

RiTE

Research *in* Teacher Education

A periodical from the School of Childhood and Social Care
University of East London

- Editorial
- Exploring the landscape: A self-study of the professional doctoral space for current and aspiring Teacher Educators' professional learning.
- Exploring school placement tutors' perspectives on the impact of formative mentoring conversations with student teachers in Ireland
- Working walls or Instagramable laminates: a reflection on creating purposeful learning environments in the primary classroom
- Can Personal Education Plans really become personal?
- Three research themes for teaching about AI in classrooms
- Our life story: Life story work with people with learning disabilities
- Guest Author Jonathan Rix



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AIMS AND SCOPE

Research in Teacher Education is published twice a year by the School of Childhood and Social Care, University of East London, Water Lane, London E15 4LZ. The periodical offers a forum for research-informed debate and discussion on all aspects of teacher education. The publication showcases work from the teacher education teams within UEL's School of Childhood and Social Care and the wider Teacher Education Community in the UK. The definition of 'research', in its broadest sense includes any gathering of data, information and 'facts' designed to advance knowledge. While nurturing and publicising the creative talent within teacher education, the periodical seeks to stimulate, provoke and extend discussion and debate with other professionals associated with this field. In addition to contributions from the team of teacher educators at UEL, each edition of Research in Teacher Education will publish research findings, book reviews and/or opinion pieces from guest writers associated with the School of Childhood and Social Care at UEL. Please send your contributions to the editor for consideration.

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What is the School of Childhood and Social Care?

The University of East London (UEL) has, for over 20 years, provided opportunities to develop the expertise of our community of educators (teachers, nurses and social workers) in East London and beyond. In particular, we are focused on providing opportunities that enable our educators to have a positive impact on the communities they serve. These range from initial teacher education (ITE) through to professional learning courses such as our postgraduate degrees. In 2024, a number of our ITE courses were rated as Outstanding by Ofsted (UK inspectorate), which is testament to the work our students, partners and academics do every day in serving their communities. Underpinning our work and outcomes are the critical lenses our research provides and as such, we are very proud of the contribution our educators make to RiTE.

The School of Childhood and Social Care at the University of East London is a major centre engaging in research and scholarship of local, national and international significance and provides a vibrant and exciting research environment. Our areas of expertise include early childhood, language and diversity, multilingualism, teacher education, race and community, learning and teaching, comparative education, professional education and social work. UEL aims to achieve

recognition, both nationally and internationally, as a successful and inclusive regional university. It is proud of its diversity, committed to new modes of learning that focus on students and enhance their employability, and renowned for its contribution to social, cultural and economic development, especially through its research and scholarship.

INITIAL TEACHER EDUCATION

The School of Childhood and Social Care is one of London's leading centres for teacher education and training, offering a range of highly successful courses for Primary, Secondary and Post-Compulsory levels. We have a reputation for excellence in preparing teachers to educate young people in the multi-ethnic and multilingual culture of urban schools and colleges and are one of the UK's largest providers of initial teacher training for students from minority ethnic backgrounds.

We are proud that we recruit people from the east London community (whilst not excluding others), who then go back into this community to teach in our local and highly diverse schools and colleges. Most east London schools are Ofsted rated Good or Outstanding, and many are significantly staffed by UEL ITE graduates, where numerous UEL trained teachers are senior leaders and head teachers.

UEL Initial Teacher Education has a strong and effective commitment to inclusion and to schools and colleges in east London and the region, building on and bolstered by, an exceptionally strong, cohesive and developing partnership. Through this partnership, it offers high-quality teacher training with strong subject knowledge development in all subjects, backed up by investment in subject-specific facilities and resources.



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Editorial

Gosia Kwiatkowska, Fahmida Khatun, Luke Craig and Stephen Thomson

In this issue, we bring together a broad collection of papers that not only span diverse themes within teacher education and inclusive practice but also speak to the shared aspiration of making education more equitable, responsive and person-centred. Across these contributions, we hear voices that challenge us to think differently – about technology, about teacher identity, and most importantly, about the learners at the heart of our work. Each paper draws from practice and reflection, theory and lived experience, to interrogate the evolving role of the teacher, educator, mentor and advocate in today's complex educational landscapes.

Our guest writer, **Emeritus Professor Jonathan Rix**, in 'The best technology is a human', explores the persistent gaps between the promise of educational technology and its practical realities, offering a deeply personal and critical reflection from the perspectives of researcher, parent and teacher. His provocations remind us that innovation must be grounded in human relationships and local context – a theme that resonates throughout this issue.

The need to navigate boundaries and build professional identity is explored in the collaborative self-study by **O'Sullivan, Nunan, Kyne and Dolan**. In 'Exploring the landscape', the authors reflect on their journeys through

professional doctoral programmes, articulating how communities of practice, dialogue and critical discomfort can shape and strengthen emerging teacher educators.

Nicholas and McCormack continue this exploration of relationships with a timely study of mentoring in teacher education. Their research into 'formative mentoring conversations' during initial teacher education placements offers valuable insights into how structured, non-evaluative feedback can cultivate trust, reflection and resilience among novice teachers.

The centrality of the learning environment is explored by **Hadley and Gibson**, who turn our attention to classroom walls – asking whether they serve as 'working walls' or simply 'Instagrammable laminates'. Their thoughtful analysis challenges educators to reflect on how display spaces can foster both learning and agency when co-created with students.

Student voice and participation come into focus in **Wilkie's** study of 'multimedia advocacy and person-centred planning' in PEP meetings. His research highlights the transformative power of digital tools like the Rix Wiki in repositioning looked-after children as active contributors, rather than passive subjects, in educational planning.

Waite's contribution, 'Three research themes for teaching about

AI in classrooms', provides a crucial provocation for teacher education in an era of accelerating technological change. By introducing the SEAME framework and addressing concerns like anthropomorphism and data-driven problem solving, Waite offers a clear roadmap for teachers developing their pedagogical content knowledge around AI.

Finally, in 'Our life story', **Spry and Walmsley** reflect on the development and impact of life story work with people with intellectual disabilities. Their work reaffirms the ethical and relational imperatives of inclusive practice and calls for continued innovation grounded in co-production and respect for lived experience.

Together, these articles form a rich tapestry of research, inquiry and reflection. They invite us to step across professional boundaries, to listen deeply and to respond thoughtfully. We hope this edition of RiTE inspires your practice, challenges your assumptions and renews your commitment to education that is, above all, human. ■

Note from the Guest Editors

This edition of the journal was edited by four guest editors. We are part-time Professional Doctorate Education/Social Work students and full-time professionals working in higher and primary education across diverse fields, including teaching, social work, nursing and social sciences. Our role as Guest Editors allowed us to engage with writers, offer opportunities for new contributors and explore various perspectives within our respective fields. Throughout this journey, we had the privilege of interacting with a wide range of researchers, postgraduate and doctoral students and academics, gaining valuable insights from their diverse viewpoints. As an editorial team, our primary responsibility was to invite potential authors, review abstracts and early version articles and provide honest, constructive and transparent feedback to our writers, while ensuring a broad representation of topics in teacher education. This was harder than we thought.

We maintained a collaborative approach, meeting regularly to review and discuss

abstracts, articles, deadlines, potential contributors and our overall editorial vision. Most importantly, we were committed to supporting our writers by offering guidance and reassurance whenever needed. This included providing examples of exemplary articles and holding dedicated sessions to discuss writing style, structure and content. The process of selection of the final articles that are in this edition was not an easy task as we received a range of interesting articles that were very relevant and important. But we could only offer space for six articles so we had to make some hard decisions. We wanted to have a fair representation of voices of different individuals with various backgrounds and characteristics.

It has been a rewarding experience to present such important and thought-provoking pieces of writing. Now, this edition of the journal is yours to explore, and we hope you enjoy reading it as much as we enjoyed curating it. ■

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Exploring the landscape:

A self-study of the professional doctoral space for current and aspiring teacher educators' professional learning

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ABSTRACT

There has been an increase in the offering of professional doctoral programmes internationally (Kot and Hendel, 2012; Taylor, 2023), and this has been mirrored in the Republic of Ireland, with the rise of the Doctor of Education programme being one such example. However, reflective research from professionals engaged in Doctor of Education programmes in the Irish context is somewhat limited. This paper offers insight into the professional doctoral space and its contribution to teacher education specifically. A collaborative, self-study methodology was employed to support reflection on, and analysis of, key insights from our engagement as three doctoral candidates who have also occupied different teacher educator roles in our professional lives. Premised on Lave and Wenger's (1991) concept of community of practice, and Wenger-Trayner and Wenger-Trayner's (2015) work on boundaries of practice within landscapes of practice, the findings shed light on the development

of one's role as teacher educator and researcher in a community of novice doctoral researchers, the relationships and interactions that occur within the community and the gradual sense of belonging to the community through dialogue and collaboration with others. The paper concludes that the spaces provided for sharing and collaboration by the structure of the professional doctorate enabled the development of relationships within the community, which supported role development as teacher educator and encouraged confidence building as doctoral researcher. Recommendations include providing dedicated opportunities for professional doctoral candidates to share their learning and experiences with peers throughout such programmes and for doctoral candidates to utilise the challenges encountered over the course of their programme as opportunities to learn and expand their understanding of their professional role.

KEYWORDS

TEACHER EDUCATION

SELF-STUDY

DOCTORAL RESEARCH

PROFESSIONAL DOCTORATE

INTRODUCTION

Recent decades have seen an increase in the number of professionals undertaking doctoral studies and a rise in professional doctoral programmes internationally (Kot and Hendel, 2012; Jones, 2018; Sarrico, 2022; Taylor, 2023). The Republic of Ireland is no different in this international trend, with Doctor of Education courses being one example of an array of professional doctoral programmes on offer across the jurisdiction. Irish educational policy is sparse in its reference to the value of professional doctoral programmes to the teaching profession or the broader educational landscape. However, many universities and Higher Education Institutions (HEIs) have individualised requirements regarding the undertaking and completion of doctoral study for those employed to work in Initial Teacher Education (ITE). For those working in schools and in the teacher induction or teacher professional learning spaces, the Teaching Council of Ireland refers to further study and research as beneficial to supporting both teacher practice and reflective practice but does not specifically document the contribution of doctoral study to the profession (Teaching Council, 2016).

There are currently three Doctor of Education programmes in the Republic of Ireland that give doctoral candidates the opportunity to engage in research in areas of professional interest. Teacher education is one such area, amongst myriad others, that doctoral candidates within these programmes may opt to focus on. Teacher education in Ireland is aligned with the general international consensus of the 'three I's' (Teaching Council, 2011), namely, ITE, teacher induction and in-career development. Each of us occupy, or have occupied, roles in all of these phases at various stages throughout our professional careers. The premise for this study arose from these varied professional experiences, along with the shared experience of specialising in teacher education within a doctoral

programme. This paper stems from a broader study on reflective practice and doctoral research in teacher education, involving us, the three doctoral candidates who are joint authors of this paper, and a HEI-based teacher educator and doctoral programme leader.

Professional experiences and interests, although central in connecting research and practice within Doctor of Education programmes, are not sufficient in isolation when studying at doctoral level. For example, engaging with doctoral study requires the learning of a new language and the development of a researcher identity (Burnard *et al.*, 2018). Yet, developing confidence in this space can be a challenge, sometimes leading to a sense of discomfort *en route* to developing one's identity as researcher, particularly if and when presented with ideas or perceptions different to one's own (Loxley and Seery, 2012; Donaghue and Adams, 2025). While there has been some research completed on Doctor of Education programmes in Ireland to date (see Loxley and Seery, 2012), the purpose of this paper is to expand this research base in the first instance, while also contributing to broader international discourse on self-study, teacher education and doctoral research.

Lave and Wenger's (1991) contributions of legitimate peripheral participation and communities of practice were central in conceptualising the study. Particular attention was given to their considerations of the layered nature of communities of practice, the relationships and interactions between those in the community and the evolving role of the individual. For example, their contribution to the understanding of the roles of novice or 'newcomer', 'young master' and 'old timer' within a community are influential in interpreting one's developing sense of self in relation to others in a shared space (Lave and Wenger 1991, p. 56). However, cognisant of the study's focus on doctoral candidates who also hold professional roles as teacher educators, the later work

of Wenger-Trayner and Wenger-Trayner (2015) was also considered. The bringing together of individuals who occupy various other roles in various other communities within a broader landscape is a complex endeavour. Boundaries of practice between those holding roles in different communities are 'unavoidable' but 'hold potential for unexpected learning' (Wenger-Trayner and Wenger-Trayner, 2015, p. 17). For such learning to take place, one must encounter or cross the boundary between one practice and another, to ultimately ascertain the relevance of these practices to one another. While this boundary crossing can cause tension, it can also prompt reflection on the self and one's community, to better interrogate assumed practices within one community and compare them to those of another.

Interaction, communication and dialogue are, arguably, central to the concept of communities of practice, boundaries between communities and the encountering and crossing of such boundaries (Lave and Wenger, 1991). 'Dialogicality', as termed by Bakhtin (1984), is a useful consideration in this regard. When applied in this context, it refers to the notion that other people, or other perspectives, are required in order to generate meaning or reveal insight in an ongoing, reciprocal manner, where understanding is constantly shaped and reshaped through dialogue. Akkerman and Bakker (2011) offer a further contribution, proposing dialogical mechanisms associated with border crossing. Four mechanisms of learning at the boundary are referred to, namely: identification, the recognising of distinct identities within the group; coordination, the negotiating of ways of working together; reflection and transformation. Furthermore, Buchanan *et al.* (2023) highlighted the importance of voice, as well as boundary crossing, in offering opportunities for participants to share information as well as access and offer support to one another, which increased participant resilience. These are important

considerations in conceptualising how communities of practice may operate and the key features of effective communities in light of the study herein.

METHODOLOGY

The study employed a reflective, collaborative self-study approach and received ethical approval from Maynooth University's Ethics Committee. This methodology has been used by teacher educators across jurisdictions over many years to focus on better developing their understanding of their roles and practice (Loughran, 2005; Bullock and Ritter, 2011; Allen *et al.*, 2016; Bowles *et al.*, 2023), signalling its usefulness for the intended purposes of this study. As mentioned, the findings reported herein, which focus specifically on our perspective as three doctoral candidates, stem from the larger collaborative self-study, which involved a HEI-based teacher educator and doctoral programme leader.

Data collection and analysis were layered processes, which began with informal, individualised reflection. This took a variety of forms, from reflective logs and research diaries to memos and drawings. When it was decided to formalise these reflections as the basis for data collection for this study, individual reflections were transcribed and documented digitally as reflective logs. Our individual reflections were subsequently brought into collaborative conversation to analyse and reflect on key insights arising from the reflections to support sense-making of the data. This is summarised in Figure 1.

