

Impact case study (REF3)

Institution: Newcastle University		
Unit of Assessment: 23 Education		
Title of case study: Improving Primary and Secondary Schooling for the Marginalised in East and West Africa, and India		
Period when the underpinning research was undertaken: 2013-2020		
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:
Professor Pauline Dixon	Professor	2003 - ongoing
Professor James Tooley	Professor	1999 - 2019
Dr Steve Humble	Senior Lecturer	2010 - ongoing
Dr James Stanfield	Lecturer	2006 - ongoing
Period when the claimed impact occurred: 2014-2020		
Is this case study continued from a case study submitted in 2014? N		
<p>1. Summary of the impact</p> <p>Prior to this research little was known about primary and secondary schooling for marginalised children living in households with low socio-economic status within informal settlements in India and Nigeria. The research carried out here at Newcastle University has been instrumental in changing education policy and practice internationally and has enabled grassroots awareness and knowledge transfer amongst communities, philanthropists, governments and NGOs. Practically, it has influenced the operation of public-private partnerships in post-conflict zones within Liberia and Sierra Leone, the establishment of school chains in Africa (Kenya, Ghana, Uganda and Nigeria) and changed how children learn to read English in India and Nigeria through the development and subsequent implementation of curriculum packages trialled during our action research programmes. The ESRC (UKRI), DFID and USAID recognise its contribution to improving attitudes towards schooling, resulting in changes in the allocation of research funding. Concerning the operation of schools through chains, our research has resulted in 500,000 children being provided schooling over the last decade in Kenya, Uganda and Nigeria. With regards to the research around phonics and curriculum development this has allowed 105,000 government primary teachers in Nigeria to undertake continuing professional development which impacts on around 8,000,000 children. The knowledge transfer gained through this research has changed the way international aid is allocated through DFID with hundreds of millions of pounds being invested to improve and support primary and secondary schooling for children from deprived socio-economic backgrounds.</p>		
<p>2. Underpinning research</p> <p>The case study comprises two strands that support the UN's Sustainable Development Goal 4 around quality primary and secondary schooling (Target 4.1) and teacher training through international cooperation (Target 4.c). This research by Newcastle University focuses on schooling in a variety of informal settlements for marginalised families in developing countries. Schooling for children in such settlements was an under-researched area. Our research revealed that schools already existed within informal settlements and children believed to be out of school were already attending schools that operated under the radar of governments and international organisations such as DFID and the World Bank. The research highlighted that parents living in deprived socio-economic conditions were making choices related to accountability and community-based solutions for their children supported by social entrepreneurs.</p> <p><i>a) Research on School choice</i></p> <p>Studies carried out in Sierra Leone, South Sudan, Liberia, India, Nigeria, Ghana, and Kenya aimed to find out what types of schools existed within informal settlements and catered for the most socially and economically deprived. Findings showed that these included government private</p>		

proprietor, faith based, NGO, community and chains (**PUB2, PUB3, PUB4, PUB6; G2, G3, G4, G5**). Through mapping, surveys, observations, testing and interviews the research considered how parents choose from a range of providers in different situations including post conflict zones, informal settlements and marginalised communities. Continued research has considered the question as to why and how parents choose from a range of school types in the most vulnerable communities (**PUB1, PUB3; G1, G3, G4**). Findings show that these parents use a range of selection criteria to inform their decisions (**PUB3, PUB4; G1, G3, G4**). The research also examined governance processes. Findings on accountability and transparency of regulations suggest that chains of schools may offer a useful model that allows for innovation, economies of scale, branding and standardisation (**PUB2; G3**). Research into different methods of financing schooling, with a focus on vouchers, found a large positive and significant impact of voucher use in English test scores and for girls (**PUB1; G3**).

