

The enactment of critical digital pedagogical (CDP) practices through pedagogical reasoning¹

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ABSTRACT

This study explores how facilitators' pedagogical reasoning influences critical digital pedagogy (CDP) in online teaching environments at a Centre for Learning, Teaching and Development (CLTD) dedicated to supporting academics. Using an expanded transformative learning theory and the model for pedagogical reasoning and action as the theoretical framework, this research aligns with a qualitative paradigm. Pedagogical reasoning in CDP practices is examined through a reflective journal, serving as the primary research instrument and data source. Thematic analysis revealed key themes, including digital creativity, safe-ish spaces, selecting and tailoring activities, co-creation, self-awareness, and transcending knowledge boundaries. The study underscores the importance of deep reflection through pedagogical reasoning grounded in phronesis, illustrating how critical practice in CDP fosters the development and implementation of inclusive teaching settings in blended learning (BL) environments.

Keywords: critical digital pedagogy, pedagogical reasoning, expanded transformative learning theory, reflective practice, reflective journal

INTRODUCTION AND BACKGROUND

Apart from the various calls for a transformative higher education (HE) learning and teaching (L&T) practice (Bucklow & Clark, 2000; UNESCO, 2015), this study is relevant because it is important for academics to engage in reflective teaching practice through pedagogic reasoning (the invisible and cognitive aspects that under labour L&T practices). Invisible aspects relate to reflecting on that which cannot be observed but may be demonstrated within a specific context. Pedagogic reasoning is important because academics possess content knowledge that needs to be transformed into more accessible forms which require deep reflection. Since such practices remain important pedagogically, we believe that research on it is needed because it provides for adjusting and responding to L&T complexities such as questioning societal norms, inclusivity

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and promoting social justice in South African HE, while raising facilitator and participant awareness of underlying L&T beliefs and assumptions. More so, in the online space, one way of promoting inclusive teaching practices is to engage in critical digital pedagogies (CDP), which is the epistemic contribution that this study addresses within the context of a Global South research intensive university. Drawing from critical pedagogy, CDP emphasises the critical and reflective use of educational technology (Edtech) in HE. In conceptualising CDP practice, there is no singular definition that exists as it is an emerging field. However, for sense-making, we align to Stommel (2014), Rowe (2018), Morris and Stommel (2018a), Stommel et al. (2020), Masood and Haque (2021), Lunevich (2022), Rowell (2022) and Köseoğlu et al. (2023) in Hoosen's (2023: 33) view of CDP as follows

The alignment of critical pedagogical principles to online L&T in various contexts albeit with overt focus on social relations. This involves deep critical pedagogic principles when employing digital tools, systems, and practices in L&T, while challenging power dynamics and social oppression through enacting a humanising pedagogy (an approach where teachers influence students through fostering critical consciousness).

Hence the key principles of CDP practice such as critical engagement with Edtech, empowerment, inclusivity, accessibility, collaboration, community, reflection and ethical use of Edtech demonstrate how CDP differs from other forms of pedagogy since it addresses the complex role of Edtech in HE L&T practices.

This study constitutes phase one of two phases in the enactment of CDP practices against the background of the Facilitating Online course, a professional learning course for academics, modelled on CDP philosophy and based on an Open Educational Resource (OER). The course spanned eight weeks and was offered twice a year with each iteration being distinctive, due to continuous reflection and action within a rotating group of co-facilitators and consideration of participant feedback, which were documented. From our literature scan, we noticed that there has been growing interest in CDP practices due to the move to blended or fully online L&T environments. We also noticed that scholarly literature in this area is emerging, and a diversity of voices remains insufficient within the Global South context.

In the first phase of this study, we chose to focus on our reflexive and reflective² practices (Hoosen, 2023) through pedagogical reasoning, as facilitators of the Facilitating Online course. Our approach to reflection builds on Birmingham's (2004: 314) pedagogical reflection theory founded on phronesis, a quality which Aristotle embodied as a 'unifying and essential habit of the mind'. Our attraction to this model of reflection suggests reflective practice that is regular and holistic, instead of a once-off reflective attempt. To understand our experiences and how social and other structures shape these perceptions, we aligned with the expanded transformative learning theory (Mezirow, 1991; Cranton, 2016). Our reflective approach,

² Reflexive practice aligns to ways that we question our own thinking, values, attitudes, assumptions, partialities, and habits to understand the complexity of our roles in terms of others. Reflective practice relates to our epiphany about something not thought about in time but rather after the event.

closely aligning with this theory, and Birmingham's (2004) distinction between reflexive, reflective practice and phronesis, are explored in detail within the theoretical framework section.