Vanassche and Kelchtermans' (2015) self-study in teacher education characteristics was used to ground the research, as summarised in Figure 2. The initial focus was on our individual practice as teacher educators, both current and aspiring, as well as our developing roles as doctoral researchers. The principles of privileging the use of qualitative research methods and collaboration with others came to the fore in the latter stages of the research, when reflective logs were brought

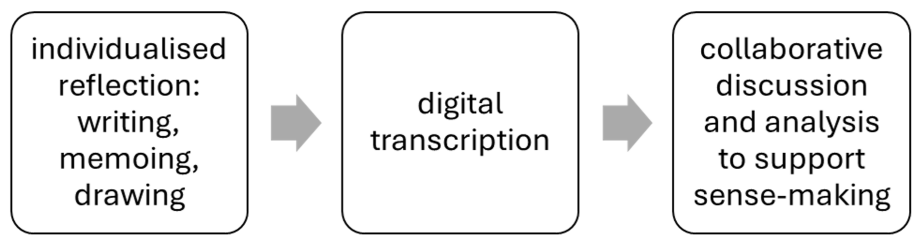


Figure 1. Visual summary of the methodology employed

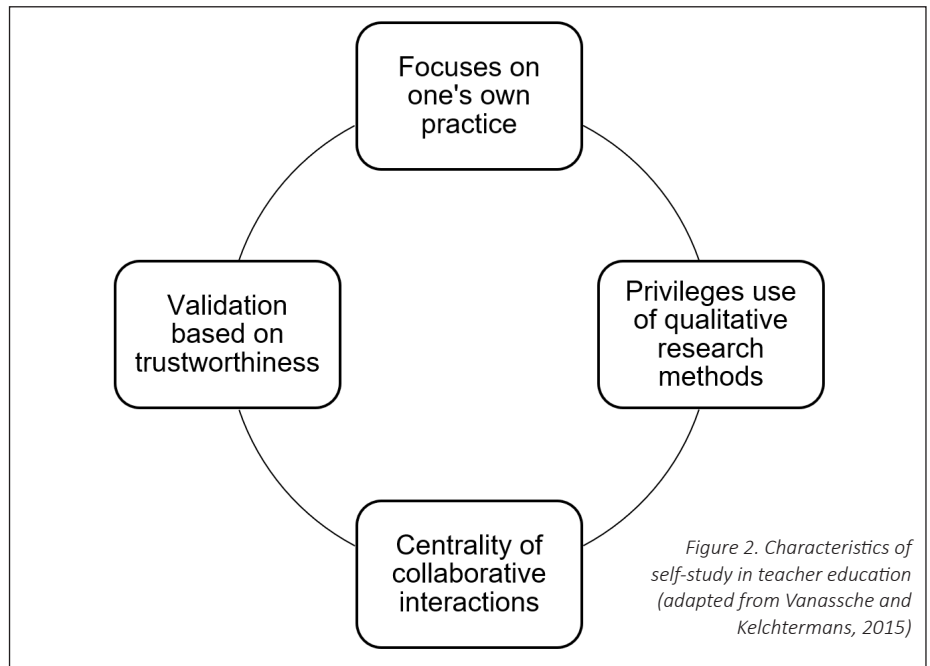


Figure 2. Characteristics of self-study in teacher education (adapted from Vanassche and Kelchtermans, 2015)

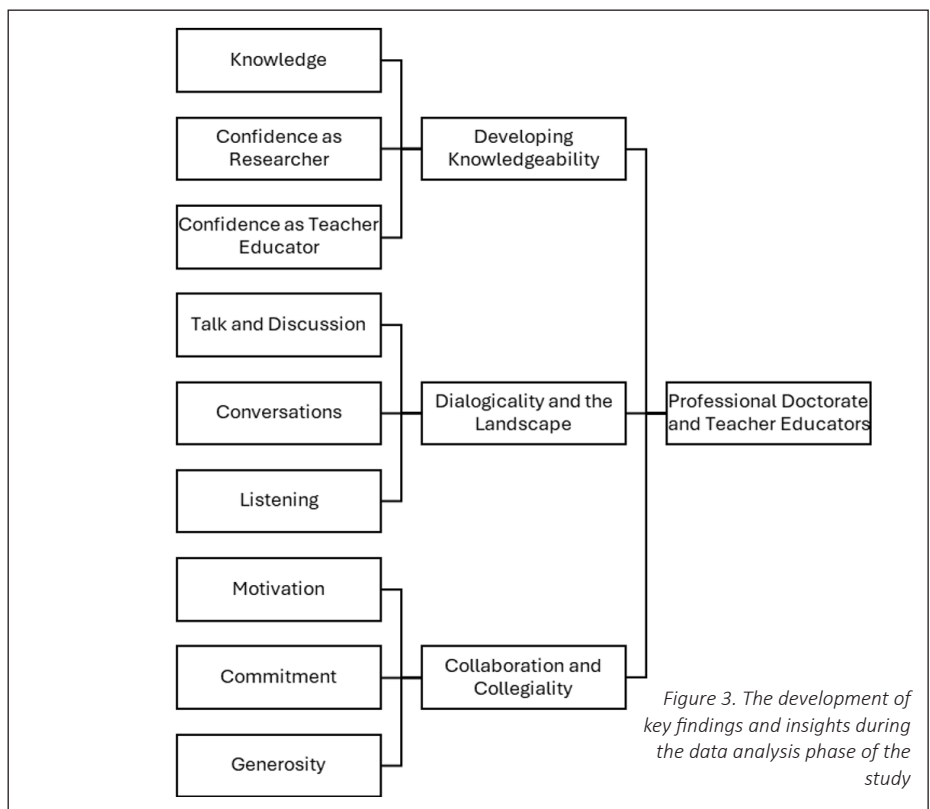


Figure 3. The development of key findings and insights during the data analysis phase of the study

into community with one another and collaboratively analysed. This was done through a process of coding, categorising, and subsequently, exploring emergent themes in the data. A summary of this

process is visible in Figure 3. Validation was based on trustworthiness arising from the research process and shared accountability to one another.

Kolb's (1984) experiential learning and reflective cycle was used to conceptualise the reflective ways in which the data were generated for this study. We engaged in the identification and consideration of key moments and experiences throughout the doctoral process, where our roles or professional identities were challenged or illuminated through interaction with others in the doctoral space. We then reflected on these experiences and tried to make sense of them in the context of our continuing engagement with doctoral study. This was augmented by Brookfield's (2017) critically reflective lenses of autobiography, colleagues, students and theory, which were used to examine reflections from various perspectives to support their analysis and the drawing of conclusions. Individual reflections were analysed collaboratively from multiple perspectives in discussion, to support further analysis and sense-making of the data. Through doing so, emergent insights from the data were identifiable. These are explored below.

FINDINGS AND DISCUSSION

The findings suggest that as doctoral candidates, we traverse multiple communities of practice and encounter boundaries of practice as teacher educators completing doctoral study. The various roles within the different spaces we occupy professionally are alluded to. However, we also occupy a shared community as novice doctoral researchers in teacher education. This is consistent with Lave and Wenger's (1991) contribution of transitional states within communities of practice, mentioned earlier, where various roles from 'newcomer' and 'young master' to 'old timer' (Lave and Wenger, 1991, p. 56) might be visible; in this case, based on the spaces we occupy within teacher education in one instance, and as doctoral researchers in another. Boundary encounters (Wenger-Trayner and Wenger-Trayner, 2015) are evident in how we reflect on our own professional

role and practice as teacher educators and the role and practices of others in the community, through the consideration, critiques and borrowing of practices and insights from one another. Given the nature of the study as a reflective self-study, the findings are presented as three key insights. Each insight is considered in terms of the reflection and learning prompted by the encounters with others within the community. These insights highlight some of the key dilemmas, boundary crossing encounters and new learning arising from engaging collaboratively in the doctoral space.

INSIGHT 1 – FINDING OUR FEET: DEVELOPING KNOWLEDGEABILITY

Reference to the initial days of the Doctor of Education programme and finding our feet in the initial encounters with doctoral research revealed some memories of 'discomfort'. These were not only about who we were in our professional roles but who we were as novice researchers within teacher education and how that was validated or voided by the professional role and experiences we each brought into that space. Examples were evident in Mark's reflections:

The first day of the Ed.D. was a whirlwind, but I remember so many aspects of it vividly... the most significant thing that stood out to me that day was the varied backgrounds from which the cohort was comprised... I questioned how I, in my role as class teacher, fit amongst this cohort of individuals and what I could bring to the course from the school and classroom perspective.

I wondered how I, as a classroom teacher, could contribute to this space but soon realised that... having a school perspective on some of the big ideas and concepts related to teacher education was a valuable contribution to the group.

Mark's Reflective Log

Encountering challenges and uncertainty in the early days of doctoral research is to be expected (Burnard *et al.*, 2018;

Donaghue and Adams, 2025). However, the bringing together of individuals with a shared passion, in this case, teacher education, but with widely varied experiences within the field of practice, added additional complexity. The excerpt from Mark's reflective log above suggests not only discomfort in developing his researcher identity, but discomfort in his professional role and the individual contributions he felt he could make to this research space.

Arguably, this insight acts as an example of the experience of being a 'newcomer' to the community (Lave and Wenger, 1991). Despite the fact that the three of us were new to doctoral research, there were also feelings of uncertainty regarding the professional roles we held, due to variation in our experiences as teacher educators. In Mark's case, he had varied experiences of working in a part-time capacity in teacher education, while maintaining a full-time classroom role. Meanwhile, both Patricia and Gráinne had occupied full-time roles in the in-career teacher education space, while Patricia had also worked in ITE in a full-time capacity. Mark's reflections suggest a questioning of self when engaging in a community of practice with knowledgeable others who were working in teacher education full-time while he balanced the dual role of teacher and teacher educator, depending on the space in which he worked (White, 2019). 'Knowledgeability' of practices outside one's own practice is important for those encountering or spanning boundaries (Wenger-Trayner and Wenger-Trayner, 2015). However, the development of this community of doctoral candidates may well have been Mark's first encounter with the practices of other teacher educators who held roles in different domains within the broader teacher education landscape in Ireland and thus required the learning of new perspectives and practices. It is also evident here that our identities within this community of teacher educators was not fixed and linked explicitly to our experience

or knowledge of teacher education in its broadest sense, but rather, shifted and changed depending on the aspect of teacher education practice being discussed. While Mark may have felt like a ‘newcomer’ to the in-career or ITE phases of teacher education, he had much to offer to a discussion on the school-based elements of teacher induction or ITE. This changing and manoeuvring was visible in all three cases.

INSIGHT 2 – ‘DIALOGICALITY’ AS A WAY OF EXPLORING THE LANDSCAPE

Bakhtin’s (1981) concept of ‘dialogicality’, and the notion of interaction with other people and perspectives as shaping understanding, became evident over the life of the community, particularly through the exploration and discussion of chosen readings as part of taught modules within the programme. Patricia documented an example of how particular moments of dialogue with others sparked learning and contributed to her understanding as doctoral researcher and teacher educator:

One example here was when we read teacher education biographies on Australia, Canada and Finland. I found that while my understanding was informed by my reading, it was expanded and developed as a result of the dialogue with my peers, around differences and similarities in each jurisdiction... We were learning from each other, from different sectors – primary, post-primary, 3rd level and the policy space. We all brought something to the group, and we were all open to learning from one another.

Patricia’s Reflective Log

Similarly, Gráinne recorded instances of dialogue with others as sparking new learning for her practice:

It was interesting to hear other perspectives from different sectors. For me, there were defining moments where you might hear something and think ‘I’ve never thought of it in that way before.’ So it really challenged thinking, sometimes adding a layer of complexity... other times providing absolute clarity... being part of

these conversations really deepened my understanding of the multiple perspectives and it gave space that allowed for negotiation, space to challenge beliefs and assumptions but also allowed time for that dialogue and shared meaning making.

Gráinne’s Reflective Log

There is evidence here of Akkerman and Bakker’s (2011) dialogical mechanisms at play at the boundaries of practice as teacher educators, but also at the boundary of teacher educator and doctoral candidate, where formal doctoral tasks influenced professional practice and understanding as teacher educator. Of note in the above examples are the mechanisms of reflection and transformation, where the expansion of thinking based on interactions with others is visible.

Patricia’s and Gráinne’s excerpts indicate that crossing of boundaries holds potential for unexpected learning, where ‘the meetings of perspectives can be rich in new insights...’ (Wenger-Trayner and Wenger-Trayner, 2015, p. 17). As conversations became more connected and dialogue deepened, we started to understand each other’s contexts and practices within the landscape of teacher education in greater detail, consistent with the notion that dialogue is essential in understanding how we learn in teacher education (Karlberg-Granlund and Pastuhov, 2024). However, the reflections also reveal that part of that learning came with challenges. Given the different professional spaces we occupied, the reflective log excerpts demonstrate how meeting at these boundaries of practice offers the opportunity to develop knowledge and perspective, aligning with Bakhtin’s notion of ‘dialogicality’ through Akkerman and Bakker’s (2011) dialogic mechanisms.

INSIGHT 3 – SPONTANEOUS COLLABORATION OR STRUCTURED COLLEGIALITY? EXPLORING MOTIVATIONS, COMMITMENT AND ACCOUNTABILITY TO, AND IN, THE PROCESS

The reflections provided insight into the ways in which we interacted in order to develop our practices as teacher educators and doctoral researchers. These interactions were complex and comprised more and less formal interactions with one another. Patricia noted:

...we met online on Friday afternoons and again at some point during the Saturday in-person days. Rose led the discussion, or had planned items for consideration, but what evolved over the course of this journey has been a less formal, more discursive, person-led community.’

Patricia’s Reflective Log

The doctoral programme provided the formal, organised structures to engage as a group, which supported the development of accountability to each other and to the programme leader. However, the data also indicates that it was in our informal, unstructured and spontaneous interactions that our commitment to one another could be seen, in support of developing each other’s practice.

We created purposeful spaces for creating, sharing and innovating together... We had a shared Team where we could deposit relevant articles and insights with one another. We regularly engaged in Zoom and Teams calls, organised by and for ourselves, with the focus on discussing, critiquing and learning. We had a WhatsApp group, that had both personal and research aspects, where we shared, problem-solved and innovated together.’

Mark’s Reflective Log

Like Mark, Gráinne also alluded to the less formal aspects of our engagement with one another. However, she reflected on how these interactions within the community specifically impacted on her practice:

...this community of practice has allowed me to share my passion for teacher education with like-minded educators who have similar values such as respect, integrity and collegiality... this small community has offered the opportunity to voice my thoughts, concerns... but also offered critical support which has led to greater personal and professional resilience on this journey, which can be a challenging one at times.

Gráinne's Reflective Log

These excerpts indicate that our shared interest in teacher education sustained our engagement in the community as novice doctoral researchers, despite the challenges faced on our journey. This idea of feeling 'connected by common experience' or shared interest during doctoral study is consonant with the literature (Brown, 2021, p. 767). The boundary encounters and crossings we made at different junctures likely supported our commitment to one another and the recognition of valuable personal and professional learning opportunities from one another. Through doing so, it seems that we deviated away from notions of 'contrived collegiality' (Hargreaves, 2019, p. 610), to authentic participation in the community of doctoral candidates researching teacher education. Participation was at various levels over the course of the programme. However, the excerpts above suggest that, through the development of less formal structures with which to interact with one another, we developed confidence in our dual roles as teacher educators and doctoral researchers while developing a knowledgeability of one another's practice in order to move away from the novice roles we initially held. The development of generosity towards one another was visible in the data and was exemplified in Patricia's reflective log when she referred to 'reading an article for Gráinne, to see if it was any good'. This is noteworthy in considering the authenticity in our interactions and commitment to one another throughout the process.

It appears that despite our differences in experience as teacher educators, our shared repertoire, experiences and interests as doctoral researchers and teacher educators more broadly was influential in why we worked together in the way we did (Brown, 2021). There is an evident generosity towards one another, which is visible in the ways we share with and support one another. It is hypothesised that the convergence of these factors allows for the structured opportunities and spontaneous collaboration to enhance each other in a cyclical manner, reframing an 'either or' scenario to an 'and' scenario, with both the structured and the spontaneous enhancing one another for our overall development as teacher educators and researchers.

CONCLUSION

The study reveals some of the many considerations faced by those possessing various roles in teacher education while also engaging in a professional doctoral programme focused on teacher education. Despite commonalities and shared professional experiences, we faced discomfort, on occasion, when encountering boundaries of practice in the broader landscape of teacher education and variation in levels of experience within the community. However, communication, dialogue and interaction proved beneficial to exploring the broader landscape and developing our knowledgeability of the landscape from researcher and teacher educator perspectives outside of our own individualised practice. These boundary encounters and crossings, while uncomfortable at times, held potential for learning and growth. The nature of the structured components of the Doctor of Education programme proved beneficial to developing relationships within the community of practice, which ultimately, extended beyond the confines of the course structures into less formal processes, which supported learning throughout the course. Yet, the findings indicate the importance of generosity and commitment to one another in the course

of our interactions together, suggesting two key components at play in ensuring our effective collaboration.

There are a number of implications arising from the findings. First, due consideration must be given to how teacher educators respond to instances of discomfort or a questioning of professional identity when engaged in doctoral research. Acknowledging this discomfort and using it as a springboard for learning and insight into the practice of teacher education more broadly is beneficial. In addition, it is important for programme leaders of professional doctorates to deliberately create an awareness for doctoral candidates that they may move between 'novice', 'young master' and 'old timer' in their engagement with the professional doctoral space (Lave and Wenger, 1991). Normalising the potential that those encounters with discomfort hold to support the developmental process of being and becoming a doctoral researcher in teacher education can support candidates with the potential dilemmas they may face. Finally, the merit of including explicit opportunities for professional doctoral candidates to engage in dialogue about their experiences and practices during the course of their studies should be appraised. This study highlights the impact that providing space and time for dialogue and boundary crossing through interaction with others had on the three candidates. Exploring this in the context of other professional doctoral programmes would be a worthwhile endeavour. Further research expanding on this study and examining the less formal interactions in communities of practice for teacher educators engaged in doctoral research would be worthwhile, to explore this notion in greater depth.

