Reconciling Rigour and Impact by Collaborative Research Design: Study of Teacher Agency

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Short biographical note

Nataša Pantić is a Chancellor’s Fellow at the University of Edinburgh, School of Education. Her research interests include teacher agency, teacher education and educational change, social justice and citizenship. She has completed her PhD at the Faculty of Social and Behavioural Sciences of Utrecht University and worked as a researcher with the Centre for Education Policy in Belgrade.
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Abstract
This paper illustrates a new way of working collaboratively on the development of a methodology for studying teacher agency for social justice. Increasing emphasis of impact on change as a purpose of social research raises questions about appropriate research designs. Large scale quantitative research framed within externally set parameters has often been criticised for its limited potential for capturing the contexts and impacting change, while smaller, locally embedded, mostly qualitative inquiries have been questioned on the grounds of their limited generalizability and sometimes compromising research rigour. New ways of working collaboratively are increasingly explored as a way of reconciling research rigour and impact. The paper presents the procedures for designing a study that is both methodologically rigorous and potentially impactful. Twelve researchers, practitioners and policy makers in Scotland were extensively involved in designing a mixed-method study of teacher agency for social justice. The Critical Communicative Methodology was employed to establish egalitarian dialogue between researchers and practitioners. The procedures and the resulting research tools can be used in future studies, including large-scale quantitative analysis. The paper discusses the challenges of ownership, choice of methods, and knowledge transfer, that need to be addressed in these ways of working.

Keywords: participative research design; mixed methods; research impact; teacher agency; social justice.
Introduction

Commitment to change is increasingly seen as the overriding purpose of social research. For example, major educational research conferences in 2015 focused on ‘a pressing need to consider how education praxis, research, theory, and policy can change the world—toward more justice’ (American Educational Research Association, AERA 2015), or on ‘the sense of urgency’ for ‘teaching for tomorrow today’ and having ‘significant impact on learners’ engagement’ (International Study Association of Teachers and Teaching, ISATT 2015). By this account, the potential impact of research on change in policy and practice is integral to the consideration of appropriate research designs, with much debate about how this aim might be best achieved. Research framed within ‘policy-relevant’, often nationally funded programmes, has been criticised for its limited choice of methods such as experimental trials within externally set parameters, which might not always be the ones that matter most to education professionals, students or families. This kind of research has further been criticised for a simplistic view of change as a matter of implementing research-generated knowledge claims, and for having limited impact on changing practices embedded in real contexts (Berliner 2002; Bonell et al. 2012; Macpherson, Brooker, and Ainsworth 2000). Critics have argued that a variety of methods are needed, including ethnographic and case studies, because educational settings involve unique and ever changing constellations of human

1 An example of this is a tension between the parameters set by the Office for Standards in Education in England (Ofsted) and the questioning of these parameters by the professionals. Ofsted’s inspection targets have been described by teachers as ‘leaving no room for the kind of human values that were once at the centre of what teachers did’ (Guardian 15/03/14, p. 33). Another example is a letter of a Primary School Head teacher to her pupils accompanying the information about their test results, in which she explains that ‘the people who create these tests and score them do not know each of you -- the way your teachers do, the way I hope to, and certainly not the way your families do…’ (Telegraph, 05/07/14, retrieved from http://www.telegraph.co.uk/education/educationnews/10969735/Primary-school-headteachers-inspirational-letter-to-pupils-goes-viral.html on 23 October, 2014).
interactions located in particular and complex contexts that essentially cannot be
controlled (Berliner 2002). At the same time, research designed as case studies has
sometimes been questioned on the grounds of its limited generalizability and
trustworthiness, concerns for compromising rigour of the research, and even its capacity
to connect to the change processes in a particular location (Kane et al. 2008; Kemmis
2006; Foreman-Peck and Murray 2008).

The long standing tension between the large-scale, quantitative approaches, and
small scale, qualitative inquiries (Gage 1989) has not been very helpful towards
impacting change in policies and practices. Since then, it has been by and large
recognised that a variety of methods is needed and many researchers have explored new
ways of working collaboratively as a way of reconciling the need for both research
rigour and impact (see e.g. Baumfield et al. 2009; Groundwater-Smith et al. 2013; Horn
and Little 2009; Little 2012; McIntyre 2005). The study of teacher agency presented in
this paper builds on educational research that recognises the value and potential rigour
and relevance of both qualitative and quantitative analysis.