RESEARCH PROBLEM AND QUESTION

The problem is that pedagogical reasoning remains invisible and cannot be visually observed in both contact and online environments. At the same time, there are a few examples, more so in the Global South, demonstrating how CDP is enacted in practice in today's increasingly digital HE systems. For examples, in Brazil, there are initiatives through programmes involving teaching digital skills and critical thinking about media and technology which empower students to become creators rather than consumers of digital content. India engages in mobile platforms that facilitate educational content to students in remote marginalised regions through the EduKart programme. In Egypt, CDP has been employed to encourage students to critically evaluate the role of digital tools in ensuring social justice. Universities in South Africa have integrated CDP by focusing on increasing digital literacy while concomitantly, through curricula, encouraging students to employ these skills and address community issues, like inequality and historical injustices. However, there remains limited research on the pedagogic reasoning within these examples since there is more focus on structural initiatives. This gap raises a significant concern because it is a challenge for academics to transfer critical theoretical ideas to critical digital practice as an emerging and intersectional practice. To mediate this gap, we engaged in research on our deep reflections around pedagogic reasoning that demonstrates one of the ways that CDP can be actioned in contact and digital learning contexts. To address the problem, this research posed the question: How did facilitators' pedagogical reasoning influence CDP practice?

SIGNIFICANCE OF THE STUDY

This research is significant because it demonstrates the power of academic pedagogical reasoning in enacting CDP practices. The pedagogical significance is that first-hand accounts of the pedagogical reasoning, which often remain invisible practices, are provided through reflective journaling. 'One of the key debates within the critical pedagogy field is whether it is even possible to enact 'true' critical pedagogy within higher education' (Smith & Seal, 2021: 476). We are of the view that there is no perfect or 'true' critical pedagogical enactment and therefore no need for an ideal enactment but rather that we all strive to encourage criticality, through pedagogical reasoning regarding all forms of knowledge. The extent to which our pedagogical reasoning is considered 'critical' depends on several factors, like the depth of our reflections, the frameworks and theories guiding our reflections, and the outcomes or actions that result from such reflection. What was important was that we remained aware of not just how to facilitate but also how our L&T practices empowered or marginalised course participants. Our reflections were action-oriented since it not only involved thinking critically about our pedagogy but also implementing changes based on these reflections. For us, this transformational aspect remained a key marker of criticality, as it demonstrated a commitment to continuous improvement and social justice in L&T. Our iterative evaluations and going back to improve the course are testament to how critical we were of the course, our roles and our pedagogy. These aspects are weaved in the narratives that follow. Hence, this project was conceptualised to showcase our understanding of being critical through pedagogical reasoning.

The facilitation and modelling of professional learning courses

One of the focus areas in the University of the Witwatersrand's Learning and Teaching Plan (2022-2024) is enhancing academics as university teachers. This responsibility is mandated to the CLTD which offers a variety of continuous professional learning (CPL) courses. These educational development courses aim to support the enhancement of L&T practices of academic staff who are experts in their various fields. The CLTD through these courses employs evidence-based approaches, to enact and model pedagogical practices to inspire staff to do the same in their own practices. Every course ideally has a digital component to cater for the diverse participant needs. Some courses are offered asynchronously to cater for participants who prefer learning in isolation and at their own pace. The courses are modelled on critical pedagogy (CP) and CDP philosophy depending on whether they have a digital version.

LITERATURE REVIEW ON THE ENACTMENT OF CP AND CDP THROUGH PEDAGOGICAL REASONING

Critical pedagogy is a transformation-based approach to education sometimes referred to as a movement, it is rooted in critical theory and originated from Paulo Freire in Brazil (Abrahams, 2005; Hoosen, 2022, 2023). Freire believed that education needs to go beyond the transfer of knowledge and training but should develop critical consciousness and bring change that will transform the individual, learning environment and society (Abrahams, 2005; Hoosen, 2022; Hoosen, 2023). We align to these conceptualisations since enacting CDP makes sense because the intention is to influence change within participants themselves, their students, environments and their institutions – facilitating change that leads to the transformation of thoughts and actions. CP and CDP are concerned with the change that takes place in both teachers and students as they learn from one another.

