Staying with the troublemakers: A celebration of research in FE

LEARNING AND SKILLS RESEARCH NETWORK

Learning and
Skills
Research
Network

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Foreword

Julia Belgutay

Julia Belgutay is the Head of Comms, Media, Marketing and Research at Association of Colleges (AoC), having joined the organisation as Senior Policy Manager for Research and Evidence two years ago. Before that, she was a journalist for 20 years, starting in general news and specialising in investigations.

When we think of further education (FE) in the context of research, we often think of gaps. We think of the areas within the sector and its work for which no – or very little – research exists. We are reminded of the vast amount of literature covering learners in schools and universities and their experiences, whereas for our sector, the number of recent publications can easily fit on one bookshelf.

And few would disagree that what is certainly often lacking are opportunities, particularly funded ones, to carry out research relating to learners in vocational and technical education, and for those pieces of work to be shared and fed back into the sector.

What is not lacking, however, is outstanding research practice from and for the sector. Quite the opposite. At institutions around the country, practitioners are using their professionalism and expertise to enquire, trial and investigate. They come together in networks – some formal, some less so – to exchange experiences and share findings, to motivate and support each other. They carry out outstanding research projects, the results of which then influence, change and inspire practice right there, at the chalkface of FE. It is something we at AoC support wherever we can – most notably with our Research Further scholarship programme, but also through the broader research and engagement work we do.

LSRN provide a crucial platform for practitioner researchers, and have done so for over 25 years, bringing them together with passionate advocates for the sector in universities who have vast research experience in this field.

The LSRN conference[1] was a showcase of this work, with dozens of research practitioners presenting their work, sharing and inspiring. And it is with great pride that we can now share with you this publication, bringing together a selection of papers by researchers who were part of that day.

The topics you will come across share some key themes – themes that we at AoC have found to be shared by researchers engaged in the FE sector generally: a commitment to learners and the life changing opportunities the college sector can provide, a desire to collaborate within the sector and beyond, a willingness to be innovative, disrupt and change, and, at the heart of all of that, curiosity. They are insightful and will leave you questioning your own approaches and assumptions.

We hope that you will find them to be inspiring, and that they confirm to you what we know to be true: that research from and for the sector is thriving, and improving sector practice, from within, every day.

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[1] The LSRN 2023 Conference took place on Saturday 22 April 2023 at Conference Aston in Birmingham, UK.

Preface

Jo Fletcher-Saxon

Jo Fletcher-Saxon is an assistant principal in a college. Her research interests are teacher professional development, practitioner enquiry and scholarly podcasting. Former national co-chair for LSRN, now co-editor for Research Round-Up.

> "*I want to make a critical and joyful fuss about these matters. I want to stay with the trouble and the only way I know how to do that is in generative joy, terror and collective thinking*"
>
> **Haraway (2016, p. 28)**

A cartography of community (and conferences!)

I joined LSRN in 2017, a year after Haraway's book, *Staying with the Trouble: Making Kin in the Chthulecene*, came into this world. I was seeking wider connections beyond the institution where I work in order to better support a very small team of college-based higher education (HE) colleagues and at the start of a college journey to develop a culture of research engagement. It was a time of a (re)blossoming sense of scholarship within FE. The AoC's Scholarship Project (2015-2018) was

supporting us professionally but was coming to an end. A number of teachers in college (FE as well as college-based HE) had been funded via our university partner, Staffordshire University, to complete Masters programmes a few years earlier. As a teacher educator, I participated in various HE organisation activities and networks, and I came to know the Dancing Princesses[1] books and the educators and scholars connected to them. I was later to become one of the contributing writers in the third book of that series. I joined UKFEchats, the FE Research Meet movement (founded by Sam Jones) and hosted both LSRN mini conferences and FE Research Meets, bringing academics, sixth form and FE college colleagues together to talk pedagogy and practice. These are all places and spaces shaping an ethics of care about conferencing. Community in the roots.

In 2018 I went along to my first ARPCE[2] conference. There I met a then FE colleague, Graham Pitchforth, who told me about SUNCETT[3]. Graham and I went on to run BrewEdFE[4] events. At ARPCE I met Professor Maggie Gregson and heard more about the SUNCETT programme for practitioner researchers which I subsequently joined. Some of my most cherished professional relationships have been formed within the SUNCETT community. It was here I connected with Alistair Smith who said to me back in 2019, 'shall we try a podcast!', and The FE Research Podcast[5] was born. Alistair has provided the photographs in this publication. Again, I share these as all being points on the map, that cartography of community and conferencing.

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1 A series of three books gathering critical perspectives on further education, edited by Maire Daley, Kevin Orr, Joel Petrie.

2 Association for Research in Post Compulsory Education https://arpce.org.uk/

3 Sunderland Centre for Excellence in Teacher Training delivered the 'PRP' practitioner research programme, funded via the Education and Training Foundation. Led by Professor Maggie Gregson.

4 Brew Eds were founded by Daryn Egan-Simon and Ed Finch 'a grassroots movement for people from all phases, sectors, and areas of education...a space for educators to come together, enjoy each other's company and have some robust, open and challenging debate around thought-provoking ideas and issues'

5 The FE Research Podcast co-hosted by Jo Fletcher-Saxon and Alistair Smith https://feresearchpodcast.podbean.com/

As the pandemic hit, Graham and I took BrewEdFE online and I joined JoyFE[6], started by Lou Mycroft and Stef Tinsley. JoyFE ideas rooms and writing spaces have added to my well of sustaining professional relationships and friendships. In pandemic times, I stepped up in my role as national convenor for the LSRN, taking LSRN, like the rest of the world, online. In the deepest darkest days of lockdown I went along to a posthuman theory reading group run by Dr. Julie Ovington; the group was another node in the rhizome of my professional journey and making kin[7]. Connecting to scholars in the Gramsci Society[8] was another. A consistent thread in all of this has been LSRN. It has been the superhighway along which I have travelled, zooming (sometimes literally) off in various directions, stopping at intersections, making professionally enriching relationships, growing in my own sense of scholarship and gaining advice and support as myself and colleagues have navigated our lives in FE and college-based HE. Latterly, as a PhD candidate, BERA and its SIGs[9] have become important intersections, along with CARN[10] and ATEE[11].

That is not every node, root, stem or branch that I have connected with over the last few years, but I think it gives you an idea of the interconnectedness of communities that exist, all offering a space for educators keen on professional learning, research and scholarship. Having been nurtured myself in these spaces, when the opportunity arose to offer an LSRN gathering, I of course said 'yes'. This wasn't going to be just another conference, I wanted to embed features in its roots to truly enable and empower delegates.

Collective thinking

A team was formed. The wider LSRN team, supported by Layla Pearce in South Wales[12], flowed in and out as energy and capacity allowed, with three of us at the core (Rachel Terry, Kirsty Tate[13] and me). We envisaged an event for maybe 30-40 people. I talked about the conference plans in places and spaces with educators who would never normally access 'academic conferences', whilst also ensuring those in academia could continue to see a place for themselves too. We invited proposals in some places, abstracts in others. A semantic dance. Existing LSRN funds enabled us to keep costs for

participants to anything from zero (all presenters) to around £70, with free places for postgraduate students. The costs were there because we opted to use a neutral and central location, not linked to any one organisation. The theme was quite simply 'the uses of research in FE', matching the purposes of LSRN[14], nothing more, nothing less.

Given my personal mission to demystify the nuances of HE's academic conferences versus FE's continuing professional development, support educators who rarely access such spaces, and connect brilliant FE and HE thinkers – we put a programme together that might create some waves.

Through Creative HE[15], I had met Pip McDonald, so I invited her to be our conference poet. Pip is a learning technologist in academia but wrangles words into powerful poetic pieces. I knew she would add some vibrancy to the day but also help us to see differently. A raft of big thinkers, three keynotes and many presenters[16] were invited, encouraged or proposals accepted – but other things also helped shape the day.

6 JoyFE, an online community launched in lockdown in the UK in March 2020 https://linktr.ee/JoyFE

7 Latto, L. et al. (2022) "Diffracting Bag Lady Stories and Kinship: Cartogra-ph-ying and Making-With Others in MoreThan-Human Affirmative Spaces," Cultural and Pedagogical Inquiry, 14(1). Available at: https://doi.org/10.18733/cpi29657

8 The Antonio Gramsci Society was funded by Francesca Bernardi https://www.researchgate.net/profile/Francesca-Bernardi

9 BERA is the British Educational Research Association. Members can join SIGs which are special interest groups.

10 https://www.carn.org.uk/ Collaborative Action Research Network

11 https://atee.education/ Association for Teacher Educators in Europe

12 Layla Pearce is a former LSRN convenor based in a Welsh college.

13 Rachel Terry, convenor in Yorkshire region. Kirsty Tate, former convenor in the North East region.

14 LSRN purpose and values can be found here https://lsrn. wordpress.com/about/purpose-and-values/

15 #CreativeHE is a community that 'supports pedagogical rebels' in higher education. https://creativehecommunity.wordpress.com/

16 LSRN 2023 Conference (canva.site)

An FAQ section was added on the booking site to address questions that people may think of but not ask. A pre-conference gathering was held online for people wanting answers to questions or encouragement. Abstracts were handled in an affirmative way, open and supportive. Messages were responded to with speed, (and there were A LOT of messages) right up until midnight the night before the conference – that one was about what to wear. Understanding that barriers and challenges are multifaceted and nuanced, I prepared a 'guide' for the army of convenors and friends who were to support the running of the day. The wording sought to set the tone for the day, drawing from the title quote of this preface, I did indeed want us all to make a critical and joyful fuss.

Kirsty provided a digital platform that did more than just tell you what room to head to. There were contributions on the platform from people who couldn't join us, warm and welcoming video messages and it became a place for all resources. It was divine! Charlotte Marshall was our sign language specialist. Whether or not needed, she signed, the very presence of another language was welcome. The regional convenors swept into place and did their thing. Some I had never met in real life. They were perfect as they chaired sessions, helped people to find coffee (essential), or provided beautiful table centers with warm messages (thank you Jodie Rees, convenor for South Wales). An end of conference thinking space with origami – led by Joyce Hui-Chen, convenor for East Anglia – brought the afternoon to a close. These are just some of the roots and branches that supported and wrapped around the speakers, delegates and convenors to help people think well. Be well.

Sustainable and longer term impact was desired but we are only a network, we are a lightness of beings. So seeing ripples of impact has been a real privilege. We have seen people connecting that day go on to work together to create change in new spaces. We have seen people enrol on post graduate courses (I am not suggesting because of the conference just that it may have helped).

Oh, did I mention? That 30-40 expected became 97 and a waiting list. The venue capped us at 97. It was an exciting day full of "generative joy ... and collective thinking" (Haraway 2016, 28), with so many presentations and workshops that covered practice and deeper thinking, to ignite, to inspire. This publication is another branch. It's not an end point, it's just another stopping point on the superhighway. Enjoy.

Huge thanks to fellow travellers, Rachel Terry and Kirsty Tate.

Introduction

Rachel Terry

Rachel Terry is a Senior Lecturer in TESOL at the University of Huddersfield. Her research interests are in Further Education (FE) policy and teacher learning. She is national co-chair of LSRN and a regional convenor for West Yorkshire.

This publication does two things: it celebrates a specific moment in time, the LSRN Conference that took place in Birmingham on 22 April 2023; and it brings together research that was shared on the day, extending its reach beyond the time and space of the conference. The papers collected here reflect the diversity of the FE sector, whether in terms of the age and level of its students, the purpose of their learning, or the type of organisation they are part of. When we refer in our title to 'research in FE', this should be understood as shorthand for the multifarious forms of post-16, vocational, and adult education it embraces. In his paper, Mark Addis takes a broad and historic

view of the relationship between FE colleges and their wider communities, suggesting a new social partnership model for colleges within their localities. His call for action is echoed in many of the papers, which grapple with ways of changing existing practices, for the benefit of those served by the sector. As Kerry Heathcote states, "Our learners are, after all, the very real reason we all do what we do, individually and collectively". This committed practitioner voice comes through similarly in the paper by Sam Broadhead, who explores the impact of practitioner research on pedagogy, while Sarah Marshall and Gemma Lyons offer practical insights into using practitioner-led action research to bring about cultural change in their organisation. "The way we do things around here", Kathryn Pogson suggests, is open to challenge and may ultimately be shifted, for example, by introducing the tools of the 'thinking environment' (Kline 2010) to college meetings: "We need to give teachers a chance to breathe", Kathryn argues, "for their wellbeing and productivity".

The diversity of the sector is also reflected in the occupational backgrounds of its practitioners and researchers. Abbie Cairns shares how she enabled teachers in Adult and Community Learning settings to reflect on their multiple identities, a tool which may be helpful to vocational teachers in other areas. Amy Woodrow's professional background in hospitality informs her investigation of the relationship between occupational culture and pedagogy, revealing her participants' "deep connection to their previous occupations and a strong sense of professional pride". While Catherine Lloyd's focus is on the concept of quality in qualitative research, the context for this is her own study into the teaching of agriculture in FE colleges, placing an often marginalised area of further education centre stage.

Current priorities for the sector, such as the English and maths resit policy (EPI 2024) and the development of digital skills (Jisc 2020), also predominate. Lynne Taylerson explores how both vocational learners and teachers may be supported to develop their use of technology in the face of an enduring post-pandemic digital divide (Ufi

2021), while Heidi McWade takes a critical look at how the uses of technology by vocational teachers are directed and constrained by the assessment requirements of vocational qualifications. Both Heidi's paper and that of Anne Reardon-James, which investigates how frontline workers in South East Wales develop literacy and digital skills, make a research-informed case for valuing the perspectives and expertise of those with day to day knowledge of their workplace contexts, in opposition to a "one size fits all... banking model" (see Reardon-James) of education. Teacher and student perspectives on the learning of maths are central to the papers by Chiara Colombo, Jane Kay, Masha Apostilidu and Marc Denervaux, the latter of whom offers a practical solution to maths learners' difficulties with written problems. Each of these papers is focused on improving learners' experiences through research, highlighting the value of such practitioner-led and learner-focused research to the sector.

Practical change amidst impassioned critique, seeds of promise resting on unpromising ground, the papers gathered here reflect the tensions informing research in FE and which also ran through the activities of the conference. As Laura Kayes and Lou Mycroft beautifully express it, the day concluded with Joyce I-Hui Chen's origami workshop which "folded resistance into gentle structures of hope", the 'slow ontology' (Ulmer 2017, see Chen) of this physical practice providing space for reflection and transformation. "Pedagogy, origami, and finally,/ Last but not least," as Pip MacDonald, our conference poet, affirms, "we had some poetry". She urges us to "Stay with the troublemaker", to embrace the disruption and uncertainty that accompanies those who challenge the status quo. For these are the ones who can help us to address the big issues, rather than succumbing to them, or, indeed, denying their existence. As Mel Lenehan reminded us on the day of the conference, which was also Earth Day 2023, "Our task is to make trouble, to stir up a potent response to devastating events, as well as settle troubled waters and rebuild quiet places" (Haraway 2016, p. 1). We offer this publication as one small ripple in these waters.

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Celebrating the story of LSRN

Andrew Morris

As Head of Research and Development at the former Further Education Development Agency, Andrew Morris co-founded the Learning & Skills Research Network and became its first chair in 1997. Today, Andrew co-edits the LSRN Research Round-Up and provides invaluable support and guidance to the national chairs and regional convenors.

Beginnings

The sheer joy of returning to real, live conferencing marked the entire day at the Learning and Skills Research Network's (LSRN) Aston event in April 2023. After three years of pandemic restriction, the fundamental importance of being together in person, of communicating physically, as well as verbally, was clear. Exchanging thoughts about complex issues and methods was so much more rewarding seated next to one another, rather than facing a screen. The gathering provided a sense of belonging, of solidarity, as well as a platform for intellectual exchange.

The atmosphere marked a new phase in LSRN's ever-evolving culture. Music and dance in the warm-up moments, live poetry as the day progressed and origami to round off the day, epitomised this. Technical advances played an important part too, with programme details and speaker information on a digital platform, minimising the use of paper and providing access to those unable to attend.

Breaking new ground in this way, by adapting to changing circumstances, is perhaps the key to LSRN's longevity. Resurgence is its middle name. The whole idea of a research network began unexpectedly, at an informal coming together of a few isolated individuals keen on research in FE, at a time when its existence was hardly recognised. A dozen people from colleges and universities, who had participated in a residential workshop, agreed to meet again to discuss setting up some kind of structure to encourage research engagement. The founding principles were hammered out in the very first meeting in January 1997. Enshrined in LSRN's Values and Purposes document[1], it's remarkable to see how these still shone through at Aston, twenty-six years later.

It was to be a self-reliant network, independent of any agency, institution or body, with activity based around the country, in regions. It was not to be a formal body with officers and a constitution; the energy to run it would come directly from, and be dependent upon, those who volunteered as convenors. It would work collaboratively and inclusively across all parts of the further, adult and skills sector and with higher education. It would focus on using research as well as doing it and would be non-partisan about methods and topics. All of these remain as guiding principles to this day.

Growth

For the first few years the Network grew steadily, attracting ever greater numbers to its annual conferences and regional workshops. It became so successful that the agency for which I worked at the time – the Learning & Skills Development Agency (LSDA) – supported it through its regional Coordinators and by grants for small scale research by LSRN regional groups (Morris

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1 See https://lsrn.wordpress.com/about/purpose-and-values/

and Norman 2004). To accompany this, a group of activists developed a suite of modules to help groups develop various kinds of skills associated with doing and using research. LSRN became a significant player in the wider research community in the noughties, through its contributions to LSDA's journal *College Research* and by its support for the ESRC's *Teaching and Learning Research Programme*. Its early evolution was charted in an article in the Journal of Vocational Education and Training (Hillier and Morris 2010).