b) Research on Phonics curriculum in India and Nigeria

Studies in this strand focused on challenges related to teaching the reading of English in schools for those living in deprived socio-economic conditions within Nigeria and India. While government and private schools for the affluent in India and Nigeria teach English, this is not the case in schools in marginalised communities. Moreover the teaching methods in such schools, dominated by rote learning, are not conducive to acquiring good literacy skills. The need to be able to communicate in English in order to achieve employment and enhance human capital amongst the poorest as well as to have any chance of gaining access to higher education opportunities is paramount. Research carried out in India and Nigeria (**PUB5; G1, G3, G4**) highlighted the success of mentoring for teachers as well as training teachers and using specifically designed materials around a child centred, synthetic multisensory approach. These all were shown to have a positive effect upon disadvantaged children's ability to read English. A quasi experimental study with 500 children in 20 schools in Hyderabad over a six month programme showed a statistically significant difference between intervention and control groups in test scores for reading and spelling (**PUB5**). This research is on going working with the Nigerian government to consider the effectiveness around the implementation of phonics in all government schools from 2017.

3. References to the research

- **PUB1** Dixon, P., Egalite, A. J., Humble, S., and Wolf P. J. (2019) Experimental results from a four-year targeted education voucher program in the slums of Delhi, India. *World Development*, 124, 104644, doi.org/10.1016/j.worlddev.2019.104644. Informed by peer reviewed funding (**G3**)
- **PUB2** Dixon, P., and Humble, S. (2019). (Eds.) School Choice Around The World: And the Lessons we can learn, London: Institute of Economic Affairs Informed by peer reviewed funding (**G2-G5**); Available on the European Policy Information Centre webpages www.epicenternetwork.eu;
- **PUB3** Humble, S., and Dixon P. (2017) School choice, gender and household characteristics: Evidence from a household survey in a poor area of Monrovia, Liberia. *International Journal of Educational Research*, 84, 13-23, doi.org/10.1016/j.ijer.2017.05.003. Funded through peer reviewed funding (**G3 & G4**).
- **PUB4** Dixon, P., and Humble, S. (2017). How school choice is framed by parental preferences and family characteristics: A study of Western Area, Sierra Leone, *Journal of School Choice: International Research and Reform*, 11(1), 95-110, doi.org/10.1080/15582159.2016.1238432. Funded through peer reviewed funding (**G3 & G4**).
- **PUB5** Dixon, P., Schagen, I., and Seedhouse, P. (2011). The impact of an intervention on children's reading and spelling ability in low-income schools in India, *School Effectiveness and School Improvement*, 22(4), 461-482, doi.org/10.1080/09243453.2011.625125. Referenced in the International Development Select Committee aural evidence Q243; Led to subsequent peer review funding (**G2**).
- **PUB6** Tooley, J., Dixon, P., and Stanfield, J. (2008). The Impact of Free Education in Kenya: A case study in private schools in Kibera, *Education Management, Administration and Leadership*, 36(4), 449-469, doi.org/10.1177/1741143208095788. Funded through peer reviewed funding (**G5**).

Grants (G)					
	Principal Investigator or Co-I	Title of the Grant	Funder	Amount	Period of Grant
G1	Dixon	Examining the role of schooling in Pakistan and India	British Academy	GBP300,000	November 2019 – October 2021
G2	Dixon	Main Phase of Lagos State, Nigeria Household Poverty and School choice survey	DfID	GBP31,774	March 2013 – December 2013
G3	Dixon and Tooley	Extending Access to Quality Education for the Underserved	UBS	GBP310,344	September 2011 – September 2013
G4	Tooley & Dixon	Low cost private schools in the worlds most difficult places	John Templeton Foundation	GBP270,000	April 2011 – May 2013
G5	Tooley & Dixon	Competition, Innovation and Change in Education Markets for the Poor in Developing Countries	Orient Global Foundation	USD2,000,000	January 2007 – December 2009

4. Details of the impact

This section sets out details of the impact of two strands of Newcastle University's research around improving primary and secondary schooling for children living in deprived socio-economic conditions in India and Nigeria. The first looks at how the research has changed policy and practice through knowledge transfer. This has impacted on the allocation of UK government funds for research into schooling in the global south. The second considers how the development of curriculum materials in order to facilitate our action research has impacted on millions of children's learning and teacher training in India and Nigeria. As in the first impact strand, this has also changed policy and practice through knowledge transfer and the teaching of reading through phonics in both Nigeria and India.

