



THE UNIVERSITY *of* EDINBURGH

Edinburgh Research Explorer

Development and validation of reflective log for researching and supporting teachers' relational agency for change

Citation for published version:

Pantic, N 2018, Development and validation of reflective log for researching and supporting teachers' relational agency for change. in *American Educational Research Association Annual Meeting 2018*. New York.

Link:

[Link to publication record in Edinburgh Research Explorer](#)

Document Version:

Peer reviewed version

Published In:

American Educational Research Association Annual Meeting 2018

General rights

Copyright for the publications made accessible via the Edinburgh Research Explorer is retained by the author(s) and / or other copyright owners and it is a condition of accessing these publications that users recognise and abide by the legal requirements associated with these rights.

Take down policy

The University of Edinburgh has made every reasonable effort to ensure that Edinburgh Research Explorer content complies with UK legislation. If you believe that the public display of this file breaches copyright please contact openaccess@ed.ac.uk providing details, and we will remove access to the work immediately and investigate your claim.



Development and Validation of Reflective Log for Researching and Supporting Teachers' Relational Agency for Change

Paper presented at the American Educational Research Association (AERA) Annual Meeting, New York, 13-17 April, 2018.

Dr Nataša Pantić, University of Edinburgh natasa.pantic@ed.ac.uk

Abstract

This paper presents the development and validation of a reflective log designed for researching and supporting teachers' relational agency for change. Drawing on theories of teacher agency and inclusive pedagogy, relational agency is defined as teachers working inclusively and collaboratively with families, colleagues and other professionals to address barriers to learning experienced by some students, while avoiding their marginalisation. The log is designed collaboratively with practitioners to analyse these ways of working in relation to particular purposes of change that matter to them, including but not limited to enhancing student achievement. Following responses from 24 teachers and 22 student teachers about the purposes and nature of their collaborative practices within and beyond school, a draft log has been adjusted for uses in future research and professional reflection.

Background and objective

Traditional preparation for teaching as an isolated teacher-classroom activity is increasingly challenged, and teacher collaboration is promoted as beneficial for student outcomes and innovation (Daly et al., 2010; Grangeat & Gray, 2008; Louis et al., 1996; Moolenaar, 2012). How teachers interact with each other and with other staff is critical for taking a collective responsibility for student learning, particularly for students from migrant and low socio-economic backgrounds (Goddard et al., 2007; Louis et al., 1996; Moolenaar et al., 2012). Impactful teacher collaboration, e.g. in the form of 'communities of practice' (Wenger, 1998) is characterised by shared sense of purpose and focus on students learning (see Vescio et al., 2008 for review).

However, existing studies have been criticised for trivialising teachers' practices in a simplistic assumption that teacher collaboration leads to improved student achievement (Riveros et al., 2012). Moreover, the very notion of community is subverted if members are not seen to exercise much choice over the purposes of their collaboration (Roth & Lee, 2006). What is also overlooked is that schools do not necessarily comprise a single community given a variety of purposes that teachers, students and their families, may pursue. Contexts of contemporary schooling involve many co-existing, sometimes competing demands on teachers and schools that involve diverse perspectives and understandings of their roles and priorities. For example, schools increasingly have roles in collaborating with external agencies to protect children who are at risk of social exclusion, as well as underachievement

and other forms of marginalisation. This kind of focus on students' wellbeing as well as achievement is very important to teachers themselves (Pantić, 2017) and shows their multiple commitments that may reflect in multiple purposes of their collaboration within and beyond schools. For example, teachers may be the first people to notice early signs of distress and seek to work with a social worker or a community nurse to support a vulnerable student (Edwards, 2010). It is, therefore, important to understand teacher collaboration in relation to diverse purposes, including but not limited to enhancing student achievement.

This paper presents a reflective log that has been developed collaboratively and validated with practitioners for collecting data on teachers' collaborative practices in relation to the purposes that matter to them.

Theoretical framework

The underpinning theoretical framework combines a distinctive inclusive pedagogical approach within a theory of teachers' relational agency (Pantić & Florian, 2015). The inclusive pedagogical approach (Florian & Black-Hawkins, 2011) involves ways of working with others intended to mitigate the external causes of educational inequality. It is concerned with educational attainment as well as other outcomes and attends to individual differences between learners while actively avoiding the marginalisation of some learners and/or groups, for example, ethnic minority students or those who may be disadvantaged by poverty. This approach represents a specific view of inclusive education as learning how to respect and respond to human differences in ways that include, rather than exclude, learners from what is ordinarily available in the daily routines of schooling, as opposed to doing something 'additional' or 'different' for some (Florian, 2009).