First setback

It wasn't always easy, however. The first setback came when LSDA was forced to slim down prior to being abolished around 2008. A hard core of enthusiasts met up in Edexcel's offices and resolved to continue running the Network in accordance with its founding principle of independence. The loss of LSDA support led it to seek contributions from other organisations, many of whom stepped forward. Edexcel/Pearson offered its penthouse suite for conferences; the Learning & Skills Improvement Service (LSIS) gave a small grant; the Adult Education body NIACE provided administrative support and the Association of Teachers and Lecturers provided meeting facilities. A steering group, through which these organisations collaborated, organised twice-yearly conferences, and kept the network of regional convenors alive with a website and newsletter. Activity and participation rates were much reduced but the durability of the LSRN concept was demonstrated. A non-institutional hub to promote the idea of research in the sector and to support its advocates was clearly needed.

Key to the design of conferences in this period was alternation between policy-focussed and practice-focussed themes. In this way, bodies connected to policy formation were kept on board and practitioners also had a platform. Themes included development of the new Teacher Standards, led by Tricia Odell at the Education & Training Foundation; research on Vocational Pedagogy led by Kevin Orr and the Gatsby Foundation; and the work of the Higher Education Scholarship project led by John Lea and the Association of Colleges. Little did we know at the Autumn 2019 session how LSRN was about to be transformed once again.

Lockdown

The onset of lockdown in early 2020 appeared to deal a final blow to the delicate arrangements that kept LSRN alive. If live events were to be prohibited, what would be left of the Network? Resourceful as ever, convenors moved rapidly into the world of virtual communications. Jo Fletcher-Saxon, a regular at the in-person workshops, agreed to take on a role for the few months that the pandemic was expected to last. She would chair a new group, comprising all convenors, to oversee the schedule of proliferating online events.

As it turned out, not only did the pandemic last much longer than expected, but the expedience of online communications proved a bonus. People who were unable to manage a long journey to a meeting could spare a couple of hours online. Attendances grew and with it, a growing appetite for organising activity. One by one, individuals stepped forward to open up new local and regional networks, or to double-up as convenors in existing ones. With geographical distance being no object, people were able to join any session. Dates were gradually coordinated to encourage a spread throughout the year. One convenor organised online skills sessions, open to all. At the time of writing, the number of convenors stands at a record twenty-six, coordinating the work of eighteen networks.

Meeting up again

When it finally seemed safe to step outside again after years of lockdown, the now established Convenors' Group took the risky step of planning a face-to-face conference. A small grant left over from the cancelled 2020 event helped secure the venue. The outstanding success of the over-subscribed event, with its informal style, varied programming and effective use of digital technology was plain for all to see. A fourth new era for LSRN had opened. What had begun as an informal and voluntaristic association of enthusiasts had worked first with official agency support; then self-sufficiently with sponsors, then online and was now moving into what may be well become a new hybrid phase, combining online and in-person activity.

Looking forward

If the current momentum is sustained, LSRN has a promising future. With an ever-expanding number of local networks and active convenors, the Network is clearly resilient: as one activist moves on, another steps forward. The level of interest in research seems to be rising as practitioners decide to take up research-based higher degrees and participate in national structures such as BERA (British Education Research Association) and ARPCE (Association for Research in Post-Compulsory Education). Initiatives such as ETF's Practitioner Research Programme at the University of Sunderland (sadly ended now) and, more recently, AoC's Research Further, are helping to develop a cadre of practitioners in the sector, trained and experienced in research methods. The recently formed Research College Group[2] is another sign of rising interest, extending activity beyond the individual to whole institutions.

Perhaps these developments are an early sign of the sector moving, as many others have, in a more evidence-informed direction. If so, there's huge scope for productive activity. Research in education generally has always been under-resourced, and in the FE & Skills sector, dramatically so. Fine-grained study of pedagogic practice is needed in most subject areas, but vocational areas particularly deserve attention. Not only do the technicalities of teaching bricklaying, health & beauty, agriculture and performing arts – to name but a few - merit careful study, but so do the needs of the varied types of learner, modes of attendance and varieties of part-time and dual professional teacher. Broad brush, large-scale studies of generic issues, such as formative assessment, metacognition and special needs are important and should more frequently include post-16 learners and teachers. But, equally, small scale studies of specific contexts of learning, adapted for particular kinds of students following different kinds of curricula in a variety of localities are what will make a difference at classroom level. The role of the practitioner-researcher, with their fingertip knowledge of context, is essential for this.

If practitioner research continues to flourish in the sector, both of these lines of development could be pursued. Leaders within the sector have an important role to play in championing the role of the sector in contributing to national research initiatives alongside schools. Serious collaboration between sectors and professions is not always straightforward, however. Differing incentives, vested interests, cultural habits and scarce resources can slow progress. LSRN has met plenty of such challenges over the years by bringing parties together and fostering communications between them. It remains in a strong position to help today.

It's the countless small contributions made by thousands of individuals over time that have enabled LSRN to play a significant part in developing research consciousness in the sector and to contribute to the wider trend towards evidence-informed practice in education generally. By continuing to collaborate in small ways, developing solidarity amongst practitioner-researchers and with their university colleagues, who knows where LSRN will take us in the next quarter century?

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2 https://sites.google.com/view/theresearchcollegegroup/home

Supporting college strategy through social partnership and organisational culture

Mark Addis

Mark Addis is Associate Dean Knowledge Exchange at the Open University and a Research Associate at the Centre for Philosophy of Natural and Social Science at the London School of Economics. He was a Visiting Professor at the Department of Culture and Society at Aarhus University. Mark has published in the areas of Wittgenstein, epistemology, and the philosophies of mind and science. He has applied research about know-how and know-that to issues regarding how vocational education and training should be designed and delivered.

What is the problem?

This paper argues that English vocational education and training could benefit from adopting and embedding social partnership models, especially ones in which further education colleges have a local and regional anchoring role. The benefits of establishing a coordinated skills system providing coherent local, regional and national pathways for vocational, technical and skilled work will be considered.

In 2022, an article that I jointly authored with Norman Crowther of the National Education Union and Christopher Winch of King's College London, summarised the institutional and cultural challenges further education colleges have faced in recent history (for more information see Crowther *et al*. 2022). The article argued that these challenges show that major change is necessary to create and ensure a coherent and sustainable further education sector. However, the action colleges need to take now and in the future is constrained by their policy framework, funding provisions, and local circumstances. A key objective in articulating these issues was to support the rapid development of systematic, strategic and wide ranging changes to the current vocational education and training system. We welcome the opportunity to apply our thinking and ideas in the real world context of further education, as such dialogue would greatly improve our understanding of the challenges colleges face and thus the available strategic possibilities.

In practice, further education policy is in tension, as most colleges attempt to manage both the long term decline of English vocational education and training provision (and concomitant unsuccessful

reform attempts to deal with this), and very wide range of teaching they are expected to deliver. Such teaching can range from the most basic preparation for work, to remedial literacy and numeracy, through to technical courses at various levels up to and including Level 7. In addition to this, teaching also covers supporting apprenticeships and taking on the main responsibility for the new flagship vocational qualification, the T Level, as well as teaching A Levels. The post war conception that the priority for colleges is to support their local economy through its students and staff has become problematic, as they will normally have many other interests in addition to ones related to their locality.

Financial pressures have markedly reshaped the sector with major trends towards the mergers of colleges into larger colleges and college groups. Although the mergers may have gone some way towards the rationalisation of provision, this has been at the cost of local accessibility, thereby raising the issues of local and regional transport links. The recent 2021 White Paper Skills for Jobs: Lifelong Learning for Opportunity and Growth proposals seem designed to deal with at least some of the perceived governance mistakes of the past. First, the government seems to recognise that vocational education needs to be integrated with economic development rather than be treated as a stand alone business sector. Second, there is some recognition that there needs to be more cooperation between providers than currently exists, together with room for both local initiative and national direction. Given this, the key question is how can colleges assert their local and regional institutional identity for learners whilst dealing with such pressures.

What change is needed?

Significance of Localism

The specific place and role of further education colleges as bridging institutions between the needs of localism, the economy and civil society is noted in a number of reports arguing for the place of these colleges as anchor institutions within their communities (see for example Industrial Strategy Council 2021, Keep 2016 and The College of the Future 2020). These issues of place and role raise a number of questions:

How can localism and skills development issues highlight democratic deficits in government policy arguing for levelling up and regeneration?

How can sufficient policy emphasis be placed on institutional change and co-ordination, and equality between partners needed for successful levelling up and regeneration?

How can a suitable balance between business and labour and its supporting institutions (vocational colleges, unions, local authorities and NHS) be ensured?

How can a more effective approach to localism in the areas of institutional arrangements for local and regional economies and the specific role of further education colleges as bridging institutions between localism needs, the economy and civil society be developed?

Such analysis needs to be grounded upon ideas about social partnership and the political thought about civil society which underpins much of this.

Social Partnership and Conceptions of Civil Society

Important recent debate has recognised the significance of social partnership in further education for developing new approaches to English vocational education and training. There is international evidence, notably but not exclusively from Germany, of the contribution which well established social partnerships between employers, unions and government can make to the effective delivery of vocational education and training (Clarke and Winch 2015; Conchon 2013; Streeck 1992). English vocational education and training can benefit from adopting and embedding social partnership models, especially ones in which further education colleges have a local and regional anchoring role. Better social partnership arrangements require a much clearer sense of who further education college students are and what they are seeking educationally and occupationally. It helps partners, the workforce, and the college to devise better ways of supporting local and regional developments.

What are the key takeaways?

We believe the following strategic framework may help guide discussion. Accepting that civil life should be both part of economic regeneration and democratic accountability (Cruddas 2021; Lockey and Wallace-Stephens 2020) necessitates serious consideration around institutional governance. As an anchor institution, the civic role of the college is enhanced, so for instance a strategic overview might consider:

The college as an institution in terms of its relationship to the state and market, to the local and regional community and actors, and to other educational sectors and actors including new actors if required. Part of this is having a strategic understanding and identification of what it means to be an anchor institution.

College governance arrangements through adopting a social partnership model which brings both unions and business into the core of college governance and policy, and that develops a social partnership model drawing on local and regional union and business interests plus other civil and local institutions including new potential institutions. This requires the creation of a focused role and mode of engagement, and a college ethos that is part of its organisational culture and found in its partner relations.

Social partnership agreements with the college trade unions and others in order to establish relations of trust and robust networks for sustainable working. Guidance for developing this kind of collegiate agreement where colleges have merged or there are larger groupings of colleges is important as to date these parts of the sector have not readily entered into agreements of this kind.

How a college aims to strategically foster better and clearer local, regional and national pathways for technical and skilled work integrating universities (either as vocational partners or vocational universities), employer training, the school curriculum and careers as part of a national vocational system. The overall objective here is to create a sense of belonging for learners in each and every college.

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Social justice through pedagogic rights, access and widening participation

Samantha Broadhead

Samantha Broadhead is Head of Research at Leeds Arts University, UK. Her research interests include access and widening participation in art and design education and the educational sociology of Basil Bernstein (1924–2000). She serves on the Journal of Widening Participation and Lifelong Learning's editorial board. Broadhead is working on Learning Returns, a practice-based project that aims to capture the experiences of mature students studying art and design through film-making.

What is the research focus?

Practitioner research has contributed to new insights relating to the pedagogic rights for social justice and inclusion in education. Evidence for this can be found in the work supported by The Practitioner Research Programme (PRP) for educators from the Further, Adult and Vocational Education (FAVE) sector across England (in operation since the late 2000s) (Gregson and Kessell-Holland 2020). It is delivered by Sunderland University Centre of Excellence in Teacher Training and is funded by the Education and Training Foundation (ETF). This programme supports the delivery of practitioner research leading to the award of an MA Short Course or an MPhil Research Degree and in some cases progression to PhD. PRP researchers also contribute to the ETF Annual Research Conference.

This small piece of research funded by the ETF aimed to evaluate the impact of practitioner research. It was one strand of a larger study called: *What have we learned from the PRP?*

What informed the research?

The pedagogic rights of enhancement, inclusion and participation were first identified by Bernstein as necessary elements of a democratic education. Bernstein (2000) described an important aspect of democratic education as students having a stake on a political level in their education. In terms of enhancement, students are encouraged to meet their potential, intellectually, socially, personally or materially and at the same time have critical understanding and access to new possibilities. The second right is to be included socially, intellectually, culturally and personally. Bernstein (2000) makes clear that to be included does not mean a student should be assimilated or absorbed into the dominant culture of the school; he argues that to be included could also be the right to be autonomous and separate – to be different. The third right is the right to participate, where students are actively involved in procedures that construct, maintain and change the order in the institution.

I was an early participant in the PRP in 2010 (Broadhead 2020). My research, informed by Bernstein's pedagogic rights, explored barriers experienced by mature students, and how a democratic education enables them to draw upon their own experiences and judgements to overcome any challenges in their educational journeys. In a paper I co-authored in 2018, we concluded that:

> in the case of mature students, a democratic education draws upon their capacities such as resilience, aspiration and phronesis (practical wisdom);

> a democratic education encourages students to act well for themselves, their families and other students;

> a deliberative democratic education has the potential to improve education for educators, managers and students (Broadhead and Gregson 2018).

The importance of democratic education through the pedagogic rights was then determined by looking for other examples of PRP research that addressed issues of social justice.

What was the approach to the research?

A preliminary analysis was untaken of 133 abstracts written by PRP participants that had been submitted to the ETF Annual Research conference from 2018 to 2020. From these, 11 abstracts were identified that described approaches based on pedagogic rights or democratic education. Five of the abstract writers were subsequently interviewed to talk in depth about the impact that the PRP had on themselves and their students. As part of the interview, the abstract writers estimated the number of students who had been influenced by their work. The project followed the ethical guidelines set by the University of Sunderland.

What were the findings?

The five abstract writers and I estimated that the social justice through pedagogic rights strand of the PRP has had an impact on 616 students. These were the cohorts that the practitioner researchers taught during the implementation of their research projects. The practitioner researchers reported that

their research improved student enhancement, inclusion and widened participation in the FAVE sector from historically under-represented groups. For example, one practitioner researcher ensured that national and local live briefs (assignments) gave room for under-represented students to develop intellectually in political, social, moral and ethical spheres. Another found that the intervention of having a course uniform made the students feel included and part of a professional community. Finally, one practitioner researcher described how staff helped with health and safety assessments that would enable students to manage support groups such as the LGBTQ+ club.

All practitioner researchers reported that their students became more active. Students from under-represented backgrounds became instrumental in setting up support groups, helping each other with skills 'deficits', sharing their experiences and organising widening participation projects. For example, one practitioner researcher noted that students participated through their ambassador roles or through student union activism. All of the PRP practitioner researchers repeatedly identified how careful and coherent curriculum design based on pedagogic rights benefits all students so that social disadvantage is not reproduced by education.

The PRP has been an effective mechanism for training practitioner researchers interested in social justice and pedagogic rights. This strand has produced high quality outputs: two peer-reviewed books, eight journal articles, seven book chapters and 31 conference papers. Some of the PRP researchers came from under-represented groups; the PRP gave them an opportunity to access the research community.

Progression from the MA short course to MPhil and then on to PhD was good; two researchers interested in social justice undertook a PhD and four have studied an MPhil. All of the five PRP practitioner researchers who conducted their research in the field of social justice developed their research further within and beyond their organisations. This was done by continuing their projects, starting new ones and engaging in PhD study either as part of the PRP or with another university.

What difference does this make to practice?

It could be seen that the PRP addresses social justice through democratic education in two ways. Firstly, the researchers themselves – through enhancement, inclusion, participation – are able to achieve their own aspirations in FAVE research and scholarship that may not have been possible without the programme. This was because the programme was designed to be undertaken alongside the researchers' teaching and management roles and there were funds available for short residential study programmes.

Secondly, there is an impact on the students/learners with whom the researchers work. Including myself, six researchers connected with 616 students. Examples of this can be seen in students who set up their own learning groups outside formal education for the good of other people such as *Art School/Ilkley.* This was an informal learning group with a dedicated space that created opportunities for all generations to learn about the arts (Broadhead 2021). Notably, students participating in activities outside of their courses resulted in them connecting with local communities. Values related to helping others seemed to be promoted through the pedagogic rights.

What are the key takeaways?

On reflection, while ideally it would have been beneficial for more people to have been interviewed, not all the identified abstract writers agreed to this part of the study. Yet still, the interviews that did take place provided rich and illuminating evidence. The findings of this study suggest that practitioner researchers should look at the impact of their work not just on students but the wider communities in which they live, work and study.

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Learning analytics is the measurement, collection, analysis and reporting of data about learners and their contexts, for purposes of understanding and optimising learning and the environments in which it occur

(SoLAR, 2011)

Doing data differently: An intersectional, predictive analysis model for informing and supporting social justice for learners in further education

Kerry Heathcote

Kerry Heathcote is the Deputy Chief Executive Officer and Vice Principal Curriculum and Quality at the College of West Anglia (CWA). Her research focuses on improving learner outcomes, with a particular interest in social justice for learners in further education.

What is the research focus?

Learning analytics data, which measures everything about the learner and their learning experiences, are largely absent from further education (FE) data sets; whilst the same is not true of the higher education (HE) sector. The JISC meta-analysis of learning analytics in higher education (Sclater *et al.* 2016) suggests that the utilisation of learning analytics could contribute significantly to the support provided for learners, improving the likelihood of successfully completing their chosen qualifications. I found this intriguing and wanted to know more.

Milliron *et al.* (2017) advise that institutions should:

| Create organisational structures to support the use of learning analytics;

| Help educational leaders to implement changes to organisational structures;

| Develop practices that are appropriate to different contexts;

| Develop and employ ethical standards, including data protection.

In June 2018, I decided to explore whether learning analytics could be successfully used to promote learner progression in the UK-wide FE sector more broadly. I broadened the scope of learning analytics to include the significant suite of demographic, social, economic, educational and situational information, which is routinely collected about our learners throughout their college journey, from application to post-departure destination. Could this routinely collected data be collated, reported, interrogated, analysed, and utilised to support learner achievement of individual aspirational goals? Could this simultaneously establish

whether interventions to support learners were successful? I will assert that this is both achievable and potentially cost-neutral, depending upon the expertise within individual institutions.