Engagement of beneficiaries in research has become a common strategy for
increasing the potential for research impact, e.g. by establishing a shared purpose and
community of practice between researchers and researched (Gómez, Puigvert and
Flecha 2011; Kane at al. 2008; Powell 2002; Seale, Nind, and Parsons 2014). These
ways of working across the boundaries of different social practices bring new
challenges for designing impactful research (Akkerman and Bakker 2011; Kemmis
2006; McIntyre 2005). This paper discusses some of these challenges and illustrates
new ways of working in the development of a participative methodology for empirical
study of teacher agency for social justice.
The distinction between the collaborative approach and communicative methodology (Gómez, Puigvert, and Flecha 2011) employed in this study and other similar approaches such as action research (Foreman-Peck and Murray 2008; Kemmis 2006), is that in our study conventional researchers and practitioners worked collaboratively to explore new ways of studying ‘what really matters’ to education practitioners and communities while employing rigorous scientific methodologies to build and refine theoretical knowledge. While action researchers focus on knowledge obtained through action and intervention related to pragmatic questions, more than on conceptual bases of the research, the communicative methodology assigns equal importance to the theoretical bases and building scientific knowledge over time (Gómez, Carmen, and Capllonch 2013). This approach recognises that practitioners often value the rigour and robustness of evidence provided by research although they might not have had the methodological training of the researchers (Baumfield et al. 2009; Little 2012). It further recognises that many researchers share concerns for advancing educational practice in ways that matter to practitioners although they might not have the same levels of practical insights and understanding.

In particular, we sought to identify and develop measures that matter most to practitioners but are often missing from the large-scale numerical data sets within the government-driven standards of performance. We drew on similar attempts in other social scientific disciplines such as social work, health and criminology (Bonell et al. 2012; Liebling and Arnold 2005; Powell 2002) and sought to substantially involve beneficiaries in research design and the development of tools that can be used in future studies, including quantitative analysis. The output is a set of tools that can be used for mixed-method, longitudinal analysis of teacher agency for social justice, or adapted for explorations of other aspects of agency in education or other professional fields. Firstly,
the paper introduces the study of teacher agency for social justice and some of the major challenges we sought to address. Next, the research tools and procedures of their development are presented. Finally, some of the issues involved in collaboration between researchers and practitioners are discussed.

**Study of teacher agency for social justice**

Empirical research in the area of teacher agency has often been small scale and related to particular practices in particular contexts, such as the implementation of the new curriculum in Scotland (Priestley et al. 2012; Wallace and Priestley 2011) or secondary school reform in US (Lasky 2005). The ways teachers achieve their professional agency is likely to influence and be influenced by the structural and cultural environments, such as school climates and leadership (Gu and Johansson 2012; Muijs et al. 2004). The agentic and structural-cultural variables interact in complex and in a sense unique ways (Biesta and Tedder 2007), although school structures look alike across different systems of education, e.g. organisation in subject departments and set time-tabling (Hayes et al. 2005). The study of teacher agency for social justice (Pantić 2015) sought to address the challenge for designing research that can be replicated in studies of larger numbers of cases across contexts, while accounting for the particularity of each context and its participants. Following the idea that justice is contextual, taking different forms in different places (Ainscow et al. 2007) we acknowledged the need to account for the variability of teachers’ enactment of the principles of social justice in context-embedded practices. We use ‘social justice’ as a broad term to refer to teachers’ inclusive practices for contributing to greater educational equality by addressing risks of exclusion and underachievement of vulnerable students, as well as to the larger transformation of educational structures and cultures that extends beyond classrooms and schools. Calls for teachers to contribute to greater equality of educational outcomes
have been expressed internationally (Ballard 2012; Florian 2009; Fullan 1993). A number of case studies of the ways inclusion, exclusion and inequalities play out in particular contexts began to identify some influential factors for teacher agency, such as relationships and collaborative ways of working with other agents (Hayes et al. 2005; Flecha and Soler 2013; Priestley Biesta and Robinson 2012). Building on these insights we developed an analytical framework that can capture both teachers’ enacted practices in the different school contexts, and conditions in which teachers engagement in these practices develops over time and across contexts. Our aim was to design empirical research of teachers acting as agents of social justice that captures the distinctions between schools that can be similar and different in so many ways. Such research conceives teacher agency as a complex system that involves multiple variables and interactions that might reveal multiple patterns of behaviour (Opfer and Pedder 2011).

The study proceeded in two stages over two years. In the first year researchers and practitioners worked together to develop a theoretical model and research tools using participatory procedures of the Critical Communicative Methodology (Gómez, Puigvert, and Flecha 2011) described in Procedures section below. In the second stage a pilot study was conducted in a local school to test and adjust the tools. This paper presents the work conducted in the first stage in which the practitioners participated as research designers on par with the researchers, which is distinct from their role as research participants who constitute the sample of the pilot study. The next section presents the challenges we sought to address, which are also discussed at the end of the paper.

The paper describes how the researchers and practitioners worked together to develop research design and tools for empirical analysis of teachers’ relational agency (Edwards 2010). Relational agency refers to teachers working together, and with other
agents, with a purpose of addressing exclusion and underachievement of some students. The research tools (questionnaire, log, interview and observation protocols) were designed to allow for collection of both quantitative and qualitative data on teachers’ beliefs, practices and interactions. The development of this collaborative methodology has been guided by the aim of designing studies that will build on previous research to generate robust, generalizable evidence of the patterns in teachers’ agentic behaviours, and that can at the same time be impactful for changing educational practice.