While in the English speaking world 'pedagogy' is often understood as a practice related exclusively to classrooms, we situated the inclusive pedagogy within the broader theory of teachers' *relational agency* – a capacity to work purposefully with others and become aware of the resources they could bring to bear to support a student (Edwards, 2007). Anne Edwards developed the concept of relational agency to explain aspects of inter-professional work with vulnerable children (Edwards, 2007; 2010). In this context, relational agency unfolds when teachers work collaboratively with other professionals to make sense of each other's purposes and attune their practices to give children and young people consistent support focusing on the task at hand - changing trajectories for children at risk of exclusion (Edwards, 2007).

In our own work on teacher agency for social justice and inclusion (Pantić & Florian, 2015; Pantić, 2017) we applied the concept of relational agency to explore teachers' working inclusively and purposefully with various others, including families and school colleagues, as they seek to remove the barriers that some learners may experience. For example, primary teachers shared a sense of purpose with other professionals and families, placing concerns for students' wellbeing high in the perceptions of their professional roles (Pantić, 2017). This reflected Archer's theorisation of agency as partly determined by the actors' commitment to the goals that are important to them (Archer, 2000). But it is not enough to care; agents (inter-)act to take forward what matters to them in the setting of their practice (Edwards, 2017), and reflect on the outcomes of their actions in contexts (Pantić, 2015).

The log presented in this paper has been designed to capture teachers' reflexivity as an essential aspect of their agency (Pantić, 2015; 2017). Archer (2000) emphasised the importance of reflexivity as a distinctly human capacity to monitor and evaluate their actions and social contexts, for envisaging alternatives and working with others to bring about their transformation. Combined teacher agency and inclusive pedagogy frameworks enabled us to interpret teachers' reflections on their purposes and interactional practices as more or less inclusive ways in which they sought to influence parents or seek advice from colleagues or other experts to support children in their charge. In other words, it enabled us to explore the purposes and content ('what'), as well as the nature and impact ('how' and 'why') of teachers' relational agency for change.

Methods and data sources

The reflective log was developed collaboratively with the practitioners following the procedures of the Critical Communicative Methodology (Gómez, Puigvert & Flecha, 2011) to combine research-generated insights with the users' perspectives about what 'really matters' in their professional contexts. A twelve member Advisory Committee included six researchers, two teachers, two (depute) head teachers, and two representatives of local and national authorities in Scotland. The initial draft was developed following the discussions of the Advisory Committee about the most adequate ways of asking teachers to reflect on a situation in which they sought to work with others to address a risk of exclusion and underachievement in their schools. The intention of using a log (rather than e.g. a questionnaire) was to enable teachers to report their experience in their own terms and providing context-specific information, with prompting questions listed on the margin, such as: 'Who else was involved and how?' and 'What was the outcome?'

Participants

The log we sent for validation to teachers in two schools facilitated by the (depute) head teachers and to other teacher networks through authority representatives on the Advisory Committee, and through teacher educators to their (former) students. Initially, 15 teachers were asked to fill out the log and to send any comments about the log itself, e.g. in terms of clarity of instructions and/or any difficulties in responding to the log. The first round of adjustments included simplification of instructions and improvement in the layout with a view toward making the log more user-friendly (see Figure 1). The log was further tested with 9 teachers, including leadership team, from one primary school, and 22 students on three different education programmes. In total 46 responses have been received, 24 from school teachers and 22 from student teachers (some of whom were also school teachers), and analysed to identify the 'What', 'How' and 'Why' of teachers' change purposes and relational practices. Subsequently, the log instructions were adjusted as described below.

Instrument

The revised web-based log is structured in three main sections: What, Who, and Why. Section 'What' asks teachers to describe a particular aim or purpose of a change they sought to generate in their school. Section 'Who' invites teachers to identify people they approached in the situation they described, giving the reasons why they were approached and the nature of the

interaction. Finally, section ‘Why’ provides space for reflection on the change process and its expected or unexpected outcomes (see Figure1).

