

The Effective Use of Evidence by Early Career Teachers in Rural Settings

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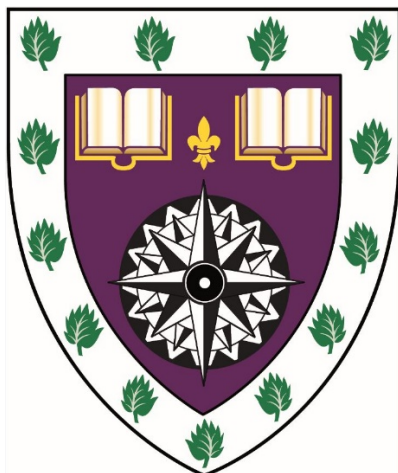
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Content

Project members	3
Executive summary	4
List of abbreviations.....	5
Introduction	6
Research questions	7
Framing the question.....	7
The rural dimension.....	8
Teacher agency	9
A moving target – the attainment gap.....	10
Methodological approach.....	11
Analytical approach	12
Analysis	13
Using evidence.....	13
Numeracy.....	17
Health and Wellbeing	18
Literacy	21
Conclusion	23
Taking ideas forward.....	24
References	25

Project members

This project was started initially by Dr Helen Coker, who left the employment of the University to help to launch the new ITE programmes at Queen Margaret University early in the project's lifecycle. The project has remained supervised by Professor Morag Redford, who as of August 2020 will be chairing the SAC project panel. Mark Lindley-Highfield has been collecting the data for the project and has produced this report, including some of the early work of Dr Helen Coker.

PROFESSOR MORAG REDFORD

Professor Morag Redford was educated at the Universities of Edinburgh, Hull and Stirling, and at Jordanhill College of Education. Professor Redford's fields of expertise are teacher education and the interface between research, policy and practice; with a focus on professional learning, interprofessional practice and the political administration of Scottish Education. Professor Redford recently served as Chair of the Scottish Council of Deans of Education and will lead the SAC Project from August 2020. She publishes regularly on education in the Scottish Parliament and contributed chapters on the political administration of education to the core text on Scottish education. Her early research in professional learning led to the design of an analytic structure to support teachers carrying out action research in their settings (Buchanan and Redford, 2008), work that led to commissions from the Scottish Arts Council, the Educational Institute for Scotland; and from the Scottish Government to lead the design of a Scottish Framework for Masters in Education. Professor Redford's research in interprofessional practice has been presented internationally, secured research funding and directly informed the development of Interprofessional Masters provision at the University of Stirling. Her current research interests include rural education, the political implementation of national policy in Scotland, and Education Partnership networks.

MARK LINDLEY-HIGHFIELD OF BALLUMBIE CASTLE

Mark Lindley-Highfield is an anthropologist by training, who studied at the Universities of Oxford, Aberdeen, Edinburgh, and the Open University. Mark is a Lecturer in Teacher Education at the University of the Highlands and Islands in Inverness and teaches on the PGDE programmes, Psychology and Philosophy degrees, as well as on the MEd in Critical Enquiry. He is the Programme Leader for the new BA (Hons) degree in Moral and Philosophical Studies with Religious Education. Mark's teaching and research interests now centre on the use of observational techniques to inform teaching practices as part of practitioner enquiry and on synergies between this and the ethnographic method. He is particularly interested in rural education and the use of online media to facilitate professional collaboration and learning. For the past two academic years, Mark has been seconded to the University of Dundee for part of his time to lead groups of student teachers

on the Rural Learn To Teach PGDE programme. Mark represents UHI at the Scottish Educational Research Association and is co-convenor of the Applied Anthropology Network of the Association of Social Anthropologists of the UK and the Commonwealth. Mark is also a member of the International Committee of Kappa Delta Pi, the international honour society for Education.

DR HELEN COKER

Dr Helen Coker qualified as a Teacher of Primary at Christ Church University College, Canterbury, after studying English Literature at the University of Wales Aberystwyth. She earned an MEd in Distinction from the Open University before joining the University of the Highlands and Islands in Inverness as a Lecturer in Education. Dr Coker completed a doctorate on understanding pedagogic collaboration in online settings at UHI, awarded by the University of Aberdeen. Dr Coker has served on the editorial board of the Scottish Educational Research Journal and has published on student agency and online learning. She was Programme Leader for the MEd in Critical Enquiry, and left UHI in 2018 to lead strands of learning on Queen Margaret University's new BA (Hons) in Education Studies. Dr Coker took the present research project through ethical approval at the University of the Highlands and Islands and commenced the first phase of its studies.

Executive summary

The present document constitutes an interim report on findings part way through a process of enquiring into the best ways the University of the Highlands and Islands can support early career teachers in rural settings to use evidence effectively in their practice for the purpose of closing the poverty-induced attainment gap and raising attainment in Literacy, Numeracy and Health and Wellbeing.

The COVID-19 outbreak has had an impact on this study in terms of directing the discourse, as understandings of social and economic deprivation are now seen through this lens and the material conditions in which learning and life are taking place have altered significantly and will have had an impact on attainment-related issues.

The first two phases of this study have revealed how productive it has been to provide a safe place for reflecting on the nature of learning in these rural communities and also to build shared experiences of an iterative nature that can inform projective ambitions as to what outcomes for the learners can be. We have built a community of practice that shares its achievements and reflects on the things that have not gone according to plan to make the experience for learners, and these early career teachers themselves, better. A space for dialogue has given these educators a forum for reflecting on the evidence in front of them and also time away from everything else in a shared space with people with other experiences and suggestions to share, which facilitates the next steps in teaching and learning.

Experiences of rurality are not all one of a kind, however the significance of community in whatever shapes or forms this takes is significant across all of these settings, including the community that we have created.

In the final phase of the project, the prior year's participants are invited to come back as mentors to the new cohort of NQTs, so that there is an additional layer of experience to assist those entering the profession at this challenging but interesting time.

List of abbreviations

GTCS	General Teaching Council of Scotland
HWB	Health and Wellbeing
ITE	Initial Teacher Education
NQT	Newly Qualified Teacher
OECD	Organisation for Economic Cooperation & Development
PEF	Pupil Equity Funding
SAC	Scottish Attainment Challenge
SIMD	Scottish Index of Multiple Deprivation
SNSA	Scottish National Standardised Assessments
TIS	Teacher Induction Scheme
UHI	University of the Highlands and Islands

Introduction

As part of the SAC project's wider aim to develop pedagogies that work for pre-service and early career teachers to reduce the attainment gap in Literacy, Numeracy and Health and Wellbeing, the University of the Highlands and Islands resolved to explore the effective use of evidence by early career teachers in rural settings. The reasons for this approach were twofold: Firstly, the University of the Highlands and Islands is uniquely set in a vast rural area; a composite landmass approximately the same size as Belgium and roughly twice the size of Wales; and – secondly – the Education programmes at UHI have expertise in supporting student teachers and qualified professionals in carrying out practitioner enquiry into their developing professional competence and in reflecting on their professional practice.