What was the approach?

Critical realist questions (Buch-Hansen and Nielsen 2020) directly informed my lines of research enquiry and philosophical lens. A critical realist approach asks questions of the kind: what is the overall nature of social reality? How do we operate and experience life as a social being? What sort of knowledge should we aim to produce and to what ends?

The learners to which these routinely collected analytics relate are human beings. They act independently of the systems employed to measure their experience throughout their tenure as a college learner. Whilst analytic measures can be considered known quantities, each will be necessarily contextual in nature.

A significant example of this is attendance and/ or engagement percentage, and will be relevant to every institution. This data may be subject to (influenced by) any number of known, or unknown (by the institution) entities such as peer relationships, health and wellbeing, change in domestic situation, and many other factors.

The worlds of our learners are largely independent of any institutional perception and knowing about the thousands of unique human beings enrolled each year. In adopting a critical realist approach, I was able to acknowledge that "natural and social reality should be understood as open stratified systems of objects with causal powers" (Morton 2006, p.1). I wanted to investigate the real worlds of our learners, rather than focusing only on the institutional data stories we had created.

I adopted an intersectional, socioeconomic, learner-centred approach to all routinely collected information. My research 'data distillations' allowed me to see how distinct lines of enquiry were inextricably linked to the context of others. I created a process around which I framed the study,

as illustrated in Figure 1. DARPA data-modelling comprises five stages: distil; apply; reflect; predict; adapt. I then developed a predictive analytics system for formulating bespoke data scenarios, having applied DARPA to each of my learning analytics data sets, thus fully systemising the approach.
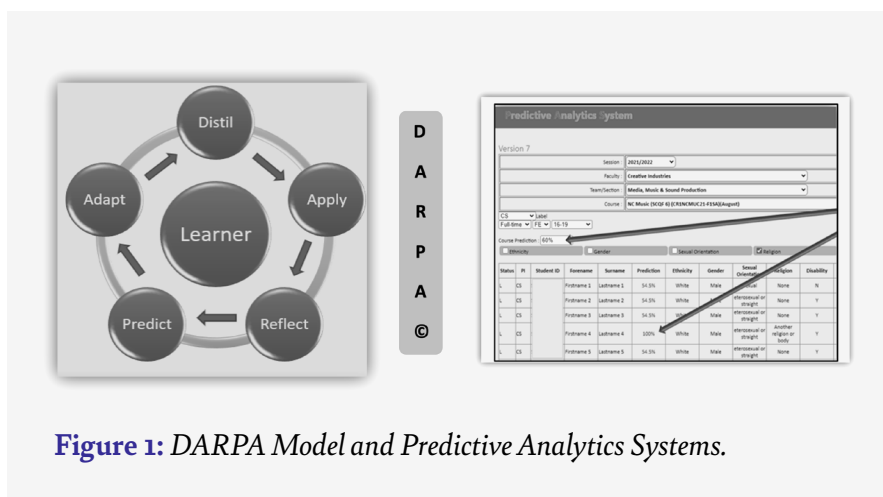
Figure 1: *DARPA Model and Predictive Analytics Systems.*

My intersectional systems solution ultimately emerged from observing everything through a Critical Realist lens. Critical Realism supports the idea that unobservable structures at an 'actual' level, cause observable events at an 'empirical' level, which are only understood in the college learner context where people understand the structures that generate events at a 'real' level. The DARPA model, created to 'do data differently', provides a robust intersectional, data-informed, predictive analytics mechanism for informing positive, evidence-based change for our learners.

What were the findings?

The intention for my research was to elicit definitive measurements for collection and analysis: to curate systematic 'things that we know.' Homelessness, for instance, 'currently having no permanent address', is not a status that we *know* about, nor does it currently *exist* as a retention or progression factor. It is however very real indeed for those learners experiencing it.

These critical realist research components are contextualised in Figure 2 below, using the example of homelessness to illustrate how this philosophical lens has been applied:

Rogers (2017) describes how predictions have the potential for them to manifest as negative

Figure 2: *Critical Realist strata in the context of the study.*

self-fulling prophecies. For example, a focus on the lowest performing cohorts and labelling them as such, could potentially lower the aspirations of learners and staff in these contexts. I also considered the converse: would those with robust predictions be subject to complacency?

A crucial element of critical realism is the notion of judgemental rationality, which centres around the assertion that robust evaluations of diverse and competing claims about the world ought to be undertaken. Central to my evaluative activity, was the concept of cohort outcome predictions, which emerged during the analyses of the data distillations.

Our college sector self-assessment reporting exercises are inextricably linked with the critical realist notion of judgemental rationality (Sayer, 1992). Any competing claims and justifications made to support evaluative statements, are in turn inextricably linked with those learner analytics scrutinised for the purposes of this study. How effective might they be, if utilised, in supporting improvement of key performance indicators relating to learner outcomes? There are many discussions yet to be had around social justice, negative advocacy, and the use of predictive analytics, when lobbying for additional funds to invest further in demonstrably robust interventions that support successful learner outcomes.

What are the key takeaways?

We need to 'ask the right questions' of the routinely collected learning analytics (Heathcote *et al.* 2023) in order to effect positive change. By introducing new questions into the data scenarios, we can begin to build far more robust, and most importantly real, data stories.

We require mechanisms for establishing whether utilising learning analytics can contribute to improved learning outcomes via the effective deployment of wellbeing, counselling, and other wraparound services. Introducing sector-wide predictive analytics modelling could help ascertain the effectiveness of our support strategies, if reporting infrastructures are established and systematically used as an evaluative tool to monitor impact. Where analyses conclude that specific practices have a positive impact on outcomes for our learners, this has the potential to inform the focus of funding allocation. Our learners are, after all, the very real reason we all do what we do, individually and collectively.

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The use of the thinking environment as a lever for culture change

Kathryn Pogson

Kathryn's role is Teaching, Learning and Digital Innovation Manager at a large General Further Education (FE) college in the North of England. Kathryn's research interests lie in organisational culture, leadership and thinking environment practice.

What is the research focus?

The context of my study is the use of the 'thinking environment' as a lever for culture change to align with the values of kindness, unity and excellence. Since the formation of a team of advanced practitioners in August 2020, the college has started to undergo a cultural shift around professional learning. There has been a change in how the quality department, which is where the roles are situated, is viewed. It is now being seen as a supportive department that checks in instead of checks up. Where staff were previously waiting to have professional learning 'done to them', it is being viewed as something that teachers own and drive themselves with the support of the advanced practitioners. It is our role to create opportunities and space for professional learning to take place, though it can take a long time to build trust and change the views of people within an organisation. There is a way to go with the culture change.

What informed the research?

There are many definitions of culture. From the straightforward, it's "the way we do things around here" (Deal and Kennedy 1982 cited by Lumby 2003), which will be the definition used in this paper, to more complex attempts to characterise this concept: "the accumulated shared learning of a given group, covering behavioural, emotional and cognitive elements of the group members" (Schein 1997, p. 10). Schein also states that "culture reflects shared learning with patterns of thinking and acting which are formed and enacted through everyday activity and which consciously and unconsciously guide development."

The thinking environment is a philosophy of communication developed by Kline (2009), which enables people to think for themselves and think better together. Kline (2009; 2020) conceptualises the thinking environment as ten components which engender an environment that evokes independent thinking through listening. These components are attention, equality, ease, appreciation, feelings, encouragement, information, difference (formally diversity (2009)), incisive questions, and place. To support professional learning and use the thinking environment as the backbone of the organisation's culture is pivotal in building a college community. As hooks (1994, p. 40) suggests, "[one] way to build community in the classroom is to recognise the value of each individual voice." The use of the thinking environment seeks to address this.

What was the approach to the research?

The purpose of this study is to use the thinking environment as a lever for culture change, through the metaphor of baking. The stages are as follows:

Check out the recipe books:

To introduce the thinking environment and determine a starting point. This involved reviewing the literature and pooling our shared knowledge of the thinking environment and who could support with this. The goal of this stage was that everyone in the organisation would know what the thinking environment is.

Gather the ingredients:

Engage the participants in a thinking environment, starting with leaders and managers, a core of enthusiasts interested in the thinking environment. Ultimately, the goal is to start a ripple effect where eventually all the staff in the organisation are the sample. The opportunity to have the whole organisation participate in a thinking environment arose during an all-staff development day.

Mix the methods:

The goal was to engage leaders and managers in thinking environment training to target all teams with the process and review the success of interactions. This occurred in a series of training sessions facilitated by Thinking Environment specialist, Dr Lou Mycroft, where I supported facilitation. This was offered to all leaders and managers, some declined the opportunity to attend, most embraced it.

Bake it in:

The next step is to continue to drive momentum and to bake into the culture that this is the way we do things around here.

What were the findings?

While we created a space where leaders and managers could come and experience the thinking environment in an ideas room, an application of the thinking environment created by the Joy FE collective during lockdown, on reflection it became about role and rank. This took away from the one component of the thinking environment, equality, where people enter the space as equal thinkers (Kline 2009). This process of culture change has always been a reflective one, but it became important to try things to make change happen, rather than overthinking if it was the right thing to do.

During the all-staff development day, speakers addressed an audience of over 500 staff on Microsoft Teams on powerful topics such as trauma-informed practice and anti-racism. Smaller teams then got together to do their own independent thinking around these topics. Facilitation of these spaces was supported through professional development activity. The use of

the thinking environment was extended to all staff development activities run by the team. Furthermore, forming communities of practice across the college has been further enhanced through the Aspiring Advanced Practitioner programme. The programme enables the formation of a community of practitioners on the course, each taking the skills and knowledge learnt back into their departments. It also enables facilitation of thinking environment practices in their team meetings and classrooms, as well as promotion of this across the college in other spaces such as wellbeing working groups.

During the 'mix the methods' stage of the study, training was provided for all leaders and managers in thinking environment processes and applications. Empowering others and giving them the confidence to apply the learning in practice was a key outcome to measuring if this innovation had taken place. Most leaders who attended the training went back to their areas and tried it out with varying degrees of success. One leader facilitated a thinking round in their team meeting, feeding back that the question posed didn't focus the thinking in the right area. We were able to address how the question was formulated and provide better support for building questions to use in thinking rounds. The key to taking this forward was momentum and how to drive this, giving people the opportunity to practise, as after all, it is a practice.

What are the key takeaways?

The purpose of the study is to use the thinking environment as a lever for culture change, and the next logical area to address is the culture of meetings. As Scott and Allen (2022, p.4) state, "All organisations have an observable meeting culture, or the way meetings are done 'around here' as a facet of their overall organisational culture". Focusing on meetings as a space to think, helps teachers to filter out the noise. We need to give teachers a chance to breathe, for their wellbeing and productivity. The work continues using the thinking environment to address the meeting culture.

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Can practitioner-led Action Research re-invigorate professional engagement and development?

Sarah Marshall and Gemma Lyons

Sarah Marshall is Head of College Teaching and Learning at Richard Huish College, based in Taunton. Gemma Lyons is the Teaching and Learning lead for the School of Humanities and Social Science. In these roles, they are responsible for planning, developing, and delivering professional development to academic staff.

What was the starting point?

There is a growing bank of evidence that suggests effective professional development leads to improvements in the quality of teaching and outcomes for learners. However, designing professional development in such a way that helps practitioners translate their learning into changes in classroom practice is not always straightforward. Even high-quality delivery by an engaging presenter on a desired topic can result in minimal impact within the classroom if insufficient time is given for reflection and implementation.

What informed our thinking?

The literature suggests that professional development is most effective if it is of sustained duration, evidence-based, and conducted within a supportive environment and without creating unnecessary workload (Simms *et al.* 2021; Darling-Hammond *et al.* 2017). In this piece, we reflect upon this notion. We are currently in year two of implementing a professional development program, focused on practitioner-led action research, where joint practice development is the foundation. Joint practice development is a practice whereby individuals, schools or other organisations learn from one another (Hargreaves 2011). This has been shown to be far more effective than traditional sharing good practice methods which often do not amount to practice transfer, unless the practice is very simple. The aim of our action research (AR) is that practitioners will not only learn from each other by participating in their own investigation but will also learn from the research of others.

What was our approach?

In 2021-2, we launched our first college wide AR project for all teaching staff. The focus was on formative assessment, which was one of the key college priorities from the 2021-2 College Quality Improvement Plan. As a teaching and learning team, we prepared and delivered input using material from Wiliam and Leahy's Five Formative Assessment Strategies in Action (Jones 2021). Members of teaching staff then worked together in course teams to construct their research activity based around an area of formative assessment that they wished to explore further. They were given the freedom to choose their methods of working and staff gathered data during their normal day to day work and interactions. This culminated in the production of our first *Action Research Journal*, where all staff wrote up their findings and these were published in a whole college booklet.

What is now understood?

On the surface, there appeared to be much to celebrate, but staff perceptions of the process were mixed. As a teaching and learning team we wanted to reflect upon our first attempt at AR on a college wide scale and asked staff for their feedback on how they had found the process and ways they would like it improved. Where there was a lack of buy-in, reasons given were around issues of time, needing more guidance, or the fact that some staff felt they had more pressing priorities to address with their own students than that of formative assessment. We concluded that we needed to allow more freedom to increase effective engagement, and allow more time to support the development of such project work. A teacher's need for control over their own professional development has been shown to be particularly important in teachers staying within the profession (Engage Education 2021).

Where are the implications for practice?

In light of staff feedback, reflection, and our own research around successful professional development, this academic year (2022-23) a number of changes were made:

- Staff were given agency to choose a research area, addressing something that was relevant to them and their own work with students.

- Training days provided time to think, collaborate and delve deeper into the research area.

- We provided a clear overview of what would happen and when, with mini-deadlines to help staff stay on track with their progress.

- Drawing on Bruner's concept of 'scaffolding', a template for the final submission was also provided to act as a support. Often staff development programmes fail to put into practice the basic learning methodologies that we would put in place in the classroom.

This year, in addition to the production of another AR booklet, we celebrated our findings at a collaborative marketplace event, which proved to be a successful, joyful and stimulating occasion. We are still in our infancy with this. We are still learning how best to support staff and encourage an evidence-based approach when the range of project ideas are so broad. The varying confidence levels and previous experiences of carrying out research is shown within the diversity of the projects illustrated in our journal. However, the overall impact has been significant in terms of adopting an enquiry-based approach to practitioner practice. We would suggest that a key to this success is giving practitioners agency, time and a clear guided structure. We have found that being involved in action research can reinvigorate and fuel enthusiasm for the honing of the creative craft of teaching. Surely this is something we all need, however long we have been in the profession?

Further recommended reading

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An exploration of how daily physical exercise may enhance the sense of well-being and work performance amongst college teachers, from an action research perspective

Gemma Lyons

Gemma Lyons is a Teaching and Learning Lead at Richard Huish College. Gemma works with Sarah Marshall, Head of College Teaching and Learning, in developing the college's approach to professional development; their changing approach is shared in the previous article. That article ends with an account of how the college is moving towards individual staff having agency over the choices they make about their focus for inquiry or action research.

Here, Gemma shares with us an account of a project she researched, with the aim to explore and support the mental wellbeing of teachers within the college. It is important to note that the account here is not shared as one of a robust piece of academic research, but rather a small scale trial or intervention, drawing on situated knowledge and practice within the setting from an action research perspective.

What is the focus of this study?

Gemma says:

With educational staff experiencing higher levels of burnout and stress than ever before, mental well-being in the workplace must be explored (Agyapong et al 2022). The inquiry selfishly stemmed from personal interest and experiences. Fully aware of the benefits physical activity brings to my own well-being and work performance, the question of whether introducing exercise within the working day may benefit others arose.

We know the pivotal role physical activity plays in lowering stress, depression and anxiety. Likewise, we know how exercise has many cognitive benefits, such as increased focus and better recall (Ampill 2022). The focus of this study, therefore, was to explore the impact of bringing opportunities for physical exercise into the college day, for staff members working in a post-16 sixth form setting.

When I started working at Huish in 2020, colleagues wondered what I was doing most lunchtimes, when I regularly left my desk and headed off. Perhaps I was a secret smoker? It was quite the opposite; a physically and mentally healthy habit was the reason for my lunchtime office absence. Colleagues became intrigued and that's when I began considering ways to encourage colleagues to step away from their desks and to take a proper break, away from the screen and office chair!

What was the approach to this study?

I invited my departmental colleagues to take a regular lunch break and go for a walk. We are a department of 7 Teachers. It was agreed that a routine walk would take place every lunchtime over the next term. The walk time could vary from a quick 5 minutes around the block to a longer 20 minute walk. It could be a solitary activity, or it could be completed with a group of colleagues or a single colleague. The approach taken can be best aligned to action research (McNiff 2017).

After the defined period, I asked my research collaborators (departmental colleagues) about their perceptions of the impact of this action (a daily walk) had on their sense of wellbeing. The data collected was in the format of narratives, taken from self-reports.

I used common ideas of wellbeing to identify perceptions of impact. I evaluated the self-reports of the participants to identify emerging themes.

What were the findings?

Participants reported increases in concentration in the afternoon following their lunch time walk, thus linking to the benefits exercise has with enhanced work performance. Enhanced satisfaction and engagement with tasks and teaching groups, and greater enjoyment of work tasks were also reported, and most importantly participants reported feelings of connectedness where they had walked with another colleague or a group of colleagues.

Exploring these self-reports, I could identify indicators of (or perceptions of) the daily walk having both physical and psychological benefits (Swedlund 2022), positively impacting on work performance and wellbeing.

What difference has this made to practice?

After the initial period of the study, there was a strong desire to continue with this practice on a regular basis and make walking at lunchtime a ritual! Those involved in this activity have continued with a walk at lunchtime. Participants say it has become the cultural norm in our department.

Engaging with this initiative has made me reflect on a possible need at an organizational level for a cultural shift. I believe there are many benefits to students, staff and the overall organisation, as well as other educational establishments if we can allow time within the college day for staff members to exercise.

Many other organization types already do this (Kholl 2019). Some even pay employees to work-out while they're at work, because they believe the evidence is clear: staff performance is better, staff engagement is better and employee satisfaction is better.