The image shows a web-based form titled "MY SUPPORT NETWORK FOR CHANGE". The form is designed to help users reflect on their support network. It includes a personal code field, a "WHAT" section for describing the experience, a "WHO" section for listing support people, and a "WHY" section for reflecting on the experience. The "WHO" section is currently populated with "Person 1" and includes fields for code, role, relationship, and two text boxes for describing the person's support. A "submit form" button is located at the bottom right.

MY SUPPORT NETWORK FOR CHANGE

This log is designed to help you reflect on how you use your network of support including school colleagues, families or other professionals to make a difference in your school.

Please enter your personal code
Code:

WHAT
Think of a time when you tried to make a difference in your school: What was your aim? What did you do?

WHO
Who did you involve in this experience? Please name up to five people within or outside school (in the order in which you approached them).

Person 1
Code: Role: Relationship:
Why did you go to this person?

How did this person support you?

WHY
What difference did you make? What worked? What did not work? Reflecting back on this experience, what would you do differently and why?

submit form

Figure 1. Layout of the web-based version of the reflective log, available on <https://www.team4change.education.ed.ac.uk/network/>

Analysis

Log entries were coded using previously generated codes (Pantić, 2017) for aspects of teacher agency applied to inclusive pedagogy (see Table 1). The codes referring to the teachers’ sense of purpose include the content described by teacher, the diverse aims and outcomes they try to achieve (e.g. Learning, socialisation, creating inclusive school community), and the nature of their action. For example, ‘Role-implementer’ code was applied to statements that describe efforts to implement current policies and procedures (e.g delivering the curricula). ‘Agency’ was used to code statements of goals that involve proactively taking responsibility for students (e.g. learning and wellbeing) or broader school issues (e.g. trying to spread a new practice, even if this might challenge existing policies and practices). Importantly, ‘Role-implementing’ and ‘Agency’ codes co-occurred within same entries (see Table 1), suggesting that agency manifests in the ‘how’ rather than ‘what’ teachers do.

Table 1. Overview of codes with frequencies

log section	log text	purpose (content)	purpose (role implementer)	purpose (agency)	competence (inclusive praxis/enactment)	autonomy level (individual)	autonomy level (classroom)	autonomy (within school)	autonomy (beyond school)	interaction (vertical)	interaction (horizontal)	interaction (collegial)	interaction (nature)	reflection (descriptive)	reflection (critical)
WHAT		diverse outcomes	12	20	17	7	10	15	3	12	2	6		2	1
WHO1			11	13	10	10	11	12	5	18	8	4			
	why		12	9	8	8	6	13	6	17	8	7	advice = 36		
WHO2															
	why		8	7	5	5	3	7	2	8	6	3	support = 28		
	how		7	4	5	5	4	6	2	7	6	5			
WHO3													friendship = 21		
	why		4	3	3	2	1	5	1	3	4	1			
	how		3	0	1	1	0	4	2	2	2	2			
WHO4													collaboration = 16		
	why		0	3	2	1	1	2	1	1	1	1			
	how		0	3	1	0	0	2	2	0	2	1			
WHO5													approval = 16		
	why		1	0	0	0	0	1	1	1	0	0	multiple perspectives = 1		
	how		1	0	0	0	0	1	0	1	0	0	general occurrence	34	21
WHY			5	5	12	5	5	10	2	3	0	5		13	4
TOTAL			64	67	64	44	41	78	27	73	39	35		49	26

Similarly, the inclusive pedagogical principles of everybody (rather than some) and flexible ways of working with others were manifest in both ‘implementation’ of existing policies and proactive engagement in more inclusive practices at levels within school (individual, classroom, school) and beyond (e.g. reaching out to school families or other professionals). Relationships and interactions with colleagues or other non-superior actors were coded as ‘horizontal’, while those with line managers or other players in position of power were coded as ‘vertical’. Both could also be coded as ‘collegial’ when there was evidence of support and trust in the reasons given for approaching someone and/or statements about nature of support received (see Table 1 and the ‘Who’ section of the Log). The reasons why the named person was approached and how they were involved were coded as ‘advice’, ‘support’, (including ‘friendship’ or ‘access to resources’), ‘collaboration’, ‘formal approval’, and ‘gaging multiple perspectives’ (see Table 1). Finally, reflexivity as an aspect of agency was coded as ‘descriptive’ when it involved evidence of surface, procedural, ‘what works’ kind of reflection, with standards and school practices being accepted uncritically. The code ‘Critical’ was applied to the evidence of deeper, critical reflection, e.g. challenging assumptions that underlie current policy and practice.

