Beyond the Digital Journal: Epistemic Conversations in Work-Integrated Learning

Ruben Daniels
Cape Peninsula University of Technology, Mowbray Campus, South Africa

DanielsRu@cput.ac.za

Abstract: Work-Integrated Learning (WIL) in teacher education increasingly relies on digital tools, including video-recorded microteaching platforms and online reflective journals, to support and assess pre-service teachers' professional development. This paper examines whether such digital infrastructure produces deeper epistemic engagement or merely reproduces the same compliance-oriented reflection long associated with paper-based journalling. Drawing on a qualitative comparative case study of Post Graduate Certificate in Education (PGCE) programmes at two Western Cape Higher Education Institutions, the study analysed semi-structured interviews and reflective journal entries generated from twenty participants across four stakeholder groups: PGCE students, method lecturers, Work-Integrated Learning coordinators, and school-based mentor teachers. Shulman's Pedagogical Reasoning and Action Model and Bourdieu's concepts of habitus, field, and capital served as theoretical anchors, allowing the analysis to examine both the cognitive work supported by digital tools and the structural conditions determining whether that work was realised in practice. Digital platforms, chiefly private online video channels used to record and revisit microteaching sessions, did create genuine opportunities for sustained self-monitoring and, in a smaller number of cases, collaborative dialogue between students, going beyond what paper-based methods alone could offer. Yet this technological layer sat apart from the reflective journal itself, which kept functioning as an individual, retrospective, compliance-driven artefact whatever format it took. Time pressure, limited prior teaching exposure, and journal designs built around assessment rather than dialogue showed up as barriers whether students worked on paper or online. The paper argues that the missing layer in online reflective practice is not technological capacity but epistemic architecture: digital tools were not designed, and are not currently used, to convert recorded experience into the kind of dialogic, theory-connected conversation that produces professional learning. The single strongest example of such a conversation in the data arose from a lecturer's deliberate pedagogical design choice rather than from any inherent affordance of the technology itself. The paper closes with three recommendations: rebuilding digital reflective infrastructure around structured epistemic conversations, redesigning journals so they hold fewer but more substantial entries, and building teacher educators' capacity to facilitate dialogic reflection. None of this follows automatically from installing a digital repository.

Keywords: Digital Reflective Journals; Epistemic Conversations; Work-Integrated Learning; PGCE; Teacher Education; E-Portfolios; Online Reflective Practice

1. Introduction

WIL matters in teacher preparation for a fairly obvious reason: a university lecture theatre cannot teach what a real classroom does (Billett 2009; Billett 2024). South Africa runs this through the PGCE, a one-year qualification in which WIL takes the shape of supervised teaching practice, all of it governed by the Minimum Requirements for Teacher Education Qualifications (MRTEQ) policy framework (DHET 2015). Somewhere in the middle of how these programmes claim to convert placement experience into professional learning sits reflective practice, and in practice that usually means keeping a journal.

In the last decade or so, PGCE programmes both here and abroad have bolted digital tools onto this arrangement, among them video-recorded microteaching sessions hosted on private online channels, e-portfolio platforms, and reflective journals submitted through learning management systems. The assumption driving this shift is rarely stated outright, but it runs through the literature all the same: digital infrastructure should deepen reflection because experience becomes reviewable and shareable, and more open to feedback than a handwritten or typed entry submitted once and read once. This paper interrogates that assumption directly. Drawing on a completed doctoral study of PGCE students' experiences of reflective practice within WIL at two Western Cape Higher Education Institutions (HEIs), it asks whether digital reflective tools alter the fundamental character of reflection, or whether they merely digitise the same individual, compliance-oriented exercise that has long characterised the paper journal.

The argument advanced here is that the digital layer introduced genuine value, principally through recorded microteaching that enabled students to revisit and self-monitor their teaching over time, but that this value stopped short of producing what this paper terms epistemic conversations: dialogic exchanges in which the knowledge claims underlying a pedagogical decision are made available for joint examination, critique, and revision. The reflective journal, whether rendered on paper or through a learning management system, remained epistemically the same artefact. What was missing was not bandwidth but architecture.

2. Literature Review

2.1 Digital Tools in Work-Integrated Learning

Digital reflective journals and e-portfolio platforms have been widely adopted across teacher education on the assumption that recording and reviewing experience will deepen professional learning (Smart, Sim and Finger 2015). Starkey (2010) extends Shulman's model of pedagogical reasoning into the digital age, arguing that technology reshapes how teachers comprehend, transform, and evaluate their practice, but cautions that the reshaping is not automatic: it depends on how the technology is used pedagogically, not merely on its presence in the curriculum.