This research took place a couple of years ago. Fast forward to 2023 at the college, free yoga sessions are offered to staff and walking at lunchtime is now encouraged too, at a whole college community level, but we could still be doing more. There will forever be the ongoing issue of the type of work we do and mapping time in, however, it's time for the education sector to move with the times. Something needs to change to support staff well-being and to enhance teacher retention; getting out and getting active may well help.

My conclusion, quite simply, is to suggest you take your break; your body and your mind will thank you for it.

Further recommended reading

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Networks of enterprises and multifaceted identifies in further education

Abbie Cairns

Abbie Cairns is an artist-teacher working in Adult Community Learning (ACL). She has recently completed her PhD at Norwich University of the Arts, in which she explores the identity transformation of artist-teachers in ACL. Abbie is interested in how those that identify as artist-teachers in ACL came to develop their identity, motivated by her own lived experience. She is herself a text-based artist who makes and exhibits work regularly.

What is the research focus?

This research focuses on networks of enterprises (NoEs), and introduces them as a tool for tracking and charting multifaceted identities. NoEs were originally used with creative people at work (Wallace and Gruber 1989, p. 11). The paper shows how the tool has the potential to be used by anyone with a multifaceted identity, such as further education teachers.

Written from the context of artist-teachers in adult community learning (ACL), this paper shares how I used NoEs within this educational sector. ACL is a sub-section of further education (FE) understood as community-based learning in local authorities and general FE colleges, typically to learners aged 19+ (DfE 2019). Artist-teachers in ACL are professional artists and teachers who are dedicated to both and have the competencies needed to work in and through art and adult community learning (Cairns 2022, p. 528).

What informed the research?

Two key texts informed my use of NoEs. The first was James Daichendt's use of NoEs to chart and track the many enterprises of George Wallis, the first recorded artist-educator (2011) (see figure 1). The second was by psychologists Wallace and Gruber, who first developed and used the tool in the 1980s with creative people at work (1989). Gruber outlines that NoEs encompass several related activities that allow the creative person to continue towards goals in different areas (1989, p. 11). The tool is intended to help the individual to track numerous enterprises that change over time (Daichendt 2011, p. 71), allowing for "careful and prolonged attention" (Wallace and Gruber 1989, p. 6).
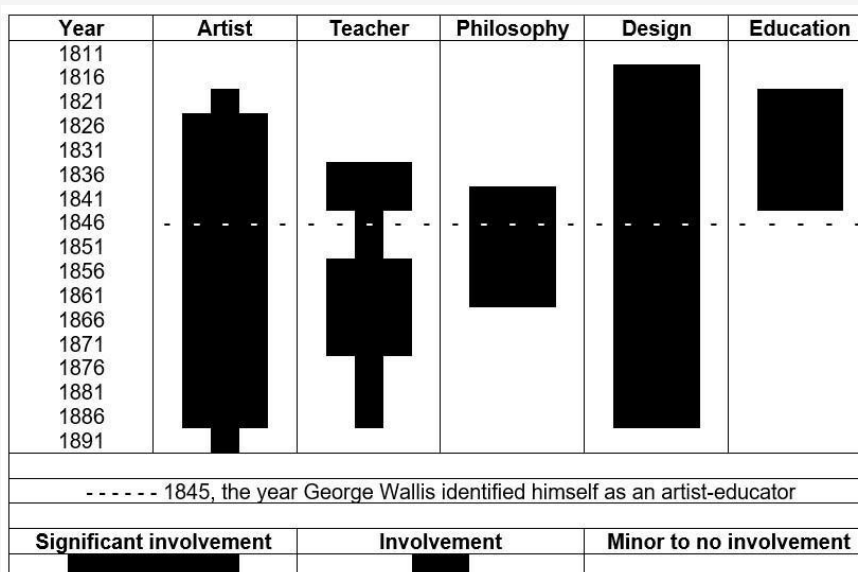
Figure 1: *A reproduction of Daichendt's network of enterprises for George Wallis (2011, p. 72).*

There are several features of a network of enterprises which are important to how it functions, with the width of each column indicating the level of involvement in each enterprise, from none to significant (Wallace and Gruber 1989, p. 12). Daichendt states that this helps to show the trade-off between the enterprises, and the density and breadth of each (2011). Understanding this enables individuals to reach their goals by assessing the significance of each enterprise, in relation to what it is they want to achieve (Wallace and Gruber 1989, p. 13).

The NoEs also track a life over time. The time frame used can be tailored to best fit the individual, to visually tell the story of their professional career. In this longitudinal process we begin to uncover the "interruptions [that] form" our lives (Wallace and Gruber 1989, p. 12).

Daichendt developed a feature relating to this, which is a dotted line to indicate the year Wallis identified himself as an artist-educator (2011, p. 71). This was a feature I included in my own use of NoEs, as I was interested in the same data. Daichendt felt this helped visualise the streams of thinking that led to Wallis identifying as an artist-educator (2011, p. 71).

What was the approach to the research?

This research used online interviews and focus groups with 17 artist-teachers working in ACL in the UK between January and December 2022. I introduced my participants to NoEs during interviews to help me understand their professional careers and how they became artist-teachers in ACL. Daichendt presented Wallis's enterprises in five-year blocks, as he was charting a whole career posthumously (2011, p. 72). As my research was looking at professional careers in progress, artist-teachers in ACL were documented yearly, or years were clustered if there was no change in enterprises and/or level of involvement. As my research developed, NoEs became more central, and were ultimately used not just as an interview tool but as data in their own right.

What were the findings?

In this research with artist-teachers in ACL, I found that NoEs can be used as a visual CV and tool for personal discovery. Participants were often shocked by their involvement in different enterprises and how these ebbed and flowed over time.

NoEs had a positive impact on the participants. One participant had not realised she had been teaching for ten years, on the side of her art practice, before deciding to teach. This discovery validated her status as a teacher.

Within the focus groups, participants aimed to come to a consensus on the NoEs' real-life applicability.

> *I found the network of enterprises a really interesting thing…it's got the timeline in it, and we all have a timeline. We all have a story. It is quite a powerful visual.*
>
> **(Artist-Teacher P)**

Notably, artist-teachers saw NoEs as something they could use in a personal capacity. Participants particularly appreciated the timeline aspect, storytelling elements, and the fact it was visual. They saw opportunities for the tool to be adapted to better fit their personal needs by including additional enterprises, care responsibilities, and health, to see how these impacted their art and teaching.

The focus groups confirmed the NoEs' real-life applicability, something I had observed from interviews with participants. In interviews participants quickly took ownership of their NoEs, adding their career histories easily and quickly making judgments on their level of involvement.

What are the key takeaways?

This paper has introduced NoEs as visual tools for tracking and charting enterprises over time. It has shown how our involvement in each enterprise differs and changes. As I used the networks of enterprises with participants, I started to see that they might be useful for those outside of the creative people demographic, particularly as my artist-teachers documented enterprises unrelated to their creative work, spanning catering to physics.

This allows each person's NoEs to become an individualised picture (Wallace and Gruber 1989, p. 21). As such, I believe the tool has the scope to be useful for anyone with a multifaceted identity. The demographic that immediately came to mind was other FE teachers, as highly complex, multifaceted professionals (Strom and Martin 2022), who are comparable to artist-teachers, as they are involved in at least two enterprises (teaching and their vocation). The NoEs help each individual understand their uniqueness (Wallace and Gruber 1989, pp. 3–4). This paper ends by inviting you to create your own NoEs using Daichendt's model:

Create your own NoEs

| Name your enterprises.

| Pick a time frame that works for you.

| Assess the significance of each enterprise.

| Look ahead 1–5 years.

Suggested further reading

Daichendt, G. J., 2011. The nineteenth-century artist-teacher: A case study of George Wallis and the creation of a new identity, *International Journal of Art and Design Education*, 30(1), 71–80. doi: 10.1111/j.1476-8070.2011.01673.x.

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Rethinking vocational pedagogy: An analysis of occupational culture in Further Education

Amy Woodrow

Amy Woodrow is Director of Student Experience, Quality and Safeguarding at City of Bristol College. She has worked in FE for the last 10 years, starting as a hospitality lecturer, then progressing through different quality roles. She is fortunate to work with lecturers and professionals from all walks of life and a diverse range of vocational disciplines, who bring with them their shared values, beliefs, social rules, and vocabulary associated with their previous occupation or type of work. But how do you teach that? Can you even teach it? This is what she is aiming to find out as part of her doctoral studies with the University of Sunderland.

What is the research focus?

In Further Education (FE), lecturers are often assumed to be industry experts with prior or concurrent careers in addition to teaching. They contribute not only their expertise and industry knowledge but also their occupational culture to their teaching practice. Occupational culture is a distinctive pattern of thought, values and actions shared by members of the same profession. This common identity and perspective often transcends the place where they work and so is independent of any particular employer. Strong occupational cultures span various fields such as healthcare, the military, culinary arts, hairdressing, and construction.

Reflecting on my undergraduate studies in Hospitality Management, I recall Dr. Derek Cameron eloquently discussing chef culture, revealing the intricate occupational culture that, to the outside world, represents a complex enigma. Fast forward a few years (and several hospitality roles) and I can now understand that chefs are a cohesive cultural group, entrenched in traditional values due to the long history of the trade.

While FE lecturers are expected to teach the knowledge and skills relevant to a profession, it is much harder to impart the associated behaviours and broader personal attributes as they are often gained through experience. Some knowledge in educational settings can be codified, for example course materials. However, staying current with workplace practices, customs, approaches, and innovative ideas remains difficult for educators. Incorporating these aspects into the vocational curriculum is crucial, yet research suggests a trend toward competency-based checklists in vocational curricula, reducing the richness of the educational experience and impacting on students' preparedness for work. My research aims to address this issue through teacher perspectives, offering sector recommendations to ensure students not only secure employment but flourish within it.

What informed the research?

Understanding occupational culture holds significance for both teachers and students, to adequately prepare them for the workplace and contribute to skills needs. Nevertheless, there has been little research into the connection between understandings of occupational culture and its impact on students' preparation for the workplace. While there are gaps in the research in this field, there are several key influences on the core theoretical concepts that underpin it. For example, Trice and Beyer (1984) were early authors on organisational and occupational culture and emphasise the unique beliefs, values, and knowledge possessed by various occupations. Their work makes connections between occupational culture and social and individual identity. Identity is a central theme to my research, with Wenger's (1998) multi-membership concept illustrating how identity functions across diverse sociocultural contexts. By being part of two (or more) communities of practice, we engage in different practices in each of the communities to which we belong. The concept of dual professionalism and identity is prevalent in FE. Yet Robson, Bailey, and Larkin (2004) question the compatibility of two identities, suggesting that maintaining distinct identities is preferable when transitioning between occupation, therefore critiquing a commonly used term.

In the context of vocational education, Shulman (2005) asserts that subjects should be taught in ways aligned with their disciplines, a principle reflected in FE settings using realistic work environments. These pedagogical methods offer insights into the personalities, dispositions, and cultures of respective fields, a key focus of my research.

What was the approach to the research?

My research employs interviews and creative methods to collect data on culture, identity, knowledge, and teaching practices. I purposefully selected five participants that came from occupations that my literature review identified as having 'strong' cultures – IT, the military, catering, construction, hair and beauty. Participants have created a digital mood board containing artefacts such as images, text, video and audio using the online curation platform Wakelet. These are showcasing the occupational culture of their specialisms, and will be supplemented with semi-structured interviews to delve deeper into their experiences.

What are the findings (so far)?

Themes from the Wakelet collections and the two interviews conducted so far are emerging, revealing participants' deep connection to their previous occupations and a strong sense of professional pride. Both participants were inspired to teach by their own FE experiences, fostering empathy and compassion with their students. They feel that they use their own educational and work experiences to inspire their students and teach them the realities of working in that sector. When asked about their professional identities now, interestingly both used a joint title of industry and educator, departing from traditional perceptions, for example, joinery teacher or beauty lecturer.

The findings reveal the complexity of occupational culture and how it affects vocational education, in line with Trice and Beyer's focus on the distinct beliefs and values within professions. The challenges participants face in adapting the curriculum to changing industries also align with Shulman's idea that subjects should be taught in line with their fields, emphasising the importance of flexible teaching methods.

Participants felt that their curriculum was valid and up to date to an extent, covering the basics to enable entry to that profession. However, both cited challenges with equipment and resources due to funding pressures. They felt that their course provided students with the skills and knowledge to be effective at a basic level in a workplace. However, both felt that more college time was needed for students to become proficient in certain tasks. Both recognised that their industries were rapidly changing and the curriculum was at risk of falling behind. For example, in joinery, more sustainable wood products are available than those that are covered within the curriculum, yet there is only the time and resources to cover what is needed for students to achieve the qualification.

In terms of developing pedagogy, the newer joinery lecturer is undertaking teacher training,

collaborating with peers from different college departments. Similarly, the beauty lecturer highlights learning from observing colleagues and collaboration. Both emphasise linking theory to practice using a variety of methods to enhance learning experiences and ultimately develop the students as professionals in that particular occupation. So far, participants stress that while occupational culture can be taught, true understanding requires extensive experiential exposure, suggesting that culture is a process of gradual familiarisation.

What difference does this make to practice?

This research will hopefully have an impact on the wider sector as there is currently a strong focus on demand-led, employability-driven vocational education. While there is some criticism of the focus on skills and meeting economic imperatives, vocational education remains meaningful and beneficial. I am hoping that my research will raise awareness of the importance of vocational education and training, and may inform policy or organisational decisions, such as what types of teaching approaches or resources should be implemented, or what types of professional development teachers should receive.

Further recommended reading

Kara, H. 2015. *Creative research methods in the social sciences: a practical guide.* Bristol: Policy Press.

Kara offers valuable insights into creative methods of data collection and analysis. Her ideas helped me see things differently and apply rigour to my methods.

Sennett, R. 2009. *The Craftsman.* London: Penguin Books.

This book is highly relevant to this research as it explores the intricate world of craftsmanship and the development of skills, values, and identity within various occupations.

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Pip's Post-conference Poem (PPOP)

LSRN!
From the start to the end,
Do you know what? Conference was more than a conference,
More than the sum of its parts you see,
A community,
That Lave and Wenger (1991) would agree,
Unequivocally,
From legitimate peripheral participation,
To imminent poetic co-creation,
Pivotal pedagogic experimentation,
Dissonant collaborative calibration,
Proportionate sonic celebration.
Putting on the Ritz (Astaire, 1999)
Poetry is the Glitz.
Building pedagogic bridges,
With poetic bricks.
Read my lips.
Putting the 'L' in the 'LSRN',
The poet in residence is your new pedagogic friend,
What about the 'S' in 'LS',
Conferencing is a skill in itself,
Now we turn to 'N' in 'LSRN',
Network like no tomorrow,
It's the best conference to attend,
So here we go conference amigos,

What about the 'R' in 'LSR',
The best community by far.
Critical questions need critical answers,
Sometimes we need to be Caliban's dancers,
Strictly come conference we would all get a ten,
Performing poetic pedagogy, I recommend.
I'll stop asking questions to activate the think and wait time (Stahl 1990),
Practise the pedagogy I preach, this is the sign.
Trip the poetry fantastic,
Flip the pedagogy scholastic,
Trip the residency dynamic,
Trip the conference with abstract thematic,
Pip the poetry performance dramatic,
Bring your own poetry BYOP be idiosyncratic,
The pedagogy is the poetry about this I am enthusiastic.
All my poems are constructively aligned,
Inclusive by design.
Jules Verne - Fifty thousand poems under the conference sea,
Let's pull together have a nice a cup of tea.
Will the real poet in residence please stand up?
Poet in resistance, poet in resilience, poet in resonance.
Grow it, flow it, know it, show it.
Poe, Poe, Poe, and Pip, is it Eurovision from Austria?
Poetic euphoria.
Who the hell is Edgar? Who the hell is Pip?
She's on a virtual field trip.
Troublemaker, word shaker, boundary breaker,
Stay with the troublemaker, Harraway, 'way', 'way', 'way' (2016) was a thought maker.
Autoethnographic poetics,
A stream of poetic consciousness, phonetics, phronetic,
Dissolve linearity through dynamic poetics.
Interdisciplinary semantics,
Are there pedagogic facts?
Poetry unpacks.
The constant poet,
The pedagogic Jedi,
Fight for what's right for you and I,
Try the open mic in your class,
A weapon of mass,

Inspiration, collaboration,

Celebratory co-creation,

The polyvocal poet, who is she?

It's quite exciting to experiment with a new conference identity,

Express your voice poetically and think of new possibilities.

Whose conference is it anyway?

Whose residence is it anyway?

Poetry is in my DNA,

And I did it my way.

Set fire to your poems now!

With a twist of authenticity and exquisite agency because this is how,

We can express our personalised journey,

You are worthy.

Differentiated poetics eat your heart out.

Isn't this what pedagogy what's that all about?

Pedagogy like poetry, poetry like pedagogy,

Get the poetry party started.

But don't do it 'half-hearted' (ly).

Whether you're a poet or not,

If you are in the LSRN community, then we've hit the jackpot.

Now it's time for the plenary.

How about a semantic tapestry (Chin 2007)?,

Of all the LSRN annual conference in all its forms that would be absolutely,

A privilege to bring together from that April day,

In Birmingham a wonderful place,

So bring on the poetic space!

The conference was a tapestry, unequivocally and by necessity.

Prioritising the community, creativity, temporalities,

professionally, joint practicalities, vulnerability,

developmentally, evidentially, skillfully,

educationally, adaptively, identity,

joyfully, especially, interestingly,

perfumery, multimodality, spatially,

Ecology, opportunity, inquiry,

Post-compulsory, collegiality, definitively,

Aston University, Birmingham hospitality, wonderfully,

Successfully, informatively, policy,

Pedagogy, origami, and finally,

Last but not least, we had some poetry.

What is a poet doing at a conference?
What is a conference doing to a poet?
What will a poet do with a residence?
What will residence do to the poet?
What does the poet have to say about research?
What does the research say about the poet?
What does a poet know about learning?
What does learning have to do with the poet?
How is poetry the same as pedagogy?
How is pedagogy the same as poetry?