This research sits within the wider national study, funded by the Scottish Government, which is part of a range of initiatives engaging with the Attainment Challenge. The overall purpose of the national study is to equip early career teachers¹ to work effectively to improve engagement and attainment in schools serving pupils from backgrounds in deciles 1 and 2 (the most deprived 20%) of the SIMD dataset, or those having similar experience, as will later be operationalised.

The Attainment Challenge was launched in Scotland in February 2015 to tackle the poverty-related attainment gap and focuses on driving improvement activity in Literacy, Numeracy and Health and Wellbeing. It is supported by the National Improvement Framework and Improvement Plan and articulates a range of other programmes and initiatives that aim to promote equity and opportunities for young people to succeed within and beyond school.

Being situated in a rural context, the UHI aspect of this research focuses on rural education. Rural deprivation is not always captured by the SIMD deciles, as this report will come to show. Early career teachers working in rural areas may be teaching composite classes with a small number of pupils from a wide range of SIMD deciles. The datasets and evidence which teachers use, in rural schools, to make effective decisions in relation to improving engagement and attainment, are potentially less stable than their urban counterparts. This study focuses on developing early career teachers' capacity to make effective decisions when engaging with evidence in rural settings.

Internationally, education systems are emphasising the need for evidence-informed practice. At the 2017 *European Conference for Educational Research*, Säfström (2018) discussed the supranational forces that have led to particular types of evidence-based practice being valued. Within the context of school education, the OECD has created spaces of equivalence by delocalising and universalising the contexts of education (Naidoo, 2018). Measures of education, influenced by supranational organisations, focus on universal comparisons. Reflecting on this in light of rural education raises questions in relation to attainment: Local values in rural contexts have been observed to reflect the opportunities

¹ Here defined as those in their final or postgraduate year of ITE, or in their TIS year or while on the flexible route to Full Registration with the GTCS.

available to pupils when they leave school. In terms of the national dataset, the ‘leaving discourse’², or the way in which leaving school is talked about and understood, can be urban-centric and overlook the particularities of place (Corbett and White, 2014; Echazarra and Radinger, 2019). While there are clearly benefits of comparability and clarity in a unified approach, this project seeks to remedy this imbalance by providing a voice for significant ‘localities’ that otherwise may not be considered fully within this discourse and that may account for some of the ways of raising attainment in rural settings.

Research questions

The key research question the UHI project is addressing is: What can we do we as a teacher education institution to support early career practitioners in rural settings to use evidence effectively?

For the purposes of this project, the effective use of evidence would involve the following three objectives, on a collaborative basis:

To develop effective pedagogies for rural teachers to utilise when working with pupils who sit in the SIMD deciles 1 and 2;

To develop effective approaches to engaging with evidence to inform practice in rural schools; and

To develop understanding in the ways that rural teachers can be supported to develop new pedagogies and evidence-informed practice.

Framing the question

In this section of the report, the research question will be contextualised within overarching themes to which it relates. Inherent in addressing how to assist early career teachers with using evidence effectively in rural settings are the implications of that rurality, so the report considers factors in the literature that are relevant to the rural dimension of this study. Implicit in the presumption that the early career teachers’ use of evidence can be effective is the view that these teachers have the agency to put this evidence into use. The issue of teacher agency will be explored, as it is an essential attribute if the three objectives outlined above are to be achieved. Furthermore, the report will consider the nature of the attainment gap as a moving target and the implications of this for structures affecting teacher agency.

² See: Corbett and Baeck, 2016; Hargreaves, 2017; and Roberts, 2018.

The rural dimension

In rural contexts, education is often identified as favouring outmigration (Corbett and Forsey, 2017), the ‘leaving discourse’ being repeatedly identified in the research (Gulløv, 2017; Hargreaves, 2017; Roberts, 2018; Echazarra and Radinger, 2019). Rural education has been labelled with a deficit discourse; it is seen as a space of educational disadvantage (Reid et al, 2012). In Scotland, pupils in remote schools score more poorly than those from other areas in attainment data in almost all levels of the Curriculum for Excellence against expectations for their stage (Scottish Government, 2019a). However, rurally accessible schools are consistently better than average, reflecting English data also, where although rural schools get better results, they are still seen to be disadvantaged (Hargreaves, 2017). It is easy to overlook the fate of remote rural schools when official reports, such as that of the OECD (2015), comment on rural schools in Scotland being an exception to the international trend of urban schools outperforming rural ones. That there is more than one experience of rurality can also be seen in the levels of educational attainment of residents of rural areas, where the Scottish Government (2015) confirms,

‘levels of school and college education attained are broadly comparable for accessible rural areas and the rest of Scotland. A slightly lower proportion of residents of remote rural areas have a degree level qualification or equivalent compared to accessible rural areas and the rest of Scotland.’

The report rightly notes that these data reflect people who have chosen to live in these areas rather than necessarily representing those who spent their formative years in the location.

Rural schools have unique qualities (Gallo and Beckman, 2016), which can differentiate them from their urban counterparts. Urban-centric curriculum and policy (Muijs, 2015) may lead to issues of interpretation of evidence from rural settings (Beach et al, 2018). Rural contexts are often overlooked by policy (Gristy, 2014; Howley and Howley, 2014) and research (Gallo and Beckman, 2016; Corbett and White, 2014). A clash between local and national standards for education, particularly in relation to rural contexts, has been identified (Gulløv, 2017). Rural youth may value different forms of cultural capital, when compared to the evidence-based universalised measures of assessment (Bourdieu and Passeron, 1977; Echazarra and Radinger, 2019).

‘Closing the Attainment Gap’, the aim of the SAC initiatives, in rural areas requires acknowledgment of the ‘complex nature of rural living and making sense of the role education could play in rural development’ (Bartholomaeus et al, 2014, p.59). Scottish data suggest that attainment is below average in remote schools. Rural poverty is often not visible but is acknowledged to be present (c.f.: SIMD, 2020; Orkney Health and Care, 2019; Scottish Government, 2019b). When SIMD data use large post code areas, other forms of data need to be engaged with to identify poverty. Where communities are small and potentially geographically diverse, teachers are likely to meet pupils with similar backgrounds (to those identified as being of SIMD deciles 1 and 2) in different ways to their

urban counterparts. In light of this, this research is focused on listening to rural teachers and valuing the voice of the rural practitioner (Corbett and White, 2014).

Rural schools, for the purposes of this study, comprise schools within our partner authorities of the Highland Council, Moray Council, Argyll and Bute, the Western Isles (Comhairle nan Eilean Siar), Shetland, and Orkney. In the future, we would like to involve the Scottish Borders. We recognise that schools in our partner authorities are of different degrees of rurality, according to official measures (Scottish Government, 2020a), whether 'accessible rural' or 'remote rural' in classification, or otherwise, even though some may be located in more rural or isolated contexts than others.