At the time of publication, we are still on our doctoral journeys, researching within teacher education. It is likely that there are many more insights to be encountered in the coming years as there is continued development of both our research and teacher education roles and identities. The process is ongoing. ■

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Exploring school placement tutors' perspectives on the impact of formative mentoring conversations with student teachers in Ireland

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ABSTRACT

As part of a two-year pre-service teacher education Master's programme in Ireland, student teachers (STs) are assessed on their school placement modules by school placement tutors (SPTs) who are external to the school environment. In accordance with the Teaching Council (2021), school placement aims to develop the student teacher's capacity for self-reflection with support from their SPTs, and affords the ST valuable opportunities to seek and receive advice in a way that is structured as well as supported. Within one higher education institution in Ireland, on the first school placement, STs receive three visits from their SPT, the first being non-evaluative with no grade assigned. The two subsequent visits are assessed against established college grade descriptors and the average equates

to the overall placement grade. This small-scale study investigates the SPTs' perspectives on their role throughout the non-evaluative visit. Of particular interest is the dynamic of the SPT and ST relationship and the nature of the conversation between STs and SPTs. A qualitative approach was adopted, utilising focus groups with SPTs to gain insights into their role in mentoring and supporting STs throughout this visit. Findings revealed differences between the non-evaluative and evaluative visits, with SPTs reporting that the former fostered more open and supportive dialogue, with STs more inclined to ask questions about elements of their practice. The study highlights, from the SPTs' perspective, the positive impact of non-evaluative visits on STs' professional growth, suggesting that these visits are crucial for fostering reflective practitioners.

KEYWORDS

FORMATIVE ASSESSMENT

SCHOOL PLACEMENT

STUDENT TEACHER DEVELOPMENT

MENTORING

REFLECTIVE PRACTICE

INTRODUCTION

At a higher education institution (HEI) in Ireland, student teachers (STs) enrolled in a two-year Master's pre-service teacher education programme are evaluated on their school placement modules by school placement tutors (SPTs), who operate outside the school setting. The Teaching Council (2021) and the Céim Standards for Initial Teacher Education (Teaching Council, 2020) define the purpose of school placements as fostering STs' self-reflective abilities, supported by SPTs through structured guidance and feedback.

The COVID-19 pandemic disrupted traditional placement practices in all institutions, creating an opportunity to reimagine approaches to both practice and assessment. In response, one HEI introduced a non-evaluative, formative assessment component into its school placement module, aiming to enhance STs' reflective practice. Early anecdotal evidence suggested that this approach significantly supported STs in developing their skills of reflection and ultimately enhancing their practice in the classroom. Subsequently, the programme was redesigned to include a non-evaluative first visit by SPTs for all STs in their first school placement. Currently, each ST receives three visits from their SPT during their initial school placement, with the first visit deliberately structured as a non-evaluative interaction without a grade or assessment outcome assigned.

This study explores SPTs' perspectives on their role during the first, non-evaluative visit, focusing on the dynamics of their relationships with STs and the nature of their mentoring discussions. Specifically, it seeks to understand how SPTs experience their mentoring role, the support they provide, and how they perceive the non-assessed visit's impact on fostering openness, trust and collaboration with STs.

LITERATURE REVIEW

During school placement, STs work with a college-appointed SPT whose role is 'to support and mentor student teachers and evaluate their practice while on placement' (Teaching Council, 2020, p. 5), as well as a school-based cooperating teacher, referred to by the Irish title 'Treoraí' (which translates as 'guide'), who 'supports and guides the student teacher during his/her school placement experience' (Teaching Council, 2020, p. 6). School placement requires STs to apply their learning in a host primary school setting.

Doyle *et al.* (2024, p. 310) emphasise the importance of SPTs' 'assessment of the acquisition of skills', which demands a deep pedagogical understanding of what STs should know across all subject areas, as well as competency in evaluative norms, such as the criteria outlined in 'school placement grade descriptors'. Revising assessment practices in HEIs can be a challenging process, requiring fairness in assessing STs while positioning them to effectively address the diverse learning profiles of the pupils in their placement class (Priestley *et al.*, 2021; Bates and Townsend, 2007).

School placement assessment can evoke feelings of unease, as STs perceive their teaching practice to be under scrutiny by an 'inspector'. However, the recent shift in terminology (to SPT) reflects a more empathetic and supportive approach, emphasising mentoring and guidance alongside the evaluation of their practice. This change is particularly significant for STs on their first school placement, where adopting a caring approach rooted in 'relational encounters' (Noddings, 2013) is crucial.

Mitchell *et al.* (2023) build on Noddings' ethics of care, highlighting 'encounters of genuine attitude and reciprocal engagement' as essential for fostering open and honest dialogue, critical thinking and reflection. The updated *School Placement Guidelines* (Teaching

Council, 2021) emphasise the importance of the relationship dynamic between the Treoraí, the ST and the SPT. A collaborative approach characterised by shared learning goals and supportive relationships is fundamental to developing STs' practice across various class levels.

Nonetheless, Ball (2016, p. 1046) argues that the rise of performativity in education policy has undermined the professionalism of teachers. This presents a challenge for SPTs, who must balance their evaluative responsibilities with a caring and supportive approach. They need to remain mindful of the unique challenges faced by STs at the start of their School Placement 1 journey, as well as balancing the need for rigorous and meaningful assessment of their practice.

Key aspects of effective mentoring during school placement include the development of a trusting relationship between the ST and mentor, fostering self-reflection and ensuring that STs observe a variety of teaching styles through guided experiences with the Treoraí (Glover *et al.*, 2024). This mentoring relationship also involves a collaborative partnership among the HEI, the school, the Treoraí, and the ST (McIntyre and Morris, 1980).

Orland-Barak and Wang (2021) identify four key mentoring approaches in ITE, namely personal growth, situated learning, core practice and critical transformative approaches. They conclude that mentoring cannot be confined to a single approach; instead, it represents a multidimensional experience. Similarly, Lofthouse (2018) emphasises that mentoring development should be central to the transformation of ITE, highlighting the importance of training SPTs and maximising the effectiveness of the formative visit during School Placement 1.

METHODOLOGY

This study employs a qualitative research design, rooted in an interpretivist paradigm, to explore the formative, non-evaluative visit by examining the experiences of SPTs who worked with STs in their first school placement. Given the exploratory nature of the research aim, a qualitative approach was deemed most suitable for capturing the depth and complexity of participants’ experiences and perspectives. This methodology enabled a deeper understanding of SPTs’ experiences in assessing, mentoring and supporting STs. Of particular interest is the dynamic of the SPT–ST relationship and the nature of their mentoring conversations.

Participants were selected through convenience sampling, where the entire team of SPTs who conducted formative visits during School Placement 1 were invited to participate. A total of twenty-one SPTs took part in the research, comprising six males and fifteen females. The participants represented a diverse range of experience in the role and came from a wide geographical area across the country. The distribution of years of experience in the role is summarised in the table below:

Number of years’ experience as SPT	N
1–2 years	6
3–5 years	6
6–10 years	7
10+ years	2

Data were gathered using focus groups (four in total), which allowed participants to articulate their perspectives in depth and enabled the researchers to probe emerging themes. This method facilitated the development of theory from the data to better understand the challenges and opportunities intrinsically linked to the formative visit (Day *et al.*, 2010; MacBeath and Cheng, 2008). Working closely with the research participants in the focus groups allowed the researchers ‘to elicit

detailed responses, ask comprehensive questions, minimize the respondent’s fear of being judged and maintain criticality in data analysis’ (Tinker and Armstrong, 2008, p. 58). A thematic analysis was conducted of the data obtained from focus groups to identify patterns and recurring themes in participants’ responses.

FINDINGS

Tutors unanimously reported that they found the formative visit immensely valuable. It was perceived as alleviating pressure for both SPTs and STs, as the focus of the visit was developmental rather than evaluative. One respondent remarked, ‘I think it’s a good investment in the students at the beginning of placement.’ This developmental focus created a supportive atmosphere and offered students an opportunity to reflect, ask questions and engage more openly. A respondent highlighted, ‘Students were more honest and professional in terms of what they felt they could say and ask on that visit. I felt it was actually more helpful for them at the early stage of placement to have that very open, unassessed visit. So I really think it enhanced the experience of the students.’

The formative visit was particularly valuable for relationship building. SPTs appreciated the opportunity to get to know the STs better, as reflected in one respondent’s comment: ‘It can help me to understand where they’re coming from and why they are the way they are... an opportunity to actually get to know them as teachers.’ Another shared, ‘It enabled me as a supervisor to actually get to know the student genuinely, a little bit better.’ SPTs also noted that STs could discuss their motivations and aspirations more freely, with one stating, ‘It’s nice for students to have the opportunity to talk a little bit about their own reasons for being a teacher or how they hope their career will develop.’

Respondents frequently mentioned that STs were more open to asking questions during the formative visit. Overall, STs

appeared more candid and willing to share thoughts and concerns than they might during an assessed visit. The discussions between STs and SPTs were collaborative, with STs actively engaging in post-lesson conversations. STs demonstrated a greater willingness to seek advice and guidance and to acknowledge areas in which they needed help.

The formative visit differed from the assessed visit in several key aspects, including atmosphere, student attitudes, tone of interactions and overall engagement. Formative visits were described as more relaxed and friendly, with reduced tension among STs. One respondent noted, ‘There was less tension in the air with the students. The visit was much more relaxed and friendly.’

Some participants observed that STs were less defensive and more receptive to advice during formative visits. Several respondents highlighted that the interactions between STs and SPTs were more open, honest and conducive to fostering positive professional relationships. As one SPT explained, ‘I felt the quality of what the students were saying, what they were asking and what they were contributing was different in the formative visit. I felt it was more honest. It was more sincere.’ Another noted, ‘I think they were more themselves.’

From some SPTs’ perspective, one group of STs particularly benefited from the formative visit. They were those who faced significant challenges in their professional practice. The non-graded nature of the visit reduced pressure, enabling more in-depth exploration of areas where they were struggling. SPTs found themselves better able to dedicate time to provide personalised guidance on specific areas of difficulty, further enhancing the developmental value of the visit.

IMPLICATIONS/ CONCLUSION

The findings of this study suggest several important implications for the design and delivery of initial teacher education programmes, particularly concerning the role of formative visits during school placements.

1. Enhanced student development:

The formative visit's developmental focus, as opposed to evaluative, creates a supportive environment that encourages STs to engage openly and reflect on their practice. By fostering a relaxed and non-judgmental atmosphere, STs can better identify and address their areas for improvement early in their placement. This approach may contribute to more effective professional growth throughout their teaching careers. In particular, the formative visit's flexibility and emphasis on guidance rather than judgement were beneficial for STs facing challenges in their professional practice. SPTs noted that the reduced pressure allowed for more focused and personalised support. This indicates the potential for formative visits to serve as an intervention tool for STs who need additional guidance, thus enhancing equity in ITE programmes.

2. Strengthened relationships:

The non-evaluative nature of formative visits facilitates the building of strong professional relationships between SPTs and STs. SPTs reported a better understanding of the students' motivations, challenges and aspirations, which could contribute to more personalised and impactful mentoring. These relationships can be a foundation for creating a culture of trust and collaboration in teacher education.

3. Promoting honest and open dialogue:

The opportunity for STs to be candid during formative visits highlights the

value of removing the element of assessment early in the placement.

This openness allows for meaningful conversations, critical reflection and collaborative problem solving, which may be less achievable in a more high-stakes, evaluative context.

4. Reduction of stress:

Both SPTs and STs experienced reduced pressure during formative visits, which may have broader implications for mental health and well-being in teacher education. It is believed that stress reduction not only improves the quality of interactions but also supports the overall sustainability of intensive teacher education programmes.

In summary, the formative visit serves as a valuable tool for enhancing the professional development of STs, strengthening mentoring relationships and fostering an open and reflective learning environment. Its implementation has the potential to transform the teacher education experience and contribute to the preparation of reflective, capable and confident educators. The findings highlight the need to re-evaluate the balance between formative and evaluative practices in ITE programmes. Introducing or expanding the use of formative visits could complement traditional assessment methods by prioritising developmental goals, fostering professional relationships and encouraging reflective practice. The study highlights the importance of exploring how formative practices can be systematically integrated into teacher education programmes. Future research at the institution will investigate STs' perspectives and experiences of the formative visit, as well as exploring the medium and long-term outcomes of the visit on STs' practice. ■

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Working walls or Instagrammable laminates: a reflection on creating purposeful learning environments in the primary classroom

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ABSTRACT

There are many physical factors that can affect a learner's concentration in the classroom, ranging from lighting and acoustics to temperature, but what about the objects on the walls surrounding them; are highly decorated primary classroom walls attractive or distracting? Research suggests the visual environment can be a source of distraction for children, reducing attention to instructional tasks and learning outcomes (Godwin *et al.*, 2022). This literature review opens up the discussion on the visual environment and use of wall spaces to engage children with their learning, questioning where more may be less, and sharing a range of best practice from several research studies. There is debate on whether displays should be colourful or pastel hued; interactive

or static; or perhaps walls should be blank and seen only as places to hang student work. Student co-creation and ownership is oftentimes overlooked when it comes to what is stapled onto the classroom walls, but perhaps the best way to engage learners with their environment is through the delegation of agency in the design. Co-authored by two practitioners, this paper offers constructive strategies for teachers to consider when planning and designing their wall spaces, in order to find a balance that will inspire student engagement and creativity and promote positive learning opportunities and wellbeing.

KEYWORDS

ENVIRONMENT

LEARNING ENVIRONMENTS

EDUCATION

WELLBEING

INTRODUCTION

Display walls are a creative, versatile tool that can transform a classroom from a static space into a dynamic and engaging environment conducive to learning at any age. When thoughtfully designed and implemented, displays can serve as powerful motivators, sparking curiosity and fostering a love of learning, which can also promote behaviour management. However, research also suggests the visual environment can be a source of distraction for children, reducing attention to instructional tasks and learning outcomes (Godwin *et al.*, 2022). It is for this reason that displays should be planned and considered with care. Wall displays can support children's learning through providing information on their current learning (Marlow *et al.*, 2024) and have been proven as a useful way to display target vocabulary (Grucelski, 2024), especially for multilingual learners. It may be speculated, however, that walls and their coverings can be so much more. Ovington and Albin-Clark (2024) propose that as walls in the classroom change during the academic year, being stapled with children's work and teacher examples, the walls are part of the documentation—children—teacher walls that materialise experiences. When a classroom is well-organised, a positive space for learning can thrive, and displays are part of this organisational toolkit (Marlow *et al.*, 2024).

Physical spaces and their features, such as light, climate and aesthetics, are increasingly seen as correlating with academic success (Ford, 2016). But how well are teachers prepared for displays? Are they an essential part of the teacher training curriculum? The importance of learning objectives and learning outcomes is shared, so the teacher's role is to consider how to support and bring these to life through the displays they create. Working in a larger school may help, where teachers can share ideas and learn from each other, but where else can teachers find classroom

display inspiration?

For teachers looking to social media platforms for inspiration, often the views on the purposes and designs of classroom walls are divided. A set of carefully laminated signs for a display board have been seen to divide the internet, with some people worrying about the environmental impact; laminated materials can take hundreds of years to decompose. But the questions on displays surround not just how they look, and whether or not they are laminated, but also what purpose displays should serve. Sustainability is a vital consideration when we are working in a world that is being drained of natural resources. Sustainable displays use recycled materials and change with learning needs.

In a recent quantitative study by Çakıcı (2024), information was hung on the walls that was not taught directly to students. A test that students took after 30 days confirmed that students had absorbed the information from the walls; it was concluded that using classroom walls as an indirect teaching method has a positive effect on students' learning of the target subject (Çakıcı, 2024). This article dives deeper into how to get the most from classroom displays, whether they are indoors or outdoors, and hopes to inspire the reader to reflect upon what they next attach to their walls to provide motivational and purposeful spaces.

DISPLAYS: INTERACTIVE OR DECORATIVE?

Think about the school display walls that have stayed in your memory; ones you have seen in schools or even those that you have created yourself. Were these displays colourful or monochrome? Were they teacher-made or co-created with students? How long did the display stay upon the wall, and did it change during that time or stay the same as the day it was stapled up? Research suggests classroom displays are creational processes rooted in constructionism; and that interactive

classroom wall displays are generally more effective than purely decorative ones (Cooper, 1996). Interactive displays encourage student involvement and stimulate their questioning. Displays can include elements like manipulatives, where students can move, add or rearrange items on the display; questions, where displays can pose questions that prompt students to think critically; and open spaces, where students can contribute their own work or ideas to the display. Interactive displays can also provide a useful formative assessment if the teacher or teaching assistant observes the student interacting and perhaps answering a question correctly or incorrectly by the way they match the cards or link the objects on the display.

Displays can also support behaviour management. Behaviour issues can be affected by room arrangement (Menzies and Bruhn, 2010). Think about the placement and positioning of your display; does the class sometimes become bored when lining up before assembly or breaktime? Is there a wall or worktop where they line up that, instead of being a space that is ignored, can be revitalised with some objects linked to a current topic? For example, a tray could be filled with sand and some buried replica Egyptian objects for the children to uncover quietly while they wait in the line.