Poem reading

To hear a reading of the poem, use the following reference or QR code.

Pip the Poet, 2023, *Pip Post Conference Poem (PPOP) for the Learning Skills & Research Network (LSRN)*. [video online] Available at: https://youtu.be/DPaDwrZv4aA.

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What is a poet doing at a conference? A provocation

Pip McDonald

Pip McDonald is a post-digital experimental performance poet and has worked in a range of educational settings. She has presented at a variety of conferences to explore the pedagogic possibilities of adopting poetic methodologies including at the National Society for Education in Art and Design (NSEAD) Adult Community Learning Conference. She has performed at Newcastle Poetry Festival, High Tide Festival in Twickenham and Wandsworth Fringe Festival. She has performed across the UK including Derby, Gravesend and London. She has also creates and screens poetry films for example at the 11th Annual City Lit Film and Animation Festival in London. She has published original poems in a range of poetry anthologies and online magazines. Her first poetry collection entitled 'Notorium' will be published by William Cornelius Harris Publishing in collaboration with London Poetry Books. You can follow Pip on X and Instagram: @pipmac6.

Following an invitation to be the inaugural Learning & Skills Research Network (LSRN) Poet-in-Residence at the annual conference at Aston University in 2023, an opportunity arose to explore what the new role could mean and what it could do. A range of questions could be asked. What is a Poet-in-Residence? How can a poet add value? What types of value can be added? While there was no formal job description or person specification for the Poet-in-Residence role, perhaps when something does not already exist, there is an opportunity to create it. The Poet-in-Residence could provide us with an abundance of opportunities to reimagine traditional conference space and the actors who operate within it.

What is a conference?

Could a conference be a critical event, a temporary collaborative dialogue, a curated open polyvocal disruption, or a radical series of acts of co-created special transgression? What is a conference for? Perhaps it is a platform to both share best practice and discuss research findings. How does a poet 'reside' in a traditional conference space and to what extent is a Poet-in-Residence different from other roles at a conference? Both traditional and established conference roles can include organisers, presenters and attendees. While the majority of these roles are considered to be a prerequisite for conference 'success' at both practical and operational levels, there could be an opportunity to create new experimental roles and modify existing roles to create new opportunities in the conference setting. The Poet-in-Residence role could sit in the experimental space.

We are familiar with the 'wild card' presentation and the 'unconference' model, so it may be possible to draw on these experimental categories to create a range of different roles. New approaches and roles could be argued to create a more inclusive conference experience.

What is a residency?

Perhaps the Poet-in-Residence role could be understood as having an interdisciplinary purpose, bringing together ideas about research, learning and skills across curricular boundaries through poetic outputs. Why should the audience listen to a Poet-in-Residence? The first performance at the conference involved performing a provocation, as a direct response to the critical question 'What is a poet doing at a conference?'. A Poet-in-Residence could be a Poet-in-Resistance; complex, disruptive and experimental. During the provocation I performed at the conference, the Poet-in-Residence was also framed as a 'troublemaker'. Could the role be a novel way to explore both uncomfortable and challenging ideas as a form of poetic rebellion within a safe setting? Perhaps Haraway would encourage us to be "staying with the trouble" (Haraway 2016).

To what extent is a classroom different from a conference space?

In *Teaching to Transgress: Education as the Practice of Freedom*, hooks (1994, p. 12) states that "The classroom remains the most radical space of possibility". Perhaps the conference space can also be understood as such a space, as an opportunity to interrogate complex ideas through the creation of a new role of a Poet-in-Residence.

The Poet-in-Residence role does not just have to be restricted to one person in the conference setting and as a result there could be an opportunity for collaborative poetic output. Crowdsourced poetry is a collection of "...words submitted on a particular topic or theme through social media and in person at events" (Simpson n.d.). Following an invitation by one of the conference organisers, Jo Fletcher-Saxon, asked participants to identify all the different terms for the word 'conference' using the social media platform *X*. A crowdsourced poem was created and performed at the conference. Crowdsourced poetics could enable the critical move from a solely individual focus to a more collaborative approach or the "autoethnographic-we" (Mendus 2021). As opposed to being solely an individual project, a 'collaboration-in-residence' model could allow for more voices to be heard in a meaningful capacity.

Operating in an experimental space, the Poet-in-Residence role could be seen as an opportunity to be "...remixing identity altogether", drawing inspiration from the notion of a 'glitch identity' from the book '*Glitch Feminism. A Manifesto*' (Russell 2020, p 94). Perhaps a poem could be argued to be a type of experimental *glitch*.

A range of poems were written specifically to be performed at the conference. For example, '*If Research Could Talk*' was an experimental poem written from the point of view of research and asked the question '*What would your research project say about the researcher?*'. Additionally, drawing on the range of conference abstracts and presentations, haiku poems were also created and shared on *X*. Perhaps a hooks-infused conference could give rise to both a collaborative and exploratory role, with the 'audience-in-residence' or 'audience-in-resistance' as poetic partners in experimental poetic praxis.

In terms of final reflections, '*Pip's Post Conference Poem (PPOP)*' was written and performed to act as a 'poetic plenary' after the conference as an asynchronous poetic output. The poem shared reflections on some of the ideas emerging from the conference and the Poet-in-Residence role and encouraged listeners to experiment with the open mic methodology as a conference takeaway.

In the future, perhaps the LSRN conference could welcome a comedic component, an open mic opportunity, or an anthology to celebrate the creative voices of the community. Ultimately, if we do not feel we have a voice, are not able to explore unsaid ideas, or are not able to challenge established notions or hierarchies, then a Poet-in-Residence role could be used to communicate, challenge, and experiment on our behalf as if we could outsource injustice tasks to the poetic other or another poetic agency. Perhaps this could be the real '*[Poetry to]...Transgress*' (hooks 1994).

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Findings from #AmplifyFE 'Insights' research: a practice-focused case study

Lynne Taylerson

Lynne Taylerson is a curriculum designer/ facilitator for initial teacher education and IT/ digital skills for Midlands-based Independent Training Providers. Lynne has undertaken 'Insights' research for Association for Learning Technology (ALT) as part of the #AmplifyFE initiative (ALT 2023a) stemming from ALT's strategic partnership with the Ufi VocTech Trust.

What is the research focus?

Insights builds on Ufi's (2021) White Paper and focuses on how we can design and deploy learning technology effectively for adult learners impacted by the digital divide. This case study focuses specifically on the Insights findings on vocational learners and practitioners showcased at the 2023 LSRN conference.

What informed the research?

Ten million people in the UK lack the basic skills needed to thrive in a digital world. Certain groups are more likely to encounter digital barriers and lack appropriate study spaces and opportunities. They are four times more likely to live in low-income households, ten times more likely to be aged over 65 and eight times more likely to have no post-18 education (Good Things Foundation 2022).

Covid impacts have widened the digital divide. Exposed fault-lines of inequality regarding digital access and support for digital skills acquisition mean that learners with lower digital skills may remain excluded as inequalities worsened by lockdowns bed in (Ufi 2021, p.6). Vocational providers and practitioners need to investigate what works when developing learners' digital skills.

What was the approach to the research?

Ten semi-structured, one to one interviews were conducted in-person and via webinars with key staff who had successfully developed or leveraged digital tools for vocational learners. Some participants were self-selecting, engaged via social media callouts. Fifteen participants contributed during their involvement in vocational and digital skills development programmes for organisations including the VocTech Trust, Department for Education, Education & Training Foundation, Jisc and independent sector entities such as Skills Councils.

The research considered curriculum design principles and constraints, digital skills and pedagogy, and importantly, the human aspects of skills development. Artefacts including project reports, journal articles and blogs were analysed, bringing wider perspectives from learners, educators, design teams and those supporting and funding them.

What were the findings?

Opening doors for vocational learners

Certain pivotal factors impact technology acquisition and digital skills development. Vocational educators must work with learners to open digital access doors, provide growth spaces and signpost relevant options for use:

Open Doors: Digital access, support, time to develop

Meaningful use: Confidence, relevance, wellbeing

Digital identity: Identity, awareness, skillset
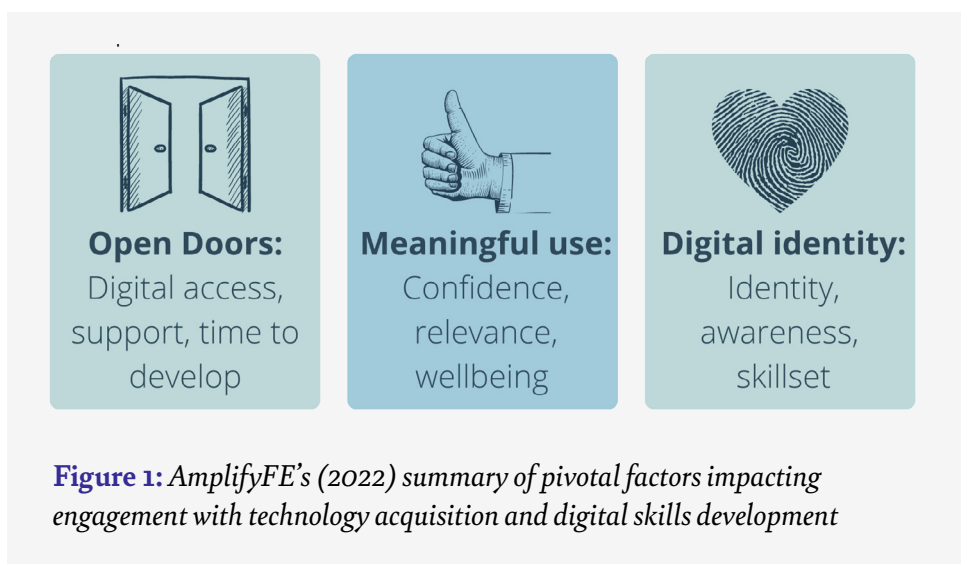
Figure 1: *AmplifyFE's (2022) summary of pivotal factors impacting engagement with technology acquisition and digital skills development*

As confidence and relevant skills build, a further pivotal growth factor is a clear forward purpose to repay continuing investment of time and effort. This centres around the development of a professional digital identity (Jisc 2022) including professional network building, growth of generic and specialist vocational skill sets and an awareness of future digital skills development needs.

Opening access doors to the digitally excluded learners identified above involves ensuring convenient, affordable access to digital devices and networks and an optimum blend of online/offline learning. Timely support must be available from mentors and peers. Learners must have time to experiment with digital tools to explore their personal relevance and their value to work and wider life.

Growth spaces must then be provided enabling digital self-confidence and resilience-building, developing the persistence to push past challenges often encountered when mastering digital tools. This growth requires courage, so trusting relationships with educators, support staff and peer mentors must be built. Here, quick wins and meaningful rewards such as digital badges are motivational. Learners need to appreciate the life-changing possibilities of technology mastery, to be given a 'glimpse of the possible' of improved life chances.
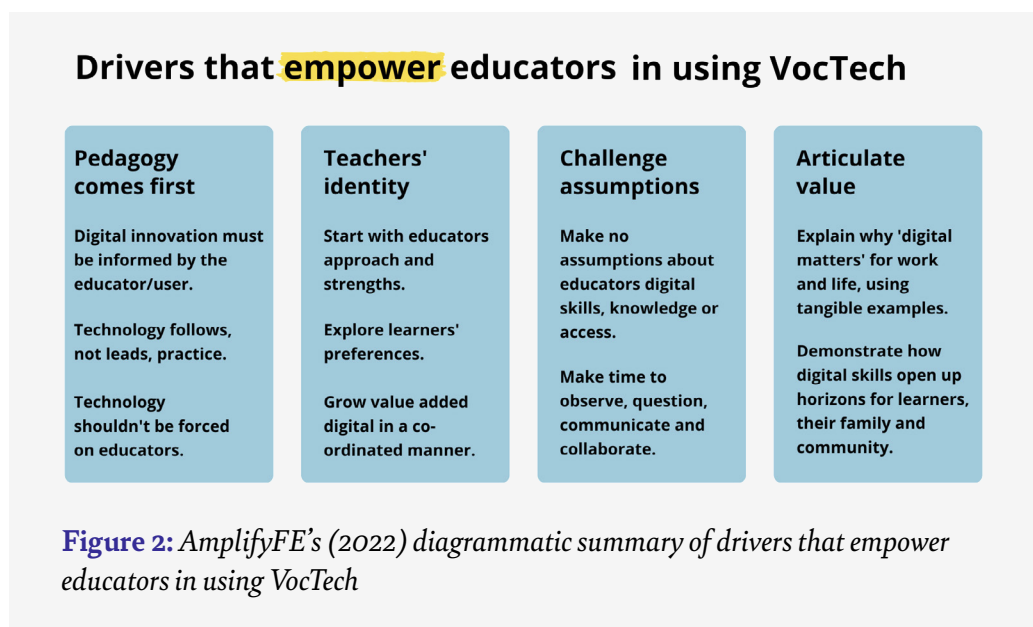
At this formative stage, adults must be empowered to safeguard themselves, developing an awareness of digital wellbeing strategies and online risks to safety and privacy. Educators should guide learners to be ethical, informed users of technology.

Teachers are learners, too!

A key jigsaw piece in the effective leveraging of vocational learning technology is securing buy-in and enthusiasm from practitioners. Educators are work and life role models to learners, so their attitudes to technology can significantly impact upon learners' viewpoints. Teachers can act as powerful advocates for learning technology or as gatekeepers deterring or limiting its effective use.

We must appreciate that teachers are career-long learners. The key principles already outlined for enthusiastic technology adoption by learners equally hold true for educators' development. Beyond these foundations, those involved in promoting learning technology for educators and assisting them to develop digital pedagogy are clear about other significant motivational drivers:

Drivers that empower educators in using VocTech

Pedagogy comes first

Digital innovation must be informed by the educator/user.

Technology follows, not leads, practice.

Technology shouldn't be forced on educators.

Teachers' identity

Start with educators approach and strengths.

Explore learners' preferences.

Grow value added digital in a co-ordinated manner.

Challenge assumptions

Make no assumptions about educators digital skills, knowledge or access.

Make time to observe, question, communicate and collaborate.

Articulate value

Explain why 'digital matters' for work and life, using tangible examples.

Demonstrate how digital skills open up horizons for learners, their family and community.

Figure 2: *AmplifyFE's (2022) diagrammatic summary of drivers that empower educators in using VocTech*

It is key to adopt a pedagogy first approach and avoid mandating the use of specific technologies to educators as a fait accompli. Technology must follow rather than lead classroom practice, led by educators, informed by their expert knowledge of learners, curriculum and workplace needs.

An important starting point is establishing clarity regarding practitioners' existing digital pedagogy and their strengths in innovative classroom practice. Technology use can then be developed in a value-added, coordinated manner. This is a patient process, requiring time to observe and question teachers about their practice to avoid assumptions being made on their digital knowledge, skills or access.

It is important to then advocate for the value of digital skills and confidence, to persuade educators that digital skills matter for students' learning, work and life opportunities. Providing 'glimpses of the possible' of tangible and authentic benefits of technology to teacher-learners is key. Here, examples of specialist technologies already used in vocational areas and of ubiquitous digital tools which can be used to better support and motivate learners promotes buy-in.

What are the key takeaways?

When developing educators' digital pedagogy and learners' digital skills:

- teachers' existing expert pedagogy must determine the choice of digital tools and inform their use;

- all learners must have digital confidence built alongside competence;

- development of digital skills takes courage and requires access to timely, trusted support;

- digital interest should be sparked through relevant, vocationally contextualised use;

- successful deployment of technology begins by empowering vocational;

- educators as digital role models – teachers are powerful cheerleaders and mentors for vocational learners.

Further recommended reading

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Exploring tension within purpose and focus of vocational curriculum for lecturers when using technology enhanced learning

Heidi McWade

Heidi McWade is a Lecturer in Teacher Education and Quality Practitioner at a general FE college. This article reports on research findings from doctoral study carried out with permission granted to conduct within her place of work.

What is the research focus?

This article aims to explore how my own professionalism has developed through the analysis and discussion of one of three tensions revealed within my doctoral research, that being the tension around the purpose and focus of the vocational curriculum. The article follows a published exploration of why vocational lecturers use technology enhanced learning (TEL) and problems faced with use, introducing the two other tensions (see further reading). My research explored vocational lecturers' professional knowledge when using TEL within teaching. I accept TEL to refer to any technologies which are used for the purposes of learning, which can include technologies found in vocational workplaces, as well as information technologies and social uses of personal technologies.

As an insider researcher, researching colleagues' perceptions from within the FE college I worked at, I have gained deeper understanding of my colleagues' professional knowledge, and developed my own theoretical knowledge to inform the analysis and discussion of my findings.

What informed the research?

This research employed an inductive approach, meaning that research themes were generated from the data rather than from theory. Consequently, the data drove the direction of the literature review, which in turn informed the research. Data revealed three key themes; pedagogy, professional image, and thirdly performativity[1] which was found to be an underlying theme in which aspects are seen within the other two. Literature was sourced to enable me, as an interpreter of the data, to make sense of the themes and the tensions identified from the data analysis.

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[1] Using Ball's (2008) definition, I understand performativity to mean the ways lecturers are regulated, whereby their performance is used to measure their productivity, or work output, against targets and evaluations.

What was the approach to the research?

The study employed an interpretivist generic qualitative approach framed by constructivism. Ethical considerations associated with my insider researcher status were central to the research design due to possible unintended power differentials (McWade 2023). Each of twelve participants had two semi-structured interviews. The first interview served the purpose of rapport building, finding out about participants' uses of TEL within their vocational lecturing roles. The second interview allowed follow up of identified themes, questions and missed opportunities. Data analysis employed Braun and Clark's (2006) framework for thematic analysis, underpinned by constructivism.

What were the findings?

