by Holmes.

As part of the report's recommendations, the group calls for a better understanding of the diversity of connections between AI and education, arguing it must not be limited by current approaches that “*under-emphasise the human dimension of AI*.” The researchers recognise that potential problems may involve “*how AI is developed, trained and applied in educational contexts, who the AI targets and who the real beneficiaries are*.”

The standing conference has further raised international policymakers' awareness of key issues centred on AI & ED. The resolution has been approved, and the report's research's based recommendations will be developed into a legal convention, benefiting millions of people – from children to lifelong learners – across and beyond Europe.



Using longitudinal evidence to expose social inequalities and cycles of disadvantage

Governments need to work fast: they have limited time in office, policies take a long time to develop and implement, and it may be years before it is clear if they have worked in the ways that were intended. This makes the importance of longitudinal research (which follows cohorts over an extended period) particularly valuable as a resource for wise policymaking.

IOE has pioneered the development of longitudinal research and cohort studies to help inform the development of effective policy, through its [ESRC Centre for Longitudinal Studies \(CLS\)](#), which was led until 2010 by [Professor Heather Joshi](#) CBE FBA FAcSS. The influence of this work on government policies relating to women, working families and pension rights is evident in the everyday lives of British people across the generations.

Taking a long-term view of women's working lives

Professor Joshi's longitudinal research has shown that while having children impacts on women's employment, hours of work and pay, there is little impact of maternal employment on children themselves, despite widely held views that children are harmed when both parents work. These findings helped reform government policies on childcare and parental leave, which improved the ability of single- and two-parent families to combine paid work with family life.

In addition, the research findings on the lifetime income gaps between men and women have influenced improvements in women's pension rights in the UK. For example, evidence from her work was pivotal in the introduction of pension splitting on divorce (Welfare Reform and Pensions Act 1999). But the research also contributed to a more general recognition of the pension costs of motherhood, which led to the establishment of a single tier state pension in 2014.

Tackling social inequality through following cohorts of children

Professor Joshi's work with longitudinal data led to her taking a leading role on the design of Britain's globally renowned birth cohort studies. These studies of groups of children from birth provide multi-disciplinary long-term evidence for academics and policymakers to understand social inequality, social change, and the impacts of policies. With the late Professor John Bynner, she played a significant role in launching the Millennium Cohort study (MCS), which she directed from 2000 to 2011.

The Millennium Cohort study (MCS), which follows the lives of more than 19,000 children born in the UK in 2000-2, has become a globally renowned data resource. Its evidence has influenced government thinking and a range of policies on, for example, infant health, parenting and family life, early years, and schools, bullying, obesity, and mental health. It has also provided evidence used in over 1,400 academic publications.

National and international influence

The IOE's pioneering approach has influenced other cohort studies in France, Ireland, Germany, and New Zealand. These have been modelled after MCS, enabling data to be shared and compared internationally.

Professor Joshi's contribution has been recognised widely. In 2022, she won The John Hills Impact Prize, awarded by the ESRC to social scientists who have facilitated positive and profound lasting changes in the quality of the lives of a substantial number of people. The IOE continues to build on Joshi's and Bynner's pioneering research, and is about to launch on a new birth cohort study, the first to be launched since the millennium: [Generation New Era](#).



The Play Observatory: recording and valuing children's play experiences during the pandemic

While much IOE research is focused on formal education, research teams are also exploring the experiences of children outside the classroom, and how these impact on their development. The recent pandemic had a profound effect on children's lives outside school and one IOE-led team has conducted groundbreaking research into how the pandemic impacted on children's play.

While media attention was focused on so called 'learning-loss' (time lost in the classroom) the research revealed a much more nuanced picture of children's lives during this pandemic, and the role of play in helping them navigate the disruption to their lives.

Helping the nation make sense of the impact of the pandemic on children's lives

'Soft toys wearing face masks, drawings of hand sanitiser and secret dens under tables: a new academic study of children's play during the pandemic has revealed the comforts and the traumas of the past two years.' With these words, in March 2022, the Guardian introduced the [ESRC-funded 'Play Observatory'](#) to the world.

The Play Observatory project brought together academics from IOE and the University of Sheffield with museum curators at the Victoria and Albert Museum and play leaders from Great Ormond Street Hospital to explore the impact of the global COVID-19 pandemic on children's play.