Interactive displays can be used to reinforce learning concepts. For example, 'number lines', where students can physically move numbers or counters along the line; 'word walls', where students can add new vocabulary and use them in sentences; and 'science experiments', where displays can showcase the steps of an experiment or the results. This short case study example from Reception teacher, Poppy LeMar, explains how her school has adopted a uniform approach to working walls across the year groups.

Miss LeMar

We have working wall displays that follow the same format through KS1 and KS2. As a teacher, I really like it because, on the whole, it stays the same year to year. Lots of it is already laminated and in a folder, ready to go for the units, as this is the third or fourth year we've been doing it. Each foundation lesson, including science, has its own topic board. In each lesson we teach on that topic, we will put up the learning objective and any key vocab that would be added to the key vocab bank from that lesson. As well as any other visuals and vocabulary linked to the key concepts that are delivered within that lesson. It will then remain on the board and be added throughout the unit. In Year 1, it starts with visuals, with the keywords, and by the time you get to Year 6, there is more accurate photography to go with the keywords and other more complex concepts. As we start this in Year 1, and the children are taught to use the working wall effectively, directed to use it by the teacher, by the time the children are in older year groups, they know how to access it and use it to help their learning independently. Each topic has the same colour throughout the school and it makes it a familiar resource for the children. We use corridor displays to show children's work, but inside classrooms, we have working walls to aid learning.'

However, decorative displays can also have their place; decorative displays can create a welcoming and inspiring classroom environment, conjure intrigue and wonder, and they can showcase student artwork, writing, or other creative projects. Considering motivation in primary schools, decorative displays can be motivating for students. Students may feel a sense of ownership when they contribute to the display and see their work showcased; sometimes the most simple display can be thirty clipboards safely attached to a wall, where each clipboard is designated to one of the children in the class, and children can clip

up work they are proud of throughout the year. As students are at the heart of the education system, it is vital that they are consulted and feel a degree of agency over the displays in their classroom.

The best approach is often a combination of both; focus on incorporating interactive elements into your displays but use decorations to make the displays visually appealing and engaging. Some examples of engaging display ideas:

- **'I can' statements:** Create a display showcasing students' personal growth and accomplishments to cultivate a growth mindset.
- **'Wonder wall':** Encourage students to share their questions and curiosities about the world.
- **'Maths problem-solving corner':** Display challenging maths problems and solutions for students to explore.
- **'Creative Writing Gallery':** Showcase student writing pieces, accompanied by illustrations to shine a spotlight on their work.
- **'Science Experiment Showcase':** Display the results of student science experiments with photos and explanations.
- **'Birthday Charts':** Create a classroom calendar celebrating children's birthdays to foster unity and community.

There are also barriers that must be acknowledged, however. Teachers face time constraints, lack of funding for materials, limited resources, and varying student needs. Maintaining relevance amidst curriculum changes and diverse learning styles also poses significant challenges. Teachers should consider 'display swaps' with other teachers in their school and wider networks; pooling and sharing materials is an effective sustainable way of keeping displays new and exciting without extra cost.

By carefully considering the purpose of displays and incorporating both interactive and decorative elements, teachers can

create a dynamic and effective learning environment for their students that is developmentally appropriate for them.

OUTDOOR LEARNING ENVIRONMENTS

Teachers must also remember the value of making the most of outdoor spaces (Back *et al.* 2016). Outdoor learning can be enhanced with the use of weather-resistant materials. Laminated paper shields displays from rain and sun, while durable vinyl banners withstand the elements for long-term use. Chalkboards and dry-erase boards offer interactive surfaces for student exploration in a more accessible way than may be possible inside of the classroom. Creative display ideas include nature-themed exhibits showcasing student observations, interactive maps highlighting local discoveries, storytelling corners with weatherproof books and science experiment stations displaying outdoor findings. Teachers could create a wall space or table space for an art gallery, where students could either display natural art, or photographs could be taken of the things that they make and printed out for display. To maximise the engagement of the class, educators should remember that simple can be effective; keep displays simple and visually appealing with bright colours and interactive elements. Always ensure safety by securely fastening displays to prevent damage from wind or weather. By implementing these strategies, teachers can create inspiring and informative outdoor learning environments that encourage exploration and discovery whilst making the most of outdoor spaces.

But is there an even greater reason why educators should plan their displays so carefully? As Maxwell and Chmielewski (2008) found, there is a clear causal relationship between certain types of visual displays and increased self-esteem in young children (Barlow, 2021). We will consider the links between displays and wellbeing in the next section.

LEARNING ENVIRONMENTS AND WELLBEING

There is a bi-directional relationship between the physical learning environment and the emotional security of students. In other words, positive classroom environments make students feel calmer and happier at school. Thoughtfully designed displays promote self-esteem, a sense of belonging and solidarity (Hanley *et al.*, 2017). Further, showcasing students' work externally and tangibly validates their efforts and achievements, as well as encouraging pride and autonomy (Hanley *et al.*, 2017). It is crucial that aspects of the classroom wholly reflect the pupils in it, whether this is individual work showcased on the walls, photos on their trays or pegs or even montages that the students have created together, as these are intertwined with participation and willingness to learn (Barrett *et al.*, 2021).

Additionally, displays featuring calming, neutral colours along with motivational quotes support socio-emotional learning, reduce anxiety in the classroom and lessen the likelihood of the classroom being too overstimulating, as 'overdoing' displays can cause sensory overload, especially for neurodiverse learners. Conversely, visually rich environments inspire, enthuse, and in turn, improve cognitive performance, which is correlated with wellbeing (Hanley *et al.*, 2017).

Classroom displays have the innate power to embed core messages of kindness, respect, empathy, resilience and perseverance into the learning environment to accompany subject knowledge. Displays featuring visuals about emotional regulation provide constant non-verbal reinforcement of socio-emotional principles and augment emotional literacy skills (Davies *et al.*, 2020).

The physical placement of displays also plays a role in the impact they have on wellbeing. Eye-level displays ensure

accessibility, allowing all students to engage, regardless of height or ability (Stapp, 2019), which fosters an inclusive space for all learners. This, consequently, nurtures tactile engagement and active learning pertinent to the current curriculum and themes within the classroom. Inclusive design prioritises clear visuals, varied formats (tactile, audio) and reduced sensory overload for the learners. Strategies like visual timetables aid learners with difficulties, while diverse representation fosters belonging in the classroom, where learners see themselves and others like them reflected back from the walls around them. This is shown in a quote from secondary school Pupil A, reflecting back on a display that they remember:

Pupil A:

One display that stays in my mind was from drama club; it was a small board that was encouraging other people to join drama club at lunchtimes. I was in lots of the photographs that the teacher put up on the display and it made me feel proud of myself! Seeing myself, and all the other people like the stage crew, it seemed really inclusive!

TOP TAKEAWAY TIPS FOR PURPOSEFUL DISPLAYS

- **Strike the balance between aesthetics and functionality:** Displays should spark discussion and curiosity, which entails making them visually appealing and enticing, but this should not come at the expense of their utility or usefulness.
- **Consider sustainability:** Use recycled materials and reuse materials each yearly cycle when possible, or swap resources with another teacher to keep displays fresh without extra funding or creation needed.
- **Involve students in the process as much as feasibly possible:** Allow students to help design displays by having them create artwork, write reflections or even add to them

themselves. For instance, with nature displays, students could add their own artefacts.

- **Promote interactivity:** Change working walls daily and ensure they are relevant to the learning, which will encourage students to look at them during lessons. If you see students looking at the working walls, you know they are serving their purpose. Changing displays is also paramount in maintaining student interest.
- **Cater to classroom dynamics and learning needs:** Incorporate visuals, textures, images and vocabulary. Images on displays often speak for themselves.
- **Celebrate diversity and inclusion:** Acknowledging heritage, culture and languages on displays demonstrates an inclusive, welcoming environment where pupils feel seen and heard.

CONCLUSION

When used effectively, display walls can be a valuable asset both indoors and outdoors. Well-designed displays foster intrinsic and extrinsic motivation, boosting student pride and confidence in their school work and also in their abilities. By showcasing student work, displays enhance self-esteem and encourage collaboration. Involving students in the design process fosters ownership and engagement. Effective displays prioritise clarity and conciseness, avoiding information overload. By carefully considering the research and implementing the strategies outlined above, teachers can create engaging and inspiring learning environments that foster a love of learning in their students, whatever their age. ■

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Can Personal Education Plans really become personal?

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ABSTRACT

In England, 83,630 children are in care (DfE, 2024). Disproportionately poor educational outcomes for children who are looked after have been documented for decades, with research highlighting a persistent pattern of disadvantage (Fletcher-Campbell, 1997, p. 11). The complex and interrelated factors have been explored in detail, revealing systemic challenges such as placement instability, disrupted schooling, lower expectations and insufficient support (Mendes and Moslehuddin, 2004, p. 334). 59.5% of young people who are looked after have a special educational need, compared with 18.1% of the general population (DfE, 2024). Temporary exclusions are three times higher for this group compared with children who are not looked after (DFE, 2024). The disparity continues into adult life; health and wellbeing is lower (Teyhan *et al.*, 2018, p. 5), unemployment rates higher (Social Exclusion Unit, 2003, p. 32). Imprisonment rates are a staggering ten times higher than the general population (ONS, 2022).

The purpose of this paper is to explore the experience of the child's voice in the Personal Education Planning (PEP) process, enabled by technology. There is no space in this research to critique the statutory requirements of the PEP process. It is already widely accepted that educational planning can be productive and that incorporating person-centred approaches into this practice can lead to positive outcomes in educational attainment, behaviour and attendance (DfE, 2015). In this paper, the methods and opportunities provided by technology to incorporate a young person's voice into the PEP process begins to be explored. The findings reveal that young people can confidently adopt new technology and enjoy using it to tell their story in preparation for, and within, a PEP meeting. Adults find this approach refreshing and valuable, learning something new about the child, their hopes, dreams, gifts and talents. There is value in looking afresh at the PEP process and where appropriate, adopting technologies that could improve the experience for young people and the adults involved.

KEYWORDS

PERSONAL EDUCATION PLAN (PEP)

CHILDREN IN CARE

CHILDREN WHO ARE LOOKED AFTER

PERSON-CENTRED PLANNING

MULTIMEDIA ADVOCACY

AN IMPORTANT NOTE ON TERMINOLOGY

The terminology used to describe these children has evolved over time. The most recent term is Children who are Looked After (CLA), though some local authorities still refer to them as Children In Care (CIC) or, as previously used, Looked After Children (LAC). Regardless of the terminology, the local authority assumes the role of a corporate parent, bearing responsibility for their welfare, education, and support (Care Act, 2014).

BACKGROUND

The power of educational attainment to protect against exclusion and poor outcomes later in life has been evidenced (Peruzzi, 2015, p. 119). Countless connections have been made between the quality of educational experience and life chances (OECD, 2018, p. 24). Planning could be part of the key to improving the educational experience for young people, providing a greater focus on educational needs (Hayden, 2005, p. 343). Co-producing an effective educational plan for young people in care is critical for their educational journey (DfE, 2018).

In England, every young person in care is required to have a Personal Education Plan (PEP) within a statutory timeframe. This plan records what is going well in school and what things could be better. It sets out targets and ambitions for the future. The young person is encouraged to input to this plan prior to, and during, the meeting. This does not always happen and when it does, it does not always happen well (Seba and Berridge, 2019, p. 549).

Evidence suggests that children with an up-to-date PEP made greater progress in school, particularly in terms of attendance and avoiding exclusion (DfE, 2015). Based on 25 years of experience as a teacher, and later, local authority senior advisor, I believe there are opportunities to improve the PEP process to make it more useful, by applying person-centred principles and accessible technology.

INTRODUCTION

PEPs were introduced by the Department of Education and Department of Health in 2000. Hayden reviewed the strengths and weaknesses of the PEP implementation process. She sets out the challenge to improve person-centred practice in PEPs for young people in a 'meaningful way that is also a comfortable experience for them' (Hayden, 2005, p. 351).

Throughout this article, I refer to person-centred and student-centred practice interchangeably. Rogers (1995) describes the importance of positive psychology and solution-focused working, channelling a person's strengths and capabilities rather than dwelling on deficiencies. Flutter and Rudduck (2004, p. 2) outline how the 'essential first hand evidence' from students is critical in the decision-making process, leading to increased engagement and personal development. Person-centred practice is most powerful when people can take an active role in planning rather than being consulted. This means that as educators, we need to contrive situations and processes that are accessibly designed to move beyond lip-service – seeking authentic, active, meaningful opportunities for young people to take the lead.

Seba and Berridge (2019, p. 549) reflect on interviews with Virtual School Headteachers (VSH), many expressing a keenness to make PEPs more interactive, increase student participation and avoid tokenistic gestures around the voice of the child.

Updated statutory guidance by the Department for Education states:

All of those involved in the PEP process at all stages should involve the child and, where appropriate, the child's parent and/or relevant family member.

(DfE, 2018, p. 14)

The definition of the word 'involve' creates ambiguity and lacks the specifics needed to support and direct professionals to authentic, person-

centred working practices.

Change is happening. More recently, researchers recognise the power of personal stories to communicate views and aspirations (Seba and Berridge, 2019). Rivers describes how young people were sharing their views using a digital PEP in her local authority (cited by Seba and Berridge, 2019, p. 11). What is emerging is a clear desire to improve the PEP experience, to change what is happening and to do that through innovation, creativity and technology.

My research seeks to continue this exploration by utilising person-centred software – namely, Rix Wikis. This provides space for text, images, videos and audio; which are natural, familiar communication modes for young people (Bhojwani and Wilkie, 2018, p. 13). We know that person-centred planning is valuable (Kwiatkowska, Minnion and Watts, 2023), but how can it be done in a meaningful, powerful way that benefits young people and professionals without being tokenistic or traumatic?

AIM

The aim of this research is to explore the experience when an agentive approach to person-centred technology is applied to the PEP process to make it more person-centred.

METHODOLOGY

The following key activities were completed as part of the project.

- The project leads at two local authorities were identified through a snowball and convenience sampling (Robson and McCarten, 2016, pp. 208, 280). I worked with UEL colleagues to identify VSHs in their network that would be open to research into improving person-centred practice.

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- A project overview was shared with the project leads to explain the scope and expectations.
- Documentation and agreements were completed between parties with a memorandum of understanding.
- The existing PEP process was captured and documented.
- Students who were thought to benefit from the project and had PEP meetings scheduled for the following few months were identified and invited to take part.
- Existing PEP documentation for students was collected and digitally reflected into a Rix Wiki template.
- Supporting adults were identified, trained in the use of the Rix Wiki software and given guidance on collecting research data.
- Wiki accounts were created for young people with PEP Wiki template applied according to the students' needs.
- The young person completed an agreement to participate in the research and agreed to work in a responsible, thoughtful way online.
- The young person completed the PEP Wiki, with adult support where needed, adding images, videos and audio to the template.
- The young person and adult shared their views about the activity, and this has been captured and analysed by the research team.
- The PEP Wiki was shared at a PEP meeting and feedback from the use of the Wiki was captured and analysed.

Whilst this research used Rix Wiki software, the method could be replicated with other popular, readily available technologies such as Microsoft PowerPoint or Apple Keynote. Rix software was chosen because it is highly accessible and already evidenced as a useful tool in storytelling and using multimedia advocacy to ensure the needs, aspirations and choices of vulnerable children remain

central to accessibility and amplification (Kwiatkowska *et al.*, 2023).

The research was tailored to each local authority's structure and relationships with schools. A technology training plan ensured that local authorities and schools were supported with tablet technology and software training according to their needs.

Local authority teams report that they are under increasing pressure (London Innovation and Improvement Alliance, 2023, p. 4), so it was important to develop opportunities to collect data from participants in a way which was meaningful yet manageable in conjunction with their existing workload. We did this through informal video conference sessions where participants used a framework to guide their responses to the things they noticed on the project. Asking 'what did you notice?' became our go-to phenomenological questioning device as we were keen not to lead or alienate professionals by using academic language. The objective was to bring the participants to pause and reflect on their lived experience (Van Manen, 2014, p. 57).

Inspired by Clarke and Braun (2016) I used a thematic analysis research method, giving me maximum flexibility to fluidly explore beyond the edges of the research question led by the participants. The method required me not only to summarise the data but to identify and interpret features of the interviews and draw connections and themes from these. This qualitative approach has at its heart the human experience, being subjective in interpretation and rich in context and descriptions.

In this research, students shared their feedback through their key workers, virtual school staff and designated teachers. In future research, I plan to collect student feedback directly from the students through audio voice recordings in the Wiki, surveys and Microsoft Teams or face-to-face interviews. I would look

to plan the approach based on the preferences of the young people, so they feel comfortable and relaxed when they give their direct feedback.

