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Student Teachers' Perceptions of the Effects of Poverty on Learners' Educational Attainment and Well-being: Perspectives from England and Scotland.

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Abstract

This article reports on two UK initial teacher education studies from two contrasting contexts: a secondary school course in Oxford, England and a primary school course in Strathclyde, Scotland. The questions of how student teachers understand the effect of poverty on pupils' educational achievement, and what they as prospective teachers can do to effect change, are common concerns of the research studies reported here. The Oxford study illustrates the problematic issue of student teachers' perceptions of poverty, whilst the Strathclyde data suggests the potential power of a focused intervention to change views on poverty and education. A teacher identity framework is used to consider the interactions between external factors (schools, systems, communities of practice) and internal factors (knowledge, activities, thoughts, reflections), to understand how participation, alignment, agency and reification can support or undermine teachers' understanding and enactment of teaching for social justice.

Key words: Identity; Agency; Poverty and educational attainment; Social justice; Preservice teachers; Urban education

1. Introduction

The strong correlation between child poverty and poor educational outcomes is well documented (e.g. ESRC 2011; Raffo et al. 2009). In the UK, arguably one of the most unequal societies in the developed world, research shows that educational inequalities surface in the pre-school years (Sylva et al. 2004), but continue to grow in primary (elementary) and secondary (high) school years (Connelly, Sullivan and Jerrim 2014). Yet not all pupils from impoverished backgrounds fail and there is research evidence to suggest both that good teachers make a difference and that negative stereotypes about impoverished children based on deficit assumptions can perpetuate inequality (e.g. Cummings et al. 2012; Gorski 2012).

Recent government discourse from the central UK government in Westminster, as well as from the regionally devolved governments in Scotland, Wales and Northern Ireland, has voiced significant concerns about this educational inequality. This focus has had some effect on policy and practice in initial teacher education (ITE). For example, ITE programmes in all four nations are expected to prepare beginning teachers to meet the needs of all learners, including those living in poverty. However, despite this focus of attention, there has been surprisingly little research in the UK on the perceptions held by student teachers on the effects of poverty on pupils' learning and well-being. The research that has been conducted in this area (e.g. Thompson, McNicholl and Menter 2016) indicates that many student teachers hold unsophisticated attitudes towards the effects of poverty on pupils based on deficit models that attribute educational lack of success to problems located within pupils, parents and communities. Although the educational landscapes in England and Scotland are significantly different, ITE courses in both countries are subject to policy changes caused by

the pressures of globalisation and standardisation of teacher training (Menter, Brisard and Smith 2006).

This article is presented as an exploratory study on student teachers' perceptions of the effects of poverty on learners, an area without much directly relevant literature. The article reports on two UK initial teacher education research studies from two contrasting contexts: a secondary school course in Oxford, England and a primary school course in Strathclyde, Scotland. The questions of how student teachers understand the effect of poverty on pupils' educational achievement, and what they as prospective teachers can do to effect change, are common concerns of the research studies reported here. As Jensen (2009) and others argue it is essential that trainee teachers develop an understanding of the effects of poverty for the young people in their classrooms. The Oxford study illustrates the problematic issue of student teachers' perceptions of poverty, whilst the Strathclyde data suggest the potential power of a focused intervention.

The Oxford study, conducted in the academic year 2012-13, investigated how secondary student teachers' views on poverty were subjected to challenge and change during an initial teacher education course in England. This mixed methods study highlighted some of the difficulties faced by teacher educators in challenging entrenched views on poverty and educational attainment. The Strathclyde study reports findings from a study of the impact of a literacy clinic project intervention aimed at changing primary school student teachers' understandings of, and attitudes towards, poverty and their own role in relation to challenging inequality. The project, based in one of the poorest parts of Glasgow, is designed to build primary level student teachers' fluency in real-time teaching responses in ways that provide a strong emotional and social dimension to their learning and impact on their professional

identity. The project has been running for four years and involves a short-term intervention in which student teachers use their literacy-teaching knowledge to support children with reading problems. The literacy clinic project gives insight into the sorts of experiences that can change student teachers' attitudes and beliefs about poverty by enhancing their understanding and agency in terms of what they can do as teachers.

This article has two main aims: to disseminate the key findings from these very different studies about student teachers' perceptions of poverty in both England and Scotland, and to stimulate further discussion about how teacher education – whether school or university based – can ensure that the new generation of teachers meets the needs of pupils living in poverty. The authors conclude that there is much to learn from these studies about the effects of both school experience and University led interventions on student teachers' understanding and professional response to teaching children from economically disadvantaged backgrounds.

2. Theoretical Position

Theoretically, we draw on the concept of *identity* in relation to the transition from student teacher to teacher professional. Holland and Lachicotte define identity as 'a self-understanding to which one is emotionally attached and that informs one's behavior and interpretations' (Holland and Lachicotte 2007, 104). Holland, Lachicotte, Skinner and Cain (1998) develop the concept of positionality to denote that an individual's participation in activities in practice takes place from a particular stance or perspective. Identities in action develop as a 'heuristic means to guide, authorize, legitimate, and encourage their own and others' behavior' (Holland, Lachicotte, Skinner and Cain 1998, 18). This heuristic development of identity requires two distinctive forms of agency: improvisation (the

openings whereby change comes about) and appropriation (the adoption and re-shaping of professional knowledge).