The research team led by IOE [Professor John Potter](#) invited children, their parents and carers to share stories, thoughts and ephemera connected to play in the pandemic, reaching out beyond learning loss, the recurrent media theme at the time. The team was interested in the more affective play experiences of children and recording them for future posterity.

The power of play

Home and international respondents submitted hundreds of files in response to this call, and in addition to constructing an archive of these, the team collaborated with colleagues at the Young Victoria and Albert Museum to produce an online public exhibition. Katy Canales from the V&A has said that *'By collaborating with families and working alongside researchers at UCL and University of Sheffield, this project has caught a unique moment in children's lives, providing insights into the pandemic for generations to come.'*

The research showed how play – rather than a distraction from learning – is vital for children's wellbeing, their resilience, and mental health. It also confirmed how important it is that children's voices are heard, particularly at moments of crisis. Laura Walsh, formerly head of play at Great Ormond Street Hospital, now at Starlight Children's Foundation, recognised this key impact of the project, noting that *'The Play Observatory project has raised the profile of play and children's agency...as the hospital play lead, I felt proud for us to be associated with it...'*

Getting the word out

The team, which included [Dr Kate Cowan](#), [Dr Valerio Signorelli](#), Dr Michelle Cannon at IOE, and Dr Yinka Olusoga, Dr Julia Bishop and Dr Catherine Bannister at Sheffield, produced regular blogposts, podcast appearances, and tweets which had high engagement levels, as have full academic papers and book chapters, with more to follow. The researchers continue to engage experts and the public, to raise the profile of children's voices in recording their own experiences. In the words of Laura Walsh: *'The impact the project has had so far and will continue to have cannot be overstated.'*



Transforming the design of student loan systems around the world

Most student loan systems around the world are in crisis, with significant defaults ruining the credit reputations of graduates, and prohibitive government subsidies impacting on taxpayers.

Research led by IOE Professor Lorraine Dearden at the Centre for Global Higher Education (CGHE), an ESRC-funded partnership of ten universities including UCL, has been instrumental in helping many governments rethink the design of their failing student loans and move to affordable and fairer systems using a different approach, income-contingent loans (ICLs).

International influence

Postsecondary education systems in the US, Australia and England combine high tuition with high financial support for students. However, in contrast to the United States, students in England and Australia can fully defer tuition payments until after college and repay them via Income Contingent Loans. Several countries are either considering or in the process of changing their student loan systems to an ICL and Professor Dearden has been instrumental in developing methodological approaches that can be easily applied in virtually all countries. This involves working with local country micro data, researchers and policy makers to help design ICLs that would work in each country. The work illustrates that every country is different: it is crucial to understand the key institutional features including the tax and social security system and the labour market outcomes for borrowers.

The IOE-led research informed a submission commenting on the initial Biden Income Driven Repayment scheme that was struck down by the Supreme Court. The underlying research was also referred to in the 2023 Economic Report of the President. President Biden is now planning a narrower student loan forgiveness plan and the team will again contribute to the consultation process and is working with the Congressional Budget Office on the costing of different options.

Another country to have benefited is Colombia, where, in 2021, legislation was passed changing the national student loan programme, based on the research and modelling expertise provided by the team in collaboration with the Student Loan Company (ICETEX) and Colombian officials. Prior to this, student loans in Colombia had operated using a rigid schedule of fixed repayments. Under the previous system, the debtor's ability to repay was ignored, often leading to major repayment difficulties and significant numbers of defaults, resulting in dire personal financial consequences.

In parallel, Professor Dearden has shared lessons from the international implementation of income-contingent loans with practitioners and policymakers in Chile. She presented her research as part of the 'Economics of Student Seminar Loans' event held online on May 2, 2023. The Secretary of the Council of Rectors of Chilean Universities and the Ambassador of Chile in Australia praised her participation, writing that the presentation '*was a great opportunity to learn about different perspectives and experiences, which can be very useful for Chile when implementing an income-contingent financial instrument.*'

Recognition for exceptional impact

The contribution of Professor Dearden and her team to establish and improve student loan programmes around the world was recognised in 2022 with an ESRC Celebrate Impact Award for Outstanding Public Policy Impact. Her work to help develop more effective and fairer country-specific loan arrangements have been widely hailed as "*essential*," "*profound*" and "*extremely important, indeed critical.*"

IOE, UCL's Faculty of Education and Society
University College London
20 Bedford Way
London WC1H 0AL
United Kingdom
+44 (0)20 7612 6000
ucl.ac.uk/ioe

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