Changing policy, practice and funding through knowledge transfer

A Professor of Economics of Education, University of Ibadan, Nigeria and DEEPEN advisor states '*Dixon and her colleagues' research showed that the school sector benefited by the provision of different types of school management and that in some urban areas the majority of children were attending alternative schools, set up by social entrepreneurs' (IMP5).*

DFID now funds research into non-state school providers and chains of schools as a direct result of Newcastle University's research. The shift is due to improved knowledge and understanding among international aid agencies, ministers and MPs. According to a past Secretary of State for International Development '*The research has inspired a significant change in the way international aid agencies have thought about funding non state providers to allow millions of disadvantaged children to access an education that will make a difference to their entire lives' (IMP10).* He goes on to say that '*The research which is on-going continues to influence UK and international thinking on how to make 'education for all' a reality and achieve Sustainable Development Goal 4' (IMP10).* The former Director of Making Markets Work for the Poor states that our research '*helps to think through policy responses and how we respond to the behaviour from people we are trying to help. Your research focused on understanding the demand side – what is it that poor parents want, and can policy respond to those voices? It's about giving the poor a voice' (IMP7).*

Dixon was invited to give oral evidence around the research to the International Development Select Committee hearing in Parliament, 21 February 2017, owing to the Newcastle University team's research on different school management types in the Global South (**IMP8**). This allowed for a change in knowledge of MPs, which *'opens up a space in public debate'* (**IMP10**). The Minister of State for International Development, who cited Dixon's work at a later *International Development Committee* session on 28th March 2017, states *'I was looking at the evidence that Prof Dixon was giving to your Committee earlier... where the private sector can bring innovation'* (**IMP6**). This session, focusing on parental access and children's attendance of primary and secondary schooling in developing countries, was live streamed (**IMP6**).

A key turning point that illustrates how DFID changed their funding eligibility concerning non-state school providers due to Newcastle University's research is the GBP13,000,000 project Developing Effective Private Education Nigeria (DEEPEN, 2013-2019) (**IMP4**) which helped create an improved regulatory environment for private schools, increased access to financial services and access to quality improvement services (**IMP5, IMP7, IMP9, IMP10**). As stated by the DEEPEN Project Manager *'Your research... was in my view instrumental in the design and structuring of the DEEPEN project'*. (**IMP9**). A DEEPEN advisor and Professor at the University of Ibadan states *'a large grant on the back of Dixon's research was given to look at the private school's sector' and 'without' Dixon's research the project would not have been undertaken in Nigeria* (**IMP5**) and the Co-Founder of the Springfield Centre *'The DEEPEN project would not have happened without your research'* (**IMP7**). He goes on *'As I say it directly came off and was funded owing to your research, the influence that your research had on DFID through knowledge exchange. Owing to the DEEPEN project some schools were able to access finances and to upgrade. We are talking about 600,000 children benefiting directly and 1 million benefitting indirectly'* (**IMP7**).

Other key projects invested in by DFID inspired by our research followed include Improving schools and a voucher program in Pakistan (GBP78,000,000); The Girls Education Challenge Fund (GBP300,000,000); Bridge Academy (CDC: GBP4,200,000,000; DfID: GBP6,000,000; Novastar: GBP15,000,000); Making Markets Work for the Poor (GBP25,000,000). As stated by the Co-Founder of the Springfield Centre *'If it hadn't been for your research there would not have been that knowledge exchange with DFID and ministers that in the end changed the way funding was allocated to look at options other than the state sector.'* (**IMP7, IMP4**).