However, the identities that individuals develop are 'social and cultural products' (Holland and Lachicotte 2007, 134) mediated through social and professional experience and through interactions with others (Edwards 2010). Identity formation is therefore both relational and situated. Professional identity formation reflects the social and cultural demands and motives involved in becoming a professional. These demands are multiple and often contradictory. Identity is premised as one's objectified self-image in relation to 'the ways of inhabiting roles, positions, and cultural imaginaries that matter to them' (Holland and Lachicotte, 2007: 103). Norton-Meier and Drake, drawing on Holland, Lachicotte, Skinner and Cain (1998), argue that one of the challenges for ITE programmes is 'to understand how to help university students integrate their histories of personal *figured worlds* of schooling and past *relational identities*' (Norton-Meier and Drake 2010, 204). Holland and Lachicotte's concept of the figured world refers to the way that individuals position themselves in relation to the 'socially and culturally constructed realms of interpretation and performance' (Holland and Lachicotte, 2007, 115). The danger is that when faced with conflicting identities and multiple challenges, the pull of student teachers' long-held beliefs and experiences is invariably the strongest.

Whilst Holland and Lachicotte's conceptions are used in this article to talk about identity construction in a broad sense, a more specific teacher identity framework allows us consider identity construction in terms of the interactions between external factors (schools, systems, communities of practice) and internal factors (knowledge, activities, thoughts, reflections). In this way we aim to understand how professional identities, forged through participation, alignment, agency and reification (Wenger-Trayner et al. 2015), can be shaped in ways that support or undermine teachers' understanding and enactment of teaching for social justice.

3. ITE/poverty Context in England and Scotland

Reducing the attainment gap associated with poverty is a high-profile policy issue in both England and Scotland. (DfE 2010; McNab 2015). In England, the policy solution is to devolve the resources, decisions and accountability to individual school administrations through a pupil premium (additional government funding targeted at children eligible for free school meals at any point in the past six years) (see Burn, Mutton, Thompson, Ingram and Firth 2016) It is unclear how effectively the pupil premium is being used by schools (Carpenter et al. 2013), or how success will be measured given the Government's abandonment of the 'contextual added value' attainment measures introduced by the previous Labour administration (Stewart 2011). 'Contextual added value' was a statistical comparison of a child's performance with children with similar prior performance and circumstances. In Scotland, the policy response has been to amend the *Children and Young People (Scotland) Act* to place a legal duty on local authorities to monitor and take steps to reduce inequalities of outcome linked to social disadvantage (Scottish Parliament 2015). A National Improvement Framework, which will include standardised tests, will support this (Scottish Government 2016).

Scotland and England have different mechanisms for measuring and monitoring attainment but there is strong evidence that educational achievement is linked to economic disadvantage, with similar patterns in both countries. In England, nationally available data shows that the gap is present when children enter schooling and widens as they move through the school system (Strand 2014). The data allows fine-grained analysis and shows that the gap exists in almost all schools, even those rated 'outstanding' by England's inspection body, Ofsted

(Strand 2014). Such studies, and others indicating that most variation in school attainment is associated with qualities of school intake rather than aspects of schooling (e.g. Rasbash, Leckie, Pillinger and Jenkins 2010), have been interpreted by some theorists as evidence of schools' relative powerlessness to effect change given external home, community or peer-group factors (e.g. BERA 2014). The attainment pattern for schooling in Scotland is less well-evidenced, but appears to follow a similar pattern (Sosu and Ellis 2014). Analysis of the *Growing Up in Scotland* survey data indicates significant vocabulary differences in children from low and high-income households at age three, and that high-income children have an advantage of 13-months in vocabulary and 10 months in problem solving abilities by age five (Bradshaw, 2011). The gap widens as children move through school: aged 8 years, 72% of children from deprived backgrounds and 84% from the least deprived backgrounds perform well or very well in literacy. By 14 years, only 68% from deprived backgrounds perform well or very well compared with 90% from the least deprived backgrounds (Sosu and Ellis 2014).

There are undeniable tensions in national and international academic discourses around how far schools, teachers and schooling can influence attainment as central, peripheral or marginal agents of social change. Whilst some argue that 'gap talk' underplays the underlying social causes of disadvantage and represents a political desire to shift an impossible responsibility for educational success or failure to schools (e.g. Ball 2010; Gillborn 2008), others focus on identifying features of outlier schools, school systems, pedagogies or design interventions that demonstrate a narrowed gap (e.g. Darling-Hammond, 2010; Holzman, M. 2010; Kirp 2013; MacInnes 2009; OECD 2012; Stein and Coburn 2008).

The English data indicates, somewhat counter-intuitively, that the attainment of disadvantaged children tends to be lower where such children constitute a minority of the school population (Strand 2014). One explanation is that they become 'invisible' within the

larger, economically advantaged, population. This implies that teachers and schools do impact on the poverty-gap, and that addressing poverty-related attainment is an issue for all England's educators. In Scotland, the National Survey sample-sizes are inappropriate for such fine-grained analysis but geographical distributions indicate that around two thirds of children in poverty go to school in areas not categorized as deprived (SIMD 2009; 2012). In Scotland too, therefore, all teachers will teach some children in poverty and should be expected to take steps to close the gap.

In both countries, therefore, the challenge for ITE is to influence student teachers' professional understandings of, and commitment towards, delivering social justice and high academic attainment for children from economically disadvantaged homes. Yet studies suggest that many teachers hold deficit models of children in poverty (e.g. Cox, Watts and Horton 2012; Gazeley and Dunne 2005; Lupton and Thrupp 2013) and that student teachers' pre-existing beliefs are difficult to change during ITE courses (e.g. Richardson 1996; Wideen, Mayer-Smith and Moon 1998). Professional beliefs matter because they filter teachers' understandings, their aims, their observations, and their responses to classroom events (Jacobs, Lamb and Philipp 2010). Belief-change is closely aligned to teacher identity (the sense of self, and who one wants to be) and to teacher agency (the capacity to act and, through this, develop new professional understandings).

The 'poverty' issue for ITE courses and education researchers becomes how to create the conditions for student teachers' understanding, identity and agency to flourish in ways that prompt their professional commitment to equity and an ability to deliver it for children in poverty. Whilst most ITE courses in the UK have an explicit commitment to social justice and children's rights, we could find no research studies of how ITE programmes realise this in terms of the poverty agenda, and what works to leverage effective change. English

research does indicate that idealistic motivations do not reliably prompt effective improvisations (the openings whereby change comes about) or appropriations (the adoption and re-shaping of professional knowledge) in early career teachers. Importantly, idealism accompanied by a failure to impact successfully on children's learning may lead to disappointment and disaffection (Day and Gu 2010).