**Challenges for empirical studies of teacher agency for social justice**

Three major challenges in the development of the methodology for empirical study of teacher agency for social justice relate to the questions of 1) research ownership, 2) methods of data collection and analysis; and 3) knowledge transfer. The question of *research ownership* is central to the research relevance and potential impact. Who frames the problem and who decides what needs to be done? This question is even more pertinent to the study of teacher agency since intentionality and control over one’s motivation and actions are essential to human agency (Archer 2000; Bandura 2001, Giddens 1984). One of the basic assumptions of teachers acting as agents of social justice is that they see such agency as part of their professional role in the first place (Pantić 2015). Moreover, the contestable nature of the concept of social justice might leave the researchers in the hands of varying and even competing teachers’ interpretations unless a robust set of principles on which practice could be based is commonly agreed (Ainscow et al. 2007). Even though our work has been conducted in the Scottish policy context in which teachers are promoted as ‘prime agents of educational change’ concerned with broadly defined social justice issues (Scottish Government 2011, 4) many questions could and have been asked about the meaning and manifestations of such agency. In this context we saw teachers and policy makers as
essential participants in the framing of the conceptual model and research questions, and
clarifying what could count as evidence of teacher agency for social justice, as well as
in the decisions about the kind of data that needed to be collected.

*The choice of methods* was guided by a pragmatic stance of attending to the
demands of substantive understanding in relation to this particular study (Green and
Caracelli 2003). The study of teacher agency involves a complex and multi-layered
interaction of psychological and social processes which take place in extraordinarily
complex, politically and culturally shaped contexts with both unique and shared
characteristics. Accordingly, the consideration of appropriate methods focused on the
question of how teachers’ contribution to social justice could be gauged within these
immensely complex relations between agents within institutional settings. The
challenge was to design studies that are both meaningfully contextualised and more
broadly generalizable with regard to patterned regularities in social behaviour (Opfer
and Pedder 2011). The underlying rationale was that the observed patterns of correlation
across sites can help us better understand within site complexities, and that making
sense of such complexities can in turn inform the cross-case understandings. Mixed
methods have been assumed to offer possibilities for considering multiple ways of
knowing and multiple values stances helpful for understanding the real contexts while
seeking to move beyond the particularity of case studies (Day, Sammons, and Gu 2008;
Greene, 2005; Johnson and Onwuegbuzie 2004; Opfer and Pedder 2011). We adopted
the premise that a good mixed method study rests on the same kind of careful thinking
and planning as does a large-scale survey or a case study – it takes a carefully prepared
design that takes a unique form for the given study (Greene 2005).

The question related to the challenge of *the transfer of knowledge* was addressed
as part of the study design with a view towards maximising its potential for impact.
How can research-generated knowledge and new theoretical insights guide the development of practice within the complex interactions between personal, structural and cultural factors that affect context-embedded practices? Our aim was to develop tools that can be used both for research and for reflection in teacher education and development (Opfer and Pedder 2011) and facilitate bridging the gap between research-based knowledge and teachers’ practice (McIntyre 2005; Little 2012). For example, reflection on feedback about teachers’ collective practice can help teachers make sense of social justice issues within the setting of their schools and education systems, and develop their capacities for working with others to transform the structures and cultures that might impede their professional purposes (Edwards 2010; Horn and Little 2010; Opfer and Pedder 2011). One of the tools developed for the study (see below the description of the log) can be used for continuing collection of feedback from the research participants with the aim of gauging any change in teachers’ thinking and practices (Bakkenes, Vermunt, and Wubbels 2010).

**Procedures**

Potential research users were engaged in the research design following the procedures of the Critical Communicative Methodology (CCM) which has established a record of impact on transforming situations of exclusion (Gómez, Puigvert, and Flecha 2011; Flecha and Soler 2013) by taking into account the voice of the excluded and marginalised groups in the entire research process, including the research design. We employed this methodology to address the above challenges in a collaboration between researchers and practitioners in all research phases, with the aim of ensuring research rigour as well as relevance and potential impact.

CCM proceeds as an iterative process in which the researcher is responsible for presenting the theoretical propositions from the literature in a way that allows
questioning by other participants and taking on board diverse voices in an ‘egalitarian dialogue’ (Gómez, Puigvert, and Flecha 2011), which then informs refinement by the researcher. Egalitarian dialogue is the main way of incorporating all voices in the research process in which there are no hierarchical differences between ‘experts’ and ‘non-experts’, although there is a clear distinction between their roles specified in the principles and procedures of collaboration (Gómez, Carmen, and Capllonch 2013). The theoretical contribution of the researchers is seen as their ethical responsibility to the social actors who have no time to engage in research. However, they do not consider their knowledge to be superior, and they cannot claim scientific rigour on their own. A key aspect of CCM is that decisions are made based on the validity of arguments each person provides, not on power claims (Gómez, Carmen, and Capllonch 2013).