The integrity of each log entry was kept by applying any code to the data in any log section. For example the sense of purpose could be expressed/coded in the ‘What’ as well as any other section of the log (see Table 1 and the Log). Likewise, although the codes referring to the nature of interactions mostly applied to the data in ‘Who’ section, the were applied across the log where evidence occurred.

Results and tool adjustments

What difference did teachers try to make?

In the initial version of the log 14 teachers (all but one) described the situations in which they sought to address barriers to learning of a particular student or group of students they described as ‘under-achieving’ and/or having ‘behaviour issues’ or other barriers such as dyslexia, or not speaking the language of instruction. One teacher described a wider school initiative she led in response to the ‘attainment challenge’ launched by the Scottish

government with the aim of ‘closing a gap in achievement’ between the most socio-economically disadvantaged and other students.

This partly reflected the reality of teacher’s traditional role providing, as one teacher put it ‘few opportunities to engage in professional activity beyond the classroom’, but possibly also resulted from the original instruction to describe ‘a situation in which they sought to address a risk of exclusion and underachievement in their schools’. Students’ wellbeing and general school experiences clearly mattered to teachers as much as their achievement. This was well articulated by the teacher who led the school-wide project:

‘We are also responding to the ‘attainment challenge’ in a way which is labelling students – quite literally, we have a group of students who are known to staff and themselves as ‘the closing the gap group’...being offered a range of supports and interventions...To change exam results while placing a lot of individual pressure (and, implicitly blame) on small groups of students who are perceived to... drag our attainment statistics below the desired levels...to my mind reproduces the marginalisation. I want us...to take time to listen deeply and well to the voices in our school community...to make changes that are meaningful in students’ lives as well as in their exam results...(particularly those in more marginalised groups) feeling happy, safe and engaged in our school community more of the time...’

This entry resonates with the principle of everybody vs. some of the inclusive pedagogical approach and clearly reflects teacher’s in-depth understanding of the implication of policies for students’ schooling experiences and outcomes that go beyond exam results.

Following teachers’ suggestions, the log instruction was reformulated to: ‘Think of a time when you tried to make a difference in your school: What was your aim? What did you do?’ The aim was to capture a greater range of purposes and experiences, within and beyond classroom.

School staff and student teachers who responded to the changed version of the log covered a wider range of content regarding the difference they wanted to make in their schools. These have been coded under 8 categories as follows: Learning, e.g. Subject; Widening access and participation; Socialisation; Shared sense of purpose; Dealing with difficult situations; Children independence; Creating inclusive school community, and Policy implementation. As an example, this teacher described an effort to spread a practice promoted independent learning (Teacher, Log ID35):

‘I wanted to encourage children to reflect on and manage their learning more independently. I decided to pilot a system of ‘learning folders’, in which children had tailored laminated materials on which to practise aspects of their learning in which they required development. They also stored and reviewed practice papers to monitor their own progress. The pilot was successful in enabling the children to feel more independent and was subsequently rolled out across school as ‘learning packs’, which are now standard’.

‘Role-implementation’ and ‘agency’ codes co-occurred across the three log sections covering both procedural activities required by the institutional role, and initiatives that go beyond what is expected as part of their regular practice, with similar frequencies to each other and to the

application of inclusive pedagogy principles (See Table 1). The following example is an extract of a school teacher's log entry coded both as 'role-implementation' and 'agency' (Teacher, Log ID2):

'Encourage and support teachers in using concrete representations when teaching maths. Help children develop an understanding of the size of numbers. Support parents in helping their children with maths. Asked children and parents to make 'half a hundred hedgehogs' and bring into school. Classes took it in turns to organise and begin counting hedgehogs Over 13 thousand hedgehogs brought into school altogether. Hedgehogs remain in school, in boxes and around the corridors. Children and teachers use them to support learning in maths lessons. Challenge: Would enough families bake salt dough hedgehogs? Children didn't all want to share their hedgehogs – extra learning about sharing and being part of something bigger than yourself.'

The example combines elements of implementing maths curriculum with exercise of teacher agency to initiate making hundreds of hedgehogs with the support of parents.