Feedback from young people after their PEP meeting was extremely limited and more structured questioning and dedicated de-briefing time in a face-to-face session may have yielded richer responses, especially if this was completed on the same day of the PEP meeting when memories and experiences were fresh.

YOUNG PEOPLE TAKING PART IN THE PROJECT

Age range	Student participants in Authority 1	Student participants in Authority 2
Primary	3	2
Secondary	1	3

Table 1

Six Education professionals took an active part engaging with young people in the project. Professionals included two designated teachers and four Virtual School achievement officers. In total, I conducted two in-depth interviews.

ETHICAL CONSIDERATIONS

Prior to the research, the students gave permission for their feedback to be used in research. I shared an easy-read information sheet and consent form for them to review and sign. The children's social workers represented the role of legal parent, giving their permission for the child to take part in the research. The easy-read information sheet emphasised the right to withdraw at any point in the research. In addition, we reinforced key digital safety themes. One student declined to take part in the research without giving a reason. The use of the Rix Wiki software was freely granted by the University of East London (UEL) to the students for the duration of the academic year, with guidance provided during the training on how their work could be exported and saved as a PDF download.

Important reassurance was given that their 'work' in the Rix Wiki would not be lost or deleted at the end of the project.

ANALYSIS

Two hour-long interviews took place online using Microsoft Teams and were recorded and transcribed. The professionals kept notes and reflections that recorded the young person's engagement during the project. I have reviewed the data and identified recurring and emerging themes. The following themes emerged: choice and personalisation, accessibility, connection and performance.

DISCUSSIONS

CHOICE AND PERSONALISATION

Involving young people in person-centred planning (PCP) is crucial for fostering agency over their own educational planning. Increasing choice and personalisation of the PEP process could improve the experience of the PEP meeting (Gregory and Atkinson, 2023, p. 184). Evidence of active participation in the PEP process – children talking about making choices that reflect their personal preferences – was evidenced throughout the interviews with education professionals.

R personalised his Wiki. He asked me to write his name. I then showed it to him and he nodded. He then added a picture of his favourite cuddly toy to be his picture.

Achievement officer

Throughout the activities, many young people consistently sought to personalise their Wiki by making choices. For example, by changing the colour of their Wiki and adding images and text.

B said, 'I added my name. If I knew how to change the background I would have. I would have made a TARDIS (Time and relative dimension in space, from Dr Who).'

Achievement officer

ACCESSIBILITY AND AUTONOMY

Accessibility and autonomy was another theme that surfaced throughout the interviews. Young people, previously required to write by hand or have their words scribed onto a paper form, were now using the accessibility features in the tablet to support their own independent writing, which increased their autonomy and confidence, both crucial for achievement in education.

Feedback from the PEP yesterday was overwhelmingly positive – the children said they found it more fun and easier than completing a paper version. One of them loved the video option and made a couple of videos and the other child had a great time searching for pictures of clipart to go with their slides.

Designated teacher

Examples of the use of the word prediction feature and speech-to-text feature were described. These features are natively built into the iPad operating system and are fully compatible with the software. Such features support access and encourage autonomy, strengthen confidence and build self-belief (Stewart, 2024).

The child was coming up with ideas; he said, 'I like that I type, I can speak and type.'

Achievement officer

The Rix software supports multimodal responses (sound, writing, image, movement) where students can use audio, text, image and video. Examples of mixed media (paper drawings and digital photos) evidenced the student's mastery of multimedia and multimodal activities.

She was a really good drawer as well. So she'd actually draw a picture before she came along and then wanted to colour it in in the session. And then we took a picture of that and attached that to a wiki. And I thought that it was really good to share her own drawings there.

Achievement officer

Crucially, the young person exploited new and different ways to present their voice. This plurality of expression was a significant difference to the traditional responses of pupil voice activities in the past.

CONNECTION

A successful PEP process relies on strong relationships and reaching consensus in the best interest of the young person. The process captures the place the child is now, where they need to go and how they will get there. It is interpretive in the sense that each of the participants brings their experience and knowledge to the production space. There is not one solution, but multiple. The process is a socially-constructed experience, therefore, strong, trusting relationships should be the foundation of the PEP.

Social workers will often chair the PEP meeting, yet their work pressure, case load, staff turnover will make establishing, maintaining and developing relationships with many students across different schools difficult (Hayden, 2005, p. 347). The Wiki supported professionals to quickly reconnect their past experiences of the child through the images of the child and their life.

This research explores the adult's response to the child's voice, represented inside the Wiki. There were examples of adults responding positively to the new things that they learned about the child.

I personally didn't know about the horse riding his one-to-one (supporter) did. So he (the child) explained that on a Monday they would go together. It was part of his adapted curriculum.

Achievement officer

Building an understanding of shared experiences between each other is core to strengthening relationships. The Wiki content forms a shared experience between the young person and adults. Adults reported how enjoyable it was to learn about the children using images, videos and audio content. The 'broaden

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and build' positive psychology theory suggests that relationships build best when we are in enjoyable and comfortable situations (Fredrickson, 2001, p. 219). The experience was made more enjoyable, in part because it was mediated by the Wiki.

The adults in the PEP thought it was great and said it was a lovely way to learn all about the children and what they had been doing. They said that it was obvious that this method of completing the consultation had been more motivating for the children and so should be encouraged as a method.

Achievement officer

Combining visual and verbal cues has been evidenced to support people to process and retain memories, (Paivio, 1986, p. 129). Paivio's dual coding theory describes the lasting, powerful impact of combined verbal and non-verbal communication. It stands to reason that multimodal content in the Wiki will be easier for the professionals to recall and retain when they are next required to advocate, support and plan with the child.

PERFORMANCE AND STUDENT VOICE

The PEP meeting itself is a place where the child's responses are shared. Sometimes a child is present in this meeting, often they are represented by the words captured on the paper-based form or more frequently, the ePEP software form. According to Harker *et al.* (2004, cited in Hayden 2005, p. 346), only 42% of the young people had even heard of PEPs and the lack of involvement of young people devalued the process. Hayden notes that some head teachers would not let young children be 'subjected to a meeting', which they saw as 'arduous' (Hayden, 2005).

It makes me feel uncomfortable, people talking about me like I am not there. So this makes me feel better because people get to hear what I need to say without me feeling uncomfortable.

A young person

The PEP meeting would not normally be considered a performance space. Yet the Wiki changed the power dynamic. The students had something to share that they had created. Replacing the written form with a Wiki literally and figuratively brought colour to the meeting.

A designated teacher recounted the joyful moment as a child shared their Wiki in the PEP meeting. This was something that they were proud of and that they had created. An achievement, shared in a meeting about aspiration and celebration.

I also noticed that this was the most animated these children had ever been for sharing their consultation in a PEP meeting – they were happy and relaxed and laughed when a page came up with a funny picture or explanation – it was lovely to see!

Designated teacher

Many young people who are looked after struggle with reading and writing (DfE, 2024). Evidence for this significant academic disparity is extensively documented (Mendes and Moslehuddin, 2004, p. 334). Some young people would not want to read out their responses on the paper form, but sharing multimedia with the adults heralds a refreshing change. Students' digital confidence means they can choose to control the digital content and act as 'ringmaster' of their own PEP meeting. In this sense, the PEP meeting could be envisaged as a performance space where ownership is more equitable. The PEP meeting is all about the child. Why shouldn't they be the stars of the show! Seeing the PEP meeting as a performance space could transform the experience from adult-centred, inactive and awkward, to person-centred, active, inclusive and comfortable for everyone.

Practitioners commented on the need for space, time and an effective means to communicate student voices. Preparing for the PEP meeting, giving time to collect thoughts and ideas creates a powerful opportunity for young people

to take charge and control, by having opportunities to rehearse. For the adults in the PEP meeting, the preparation of multimodal content, on which self-advocacy is experienced, is very hard to overlook. Using a Rix Wiki may generate more meaningful experiences and connections.

CHALLENGES

A number of challenges emerged during the research activities which are of note. This included access to resources. Having access to iPads and tablets for young people to build their Wikis – and also big screens or projectors to share their Wikis in the PEP meeting – was critical to the success of the project.

While some participants found the paper-based PEP form quicker to complete than the Rix Wiki, it's crucial to acknowledge the time investment required for genuine person-centred practice. Research (Robertson *et al.*, 2005, p. 112) demonstrates that person-centred approaches demand time and resources. As practitioners, we often recognise the importance of person-centred planning, yet struggle to implement it effectively due to time constraints and resource limitations. This case study provides a valuable opportunity for critical self-reflection. Are we truly delivering person-centred practice, or are we merely labelling our work as such, while falling short of our aspirational standards?

CONCLUSION

There are new questions to explore. The purpose of this study was to understand more about the experience of the PEP process. Through the semi-structured interviews with professionals, a picture begins to emerge of the power of technology to strengthen and deepen the opportunities for – and quality of – person-centred practice. The PEP experience is changed through person-centred technology, but to what extent and to what benefit in this specific application?

AN OPPORTUNITY FOR CHANGE

The opportunity to shift the power dynamic through person-centred software is implicit within the study. This challenges the common PEP experience for some young people, sat at an adult sized table with professionals reading their words from a written form. This study shines the light on the possibility of a better PEP experience for everyone involved, through digital advocacy.

EXPERTS IN THEIR OWN LIVES

There was recurring evidence of enjoyment and fun, both in the creation and sharing of the Wiki at the PEP meeting. The interactivity and enjoyment described, making choices, personalising their Wiki and succeeding was evident across the feedback provided from the majority of young people and professionals. The experience gave them a chance to actively, enjoyably, demonstrate that they are the experts in their own lives. Transforming a bureaucratic process into something enjoyable that builds positive relationships, with the child at the very centre, is an ambition that is closer to reality than we may have initially thought.

But when we did get to the point where she could show her teachers, two teachers came along to have a look. And when she got to that point, she (the child) was actually really excited about showing it. And then she presented it, and she even went around and told her teachers her favourite part. So, she had a favourite voice recording and she wanted to go back on that and show them that. And that was really nice to see because I think, normally, when we do the children's voice, they don't get the chance to present it. They just speak to one teacher. And that's how the voice gets across. Whereas this time, she's actually able to present her voice and share bits that she liked and her favourite pictures.

Achievement officer



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Three research themes for teaching about AI in classrooms

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ABSTRACT

Artificial Intelligence (AI) technologies are part of our daily lives, so educators will need to teach about and with them. We introduce three research themes that may be helpful with this.

First, when teaching about AI and machine learning (ML), a simple learning framework has been suggested called SEAME. The framework comprises four levels: 'social and ethical', 'application', 'model' and 'engine', the levels provide a simple way to verbalise the main aim of a learning event.

Second, there is anthropomorphisation and the impact of making tight associations between human behaviour and AI tool functionality. Research is accumulating on the risks of anthropomorphisation, including students developing a naïve view of technologies, not holding AI tool developers accountable and forming relationships with AI tools that may have unintended influence.

Finally, data-driven systems – the basis for ML. These are founded on probability and prediction, rather than a guaranteed, explainable set of rules (algorithms). Students will need to understand both data-driven and rule-based systems to navigate the complex new world of technologies.

1. INTRODUCTION

Teachers in England are required to meet the Teachers' Standards set by the Department for Education, including to 'demonstrate a critical understanding of developments in the subject and curriculum areas', 'contribute to the design and provision of an engaging curriculum within the relevant subject area(s)' and 'demonstrate knowledge and understanding of how pupils learn and how this impacts on teaching' (DfE, 2011). For an established subject, teachers can draw from previous teaching activities, assessment outcomes and research on how students learn about the

KEYWORDS

ARTIFICIAL INTELLIGENCE (AI)

MACHINE LEARNING (ML)

ANTHROPOMORPHISATION

DATA-DRIVEN

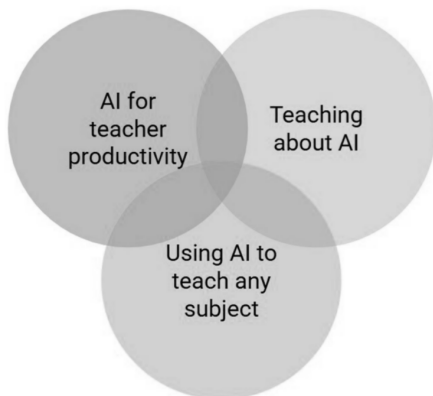
SEAME

subject to better understand what to teach and how. But how do teachers approach a new subject with concepts and teaching activities they have no experience of, and a different way of thinking that underpins the essence of the subject? How should we start to support teachers in meeting these standards concerning the subject of artificial intelligence (AI), including the technologies of generative AI (GenAI) and large language models (LLMs) and a data-driven way of thinking?

There is no doubt that AI technology

now infuses our lives (Maslej *et al.*, 2023), and awareness of this has accelerated since ChatGPT entered the consumer market in November 2022. Teachers are likely to be urged to start using AI in their practice for three purposes: using AI tools for productivity, using AI tools to teach any subject and teaching about AI (Figure 1). Anecdotally, we sense that currently, most of the focus in the education landscape is on getting teachers to use AI for productivity, such as creating lesson plans and teaching materials to ‘reduce’ workload (DfE, 2025; Miao and Cukurova, 2024; Miao and Holmes, 2023). We also see that teachers are being encouraged to use AI-augmented learning systems with students in the classroom to deliver personalised learning (DfE, 2025). Far less attention has been paid to teaching students about AI technology (Miao and Shiohira, 2024).

Figure 1: Three ways that AI technology may manifest in education



Here, we focus on this more neglected aspect, and look at what and how we might teach about AI and some aspects of the related pedagogical content knowledge (PCK) (Magnusson *et al.*, 1999; Shulman, 1986) needed by teachers. Some AI concepts have already been taught in schools, but this has been at higher levels of computer science (Cambridge International, 2018), particularly focusing on the social and ethical dimensions, facilitated through research studies (Lindner *et al.*, 2019) or through university outreach and non-formal learning experiences (Curzon and Waite, 2018). However, as a school subject, we do not have the luxury of decades of

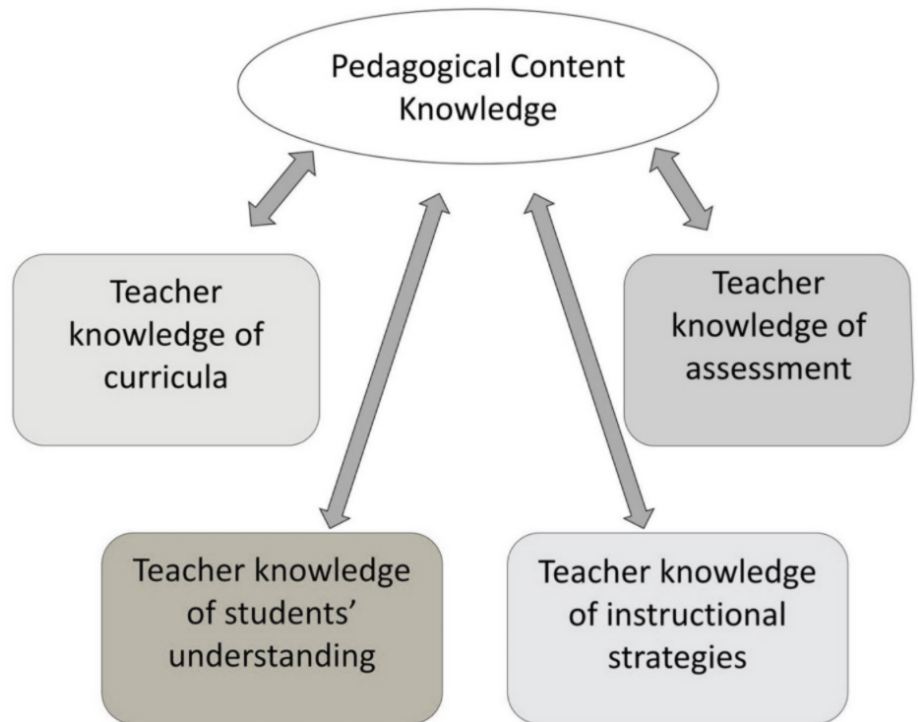


Figure 2: A generic view of the elements of pedagogical content knowledge (PCK) (simplified from the scientific view of Magnusson *et al.*, 1999)

experience, as with, for instance, maths or history. Nor can we draw from a body of common experiences of teachers having learned about AI in their own school careers. We can, however, learn from promising areas of related research that may contribute to teachers’ fledgling PCK in the topic, such as the curricula that might be taught, how students might understand the subject and what instructional approaches might be useful. We hope that this introduction to a small set of research themes correlated to PCK will provide a useful starting point for teachers to consider as they start to build their foundational understanding of this exciting but complex topic.