The procedures involved the formation of an Advisory Committee composed of the researchers and representatives of potential beneficiaries to combine theoretically proposed insights with the practitioners’ perspectives of what ‘really matters’ in their professional contexts. Following the CCM procedures the members were selected among the members of professional groups directly affected by the research, including teachers and other school staff who had previously collaborated with the researchers. The twelve-member committee included six researchers/teacher educators from the University of Edinburgh with expertise in educational exclusion, disadvantage and restorative practices in schools, teacher preparation for inclusive education, teacher leadership and professional inquiry, and six practitioners and policy makers (see Table 1).

Table 1 about here
The Advisory Committee met four times in the course of the first stage of the project: 1) at the start of the research to discuss the concepts and propose research questions; 2) to discuss the research tools; 3) to adjust the tools and identify appropriate and practicable ways of administering pre-pilot and pilot studies; and 4) to analyse and interpret the pre-pilot data and identify relevant networks through which the research findings could be disseminated. In addition the committee members were in touch via group email throughout the project.

Firstly, a conceptual model of teacher agency guided by the theories of human agency (Archer 2000; Giddens 1984) applied to the work of teachers was proposed by the lead researcher, discussed in depth and adjusted (Pantić 2015). Next, the research tools were developed and revised based on the feedback received in the discussions in the Committee meetings, e.g. about adequate ways of asking teachers about situations in which they sought to work with others to address the risk of exclusion and underachievement in their schools. All decisions have been made by consensus between all committee members present in a given meeting. Finally, the Head Teacher, Deputy Head Teacher and the Local Authority representative of the Committee volunteered to facilitate the testing of the tools adopted by the Committee in a pre-pilot and pilot studies in their schools, and with a group of teachers from the respective local authority. In the pre-pilot testing eight teachers filled out the logs (see Competence subsection below). In the pilot stage, ten (out of twenty) teachers in the primary school whose Head Teacher was a member of the Committee, agreed to participate in the study and were offered options of participating in some or all of the activities on the consent form. All ten teachers filled out the questionnaire and participated in the interviews, five filled out logs and two were observed in meetings. In the pilot stage the preliminary results
prepared by the lead researcher were presented in a workshop with all school staff for further discussion and validation.

**Development of the analytical model and generation of research questions**

Newman et al. (2003) emphasise the importance of selecting a method that is appropriate to the purpose of research – the reason for doing it, which is distinct from its research questions. The purpose of our research was to understand the meaning of teacher agency for social justice – i.e. to isolate its different aspects and practices with a view towards their empirical analysis and subsequent rebuilding to enhance social justice in education, through an understanding of the ‘mechanisms of change’ in particular contexts (Bonell et al. 2012). Following the CCM procedures this research purpose was initially proposed by the researcher and modified following the discussions in the Advisory Committee. The practitioners’ specific interests were then taken on board in the formulation of the research questions. The members repeatedly pointed to the need to focus on *how* teachers exercise their agency (rather than *what* they do) by negotiating the meaning as well as ways of achieving their purposes through engagement with other agents.

An analytical model was initially formulated through the researcher’s lenses in line with her experiences, values, ways to think through theoretical frameworks, and through the work of others who have studied the topic (Newman et al. 2003). Theories of professional agency (Edwards 2007; Eteläpelto et al. 2013) guided by social theories of human agency, such as Giddens’ (1984) theory of structuration and Margaret Archer’s critical realist theory of agency (Archer 2000) define agency as an ability to make a difference, or in Giddens’ words ‘to intervene in the world’, to ‘act otherwise’, to exercise ‘some sort of power’ (1984, 14). According to these authors, essential aspects of human agency are purpose, competence, autonomy and reflexivity. Agents
engage purposefully in acts which they know, or believe, will have a particular quality or outcome. A sense of purpose guides agents’ intentions and motivation, which determine levels of effort people put in an endeavour, and of perseverance in face of obstacles (Bandura 2001). Next, agents use the knowledge of the act (competence) to achieve this quality or outcome (Giddens 1984).

Agency is also determined by the levels of autonomy and power within structures and cultures, which can either foster or suspend agency (Archer 2000). From a socio-cultural perspective, agents are seen as embedded in their professional contexts, yet capable of transforming these contexts (Eteläpelto et al. 2013). For Archer (2000) agency is always collective, while actors are individuals who shape the structures and cultures, not in a way any particular actor wants but as a result of interactions. Their efficacy is entirely dependent on what sense agents make of their contexts. This is another essential aspect of agency - a distinctively human capacity for reflection on both one’s own practices and social contexts, creatively envisaging alternatives and collaborating with others to bring about their transformation (Archer 2000; Bandura 2001; Giddens 1984). Thus, collective agency can contribute to the transformation of structures and cultures over time as groups and individuals interact, exercising their particular abilities, skills, personalities, seeking to advance their purposes and perceived interests. Agency can also be used to reproduce the existing structures and cultures, e.g. if an individual or group action fails to bring about desired changes, or seeks to maintain the status quo (Archer 2000).