Moore (2008) found that student science teachers' agency in delivering social justice was linked to broader constructs of their professional agency and identity as science teachers, as well as to their stance towards social justice. Research needs to deepen understanding of student teachers' views of poverty and of how ITE interventions work to gain traction and impact on their identity and knowledge.

4. Methods

4.1 Primary and Secondary ITE Contexts

There are some significant differences in the training of primary and secondary school teachers. The primary teacher needs to work across the curriculum and have significant skills in the teaching of literacy and numeracy in particular. The developmental needs of younger pupils means more attention must be paid to responsive teaching, instructional density (many outcomes from a single lesson), and to promoting home-school links. At secondary level, the vast majority of training concentrates on trainee teachers' specialisms. However, the trainee teachers in each sector are both involved in a social situation of development that requires them to empathise with, and understand the diverse learning needs of, learners as well as the contextual factors that can affect this learning. This article concentrates on the shared

experience of developing an understanding of poverty and education from these contrasting ITE environments. Both the studies reported in this article are highly situated and the outcomes reported adopt an interpretive stance. The intention is to provoke a debate rather than deliver potential solutions. We would argue that this aim and the mixed-methods methodology across two different sites and teacher populations is justifiable given the lack of current research in this area. By triangulating the data, this article raises questions about the potential levers for change that may be available to ITE course designers and tutors.

4.2 Case One

The study *Student Teachers' Perceptions of Poverty and Educational Achievement* was carried out within the ITE programme at the University of Oxford in the academic year 2012-13. This research and the interventions that followed in subsequent years have been reported in detail elsewhere (Burn et al. 2016; Thompson, McNicholl and Menter 2016). The study was concerned with the views held by ITE students on the effects of poverty on pupils' learning, well-being in school, and educational achievement. The key research question guiding this study was: *in relation to learners living in poverty, in what ways and to what extent do beginning teachers' knowledge, skills and dispositions develop during their programme of study?* The study used a mixed methods approach (Mertens and Hesse-Biber 2013) involving the collection and analysis of both qualitative and quantitative data. Surveys and interviews were used as different but complementary lenses to investigate student teachers' perceptions and, ultimately, generate better understandings.

Qualitative and quantitative data were collected from two pre and post whole course survey questionnaires with the PGCE cohort. Comments from the surveys were coded and the results used to provide a statistical summary. At the end of the course, but before the second survey, semi-structured focus group interviews were also conducted. The pre and post course questionnaires were used to investigate student teachers' perceptions and their development over the course of the ITE programme. The first survey was delivered to 185 students and had an 85% response. The second was delivered to the 179 students remaining on the course with a 93% reply rate. A Professional Development Programme (PDP) 90 minute session that dealt with issues of poverty and educational achievement was delivered to the whole cohort immediately after the first survey. This was designed as an intervention and provocation to challenge perceptions of poverty and educational attainment. The students were subsequently asked to reflect on the discussions in the light of their school experience in two placements on the course. In the second stage (the second survey and focus group interviews), the aim was both to gauge student teachers' perceptions of poverty and also to determine what influence various aspects of the course had had on their beliefs: placement schools, school mentors, university tutors, and university sessions.

4.3 Case Two

The *Strathclyde Literacy Clinic* study reports evidence from a study designed to re-shape student teachers' beliefs about children who live in poverty and their professional capacity to raise the literacy attainment of such children. The data were collected over two years from two separate student cohorts and the entire data-set consists of: the student teachers' written notes and reflections whilst working in the clinic; in-depth semi-structured interviews conducted towards the end of their clinic and participation; and written reflections made

several weeks after clinic work had finished. This article reports the data from student teacher interviews and written reflections.

Thirty students who had indicated that they were willing to take part in the research were randomly selected for an in-depth interview. An experienced educational researcher who was not involved in the work of the literacy clinic and who did not know the students carried out the interviews. Each interview was transcribed as a detailed summary using students' own words and sent to the interviewee to confirm its accuracy and amend it if necessary. These were anonymised and forwarded to the research team with details of the student teacher's gender, age, participating basis (credit/volunteer), and the year-group/cohort. Three researchers read and re-read the interviews and used an iterative process of thematic content analysis to create an analytic hierarchy, following the process described by Ritchie, Spencer and O'Connor (2003). Participation in the research was voluntary, and student teachers were assured that the process was confidential and would not affect their grades on the course. Interviewees had the right to withdraw at any time.

The Strathclyde Literacy Clinics operate in schools serving high-poverty populations. About 80 ITE students participate annually, working in teaching teams of four. Each team works for 10 weeks with one child aged 7-10 years who has struggled to learn to read. The child has one 30-minute withdrawal lesson from each team member (i.e. four lessons per week). Team members collect evidence about the child's learning assets and needs and use it to agree learning priorities that everyone works to deliver. Decisions are revised as new evidence emerges and are explored in tutorial discussions with academic tutors and other teams. The approach foregrounds 'the problem of enactment' (Darling-Hammond 2006) by focusing student teachers on responding fluently to knowledge as it emerges during teaching (Cazden

1983). Students write notes highlighting key actions/observations and reflections in a team file after the lesson rather than pre-lesson procedural guides or lesson plans. Continuity and coherence emerge through daily telephone updates between adjacent students in the teaching chain. These articulate the teaching on a day-by-day basis and promote a collaborative group dynamic based on shared knowledge, responsibility, pupil-focused preparation and reflection.