The Facilitating Online course, in this study aims to empower academic staff with skills that will enable them to comfortably facilitate courses online. In this course, as facilitators, we enacted CDP principles through the notion of knowledge as being socially constructed, being responsive to complexities that participants identify in their lived experiences and critical conscientisation. The participants in this course were fellow colleagues, whom we supported with care, learned together with interactions that were cordial, safe and respectful. We engaged in a way that poses a problem, more like a dialogue which engaged participants cognitively and resulted in thoughtful reflection which led to action, similar to Freire's (1970) approach of dialogue and problem-posing education. This is the approach all CLTD courses take where transformative pedagogies are intentionally enacted. For this study, as facilitators, we kept reflective journals to document how we employed pedagogical reasoning in the enactment of CDP. Reflection enables facilitators to direct their actions with foresight (Ashwin et al., 2015: 44). The ultimate goal for reflection is transformation that is linked to action which is the ultimate goal of learning too. There is no point in learning if it is not going to bring about change. However, action would mean very little if one does not identify forms of 'oppression' or 'constraint':

'to no longer be prey to its force one must emerge from it and turn upon it. This can be done only by means of the praxis: reflection and action upon the world in order to transform it' (Freire, 1970: 36).

Similarly, reflection akin to pedagogic reasoning are cognitive processes that take place invisibly within the mind, these processes inform teachers and facilitators to act in certain ways. Dewey (1930: 9), who was viewed as a founding figure of the concept of reflection stated

active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusions to which it tends, constitutes reflective thought.

The implication is that reflection requires dialogue for expressing it and experiencing it. We intersect reflection with pedagogical reasoning since we view both as mental and cognitive ways of thinking around CDP practices.

Pedagogical reasoning and action are the enactment of teacher knowledge (Shulman, 1987). It is what informs the teachers' actions that leads them to pursue certain questions or comments (dialogism) by participants which lead to learning moments. Shulman (1987) viewed pedagogical reasoning as the enactment of the decisions made by teachers in their planning. Teachers possess various forms of knowledge from which they draw, based on their experience, expertise, and their pedagogical reasoning from which Shulman identified six of these knowledge domains. To understand how teachers' reason pedagogically, we need to understand what takes place in their minds as they plan the facilitation. Using the transformative learning theory lens and our understanding of Shulman's pedagogic reasoning as a framework helped us analyse our reflections. These reflections in our reflective journals provided insights to our pedagogical reasoning to establish what led to the enactment CP and CDP.

THEORETICAL FRAMEWORK

Transformative learning (TL) theory explains how individuals (adults), make sense of their experiences and how social and other structures influence how these experiences are construed. The theory focuses on how, dynamics involved in reconstructing meaning (through experience, reflection and action), ensure transformation when individuals locate themselves in dysfunctional situations (Mezirow, 1991). However, Mezirow's theory of TL focuses more on the educator and less on the social context. Therefore, Cranton's (2016) expansion of Mezirow's theory is employed because we are of the view that, as agents, we transform and thereby influence the social context.

We see the world through a lens constructed in our interaction with our social context. We also make decisions related to our perceptions in our own way. We are individuals living in and influenced by our social world, and we are individuals with important differences among us in the way we live, learn, work and develop (Cranton, 2016: 62)

Cranton (2016) expanded on Mezirow's (1991) work by emphasizing the practical aspects of fostering transformative learning in educational settings and focusing on the holistic nature of the process. This expansion of TL theory involved:

- personal growth and development which highlighted that transformative learning is not just about changing cognitive perspectives but also about emotional and psychological growth.