This caution is borne out in the broader literature on reflective journalling. Machingambi and Wadesango (2022) treat journals, digital or otherwise, as central to PGCE curricula the world over, and Mohamed, Valcke and De Wever (2022) back this up with a systematic review spanning several continents. Their prevalence outstrips the evidence for their effectiveness, though. The problem is built into the assessment requirements themselves. A journal is meant to support open, exploratory reflection. It is also graded. Those two things pull in opposite directions, and students respond by writing safe and descriptive entries rather than genuinely critical ones (Boud 2010, cited in Suphasri and Chinokul 2021). Moving the journal online changes its medium, not this underlying tension. A compliance document submitted through a portal is still a compliance document.

2.2 Video and Recording Technologies as a Partial Exception

A distinct strand of practice, less examined in the reflective journalling literature, concerns recorded microteaching. Where journals ask students to write about experience after the fact, recorded microteaching allows students to review the experience itself. Farrell's (2015) five-stage model of reflective development suggests recording and reviewing supports several core components of structured reflection, including the capacity to revisit a specific pedagogical decision rather than relying on memory. Nguyen (2015) makes much the same point, treating revisitability as a condition that strengthens the link between thought and action during reflection.

Whether that revisitability actually leads anywhere near dialogic, theory-connected reflection is a different question, and not an obvious one. It might simply carry the same individual, self-directed way of reflecting into a new format. Quinn and Crotty (2024) would argue the former is unlikely on its own: in their account, it is critical collaborative conversation, not individual review of any kind, that most reliably supports teacher reflection and professional development. This raises the central question this paper addresses: does recorded, digitally mediated experience create the conditions for collaborative, theory-connected reflection, or does it remain locked within the same individually authored, individually assessed architecture as the paper journal it was meant to improve upon?

3. Theoretical Framework

Two theoretical anchors underpin this study. Shulman's (1987) Pedagogical Reasoning and Action (PR&A) Model helps explain how teachers move through cycles of comprehension, transformation, instruction, evaluation, and reflection, and, more specifically, how digital tools enter into the evaluation and reflection phases of that cycle. Bourdieu's (1977; 1986) concepts of habitus, field, and capital do different work: they treat reflection not as a purely cognitive act but as a practice shaped by structural conditions, among them the assessment regime governing the journal, the technological capital available at each institution, and the dispositions students bring with them into the WIL placement.

Taken together, these two frameworks let the analysis hold two questions at once: what cognitive work a given reflective tool actually supports, digital or otherwise (Shulman), and what structural and dispositional conditions decide whether that cognitive work gets realised in practice (Bourdieu). This matters for evaluating digital tools specifically, because the promise of technology tends to get framed in purely cognitive terms, better recall, richer review, while the structural conditions that govern its use, chiefly assessment design, go unexamined.

4. Methodology

The empirical study behind this paper used a qualitative, dual-site case study design, working within an interpretivist paradigm to explore PGCE students' experiences of reflective practice during WIL at two Western Cape HEIs. To preserve institutional anonymity these are designated Site 1 and Site 2 throughout; both operate under the same MRTEQ policy framework and offer one-year PGCE qualifications. Semi-structured interviews and analysis of document sources, principally students' reflective journals, generated the data, which then went through thematic analysis following Braun and Clarke's (2006) six-phase framework.

Twenty participants took part in all, drawn from both sites and spanning four stakeholder groups: PGCE students, method lecturers and university-based supervisors, WIL coordinators, and school-based mentor teachers. This paper identifies participants using the coding convention established in the original study, so S1-s1 refers to a Site 1 student and S1-ML2 to a Site 1 method lecturer, for example. Before any data collection began, the study met the ethical requirements of the University of the Western Cape's Humanities and Social Science Research Ethics Committee, and the Faculty of Education at both participating institutions granted permission.

5. Findings

5.1 Recorded Microteaching as a Genuine Site of Self-Monitoring

Method lecturers at Site 1 described using private online video channels to record microteaching sessions, allowing students to revisit their own teaching over an extended period:

> *"And what I also do I record the micro teaching sessions, the before and the after... And it's on YouTube, not public. It's a private YouTube channel. So, they can go back every single time in five years' time to go... it's a way of them being able to constantly see and monitor whether they've improved." (S1-ML2)*

Lecturers were explicit that this was a deliberate pedagogical choice, not an administrative convenience, and tied it to a broader disposition towards preparing students for a profession now saturated with digital tools:

> *"Well, I use quite a lot of digital learning in my lessons so I would focus on the using of video through... reflection through videos... because the world as we go into the fourth industrial revolution I think it's important that our students are kept abreast of the developments." (S1-ML2)*

A related but distinct use of recorded video supported group-based discussion rather than individual review. One lecturer described using recorded classroom footage as a stimulus for structured group dialogue that moved towards what he termed cognitive harmonisation, a process of collective sense-making:

> *"I would give a video of a classroom setting. And then at the end of the day, we would now have groups that give a report or reflect on the practice of what was seen in the video... come to cognitive harmonisation. Cognitive harmonisation is where you either agree to disagree, or you disagree to agree." (S1-ML3)*

This last example is the closest the data comes to what this paper defines as an epistemic conversation: a structured, group-based examination of a recorded pedagogical decision in which multiple knowledge claims are placed alongside one another and worked through collectively, rather than reviewed and written up alone.