A Venn diagram (see figure 1) acts as a ‘boundary object’ (adapted from Star and Griesemer 1989), allowing the group to share evidence that individuals may value and use in different ways. It prompts student teachers to incorporate into their teaching, evidence about the child’s:

- **cultural capital**, knowledge, beliefs and experiences (of the world and literacy);
- **identity** as a reader and a literacy learner;
- **cognitive** knowledge and skills for literacy learning.

INSERT FIGURE 1

Although lightly specified, the boundary object has intuitive validity and serves two important functions in facilitating the work of individual student teachers and negotiation of meaning within student teams. First, it facilitates data-collection and evidence-use from multiple disciplines, specifically prompting teaching professionals to align their work to knowledge domains with different epistemological traditions and negotiate across them to work out what to teach, and how (Wenger-Trayner et al. 2015). Second, it promotes an ‘assets based’ discourse for teaching that positions young readers as agentic and instruction as bridging from the known to the unknown (González, Moll and Amanti 2005). In much

teacher discourse, the cognitive knowledge domain drives curriculum content and analyses of learning, but the boundary object evidence collected around cultural capital and identity invites consideration of how to use these aspects to drive cognitive development. Teachers consider how to use the funds of knowledge children bring to school (González, Moll and Amanti 2005), how to adopt a situated, culturally determined view of literacy (Street 2000), how to attend to children's literate identities (Esteban-Guitart and Moll 2014), and to how they position themselves, and are positioned by others, as literacy learners (Dweck 1986). Highlighting the different epistemologies provides different lenses to examine practice, different definitions of what matters and student teachers learn to recognise, value and broker, different kinds of evidence. By understanding the insight each brings, they can locate their pupils, their teaching, and ultimately themselves, within the wider 'landscape of practice' (Wenger-Trayner et al. 2015).

5. Findings

5.1 Case One/findings

In the Oxford study *Student Teachers' Perceptions of Poverty and Educational Achievement* a pre-course survey asked the cohort of student teachers (n=185) to respond to a series of questions about their attitudes to, and perceptions of, poverty and educational achievement. They were first asked to describe their own background income levels and 82% described themselves coming from middle to high income backgrounds. When the student teachers were asked what had the largest impact on pupils' educational outcomes, life choice and

opportunities the results were: Parents'/Carers' Attitudes to Education 81%; Social Class 8%; Income Levels 7%; gender 3%. These striking figures suggested that the vast majority of the cohort held deficit views about children in poverty by blaming attitudes rather than economic and social conditions.

The second survey (n=179), conducted at the end of the course, began by asking the student teachers whether they agreed with the following assertion: 'There is a link between poverty and pupils' educational outcomes, life choices and opportunities' (n=166). The finding that 24% at the end of an ITE course disagreed that there was a link between poverty and educational achievement was a revealing finding for a course that had repeatedly made this link explicit through the sharing of research findings in University and school-based sessions. It can also be argued that the majority of the 76% of students who did believe there was a link between poverty and educational attainment fell back on deficit models for their interpretation of why this should be the case. 118 comments on the reasons for the given answers on this questions were coded for 4 different factors (Table 2): parental deficit (41%); pupil deficit (19.5%); school factors (positive and negative) (7.5%); and socio-economic factors (32%). 18 comments were uncoded as they gave no reason or just restated the question.

Examples of statements suggesting that low expectations or aspirations held by parents was the main cause included:

- *I think that students who come from less well off backgrounds are often (but not always) there because their parents have lower aspirations, therefore they are less likely to value their education leading to less opportunities in life. (Respondent 55)*
- *Pupils are highly affected by their family as a role model in terms of aspiration and attitudes to school. (Respondent 61)*

Others attributed the main cause to the 'low aspirations' of pupils themselves.

The next question explored whether the student teachers believed that their views on poverty had changed during the course (n=166). The fact that only 4% had completely modified their view and that 40% reported no difference backed up the research evidence that suggests that student teachers' views are hard to change.

An open question asked the students to give any reasons for a change of view. The qualitative data from the open question responses of the 61% of respondents whose views had changed were coded against the two themes of University (66 comments) and school influence (107 comments). 80% of comments identified the PDP programme as a shaping influence with smaller indications for curriculum session (9%), assignments, peers and university tutors (all 3%). Aspects of the school placements as a shaping influence included: working with pupils (57%); working with teachers (15%); own reflections and observations (17%), and communication with parents (6.5%).

The findings suggested overall that ITE programmes can challenge some entrenched views through: Professional Development Programmes; the choice of school environment; exposure to theory; and, reading of relevant literature. However, deficit models were widely accepted by some student teachers who viewed 'aspirations' (negative or positive) as more important than social class or poverty or any other structural inequalities.

From the university side of the course, the theoretical provocations from the PDP session were identified as an important factor for their change of view in 80% of 66 comments from

those who did change their views. However, it is questionable whether a one off lecture session really was an important catalyst for their reflections on their subsequent school experience. From school experiences, 57% of comments indicated that working with pupils helped to shape prospective teachers' views. Other significant factors were teachers (15%) and their own reflections (17%).

Data from one of the focus group interviews revealed that the transformative effect of direct experience was very dependent on the social composition of placement schools. Some student teachers reported very little contact with pupils from impoverished backgrounds and felt that theoretical readings were therefore abstracted from their own social situation of development. This contrasted sharply with the experience of a minority of the student teachers in the focus group who described themselves as being placed in schools with significant levels of social deprivation:

My [first placement] school had a high proportion of Free School Meal pupils and vulnerable children which gave me the opportunity to deepen my understanding of these issues through working with the children in a pastoral setting and in the classroom. (Chloe, student teacher Oxford)

The conclusion drawn from this study was that identity is hard to change without direct involvement with pupils from impoverished backgrounds and with teachers experienced in working to alleviate the effects of poverty for these youngsters. The social justice agenda of the course, and direct input from both university and school educators, had some limited effect in changing student teachers' perceptions through discussion and explication. However, 40% of the cohort did not change their views. The prompts and provocations were ultimately relatively weak levers for change. The provocative PDP lecture had the most effect but this did not break into the hard-to-reach perceptions of many of the student teachers. The majority

of the student teachers held deficit models at the start and end of the course, and even those that accepted the correlation blamed the parents or a lack of imagination or ambition within the child. Simply being told that this was not true had little to no impact.

