

Institution: University of Cambridge		
Unit of Assessment: UoA 23		
Title of case study: The University of Cambridge Primary School research-informed model for primary school education		
Period when the underpinning research was undertaken: 2007-2015		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Robin Alexander	Director of Research	2004-2010
Catherine Burke	Professor of the History of Education	2008-2020
Pamela Burnard	Professor of Arts, Creativities & Education	2005-present
Annabelle Dixon	Research Associate	1999-2001
Mary Jane Drummond	Lecturer in Education	1992-2003
Susan Hart	Lecturer in Education	1992-2002
Sara Hennessy	Reader in Teacher Development and Pedagogical Innovation	1999-present
Christine Howe	Director of Research in Education	2006-2017
Fiona Maine	Senior Lecturer	2012-present
Donald McIntyre	Professor of Education (Emeritus)	1996-2007
Neil Mercer	Professor of Education (Emeritus)	2006-2017
Jean Rudduck	Professor of Education	1996-2007
David Whitebread	Principal Research Associate	2001-2016
Period when the claimed impact occurred: 2015-2020		
Is this case study continued from a case study submitted in 2014? No		
1. Summary of the impact		
<p>The University of Cambridge Primary School (UCPS) is the sole primary education University Training School in the UK. Evidence, principles and recommendations from significant research into primary education at the University of Cambridge underpin the UCPS research-informed model for primary school education. Despite being recently established, the UCPS model has already been mobilised beyond the school, as a tool for achieving wider impact on policy, research and practice regionally, nationally and internationally. Significant impact arising beyond the impact on the school itself includes:</p> <ul style="list-style-type: none"> • Directly informing approaches to school design and learning spaces in the UK • Directly leading approaches to system change via collaborations for school improvement • Directly influencing educational curriculum policy • Directly influencing the school sector's understanding and enactment of research-informed professional knowledge, innovative pedagogies and practice • Directly influencing teachers' professional learning and development 		
2. Underpinning research		
<p>A robust lineage of academic research from Cambridge's Faculty of Education, begun in the 1990s but intensifying after 2000, led to publications in the period 2004-2016, which underpinned the creation of the UCPS's research-informed model for primary school education and its subsequent impact within and beyond the school (Fig 1).</p> <p>The Cambridge Primary Review (CPR - REF 2014), led by Alexander, remains the most comprehensive, independent enquiry into English primary school education [R1]. This 3-year review initiated a national discourse with which to articulate research-informed primary school education. Integral to the UCPS model are the report's recommendations that schools should: i) foster individual qualities such as engagement and autonomy; ii) enable critically important orientations to people and the wider world, such as respect and global citizenship and iii) focus on</p>		

the content, processes and outcomes of learning itself, by fostering skills and exciting the imagination [R1 p.179-9].

The “Learning without Limits” project [R2], led by Hart, influenced the development of the school. This study interrogated traditional conceptualisations of ability. It posited that primary education must be informed by the concept of transformability, such that *all* children can become powerful, committed, successful learners.

Research led by Rudduck and Flutter as part of the Teaching and Learning Research Programme called for an overhaul of school organisation, relationships and practice [R3]. It stressed the importance of engaging young learners; empowering them to think critically about citizenship and democracy and express reasoned decisions for school improvement.

Pedagogically, the UCPS model incorporates the benefits of dialogic approaches. The Faculty is a world-leading centre for research on the role of classroom dialogue: the way that teachers and students talk productively to maximise student learning. An ESRC-funded 3-year study [R4] led by Howe and Mercer identifies learning-focused dialogue as the fundamental educational tool in primary education. Subsequently, the Cambridge Educational Dialogue Research (CEDiR) group has developed a range of research-informed and evaluated practical resources. This research demonstrated how reasoned dialogue (“exploratory talk”) is facilitated by teachers, with students using specific ‘talk moves’ to elicit, build on, evaluate and respectfully challenge others’ ideas, supported by class-negotiated ‘ground rules’ and ‘talking points’. The Scheme for Educational Dialogue Analysis (SEDA), an analytic tool used by researchers globally to measure the quality of dialogue, illustrates that specific talk moves are productive for student learning [R5, R6]. This toolkit enables practitioners to *systematically* micro-analyse classroom interaction and the effectiveness and limitations of their own/peers’ practices. UCPS’s curriculum design promotes dialogic education, knowing that teacher-pupil and pupil-pupil talk is underexplored as tools for learning and understanding.