The model of agency applied to teachers’ work, and practices geared toward social justice in particular (Pantić 2015), included these aspects of agency: sense of purpose (commitment to social justice); competence (its understanding and enactment in practice); autonomy (scope of teachers’ decision-making power and interactions with
other actors); and reflexivity (about their own and others’ practices and contexts), as well as the structural and cultural environments in which teacher agency is exercised, such as school climates and broader educational and social policies and systems. These aspects of agency were subsequently treated as units of analysis with their respective variables initially proposed based on previous research. For example, teachers might exercise their agency individually by engaging in inclusive classroom practices (Black-Hawkins and Florian 2012; Florian 2009; Florian and Spratt 2013), or collectively by sharing responsibility for the outcomes of all learners and planning strategies for addressing exclusion and underachievement of some learners in their schools or education systems (Ainscow 2005; Flecha 2014; Sachs 2003). The Committee then discussed the relevance of these research-based propositions from their own theoretical and practical perspectives. The analytical model and the tools were affirmed, rejected, or adjusted in the process. For example, following the rejection of the questionnaire items about teachers’ practices (see Competence subsection below), the log (see Appendix) was developed by the Committee as a more adequate tool.

The model enabled generation of many potential research questions, variables and hypothesis, which were prioritised and selected by practitioners and researchers working collaboratively as members of the Committee. The decisions about appropriate methods of data collection were made jointly in an iterative process of considering the research questions and the research purpose. They resulted directly from the discussions about who might be interested in the results and why they might care about what the study finds or not. For example, a research question for the pilot study ‘What factors are supportive of teachers acting as agents of change beyond their classroom?’ was a Deputy Head Teacher’s suggestion about the kind of evidence they would find helpful in their work. Similarly, a member of the Local Education Authority was interested in
ways of developing teachers’ collective agency for social justice (i.e. shared sense of purpose, collaborative competence, relationships, and professional reflection).

Practitioners’ insights about potentially influential factors were often aligned to those produced by research, as could be expected. For example, trust and respect were most frequently mentioned by teachers as dimensions of collaborative relationships resonating with the research findings of Priestley, Biesta, and Robinson (2012) who identified horizontal, reciprocal relationships as being critical for determining whether teachers were able to achieve agency. The discussions also revealed some important tensions both between different approaches to doing research as well as between researchers and practitioners’ concerns, as will be presented and discussed in the following sections. In summary, we sought to develop tools for assessing aspects of teacher agency (see below) balancing between research-based findings and formulation of locally relevant questions.

**Mixed Methods and Tools Development**

Agency is contingent on contexts and complex, and so must be the research design. We sought to respect all its facets working with a premise that social reality is both causal and contextual (Newman et al. 2003; Greene and Caracelli 2003). The mixed-method approach was adopted for establishing both patterns of regularity across contexts and for respecting within-site contextual complexity (Bonell et al. 2012; Opfer and Pedder 2011). Use of different methods for studying different aspects of agency enabled collection of data about some commonly perceived structures that constitute opportunities for and barriers to teachers’ socially just practices, as well as rich data about the context-embedded enactment of such practices. Below we outline the decisions about the data collection tools including survey, digital log, interview
schedules, and observation protocols, in relation to each of the aspects of agency identified previously (sense of purpose, competence, autonomy, and reflexivity).

*Sense of purpose*

The Committee recognised the need to collect qualitative data that is complementary to the scales of teachers’ perceptions of their roles previously developed by the researchers (Pantić and Wubbels 2012) and adapted after the Committee discussions to focus on teacher’s sense of purpose as agents of social justice. For example, teachers conceiving of themselves as agents of social justice might tend to agree with the items formulated as ‘understanding pupils’ home situations’ or ‘deciding what is appropriate for my pupils’ as important parts of their professional roles. The scale items were further validated in the pilot stage which included a workshop with school teachers in which they were asked to position the items on a continuum of views of teachers as role-implementers and as change agents. Only those items that teachers unambiguously placed on one or the other end of the continuum have been retained. In the complementary interviews the same teachers were asked to exemplify how they have made decisions regarding issues of social justice. To address the challenge of variability in teachers’ understanding of social justice the interview schedule was developed, focusing on principles of social justice and their implications for teacher’ practices beyond classroom, such as collaboration with colleagues and other professionals within and out with the school. The survey and interview data were triangulated in the pilot study to establish aspects of ‘sense of purpose’ that can adequately be covered by the survey questionnaire and those that require qualitative data analysis.