5.2 Case Two/findings

Iterative thematic content analysis of the student teacher interviews and written reflections identified several mechanisms that supported the student teachers' agency and effectiveness in the literacy clinic. Three categories of response, related directly to the development of their professional identity, agency and knowledge of how to close the attainment gap, were identified as:

- understanding of poverty in the context of schooling;
- adaptive actions and applications to position learners more equitably;
- exercising professional agency and imagination to address the attainment gap.

The interrelatedness of these categories, and interwoven factors about the student teacher identities, the one-to-one context of practice and the group context of teaching, illuminate the complex ecology of teaching and of how professional engagement shapes the development of identity in relation to social justice.

Understanding poverty and schooling

The picture that emerged about student teacher understandings of poverty in the context of schooling indicated a step-change in their understandings of life in disadvantaged families and of how poverty impacts on educational attainment. This was so regardless of the student

teachers' past placements in schools serving deprived areas or personal experiences of growing up in such areas. The evidence that emerged was that, after an initial stage of shock, the one-to-one discussions between the student teacher and child disrupted the student teachers' rather cosy institutional narratives and assumptions about schooling and presented an alternative pupil-narrative that commanded attention and action. They realised how organisational measures, such as within-class attainment groupings, negatively impacted on choice, enjoyment, self-esteem and friendships. Georgia's reaction to her pupil's view of schooling and literacy was typical of many interviewees:

I was quite disturbed by it. A real eye-opener. I was shell-shocked by what he couldn't do and most of all his negative view of reading. I still worry about his future. I did find the experience enjoyable in a strange way though it was upsetting ... and I wanted to try really hard for him.... (Georgia, student teacher Oxford)

The evidence collected during the teaching sessions led student teachers to question what the concept of home-school links really meant for children whose home lives did not fit the school's assumptions. These elements had been covered in previous university course content, reading and assignments, but acquired new, personalised meanings:

Well you need to know your children. I've been aware of that before, but on placement you don't really think about the child's home life so much ... Their parents might be illiterate ... What's that say to school about 'sending the reading homework out'? (Helen, student teacher Oxford)

The mundane details of children's lived experiences of poverty, and of the school literacy curriculum, challenged stereotypes and gave new insights into poverty and schooling. It was clearly quite an emotional experience for many students. After the first six interviews, the researcher wrote a note to the research team saying "Each one I have done so far has shown visible emotional signs when discussing the levels of poor readers and the impact of poverty ... [it is in their]... expressions, teary eyes, taking a moment or two to reflect on what to say next".

Adaptive Teaching to Link to Pupil Lives

Although emotions enhance student teacher learning by encouraging engagement, professional identity needs to be nurtured by more than emotion. Identity is about envisioning who you are and what you know as a professional and (re)presenting this narrative to yourself and to others. This process can sometimes get skewed in performative, whole-class placements where teaching is formally observed and assessed. However, the analysis related to specific adaptive behaviours revealed changes that were often small and seemingly un-dramatic but involved student teachers noticing different kinds of evidence and then using their knowledge differently which led them to re-frame their teaching. Evidence from the ‘cultural capital’ and ‘identity’ domains were particularly powerful levers to prompt changes that positioned the pupil as agentic. Analysis revealed three sub-categories of adaptive behaviours in the students’ teaching. Each situated the child more powerfully in relation to the learning task. First, there were instances of student teachers re-framing tasks to position pupils’ out-of-school knowledge as central to the work. They did this by building tasks around pupils’ artistic talents, significant role models and personal aspirations. Second, they adapted their teaching to explain the reasons and purposes behind the tasks and instructional inputs. For example, one student teacher, Alice, told the interviewer:

I said ‘Why I am asking you these questions about this book, it isn’t to test you or to catch you out, but I want to show you the sorts of things that readers think about when they read. That’s what my questions are doing.’ (Alice, student teacher Oxford)

Third, they demonstrated a deeper understanding of the wider context and cultural background that makes a task or text truly meaningful. Kathy captures this in describing how her understanding of what counts as ‘important to know’ shifted:

Now I understand the importance of contextualizing things. Developing activities that are based on the child’s need – I already knew that mattered - but what I think now is you need more, because that’s not enough. ... it’s like teaching someone to swim

without going in the water – without lots of context she can't get enough purchase to push her own way through. (Kathy, student teacher Oxford))

Analysis of student teachers' written reflections indicated that the boundary object facilitated adaptive teaching by focusing the student teachers on collecting and using different kinds of evidence. It dislocated their dominant (cognitive) knowledge frameworks for thinking about teaching and prompted them to improvise bridging-behaviours that linked teaching to pupils' lives and to how they felt.

The Professional Self – Agency, Imagination and the Poverty Gap

Learning to align a wider range of evidence in the context of use also prompted professional understanding and agency in relation to poverty. Working mainly within a single knowledge domain can lead professionals to linear thoughts and narrow interventions. By drawing explicitly on three knowledge domains, student teachers learned to re-frame problems and potential ways forward. This inevitably led to an expanded range of potential learning pathways and interventions with different underpinning theories of change. Professional judgement became more complex, less certain, and open to a wider range of challenges. For some, this underlined their own agency in relation to acting on professional knowledge and impacted on their professional identity in ways that made complete sense:

It made me realize that when something doesn't work you need to find another way. As a professional you don't always follow the crowd – you have to see what else can be done. ... It has changed how I think about literacy and changed me as a teacher.