5.2 The Journal Itself Remained Unchanged by its Medium

Despite the presence of digital recording infrastructure at Site 1, the reflective journal, whether submitted digitally or on paper, continued to function as an individually authored, retrospective, assessment-driven artefact. The WIL coordinator at Site 1 observed that students entered the programme associating reflective practice narrowly with journal writing itself, regardless of format:

> *"And I think they come in with just a general thing about reflective practice, and that is journaling. When they hear the word reflective practice, they think, oh, I have to write a journal, a journal... Yes, we do, it is part of, but there are so many other things we as teachers need." (S1-WIL)*

Students' own journal entries, analysed as document sources, were overwhelmingly descriptive rather than analytical, recording what happened during a lesson without connecting it to the theoretical frameworks introduced in coursework. This pattern held regardless of whether the journal was maintained on paper or

submitted through a digital learning platform, indicating that the format of the journal was not the operative variable. What determined the quality of reflection was whether the entry was written for an audience capable of dialogic response, and in practice, journal entries were read once, by one assessor, after the reflective moment had passed.

5.3 Structural and Dispositional Constraints on Digital Reflection

Consistent with the Bourdieusian dimension of the analysis, the extent to which digital tools supported richer reflection was shaped by institutional resourcing and time. Method lecturers across both sites identified time constraints as the single largest barrier to developing reflective capacity, digital or otherwise:

> *"The biggest obstacle for the PGCE is time constraints, you know. There is not enough time... I don't think that we've got enough time for them to be able to be skilled on how to best reflect, especially on their teaching." (S1-ML1)*

Students themselves had limited prior exposure to any structured reflective or teaching practice before entering the PGCE, meaning the cognitive load of learning to teach competed directly with the cognitive load of learning to reflect on that teaching through any medium:

> *"They've never been in a platform as a teacher. Never... only one so far had teaching experience as an informal teacher." (S1-ML2)*

It made little difference, in the end, whether the reflective tool in question was digital or paper-based. These constraints showed up either way, which points to a barrier that is structural and dispositional rather than technological.

6. Discussion: The Missing Layer

A specific, previously underexamined gap emerges from these findings. Where digital infrastructure was actually used to record and revisit practice, it genuinely extended what students and lecturers could do. Sessions could be reviewed months or even years later, and in at least one documented case, recorded footage became the basis for structured group dialogue. Digital tools, in other words, are not inert. They can support genuine pedagogical adaptation, which fits Starkey's (2010) argument that technology reshapes pedagogical reasoning when it is used deliberately.

That technological capacity, though, was never connected to the reflective journal itself, the instrument formally designated as the vehicle for reflective practice within the programme. Paper document or digital submission, it made no difference: the journal stayed an individually authored, retrospectively written, once-read artefact either way. This disconnection, not any deficiency in digital capability, is this paper's central claim about the missing layer in online reflective practice. Institutions took up digital tools for recording and reviewing experience on one hand, and kept maintaining digital or paper journals for documenting and assessing reflection on the other, without ever connecting the two into a single dialogic process.

Why this matters becomes clear in the one instance in the data that came closest to deep, theory-connected reflection: the group-based "cognitive harmonisation" activity. What distinguished it was not its use of technology but its dialogic structure. Multiple students' interpretations of the same recorded event were positioned against one another, and the group had to work towards a shared understanding, or at least explicitly acknowledge where they disagreed. This paper calls that an epistemic conversation, a conversational event in which the knowledge claims underlying a pedagogical decision become jointly available for examination, critique, and development, rather than remaining the private property of whoever wrote the journal entry.

Practically, this means institutions investing in digital reflective infrastructure should stop treating recording capability and the journalling requirement as separate, unconnected obligations. Recorded microteaching footage could instead become the shared object around which structured, facilitated group conversation happens, with the journal recast as a record of that conversation rather than standing in for it. None of this calls for technology beyond what Site 1 already had in place; what it calls for is redesigning how that existing technology gets used pedagogically.