Teacher agency

For our early career teachers to be able to use evidence effectively, they require the agency to be able to do so. This project adopts Priestley et al's (2015) ecological model of agency, which considers the iterative, practical evaluative and projective dimensions to agency, as they are affected by structural and environmental factors, whether cultural or material. Timperley and Alton-Lee (2008) advocate an iterative approach to teacher knowledge formation and also the importance of evidence to inform actions that improve learning for pupils. The model of agency with which this study is working appreciates that in having a projective dimension, there is a vision that we seek to achieve and, through the iterative dimension, we are calling on our past understandings of our self and the implications of our prior actions to understand how we should act in the future. These dispositions sit well with Timperley et al's (2014) spiral of enquiry. Emirbayer and Mische (1998) note how practice is informed by a process of choosing from past thoughts and experiences to inform the present, and how the conceptualisation of future states of affairs can impact on agency. Timperley et al's (2014) processes of scanning, focusing, and developing a hunch harness these elements of personal agency and reveal the transformative capacity of enquiry for effective change, and in this case the effective use of evidence.

Priestley et al (2015) rightly observe the potentially interconnected impact of cultural, structural and material elements on practical evaluative processes. Material aspects, such as the environment in which we operate and the resources it has available, might limit our ideas and beliefs about what is possible, thus affecting the cultural dimension to our agentive capacity, in a similar way to how power differentials to which we are exposed, such as the style of leadership in a school, might also limit our appreciation of the projective potential of a given situation; especially if in our iterative understanding of our professional self we have been through a similar situation in the past, which might suggest to us that there are effective constraints in the present. One such a structural constraint with cultural implications relates to the material environment on a topic relevant to this study.

There are many ways of dividing up physical space and one of these is implemented in the SIMD (2020). A structural model of seven domains has been superimposed onto this spatial construction to rank each of these locations within this index of multiple deprivation in

Scotland. The Attainment Challenge started working with certain Challenge Authorities to provide enhanced funding to address the poverty-induced attainment gap, which has culminated in PEF, which has become available to a range of schools based on the level of pupils who are entitled to free school meals that the school has. This is a different measure to how progress in reducing the attainment gap is recorded, which is related to the SIMD band (here, quintile) of where the pupils live (Scottish Government, 2019c).

In the Scottish Government's notes on the introduction of SIMD 2020, they flag up that this data needs to be used carefully in rural areas, giving three key reasons why:

- 'data zones in rural areas are bigger than those in urban areas
- 'pockets of deprivation are smaller in rural areas: these are more likely to include a mix of households experiencing different levels of deprivation
- 'problems of transport and distance to employment and services are very important features of rural deprivation. They are part of SIMD but have less influence on the overall SIMD rank compared to other domains such as employment and income.'

(Scottish Government, 2020b)

As the document itself points out, the dataset does not mean that every individual living in an area that is held to be deprived is her- or himself suffering from deprivation, and conversely it is not the case that every family in an area of low deprivation is free from deprivation.

For our early career teachers, this means that especially in rural settings, they need to use their agency to be individually responsive to the needs of their learners, formulating their own understanding of the inequities that they may face. The link between attainment and poverty has already been established in the literature (Sosu and Ellis, 2014) to inform current policy and thus it may be inferred that pupils experiencing significant deprivation will require focused support to realise their full potential. It is important to remember that there is no guarantee that progress in terms of closing the poverty-induced attainment gap will be unidirectional.

A moving target – the attainment gap

As with other interventions in the classroom intended to impact positively on pupils' learning and attainment, steps taken to reduce the poverty-induced attainment gap similarly need to be kept under review. In that cyclical process identified by Timperley et al (2014) as the spiral of enquiry, projective aims need to be evaluated practically in light of iterative experience. Early career teachers, like their more established peers, need to reflect on their practice and check that the steps they are taking to improve the learners' experience are having the desired effect. It is through this process that they engage in using evidence and it is this process that makes that use effective.

As Priestley et al (2015) would remind us, cultural, structural and material factors may impact on practical evaluative processes, and this can be seen in the advent of unprecedented unexpected events such as the COVID-19 outbreak.

There have been material implications of the COVID-19 outbreak in terms of restricting access to resources, and none more evident here than the resource of school buildings themselves. The learning environment has shifted, at least in the short-term, to an online model. The Education Endowment Foundation (2020) has carried out a rapid evidence assessment based on a systematic literature review to try to gauge the impact of school closures on the attainment gap, giving us an indication of the likely impact of the COVID-19 outbreak. The report concludes that 'It is highly likely that the gap will have widened when pupils return to school, even if the strongest possible mitigatory steps are put in place' (Education Endowment Foundation, 2020, p.21), however the report makes recommendations for remedial measures, including targeted support and the professional development of teachers to enhance teaching quality. Narrowing and closing the attainment gap will thus require a regular process of review and targeted action, which also fits well within a spiral of enquiry.

Methodological approach

This project is based on face-to-face and online semi-structured focus groups and discursive activities held in the Local Authority areas and in an online space, the Virtual Classroom (Bongo) on a platform called Brightspace. The researchers attended local probationer events across the UHI region during August and September 2018 and between August and December 2019 for each year's intake of NQTs, both Primary and Secondary. These face-to-face events provided the opportunity to recruit interested parties to engage in the ongoing online discussions that would take place monthly over the remainder of the academic year. In 2018-19, up to ten NQTs participated from three local authorities. In the 2019-20 school year, we attended a Probationer event at each of the Highland Council, Moray, Shetland, Orkney, Western Isles and Argyll and Bute local authorities' staff development sessions for NQTs. This meant that almost all NQTs took part in the face-to-face first phase of the study. Over 20 probationers were recruited to participate in the online aspect of the study for 2019-20, although attendance was rotational, but all six partner authorities were participating in a mixed group, if not all at once. The findings from this initial phase of data-gathering have informed later stages of the research in which we have sought to build communities of practice across rural schools and the partner authorities (Wenger, 1999).

The face-to-face phase of the project focused on perceptions of the challenges of rurality and how deprivation is manifest in the unique settings of the Highlands and Islands of Scotland. Within the online space, this moved onto discussions about the attainment gap, evidence used to identify pupils for support, and interventions they were using that were proving successful. This second phase involved engagement in professional discussions around the visibility and understanding of the Attainment Challenge within school settings,

as well as identifying effective pedagogies in Literacy, Numeracy and Health and Wellbeing. To support the second phase of the project, one local authority requested an input on carrying out practitioner enquiry and every NQT working for that authority was asked to carry out their enquiry on an aspect of practice related to the SAC. Another local authority recommended that their NQTs focus on closing the attainment gap as the topic of their enquiry for the year.

The final phase of the study, in the 2020-21 academic year, involves participants from the 2019-20 year coming back as mentors for the new cohort of NQTs who will be participating in the study and addressing the above issues afresh.

Ethical approval was received for the study by the Ethics Committee of the University of the Highlands and Islands, as well as a part of the wider project here.

School visits were carried out between October 2018 and January 2019 and in Spring 2020. The data from the school visits will be included within the final report, after the third phase of the study has been completed, as there will be additional school visits in the 2020-21 school year. The school visits are one-to-one semi-structured interviews with class teachers and head teachers to build an understanding of how evidence is being used in rural schools in relation to the attainment gap in particular.