Research led by Whitebread [R7] established that play promotes increased learning engagement; facilitates social interaction linked to improved learning outcomes; enables children to make meaningful links to their own knowledge and experience, and stimulates creative ways of thinking. Of key importance to the UCPS model is Whitebread’s conclusion that the playful pedagogies used with younger children are equally effective throughout the primary age range. This finding contrasts with current trends, which endorse teacher-directed approaches for older children.

A body of research led by Burke [R8] explored the relationship between innovation in teaching and the design of formal and informal learning environments; the view of the child and young person in the design of education; and the history of 20th century school architecture and its pioneers. Her insights underpinned the design of the UCPS building and outdoor landscape.

3. References to the research

- R1. Alexander, R.** et al. (2009). *Children, their world, their education: Final report and recommendations of the Cambridge Primary Review*. Routledge. ISBN 9780415548717.
- R2. Hart, S., Dixon, A., Drummond, M. & McIntyre, D.** (2004). *Learning without limits*. Open University Press. ISBN 9786610953981.
- R3. Rudduck, J. & McIntyre, D.** (2007). *Improving learning through consulting pupils*. Routledge. ISBN 9780415416153.
- R4. Howe, C., & Mercer, N.** (2007). *Children’s social development, peer interaction and classroom learning*. University of Cambridge. ISBN 9781906478094.
- R5. Hennessy, S.,** Rojas-Drummond, S., Higham, R., Márquez, A. M., Maine, F., Ríos, R. M. & Barrera, M. J. (2016). Developing a coding scheme for analysing classroom dialogue across educational contexts. *Learning, Culture and Social Interaction*, 9, 16-44. [\[DOI\]](#)
- R6. Howe, C., Hennessy, S.,** Mercer, N., Vrikki, M. & Wheatley, L. (2019). Teacher-student dialogue during classroom teaching: Does it really impact upon student outcomes? *Journal for the Learning Sciences*, 28(4-5), 462-512. [\[DOI\]](#).

R7. Whitebread, D., Jameson, H. and Basilio, M. (2015). Play beyond the Foundation Stage: Play, self-regulation and narrative skills. In Moyles, J. (Ed.) *The excellence of play* (4th ed., pp. 84-93). Open University Press. ISBN 9780335264186.

R8. Burke, C. (2013). Looking back to imagine the future: Connecting with the radical past in technologies of school design. *Technology, Pedagogy and Education*, 23(1), 39-55. [\[DOI\]](#)

All of the above outputs have been peer reviewed, submitted to previous REFs or published in international journals and meet the 2* minimum requirement.

Funding details

1) Hennessy, Warwick & Mercer - *Exploiting the interactive whiteboard to enhance dialogic classroom interaction* - ESRC Fellowship & ESRC IAA - 2007-10, 2014 - GBP187,000 + GBP22,000. [\[Link\]](#).

2) Howe, Hennessy & Mercer - *Classroom dialogue: Does it really make a difference for student learning?* – ESRC - 2015-2017 - GBP345,000. [\[Link\]](#).

4. Details of the impact

Impact within the school

The research has impacted on UCPS students as evidenced by judgements on the quality of education provided by Ofsted. Outcomes for all children are deemed to be *'consistently above those of other pupils nationally'*, according to the 2018 Ofsted report [E1]. The UCPS is rated 'Outstanding' and Ofsted describes the curriculum as *'exceptionally broad and balanced ... bold, ambitious and knowledge-rich, which empowers 'all children to learn, to question, to discuss and to challenge ideas across a broad range of subjects.'* Ofsted inspectors witnessed *'high-quality, innovative, research-based teaching'* and recognised its contribution to a *'trajectory of improving outcomes.'*

The school has mobilised the UCPS research-informed model to have impact beyond its own community. Ofsted confirms how *'collaborative working in school, with the university and an increasing number of other schools, locally, nationally and internationally'* has generated *'a flourishing learning community'* [E1].

Regional impact

Achieving whole school change is complex but the UCPS model has already influenced other primary schools in the region, in terms of research-informed professional knowledge, innovative pedagogies and practice. The Chartered College of Teaching (CCT) awarded UCPS the status of 'CCT regional learning hub' – a site to facilitate professional development of teachers. The Chief Executive of CCT explains: *'We are incredibly encouraged that an exemplary organisation like the UCPS, with its links to research within the university and beyond, takes on the role as a hub for the region'* [E2].

500 educators have benefitted from participation in UCPS professional learning events, with a 100% satisfaction rate [E3]. Faculty researchers have provided training in dialogic approaches, creative pedagogies and other aspects of the UCPS model [E3]. Feedback shows participants have adopted new practices, increased pedagogical knowledge and developed professional collaborations.