7. Conclusion and Recommendations

This paper has argued that adopting digital tools within WIL reflective practice can extend genuine pedagogical value, chiefly through recorded, revisitable microteaching, but that this has not on its own resolved the long-standing limitations of the reflective journal as an individually authored, compliance-oriented artefact. What is missing sits at the level of epistemic design, not technology: digital infrastructure has rarely been built, or used, to turn recorded experience into structured, dialogic, theory-connected conversation.

Three recommendations follow. First, institutions should reposition recorded microteaching footage as a shared object for structured group reflection rather than a purely individual review resource, building on practice already observed at Site 1. Second, digital reflective journals should be redesigned around fewer, more substantial entries structured by critical incidents and explicit prompts connecting experience to theoretical frameworks, rather than daily or weekly logging. Third, teacher educators require professional development in facilitating epistemic conversations, since the technology alone does not generate dialogic engagement; the deliberate pedagogical structuring observed in the single strongest example in this data was the product of a lecturer's design choice, not the platform's affordances.

Future research should examine whether deliberately structuring digital platforms around collaborative, theory-connected dialogue, rather than individual submission, measurably improves the quality of student reflection, and whether the concept of epistemic conversations offers a transferable design principle for WIL programmes beyond teacher education.

Ethics Declaration

The data reported here were collected as part of a completed doctoral study. Ethical clearance was granted by the University of the Western Cape's Humanities and Social Science Research Ethics Committee prior to data collection (HSSREC Reference Number: HS22/9/34, approval period 27 February 2023 to 26 February 2024). The Faculty of Education at both participating Higher Education Institutions gave permission for the research to proceed, as did the Western Cape Education Department. All participants gave informed consent, and institutional and participant identifying information has been anonymised throughout in line with that clearance.

AI Declaration

Generative AI tools assisted in preparing this manuscript, chiefly with drafting and language refinement, working throughout from the author's own doctoral research data and analysis. The theoretical argumentation, interpretation of findings, and conclusions belong to the author alone. Before submission, the author reviewed and edited the manuscript in full, and it will also be checked using institutional plagiarism and AI-detection tools.

References

Billett, S. (2009) "Realising the educational worth of integrating work experiences in higher education", Studies in Higher Education, Vol 34, No. 7, pp 827-843.

Billett, S. (2024) "Constituting integration in work-integrated education and learning", Studies in Continuing Education, Vol 46, No. 3, pp 513-530.

Boud, D. (2010) "Relocating reflection in the context of practice", in Bradbury, H., Frost, N. and Kilminster, S. (eds.) Beyond Reflective Practice, Routledge, London, pp 25-36.

Bourdieu, P. (1977) Outline of a Theory of Practice, Cambridge University Press, Cambridge.

Bourdieu, P. (1986) "The forms of capital", in Richardson, J. (ed.) Handbook of Theory and Research for the Sociology of Education, Greenwood, New York, pp 241-258.

Braun, V. and Clarke, V. (2006) "Using thematic analysis in psychology", Qualitative Research in Psychology, Vol 3, No. 2, pp 77-101.

Department of Higher Education and Training (DHET) (2015) Minimum Requirements for Teacher Education Qualifications, Government Printers, Pretoria.

Farrell, T.S.C. (2015) Promoting Teacher Reflection in Second Language Education: A Framework for TESOL Professionals, Routledge, New York.

Machingambi, S. and Wadesango, N. (2022) "Reflective journals as tools for developing reflective practice in teacher education", South African Journal of Education, Vol 42, No. 1, pp 1-8.

Mohamed, Z., Valcke, M. and De Wever, B. (2022) "Reflective journaling in teacher education: A systematic review", Teaching and Teacher Education, Vol 117, 103794.

Nguyen, Q.D. (2015) What is Reflection? A Conceptual Analysis of Major Definitions and a Proposal of a Five-Component Definition and Model, Unpublished Master's thesis, University of Montreal.

Quinn, F. and Crotty, Y. (2024) "Critical collaborative conversations: Supporting teacher reflection and professional development", Professional Development in Education, Vol 50, No. 1, pp 12-25.
Shulman, L.S. (1987) "Knowledge and teaching: Foundations of the new reform", Harvard Educational Review, Vol 57, No. 1, pp 1-23.
Smart, V., Sim, C. and Finger, G. (2015) Teaching with Digital Technologies: A Guide for Tertiary Teachers, Griffith University, Brisbane.
Starkey, L. (2010) "Teachers' pedagogical reasoning and action in the digital age", Teachers and Teaching: Theory and Practice, Vol 16, No. 2, pp 233-244.
Suphasri, P. and Chinokul, S. (2021) "Reflective teaching and its implementation: A review of literature", LEARN Journal, Vol 14, No. 1, pp 240-261.