During the final analysis, after the third phase of the study, data from the school visits will be analysed with data generated from the face-to-face and online focus groups. From an institutional perspective, UHI is carrying out an enquiry (Timperley et al, 2014) into whether these interventions help early career teachers in rural settings to use evidence effectively. The inputs at local authority events and the online discussion sessions will be evaluated for effectiveness in advancing this aim. Similarly, we will reflect on the success of introducing mentors from the previous year's cohort of NQTs. The final online session will consist of a debrief and reflection on the whole process to gain feedback from the participants. The findings will also be shared with the participating local authorities in addition to the overarching project submission.

Analytical approach

The participants' involvement within the project will be assessed in terms of the teacher-agency framework (Priestly et al, 2015) and in relation to the processes of the spiral of enquiry (Timperley et al, 2014). This is chiefly to understand the relative agentic capacity of the early career teachers to use evidence effectively and also to contextualise their reflections within a practitioner enquiry framework.

The analysis is predicated on a socio-constructivist philosophical position (Hodkinson, Biesta and James, 2007), in that it is looking for meaning constructed through the community created during this process. The perspectives of the early career teachers will be communicated through a narrative analysis (Bahktin, 1981; Wertsch, 1991), as this

qualitative approach allows the voice of the rural participants to come to the fore, as is advocated by Corbett and White (2014).

Analysis

The data gathered during phases one and two are produced here through symbolic representations of the narrative discourse witnessed in the face-to-face and online discussion sessions. The data is symbolic in terms of being representative of the different constituencies that participated within the research in the form of indicative content. This is presented through discourse related to using evidence to assess pupils' needs, and subject areas reflective of the areas of the curriculum that are the focus of the SAC.

Using evidence

The prevalence of awareness of the instruments of the SAC, such as SIMD data and PEF, seems to relate directly to their relevance to the particular setting, particularly in financial terms. An NQT from a large school in a town explained their school's focus:

We are the only SIMD deciles 1 and 2 school in our Authority area based on the 2016 data, but as we know there is poverty everywhere. We have the highest PEF funding. [...] which is quite hefty for this neck of the woods. So we have lots of different things. We are looking at PEF children and SIMD as well and looking at whether there is any correlation between that and who is achieving and underachieving. And I was looking at my class this morning and what was interesting is there is one PEF funded child who lives in SIMD 14. So we've got someone who is in a relatively well-off area but they are a PEF child, and it would be quite interesting to track that child's progress particularly. But we've also got two children in the class who are in SIMD 4/20 (SIMD 2/10) that are both PEF children and they both have extra interventions. They have interventions to help raise their attainment. So we use the SIMD, we use the PEF, and a lot of that comes through interagency connections as well, so a lot of that comes through Social Services. So if they are known to Social Services and through the health visitors and things like that, all that information comes together.

This NQT uses the language of SIMD and PEF fluently, showing in cultural terms their agency in practical evaluation and their confidence in addressing issues related to the SAC. This dialogue clearly has currency in this NQT's setting. Another early career teacher from the same local authority comments that their school has not shared this information and that they are finding it hard to work out who is entitled to PEF funding or in an area of deciles 1

and 2 of the SIMD. There is one person at that school with responsibility for this data, but they seem to keep the information to her or his self. The first NQT explains that the message has been distributed around their school and that they have had training on it:

Because it is the biggest school in [the area] we quite often, kind of, do things first. I think that's what happens. This has come down from the Head Teacher and there are 4 Deputes and it gets spread out by them on to the Principal Teachers and then down to me. Because I asked the question, I was given more information about it. When we had the tracker on the screen, we looked at the SIMD just to see if there is a correlation. It is time consuming to put the information in, but when the data is there it helps you to see who, and then your professional judgment comes into it after that, for those who don't come into the PEF and SIMD areas.

As it transpires, the tracker itself is also a new initiative that is being phased in gradually across the authority, which is perhaps another reason why the other NQT has not encountered the data yet. Nonetheless, as this large school is the only school in the authority with pupils at the lowest level of deprivation based on SIMD 2016, it perhaps has less currency in the other setting. There is a differential here though in terms of the two NQTs' familiarity with these datasets and thus their relative confidence in accessing and discussing this evidence. From an agency perspective, the structure of the environment in terms of power differentials related to access to the data appears to either empower or limit the practitioner.

Another NQT from the same authority revealed a half-way position:

Our headteacher is very proactive in identifying the pupils relevant to the attainment gap. We use the SNSA, teacher judgement, PEF info and tracking information to inform our groups. The attainment gap is first and foremost. PEF is not the first indicator in our case. We have very few PEF pupils and a large attainment gap.

This NQT implies that there is more transparency through their proactive head teacher and as a practitioner they have greater agency owing to being able to exercise teacher judgment. This aspect was evident in other authorities too, where a similar structure and culture presided, and sometimes with a clear collaborative approach. An NQT from an island community remarked:

We have pupils at risk of underachieving to do with the attainment gap, not necessarily home life as such or anything like that, but what students are underachieving at; whether it is maths, literacy or health or wellbeing or even out of school activities. And every term we make a list of these and what we are planning to do to help them. Not just them, but also the over achievers. To work out how to help them to keep up with the rest of the class.

It's based on teachers' experience with them, not any raw data. Whether they think this child needs any more help.

It is interesting to see this NQT split teachers' experience and raw data into diametrically opposed binary opposites (Levi-Strauss, 1972). This perhaps teaches us about this

individual's perceptions of different kinds of evidence, which we might distinguish as the 'hard' evidence of external raw data, versus the 'soft' evidence of the class teacher's own experience (Van der Westhuizen and Smith, 2000). It is certainly one that favours the NQT's own voice and thus is an agentic perspective.

Another NQT from a different island authority advised that it was his responsibility to identify low attainment, to keep track of health and wellbeing issues, through day to day observations. The NQT explained that they had looked at these factors compared to the PEF position and that they correlated a bit, but that in their school there is a person with particular responsibility for PEF and that they are not very easy to get hold of. This predicament suggests a high degree of delegation to the class teacher, which would imply that they have a high degree of agency, however in terms of the practical evaluative domain, the structure represents power differentials in terms of knowledge and the accessibility of some of the data.

If the NQTs will be using SIMD and PEF information to inform their teaching practices and support for pupils, even if not to determine them, it is important that they can interrogate this evidence robustly. One NQT revealed this skill when they said that they hoped that PEF would remain calculated based on free school meals, unlike the tracking of the attainment gap based on SIMD, as they felt the SIMD data was inaccurate. They explained:

There are two of them and neither falls under PEF. New to the school, one child has been identified because there's a specific plan required for the individual for his... he has some learning difficulties. So we have a heightened awareness of the pupil's wellbeing, and where he lives, the difficulties he has with getting access to school, engagements with families, knowledge of the family's history. So being aware where the child lives and who he is, determines how we engage moving forward. [...] With the other child: it's similar: as being in primary 3 there's two years previous history of engagement, or a lack of engagement through a lack of parental engagement, shall I say, that has elaborated on their family situation, so for that one there's no income and no employment.