- Authenticity in L&T whereby TL is more likely to occur in environments where facilitators and participants are authentic and genuine. This aspect of the expanded theory resonates well with us since the importance of us as facilitators being true to ourselves thereby fostering a trusting and open L&T environment is highlighted.
- Relationship and community building is emphasised through supportive, collaborative relationships among participants and between facilitators and participants that create a safe-ish (Sykes & Gachago, 2018) space for critical reflection and discourse.
- Cranton (2016) highlighted various forms of TL, such as epistemic transformation that focuses on changes in understanding how knowledge is constructed. Psychological transformation that looks at changes in self-understanding and self-concept and behavioural transformation that focuses on changes in actions and behaviours resulting from new perspectives.

We align with Cranton's (2016) expanded and more comprehensive version of TL theory that includes emotional, social, and psychological aspects of L&T because there is emphasis on authenticity, relationship building, and practical strategies, which for us makes TL theory more accessible and applicable in real-world L&T environments now more so due to engaging in blended L&T. The online space can serve as a new and dysfunctional context that precipitates complexity for both students and facilitators. Therefore, the expanded form of TL theory appeared useful since it is geared for transforming individuals and its aim is to help 'individuals challenge the current assumptions on which they act and if they find them wanting, to change them' (Christie et al., 2015: 11). It employs 'rational and non-coercive' dialogue to bring about change and is based on the belief that 'better individuals will build a better world' (Christie et al., 2015: 11). This is because sustainable transformation needs to stem from within, through continuous reflexivity and reflectivity thereby revising L&T practices within the context in which the individual is located.

A transformative learning theory lens assists in bringing about not only a mental shift to academics but a behavioural change as well, which results from challenging assumptions on which they act and to change these if they appear unsatisfactory. As stated earlier, our approach to reflection also builds on Birmingham's (2004) pedagogical reflection theory founded on phronesis or practical wisdom (a paradigm of reflection that connects to contemporary practices of reflective L&T). Deeply rooted in phronesis, we are of the view that reflection in L&T is viewed as a moral virtue and not just a technical skill. Birmingham (2004) draws on Aristotle's notion that phronesis involves reasoning about and acting upon what is good or not so good for humans, suggesting that this type of practical wisdom is crucial for dealing with complex situations in L&T. During interactions (experience) with participants either through professional learning courses or mentoring, opportunities to reflect and revise (critical reflection and action) pedagogic practices (reflective discourse) are encouraged. Facilitators make explicit the practices that promote cognitive diversity and highlight 'human and social justice' aspects of L&T with Edtech.