*Competence*
One of the most important tensions discussed at length by the Advisory Committee focused on the appropriate methods and tools for collecting data about teachers’ competence for acting as agents of social justice. This aspect of agency covered teachers believing that they can make difference, knowing how to do it, and doing, i.e. ways of engaging in the above-mentioned practices (Pantić 2015). Agency has to come from the research participants, yet we know that not all practice is equally effective for addressing exclusion and underachievement. While the committee was in agreement about the need to build on the findings of previous research, e.g. on inclusive practice (e.g. Flecha and Soler 2013; Florian 2009; Florian and Spratt 2013), a few members were concerned about the consequences of de-contextualising and reducing data by the use of quantitative methods (e.g. survey of teachers’ reported practices), even when these are complemented by interviews and observations. The members agreed that context-sensitive data needed to be collected since the same action can be inclusive or exclusive in different situations (Florian and Spratt 2013). An additional meeting was scheduled to explore more creative tools for simultaneous reporting of practice and of contextual information in which agency is exercised. The committee decided to pre-pilot a log in which teachers were asked to describe how they dealt with risks of exclusion or underachievement using questions only as guidance that teachers might consider while writing their accounts (see Appendix). Eight logs received in the pre-pilot were analysed by the committee, which decided to triangulate data from questionnaires, logs, follow-up interviews and external observation (shadowing) in the exploratory pilot case study conducted in one primary school (see Procedures section above). The purpose of pilot testing the different tools was to explore how they can be fitted together in a design that employs different methods as complementary rather than merely mixed (Green et al. 2006; Smith 2006).
**Autonomy**

A major challenge for studying relational aspects of teacher agency is to collect data amenable to quantification while retaining meaning and depth of context-embedded experiences. Working with the premise that social reality is both interpreted and enduring, we viewed structures and cultures as both of actors making and beyond actors’ makings (Archer 2000; Eteläpelto et al. 2013; Smith 2006). For example, teachers create school climates by the ways in which they interact with their pupils, colleagues and families. Over time, the on-going patterns and habits of interaction within a social system can be seen as interpersonal relationships (Daly et al. 2010; Wubbels et al. 2012), which then become more stable aspects of school cultures that might support or impede future agency. Other structures relevant for issues of social justice, such as coexisting systems of public and private schools can be seen to be beyond teachers’ making. By this account, embedded teachers’ interactions, descriptions of their reasons for acting (or not acting) in particular ways, and their perceived contexts are as important as statistical analysis of influential structural variables (Horn and Little 2009). Accordingly, we sought to develop tools that would enable us to gauge actors’ own perceptions of the structural and cultural environments that delineate their space for action.

Previous research provided the basis for hypothesising the conditions supportive of teacher’ acting as agents, such as actors’ sense of efficacy (Bandura 2001), interpersonal relationships (Wubbels et al. 2012), leadership (Gu and Johansson 2012) including formal and informal influences (Pitts and Spillane 2009), cooperation and involvement in decision-making, and opportunities for staff development (Kane et al. 2008; Nemeržitski et al. 2013; Muijs et al. 2004). Seeking to establish ‘what’ works, as well as ‘how’ and ‘why’ it works in a given context, and what prevailing conditions
need to be present for a meaningfully effective enactment of social justice principles, we decided to combine adapted existing measures with the new tools (Bonell et al. 2012). For example, scales of individual and collective teachers’ efficacy (Bandura 2006; Goddard, Hoy and Hoy 2000) adapted to focus on efficacy in addressing issues of social justice were complemented with new tools developed to explore dimensions of relationships supportive of teacher agency, such as levels of influence and trust (including questionnaire items, log’s guiding questions and observations with follow up interviews).

As far as possible the same questions were asked in the survey, log and interviews, with the aim of checking correlations, and optimising the burden on teachers’ time in the future, e.g. by covering as many questions as can be meaningfully covered by the survey (Desimone and Floch 2004). Although ethnographic methods are considered most suitable for the study of each particular context, they are also labour intensive and become too costly when samples of 60 or 80 schools are necessary for efficacy trials (Pitts and Spillane 2009). This is why the committee decided to conduct one such intensive case study embedded in a particular school context to explore the dimensions of relationships that really matter to practitioners, and that could subsequently be used as part of research instruments for quantitative analysis of relationships on larger samples using less time-consuming methodologies. In doing so we drew on research and practitioners’ suggestions that levels of trust and power might be major dimensions underlying teachers’ interpersonal relationships with pupils, other school staff and families (McCluskey et al. 2008; Priestley, Biesta, and Robinson 2012; Wubbels et al. 2012), as well as on similar attempts in other fields (see e.g. Liebling and Arnold 2005). Studies have shown that high value placed on relationships and trust are critical for teacher agency (Priestley, Biesta, and Robinson 2012), and for creating and
sustaining a positive ethos throughout the school community, which can contribute to reduction of exclusion and underachievement measured by fewer disciplinary referrals or recorded incidents of broken relationships, and improved achievement relative to students’ socio-economic background (Kane et al. 2008). In the pilot study, existing measures of the concepts of trust and influence (e.g. Hoy and Tschannen-Moran 1999) were used as a starting point for focus group discussions in the case study and subsequently adapted to questionnaire items reflecting the purpose of our study. These adapted items were further validated by asking the teachers who participated in the case study to ‘think aloud’ while filling out the questionnaire verifying whether the respondents interpreted the items as had been intended (Beatty and Willis 2007; Collins 2003; Desimone and Floch 2004; Pitts and Spillane 2009). The same prompts were used in the observations with follow up interviews to explore the levels of congruence between teachers’ responses to questionnaire and log, and the observed frequent interactions between teachers and other professionals in schools decision making spaces (Flecha and Soler 2013; Edwards 2010). Table 2 presents the subtopics covered with the different tools organised by the four aspects of agency as units of analysis rather than by method per se (Greene and Caracelli 2003).