I enquired of this NQT how many of the domains of the SIMD applied to the first pupil, as there were two that applied to the second one. They replied:

I am aware it is a low income family, low education, problems with housing. He has health issues but his sibling does not. There's evidence of crime. When I say it [has] not [got] geographical access it's... the family can't drive or have as much access to get him to school unless it is on the school bus, etc., because it is a very rural school. So their neighbours may be more affluent, like isolated, bigger houses, but this is a small... smaller cottage.

What was interesting about this example is that the school itself has no catchment areas that are areas of significant deprivation in the SIMD, however there is a pupil in the class,

who experiences deprivation in all seven domains of the SIMD. The fact that this child, whom we might dub SIMD-boy or SIMD-girl, exists tells us that we cannot entirely rely on this data, as the Government itself respects (Scottish Government, 2020b). Yet, this is not an isolated incident, as another NQT recounted:

We have kind of got the same problem. We are a rural school and our children come from a very, very long way away. They can come from about 25 miles away. So between all the distances the SIMD is very different and there is a very ...difference in community between the houses. So a neighbour to another neighbour could be a big house to a very deprived family using foodbanks. So we've got that, kind of, that same problem as well, and, erm, but we don't really have the SIMD. We use the PEF but in terms of PEF we, kind of, go instead of... We don't really have the PEF indicators. So we just kind of use the children, as teachers, each teacher in each class picks children to go into it... who is low attainment. We have got an employee in the school that... a teacher that works with all the PEF students. So she takes all them out of the class for special help. And we can pick the children depending on what levels and who we think is needing help. It's very much from a classroom [perspective], but also the Head Teacher does look over the children and look over the levels and things. It's very much from the class teacher's point of view because it's them seeing them all the time.

There is a clear sense in these rural settings of the disparities in deprivation and social and economic wellbeing between different households, even within the same SIMD and catchment areas. For instance, Orkney has no areas in the most deprived quintile (SIMD, 2020), however Orkney Health and Care (2019) reports levels of child poverty as high as 28% in the Northern Isles, and the Scottish Government (2019b) acknowledges that fuel poverty is 57% in Orkney. This shows how a practitioner cannot be reliant on a single dataset. In fact, all of our partner authorities involved within this research had fuel poverty levels of above 40%.

While this analysis reveals that it would seem inappropriate to base PEF on SIMD data in the future, so the present model of working based on free school meal entitlement appears more reliable, although that also has its flaws, there is a clear benefit to PEF in terms of resourcing schools. An NQT explained:

I found a document today which gives an overview of what the money was spent on and who the money was spent on in relation to the SIMD as well in the school, so this was going forward in 2019-20. So this was presented in May this year. So basically it kind of works out... so SIMD we have got 1,2,3,4, the old 1,2,3,4 [i.e. out of 20] the majority of the PEF money, it's not exclusive, but the majority of it was spent on those children in terms of health and wellbeing interventions in order to try to meet their social emotional and economic needs. So things like sessions called Seasons for Growth, drama sessions, Dynamic Youth awards, ASN parents support groups, 1-2-1 pupil support, Chill & Spill, kitchen clubs, so cooking clubs, Lego, chanter lessons, equine therapy, earth time, so outdoor learning. So that was interesting and that was just from the health and wellbeing aspects. And then

from SIMD 5,6,7,8,9,10, and the undisclosed; that was more Literacy, Numeracy, and English and Maths. In that case you have got things more like Talk Boost, Education City, Lego story starters, homework club, literacy box, Messy spelling and writing, First News newspapers, and then for numeracy and maths you've got Number box, and Plus 1 Power of 2, daily Number Talks, introduced in class. Every day they do Number Talks. You've got new Maths for Scotland textbooks and Sum Dog. And what was to come next was the creation station, music therapy, yoga, talk boost at Second Level, and more data analysis as well.

In terms of the material environment and resources available, the agency of a practitioner in this school setting is heightened in that in the future they will be able to look back on their use of these resources and be aware of the iterative processes that are likely to support future learners. These resources will assist the school to address the wider inequities that disadvantage these pupils and lead to the receipt of this funding. Such an NQT would have the agentic capacity to enquire into the relative benefits of using these resources, which would also enable them to access evidence to that effect.

Invited to comment on other things that they thought worked well in the classroom, participants advised the following:

We have a strong focus on nurture.

Numeracy: Using differentiated tasks, concrete materials, PSA support with lessons twice a week.

HWB: We have a huge focus on positive growth mindset, engaging in Class Dojo to give rewards and foster positive parental relationships. [This is not approved of in all schools and all authorities]

Highland Numeracy training/resources is fabulous for concrete materials and I find this works well with the children as they don't know they are learning.

The last part of the last comment is taken to mean that the pupils enjoy the practical side of what they are doing to the extent that there is no protest to take part. Closing the attainment gap in terms of Numeracy is a key aim of the SAC.

Numeracy

We can see that the school mentioned above with healthy PEF funding was able to bring in a number of initiatives related to numeracy. Some schools are using PEF money to employ dedicated Numeracy PSAs or teachers to support the pupils' learning through boost sessions. There are also instances of examining numeracy from a whole school perspective.

A Secondary NQT explained that they are involved in a Maths working group in their school and that this is the focus of their enquiry. They have issued a survey to every teacher in the

school to ask which elements of the Maths curriculum they engage with, if any, in their subject area. This acknowledges the role of numeracy as a responsibility of all and is designed to allow the Maths department to deliver their curriculum in a way that complements the usage of Maths in other departments. Clearly, the NQT is involved in gathering evidence of existing practices in the school, but this opportunity will also provide them with the chance to gather evidence as to whether attainment and/or understanding improve when learning is coordinated across faculties. The fact that an NQT has been able to take part in this working group and get involved in a whole-school collaborative enquiry reveals a high degree of agency. Interestingly, this NQT felt that it was hard to find out about SIMD and PEF in their school, so this reveals that there can be silos of responsibility in schools and while agency may be high in one area, it may be low in another.

In another authority, one of the NQTs explained how a certain initiative has been successful:

One of the teachers [who] has been quite successful has been running numeracy family sessions after... in the afternoons and after school. She's been running these sessions which is all about how to develop numeracy within the family and parents supporting the children, and it's really, really, really good because it is all about... it's activity based. They're a great way of getting the families in so that you can talk to them about other things as well.

This NQT shows her understanding of the importance of relationships and a sense of community between the school and parents, as she has noted the value of these sessions in terms of the general wellbeing of the learner. The sessions also address the difficulties parents may have in supporting their children in their learning and it makes the learning more communal in the home, as well as enhancing the parents' presence in, and relationship with, the school. These factors are likely to increase the agency of the teacher, as they have seized this opportunity to improve their position in terms of structure through the strengthened relationships and they are helping to align the beliefs of the parents alongside their own, which should help them in their aim of supporting the learners. The NQTs observations about what is happening here shows that they are assessing the situation and accumulating information about how effective it is. These sessions had to come to a close owing to the COVID-19 lockdown, and a number of issues related to Health and Wellbeing have become evident since then.

