

From seeds to systems: research in further education and skills.
Professor Gary Husband, Dr Michael Smith, Dr Vikki Smith

The practice of research in a changing landscape

The global economic landscape is experiencing significant change, driven by a skills-first approach to workforce development (World Economic Forum, 2023). As nations address the requirements of de-carbonisation and the integration of generative artificial intelligence, the Technical and Vocational Education and Training (TVET) and Further Education (FE) sectors are increasingly central to policy discussions. These sectors are frequently identified as primary engines for economic resilience (Keep, 2015), yet a disconnect remains. While policy mandates expect innovation from the sector, the intellectual labour and localised expertise of the practitioners delivering this change are often overlooked within the broader educational landscape (Hodgson and Spours, 2019). This special issue addresses that gap by proposing that for the sector to meet these challenges, it must be viewed as a legitimate site valuable practitioner-led knowledge production (Cochran-Smith & Lytle, 2009; Kemmis & McTaggart, 2005; Eraut, 2004).

From unearthing to embedding practice

Volume 1 of this special issue established the foundational proposition that FE and skills is not simply an applied delivery system but a knowledge-rich professional domain capable of generating rigorous, context-sensitive research. It highlighted the visibility of practitioner inquiry and the intellectual labour required to sustain pedagogical innovation within a high-accountability sector. This second volume builds directly on that foundation by shifting attention from visibility to durability, from isolated inquiry to embedded research cultures, and from individual practitioner insight to organisational learning, and from localised improvement to system-level influence (Senge, 1990; Stoll, 2009).

The publication of this second volume represents a milestone in ongoing efforts to map the complex, often obscured landscape of practitioner-led research. While our first instalment focused on unearthing these practitioner voices, challenging the historical narrative that the sector is merely a consumer of knowledge generated in Higher Education (Orr, 2020), this volume seeks to move beyond the initial justification of practitioner inquiry. We acknowledge the significant endeavour required for dual professionals to maintain a research identity within high-stakes, audit-driven environments where time is the scarcest of commodities (Tummons, 2020). Building on the momentum of the first special issue, this collection situates itself within the evolving structural and pedagogical frameworks necessary to formalise and sustain this intellectual vitality. The notion of dual professionalism remains central to this argument. FE practitioners are not simply teachers of subject or vocational knowledge; they are also interpreters of labour markets, curriculum designers, pastoral professionals, assessors, sector specialists and, increasingly, generators of evidence about what works in complex educational settings. Research gives language and structure to that complexity. It allows practitioners to examine the assumptions that sit beneath policy reform, curriculum change and pedagogical innovation, while retaining close attention to the lived realities of learners, communities and workplaces. In this sense, practitioner-led research is not a peripheral academic exercise. It is one of the means by which professional judgement is strengthened, shared and made visible.

Previous discussions have highlighted the hidden vibrancy of the sector, yet they also exposed the systemic fragility of research cultures that rely solely on individual agency. As Avis (2016) argues, the transformative potential of vocational education is frequently stifled by performative cultures that prioritise narrow metrics over deep pedagogical reflection. Consequently, this second volume shifts the gaze toward the institutional mechanisms and expansive learning environments (Fuller and Unwin, 2003) that allow practitioner-led knowledge to survive the transition from isolated classroom intervention to systemic influence. Through this, we begin to examine how research is anchored within the communities of practice that define professional lives (Wenger-Trayner and Wenger-Trayner, 2015).