Data reveals that vocational lecturers are pulled and pushed, metaphorically, in response to tensions arising when using TEL. One tension concerns the purpose and focus of the vocational curriculum. Vocational lecturers are aware of the awarding body's assessment requirements and feel pushed to get their learners through assessments successfully to meet organisational success data targets. However, they are pulled towards the needs of the vocational industry, desiring to prepare their learners for employment. These forces compete and are stressors on lecturers' professionalism. Three discursive outcomes will be considered in turn.

Firstly, data reveals how lecturers have less influence than other stakeholders. Participants discussed the importance of assessment (formative and summative), wanting their learners to succeed on their vocational course. But underlying that, success is important because of performative technologies such as college targets, success data and college performance status. For participants, assessment was a driver for using TEL, particularly when awarding bodies had expectations for online assessment, for example online multiple-choice question (MCQ) exams. Participants discussed using TEL to create practice MCQs to prepare learners for summative assessment, and to consider how assessment design meets expectations of the awarding body or examination board. Consequently, these stakeholders are more influential over assessment and curriculum design

than lecturers, who are seemingly instructed top-down about curriculum matters.

Participants used digital tracking systems to monitor learners' progress, resulting in self-regulation; they used these systems not just because of genuine interest in learners' achievement, but they organised themselves in response to performative pressures, wanting the same success data outcomes as management within and beyond the organisation (Ball 2008).

However, secondly, data indicates that lecturers may have a narrow view of stakeholder involvement, only discussing the awarding body or assessment board rather than any other party with interest in how effective and successful an organisation is. Participants did not refer to college or governmental influences, or themselves as stakeholders. Confusion over who defines knowledge to design curriculum other than awarding bodies is not new (Bathmaker 2013), and this research indicates continuation of this issue.

Thirdly, data reveals pushing and pulling between vocational lecturers' development of their learners' practical, theoretical and wider skills knowledge[2]. Vocational pedagogy requires a balance between the three types of knowledge (Lucas *et al.* 2012). To analyse this aspect of the data, it was useful as the data interpreter to understand why the theory of vocational pedagogy came about. My literature review revealed historical dissatisfaction with teaching and learning within FE. The view that the needs of industries were not being met by vocational education led to a reclaiming of pedagogy within vocational education and a quest to make vocational pedagogies more distinctive (Lucas *et al.* 2012) and a drive to improve vocational teaching to develop theoretical and wider skills knowledge. Yet, data in this study revealed that participants focussed on practical skills development and learning outcomes because of awarding body assessment requirements and wanting their learners to be exam ready. As previously discussed, performativity theory helps to understand the tension because lecturers are wanting their learners to be successful and to meet

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2 Wider skills Knowledge is the preparation of learners to be well-rounded, to be able to function within society as well as the vocational industry (Lucas *et al.* 2012)

college targets set by managerialist expectation (Ball 2008). This is problematic for employers who expect qualified learners to have reached a suitable standard of knowledge, skills and holistic preparation for their vocation.

What difference does this make to practice?

This research has developed my own appreciation of performative and managerialist issues. The findings reveal a need for vocational lecturers to also have (better) self-awareness of performative and managerialist issues too, including how those issues affect the lecturers, and what can be done about that. However, I acknowledge that this implication could incur problems for the college which benefits from a self-regulating workforce. Teacher education has a role, although teacher educators, like the participants of this research, are in professional tension as teacher education syllabus requirements are prioritised over the wider theoretical knowledge that could be passed on. Thus, further research is required here in the interest of both policy and practice.

What are the key takeaways?

Issues revealed within this research are not necessarily new. However, they have been explored in a different way through the metaphorical pushing and pulling within tension. Understanding the tension around the purpose and focus of the vocational curriculum has developed insight into the performative pressures which vocational lecturers face, as well as appreciation of the professional knowledge needed to navigate the tension. This is immediately useful for my professionalism, and I hope readers can also relate to the issues within the tension.

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Challenging monocultural and monolingual curricula in maths for ESOL: an action research study

Chiara Colombo

Chiara Colombo is an Esol community teacher working with adult Esol learners. This action research project involves two different maths departments from a group of colleges based in the North West of England: maths community teachers (who work with learners aged 19+) and maths teachers in college (who work with 16 to 18-year-olds). Chiara's research interest is the result of her journey as an Esol teacher, but also her past experience as an Esol learner. Moreover, from 2019 to 2022 alongside her Esol teacher role, she taught and led maths for Esol learners in a college in the south of Yorkshire.

What is the research focus?

This collaborative action research project aims to investigate how maths teachers who are not Esol specialists deliver maths to Esol learners. The maths teachers and I also explore different issues that arise in our practice and attempt to solve them through the examination of our practice and by using research. Alongside the theoretical and practical, this project critically considers the macro, meso and micro levels that concern maths in further education (FE).

In his first speech of 2023, the UK prime minister, Rishi Sunak, expressed his belief that future jobs will involve more "analytical skills", highlighting the importance of a national focus on numeracy and how this will support children's future success (Speare-Cole 2023, p. 1). The DfE (2023) has reported that disadvantaged students are less likely to succeed in maths and that those who do not hold a Level 2 (or above) maths qualification are very likely to be either unemployed or in a low-income job. They also found Asian and black ethnic groups to be overrepresented amongst adults with low numeracy attainment (DfE 2023, p. 9). Although the focus on maths could be beneficial to some extent, the political discourse around it feeds into the assumption that improving the English population's maths skills will solve broader social injustices, by giving disadvantaged learners the necessary skills to fulfil the demands of the job market.

Thus, the government has allocated funding to a project called Multiply, which offers fully-funded maths courses to adults who do not have a Level 2 maths qualification or equivalent (GCSE grade C or equivalent) (DfE 2022). FE organisations have started to deliver Multiply across the country, which for some involves delivering Multiply to Esol learners; I work for an FE organisation that delivers Multiply in different community centres which includes a high percentage of Esol learners. Some maths teachers in my organisation have started to adapt their lessons to the Esol learners' needs by focusing on the language and making lessons more language acquisition friendly. Learners' language barrier is one of the main obstacles encountered by teachers implementing Multiply. A second obstacle is teachers' specialism; maths teachers are not Esol specialists and Esol teachers are not maths specialists. These two obstacles framed my research project.

What informed the research?

The literature that informed this project concerns Esol learners' needs and maths for Esol learners. As a result of globalisation, Esol classrooms (and consequently maths for Esol learners classrooms) are populated by learners who come from many different countries and speak many different languages (Simpson and Cooke 2017). Thus, as classrooms are multilingual and multicultural, meeting Esol learners' needs becomes more challenging for maths teachers. Simpson and Cooke (2017) suggest that in order to meet these needs, it is crucial to consider the use of translating and translanguaging in Esol classrooms, as monolingual and monocultural policies (seen in the Esol curriculum and organisations' policies of supporting the use of only English in the classroom) have been failing to support Esol learners' needs. Policies that promote 'Britishness' affect Esol learners' confidence, for example, in being labelled as "deficit speaker[s]" (Court 2017, p.407). Consequently, Esol learners can feel like they are "nothing" if they do not speak English (Paton and Wilkins 2009, p.11). Building confidence is crucial for many Esol learners, and they develop this when they are able to use English independently to complete everyday tasks (Paton and Wilkins 2009). It is also important to take into consideration that, when learning maths, Esol learners will also need to develop their academic language bank – in this case maths terminology. However, literature suggests that improving learners' maths terminology should go further than focusing on simple vocabulary and involve discussions of concepts, as the former supports deficit language ideologies that could affect learners' confidence.

According to Hall (2018), the teaching methodology in second language acquisition of Content and Language Integrated Learning (CLIL) could help teachers plan lessons in a way that does not negatively affect Esol learners. CLIL involves learning through interactions and discussions around a topic, where the focus should be on fluency rather than accuracy. This links to the previous idea that allowing learners to discuss concepts rather than focussing on simple vocabulary helps Esol practitioners, and in this case maths practitioners who are delivering maths to Esol learners, to avoid deficit language perceptions while encouraging fluency.

What was the approach to the research?

This research was the first reconnaissance cycle of an action research project. My plan is to reflect on the findings and to start a new cycle. For this specific cycle, I gained teachers' perspectives, experiences, interactions and opinions using a qualitative approach, to answer the following questions:

1. How do the maths lecturers perceive the needs of ESOL maths Learners?

2. How do FE maths teachers deliver maths to ESOL learners in comparison to traditional/ first language maths?

3. What impacts and influences the delivery of their lessons?

4. What alternative strategies and approaches can be used to support ESOL learners attending maths classes?

I used purposive and snowball sampling strategies to recruit 13 participants: seven maths teachers who teach 19+ and six who teach 16 to 19-year-olds. Data was collected through two focus groups and analysed using thematic and conversation analysis. The participants and I checked that the themes and the transcription were accurate and that we gave them a similar interpretation. BERA ethical guidelines (2018) were followed, and participants have been anonymised.

What were the findings?

Maths teachers who took part in this project agreed that language is the most important factor to consider when discussing Esol learners' needs. They expressed that most of their Esol learners who attend maths classes already have good maths skills, but they need to learn the language used in the maths papers. Teachers explained that although they encourage learners to create a glossary with the translation of the new vocabulary, and they let students translate for each other and use dictionaries, pressure of achievement and limited time during the exam means they use translation as the "last resource".

Tutors discussed and recognised some of the difficulties that Esol learners encounter when

learning maths in the UK. For example, the imperial measurement system and some questions that are designed around specific British cultural customs (such as the Crufts dog show, VAT, and specific card games that are considered gambling in certain countries and therefore learners are not familiar with). Thus, the maths curriculum appears to support monocultural and monolingual practices.

Finally, discussions revealed that more research is needed to create more language acquisition-friendly maths classes. Findings showed that maths teachers do already use some translanguaging practices (encourage the use of a glossary, translate for each other, use a dictionary/translator and even let learners use their operations methods to solve maths problems etc.). However, it is crucial to normalise and encourage learners to also complete group and pair activities with those who share the same language as it will enable them to feel more confident and to reach their full potential. Thus, the next cycle of this research will address this gap, where the maths teachers and I will examine our practices and attempt to combine approaches and strategies to create language acquisition-friendly maths classes.

What are the key takeaways?

This project has revealed that although practitioners try to resist monolingual and monocultural curricula, their agency is limited by time constraints and the pressure of achievement. Furthermore, conducting this research project led me to recognise that deficit language ideologies are rooted in different curriculum areas of the English education system; this is not only prevalent in the English Language/Esol Curriculum, but within other areas including maths.

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Considering trustworthiness in qualitative research: reflections on a study on teaching agriculture in further education

Catherine Lloyd

Catherine Lloyd is Vice Principal of Shuttleworth College, part of the Bedford College Group. Her research was supported by Research Further, the scholarship project run by the Association of Colleges (AoC) in partnership with NCFE. The research explored the teaching of agriculture in English Further Education colleges against a background of change in the agricultural sector.

What was the starting point?

Drawing on a recent Research Further Scholarship project, this reflective piece considers quality in qualitative research through the example of a qualitative study which focused on the teaching of agriculture in Further Education (FE) colleges in England. This is an under-researched area of practice and the project involved interviewing those teaching on agriculture courses to explore the pedagogical approach taken and the decisions which underpinned this. The data was gathered in 2022 against a backdrop of change within the agricultural sector, driven at a national level by policy change, which is intended to promote more sustainable approaches to farming.

This piece will present an outline of the project, the decisions made during its completion and how these decisions impact the quality and trustworthiness of the study. Trustworthiness as applied to research can be defined as the degree of confidence in the data, interpretation and methods used (Polit and Beck 2014). The aim of trustworthiness in qualitative inquiry is to support the argument that the inquiry's findings are "worth taking account of" (Lincoln and Guba 1985, p. 290). To achieve this the research should be conducted in a systematic way and detailed audit trails of evidence provided. In qualitative research transparency is a recognised marker of quality (Spencer *et al.* 2003) and involves explaining the decisions made during the research process and their consequences. Lincoln and Guba (1985) identify four features of trustworthiness: credibility, transferability, dependability and confirmability; I will present definitions of these and consider each in relation to my study. As a researcher, it is important to consider the intended reader of any research output, as they will be making a judgement on its trustworthiness.

What informed the approach?

My study focused on two research questions: what pedagogical approaches are used by lecturers delivering agricultural education in English FE colleges? What impact are the current changes in the agricultural sector having on teaching practice? By stating these, the reader is informed about the purpose of the study and can then judge whether the evidence presented is relevant. A review of

the literature provides context for the reader and demonstrates an awareness of research in the area. As there is very little research on the teaching of agriculture, I drew on pedagogical studies from FE including work by Lucas *et al.* (2012) on teaching vocational education and those from Higher Education (HE) involving agriculture. The literature review can support the quality of the study by indicating how it contributes to the existing body of knowledge.

A detailed description of the methodology and the theoretical concepts which underpin this helps justify the decisions made as to how the study was conducted. For example, it should be clear to the reader how the sample was obtained. I used established networks within land-based colleges to contact potential participants via email. This is purposive sampling (Robson 2011), targeting those who teach agriculture to FE students as they are best placed to answer the research questions, as the study is about teaching practice. In using this method, individuals therefore self-selected for the study. This can impact the findings as it is possible that those with an interest in the topic are more likely to come forward and from a quality perspective it means that the important views of those who have not self-selected will be overlooked. I recruited 17 participants; whilst this is a small sample, the participants were drawn from 13 different colleges spread throughout England. As a researcher you need to consider how representative your sample is of the whole population, particularly when making claims drawn from the analysis of the data.

To ensure transparency, sufficient detail should be included about how the data was collected and analysed. I used semi-structured interviews conducted over Microsoft teams, which I used to produce transcripts. These were analysed using a general inductive approach as described by Thomas (2006) which allows research findings to emerge from the themes in the raw data. This involves going through the data repeatedly comparing each element with all of the other elements, to find similarities and differences. This is known as constant comparative analysis (Fram 2013). Once the data has been organised by theme the researcher can see whether they throw light on the questions being addressed.

What were the findings?

The findings from this study identified that there was consensus amongst the participants regarding the approach to teaching agriculture, with context, links to the farming year and real-life practical experiences identified as key components of practice. There was a strong focus on the blending of theoretical and practical aspects of agriculture through undertaking activities in authentic learning environments on college farms. This suggests it is possible to identify commonality in the approach to teaching agriculture and features which could contribute to a subject specific pedagogy (Hanley *et al.* 2018).

The trustworthiness of the study can be strengthened through including opportunities for participants to comment on the findings and emerging themes. This links to Lincoln and Guba's (1985) consideration of credibility, that is the extent to which the researcher's interpretation of the data can be justified in the data itself. In this study participants were given the opportunity to comment on both the notes from their own interview and on the themes identified once analysis of all interviews was complete. This increases credibility as it provides an external check on the researcher's interpretation of the participants contributions and whether they recognise what is being presented.

Confirmability is the degree to which it is possible to assess whether the findings flow from the data. Using quotes or excerpts from the transcripts to illustrate the points being made can be helpful. In selecting quotes, I ensure they are representative of the views presented and support the points I am making; this is essential to ensure confirmability.

As previously mentioned, when discussing the findings, it is important not to over claim; a researcher cannot assume the participants are reflective of the whole population. This study involved interviews rather than observations of practice. It is worth considering that what people say they do might differ from what they actually do in the classroom, so additional methods of data collection such as observations would strengthen the argument and improve trustworthiness.

How is this important for practice?

Transferability is the degree to which the concepts or theory generated by the analysis can be applied elsewhere. The commonality in the themes identified gives some confidence that the findings are transferable, despite being in different geographical locations across England participants described similar approaches to practice. Therefore, the findings are likely to be of some relevance to those teaching agriculture in FE and each reader will reflect on whether they are applicable to their context.

Dependability refers to whether similar results would be obtained if the study were repeated. It involves providing enough detail so that others could follow the research methodology, if they wished. The study took place during 2022 against highly publicised debates concerning the impact of new agricultural policies driving changes to farming practice, therefore these are likely to have influenced the responses.

I am aware that this study cannot represent the whole population, however it provides an insight into the teaching of agriculture and contributes to discussions on subject specialist pedagogy. By being transparent in all aspects of the research process and the decisions made, I intend that readers will be able to make a judgement on the trustworthiness of my study (Lloyd 2023) and whether they should take note of the findings.

Further recommended reading

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Learning to read by learning to write

Marc Denervaux

Marc Denervaux (City and Islington Sixth Form College) has taught principally A Level mathematics for nearly thirty years and has been particularly interested in issues around school democracy, teacher autonomy and the use value of curriculum.

What informed the research?

A Level mathematics students typically put up a lot of resistance to modelling problems and this can be attributed to spending an extended period of their mathematical training in closed activities which are motivated by narrow assessment objectives. That is, to maximise final grades, students are often coached in standard algebraic questions with a familiar procedure, and applications are generally left to the end of the chapter or, indeed the course. This is evidenced in the standard textbooks (Hache 2013). The issue has become all the more urgent as these types of problems have been emphasised more in the reformed A Level syllabus because of the perceived importance of applicable mathematical skills (Evans 1999, Noyes 2007). Mastering an algebraic formalism, excluding the possible signifiers of that narrow code, encourages the belief in mathematical competence. A student has been rewarded with enrolment on the sought-after mathematics A Level because they have learned to access the algebraic language and its manipulation (Jablonka and Gellert 2012). But this competence is exposed as limited when the more realistic (in the sense that it is closer to what professional mathematicians do rather than school mathematicians) demand for applying it is made and users find themselves ill equipped.

Examples of the two types are given here.

Problem 1

$f(x) \equiv - a\, x2 + 8a\, x + (52 - 16a)$ $\qquad x > 0$

Given $f(0) = 40$, find x when $f(x) = -40$.

Problem 2

A particle is thrown from the top of a sheer cliff. Its motion is modelled by the equation:

$H = 52 - a\,(x - 4)2$ $\qquad x > 0$

where H is vertical distance and x is horizontal distance from the point of projection. Given that the height of the cliff is 40m find how far from the foot of the cliff the particle lands.