The team discussions helped this process, assuaging the uncertainty of negotiating across different kinds of knowledge, working out how to weigh and use the evidence and how to proceed. Individual student teachers taught just once a week and had time to be curious, to wonder, to reflect and to research. Ideas had 'cooking-time' and were seasoned by other students' observations, questions and challenges. The one-to-one context supported professional agency and personalised insights whilst the team structure offered intrinsic

motivation, safety, challenge and rapid success (because the child's progress reflected the work of four people). These aspects encouraged the student teachers to envisage their future professional selves as agentic and knowledgeable about how to address the attainment gap. This was even true for less confident student teachers, for whom professional knowledge, agency and identity were perhaps more fragile constructs. In her interview, Sharon described how the agency and knowledge that resided in the group helped her towards a more robust and positive personal professional identity. She characterised herself as someone who had "failed a few things and had to work hard just to keep up". Although she still indicated some vulnerability, she was clearly beginning to assume a stronger identity and agency for herself:

I feel like we had, as a group, what we needed to be able to do it. We were told beforehand what to expect but it was a bit different out there and we had to change everything. It was very hard, because the child we were working with was really struggling, even compared with his peers who were also struggling. It was very rewarding, though, especially changing his perspective. He was at first very reluctant. It was a job of work to even get his energy up to try. He found it hard to remember the lessons ... so I had to learn to adapt to that. At the same time, seeing the difference in his ability and interest in learning gave me hope I can make that difference with my pupils in future. (Sharon, student teacher Strathclyde)

6. Discussion and Conclusion

Empirical research from a range of epistemological traditions shows that children from poor backgrounds do better educationally and emotionally in some school contexts than others. Very few school populations contain no children in poverty and prospective teachers need to be attuned to noticing and addressing the needs of disadvantaged children. This is so whether they work in schools serving deprived communities with large population of such children or schools serving advantaged communities where children in poverty form a hidden minority. It is, quite simply, not ethical for ITE programmes and ITE researchers not to treat this as an urgent priority.

This article set out to discuss the perceptions of student teachers on poverty and educational attainment from two very different perspectives of a primary ITE course in Scotland and a secondary ITE course in England. The argument posed was that viewing the problem from contrasting perspectives could help to develop a new understanding of a common problem. What both studies make clear is that successfully challenging student teachers' understandings of social justice and equity in education is not just about direct experience. It needs input from literature, research provocations, and collaborative challenge, and is developed differently in different contexts of use. Poverty is complex. Not all young people who are impoverished will fail. Home, community, emotional, personal and school circumstances combine in different ways to impact on learning, and the process whereby student teachers come to understand the implications for their teaching are equally complex.

The Oxford intervention shows that whilst ITE courses can successfully challenge some preconceptions there are limitations to simply telling student teachers what to think. If student teachers hold deficit models that essentially blame the learner then a disruption or dislocation through direct or reported experience may be required to change these seemingly entrenched views. Hard to change does not mean impossible to change. As identity and perceptions are relational and situated then it is important to consider both the choice of placements but also alternatives in provision around issues of poverty and learning. The Strathclyde Literacy Clinic intervention shows that professional knowledge and communities of practice can be levers for change, but professional identity is complex. It requires practical opportunities for student teachers to attend to the boundaries of knowledge and to align and realign themselves to a range of professional knowledge domains. These realignments offer tentative hope that, as student teachers learn to use different kinds of evidence and different ways of thinking, they can develop new understandings of their role in making schooling more equitable for

children living in poverty. Traditional school placements may, however, not offer suitable spaces for this to happen.

The questions these studies raise for ITE educators concern the kinds of opportunities that we create for student teachers to explore their own attitudes and beliefs about poverty and educational attainment. Student teachers need opportunities to bring different kinds of research knowledge to bear on practice, and, through reification (the production of physical or conceptual artefacts), make it personal and meaningful. This may mean challenging their past histories, their *figured worlds* of schooling and past *relational identities*, through the creation of new supportive but challenging communities of practice. Agency, beliefs and identity matter, because if student teachers believe there is no link between poverty and achievement or that the attainment gap is inevitable, then they will not address pupils' needs. Simply relying on placement experiences, and strong, well established courses with social justice as a core value may not in itself be enough to change long-established patterns of belief. There is an urgent need to understand the links between social justice and teacher identity.

The studies also raise questions about the sorts of learning spaces that support student teachers in bringing professional knowledge, agency and identity together in ways that prompt them to pay careful attention to the effects of one course of action rather than another, and what each brings into focus or omits. ITE courses need to develop the structure and circumstances whereby student teachers can understand and adapt from cultural difference and personal learning identity.

Hall et al. (2012) show that agency is frail amongst student teachers who have little power in school placements and are often struggling to create and maintain conflicting aspects of their

own professional identity. The two studies reported here show that ITE programs perhaps could focus more explicitly on exploring, and attending to, how identity is forged from daily encounters with pupils, with educational ideas and with data. If identity develops across different contexts and is central in creating or inhibiting professional knowledge and self direction, ITE programmes need to design many contexts in which student teachers can explore how to address the needs of children living in poverty, and monitor their impact. ITE courses cannot assume school placements will do this.

All professionals have to negotiate large-scale political dilemmas as active players in a policy framework. However, how they do this may not be in an overt way but through the situated formation of professional identities. Hilary Janks claims that what she calls the ‘big P’ of Politics, which addresses the large-scale political issues around inequality, is connected to the ‘small p’ of politics – the power of small political acts through the daily actions and interactions that make the professional political. These ‘small p’ acts are still political. They are

... the minute-by-minute choices and decisions that make us who we are. ...it is about how we treat other people day by day; it is about whether or not we learn someone else’s language or recycle our own garbage. Little p politics is about taking seriously the feminist perspective that the personal is the political. (Janks 2012,151).

In the context of equitable education, the development of the personal agency of student teachers, their choices and decisions as beginning teachers, means understanding and addressing the social reality for pupils living in poverty.