Health and Wellbeing

An NQT explained the predicament they were left with after the closure of schools owing to the COVID-19 outbreak:

We are setting one numeracy and one literacy and an additional other [lesson per day]. We've got quite a lot of restrictions because my school is an area of deprivation and there's very high social and emotional needs so welfare is incredibly important and the Head Teacher has got a role there where she phones them all [the

parents] once a week. We've got the police going round regularly checking up on things, a lot of social work and interventions like that level, so welfare's the most important; and in my class, and I would say it is common for all classes, you've probably got about forty percent take up on activities. The biggest challenges that we've got is that... equity for all, it's an equity for all approach. Ours won't have wifi. They don't have devices. They have limited TV access and working parents, so all of our work is set via a blog. We can't assume that they have access to the Internet at all because if they do it could be on data packages, so anything that we're sending we need to be mindful that there may be a cost for the parents.

This example demonstrates the importance of resources for accessing learning and how the present predicament of lockdown has led to some further inequity. This shortfall of material resources impacts on the teacher's ability to engage the learners in learning in the same ways that others may be experiencing it and could create the need for alternative activities. It is not just digital resources that are scarce, however:

We've got Action for Children in the area who are working, operating from a [local] hall. Because we are not allowed into schools at the moment at all. That's a no go area. For the last two weeks, ours, they've had no pencils, no paper, nothing. Absolutely nothing. So all the resources are kept in this local hall now, so parents can now go and collect, like, 5 sheets of paper or swap their pencil. Yes, so it's a bit extreme for me. [...] Ours [our resources] are all lined up in the [school] hall by class but nobody is allowed in to get them out. Action for Children have helped out, so that resources are now in a different location. But they are limited. You might have a pencil but not a sharpener. So if you haven't got a sharpener in the house you'll have to go to the [local] hall to get your pencil sharpened.

It is clear that the material conditions have been affected by the lockdown, having a clear impact on teacher-agency, as in terms of the practical evaluative dimension, there is a clear shortage of material resources. The agency of next years NQTs and teachers may also be affected, as we have the economic aftermath of the COVID-19 outbreak yet to face. This may put similar strain on pupils' access to material resources and call for creativity on the part of the teacher in terms of how they engage with their learners, whether through blended learning methods or face-to-face, the latter now seeming more likely.

Another of the impacts of the Coronavirus outbreak is that a number of events that had been planned have not been able to be held:

In my school we have a Health and Wellbeing SIG group that have been set up this year and they have done a lot through the year and their crowning event near the end of the year was to be two kind of like activity days, but they call them wellbeing days. Well one wellbeing day rather, and they would come in and they would get a big breakfast in their year groups, so they were staggered, and they were going to set up a huge tough mudder style event outside and then they were going to have some activities inside. And there was going to be another wellbeing day with yoga and other stuff, so there was a tonne of stuff planned for the end of the year. I don't

know if it is going to be getting done now. There was going to be yoga, craft of some sort, physical well being and mental well being. Physical from the exercising and mental from the yoga. I was really looking forward to it.

There appears to be a growing trend to address both physical and mental wellbeing, as this other example illustrates:

We're developing breakfast provision as a health thing because the number of children coming in without breakfast was getting bigger and bigger so that was... we were in the middle of doing that. We've actually been using the SHANARRI wheel in class as a classroom discussion in all the different areas. We've been using that for parental coverage when the parents come in, so teaching the parents through the children or trying to explain it through the children. And then we had a World of Work Day organised where as many parents and people we knew in different aspects of work were coming in to speak with the children and show them what they did. Sort of making it relevant jobs that the parents were doing and in the local economy. The idea is just to get them interested into the idea of working, as quite a few of the children I have and throughout the school are second, third, fourth generation without employment, so it's about getting them to see opportunities out there that they could be taking.

We can see here how the leaving discourse may not meet with aspirations for attainment, however the practitioners are being agentive in trying to shape these cultural values. These interventions reveal a focus on the whole child and also mean that the practitioners get experience of seeing whether these different initiatives work. They are the sorts of interventions that would make suitable enquiry topics (maybe about attitudes to jobs to avoid a longitudinal study), as the NQTs could gather evidence to assess the effectiveness of the measures. They are also practices that should empower the NQTs in terms of their agency, as – for instance – if the children are well nourished, they should be more ready and able to participate in their learning (Adolphus et al, 2013). Yet, NQTs should remain mindful, as should the State, that the trend of bigger numbers skipping breakfast at home may continue if the economic situation deteriorates. One NQT remarked:

In my experience home life seems to be biggest factor in children's engagement - sometimes physically. I have a child that can barely stay awake during the day. She shares a room with two younger children.. There is evidence also of poor diet/hygiene.

There is a general sense that resources may become more scarce if either pupils are out of the classroom, as they would be for some of the time in a blended learning scenario, or if there are severe economic repercussions to the COVID-19 outbreak, and we are starting to see these. By using their initiative and their agency, NQTs may be able to minimise some of these effects:

My school realised the lockdown was coming, so we produced a resource pack for every pupil to take home with them, which included coloured pencils and stuff like this, which they would have struggled to access otherwise.

For other schools the announcement arrived too quickly, affecting the pupils' access to resources such as reading material:

This is an area for concern for me for two pupils in particular. We use Toe by Toe for two pupils in my class, but now that we are online learning this is not happening now.

Another commented:

I was talking to ASN support today about a particular child who uses Dandelion books and we're trying to figure out the best way to help them now, particularly as their parent does not engage much with the school. It's really tricky.

There are concerns about pupils' development in literacy while they are out of school, especially with limited access to resources. Some NQTs may be able to come up with innovative alternatives to support their learners (I have heard the suggestion of using subtitles on the television for appropriately pitched programmes), however there is a chance that the attainment gap for literacy may widen if there are not suitable interventions in place for their return to school and in the interim period.

Literacy

One of the NQTs stressed the importance they place on reading. They acknowledged that vocabulary accumulation is empowering and see reading as a doorway to other aspects of literacy:

For me, I notice that the children that struggle the most are the children that haven't been read to very much and they certainly do benefit from being read to regularly, but sometimes it is difficult for their attention span.. [It] seems to slacken off more than for children that are used to being read to and they do tend to sort of wander during reading because they are just not used to hearing or being read to or having to do reading at home. I think we can do lots of things at school but if they are not being read to at home or listening to stories in one way, shape or form, it's very difficult. So I try to read to them, try to read to the children if I can, a couple of times a day and I've started to sit down and let them, while we're doing quiet reading, let them see me reading, so I take a book into the classroom. I think they find it quite strange to see me sitting there, reading quietly, but I think it is important for them to know what to do when they are reading. It's not just about a chore of reading out loud in a classroom; that you can actually sit and get stuck into a book and switch off and be quiet and read to yourself.

It is interesting as this practitioner is exercising their agency over their environment, which is thus a clear demonstration of the same. By determining that they will model the desired behaviour and act a certain way in their classroom, they are constructing that structural

element of the practical evaluative dimension based on their own cultural perspective. This is also an activity that would make a suitable enquiry, seeing if the pupils perform the behaviour more than they did previously when it is regularly modelled to them.