Taken together, the contributions across both volumes reflect a sector whose research activity is expanding but remains structurally precarious. FE and skills continues to experience an uneven research infrastructure, including limited protected time, restricted access to academic databases, weak institutional incentives, and inconsistent routes to publication and dissemination (Foster, 2015; Keep, 2020; OECD, 2021). The result is that practitioner-led research is often rich in insight but poor in visibility, frequently remaining localised rather than cumulative. What matters now is not only that research in FE and skills is recognised, but that it is made possible. Too often, practitioner research is celebrated rhetorically while remaining dependent on personal goodwill, stolen time and informal networks of support. This is neither equitable nor sustainable. If the sector is to develop a genuinely research-engaged culture, research must be understood as part of professional practice rather than as an additional activity undertaken only by the most determined individuals. The challenge, therefore, is one of infrastructure as much as aspiration: time, recognition, mentoring, access, dissemination and leadership all shape whether inquiry can move from the margins of professional life into the ordinary work of educational improvement. This volume therefore contributes to an emerging agenda, in not simply encouraging FE research, but professionalising and sustaining it as an enduring feature of the sector's improvement architecture.

Navigating policy and pedagogy tensions

The contemporary landscape adds a layer of urgency to this dialogue. The transition toward a green economy and the rapid integration of digital technologies are not merely industrial shifts. Rather, they are pedagogical challenges that require what Lucas (2013) describes as a vocational pedagogy that is both technically rigorous and socially responsive. In the UK context, the Skills for Jobs White Paper (2021) and the Labour Party's five national missions (2024) place FE at the heart of economic renewal, reflecting a wider international trend in which vocational education is increasingly positioned as the delivery arm of industrial strategy (UNESCO-UNEVOC, 2021; ILO, 2022). However, without the critical lens provided by practitioner-led action research (Stenhouse, 1975), there is a risk that these policy mandates will fail to translate into meaningful classroom practice (Ball, 1993; Gleeson & James 2007; Keep, (2015), becoming what Coffield (2008) warned are just another brick in the wall of top-down reform. This volume therefore explores how vocational education acts as a lever for social mobility and equity, acknowledging that those on the frontline are best positioned to navigate the tensions between policy rhetoric and the lived reality of learners (Bathmaker, 2013).

A central argument of this volume is that research is not simply a tool for improvement but a mechanism through which FE and skills systems learn. Practitioner inquiry generates the feedback loops that allow curricula, pedagogies and institutional strategies to evolve in response to labour market change (Senge, 1990; Nutley et al., 2007). Without such learning loops, reform risks becoming cyclical rather than developmental, and repeating the language of transformation without accumulating the knowledge required to enact it. In this sense, strengthening research cultures is inseparable from strengthening the sector's capacity to adapt, renew and lead.

By weaving together original research, case studies, and conceptual critiques, this issue addresses the specific points of discussion that follow. These include the formalisation of dual professionalism, the impact of emerging technologies on skill development, and the role of FE in fostering social justice. It also offers renewed appreciation for the enduring resilience of practitioner-researchers and seeks to provide the academic and institutional scaffolding necessary to turn contextually located examples of excellence into a permanent feature of the TVET landscape.

This special edition: professional identity, curriculum design and digital pedagogy

The previous instalment of this special issue was primarily concerned with the visibility of practice and the reframing of the practitioner as a legitimate producer of knowledge. It established a foundation by highlighting the inherent intellectual potential within the sector and the capacity for localised inquiry to drive pedagogical improvement. This second volume extends those insights by moving from the act of unearthing to the challenge of embedding these practices within the wider institutional and economic ecosystem. As we transition from individual agency to systemic influence, we must consider the structural conditions and social frameworks that facilitate the permanence of a research-informed culture (Billett, 2011; Huddleston and Unwin, 2013). The articles that follow respond to this challenge by exploring the intersection of professional identity, curriculum design, and digital pedagogy. They are organised to reflect a progression from conceptual re-evaluations of the intellectual space of vocational education toward the specific mechanisms of curriculum design and development, practitioner self-efficacy, and the policy infrastructures required to sustain a self-improving system.

Across these papers, research is presented not as a detached academic activity but as a form of situated professional reasoning. The contributions show practitioners working with the grain of their contexts, detailing how through their practice they respond to learners, employers, technologies, curriculum demands and institutional pressures in ways that are intellectually serious and practically grounded. This is important because FE and skills research does not always travel through conventional academic routes. Its value often lies in the careful examination of particular settings, the disciplined interpretation of practice, and the translation of local insight into knowledge that others can recognise, adapt and contest.