The UCPS has an enabling physical environment which has influenced the design of learning spaces locally. The Chair of Governors of Cavendish School, a 'free' school for pupils with autism, due to open in 2021 reports: *'We have paid close attention to the way [UCPS] learning spaces encourage independence and choice ... [subsequently] we have taken opportunities to create larger flexible spaces, introduce curves to soften the design and improve flow ... and connect with the outside space.'* [E4].

National impact

In 2019, the Avanti Schools Trust commissioned the UCPS to lead a strategic review of provision for three 'failing' primary schools. The UCPS identified key principles to underpin the development of a new curriculum; created a programme of professional development for staff; devised an assessment policy and a strategic plan to focus on high quality practice. The Avanti Board adopted these recommendations for September 2020 which *'impacts on three school communities ... 986 children ... 120 teachers and learning assistants.'* Moreover, the Avanti Trust is to *'implement the curriculum review in all its existing primary schools ... impacting upon the education of approximately 2,200 children and over 220 teachers'* [E5].

Dialogic practices are central to the UCPS model and, through the efforts of the school and Faculty, there has been national impact in terms of increasing the use of dialogic approaches in primary education. Mercer was involved in drafting the National Curriculum 2014, and his words were taken up in the Spoken language – Years 1 to 6 section [E6]. Schools are now expected to demonstrate understanding and practice of dialogic approaches. Hennessy and colleagues developed a freely downloadable professional learning toolkit (T-SEDA) plus online multimedia resources [E6] with more than 5,000 unique page views since 2018. This impact activity was supported through an ESRC IAA grant. One illustrative case is the London South Teaching Schools Alliance (LSTSA) which continues to use T-SEDA 2 years on [E7] and where teachers noted that they were now *'more aware of how children are (or are not) listening to each other'* and the impact that discussion can have *'upon children's progress, confidence and resilience to learning within the classroom.'*

Marks Barfield Architects (MBA), who designed the UCPS building, *'resolved to allow the education ethos, aims and principles to lead the design process and endeavoured to be free of preconceptions and open to possibility'* [E8]. MBA won The Royal Institute of British Architects (RIBA) East award 2017 for the unique design and its influence on other school designers.

International impact

In 2020 James Biddulph, headteacher, presented the UCPS model to 2,000 delegates at the 'Global Education' international conference in India, attended by educators, academics and policymakers such as the Minister of Education in Karnataka, India. As a result, a contextualised version of the UCPS model *'3H formula – brilliant heads, compassionate hearts and competent hands'* is being integrated into systems of schools worldwide [E9]. The school has a contract for seven edited books from Routledge, to demonstrate how the research underpinning the UCPS model can be applied in schools. The UCPS also shares its model, professional knowledge and practice via social media, with over 3,000 followers on Twitter.

The Faculty and UCPS dialogic resources have had strong international uptake (at least 360 educators are using it in Australia, China, Hong Kong, Israel, Mexico, New Zealand, Pakistan and Spain). Schools in Israel and New Zealand have used T-SEDA for 3+ years. For example, in Israel 30 trainee and 25 qualified teachers participated in a 30-hour facilitator training programme before cascading to at least 100 more teachers in their schools. CEDiR researchers undertook follow-up interviews 18/36 months after adoption, showing continuing development of practice [E10]. In China, T-SEDA has been translated and used, including by 45 teachers at The Eos Research Global centre in Beijing. A 6-month trial across Guangdong province (188 schools) is planned. China's largest education provider Dipont Education committed £730,000 over 10 years to a global platform to support its use, under the new Digital Education Futures Initiative.

UCPS has participated in a 3-year Erasmus 'Lab School' project led by Bielefeld University, Germany. The project aims to promote professional knowledge exchange among participants and with non-European partners. This has impacted on the professional practice of over 25 international visitors to the school. One teacher reflected on the UCPS teachers' practices that sought to develop and maintain the ethos of the school, for example, effectively building positive relationships with children: *'I now deliberately sit together with the children at lunch and listen to their conversation.'* Another teacher was inspired by *'the visualisation of different types of mathematical operations'* [E11]. The Principal of Druk Padma Karpo School, Ladakh, India,

Impact case study (REF3)

participated in a 'transformational leadership programme' at the UCPS, which enabled her to 'reflect [on] my own leadership capabilities' [E12] and introduce 'good practices and innovative methodologies' at her own institution.