An example from a student teachers that had previously worked as a school teacher (Student, Log ID 12) illustrates a co-occurrence of codes 'agency' and 'inclusive practice':

'When I was working in a high school, in Brazil. I tried to make sure that all my pupils (those who could or could not afford to buy the books) could get access to the reading required by the Universities' entrance exams. I organised a meeting with the subjects coordinator and the local librarian and we agreed that all pupils would have access to films where they were available (six of the 18 books required for the entrance exam were made into movies).'

In this example, the respondent was pro-actively trying to make a difference in learning by enabling all students to access learning materials in preparation for the exams.

Comparing the two groups of respondents, student teachers described more situations coded with 'agency' (29 compared to 12 coded as 'role-implementation'), while school staff described more situations coded as 'role-implementation' (43 compared to 20 coded with 'agency', perhaps indicating that student teachers are more idealistic in their aspirations as agents of change.

Who was involved and how?

With regard to the ways in which teachers sought to involve others they mentioned relevant players including families, school colleagues, management, support staff, various external agencies and professionals such as social workers and education psychologists, and researchers. They described different types of interactions including seeking advice e.g. from a colleague or specialist; or more regular communication e.g. with parents or social worker, as well as relying on colleagues for 'moral support'. The reasons for interactions also varied from the formal approval seeking from the management to the more horizontal exchanges, e.g. identifying a colleague who had a Bengali-speaking student who could facilitate communication with a student who did not speak English.

Respondents also provided contextual information that helped characterise the described ways of working with others as more or less aligned to the inclusive pedagogical approaches.

Sadly, a few responses resonated with deficit views of students and families described as ‘unable to engage with school life’ or ‘refusing to work’ or ‘engage with learning’, but also those recognising the ‘need to understand the impact of home situations or poverty on learning’, and their own role in creating inclusive environments for all learners. For example, the ways of working with support staff ranged from teachers refusing to send children out of class, to those relying on various experts to help fix, e.g. a behaviour issue, outside classroom.

The revised version of the log included a drop down menu allowing teachers to describe the type of interaction with particular others as well as space for details about the nature of and reasons for particular interactions (see Figure 1.).

Teachers largely reported within school (inter-)actions, mostly at an individual and classroom levels (see Table 1). Seven log entries, with classroom and within-school codes co-occurring refer to situations where a classroom level action has turned into a whole school practice, supported by colleagues and leadership team through advice and approval, as in this example (Teacher, Log ID34):

‘I was new to the school and I wanted to introduce a new way to ensure there was consistent and high level support for students with special educational needs and disabilities who find behaviour a challenge. The school now uses a pro-forma I created.’

Other initiatives reported by the respondents acted at an individual level and were related to various purposes, e.g. individual support for new staff (newly qualified teacher), learning support for one or more student, personal implementation of new learning policy/curriculum.

Regarding the type of interaction, 12 out of 73 vertical interactions were coded also as collegial compared to 16 out of 39 horizontal ones. When trying to make a difference, the respondents mostly interacted with various people in a position of power, or a particular hierarchical role in the school, e.g. leadership team. However, the nature of these interactions was not always a formal or informal approval but also advice seeking, friendship and support (moral/emotional as well as material/resources); collaboration; and seeking multiple perspectives. The reasons given for involving other people in the situation indicate that friendship played a role as important as approval when interacting with leadership team, and even more important when approaching a peer teacher. However, respondents’ choice of a code from the drop down menu was not always the same as researchers’ interpretation of the nature of relationships from the textual log entry. As an example, a student (Student, Log ID29) described a situation where they tried to make a difference in the learning of a student diagnosed with ADHD introducing a reward system to be used at home as well as at school. They involved the pupil’s family indicating the nature of the interaction as friendship, while the explanation of why the family was approached and how this has influenced the situation was coded as ‘collaboration’.

Reflections on the outcomes

Finally, teachers’ reflections on the outcomes of their effort and reasons for their success or failure largely emphasised the importance of communication for understanding multiple perspectives, and with a couple of exceptions, limited impact e.g. on students’ improved confidence.

The principles of inclusive practice, such as everybody, trust, and co-agency, were enacted both within ‘role-implementing’ and ‘agentic’ sense of purpose, particularly when respondents reflect back on the situation they chose to report (in ‘Why’ section of the log), as in this example (Student, Log ID24):

‘the difference I made was I allowed pupils the opportunity to attend an extra-curricular club at a time that suited them. This worked as not all pupils are able to attend clubs after school and so the lunchtime club allowed them the opportunity to be active.’