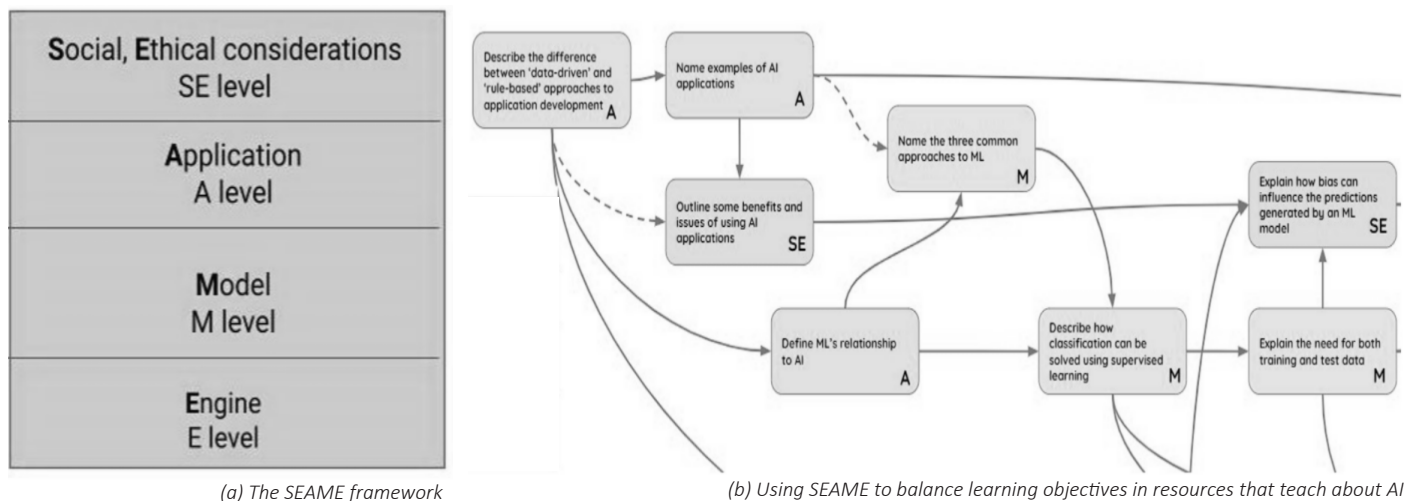
We introduce three underpinning research themes as our starting point: 1) SEAME (a simple framework for helping us think about the body of knowledge for teaching about AI), 2) avoiding anthropomorphisation and 3) the key concept of data-driven problem-solving. These research themes have been used to inform computer science education research (Rizvi *et al.*, 2023; Waite *et al.*, 2022; 2024; Whyte *et al.*, 2024) and in education resource development, they

have been included in the key design principles of the *Experience AI* lesson materials (Raspberry Pi Foundation, co-developed with Google DeepMind, 2023). These resources are used to teach about AI and AI literacy to 11 to 14-year-olds and are used in England and internationally.

To situate the research themes, we use pedagogical content knowledge (PCK). PCK is a cornerstone of a teacher’s professional knowledge of any subject, suggesting that teachers use an overlapping combination of different types of knowledge to plan and deliver effective educational experiences for a particular subject area (Magnusson *et al.*, 1999; Shulman, 1986). Magnusson *et al.* (1999), in science teaching, provide a popular view of PCK with a set of four elements (Figure 2), which we use as a framing theory.

2. SEAME FRAMEWORK

Figure 3: The SEAME framework (Waite et al., 2023) and an example of its classroom resource use (Raspberry Pi Foundation, co-developed with Google DeepMind, 2023)



We introduce SEAME as a useful framework, mainly to support teachers' PCK element of knowledge of curricula. SEAME can help teachers group related concepts using the levels, design balanced sets of activities and review and evaluate potential teaching materials to check the coverage of all levels of AI knowledge. Being able to review and evaluate teaching materials is likely an important first step for teachers as they embark on teaching about AI. There is a plethora of resources that teachers can find to teach about AI, often badged as 'AI literacy'. Still, early indications are that this material is often aimed at any age group, lacks learning objectives and pays no attention to assessment and progression (Waite et al., 2023). To help teachers start to review these resources, a simple framework, SEAME, has been created. The framework was developed when professional development (PD) was designed to teach about AI in 2018. During PD design, it became evident that some activities were very technical, explaining how the AI technology worked, and at other times, activities were targeted more at the social implications of AI. Therefore, a mechanism was needed to distinguish between these different dimensions so that teachers could better understand the topic (Waite and Curzon, 2018). The framework provides a way to group learning objectives, concepts and

lesson activities and to see the pattern of these over time. The framework has been used in research to review teaching resources (Rizvi et al., 2023; Waite et al., 2023) and categorise students' emerging conceptions of AI (Whyte et al., 2024). Resource development teams have also used SEAME to help them review schemes of work and sets of learning objectives to balance the more human-centred learning objectives against the more technical aspects of AI systems (Figure 3b). Teachers may find the framework useful to help them narrow the complexity of the subject, as they can focus on one level at a time or track how a concept changes across the levels. However, more research is needed to discover the best way to use the framework.

The framework has four levels: 'social and ethical', 'application', 'model', and 'engine' (Figure 3a). A social and ethical learning objective would be for students to 'know about the idea of bias in AI systems and say how this impacts their lives'. An application-level objective would be to 'identify everyday examples of AI technology'. For a model-level objective, students 'can train a simple classification model', and for an engine-level, students 'can explain in simple terms how a neural network works'. The SEAME levels do not dictate the learning order. Rather, the levels provide a common language

for teachers, researchers and resource developers to categorise teaching and learning. Using SEAME, we can see that learning activities often span more than one level. It is also expected that learners will become more able to move between levels as they progress.

Some concepts, such as bias, are likely to be taught at all levels of the SEAME framework. For example, in facial recognition systems, there has been an issue with the output being less accurate in correctly identifying people with non-white skin types, a clear bias (Leslie, 2020). This issue is well-known and can be examined from a social and ethical standpoint, perhaps through class discussion. Students may have personal or family experiences with such facial recognition systems and may be able to consider the effect of this technology on different communities and society more widely. At the application level, students could research which systems use this technology, such as smartphone unlocking, being tagged on social media, automated passport checks and CCTV systems checking for individuals on watchlists for sporting and music events. By training a simple emotion detector, students could also explore the data aspects of how facial recognition works (at the model level). There is an increasing number of tools that can be used for

such activities – for example, *Machine Learning for Kids* (Lane, 2017), Google’s *Teachable Machine* (Google, 2019) and *GenAI Teachable Machine* (Generation AI, 2024) (a version that automatically generates an app). At the engine level, older students could read about the complex technical details of facial recognition systems and, as a class, review explanations and produce simplified posters of the technology, linking back to social and ethical issues. The Alan Turing Institute’s ‘Understanding bias in facial recognition technologies: An explainer’ (Leslie, 2020) is a good starting point for such an activity.

3. AVOIDING ANTHROPOMORPHISATION

The second research theme, avoiding anthropomorphisation, will likely help teachers develop their PCK of teacher knowledge of instructional strategies and student understanding. Even at this early stage of teaching about AI, there is an indication that teachers recognise the potential impact of anthropomorphisation on their students. In a 2024 survey of 1508 literacy teachers from UK primary and secondary schools, 83.5% reported that the human-like responses of GenAI may tempt more students to use it (Picton and Clark, 2024). This human-like output from LLMs and GenAI tools is anthropomorphic. A dictionary definition of anthropomorphising is ‘to show or treat an animal, god or object as if it is human in appearance, character or behaviour’ (Cambridge University Press, 2025).

Anthropomorphisation is akin to using a metaphor, as some aspects of AI systems ‘appear’ human-like. Metaphors can be

used as an instructional approach. In science education, the effectiveness of metaphors for teaching fundamental ideas has been called into question without a clear conclusion; rather, there is evidence for and against (Tang and Hammer, 2024). Yet, at the start of learning about the topic of AI, where a student’s understanding of the domain is poor, filling in the gaps with the metaphor is likely (Tang and Hammer, 2024). The metaphor may, initially, help create a causal story to simplify the complex technology (Tang and Hammer, 2024). However, the long-term impact of perpetuating a metaphor may be undesirable, as there are risks that metaphors can lead to misconceptions through fragmented knowledge and assumptions (diSessa, 2014; Tang and Hammer, 2024). Often, a metaphor will ‘run out of steam’ and students make incorrect assumptions. Therefore, in designing learning activities, teachers might consider how they use the AI anthropomorphic metaphor as an instructional approach but, perhaps, with particular care for some students.

One risk is that if students develop a mental model based on a metaphor, they may choose not to look beyond this initial view (Tang and Hammer, 2024) and ‘get stuck’ with the metaphor. This may be more problematic for some students than others. There is increasing evidence that some groups of people are more inclined to be attracted to using AI tools due to their anthropomorphic nature than others (Alabed *et al.*, 2022). These groups could be seen as some of our most vulnerable students, who, perhaps, most need to raise their critical understanding of AI tools. For example,

the anthropomorphisation of chatbots is generally expected to encourage people to use such systems, with increased attraction being found in certain groups, such as those at risk of social exclusion, with a need to belong, with interest in innovation, and extraverts (Alabed *et al.*, 2022). However, AI technology anthropomorphisation may lead to incorrect mental models of how AI works, as the technology is humanised, black-boxed and oversimplified (Druga *et al.*, 2017; Tanaka *et al.*, 2007; Tedre *et al.*, 2021; Turkle, 2005). For instance, young children have been found to view robots as peers rather than devices, overestimating technology capabilities or seeing them as less smart ‘people’ (Druga and Ko, 2021; Williams *et al.*, 2019). A further impact of attributing human-like characteristics to AI products is that students have been found to delegate the responsibility of the output to the AI agent rather than to the human system owner or developer or the tool user (Salles *et al.*, 2020). Perhaps, though, the most concerning aspect is that of relationship-forming. Using tools that appear to be human-like can result in relationship-forming, which can lead to serious risks of unintended influence or purposeful manipulation (Vollmer *et al.*, 2018; Williams *et al.*, 2022; 2018). A recent high-profile incident of a family claiming a young person was influenced to commit suicide by an AI chatbot with which the young person formed a close emotional relationship (Montgomery, 2024) may be an indication of significant issues ahead.

How anthropomorphised AI agents are portrayed to the end user is also important. For example, AI agents have been predominantly ‘portrayed’ as female, baking in female objectification and exacerbating gender power imbalances (Borau, 2024). The list of reasons to avoid anthropomorphisation of AI systems, or at least to teach about this aspect of AI technology, grows daily as new data-driven products are introduced and more widely adopted by younger and more diverse sets of consumers.

Avoid	Instead
Using phrases such as ‘AI learns’ or ‘AI/ML does’	Use phrases such as ‘AI applications are designed to’ or ‘AI developers build applications that...’
Words that are used to describe the behaviour of people (‘seen’, ‘look’, ‘recognise’, ‘create’, ‘make’)	Use system type words (‘detect’, ‘input’, ‘pattern match’, ‘generate’, ‘produce’)

Figure 4: An example of guidance that can be used to support the design of AI literacy resources to avoid anthropomorphised language (as used in the Experience AI resources (Raspberry Pi Foundation, co-developed with Google DeepMind, 2023))

4. DATA-DRIVEN RATHER THAN RULE-BASED PROBLEM SOLVING

Move 1:
Place an X in a corner.

Move 2:
IF the other player did not place an O in the opposite corner,
THEN place an X in the opposite corner to move 1.
ELSE place an X in a free corner.

Move 3:
IF there are 2 Xs and a space in a line,
THEN place an X in the free space on that line.
ELSE IF there are 2 Os and a space in a line,
THEN place an X in that space.
ELSE place an X in a free corner.

Move 4:
IF there are 2 Xs and a space in a line,
THEN place an X in the free space on that line.
ELSE IF there are 2 Os and a space in a line,
THEN place an X in that space.
ELSE place an X in a free corner.

RULE BASED

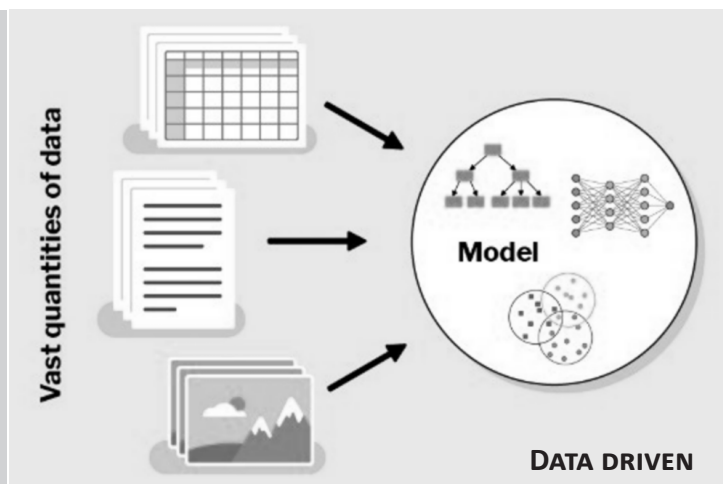


Figure 5: An example of how the concept of data-driven problem-solving can be explained to students (as used in the Experience AI resources (Raspberry Pi Foundation, co-developed with Google DeepMind, 2023))

The third research theme introduced here is so fundamental that it is likely that it will influence knowledge of curricula, of student understanding and of instructional strategies. The fundamental new concept is data-driven problem-solving *versus* rule-based problem-solving.

Rule-based problem solving is where a problem is broken down into steps. A set of steps to solve a problem is called an algorithm, and students can implement simple algorithms on a computer as a program. Children from the age of 5 in England have been required, since 2014, to ‘understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions’ (DfE, 2013). Learning activities to meet these standards include young children programming simple toys to navigate a route, such as drawing a shape¹. Other activities include creating a set of instructions to do a task, such as making a jam sandwich, where the instructions are not implemented as a computer program; rather, they are followed by people, helping students to learn about the need for rule-based systems to be precise.

Data-driven systems do not work like rule-based systems; uncertainty, probability,

inherent bias and a lack of explainability are associated with data-driven systems, compared with certainty, following rules and the explainability of rule-based systems. ‘Data-driven’ can be used as an umbrella term to cover both generative AI and machine learning systems as it neatly describes systems trained on data (Tedre *et al.*, 2021) and conveniently, has no anthropomorphic association. Data-driven systems include those trained on vast amounts of data, such as ChatGPT, recommender systems for music and TV products and facial recognition systems.

Teaching students about this term, data-driven, and using it in teaching and learning, could alleviate the negative issues associated with the human-like metaphor of the AI topic and reinforce the key underpinning difference between this type of problem solving (data-driven) and that of more traditional approaches (rule-based). Simply put, generative AI and machine learning systems are data-driven technologies that process vast quantities of data to create a model that can then be used to output new content or predictions.

From a PCK view of students’ understanding, whether we should teach rule-based problem-solving first to students or data-driven first, or both

at the same time, there is no research evidence yet to help practitioners decide. In England, as a rule-based approach is already being taught in schools through our introduction of algorithms in computing lessons from the age of 5, it is likely that for current K-12 students, data-driven will be taught second. However, as research is done to investigate the order in which these fundamental concepts are taught, this ‘rule-based first’ assumption could change.

It is still too early to tell which instructional strategies may be useful for teaching a data-driven approach to problem-solving. Similar approaches may be used to teach other subjects, such as data handling in maths, which may be reusable, but research is needed. Even if students do not take computer science at a higher level, it is likely that when being taught basic AI literacy, they will need to appreciate the societal and personal risks and benefits of data-driven systems compared to rule-based systems. Therefore, we expect that students will need to be able to distinguish between the two approaches to problem-solving, consider which approach has been used to build any application they might be using and be able to form two distinct mental models about how systems work.

1. <https://www.barefootcomputing.org/resources/bee-bots-1-2-3-programming>

In one set of resources teaching AI literacy, differences are taught about rule-based and data-driven problem-solving by comparing a set of rules (an algorithm) for winning at noughts and crosses, which students could implement using a programming language such as Scratch or Python (Figure 5, left) to using vast quantities of data (Figure 5, right) to create data-driven models, such as neural networks, to play such a game.

We suggest that the concept of data-driven problem-solving is essential to help teachers and students understand the fundamental differences between how probabilistic generative AI and machine learning systems work compared to the predictable, rule-based systems they have become accustomed to working with and using.

5. CONCLUSION

In summary, teachers must acquire new pedagogical content knowledge (PCK) to teach about AI in their classrooms. This knowledge is needed now, as related data-driven technology is becoming increasingly common in students' lives. Such technology is being embedded in common tools such as word processors, image editors and search engines and specific products, such as recommender functionality in streaming applications. However, there is limited research, particularly in school contexts, about what PCK educators need to be able to teach about this technology.