Table 2 about here

*Reflexivity*

Acknowledging that teachers are more likely to learn from their own or other teachers’ practices than from research-based ‘best practice’ (Korthagen, Loughran, and Russell 2006) we sought to develop a methodology for co-construction of knowledge accounting for the practitioners’ local values and understandings. The research design built in an opportunity for teachers to reflect on the preliminary findings (see the next
section) including their collective agency in a particular location (Argyris and Schon 1978; Korthagen and Vasalos 2005; Opfer and Pedder 2011). Feedback on the findings about teachers’ collective agency in their own or another school, for example using video-recorded practices as prompts for reflection (Hadfield and Haw 2012), can be used as an intervention in future longitudinal studies in between each subsequent research cycle (Bonell et al. 2012). Teachers’ participation in research might also instigate a change in their own school, e.g. if the participants use the feedback to initiate a related school development project with researchers as critical friends (Ainscow et al. 2007). The tools could, thus be used both for research and for professional reflection followed by planning and implementing action and evaluating its outcomes in the next cycle with constant refining of policies and practices (Macpherson, Brooker, and Ainsworth 2000) parallel to researching teachers’ development as agents of social justice.

**Conclusions and some of the challenges**

Contrary to the concerns expressed about the incompatibility of research rigour and relevance for local practice, the collaborative ways of working presented in this paper hold the potential for advancing both. On the one hand, various ‘stakeholders’ helped to select the research questions that are most relevant to them, as well as to develop robust methods and tools for collecting appropriate data. On the other hand, conventional researchers’ skills and knowledge were put directly at the service of advancing policy and practice, including in the particular location where the research took place (Powell 2002). For example, the lead researcher provided feedback about the preliminary findings of the pilot study in a professional dialogue session with all the teachers in the school in which the study was conducted. This was followed by teachers and school management discussion of plans for putting in place more effective
communication and decision-making processes, and ways of developing a more participative school culture.

Collaboration between researchers and practitioners is central to this process, characterised by flexible, reflexive and purposeful interactions, negotiating and attuning to each other’s purposes and ways of working (Akkerman and Bakker 2011; Edwards 2010). We believe the research and tools design benefited greatly from the different knowledge and skills various participants brought to the project. Convergence of scientific knowledge and insights from participants’ everyday experiences characteristic of CCM dialogue (Gómez, Carmen, and Capllonch. 2013) was corroborated in our study, and perhaps even greater than in the usual uses of CCM with the marginalised groups, since practitioners brought in expertise that was complementary to that of researchers, rather than ‘non-expert’ experiences, for example when they suggested that building capacity for transformative agency might be more about the ways of engaging with given workplace structures and cultures, than about teaching teachers what they need to do. Although the collaboration involved high levels of agreement, possibly due to the focus of inquiry on a topic of mutual interest and concern, it also revealed some important tensions between the research-generated knowledge claims and the participants’ authentic voices and collective aspirations. Below we discuss some of the most prominent challenges for the collaborative development of participative methodology and research design.

**The challenge of ownership**

Collaborative research involves multiple accountabilities. A researcher will consider diverse academic approaches and balance attention to theoretical and methodological demands with the commitment to empowering teachers and changing practices. Practitioners’ participation might be driven by concern for particular
professional issue, or by policy calls for teachers’ engagement in research. The use of communicative methodology allowed for diverse voices to be heard in each meeting and kept the researchers from taking for granted the future participants’ understanding of the underlying concepts. However, the representation of different participants varied in the four meetings. One of the most obvious challenges for school-based teachers was time to attend the meetings and to actively participate in research. For example, two teachers initially recruited to the Advisory Committee while seconded in the Teacher Education Faculty of the University of Edinburgh were not able to continue their engagement once they went back to schools. Eventually they asked to be replaced by teachers who could more actively contribute a teacher perspective to the project. The Committee was then joined by one teacher who was newly seconded to the Teacher Education Faculty and one school-based teacher who at the time was a postgraduate student at the same Faculty. The school-based teacher could attend only one out of the two meetings the Committee held since his joining.