These are ostensibly the same problem and yet the student will be very much at ease with the first but find the second a challenge even before reading. A common refrain when confronted with the problem is: "it has too many words". The students' experience of 'normal' mathematics corresponds to their exposure to algebraic formalism; it is the exemplar of their mathematical activity. The interesting aspect of this response is that they are struggling to read the problem efficiently. In other words, it is not expressed in a language that they feel they can access.

What was the approach to the research?

The aim is to limit this antipathy in the students and to give them practice at parsing such problems. But short of exposing them to a vast array of possibilities in advance, it is not obvious how to make them more actively prepared for a worded problem they have not seen before. The method proposed and trialled has been to have them write problems of their own which will allow them to identify the components of their construction and appreciate them as less spurious.

However, this method on its own merely risks inverting the standard procedure and may seem to some an excessive demand on the student, even in a patient, time-rich learning environment. To ease this challenge, the trial used an intermediate activity which many students also find less straightforward, namely curve sketching, but which works well at strengthening their grasp of the model.

In the trial, matching exercises were favoured although many other activities could be considered. There are several functions that are studied at this level (Beare 1997 is a useful resource). Perhaps the most important for standard modelling are the quadratic, the exponential and the trigonometric. However, modelling can employ linear, general polynomial, reciprocal, circular and elliptical, modulus, hyperbolic functions and several more. These were put on cards as equations with numerical or lettered coefficients and with or without boundary conditions, according to how open the activity was decided on. Another set of cards had graphs of functions with (or without) numerical values at the intercepts with the axes or at the stationary values. A third set of cards, which were introduced at a later stage, had scenarios for the modelling. They were described tersely with phrases like 'projectile', 'ski jump' and 'decay curve', or in a more sophisticated way with sentences describing the variation in depths of sea water at a mooring according to tidal variations, the population growth of a small town over the first twenty years of this century, or the shape of a skateboard park with designated gradients and drops.

What were the findings?

The students soon learned that the scenario that the problem uses is not so much the core of the problem as much as the backdrop. It is very important to communicate that there is no correct function to match with a given scenario, and more importantly, that errors are an indispensable feature of the modelling cycle. The immediate task of making the transition from the restricted language of algebra to that used by the modelling problems is a partial opening of the activities. There has been an interesting recurrent feature of students' first efforts in problem writing. They were found to devise a scenario with a fully determined function and offer inputs for outputs, rather than elicit the function from boundary conditions. In problem 2 above, this amounts to giving the value of a merely leaving the respondent the task of plugging in the values. That said, initial attempts at promoting modelling as standard practice in this way seem to have been quite fruitful and students have shown much more confidence in making a correspondence between examination modelling problems with their own.

What difference does this make to practice?

Consequently, this year we are introducing the writing of modelling problems into the year 12 scheme of work at a much earlier stage to help students appreciate it as an integral part of a mathematical classroom culture.

What are the key takeaways?

The characterisation of mathematics as divorced from reality often derives from school experience and a lot of alienation from its techniques arises from the closed procedural teaching methods that many mathematics classrooms resort to in order to secure the best assessment outcomes. The exercises in modelling can be used to raise discussion about what realistic mathematics practice is and moreover how it is distinct (Chevallard 1985) from school mathematics practice.

Recommended reading

Beare, R., 1997. *Mathematics in Action: Modelling the Real World Using Mathematics* has a wealth of examples pitched at about the same level as an A level student would expect.

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Communication, numeracy and digital literacy in the workplace

Anne Reardon-James

Anne Reardon-James works for a private training provider as a Learning Advisor. She guides apprentices through learning and development qualifications, upskills lecturers, tutors and assessors through bespoke professional programmes. She is studying for her EdD at Cardiff University, focusing on her passion for workplace learning and quality improvement in essential and functional skills.

What is the research focus?

The aim of my research study was to look beyond the traditional skill deficit approach to literacies used by the Welsh and UK Government, working with the emancipatory ideas in education of Freire (2006). The research focuses on how frontline workers (rather than policymakers) understood, learnt and applied essential skills in their job roles through lived experience. This helped to evaluate the current top-down dehumanising 'banking method' of adult education provision, where learners are assumed to know nothing and learn through 'deposits' of knowledge from the teacher (Freire 2006). The research provides new insights regarding learning methods, priorities and essential or functional skills qualifications provided for workers.

The research brings together the essential skills policy literature, with models of learning in the academic literature such as 'literacy as social practice' and 'learning in the flow of work', to widen the scope of what it is to learn at work. Theorists such as Hull (1991) argue that the deficit approach to skills policy places too much faith in the power of literacies to cure all problems and underestimates human potential. For example, Hull (1991) argues that workplaces should be studied from the perspective of employees themselves. Literacy can be understood instead as situated in social practice, where individual skills and understanding are the product of social interactions, relationships and power (Freire, 2006). Instead, Freire argues that the teacher should pose problems and act as a co-investigator through a dialogical approach.

What informed the research?

The perceived lack of literacy and numeracy skills amongst the adult working population has been widely surveyed by Welsh and UK Governments, as well as influential organisations such as the Organisation for Economic Co-operation and Development (OECD). The Leitch (2006) report argued that poor literacy and numeracy skills were holding the UK economy back, stating that almost half of adults were having difficulty with numbers and approximately one seventh not functionally literate. These 'shocking statistics' produce what Stevens (2011) would refer to as 'killer charts' in order to persuade the public that there is a serious deficit problem with adult literacy and numeracy and thus a strong case for change. Leitch (2006) advocated for the development of world-class skills in the adult British population through training at work, with ambitious claims made that improved essential skills would result in higher productivity, wealth creation and social justice.

What was the approach?

The real-life perspectives of entry level frontline workers in the service sector were gained through 46 semi-structured interviews and 25 periods of observation. These took place in four workplaces in South East Wales: a hotel, a café, a care home and supported housing. The job roles of research participants included café baristas, hotel receptionists, healthcare assistants, support workers and cleaners.

What were the findings?

The findings revealed a fundamental problem in the deficit approach to the 'skills gap' in current essential and functional skills policy for workplace learning. Assumptions were made that workers are not learning. Skill priorities in the workplace were found to be quite different to the qualifications offered to the workforces under study. For the employees interviewed, *communication* (i.e. speaking and listening oracy skills), ranked far higher in importance than that of reading, writing, number and digital literacy skills. This contrasts directly with the equal weighting given to each of these areas in the Communication qualification. Wider employability skills such as team working and problem solving were also considered by workers to be key, and simply did not feature in workplace learning offered.

The development and application of essential skills to the workplace was reported by research participants as primarily honed through their experiences at work in an open and holistic way, rather than split into separate subject areas. Interviewees reported that the initial induction period, learning on the job, shadowing colleagues, as well as trial and error, was particularly significant. However, less formal self- and peer-learning undertaken by workers are not recognised through the current one size fits all certification requirements of essential skills, which is aligned to Freire's (2006) banking model.

What difference does this make to practice?

The lens of Freire (2006) illustrates how the top-down, deficit approach to workplace learning is the 'pedagogy of the oppressed', being profoundly undemocratic and disempowering. Learners in the research study had no say or decision-making role in the essential skills curriculum. Their varying contextual working knowledge and skills were not acknowledged, while only learning provided by trainers (often from outside the workplace) was formally recognised through certification. Ultimately, the findings of this research project question the value of current essential skills qualifications, which assumes that workers need to be taught exactly the same communication, number and digital literacy qualifications for any type of job role.

What are the takeaways?

Researching each workplace revealed the varied contexts and situations of the tasks carried out by workers. When observing staff at work, it became immediately obvious how much peer learning was taking place. The induction period, when new staff join a company and shadow more experienced staff members, was seen by workers as a crucial time to begin to learn and adapt skills required for the job. Workers generally considered learning to be trial and error, to build up experience in different situations.

The importance of situated, informal and non-formal peer learning in the flow of work was identified as a key theme. There was a significant mismatch between the relevance and level of formal 'essential' or 'functional' skills programmes delivered by educational providers, compared to the work context and skills requirements for the jobs studied.

If the funding of learning is solely centred on formal, accredited courses with certificates given on completion of a course from an outside provider, there are large chunks of learning that are going by largely unnoticed.

The research study has added to the growing number of voices critiquing the established hierarchical deficit 'top-down' government policy approach to the problematising of essential skills abilities in the adult UK workforce population.

This does not recognise the wider skills and knowledge that frontline entry level workers already have, such as creativity, problem-solving and team working skills.

The study has broadened understanding of what 'essential skills' at work are presumed to be, through the inclusion of speaking and listening skills. This decision was important as oral or verbal communication was consistently advocated by workers in the study as the most important skill, across the board in each organisational case study, rated far above reading, writing, number and even digital literacy skills.

Further recommended reading

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Stevens, A., 2011. Telling Policy Stories: An Ethnographic Study of the Use of Evidence in Policymaking in the UK. *Journal of Social Policy*, 40 (2), 237-255.

Applying design thinking 'immersion' to planning in GCSE maths FE resits

Jane Kay

Jane Kay is an ITE tutor for the National Institute of Teaching after working in Secondary school, Free school, Studio school, Local Authority and FE, leading and teaching maths for GCSE and functional skills since 2004. Jane's research interests revolve around GCSE maths and numerical skills development, attempting to understand how confidence and perceptions can influence success and achievement, with the intention of increasing positive outcomes for all learners.

What is the research focus?

This study examines Further Education (FE) students undertaking study programmes who resit GCSE maths aiming to make one grade's progress per academic year until they achieve a grade 4. Here, design thinking is applied very quickly and generally to gain some understanding of students and find out if we are really asking the right questions.

What informed the research?

Design thinking is a process developed through marketing and product design, a set of defined stages encompassing immersion/empathy, focus, creation, prototyping and testing (Panke 2019). Despite its roots, the design thinking process has been applied in education (Goldman and Kabayadondo 2016). Here, the first stage of design thinking, immersion, is viewed through the lens of FE students completing GCSE maths resits.

An awareness of a difficulty does not equal an understanding. Maths departments are aware of maths anxiety. As this is not something (by definition) GCSE maths teachers are likely to suffer from, the immersion/empathy stage of design thinking could help us to investigate that problem space more rigorously, bringing us closer to understanding what it is to be a student in FE resit classes.

What was the approach to the research?

It's easy to assume students are unhappy in maths classes, are feeling de-motivated or are confused around improving their grade. For design thinking to be impactful, we need to leave assumptions aside. Eppinger (2023) explains that the effort to examine problems can be minimal, as we only connect to our own experiences and this gives us a false sense of understanding. There is no one size fits all approach to this qualification geographically; what works in one place may not work in another because students, lecturers and teams are unique. The design thinking model offers the possibility of acknowledging differences and identifying the unique characteristics of our target audience, wherever and whoever we are.

Asking questions is generally free and may not take up too much time. We can use student questionnaires, focus groups or specific questions in class. In this instance, very small-scale research was conducted in the FE GCSE maths resit classes of one teacher, with thematic question cards repeated for different topics: What do students need from homework, assessment, lessons, online learning, starter tasks and feedback? Each student, across three groups of approximately forty-five students, received each of the six question/s on their cards individually and was asked to provide any and all answers that came to mind (see Figure 1).

Figure 1: *Design thinking immersion question cards*
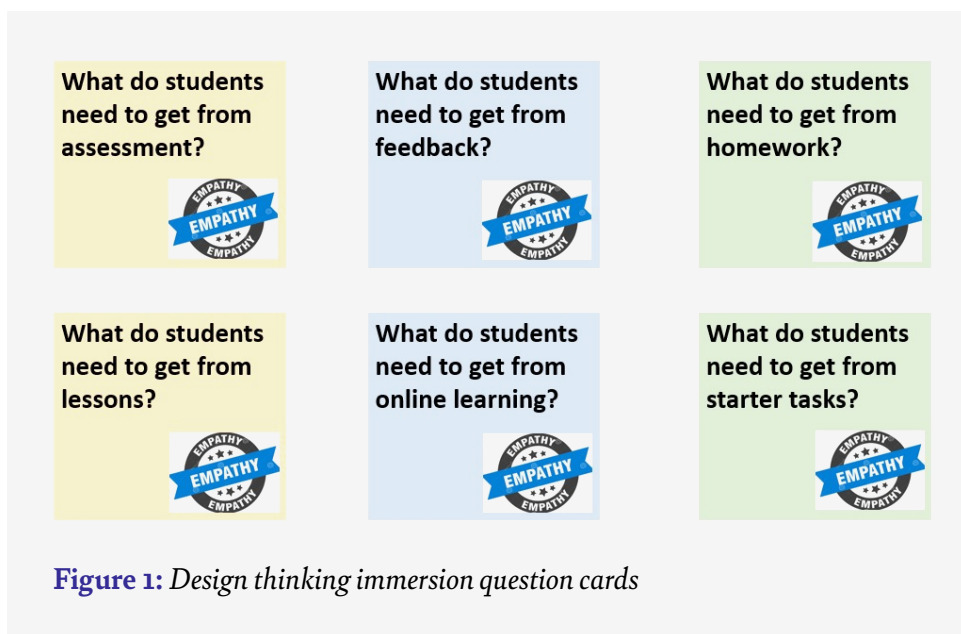
Each class group was provided with the same instructions, the same cards and no specific time limit for completion, though all students had completed the question cards within fifteen minutes. The anonymous class responses were collected, collated by question and analysed for emergent themes. The thematic analysis of the responses to each question followed an inductive approach, allowing themes to be identified by the answers produced rather than imposed from the outset.

What were the findings?

When given question cards, students gave more answers related to lessons and assessment than they did about anything else. Homework produced the smallest number of answers and the largest number of 'blanks'. Is this an indication of how large a role each element plays in students' overall course experience? Answers about homework stated that students needed a reminder of what they had done in class or 'knowledge revision'. Students defined homework as a vehicle for practising elements already learned, not for new learning.

Students reported that assessments were to "see your improvements" or "to gain an understanding of how maths works" and "try and reach your target". Are these responses what the students genuinely think or influenced by the information they have been given around assessment previously by the teacher?

Starter tasks were seen as "warmups" or "easy stuff". Most responses repeated this theme, however one student wrote that starter tasks were to help "meet my targets". This is intriguing, implying that these tasks may need more substance or a stronger purpose in the lesson.

'Online learning' revealed surprising results. Students did not provide prolific information and responses indicated that students were unsure as to the purpose of this learning environment now that Covid-19 is less impactful on classroom sessions. Information access was identified as a function of online learning, with another student answering that online learning provided a way of finding "the teachers' opinion on students' improvement", although there was no indication of how this would occur. Anecdotally, the assumption of the attractive nature of online work for students in generation Z is at odds with these answers. The use of online learning/interaction is possibly something that requires exploration to ensure it is tuned correctly for the strongest positive impact.

One student answered "knowledge" to *every* question. This is either a lack of imagination, total apathy, or a desire to actually gain knowledge from every activity related to maths lessons.

What difference does this make to practice?

Finding out what students think and feel helps us to answer important questions. Should a starter task help you to reach your targets in maths? Should we expect to gain knowledge from every task that we do in and around a maths lesson? Are students really revising or learning from scratch? What meaningful role does online learning play in students' success? How can this information help us to structure more successful learning for our students? Ultimately, what do students need to get from GCSE maths in FE that they have not previously accessed, enabling them to be successful?

The next stage of the design thinking process is to focus on these identified questions. We may find that we are not addressing areas initially identified through a preconceived lens. Once we have stripped away our preconceptions and reviewed all the evidence or information we gathered, we are able to identify issues and the corresponding solutions more readily.

We have worked through the immersion experience together with students, following Goldman and Kabayadondo (2016). Maths leaders and managers have got together with all the information in front of us, sorted, sifted, discussed and collated strands of the information to focus on. Despite some of the shortcomings of this work exemplified by the small sample size, the change in contextual application from the marketing industry, or the potentially subjective interpretation of results (Lor 2017), we have revealed interesting and potentially surprising student perceptions informing the outcomes of the immersion process. We are now taking the next step in design thinking: working together with the maths team of lecturers to design a GCSE maths resit programme that takes more account of its vitally important consumers, our students.

What are the takeaways?

Immersion – walk in the shoes of students for a short time.

Design thinking may help us to ask the right questions.

The design thinking process is applicable regardless of demographic or geographical differences.

Recommended readings

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How maths self-beliefs affect maths performance: Quantifying the impact of teachers and individual factors on FE students' maths anxiety and self-efficacy

Masha Apostolidu

Masha is a Psychology MSc student at the University of Derby and Lecturer in Mathematics in Lewisham College, London. She has a background in management in the international charity sector, PGCE with maths specialism including teaching mathematics in primary and secondary schools in the UK and abroad. She entered FE as a maths lecturer in 2011 and taught maths across different levels, working with underachieving maths students. Masha explores psychological aspects of learning and performance in maths and engages in research exploring the role of psychological safety, mindsets and resilience in maths learning. She also has a keen interest in developmental mentoring and coaching for maths teachers in FE.

What is the research focus?

Maths attainment is essential for a wide range of outcomes relating to further education (FE), careers, health and the wider economy. Research suggests a significant proportion of adults and young people are underachieving in maths within the UK, making this a key area for research (Evans and Field 2020).

Recent policy changes now require FE students to work towards achieving a minimum qualification of mathematics at Level 2. This means students who previously failed to achieve Level 2 or its equivalent, who continue into FE, now study towards a mathematics GCSE or Functional Skills (FS) Level 2 qualification. Maths Level 2 qualifications act as a gate-keeper to achieving any professional qualification and career development.

Research has shown that most initiatives to address low maths attainment and avoidance of maths-related careers focus more on improving maths teaching quality and less on social and individual factors impacting learners' attitudes to maths. However, recent findings have shown an interconnection between maths attitudes and maths performance, highlighting the need to deepen our understanding of the constructs of maths attitudes and the associated individual and social factors. Many studies have listed maths self-efficacy and maths anxiety[1] as constructs of maths attitudes that have a significant impact on mathematical achievement.