We have presented three emerging research themes that will likely become important to educators developing their PCK for teaching and learning about AI.

First, SEAME is a simple framework that helps to categorise AI learning activities. We suggest that SEAME will support teachers in evaluating and shaping learning progression, drawing attention to the balance of the 'social and ethical', 'application', 'model' and 'engine'-level learning for any group of students.

Second, we outlined anthropomorphisation and the need to avoid this as we teach about AI technology. We suggest images of smiling AI robots should be replaced with technical diagrams, and phrases such as 'the AI thinks' should be replaced with terms such as 'AI systems process'. Such changes, we suggest, will help stop students from getting 'stuck' with the metaphor, where they do not look to develop an accurate understanding of how the technology works. Growing evidence of unintended and purposeful manipulation of individuals through AI systems, particularly the more vulnerable of society, warns us that we must help our students understand this technology. AI systems are not human, they are not magic and there are risks and benefits to their use.

Finally, we introduced the fundamental concept of data-driven problem solving and how this differs from the current rule-based approach used in schools to teach how computer systems work. Rule-based systems can be explained; the output is always the same for a set of inputs and there is certainty. Data-driven systems are derived from the probabilistic processing of vast amounts of training data (with inherent biases). Data-driven systems will, by design, produce differing outputs each time they are used for a set of inputs (and if the data used to train was biased, the output will be, too). Uncertainty has been introduced. When talking in class about AI technology, we recommend using the term 'data-driven', and drawing attention to the role of data in AI systems and the bias in data. Such language changes could help students see why a 'human in the loop' is essential to evaluate and check data-driven system output.

In introducing these three research themes, we have suggested how these themes may play out in terms of PCK. But whether this will be the case, only time will tell. Still, in the first instance, teachers can become aware of these themes and start considering how they might impact their

practice in their classroom. Teachers can look for such themes in any professional development they are offered and in any resources they may encounter to teach about the subject. We hope that, with increased PCK, teachers will be in a better position to start to equip their pupils with the competencies they need to keep safe and to get the best out of this new data-driven world. ■

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Our life story:

Life story work with people with learning disabilities

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ABSTRACT

United Response, a charity that offers a range of services to people with learning disabilities, is, at the time of writing, twelve months into delivering a two-year oral history project generously funded by the National Lottery Heritage Fund. The project, 'Our Life Stories' was co-developed in a series of workshops with people supported by the charity. Insights from these sessions informed the final project outline, which seeks to record and share the life stories of fifty people with learning disabilities. Once complete, the collection will be archived and become part of the national collection at the British Library. This peer-to-peer initiative foregrounds co-production and inclusivity, enabling people with learning disabilities to actively participate in documenting their own histories and those of their peers. This review situates the project within the broader historiography of learning disabilities. It explores the process of selecting and training peer

interviewers and sharing insights into the benefits of this approach, as well as the challenges encountered along the way.

HISTORIOGRAPHICAL CONTEXT

The historiography of people with learning disabilities has been dominated by narratives framed through the perspectives of institutions, caregivers and professionals, rather than by individuals themselves (Atkinson and Walmsley, 1999; Atkinson, 2004). This has led to a pervasive 'silencing' of personal voices, leaving significant gaps in historical understanding. Oral history methodologies, particularly when tailored to the needs of marginalised groups, offer a powerful tool for addressing these omissions by capturing first-person accounts that highlight resilience, agency and lived experiences (Portelli, 1997).

KEYWORDS

LIFE STORY

ORAL HISTORY

LEARNING DISABILITIES

HISTORIOGRAPHY

EMERGENCE OF ORAL HISTORY AND LIFE STORY WORK

Projects such as 'Our Life Stories' (OLS) build on a growing body of scholarship advocating for inclusive and person-centred approaches to history. Scholars such as Walmsley and Johnson (2003) have argued for co-productive methodologies that place people with learning disabilities at the centre of research processes, challenging traditional power dynamics in historical production. These approaches align with the social model of disability, emphasising structural barriers rather than individual impairments as sources of exclusion (Goodley, 2001). Ledger *et*

al. (2021) propose that life stories have a part to play in ensuring that people emerge as individuals beyond the label. As co-author Ian Davies, says:

Telling our stories helps other people to understand us. You can't just read academic journals to learn about people with learning disabilities. You need to find out about people's lives, in their own words.

(Ledger *et al.*, 2021)

PEER INTERVIEWING

The project adopted a strategy of peer interviewing, in keeping with the principles of inclusive research, which requires the active participation of people with learning disabilities in the research team (Walmsley and Johnson, 2003). There were several reasons for this decision. Peer research and co-production are strategic priorities for grant-funded projects at United Response. This was an opportunity for people supported by the charity to build skills and status, and at the same time, earn money. Furthermore, there are indications in the wider literature that peer interviewing has distinct benefits in the learning disability field. Dias *et al.* (2012) describe a project where researchers with a learning disability interviewed others about their experiences in the Second World War. They noted that the peer interviewer was able to put interviewees at their ease by deviating from formal interview protocol to share his own experiences. Butler *et al.* (2012), similarly, noted that deploying learning-disabled survivors of cancer as focus group leaders in a project to inform people with learning disabilities about cancer encouraged participants to share their own stories, which would have been hard to achieve with formally trained professional interviewers. Alan Armstrong, in a paper written shortly before his untimely death in 2021, argued that people like him – activist researchers – know how to frame questions in ways that people with learning disabilities will understand (Armstrong *et al.*, 2022).

By training people with learning disabilities to conduct interviews and co-curate the project's outputs, the project ensures that the historical narratives it generates are shaped by the voices and perspectives of those most affected. Further, the peer-to-peer model ensures that narratives are framed through the perspective of the interviewer and interviewee and reduces the risk of project outputs being shaped by organisational priorities.

THE PROJECT ADDRESSES SEVERAL PERSISTENT GAPS IN THE UNDERSTANDING OF LEARNING DISABILITY HISTORY

Many existing accounts of people with learning disabilities are regionally focused and rely on small sample groups (for example, Keilty and Woodley, 2013 and Hidden Lives Remembered, 2019). This project aims to document fifty life stories from individuals across United Response's services in England. Further, additional interviews will be conducted as a selection process will determine which recordings will ultimately be archived in the British Library. Those interviews not archived will offer valuable potential research outputs.

The project's scale offers an opportunity to capture diverse perspectives, including intersections with gender, ethnicity, class and age. United Response has provided support for people with learning disabilities for over fifty years. A small proportion of the client group have lived experience of the institutional era and transitioning into community care while others recently transitioned from children's services. This intersectional lens has been missing in both oral history and life story work in this area, yet it is vital for a nuanced understanding of lived experiences.

Historians such as Atkinson and Walmsley (2010) have observed that much of the existing scholarship centres on institutional settings or policy history. In contrast, peer-to-peer oral history

highlights everyday lives, relationships and achievements, thereby broadening the scope of learning disability historiography. At the time of writing, this is bearing out with recorded interviews making significant contributions to filling this gap.

Co-producing oral histories using a peer-to-peer approach has rarely been studied as a process in its own right. The OLS project has already provided valuable understanding of the dynamics of the peer-to-peer approach, highlighting how shared experience can shape the interview process and enhance the authenticity of narratives. The project has the potential to contribute to the development of best practices for oral history and life story work with people with learning disabilities. Participants are active researchers and members of the steering group. The project embodies principles of co-production, ensuring that those supported by the charity are not only the subjects of historical narratives but also their authors. This practice challenges traditional hierarchies and aligns with ethical and inclusive research approaches (Tilley *et al.*, 2017).

The project will serve as a model for making oral history methodologies accessible by incorporating adaptations such as easy-read materials, consent forms, visual aids and tailored training programmes, all co-produced with project participants to meet their needs. This approach demonstrates how complex research processes can be made inclusive.

Ethical considerations, including informed consent, safeguarding and the emotional impact of recounting personal experiences, are particularly significant in this context, and the OLS project is contributing to best practices by documenting how these challenges are addressed in practice using the co-produced approach. For example, project participants are involved in the sensitivity review of interviews. Furthermore, training people with learning disabilities to conduct oral histories ensures the skills

developed have a lasting impact, offering a capacity-building approach that can inspire other social care and education providers to embed inclusion in heritage projects and beyond.

FINDING PEER INTERVIEWERS

Senior United Response service managers with experience in delivering grant-funded projects volunteered to coordinate teams of peer interviewees. In London, manager, Matthew Campbell invited seven individuals supported by the charity to come forward and train as interviewers, encouraging those with potential to develop interviewing skills to participate. In York, Simon Copper led a well-established group of ten participants, dedicating one day per week to the project. The two hubs – London and York – serve distinct purposes: the London hub operates as a community day service, while York functions as part of United Response’s educational offering.

The selection process was designed to be fair and inclusive, providing opportunities for anyone interested while recognising that some individuals might particularly enjoy the role. In practice, two of the seven people trained in London continued as interviewers, whereas in York, all but one of the team members have remained actively involved in the role.

TRAINING

Jan Walmsley led and delivered training sessions for the project, with the first sessions held in York and London over two days for each group in January 2024. The training focused on the following intended learning outcomes:

- Understanding the importance of life stories.
- Gaining knowledge about major events that have shaped the lives of people with learning disabilities and their families.
- Learning the dos and don'ts of interviews.

- Understanding the importance of obtaining consent before conducting interviews.
- Building confidence to conduct a practice interview.

Following the initial training, participants had four weeks to practise their skills by recording an interview supported by the project leads, Matthew and Simon. A follow-up session in February included role-playing challenging interview scenarios and reviewing practice interviews. These sessions fostered lively discussions and constructive feedback, covering topics such as refining the bank of questions guiding interviews, respecting boundaries and encouraging participants to share their stories, even on sensitive or painful subjects.

The training culminated in the creation of the co-produced OLS project booklet, which features a structured bank of questions organised by life stages – such as family life and childhood – and offers guidance on using both open and closed questions effectively as well as technical guides for the project leads, project documentation including easy-read consent forms, interviewee biography templates and an introduction to the project for potential interviewees, support staff and families.

The training highlighted the challenges involved in becoming an oral history interviewer. Some participants had prior experience conducting staff interviews – a structured process where questions are pre-determined and asked in a set order. In contrast, life story interviews, particularly within a peer-to-peer model, require a more nuanced approach, balancing the need to follow the interviewee’s lead while ensuring that key questions are addressed, all while practising active listening and demonstrating empathy.

Another challenge was the emotional impact of learning about the recent history of learning disabilities. Many participants were largely unaware of the appalling treatment endured by people

with learning disabilities over time and the relatively recent legislative advancements that protect the rights of people with learning disabilities and promote a more inclusive society.

Resistance from support staff posed a further challenge, particularly around discussion of topics such as relationships, sexuality, consent, marriage, drugs and alcohol. While these topics were considered during the development of the question bank, staff often displayed a protective stance, which reflected a broader tendency among interviewees to avoid such subjects during interviews. However, rapport-building sessions between interviewees and interviewers often helped create a sense of trust, encouraging individuals to share and explore topics they felt comfortable discussing.

The London group experienced the highest dropout rate, with the initial cohort of seven reducing to just two. Some participants found the project more demanding than anticipated, leading to immediate departures after the training period. Further, the pace of interviewing – averaging two per month – may have been too slow to sustain engagement. Personal circumstances also played a role, with one participant stepping back after finding a girlfriend and choosing to prioritise the relationship.

Despite the dropouts, having only two interviewers allowed for a more person-centred approach to feedback, enabling the remaining interviewers to refine their techniques. The results have been rewarding. A smaller team has yielded more confident, professional interviews and greater coverage of United Response’s services. Notably, participants who stepped back from interviewing will be offered exhibition curation training in 2025, ensuring their continued contribution to the project.

The York group adopted a more structured approach, dedicating weekly sessions to practising interviews,

both individually and in groups. This consistency has led to minimal dropout, with only one participant stepping away from interviewing – though they, too, will contribute to exhibition curation. Each member of the group has completed at least two interviews, and at the time of writing, the team is preparing to expand their efforts by conducting interviews in locations further afield.

LEARNING ON THE JOB

It would be optimistic to suggest that the peer interviewers were ready to go from the start. A degree of trial and error is inevitable in such an ambitious and complex project.

Each interviewer is supported by a member of the project team. This person's role is to make practical arrangements, undertake the pre-meeting with the interviewee and his or her support, escort the interviewer to the location and, most important, help them do a good interview.

The supporters have experimented with different ways to support during interviews. Simon reports that he has experimented with using an Ipad to share prompts and ideas during the interview; using hand gestures while standing behind the interviewee to indicate 'ask more', or 'steer away from this topic'; and, with Michelle, who struggles with memory and the written word, helping her complete the questions.

Matthew, whose two London-based interviewers are fluent readers, uses written notes to suggest questions and when it might be a good idea to have a break. The breaks are used to suggest how the interview might move forward.

To illustrate the process the interviewers went through in developing their skills, the paper focuses on Donna from London and Dan and Will from York.

DONNA

Donna embraced the opportunity to become a peer interviewer with

tremendous enthusiasm. Following the initial training, she wrote an article reflecting on her experience and the insights she gained from the training and learning about the historical discrimination faced by people like her.

It has been quite eye-opening for me as I have learned that we were not treated equally in the past.

Donna

In the first few months of live interviews, Donna attended the pre-meetings with potential interviewees to build rapport. However, this approach confused her and impacted subsequent interviews. In one example, an interviewee mentioned they did not wish to discuss their family, Donna became nervous during subsequent interviews, fearing she might inadvertently make a mistake and broach the topic. This issue was discussed in a steering group meeting and the decision was taken that the project lead would take over pre-meetings to better support Donna in her role.

Donna's practice interview with Alex, a fellow peer interviewer, highlighted both her strengths and the challenges of peer interviewing. When Alex shared his need for a comfort blanket as a child, Donna demonstrated empathy and listening skills by sharing her own experience with her Care Bears. However, when exploring his childhood, Donna introduced her own perspective with the comment, 'You had a happy childhood,' prompting Alex to correct her about his experiences with deafness and time spent in an incubator. Despite Donna interrupting Alex, he insisted on telling his story and their discussion of school experiences revealed a shared understanding, particularly regarding teaching and bullying. However, Donna sometimes allowed her own experiences to dominate the conversation.

The practice interview proved invaluable as a learning opportunity. It highlighted Donna's ability to connect through shared experiences but underscored the need

to maintain a focus on the interviewee's story rather than her own.

Donna's subsequent interviews show growth, supported by monthly feedback loops via the steering group and through direct support from the operational lead, Matthew Campbell. In her interview with William, she demonstrated active listening by responding briefly and appropriately while occasionally contributing to the discussion, such as when they shared experiences of living with disabilities.

Donna's journey is still ongoing and illustrates both the strengths of peer interviewing and the complexities involved. Her progress reflects the value of practice, feedback and adaptation in mastering this unique and challenging role.

DAN AND WILL

Dan and Will are members of the York group of peer interviewers. Over the first nine months of the project, the group focused on refining their techniques and building confidence by conducting interviews with one another in various pairings. Dan, who faces challenges with new environments and meeting new people, initially struggled. He left the group training in January, finding some of the issues raised too painful and the group setting overwhelming. However, with encouragement and support from Will, Dan returned to the training.

Weekly sessions played a pivotal role in Dan's development. Observing his peers grow, and learning from conducting and listening back to interviews, helped him refine his approach. This process was reinforced by monthly steering group meetings, where each interview was reviewed, discussed and supported with detailed written feedback.

When it came time for Dan to be interviewed, he chose Will as his interviewer. Their interview demonstrates the strength of the peer-to-peer approach. As young men of a similar age, both with personal experience of education for neurodivergent individuals in York, they

built a strong rapport. This connection allowed Will to navigate sensitive topics with care and empathy. Afterwards, Will described feeling emotionally drained, having held the weight of the trauma and emotion in Dan's story.

Reflecting on his experience, Dan said:

'I've enjoyed listening to other people and learning. I'm looking forward to interviewing more people.'

Simon, the project lead for York, noted Dan's remarkable growth over the past year:

The York team has higher support needs compared to other groups, which has meant taking more time to refine their interviewing skills.

The group has worked diligently within the parameters set by the British Library to ensure their contributions meet the standards for inclusion in the national collection. We're excited to share updates on Dan and the rest of the team's progress in the coming year.

A NOTE ON THE PRACTICALITIES AND LESSONS LEARNED SO FAR

Organising a nationwide peer-to-peer interview project requires significant preparation, coordination and budget. Organisational knowledge and buy-in have been essential. The original list of 100 potential interviewees supported by the charity was revised and updated to include new candidates. Changes in services and, sadly, the passing of some who had registered interest also influenced the process.