This student’s log entry captured an effort to involve other people to address barriers to inclusion, in line with the inclusive pedagogical emphasis on extending what is ordinarily available to all pupils.

Teachers’ reflection on the situations varied greatly from bullet-point descriptive statements to the few instances of critical reflection in which teachers shared their deeper insights into the complex ways in which social issues and policies affect their practices, as in the quote on page 6).

This variation could be linked to teachers’ remit within school. For example, most classroom teachers did not have a chance to participate in strategic decision-making and sometimes implemented policies they disagreed with, e.g. ‘to send a misbehaving child home’. Those who reported that they felt trusted also seemed to seek more creative solutions in working consistently with parents or other professionals.

To stimulate deeper reflection on the outcomes and influences on teacher agency, the revised instruction included prompting questions ‘What difference did you make? What worked? What did not work? Reflecting back on this experience, what would you do differently and why?’. Still more responses were coded as descriptive (49) rather than critical reflection (26). Descriptive reflections appeared to be brief, often listing things that worked or did not while more critical ones went into depth taking into consideration more elements that influenced the process of change. The following example (Teacher, Log ID39) shows a descriptive reflection where, despite the respondent highlights different aspects involved in the process of change, this is done superficially without unpacking the underlying issues that influence the outcome:

‘Surveying all the staff and children really meant that everyone had ownership over the changes we made. Each time I survey it appears that the Values are more and more Embedded. However it is an ongoing process and needs to be kept fresh in some way to ensure that the Values are valued. So each year we need to change something for it to remain fresh. It is also difficult to tell whether I have had as much impact as I would like and what is a reasonable impact to expect to have.’

Another example (Student, Log ID27) includes more details in their reflection, taking into consideration what worked and what did not, as well as what they thought could be done differently and how. Moreover, the consideration of other people involved and the effects that elements not considered before might eventually have affected the outcomes of an action were interpreted as evidence of a more critical reflection:

‘I felt that I listened to that child needs and put something into place to scaffold their learning. The difference I made allowed us to learn about our own practice and the changes we could make to optimise children's learning. I felt working in partnership with staff worked really well, this allowed us to communicate and support this child's needs and also think about their next steps in their learning. However, I felt that I was lucky to have had time this week to listen to this child, due to the class size, time management and the variety of needs spending quality time to listen to learners I feel is a constant struggle. I feel that wording in homework was something we needed to look into, and strategies that are needed to complete the homework need to match the ability of the learners. I think next time I would maybe sit and listen to what the learners understanding of the homework is first, before just going and explaining it all. I think knowing the learners process of thinking is important in order to understand the difficulties they are having. This is so that I can get to where the real difficulty lies, that may have been the reason the child was feeling anxious in the first place.’

In summary, teachers’ efforts to make a difference are largely focused on students, but involve a wider range of purposes, including but not limited to raising attainment. The inclusive pedagogical approaches reflect in *how*, rather than *what* teachers do. Their (inter-)actions can be characterised as inclusive both when they enact existing policies and attempt to innovate practices. Teachers mostly approach people within school, most often those in positions of power, for support, advice or approval. Their reflections about the outcomes of efforts to make a difference are often descriptive, reflecting existing policies or school procedures, with few examples of a deeper, more critical reflections on the underlying assumptions and ideas about how things could be done differently to build more inclusive school communities.

Future uses of the log

These findings have influenced further developments of the log for uses in teacher education and research that open new ways of analysing teachers’ relational agency in relation to its specific and diverse purposes. Such analysis can help us understand how genuine communities of practice in which purposes are shared and practices aligned emerge from interactions within and beyond schools.

In teacher education the log can be used by students, e.g. during placement in schools as part of initial teacher education and discussions of the different school and policy contexts that are sources of opportunities as well as barriers to innovative practices. It is particularly suitable for stimulating reflection of students with some experience, e.g. on teacher leadership courses.

In professional development the log can be used for teachers’ individual and collective reflection in school-based professional development activities. For example, a group of teachers who set a goal they would like to achieve together can use the log to reflect on and negotiate the meaning of desired outcomes and practices, and identify support network members with particular knowledge, resources or expertise.