Although collaboration is encouraged in the current research and policy climate in which the project was carried out, there are a few practical constraints to its implementation, most notably the demands on participants’ time. The intended participative ownership of the project was likely not to be equally shared by all the participants as a result of unequal participation of practitioners. For researchers, the demands on time meant a significantly prolonged time for research design (the first stage of the work of the Committee was spread over one year). This also has

2 In the Scottish Education policy and the new Professional Standards, teachers are actively encouraged to take part in research and enquiry, while the potential for impact is gaining weight as part of the research evaluation criteria by the UK Research Council.
implications for funding needed to support a lengthy preparation phase – this study was funded internally to prepare conceptual ground and tools for an external grant application).

**Methodological challenges**

When various participants did manage to bring together their expertise, the discussions exemplified the benefits and challenges of working across boundaries to unite efforts and understanding. The questions about appropriate methods have been considered directly in the debate about the politics of method rather than framed simplistically as what constitutes ‘good science’ (Greene 2005). Participative and inclusive approaches to the research process (Gómez, Puigvert, and Flecha 2011; Powell 2002; Seale, Nind, and Parsons 2014) challenge the status of the researcher as an expert with overall control of the research methodology. For example, the lead researcher reworked considerably the tool (survey) for collecting data about inclusive practice, following the suggestions from the committee members that such a tool is likely to reduce data beyond the possibility of understanding the meaning of a particular context-embedded practice, and therefore unlikely to provide useful evidence. School-based participants were able to advise on the appropriate ways of asking questions in the new tool (log) considering respondents’ likely interpretation and practicable ways of administering the tool among teachers (e.g. at the beginning rather than at the end of a meeting). In this way the lead researcher was given feedback on each iteration of the tool about its scope and the likely nature of the data that can be collected with it. This approach requires the researcher to adopt a reflexive stance to the literature-based knowledge claims, and to respond to the feedback that shapes the research process and tools development as it proceeds, which is different from simply informing the participants about the pre-designed method. The use of CCM allowed for people being
studied to participate in defining the strategy for data collection and analysis (Gómez, Carmen, and Capllonch 2013). The first meeting of the Advisory Committee was entirely dedicated to questioning the theoretical perspective of agency initially proposed by the researcher. As a result, the model was adjusted to focus on the how rather than what aspects of agency, as was discussed earlier.

Shared understanding and language is one of the most significant prerequisites for collaborative research design. The Advisory Committee members did not always share the same understandings about the meaning or value of particular practices, understandably embedding their views in the positions they come from as practitioners, policy-makers or theorists. Gómez, Puigvert, and Flecha (2011) suggest that it is the researchers’ responsibility to establish a communication that is egalitarian. It also needs to be explicit and mindful of the varying perspectives. For example, in the second meeting of the Advisory Committee, it became clear that there was a need to repeat the theoretical framework for the research, rather than assume that all participants will have the same awareness of the underlying theoretical assumptions as the researchers after periods of two to three months in between the meetings. A brief reminder of the underlying theoretical assumptions then opened the following two meetings in recognition that theoretical perspectives are not routinely discussed by all the members. This opened up possibilities for acknowledging the differences and exploring shared interest, and for making decisions about the use of specific methods and innovative ways of collecting data relevant to the research purposes and its various beneficiaries.

**The challenge of knowledge transfer**

Claim to generalisation has been expressed as transferability from one context to another (Powell 2002). We sought to develop a methodology that has potential to create knowledge that has wide conceptual relevance although it has been locally negotiated.
CCM was selected as an appropriate strategy because it has allowed transfer of knowledge across different policy and social contexts, which was made possible by a solid theoretical basis for analysis of praxis (Gómez, Carmen, and Capllonch 2013). The result was a set of tools that could be used to replicate the study of teacher agency for social justice across diverse contexts of schools and education systems with the aim of building a transferable knowledge base for teacher education and development (Opfer and Pedder 2011). The participative research design also creates opportunities for the participants to use the feedback from their own and/or other research sites to initiate change processes in a particular location.

The collaborative approach discussed in this paper is distinctive in its use of theorising and research skills in the initial phases of framing the problem, with extensive involvement of practitioners in developing the robust tools that can be used in future analysis. While this approach holds promise for reconciling the imperatives of research rigour and potential for impact in the research design, its demands are considerable for researchers’ and practitioners’ time, attitudes and skills. Future users of similar collaborative research designs will need to consider carefully the ways of recruiting participants able to commit to extensive participation, e.g. by engaging with the head teachers of schools from which the participants come, agreeing flexible ways of working, and clarifying from the outset the demanding procedures of this way of working towards making research useful for changing policy and practice.

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