Importantly, interview participants must have the capacity to provide informed consent. Several preparatory meetings are held before face-to-face interviews, sometimes with the interviewers. These sessions are critical for securing the support of operational staff and family members, obtaining fully informed consent and building rapport between the interview team and interviewee.

These sessions also utilise a participant biography template to gather background information, identify topics the interviewee prefers to avoid and ensure the interviewer is thoroughly prepared.

Coordinating interviews involves aligning numerous factors: matching the right project support with the interviewee, assigning an ideal interviewer with appropriate support from operational leads, selecting the best location and organising travel and accommodation. These complex logistics are managed by the project manager to ensure smooth execution. Following up with interviewees and those involved is vital. This includes thanking interviewees for their participation and keeping them updated on the project's progress and next steps.

Monthly reporting and steering group meetings ensure the project remains in reach of delivering fifty high-standard life stories to the British Library, research outputs and exhibition content for the public phase. In any one month, the project team may be travelling to different areas, conducting interviews and/or meeting with prospective interviewees virtually to build rapport.

Despite the most meticulous preparation, sometimes things do not work out as planned. Alex was lined up to interview Andrew, whose speech is indistinct. Plans were in place for a support worker who knows Andrew well to be present to support him and, if necessary, interpret what he was saying. Unfortunately, the support worker was called away at the last minute due to staff shortages elsewhere. The replacement could not interpret Andrew's speech and the recording is unusable. In another example, interviews were scheduled months in advance with the team travelling across several counties, necessitating overnight stays. However, on the day, the team conducted only one of the two scheduled interviews due to the support staff having taken emergency leave and the interviewee not wishing to be interviewed without their preferred support.

CONCLUSION

The OLS project raises important questions about the best way to support people with learning disabilities to become oral and life story interviewers. As the project moves forward, we learn more about the ways people can achieve way beyond what is usually expected of them.

It is informed by existing historiography and positioned to influence future scholarship and practice. By capturing previously undocumented experiences and at scale, the project will enrich the archive of learning disability oral histories and provide new material for researchers and policymakers. The peer-to-peer model can serve as a blueprint for other projects, demonstrating how inclusion and co-production can be embedded into every stage of research and delivery. The project's findings can inform both academic discourse and practical applications, such as training for social care professionals and advocacy for more inclusive policy frameworks.

The OLS project represents a vital contribution to the historiography of people with learning disabilities. By adopting a peer-to-peer methodology and emphasising co-production, the project not only addresses historical silences but also sets a benchmark for inclusive research and heritage practices. Its outputs have the potential to fill significant gaps in understanding, challenge stigma and influence future approaches to oral history and life story work. ■

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‘The best technology is a human’:

Some lived experiences from a researcher, educator and parent

ABSTRACT

For many years there has been huge investment in information communication technologies within schools and community settings, whilst expectations of their value have been high. However, it has also been evident for a long time that there has been a lack of return on this investment. In this article, Jonathan Rix talks about the challenges he has experienced in using these technologies in three different contexts. As a teacher working with blended learning, as a researcher working with groups of disabled people and as a parent seeking to support his son’s learning and participation in social spaces. He concludes with some of the lessons he has learned.

INTRODUCTION

In this paper, I want to consider the challenges and frustrations that arise from our use of emerging technologies. Why is it that these technologies offer so much to teaching and research, but their promise is so often unfulfilled?

AN ACADEMIC’S VIEW

Most people love technology. From the wheel to the pencil to the mobile phone, technology grabs our attention and by using it, we come up with new ways of doing things. Since the 1970s, a lot of effort has been put into using information communication technology within schools, with online and mobile hardware and software more recently coming to the fore. A great deal of time, effort and money has been put into these technologies with the support of policy makers at global, national and local levels. However, we have also known for a long time that this investment has not been bringing the anticipated returns (Twining, 2008). What seems to be clear is that there has been a:

lack of consistent vision for what might constitute success, poor match between needs and provision; exclusion of significant voices from decision making; potential misalignment among government policy statements, institutional cultures and individual professional responsibility and failure to successfully harmonise

context, policy, practice and research.

(Twining, *et al.*, 2011)

There is, clearly, still a digital divide for disabled learners (Seale, 2020), many other people have limited access to the technology and there is an ongoing lack of expertise amongst teachers (Onesmus, 2020). At the time of writing, headlines are talking about banning mobile phones and calling for a move away from screen use but, as it is, schools’ use of technologies does not align with what people use at home and children feel that their digital knowledge is only relevant when doing homework (out of school) (Twining *et al.*, 2017).

Teachers seem to be constrained by the everyday operation of their schools; they are struggling to access the knowledge they need to use emerging technologies and they say they lack the support and time to develop their ideas (Wilson and McKinney, 2012). Even when teachers do get such training and support, their confidence remains a challenge, as does finding meaningful ways to apply what they

have learned in the classroom context (Cornelius and Shanks, 2017). It seems likely that they struggle to work in new ways because they are restricted by the 'traditional grammars' of schooling: those regular structures and rules that have organised the work of instruction, such as single teachers, subjects, classes, lessons, age-grades and testing (Tyack and Tobin, 1994). I came across a perfect example of how these traditional grammars constrain practices when talking to the daughter of a friend in Norway. She was doing her mathematics homework on a tablet that she had been given by the school... except she wasn't. What actually happened was that she used the tablet to find the questions online, then wrote the answer in her pen and paper maths book, and then used the tablet again to take a photo of the work and upload it onto the school system for the teacher to mark.

A TEACHER'S VIEW

One of the possible reasons for our failure to take advantage of these technologies arises from a mismatch between our hopes and the reality of what is on offer. As an academic working to produce online teaching materials, I frequently came into contact with technology developers. These were usually very lovely people, but I soon realised that I could not really trust their dreams of what some piece of technology would deliver. They would, for instance, map out this fantastic interactive online space, where students could engage in a whole range of synchronous and asynchronous activity. We would have a number of meetings and as a result, my colleagues and I would go away and design a series of activities and resources to be used in this new, exciting space. Almost invariably, we were soon disappointed, though. It could be for any number of reasons. A common problem was that the software did not work as expected or only worked for some users with particular types of equipment. But more commonly, the institution funding the development of the space stopped funding its development, or the people we were working with moved onto

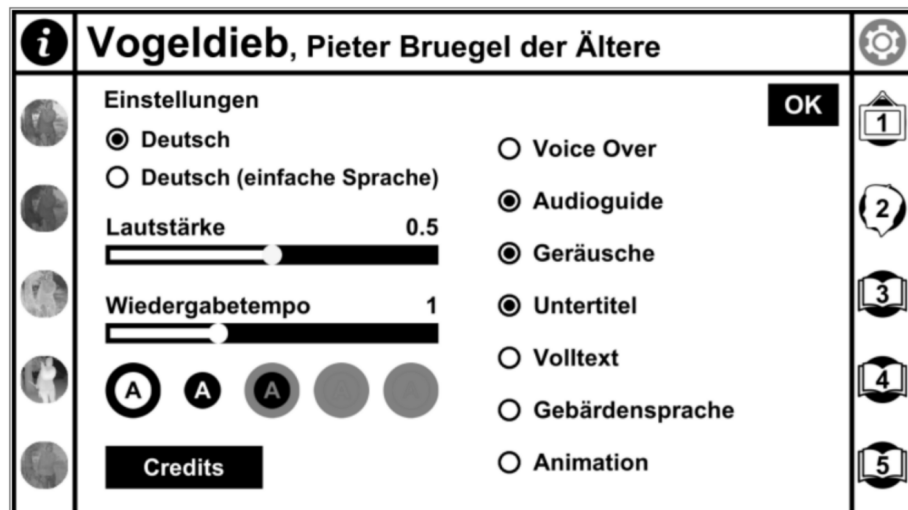


Figure 1: Access preferences settings menu in German (also available in English and Spanish). Options: German/Easy read German, Volume, Playback Speed, Five different colour schemes, Voice Over, Audio Guide, Sound scape, Subtitles, Full text, Sign language, Animation. (The menu changes slightly, if the voice over feature is activated, as sliders are not suitable for voice over menus.)

another project and we suddenly found ourselves working with people who did not know what our particular needs were. Another issue was the complexity of managing these online spaces. Not only did we have to deal with issues in real time and in an ongoing fashion, but we had to meet the challenges of accessibility through the use of image descriptions, signing, captions, easy-read text and translation. We also had to struggle to get people to engage with, and within, these spaces. The first time this happened came as a surprise. Surely, the whole point of these innovations was that they would motivate folk? But of course, many were just turned off. So not only were we having to make sure these spaces were up-to-date and relevant, but we had to become increasingly creative and aware of our managerial role. This involved chasing colleagues to post information or provide stories or activities. It involved finding and managing moderators. We had to deal with arguments and complaints and complex ethical disagreements. And then there were the lurkers; students who looked and listened but did not join in. The challenges felt (and feel) endless. All this was, of course, before the introduction of Artificial Intelligence, which adds a whole new level of complexity into the equation!

A RESEARCHER'S VIEW

As challenging as these new ways of working can be, they can also provide fantastic opportunities to learn a great deal. From 2016 to 2020, I was research director for ARCHES – a multinational, three-year participatory research project (Rix *et al.*, 2021). As well as the 200 disabled participants, their friends, family and other supporters, ARCHES also involved participants (some of whom would also identify as disabled) from six museums, five technology companies, two universities and one cultural education company. In a paper written by members of one of the technology partners (Travnicek *et al.*, 2022), they describe how they intended to produce a tactile-relief and gesture-based system for people with a visual impairment but ended up projecting a colour image onto the tactile relief, creating a full graphical user interface (see Figure 1) and offering multiple levels of text in diverse formats. They talk about the tensions they faced in being funded to deliver specific outcomes whilst having to be true to the underlying participatory principles of the project. They were not used to designing their work with the potential needs of all participants in mind, nor with engaging with the participant voice in all aspects of the project. They were caught between the emergent research approach adopted

by the project and their more traditional quantitative approach, which positioned participants as subjects of research.

The technology partners arrived with a confident self-image of themselves as researchers who were certain of their understanding of the research process. They were not prepared for the challenges of working in a project where multiple voices were given equal weight. They not only had to change their ways of working and their understanding of participation but were also faced with the different perceptions that people brought to the project about expertise and where power lay, and also about the nature of impairment and disability and how these should be supported and responded to. In the end, though disruptive, this experience was very productive for them. New relationships and conceptualisations emerged, as did new ways of understanding technologies and their audience. They also recognised that they could not have predicted at the outset how the project would change them. It had to be experienced and engaged with in order to be appreciated.

The technology companies were working with four exploration groups in six museums in four cities around Europe. For

the participants working in these museum groups though, the experience of working with the technology companies and the need for those companies to change their working practices could be very frustrating. As a result, the relationship with these technology partners proved to be a significant challenge when it came to maintaining the interest of the participants. Perhaps it was not surprising that very early on in the project, after a series of activities with the group working in two London museums, the conclusion of the session was that 'The best technology is a human'. What people were looking for was something that responded to them; that was flexible in the moment, in practical, empathetic ways; something that responded to emotional, intellectual and physical needs. This of course, was the same challenge I had faced when developing those online spaces that I talked about above. It was svery hard for the technology to do. In many ways, the people had to adapt to, and fit with, the technological developments, rather than the other way around.

A PARENT'S VIEW

Clearly, a lack of flexibility and responsiveness is something that arises both from the constraints of the

technology and the institutions that use it. But it can also arise from the individual biases and assumptions of people using the technology and working in those institutions. This combination of barriers was at the heart of my frustration, as a parent, with how schools refused to meaningfully engage with technology when working with my son. My son is marginalised by many of our dominant communication forms. The spoken word is a particular barrier. He does, however, know how to search the internet, use cameras, PowerPoint, speech recognition, subtitles and phone applications. As a family, WhatsApp has been an endless source of delight and surprise. We have shared videos and still pictures of our lives for years. But could we get schools and colleges to do it? No. They are in the embrace of so much that constrains them:

- policies about privacy, use of mobile phones, Wi-Fi and YouTube
- concerns about equitable access to equipment, lack of training, damage to expensive technology.

The reasons have been wide, varied and ongoing. Even after staff have invited me in to talk about how we do things as a family, even after they have gone on training courses, even after we have provided the equipment...nothing (or very little) happens. In the end, we had to conclude that the dozens of practitioners in his life did not have the creative space to (allow themselves to) embrace the technology as a tool for communication.

These experiences led us to consider if it was these underlying staff attitudes that acted as the greatest barrier to the use of the technology. Here, it was the lack of flexibility within the human that was the problem. Consider this tale of an accessible PowerPoint version of *The Iron Woman* by Ted Hughes: I had created this PowerPoint (following the enthusiastic agreement of the class teacher) with my son (a non-verbal child) and other struggling readers in mind. The class was going to read this book across a six-week period of study, but the teacher only had

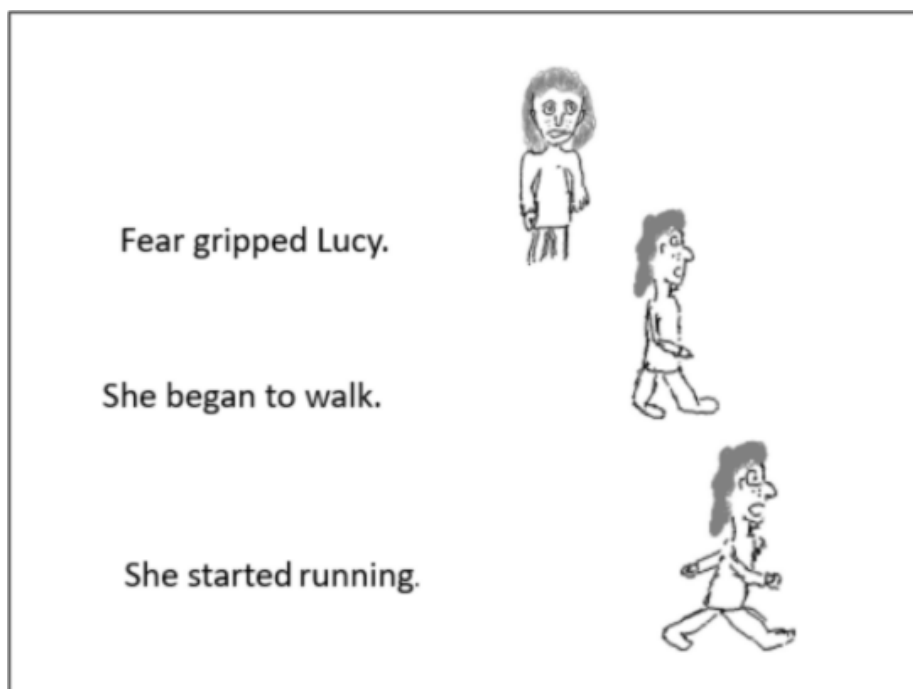


Figure 2: A slide from the powerpoint created by the author. (The character walked and then ran across the screen when the forward arrow was pressed.)

access to the dense text form. There was no film or easy-read or animated version, for instance. I spent the summer holiday working on this PowerPoint. It was 169 pages long, and the intention was that my son would be able to play with the text, visiting pages, images, sounds and phrases as took his interest, moving backwards and forwards through it to develop his own understanding. This was the way in which he navigated many online spaces – such as the BBC's children's CBEEBIES site.

Every page of the *Iron Woman* PowerPoint had a main picture or series of pictures, a few key words from the text and sometimes, a bit of animation or audio (See Figure 2). All you had to do was click and explore. However, a few weeks into the term, when I asked this teacher how it was going, I was told that there was a group of young boys who particularly loved it but that she would not let my son

use it. This was because she did not believe he would understand it. So, following (her interpretation of) assessment for learning and understanding of development, she had simplified the story to a printed-out sequencing exercise and would only let him use the accessible PowerPoint when he could sequence the first six slides. Needless to say, he was not interested in this activity, and by the time he had done it to her satisfaction, the class (and he) had moved on to something else.

A CONCLUDING VIEW

So, is the point of this article that technology seems to represent a 'false dawn', a waste of effort, a site of confusion, a space for incompetence and just another platform for people's bias? Well, yes, but there could be another take-home message.

When technology emerges, we should

have limited expectation of what it can achieve. We should assume that it will create as many problems as it solves. It is not better, it is different. We should also recognise that we will need to be creative with how we engage with the technology; people will need time, space and opportunities to collaborate in finding ways to use and develop how it is used; institutions should not invest huge amounts of resources on the basis of a hoped-for potential. The investment should be in making sure that the technology is relevant to the people using it. People are still our best technology, but they are also still our biggest barrier. Our resources (and our technologies) need to encourage us to ask questions of what is possible, to imagine and embrace our collective capacity to understand and support each other. There is nothing new about that. ■

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