Adapting structures has also revealed itself to be an effective way to raise attainment for some learners in writing tasks. This NQT explains how they have been using a certain scheme to assist the pupils' with their written literacy:

We have started doing Talk for Writing, using story mapping. It seems to be working well, although the output of writing is less as it takes so long to do the story mapping. It certainly gives the [pupils who can struggle] a larger bank of vocabulary to use and their punctuation is so much better. Then again, a lot of the writing you get is quite samey. [...] They get the chance to change the story again afterwards. They can write it down from the story map or they can embellish it and make it their own and there's a few in the class who will do that. We've only been doing it for a short time but for those who are more capable it's not so much of a problem, but for those who aren't then the type of work that you get, it might appear better but it's all kind of the same. They're using the same language. You're not getting these individual pieces of writing. There's pros and cons with any scheme. I think the children find the writing part the most difficult.

This NQT has demonstrated the effective use of evidence they have obtained from observing and assessing the pupils while engaging in these activities. They have observed that the creative and individualistic elements are not the key outcomes for the task, although can still be introduced as an optional addition for pupils who can manage this part of the activity, and they have noted improvements in the work of learners who would have struggled with writing beforehand, and who perhaps still do. This scheme, however, scaffolds their work, as would a wise tutor (Wood, Bruner and Ross, 1976). Their awareness of the 'sameness' of the pupils' output would probably see them vary such activities to keep the learners engaged.

An area to note was that the Primary NQTs had little exposure to emergent writing. Because it was not directly linked to the stages they were teaching, they had not had to attend any training on the same. Familiarity with this could help them to understand the needs of their pupils who are developing later in terms of their literacy skills, and also would assist with their understanding of the pupils' prior learning.

Other practitioners were of the same view as the NQT who stressed the importance of reading for all aspects of literacy. NQTs stressed the importance of relationships with their learners in that knowing your pupil is key for motivation in reading, such as knowing the pupils' favourite topics and author. Other strategies they recommended were voting on class and group reading books, and for class novels, doing the obvious in picking books you know to be interesting; this showing the importance of investing your time and research into making these decisions, rather than just rushing for the first thing to hand.

The NQTs praised Oxford Reading Tree, Ginn, Collins Big Cat, Fireflies, Treetops, Rain Tree, Project X Origins, independent novels, Roald Dahl, Jenny Nimmo, David Walliams, and

others. The trick is finding what works for your learners. They commented that reciprocal reading had been beneficial, and how allowing people to be independent readers boosted the engagement of some.

Conclusion

What is clear on reflection is that this project has created a valuable safe space for NQTs to continue to reflect on their practice, to share their ideas and their experiences with their peers, and to build knowledge of best practice, as a community, to help them in their role. They have also been able to pause for thought on the challenges they have faced and to get feedback, ideas and support from others to help them on their journey. In terms of the University of the Highlands and Islands' reflection on this process to date, it has created a forum for the discussion of evidence and it has raised awareness of key issues in Scottish education, such as the SAC and the related indices.

The third and final phase of this project will provide an opportunity for triangulation of the responses provided by the NQTs though bringing in the discussions with head teachers and classroom teachers to see what evidence they are observing and the steps that they are seeing to prove effective.

Within the discourse, issues surrounding relationships and community were at the fore in these rural settings, and it was quite clear than no one rural setting is identical to another. It was perfectly evident, though, that under the OED's (2015) banner of rural education in Scotland being higher attaining than urban areas, this needed careful deconstruction to consider the issue of remote communities, and also the SIMD data needed to be treated cautiously in rural settings.

It is hoped that as the NQTs from this year go on to become mentors within the third and final phase of this study, the cultural capital that these practitioners will generate will help to ease the difficulties of any transitions post-COVID-19 and will provide a strong source of support to those newly entering the profession.

Taking ideas forward

Moving on from here, we will be working with the same areas of discussion in the third phase of the research, and look forward to welcoming back some of this year's NQT participants as mentors and fully registered teachers in the next academic year.

We will look to facilitate the seeking out, identifying and making use of evidence by early career teachers to enhance the participants' practice.

We will look to attend local authority induction events or separate staff development events to similarly invite the new cohort of NQTs to participate in the research and to enhance their understanding of issues related to the SAC.

We will carry out further school visits and look to integrate this material within our final report.

References

- Adolphus, K., Lawton, C. L. & Dye, L. (2013). The effects of breakfast on behavior and academic performance in children and adolescents. *Frontiers in Human Neuroscience*. 7, 425.
- Bahktin, M. (1981). *The Dialogic Imagination: Four Essays* (trans. C. Emerson and M. Holquist, ed. M. Holquist). Austin, USA: University of Texas Press.
- Bartholomaeus, P., Halsey, J. & Corbett, M. (2014). A triologue about method in rural education: Experiential perspectives. In White, S. & Corbett, M. (eds). *Doing Educational Research in Rural Settings: Methodological Issues, International Perspectives and Practical Solutions*. (pp. 58-72). New York: Routledge.
- Beach, D., From, T., Johansson, M. & Öhrn, E. (2018). Educational and spatial justice in rural and urban areas in three Nordic countries: a metaethnographic analysis. *Education Inquiry*, 9 (1), 4-21.
- Bourdieu, P. & Passeron, J.-C. (1977). *Reproduction in education, society and culture* (R. Nice, Trans. English ed.). London: SAGE.
- Buchanan, Y. and Redford, M. (2008). Undertaking Professional Enquiries. In Reeves, J. and Fox, A. (eds.) *Practice Based Learning: Developing Excellence in Teaching (Policy and Practice in Education)*. *Policy and Practice in Education*, No. 24. (pp. 28-37). Edinburgh, UK: Dundedin Academic Press.
- Corbett, M., & Baeck, U.-D. (2016). Emerging educational subjectivities in the global periphery: New worker identities for new times. In M. Shucksmith, & D. L. Brown (Eds.), *Routledge International Handbook of Rural Studies* (pp. 544–555).
- Corbett, M. & Forsey, M. (2017). Rural youth out-migration and education: challenges to aspirations discourse in mobile modernity. *Discourse: Studies in the Cultural Politics of Education*. 38 (3), 429-444.
- Corbett, M. & White, S. (2014). Why put the rural in research? In White, S. & Corbett, M. (eds). *Doing Educational Research in Rural Settings: Methodological Issues, International Perspectives and Practical Solutions*. (pp. 1-5). New York: Routledge.
- Echazarra, A. & Radinger, T. (2019). *Learning in Rural Schools: Insights from Pisa, Talis and the Literature*. *OECD Education Working Paper No. 196*. Organisation for Economic Cooperation and Development. Retrieved from [https://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=EDU/WKP\(2019\)4&docLanguage=En](https://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=EDU/WKP(2019)4&docLanguage=En) (Accessed 5 January 2020).
- Education Endowment Foundation (2020). *Impact of school closures on the attainment gap: Rapid Evidence Assessment*. London: Education Endowment Foundation.