In research log data can be analysed using quantitative and qualitative techniques to examine the patterns of teachers’ interactions in relation to particular purposes. Studies could explore how teachers work with others within and beyond school to enact particular change

or practice. The desired outcomes (and their indicators) can be externally mandated or initiated by the school staff, or in collaboration with the researchers. Longitudinal studies could examine how teachers' support networks emerge over time as they seek to make a difference, individually and as members of a community.

The reflective log is particularly suited for collaborative projects designed and implemented together by practitioners and researchers to maximize both research rigor and potential impact. A large scale mixed method social network analysis could help us understand the patterns of teachers' interactions that enable a change of interest across contexts. At the same time, practitioners in particular locations can receive feedback based on their school data to inform their individual and school development, working with researchers as critical friends.

References

- Archer, M. S. (2000). *Being Human: The Problem of Agency*. Cambridge: Cambridge University Press.
- Black-Hawkins, K. & Florian, L. (2012). Classroom teachers' craft knowledge of their inclusive practice. *Teachers and Teaching* 18(5), 567-584.
- Daly, A. J., Moolenaar, N. M., Bolivar, J. M., & Burke, P. (2010). Relationships in reform: the role of teachers' social networks. *Journal of Educational Administration*, 48(3), 359–391.
- Edwards, A. (2007). Relational Agency in Professional Practice: a CHAT analysis, Actio. *An International Journal of Human Activity*. 1, 1-17.
- Edwards, A. (2010). Relational Agency: Working with Other Practitioners. In Anne Edwards (ed.). *Being an Expert Professional Practitioner*, 61–79. Netherlands: Springer.
- Edwards, A. (2017). The Dialectic of Person and Practice: How Cultural-Historic Accounts of Agency can Inform Teacher Education. In J. Clandinin & J. Husu (Eds.) *The SAGE Handbook of Research on Teacher Education*. Sage publications.
- Florian, L. (2009). Preparing teachers to work in 'schools for all', *Teaching and Teacher Education* (introduction to special issue on teacher education for inclusive education), 25(4), 553-554.
- Goddard, Y. L., Goddard, R. D. & Tschannen-Moran, M. (2007). A theoretical and empirical investigation of teacher collaboration for school improvement and student achievement in public elementary schools. *Teachers College Record*, 109 (4), 877–896.
- Gómez, A., Puigvert, L. & R. Flecha (2011). Critical Communicative Methodology: Informing Real Social Transformation Through Research. *Qualitative Inquiry*, 17(3), 235–245.
- Grangeat, M., & Gray, P. (2008). Teaching as a collective work: analysis, current research and implications for teacher education. *Journal of Education for Teaching*, 34(3), 177–189.
- Louis, K. S., Marks, H. M., & Kruse, S. (1996). Teachers' Professional Community in Restructuring Schools. *American Educational Research Journal*, 33(4), 757–798.

- Moolenaar, N. M., Daly, A. J. & Slegers, P. J. J. (2012). Exploring Patterns of Interpersonal Relationships among Teachers. In Wubbels, Th. Brok, P. den, Tartwijk, J., & Levy, J. et al. (Eds.) *Interpersonal Relationships in Education An overview of contemporary research* (pp. 87-101). Rotterdam: Sense publishers.
- Pantić, N. (2015). A Model for Study of Teacher Agency for Social Justice. *Teachers and Teaching: Theory and Practice*, 21(6), 759-778.
- Pantić, N. (2017). An Exploratory study of teacher agency for social justice. *Teaching and Teacher Education*, 66, 219-230.
- Pantić, N. & Florian, L. (2015). Developing teachers as agents of inclusion and social justice. *Education Inquiry*, 6(3), 333-351.
- Riveros, A., Newton, P., & Burgess, D. (2012). A situated account of teacher agency and learning: Critical reflections on Professional Learning Communities. *Canadian Journal of Education/Revue Canadienne de L'éducation*, 35(1), 202–216.
- Roth, W-M. & Lee, Y-J. (2007). Contradictions in theorizing and implementing communities in education, *Educational Research Review*, 1(1), 27-40.
- Vescio, V., Ross & Adams, D. (2008). A review of research on the impact of professional learning communities on teaching practice and student learning. *Teaching and teacher education*, 24 (1), 80-91.
- Wenger, E. (1998). *Communities of Practice: Learning, Meaning, and Identity*. Cambridge: Cambridge University Press.