The Newcastle University research strongly influenced the founders of Bridge who as a direct result of the research set up the International Academy chain, starting in Nairobi, Kenya (2009) where we undertook our seminal research (**IMP3**). This founding team is also part of the public-private partnership trial in post conflict areas of Liberia (2016-ongoing). According to the Erstwhile Secretary of State for International Development, our research *'around schooling where countries have been devastated by war and conflict'* has informed the setting up and running of a trial around public-private partnership schools in Liberia which *'shows much promise'* (**IMP10**). The founders of Bridge International Academies visited Newcastle (2008) when looking for projects around social entrepreneurship to talk with Dixon and Tooley around the research findings. Bridge has opened schools in India (2016), Kenya, Liberia (2016), Nigeria (2015) and Uganda (2015) and now educate 500,000 children around the world. Bridge runs or supports over 1,000 schools for the marginalised and disadvantaged. It aims to educate 10,000,000 pupils across 12 or more countries by 2025. According to the Vice President Communications, Bridge International Academies *'The research provided information to our Co-Founders around parents' desire to access quality schooling, especially where the state is unable to provide'* (**IMP3**).

Curriculum development

There had been very little research in government or low cost private schools in India or Nigeria with primary aged children concerning learning to read using letter sounds and blending; Jolly Learning (learning resource provider) produced the curriculum package used in the research. This original package did not have any teacher training materials, no children's workbooks and did not recognise the impact that mentorship could have on a teacher's professional development. Therefore as part of the research Dixon developed these materials co-creating them with teachers working at the grassroots ensuring cultural specificity and relevance to the context; The CEO of

Jolly Learning says *'This had not been done before and changed the way Jolly Learning thought about how children and teachers use phonics to read in the global south'* (**IMP1**).

Before our research, phonics was not taught in Nigerian government schools. The CEO, Jolly Learning took the outcomes of Dixon's research and her newly developed curriculum package to the Nigerian government to demonstrate how children living in deprived socio-economic conditions could benefit from learning to read through phonics. Resources shown included the new children's workbooks, teacher training manuals and materials as well as the mentorship strategy, all based on Dixon's research, augmented by two PhD students. Consequently *'Jolly Phonics has now been adopted for all children studying in Nigerian government schools... and is unlikely to have occurred without the research initially carried out in the Global South with Professor Dixon'* (**IMP1**). Also *'owing to the collaboration... many schools in Delhi now teach the reading of English through phonics. This includes government schools as well as 196 Satya Bharti Schools in six Indian states with 39,507 students'* (**IMP1**). Jolly Learning has now expanded its teacher-training programme worldwide. As a direct result of the research Jolly Learning and Universal Learning Solutions (ULS, an NGO delivering innovative literary solutions) changed the way they operate within Nigeria and India (2016-present). *'Dixon's research has informed and impacted on the way we deliver our programmes...it has allowed us to transform 105,000 teachers in Nigeria alone, through teacher training and mentoring. This potentially has impacted 8,150,000 children. Moreover, in order to be able to mentor all trained teachers, we have also built the capacity of 4,831 local, state and national government officials'* Projects Director ULS (**IMP2a**). In 2016/2017 in Nigeria 1,840,000 pupil books were being used in conjunction with 36,906 teacher books (**IMP2a, IMP2b**) all developed by Dixon and her team in order to undertake the research. Research is on-going (2018-present) with the Newcastle University team who are working with the Nigerian government to consider the effectiveness around the implementation of phonics in all government schools from 2017.

5. Sources to corroborate the impact

- **IMP1:** Testimonial letter CEO Jolly Learning
- **IMP2a:** Testimonial letter Project Director Universal Learning Solutions
- **IMP2b:** Impact Report Phonics in Nigeria
- **IMP3:** Testimonial letter from Bridge Academies Vice President Communications, Bridge International Academies
- **IMP4:** Funding around Dixon's research
- **IMP5:** Testimonial letter University of Ibadan and DEEPEN advisor
- **IMP6:** MP Question 260 DFID work on education: Leave no one behind 28 March 2017
- **IMP7:** Interview with the Co Founder and Ex Director of the Springfield Centre and Director of Making Markets Work for the Poor (M4P approach)
- **IMP8:** House of Commons 'International Development Select Committee', Dixon's oral evidence Leaving no one Behind HC639 (pdf transcript) Tuesday 21 February 2017
- **IMP9:** Interview with DEEPEN project manager
- **IMP10:** Testimonial letter MP and Secretary of State for International Development 2010-2012. Chief Whip of the House of Commons, Parliamentary Secretary to the Treasury