The articles in this volume are organised around three overlapping themes. First, they explore professional identity and dual professionalism, examining what it means to sustain a research disposition in roles shaped by teaching intensity, accountability and vocational currency. Second, they address curriculum design and pedagogical development, demonstrating how practitioner inquiry can generate locally grounded but transferable approaches to teaching, assessment and learner engagement. Third, they examine enabling

infrastructures, digital tools, organisational structures, collaborative partnerships and policy conditions, that support the move from individual inquiry to collective and sustainable research cultures. The focus on curriculum design and digital pedagogy is particularly timely. Digital technologies, including generative artificial intelligence, are already reshaping how knowledge is accessed, produced and assessed. Yet the significance of these technologies for FE cannot be understood through technical adoption alone. They raise questions about professional identity, learner confidence, assessment integrity, workplace relevance and educational inclusion. Practitioner inquiry is therefore essential because it situates technological change within real pedagogical relationships. It asks not only what new tools can do, but what they mean for learners, teachers, vocational knowledge and the purposes of education.

The opening contributions consider the role and importance of professional identity, anchored by a reframing of teacher identity in further education and a global analysis of sustainable career ecosystems (ET-08-2025-0613.R1: Cairns; ET-04-2025-0218.R3: Syed et al.). These papers explore how dual professionals navigate competing demands within high-stakes, audit-driven environments. In doing so, they highlight that professional identity is not a static attribute, but an adaptive process requiring supportive structures to sustain workforce capability over time.

Building on this professional foundation, the collection turns to the immediate mechanics of curriculum design and pedagogical development. Papers investigating labour market alignment, the creation of task-based holistic curriculum models, and the lived experiences of students navigating virtual versus traditional laboratories provide localised responses to systemic challenges (ET-04-2025-0232.R3: Özer; ET-04-2025-0280.R3: Karami; ET-08-2025-0692.R3: Peirson). Collectively, these contributions demonstrate that vocational pedagogy must look past isolated outcomes to structurally blend technical and non-technical skills within authentic, contextually responsive environments.

The final cluster shifts to enabling infrastructures, analysing the policy frameworks, competence gaps, and digital tools required to secure a self-improving system. This work tracks technology adoption and readiness among teachers, applies cognitive load theory to a systematic review of multimodal design, evaluates innovative curriculum structures from educator perspectives, and highlights system-level digital competence gaps (ET-08-2025-0691.R1: Al-Adwan et al.; ET-05-2025-0311.R2: Sedio; ET-08-2025-0631.R1: Hasan et al.; ET-08-2025-0660.R1: Suárez et al.). These pieces provide a rich insight into how digital transformation is a multi-layered ecosystem process, and one that is reliant on connecting individual teacher self-efficacy with active institutional capacity and targeted professional learning.

Collectively, the papers also provide insight into the current state of FE and TVET research. They demonstrate a field that is increasingly methodologically diverse, theoretically informed and internationally connected, whilst remaining firmly grounded in practice. The prominence of practitioner inquiry, design-based approaches, qualitative exploration and systematic review evidence suggests a research community that is moving beyond descriptive accounts towards more cumulative forms of knowledge production. Together, these contributions offer the argument that FE and skills cannot meet the demands of technological, ecological and economic transition unless it is also supported to become a research-engaged and self-improving system. Research cultures rarely emerge through individual enthusiasm alone;

they require institutional permission, strategic commitment and supportive leadership. They require institutional permission, strategic commitment and forms of leadership that understand research as a collective asset. Colleges, training providers, universities, professional associations and policy bodies all have a role in creating the conditions through which practitioner knowledge can be developed and shared. The sector needs spaces where inquiry can be supported, challenged and connected, so that local studies do not remain isolated examples but become part of a wider ecology of professional learning.