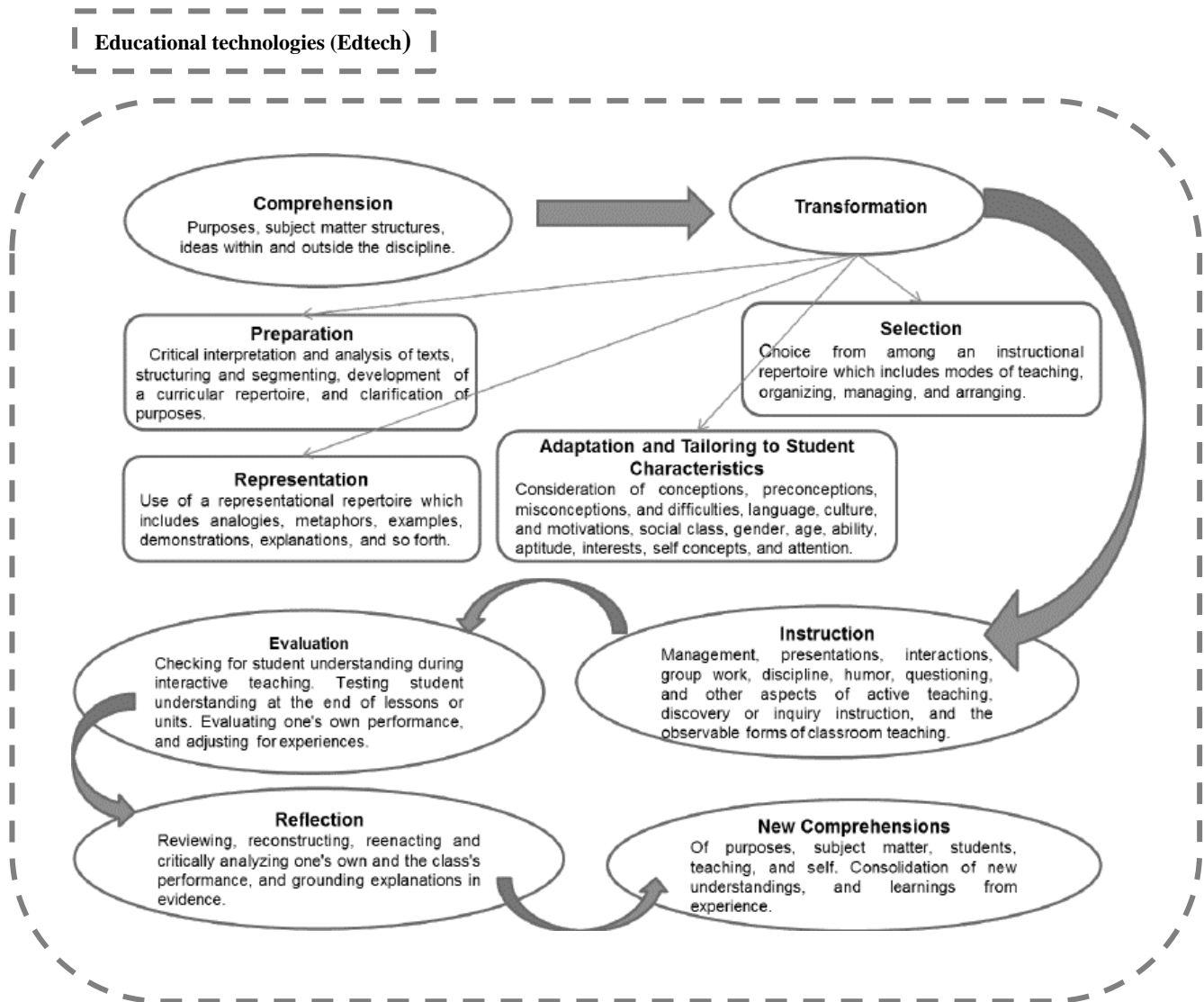
Reasoning assumes a significant role in one's adjustment in any environment. Apart from it determining one's cognitive activities it also influences behaviour and personality. Contemporary Piagetian theories of cognitive development demonstrate that variability in

reasoning and associated development stem from increasing working memory capacity, speed of processing, and forward-thinking functions and collaboration (Mascolo, 2015). It appears that increasing self-awareness is important when reasoning. In aligning to Birmingham's (2004) notion, reflective practice in Birmingham's context demands deeper consideration and deliberation, where the facilitator examines underlying assumptions, values, and contexts of their actions. This reflective practice is central to transformative learning, which relies on critically examining and challenging previously held beliefs and assumptions. Phronesis involves not just reflection but also an active deliberation about what is good or not so good, which is crucial for transformative learning. This type of reflection involves evaluating not just the efficiency of an action but its moral and ethical implications, which encourage facilitators to think about the broader impacts of their teaching on students' lives.

By framing phronesis as a higher form of reflection that encompasses moral and ethical dimensions, we align closely with transformative learning theory, which values the role of reflection in achieving deeper, more meaningful changes in understanding and behaviour. This connection underscores the importance of facilitators not only questioning their pedagogy but also considering broader impacts on the ethical and moral development of students. Such reflective practices are transformative in that they can fundamentally change educational practices and philosophies, aiming for an education that is not only informative but also formative in a moral sense. For us, CDP enactment required phronesis that results in changes in behaviour which assist in conscientising the 'self' first and then students (participants) as critically conscientised citizens and graduates who contribute positively to society.

To understand pedagogic reasoning, a knowledge base (knowing how to teach) was useful as a starting point. In this regard we employed Shulman's (1987) model of pedagogic reasoning and action (MPRA) which encapsulates the cognitive processes that facilitators undergo to transform content knowledge into pedagogically powerful forms that are adaptable for L&T to examine how our pedagogic reasoning influenced our enactment of CDP in the Facilitating Online course.

Figure 1:
Shulman's (1987: 15) model for pedagogical reasoning and action (MPRA) (adapted by
Fernandez, 2014: 82).



We adapted the MPRA to include Edtech which we integrated at each stage of the model (depicted by the dashed perimeter in Figure 1) to augment our L&T practices through our deep reflections that led to new comprehensions. Concomitantly, as a habit, we remained cognisant of our CDP practices. This translated that we considered enriching at each stage of the MPRA, and not only incorporating Edtech, but also fostering critical reflection on the use and influence of Edtech in our L&T practices.