References

Ball, S.J. (2010) New Class Inequalities in Education: Why Education Policy May be

Looking in the Wrong Place! Education Policy, Civil Society and Social Class. *International Journal of Sociology and Social Policy*, 30 (3): 155–166.

Bradshaw, P. (2011). *Growing Up in Scotland: Changes in Child Cognitive Ability in the Pre-school Years*. Edinburgh: Scottish Government.

BERA 2014 *Poverty Not Schools to Blame for Exam Results*. <(accessed September 9th, 2015)> (<https://www.bera.ac.uk/bera-in-the-news/poverty-not-schools-to-blame-for-exam-results-gap>).

Burn, K., Mutton, T., Thompson, I., Ingram, J. and Firth, R. (2016) The Impact of Adopting a Research Orientation Towards Use of the Pupil Premium Grant in Preparing Beginning Teachers to Understand and Work Effectively with Young People Living in Poverty. *Journal of Education for Teaching*. In press.

Carpenter, H., Papps, I., Bragg, J., Dyson, A., Harris, D., Kerr, K., Todd, L. and Laing, K. (2013) *Evaluation of Pupil Premium*. London: Department for Education.

Cazden, C. B. (1983) Can Ethnographic Research Go Beyond the Status Quo? *Anthropology and Education Quarterly*, 14: 33-41.

Connelly, R. Sullivan, A. and Jerrim, J. (2014) *Primary and Secondary Education and Poverty Review*. London: Institute of Education.

Cox, B. J., Watts, C. and Horton, M. (2012) Poverty Perceptions of Pre-Service Teachers and Social Work Candidates. *Journal of Studies in Education*, 2 (1):131-148.

- Cummings, C., Laing, K., Law, J., McLaughlin, J., Papps, I., Todd, L. and Woolner, P. (2012) *Can Changing Aspirations and Attitudes Impact on Educational Attainment? A Review of Interventions*. York: Joseph Rowntree Foundation.
- Day, C. and Gu, Q. (2010). *The New Lives of Teachers*. London: Routledge.
- Darling-Hammond, L. (2006) Constructing 21st-Century Teacher Education. *Journal of Teacher Education*, 57, (3):1-15.
- Darling-Hammond, L. (2010). *The Flat World and Education: How America's Commitment to Equity Will Determine Our Future*. New York, NY: Teachers College Press.
- Department for Education (DfE) (2010) *The Importance of Teaching*. <(accessed February 10th, 2016)>
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/175429/CM-7980.pdf
- Dweck, C. S. (1986). Motivational Processes Affecting Learning. *American psychologist*, 41(10), 1040.
- Economic and Social Research Council (2011) *Child Poverty Casts a Long Shadow Over Social Mobility. Evidence Briefing*. Swindon: ESRC.
- Edwards, A. (2010) *Being an Expert Professional Practitioner: The Relational Turn in Expertise*. Dordrecht: Springer.
- Esteban-Guitart, M. and Moll, L. C. (2014) Funds of Identity: A New Concept Based on the Funds of Knowledge Approach. *Culture & Psychology*, 20 (1): 31–48.
- Gazeley, L. and Dunne, M. (2005), *Addressing Working Class Underachievement*. Brighton: University of Sussex.
- Gillborn, D. (2008) *Racism and Education: coincidence or conspiracy?* London: Routledge.

González, N., Moll, L. and Amanti, C. (2005). *Funds of Knowledge: Theorizing Practices in Households, Communities, and Classrooms*. New York, NY: Routledge.

Gorski, P. C. (2012) Perceiving the Problem of Poverty and Schooling: Deconstructing the Class Stereotypes that Mis-shape Education Practice and Policy. *Equity & Excellence in Education*, 45 (2): 302-319.

Hall, K., Conway, P., Murphy, R., Long, F., Kitching, K. and O'Sullivan, D. (2012) Authoring Oneself and Being Authored as a Competent Teacher. *Irish Educational Studies*, 31 (2): 103-117.

Holland, D., Lachicotte, W., Skinner, D. and Cain, C. (1998) *Identity and Agency in Cultural Worlds*. Cambridge MA: Harvard University Press.

Holland, D. and Lachicotte, W. (2007) Vygotsky, Mead and the New Sociocultural Studies of Identity. In H. Daniels, M. Cole, & J.V. Wertsch (eds.): *The Cambridge Companion to Vygotsky*. New York: Cambridge University Press, 101-135.

Holzman, M. (2010). *Yes We Can: The Schott 50 State Report on Public Education and Black Males*. Cambridge, MA: Schott Foundation for Public Education. Retrieved from <http://www.Blackboysreport.org/bbreport.pdf> <(accessed February 10th, 2016)>

Jacobs, V. R., Lamb, L. L. C., & Philipp, R. A. (2010). Professional *Noticing* of Children's Mathematical Thinking. *Journal for Research in Mathematics Education*, 41(2): 169-202.

Janks, H. (2012) The Importance of Critical Literacy. *English Teaching: Practice and Critique*, 11 (1): 150-163.

Jensen, E. (2009). *Teaching with Poverty in Mind*. Alexandria, VA: ASCD.

Kirp, D. L. (2013) *Improbable Scholars: The Rebirth of a Great American School System a Strategy for America's Schools*. Oxford: Oxford University Press.

Lupton, R. and Thrupp. M. (2013) Headteachers' Readings of and Responses to Disadvantaged Contexts: Evidence from English Primary Schools. *British Educational Research Journal*, 39 (4): 769-788.

MacInnes, G (2009) *In Plain Sight: Simple, Difficult Lessons from New Jersey's Expensive Effort to Close the Achievement Gap*. New York: Century Foundation.

McNab, S. (2015) Nicola Sturgeon: Judge Me on Education Record. *The Scotsman*, Tuesday 18 August 2015 <(accessed September 9th, 2015)>
<http://www.scotsman.com/news/education/nicola-sturgeon-judge-me-on-education-record-1-3861506>.