- Emirbayer, M. & Mische, A. (1998). What is agency? *American Journal of Sociology*. 103 (4), 962- 1023.
- Gallo, J. & Beckman, P. (2016). A Global View of Rural Education: Teacher Preparation, Recruitment, and Retention. *A Global View of Rural Education*. 3 (1), 1–4.
- Gristy, C. (2014). Researching within and for a rural community: research journey. In White, S. & Corbett, M. (eds.) *Doing educational research in rural settings. Methodological issues, international perspectives and practical solutions* (pp. 104-118). Abingdon, Oxon: Routledge.
- Gulløv, J. M. (2017). Local Traditions and renewal of Rural Education in Denmark. In *Challenges and Opportunities in Rural Education Research*. Paper presented at the *European Conference for Educational Research*, Copenhagen, 23 August 2017.
- Hargreaves, A. (2017). Primary Education in Small Rural Schools: Past, Present and Future. In *Life in Schools and Classrooms* (pp. 223-243). Singapore: Springer.
- Hodkinson, P., Biesta, G. and James, D. (2007). Understanding learning cultures. *Educational Review*. 59 (4), 415-427.
- Howley, C., & Howley, A. (2014). Making sense of rural education research: Art, transgression and other acts of terror. In White, S. & Corbett, M. (eds.) *Doing educational research in rural settings. Methodological issues, international perspectives and practical solutions* (pp. 7-25). Abingdon, Oxon: Routledge.
- Levi-Strauss, C. (1972). *The Savage Mind*. London: Weidenfeld Nicholson.
- Muijs, D. (2015). Collaboration and networking among rural schools: Can it work and when? Evidence from England. *Peabody Journal of Education*. 90 (2), 294-305.
- Naidoo, R. (2018). The competition fetish in higher education: Shamans, mind snares and consequences. *European Educational Research Journal*. 17 (5), 605-620.
- OECD. (2015). Improving Schools in Scotland: An OECD Perspective. Retrieved from <https://www.oecd.org/education/school/Improving-Schools-in-Scotland-An-OECD-Perspective.pdf> (Accessed 21 May 2020).
- Orkney Health and Care (2019). 'Child Poverty in Orkney', Integration Joint Board Meeting Agenda of 27 March 2019. Retrieved from https://www.orkney.gov.uk/Files/Committees-and-Agendas/IJB/IJB2019/IJB27-03-2019/I14_Child_Poverty_in_Orkney.pdf (Accessed 15 January 2020).
- Priestley, M., Biesta, G. and Robinson, S. (2015). *Teacher agency: An ecological approach*. London: Bloomsbury Publishing.
- Reid, J.-A., Gottschall, K., Green,, B., Booby, K. & Press, K. (2012). Rurality, Educational Disadvantage and Teaching in Rural Schools. In *TERRAnova: renewing Teacher Education for Rural and Regional Australia, Volume 1: Project Report*. (pp. 13-42). Australia: Australian Research Council.

Roberts, P. (2018). Looking for the Rural: Epistemic absences and cultural silence. In *The Australian Curriculum: Promises, problems and possibilities* (pp. 201-210). Australia: Australian Curriculum Studies Association.

Säfström, C. A. (2018). Liveable life, educational theory and the imperative of constant change. *European Educational Research Journal*. 17 (5), 621-630.

Scottish Government (2015). Table 16: Highest qualifications held by population aged 16 to 64 by geographic area, 2013. *Rural Scotland Key Facts 2015*. Edinburgh: Scottish Government. Retrieved from <https://www.gov.scot/publications/rural-scotland-key-facts-2015/pages/3/> (Accessed 19 October 2019).

Scottish Government (2019a) Chart 10: Percentage of pupils achieving expected CfE Levels, by Urban Rural Classification and stage, 2018/19. *Achievement of Curriculum for Excellence levels: 2018-2019*. Edinburgh: Scottish Government. Retrieved from <https://www.gov.scot/publications/achievement-curriculum-excellence-cfe-levels-2018-19/pages/6/> (Accessed 20 May 2020).

Scottish Government (2019b). Latest estimates of Fuel Poverty and Extreme Fuel Poverty under the proposed new definition - following Stage 2 of the Fuel Poverty (Targets, Definition and Strategy) (Scotland) Bill. May 2019. Retrieved from <https://www.gov.scot/binaries/content/documents/govscot/publications/research-and-analysis/2019/05/latest-estimates-fuel-poverty-extreme-fuel-poverty-under-proposed-new-definition-following-stage-2-fuel-poverty-targets-definition-strategy-scotland-bill/documents/latest-estimates-fuel-poverty-extreme-fuel-poverty-under-proposed-new-definition-following-stage-2-fuel-poverty-targets-definition-strategy-scotland-bill/latest-estimates-fuel-poverty-extreme-fuel-poverty-under-proposed-new-definition-following-stage-2-fuel-poverty-targets-definition-strategy-scotland-bill/govscot%3Adocument/latest-estimates-fuel-poverty-extreme-fuel-poverty-under-proposed-new-definition-following-stage-2-fuel-poverty-targets-definition-strategy-scotland-bill.pdf?forceDownload=true> (Accessed 10 January 2020).

Scottish Government (2019c). Chapter 3: Achievement of CfE Levels by SIMD. *Achievement of Curriculum for Excellence levels: 2018-2019*. Edinburgh: Scottish Government. Retrieved from <https://www.gov.scot/publications/achievement-curriculum-excellence-cfe-levels-2018-19/pages/5/> (Accessed 20 May 2020).

Scottish Government (2020a). Scottish Government Urban Rural Classification. Retrieved from <https://www2.gov.scot/Topics/Statistics/About/Methodology/UrbanRuralClassification> (Accessed 20 April 2020).

Scottish Government (2020b). Scottish Index of Multiple Deprivation 2020: introduction. Retrieved from <https://www.gov.scot/publications/scottish-index-multiple-deprivation-2020/pages/6/> (Accessed 20 May 2020).

SIMD (2020) 'Scottish Index of Multiple Deprivation, 2020'. Retrieved from <https://simd.scot> (Accessed 10 April 2020).

- Sosu, E. & Ellis, S. (2014). *Closing the attainment gap in Scottish education*. York: University of Strathclyde.
- Timperley, H. & Alton-Lee, A. (2008). Reframing Teacher Professional Learning: An Alternative Policy Approach to Strengthening Valued Outcomes for Diverse Learners. *Review of Research in Education*. 32 (1), 328-369.
- Timperley, H., Kaser, L., & Halbert, J. (2014). *A framework for transforming learning in schools: Innovation and the spiral of inquiry*. New Zealand: Centre for Strategic Education.
- Van der Westheuzen, G. J. & Smith, K. (2000). Teachers' portfolio reflections: a comparative analysis. *Teacher Development*. 4 (3), 339-352.
- Wenger, E. (1999). *Communities of Practice: Learning, meaning and identity*. Cambridge: Cambridge University Press.
- Wertsch, J. V. (1991). *Voices of the Mind: A Sociological Approach to Mediated Action*. Cambridge, MA: Harvard University Press.
- Wood, D., Bruner, J. S., & Ross, G. (1976). The role of tutoring in problem solving. *Journal of Child Psychology and Psychiatry*, 17, 89–100.