The phases of the MPRA aligned to our reasoning and remained a useful way for us to interpret our reflections on our pedagogic practice. As depicted in Figure 1, pedagogic reasoning begins with a cycle of pedagogic activities that includes *comprehension* where facilitators understand and comprehend the subject matter. At the *transformation* phase, facilitators plan how to

present the content to students. Integrating Edtech here meant that transformation might include creating or employing digital simulations, interactive models, and multimedia presentations.

At the *instruction* phase (*which we refer to as facilitation*), facilitators engage in the facilitation and Edtech can play a critical role here through the employment of interactive whiteboards and response systems. The *evaluation* phase involves assessing student understanding and the effectiveness of the facilitation. Edtech can aid in evaluation through digital assessments that provide instant feedback or the employment of learning analytics to track participant progress (which is what we engaged in often). The *reflection* phase is when facilitators reason around what worked or did not work in the class. Edtech can support this through ePortfolios where facilitators collect and review materials and assessments. Based on reflections, facilitators enter the *new comprehension* phase where they can reframe their interpretations and approaches. Various Edtech tools can be employed to experiment with new pedagogical methods.

These phases were used as variables of interest that provided a direction to this research in terms of how we engaged in CDP practice as the model had been adapted to include the use of Edtech. However, 'Due to the pressures associated with blended learning, it becomes appropriate to consider the relevance of the model in the context of the digital age' (Hoosen; 2023: 3). Some of the pressures include limited technological capabilities, limited time for curriculum redesign that leads to imbalance in workload and management thereof, assessing and providing feedback in various formats and ensuring that all participants have equal access to Edtech among others.

RESEARCH METHODOLOGY AND DESIGN

This study aligns with the qualitative paradigm and is set within a Centre for Learning, Teaching and Development that is mandated to provide professional learning support to academics at Wits University. According to Denzin & Lincoln, (2002), qualitative research permits a description of the complexities of phenomena due to its focus on the qualities of the phenomena which cannot normally be quantitatively measured. The qualitative research design appealed to us because we engaged in first-hand accounts of reflective practice through pedagogical reasoning which were documented and provided in-depth insight in relation to the research question. Specific ethical requirements were applied for and acquired as per protocol number HRECNM23-09-091 from the university ethics committee.

The reflective journal as a data collection instrument

Since this research is part of a larger study, phase one engaged in 'researcher as reflexive and reflective facilitator' through reflective journalling that served as a data collection instrument. The authors kept reflective journals which were used to draw up reflective vignettes from their own practice to demonstrate how a critically framed approach promoted the enactment of CP and CDP practices across blended learning contexts. Journals employed by researchers in real settings serve as a source of narrative research (Connelly & Clandinin, 1990) since they make up a crucial part of processes that are documented. The advantage of employing reflective journals by facilitators is that it strengthens their learning and pedagogic practices while improving the learning processes of course participants (Moon, 2006; O'Connell & Dymont, 2011). Another strength of employing reflective journals is that they are a means of collecting data to be used more so in the social sciences and viewed as an effective way to document

information about one's feelings (Cohen, Manion & Morrison, 2002). We interpreted the reflection phase of Shulman's MPRA as inclusive of 'feelings', opinions and assumptions. We believe these are important in the being and becoming of the self. Our intention in this study was to hear our own voices and learn more about our pedagogic practices through the reflective journal as an instrument since it appeared to develop our meta-cognitive skills and promoted our self-orientation and accountability as a collective in the L&T process. According to Phelps (2005: 37), 'the data of the journals provide significant insights not always achieved through other ways of data collection' and it is a good way to solicit information about one's feelings (Cohen, Manion & Morrison, 2002). Besides our feelings about events or decisions made, reflection required deep introspection about our underlying, and possibly unconscious, assumptions and opinions. We engaged in reflexive practice, where we were challenged by our own honest reflections, to make different decisions or conduct ourselves differently, if given the chance. A narrative inquiry involved looking at our own journals in a collective reflective manner to challenge our assumptions about our facilitation practices and why we engaged in ways that we did in L&T experiences that integrated Edtech. This meant that we noted our individual reflections via journal entries. As a collective, we discussed these reflections, and interrogated each other's reflections, and underlying assumptions. We were then challenged to reconsider our practices and decisions. Hence, in this study, our journals became our point of departure in terms of our experiences and reflections thereof; as well as a point of return due to the journals transformative nature since it influenced how we constantly reframed our pedagogic practices through reasoning in each week of the course.