Menter, I., Brisard, E. and Smith, I. (2006) *Convergence or Divergence? Initial Teacher Education in Scotland and England*. Edinburgh, Dunedin Academic Press.

Mertens, D. M. and Hesse-Biber, S. (2013). Mixed Methods and Credibility of Evidence in Evaluation. In D. M. Mertens and S. Hesse-Biber (Eds.), *Mixed Methods and Credibility of Evidence in Evaluation. New Directions for Evaluation*, 138: 5–13.

Moore, F. M. (2008) Agency, Identity, and Social Justice Education: Preservice Teachers' Thoughts on Becoming Agents of Change in Urban Elementary Science Classrooms. *Research in Science Education*, 38: 589–610.

Norton- Meier, L.A. and Drake, C. (2010) When Third Space is More Than the Library. In V. Ellis, A. Edwards and P. Smagorinsky (Eds) *Cultural-historical Perspectives on Teacher Education and Development*. London and New York: Routledge, 196-211.

OECD (2012). *Education at a glance 2012: Highlights*. OECD Publishing. <(accessed January 8th, 2016)> Retrieved from [http:// dx.doi.org/10.1787/eag_highlights-2012-en](http://dx.doi.org/10.1787/eag_highlights-2012-en)

Raffo, C, Dyson, A., Gunter, H., Hall, D., Jones, L. and Kalambouka, A. (2009) *Education and Poverty: A Critical Review of Theory, Policy and Practice*. York: Joseph Rowntree Foundation.

Rasbash, J., Leckie, G., Pillinger, R. and Jenkins, J. (2010) Children's Educational Progress: Partitioning Family, School and Area Effects. *Journal of the Royal Statistical Society: Series A*, 173(4): 1-26.

Richardson, V. (1996). The Role of Attitudes and Beliefs in Learning to Teach. In J. Sikula (ed.) *Handbook of Research on Teacher Education*. New York: Macmillan, 102-119.

Ritchie, J., Spencer, L. and O'Connor, W. (2008) Carrying out Qualitative Analysis. in J. Ritchie and J. Law (Eds) *Qualitative Research Practice: A Guide for Social Science Students and Researchers*. London: SAGE Publications, 219-262.

Scottish Government (2012). *A Guide to Getting it Right for Every Child*. <(accessed January 8th, 2016)> Edinburgh: Scottish Government.

Scottish Government (2014) *Children and Young People (Scotland) Act*. <(accessed January 8th, 2016)> Edinburgh: Scottish Government.

Scottish Government. (2016) *National Improvement Framework for Scottish Education - achieving excellence and equity*. <(accessed January 8th, 2016)> Edinburgh: HMSO
www.gov.scot/Publications/2016/01/8314

Scottish Index of Multiple Deprivation (SIMD) (2009). <(accessed January 8th, 2016)>
<http://www.gov.scot/Topics/Statistics/SIMD/Background-Data-2009>

Scottish Index of Multiple Deprivation (SIMD) (2012) <(accessed January 8th, 2016)>
<http://www.simd.scotland.gov.uk/publication-2012/>

Scottish Parliament (2015) Education (Scotland) Bill Stage 1 Parliamentary Business- Bills 87330 Holyrood, Edinburgh: Scottish Government. <(accessed January 8th, 2016)>
<http://www.scottish.parliament.uk/parliamentarybusiness/Bills/87330.aspx>

Sosu, E. and Ellis, S (2014) *Closing the Attainment Gap in Scottish Education*. Joseph Rowntree Foundation: York.

Star, S. and Greisemer, J. (1989) Institutional Ecology, 'Translations' and Boundary Objects: Amateurs and Professionals in Berkeley's Museum of Vertebrate Zoology, 1907-39. *Social Studies of Science*, 19(3): 387-420.

Stein, M. K. and Coburn, C. E. (2008) Architectures for Learning: A Comparative Analysis of Two Urban School Districts. *American Journal of Education*, 114(4): 583-626.

Stewart, W. (2011) League Tables to Ignore Race and Poverty. *Times Educational Supplement Newspaper*, 3 June, 2011<(accessed January 8th, 2016)>
<https://www.tes.com/article.aspx?storycode=6086535>

Strand, S. (2014). Ethnicity, Gender, Social Class and Achievement Gaps at Age 16: Intersectionality and ‘Getting it’ for the White Working Class. *Research Papers in Education*, 29 (2): 131-171.

Street, B. (2000) Literacy Events and Literacy Practices: Theories and Practice in the New Literacy Studies. In M. Martin-Jones and K. Jones (Eds.) *Multilingual Literacies: Comparative Perspectives on Research and Practice*. Amsterdam: John Benjamin's, 17-29.

Sylva, K., Melhuish, E., Sammons, P., Siraj-Blatchford, I. and Taggart, B. (2004) *The Effective Provision of Pre-school Education (EPPE) Project: Findings from the Preschool to the End of Key Stage 1*. London: DfES.

Thompson, I., McNicholl, J. and Menter, I. (2016) A Failure to Learn? Student Teachers' Perceptions of Poverty and Educational Achievement. *Oxford Review of Education*. Published online 23 March 2016. <(accessed March 24th, 2016)> DOI: 10.1080/03054985.2016.1164130.

Wenger-Trayner, E., Fenton-O’Creevy, M., Hutchinson, S., Kubiak, C. and Wenger-Trayner, B. (Eds.) (2015) *Learning in Landscapes of Practice: Boundaries, Identity, and Knowledgeability in Practice-based Learning*. London, Routledge.

Wideen, M., Mayer-Smith, J. and Moon, B. (1998). A critical analysis of the research on learning to teach: Making the case for an ecological perspective on inquiry. *Review of Educational Research*, 68(2): 130-178.

Figure 1: Venn Diagram as a Boundary Object.