Taken together, the two special issue volumes chart an important evolution in FE and TVET scholarship. Volume 1 examined how digital transformation is reshaping pedagogy, leadership and workforce capability, whilst Volume 2 turns attention to the institutional and intellectual infrastructures required to sustain innovation, support practitioner inquiry and strengthen research-informed practice across the sector. This volume also raises a forward-looking challenge for the field: how FE and skills can build cumulative knowledge infrastructures that allow research to travel across providers, regions and national systems. The next stage of development is not simply more practitioner research, but stronger synthesis, scaling and translation, ensuring that local insight becomes shared professional knowledge and that the sector's intellectual contribution is recognised within wider educational research and policy discourse. Ultimately, this 2nd special issue in accord with the 1st instalment of papers, argues for a more confident account of FE and skills as a site of knowledge production. The sector's proximity to learners, employers, communities and changing forms of work gives it a distinctive intellectual contribution to make. Its research is often practical, relational and contextually grounded, but this should not be mistaken for a lack of rigour. Rather, it reflects the complexity of a sector that sits at the intersection of education, economy, social justice and place. Moving from seeds to systems means recognising that practitioner research is not only valuable because it improves individual practice, but because it enables the sector not only to improve practice, but also to generate, legitimise and mobilise the knowledge required to shape its own future.

References

- Ball, S.J. (1993) 'What is policy? Texts, trajectories and toolboxes'. *Discourse: Studies in the Cultural Politics of Education*, 13(2), pp. 10–17. <https://doi.org/10.1080/0159630930130203>
- Cochran-Smith, M. and Lytle, S.L. (2009) *Inquiry as stance: practitioner research for the next generation*. New York: Teachers College Press.
- Eraut, M. (2004) 'Informal learning in the workplace'. *Studies in Continuing Education*, 26(2), pp. 247–273. <https://doi.org/10.1080/158037042000225245>
- Foster, D. (2015) *Realising the potential: improving teaching and learning in further education*. London: Department for Business, Innovation and Skills.
- Gleeson, D. and James, D. (2007) 'The paradox of professionalism in English further education: a TLC project perspective'. *Educational Review*, 59(4), pp. 451–467. <https://doi.org/10.1080/00131910701619309>

International Labour Organization (ILO) (2022) *Skills and lifelong learning in the time of COVID-19 and beyond: policy brief*. Geneva: International Labour Organization.

Keep, E. (2020) 'A review of the evidence on the relationship between skills and productivity'. *Industrial Strategy Council Research Paper*. London: Industrial Strategy Council.

Keep, E. (2015) 'Further education and the reform of vocational education and training in England'. In: Hodgson, A. (ed.) *The coming of age for FE?*. London: UCL Institute of Education Press, pp. 16–33.

Kemmis, S. and McTaggart, R. (2005) 'Participatory action research: communicative action and the public sphere'. In: Denzin, N.K. and Lincoln, Y.S. (eds.) *The SAGE handbook of qualitative research*. 3rd edn. Thousand Oaks, CA: Sage Publications, pp. 559–603.

Nutley, S.M., Walter, I. and Davies, H.T.O. (2007) *Using evidence: how research can inform public services*. Bristol: Policy Press.

OECD (2021) *OECD skills outlook 2021: learning for life*. Paris: OECD Publishing.
<https://doi.org/10.1787/0ae365b4-en>

Senge, P.M. (1990) *The fifth discipline: the art and practice of the learning organization*. New York: Doubleday.

Stoll, L. (2009) 'Capacity building for school improvement or creating capacity for learning? A changing landscape'. *Journal of Educational Change*, 10(2–3), pp. 115–127.
<https://doi.org/10.1007/s10833-009-9104-3>

UNESCO-UNEVOC (2021) *Advancing green skills in TVET: a guide for policy-makers and practitioners*. Bonn: UNESCO-UNEVOC International Centre for Technical and Vocational Education and Training.