Mathematical self-efficacy is an integral factor that contributes substantially to students' success in mathematics (Akin and Kurbanoglu, 2011). Mathematics self-efficacy influences students' choices of tasks on which they will expend much effort and determines students' level of perseverance and forbearance in difficult situations. Evidence shows that maths self-efficacy is substantially related to students' individual characteristics and affective factors such as maths anxiety and perceived social-emotional support.

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[1] Maths anxiety can be explained as one's physio-emotional reactions when one thinks about or performs a mathematical task (Ashcraft and Moore 2009).

Given this importance of mathematics self-efficacy to students' maths achievement, few studies focus on exploring the combined impact of students' perceptions of past and present teachers, maths anxiety and maths self-beliefs on their maths self-efficacy in UK school education and in FE in particular. Understanding the mechanisms of the interactions between individual and social factors with maths self-efficacy and maths anxiety could contribute to the development of interventions that would foster maths self-efficacy.

This research attempts to fill this gap by exploring how UK FE students' perceptions of past and present teachers, as well as individual characteristics (such as mathematical self-concept, self-regulation, mindset and utility of maths), predict mathematical self-efficacy and anxiety.

What informed the research?

Previous studies explored the complexity of factors influencing maths performance and emphasised the importance of interrelated individual and social variables in maths learning contexts (Evans and Field 2020). Pajares and Miller (1994) suggested three groups of factors that influence performance: students' factors (e.g. mathematical self-efficacy, anxiety, self-concept, self-regulation, personal value of maths); teachers and teaching factors (e.g. teacher knowledge and support); and finally home environment and wider societal factors.

As an illustration of the above, higher-achieving students in FE demonstrate greater belief in their ability to perform well in unfamiliar tasks, greater engagement with maths tasks and persistence in the face of difficulty in supervised and independent learning. In contrast, lower-achieving students show lower levels of engagement and respond with self-deprecating comments, even when presented with a task that is below or at their ability level, showing disbelief in their own ability to complete their maths task (Noyes and Dalby 2020). In particular, maths self-efficacy and maths anxiety have been found to significantly correlate with maths achievement (Pajares and Miller 1994; Ashcraft and Moore 2009).

Research has also shown that children's maths performance is significantly associated with maths teachers' competence and support (Evans and Field 2020). However, relatively little research has been conducted on how perceived previous and present teacher characteristics relate to self-efficacy and anxiety among the population of students in FE colleges (Zachariya 2022).

The literature resonates with my own observations of the interference between students' past experience with maths and maths self-efficacy beliefs. Persistent past low maths achievement correlates with a lower current self-efficacy. When speaking about their past maths experience, students often mention their past maths teachers. One student's perception was that their teacher gave up on them, another student perceived that their teacher was impatient and looked down on the students that were taking longer to learn.

What is the approach to the research?

This research is designed as an exploratory correlational study of the UK FE maths students aged 18 and above aiming to answer the following questions:

1. How will the perceptions of past and present maths teachers predict maths anxiety and maths self-efficacy?

2. How will maths self-beliefs and individual characteristics predict maths anxiety and maths self-efficacy?

Currently the study is at the data collection stage. The data for the study is being collected through the online platform Qualtrics administering a single survey consisting of 12 self-report questionnaires. After the collection of data, it will be analysed statistically by hierarchical multiple regression using SPSS (statistical analysis software).

Participants were recruited through FE colleges in England, observing all relevant GDPR and British Psychological Society ethical guidelines. To obtain a minimum sample of 131 participants, FE college heads of maths were contacted directly, as well as via snowball sampling method using online media platforms.

The sample was condensed to over 18-year-olds mainly due to the project time, ethical and legal limitations when conducting research with under-18 students in the UK.

I aim to explore how students' perceptions of teachers relate to their personal assessment of their ability to perform well in maths and their level of maths anxiety. Specifically, I will analyse the interplay between the perceptions of past and present maths teachers, individual self-beliefs, maths self-efficacy, and maths anxiety in two models predicting students' maths self-efficacy and maths anxiety: one that tests the impact of past teachers and another testing the impact of present teachers.

What difference will this make to practice?

The study will provide comprehensive details on maths self-efficacy and anxiety in underachieving FE maths students and contribute to the growing body of knowledge of the constructs of maths attitudes in FE. The findings could benefit researchers, maths teachers, maths course coordinators, and other stakeholders by suggesting areas for future interventions and initiating discussions on how to improve maths self-efficacy for improved performance in FE maths.

Further recommended reading

The work of Akin and Kurbanoglu (2011) and Zakarya, Y.F. (2022) will extend readers' understanding of maths self-efficacy, maths anxiety, and maths attitudes in education. See also my recent co-authored publication:

Apostolidu, M. and Johnston-Wilder, S., 2023. Breaking through the fear: exploring the mathematical resilience toolkit with anxious FE students, *Research in Post-Compulsory Education*, 28:2, 330-347, doi: https://doi.org/10.1080/13596748.2023.2206704

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Origami as a reflexive medium for educators: fostering creativity and wellbeing in the post-pandemic era

Joyce I-Hui Chen

Joyce I-Hui Chen is a Quality Enhancement Manager at the College of West Anglia, managing initial teacher education programmes and leading professional and organisational development, as well as quality improvement. Joyce's research interests lie in professional advancement and educational processes, with a special emphasis on employing practitioner research as a catalyst for enabling practitioners to enhance their own capabilities as well as those of their peers. She is passionate about creating and nurturing communities with equity and equality by using an intersectional lens as a way to learn about our differences and applying Thinking Environment components as a practitioner in life.

What is the research focus?

The Covid-19 pandemic has had a profound impact on the field of education, prompting educators to adapt to online teaching and embrace digital technology at an unprecedented rate. This results in increasing use and advancement of digital technology. Many educators found this period particularly challenging due to demands for upskilling their digital skills as well as working from home with personal and family commitments (Crawley *et al.* 2021). The exact impact from the pandemic is yet to be known. With a growing concern for mental health and sustainability, there is a pressing need to explore ways to engage with creativity and wellbeing in the face of overwhelming pressures. This article delves into how the ancient art of origami can serve as a reflexive medium for educators, fostering creativity and wellbeing amidst the fast-paced demands of the modern world.

What informed the thinking?

As Covid-19 becomes endemic, the world seems to witness a return to pre-pandemic lifestyles marked by haste, efficiency, and instant gratification. However, this accelerated pace can have a negative effect on mental and emotional wellbeing, as individuals may feel disconnected and overburdened by the pressures of contemporary life. To address this, it becomes crucial to reevaluate the importance of human connections and embrace the value of slowing down to reflect on our experiences and personal growth. As educators, this shift offers an opportunity to find innovative ways to foster creativity and enhance personal wellbeing.

During the pandemic, the concept of slow ontology gained prominence as a philosophical approach to navigating the complexities of modern life. Proposed by Ulmer (2017), slow ontology advocates for a purposeful deceleration of our actions and thoughts, encouraging a deeper connection with the present moment and a greater understanding of ourselves. By engaging in slow ontology, educators can facilitate a reflective process, explore the inner self, and achieve a more profound sense of fulfilment in their professional and personal lives.

Origami, an ancient Japanese art form, entails the delicate and precise folding of paper to create

intricate and aesthetically pleasing sculptures (Choi 2016). Traditionally, origami served as a means of artistic expression and cultural heritage, but it also offers profound benefits for educators seeking to reconnect with their creativity and wellbeing.

What was the approach?

During the pandemic, I began sharing my own creation of origami which helped me with the anxiety through the lockdown periods. I started an online origami club at the further education college where I work, engaging with educators and staff by using origami as a method for mindfulness. At the Learning and Skills Research Network (LSRN) National Conference 2023, I held a workshop to engage with participants in creating an origami heart to create space for pause and reflection, as seen in Figure 1.

Figure 1: *An image of origami hearts co-created by the participants, hung on a Japanese maple tree at the LSRN national conference 2023, Conference Aston Birmingham.*

How is this important for practice?

Using origami as a reflexive medium, educators can tap into their creative potential and discover new ways of approaching teaching and learning. Folding paper into various shapes allows educators to experiment with different forms and designs, stimulating innovative thinking and problem-solving skills. The act of transforming a flat sheet of paper into a three-dimensional object embodies the essence of creation, nurturing a sense of accomplishment and pride in one's abilities (Chen 2021). As educators immerse themselves in the creative process, they can infuse their classrooms with fresh and engaging teaching methods that captivate learners' attention and enrich the learning experience.

Origami provides a meditative and therapeutic experience, allowing educators to alleviate stress and anxiety while promoting mindfulness. The rhythmic process of folding and focusing on the present moment enables educators to achieve a state of flow, wherein they become fully absorbed in the task at hand. This state of flow is known to enhance overall wellbeing, as it encourages a sense of harmony and balance (Csikszentmihalyi 1990). Engaging with origami as a mindful practice also fosters resilience, enabling educators to navigate challenges with a composed and centred mindset.

Origami serves as an expressive tool for educators to delve into their emotions, thoughts, and experiences. By folding paper, educators can externalise their inner reflections, visually representing complex feelings and ideas that may be difficult to articulate in words. This process of externalisation enables educators to develop a deeper understanding of their professional journey and allows them to identify areas of growth and improvement. Additionally, the act of sharing origami creations with colleagues or students can initiate meaningful conversations and enhance interpersonal connections, further promoting a sense of belonging and support within the educational community (Cassim 2013).

What are the key takeaways?

The post-pandemic era presents a unique opportunity for educators to engage with creativity and wellbeing. In a world characterised by rapidity and uncertainty, origami offers a reflective medium to foster creativity, cultivate mindfulness, and promote personal growth. By embracing the principles of slow ontology and incorporating art-based methods, educators can nurture their wellbeing, which in return can create a more balanced and mindful educational environment for themselves and their learners. As we navigate the complexities of the future, the timeless art of origami can serve as a guiding light, reminding us to slow down, connect with our creative selves, and find solace in the present moment.

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And colleges: the rise of the practitioner researcher as resistance in England's further education sector

Laura Kayes and Lou Mycroft

The Twelve Dancing Princesses ignited a movement of celebratory challenge to the fictitious narrative that posited further education as a Cinderella sector in deficit to its counterparts. Lou Mycroft and Laura Kayes are two such princesses, championing the continuation of joyful resistance through practitioner research.

Further education (FE) has long suffered from organisational fatigue: a symptom of prolonged and significant systemic neglect. No amount of power or policy influence has been able to shift this in decades: 'and colleges' - a frequently practised retort from FE practitioners in online spaces beneath school-centric narratives - are still overlooked in public discourse around education[1]. Nearly ten years on from the Dancing Princesses movement - a partnership between further and higher education researchers - FE continues to bear the scars of its perception as the "Cinderella Sector" (Petrie 2015, p. 1) providing an education for 'other people's children'.

Schools remain the default lens for policy decision-making, leading to reactive policy and ideologically-based curricular reform in FE. The consequences are laid bare in the teacher pay gap, low teacher retention and the resulting depletion of organisational memory. The discourse places 'teachers' in schools and alienates those in colleges. At the same time, FE quality teams increasingly focus on evidence-based practice - evidence consistently acquired in and presented in the language of schools.

It is time for FE to be enriched, empowered and validated by context-specific research. There are examples of broader areas of research with relevance to the sector, such as emerging findings of adolescence as a crucial phase of brain development (Fuhrmann, Knoll and Blakemore 2015). This perspective, advocated by external organisations like Get Further, could serve as a powerful argument for equitable funding and policy support for FE. However, the sector remains impoverished in the currency of data, in contrast to the extensive research work in early years education. This discrepancy disempowers the sector in vital negotiations.

The stagnant tide is nevertheless beginning to turn, coaxed into action by a chorus of voices growing rapidly in volume and diversity; brandishing a hopeful refusal to remain unheard. Seeds planted by the Princesses and Princes have rooted, and through ever-expanding mycelium-like networks, colleges across the country have connected through filaments of hope. The fruit is practitioner research; the action of real experts claiming their professional power and *resisting*. We are speaking of joyful resistance, not that of traditional militancy but a celebration of Montgomery and bergman's[2] (2017) concept of joyful militancy. As FE-professionals, we have stepped out of our organisational confines and found in the organic digital ether a community with whom to resist:

> *Through Caliban's eyes, we glimpsed the potential of digital networking to pool the Isles of Wonder into intersectional spaces that move beyond the structures and hierarchies of colonisation...we began to reimagine an affirmative, co-created further education sector where Caliban's joyous voice pierces the silence, refusing to be unheard.*

(Daley, Orr and Petrie 2020, p.183)

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[1] We acknowledge that colleges are not the only places where further education happens; we're keeping it simple but the impact of all of this on adult community and prison education, and independent vocational training, is exponentially worse.

[2] carla bergman resists capitalising her name as an act of resistance in the tradition of bell hooks.

We craft spaces around hashtags, in ideas and writing rooms, through funded projects, and in joyful, physical presence.

The power in such spaces differs drastically to that which we have become conditioned to expect. Professional jealousy rarely rears its ugly head because a shared belief in FE outweighs individual egos. The Dancing Princesses identified the work philosopher Baruch Spinoza did to delineate potestas (power as usual) from potentia (joyful activist power) (Daley, Orr and Petrie 2017 p.188). FE research is full of potentia, because it's not just about the research itself, it's about the way in which FE's researchers encounter one another, creating new knowledge alongside new connections and new communities.

The strength of FE Research is in community. In the early days the #FEResearch hashtag connected individual researchers who went on to host #FEResearchMeets. People gathered through funded projects[3] and nurtured their connections online; research cultures became embedded in organisations[4] and everyday lives. Existing networks such as LSRN were re-enlivened through social media, and at the same time a broader grassroots landscape was developing. Out of the pandemic came #JoyFE; deliberately Spinozian in its commitment to potentia power. #AmplifyFE maps and amplifies FE's practitioner networks, feeding the mycelium to expand ever-further.

Physical opportunities to gather as researchers re-emerged alongside this rich, online community. These occasions are invariably joyous for those who attend and are amplified on social media with those who cannot; online conversations enfold the events. Practitioner-organised events such as LSRN are shaped by and for FE voices; care-full decisions are made around structure and timing, ensuring generous breaks which enable thinking (and co-thinking) to be processed; these could be developed further by LSRN and other hosts into programmed thinking spaces[5]. Inevitably, the prototype of the 'academic' conference - modelled on consumption, not connection - remains influential, but there is resistance here too. LSRN2023 was a practice of joyful rebellion: a Poet-in-Residence crafted stanzas of rhythmic resistance into passionately voiced artistry, an origami workshop folded resistance into gentle structures of hope. Conference axioms

(keynote, plenary) remain stubborn, as do cultural norms such as the 'star speaker' leaving straight after their moment; the interplay between live events and the broader online community allows for critique and new ideas to be amplified and discussed, infusing decisions about how future events might run.

Further education has a proud history and a vital future as a practice of social justice. FE seeks to offer challenge to educational hierarchies, equity of opportunity for a diverse student body and community partnerships that champion human connection and cultural heritage. Emerging spaces represent only the embers of important considerations, to be kindled into an unwavering commitment to values-led research. How does practitioner research within FE align practice with social justice? How can researchers decolonise practices to include not only employers (who are too often pitted as definitive experts in endeavours of capitalism) but learners, families and communities in creation, meaning-making and distribution?

We leave you with a hopeful example:

Leeds Learning Alliance is a charity which brings together individuals and organisations from across educational divides, bounded by place rather than divided by sector. The Alliance is an expanding consortium inviting voices from multiple agencies to enhance collaborative action for the benefit of organisations, communities and individuals. It is one of few intersectional educational spaces that we have encountered. Crucially, unlike other place-based attempts at co-working, it's focused beyond the divvying up of funding and is a broader product of devolution. Could the potestas of place-based consortia and the potentia of FE's grassroots research movement align in this emerging space? It's never happened before. But, as the Princesses and Princes found, in a brave new world anything is possible.

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3 The Scholarship Project, the Education and Training Foundation's Practitioner Research programmes and the current Research Further initiative, funded by AoC and NCFE.

4 Through collaborations such as the Research Colleges Group.

5 Nancy Kline's 'Thinking Environment' is a good model for these.

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Coda

Christina Donovan

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What we owe to each other: an ode to an ethics of care in research spaces

On 22nd April 2023, I entered the research space for the first time since having my baby boy. As a somewhat experienced academic professional, I was scheduled to deliver a 'writing for publication' workshop, yet I was all-consumed with the sensory haze that is new motherhood. At just three months old, I had rarely left my child for more than an hour or so, and here I was trudging across the country to Birmingham, stacked like a packhorse: suitcase, pump, ice packs and freezer bags. *What on earth was I doing?*

The vulnerability I felt in this context would have been too much to bear, had I been attending any other conference in the classical tradition often reified by the 'academy'. The high stakes nature of it all would have had me running in the opposite direction. But this was not any other conference. This was LSRN Conference: collegiality, democratic scholarship, community. This volume is an embodiment of these principles and, as Andrew Morris attested to in his opening chapter, principles within which LSRN has always been rooted. LSRN has always done things differently, and herein lies something we can learn about *doing* scholarship differently.

This was a conference reimagined; arriving anew at what it means to be together in a research space. As Laura Kayes and Lou Mycroft eloquently point out in their concluding chapter, this is beyond the dissemination of knowledge, to the playful enactment of it, in the co-creation of meaning. We were not individuals on a stage, but a community in dialogue, deeply committed to an ethics of care.

I refer to an ethics of care here as a relational practice, drawing upon Tronto's (2010) notion that institutional and political caring involves paying self-conscious attention to what we owe to one another, and the plurality that represents. As with the conference, this volume has been a careful curation of the rich diversity of research that makes up the LSRN community: researchers from both further and higher education, variously experienced and early stage, speaking both to big policy agendas and the 'everyday-ness' of the pedagogical encounter. All equally valued for the place they occupy in the learning and skills research landscape, and gathered around the collective sense of shared purpose this invokes in us all.

It has been a privilege to be part of this editorial team, and to immerse myself in the work that lies within the folds of these pages. This final thought is dedicated to the generosity of the authors, friends and colleagues that make up the LSRN community, who guided this mother-researcher by the hand on that day in April and to whom I am incredibly grateful.

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