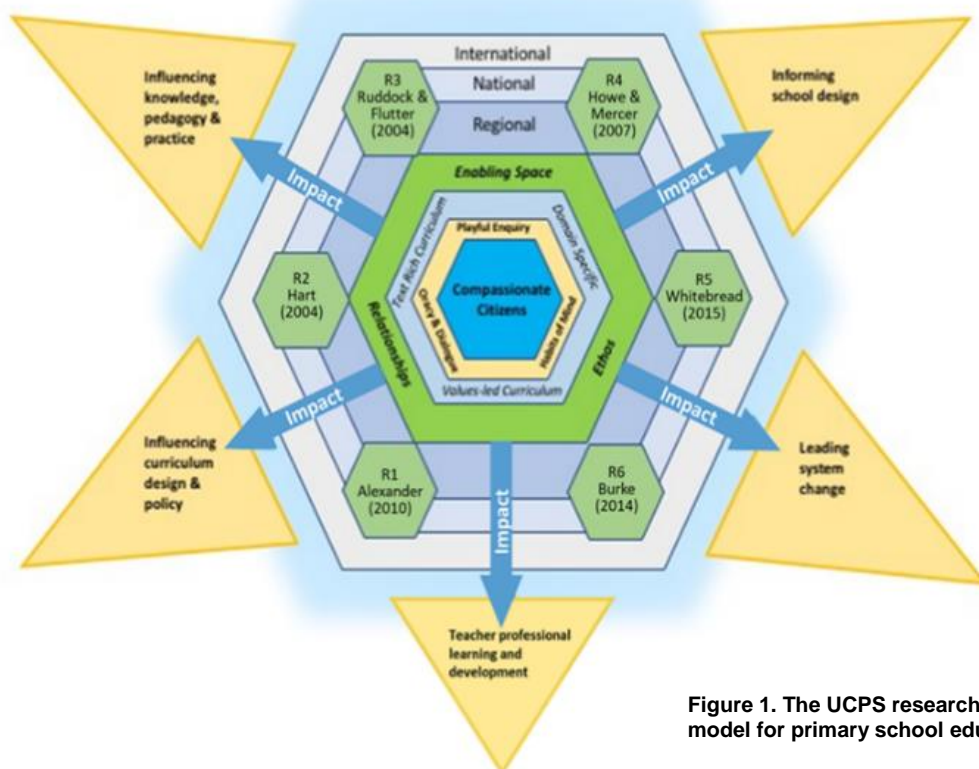


Figure 1. The UCPS research-informed model for primary school education

5. Sources to corroborate the impact (indicative maximum of 10 references)

- E1. Ofsted report: University of Cambridge Primary School. 2018. [\[Link\]](#)
- E2. (i) Blog: *Regional teaching hub launched*. 29 Jan 2018. [\[Link\]](#)
(ii) Table of UCPS's projects/courses/conferences and events.
- E3. Burnard, P., Dragovic, T., Jasilek, S., Biddulph, J., Fenyvesi, K., Durning, L., & Rolls, L. (2018) The art of creating possibility spaces for fostering STEAM practices in primary education. In Du, X. *Arts-based methods in education across the world* (Chapter 11). [\[DOI\]](#)
- E4. Testimonial: Chair, Cavendish School Local Governing Body.
- E5. Testimonial: Chair of Trustees, Avanti Schools Trust.
- E6. (i) Department for Education. (July, 2014). National Curriculum for England: English programmes of study (pp. 5-6, p. 6). [\[Link\]](#).
(ii) T-SEDA pack (freely downloadable). [\[Link\]](#)
(iii) Webpage containing dialogic inquiry guidance videos. [\[Link\]](#).
- E7. (i) Testimonial: Director, London South Teaching School Alliance (LSTSA).
(ii) *Dialogic teaching: A Research Project For Teachers Using The University of Cambridge Teacher Scheme for Educational Dialogue Analysis*. 2019 Impact Evaluation Report. [\[Link\]](#).
- E8. Testimonial: Managing Director, Marks Barfield Architects (Nominated referee 3).
- E9. Testimonial: Chancellor, Sri Sathya Sai University for Human Excellence (Nominated referee 4).
- E10. Testimonial: Learning scientist and education researcher, School of Education, Tel Aviv University, Israel.
- E11. (i) Universität Bielefeld. *LabSchoolsEurope: Project outline*.
(ii) Feedback from visitors to UCPS from LabSchoolsEurope.
- E12. Testimonial: Principal, Druk Padma Karpo School, Shey-Leh, Ladakh, India (Nominated referee 5).