The reflective journal and research rigour

As a collective, we checked on our recollection or details about specific participants at specific moments. This feedback from a 'co-facilitating peer' intersected with our methods that increased the trustworthiness and rigor of our study. Jasper (2005: 250) is of the view that reflective journals permit the researcher to

own centrality of their research process, which contributes to the legitimacy of the knowledge claims.... provides an audit trail which clearly indicates the procedural steps that enhance the transparency of process.

The data that we collected from our journals can be viewed as a traditional way of data collection, however as critical pedagogues, we eschewed the term 'data' in lieu of perspectives relating to criticality as our perspectives allowed us to give meaning to our reasonings around pedagogy. Hence, we employed similar headings to guide our reflections as follows (refer to Appendices A, B and D):

- Summary of a specific lesson (our self-observation, what happened? why? what have I learned?)
- Description of our mindset and perspectives that we anticipated addressing in the lesson (reflection on action, what works with these participants?)
- Future impact on insights to transition our facilitation based on our reasoning (planning the next time, what can be incorporated from the reflections? should I try something new?)

While our reflections were readily available in our journals, we used introspective questions in the form of Shulman's six phases from the MPRA to review our reflections. This was because we constantly reflected on our pedagogy in a logical yet systematic manner in relation to the research question. The MPRA phases begin with comprehension, transformation (in terms of content and knowledge) and moves to instruction (which we refer to as facilitation), evaluation, reflection and finally ends with new comprehensions. These phases are further elaborated on, in the visualisation presented in Figure 1.

DATA ANALYSIS, FINDINGS AND DISCUSSION

Our reflective journals served as the data source for this project with deep perspectives. Journal entries regarding our feelings, ideas and experiences as facilitators on the course, as mentors to participants and as holistic reviewers of the course were analysed. We engaged in thematic analysis because we sought to establish, scrutinise and interpret our meaning-making through a process of systematically generating themes using Shulman's (1987) MPRA as dimensions to our thematic data analysis which made visible, common themes (in italics) that were extrapolated, analysed and sorted as depicted in Table 1.

The analysis process involved meticulously reading and re-reading each other's journals to identify consistencies, inconsistencies, and neutral language, ensuring consensus in our interpretations. This process also encouraged us to critically reflect on our biases and assumptions. During the re-reading process, we highlighted and annotated sections of the text relevant to Shulman's Model of Pedagogical Reasoning and Action (MPRA) and the research question, assigning colour-coded labels to these sections. Each code was descriptive of the data segment's essence, aligning with specific elements of the MPRA. We grouped similar codes together to identify broader patterns within the data. This involved organising the codes into coherent clusters. We critically reflected on our own biases and assumptions during this process, ensuring that the themes emerged from the data rather than our preconceptions. The identified patterns were then mapped onto the MPRA framework and the expanded transformative learning theory. This helped us to align our codes with specific theoretical constructs. We defined themes based on the grouped codes, ensuring that each theme captured a significant aspect of the data. We reviewed the themes to ensure they accurately represented the data and were distinct from each other. Through discussions and further reflection, we refined the themes, merging or splitting them as necessary to better encapsulate the underlying data. The colour-coded system helped us organise and visualise the data, facilitating a clear and coherent analysis.

This process was informed by perception and reflection. For example, data related to our digital competency and comprehension of online tools were aligned with the theme of digital creativity, coded in green. Our reasoning on how knowledge is transformed into teachable content with appropriate facilitation strategies corresponded to the theme of creating safe-ish spaces (Sykes & Gachago, 2018), coded in orange, and the theme of selecting and tailoring activities, coded in purple. Reflections on learning from one another and from participants were aligned with the facilitation phase and the theme of co-creation, coded in blue. The evaluation phase was linked to our self-awareness of pedagogy, coded in yellow. The reflection phase extended to phronesis and deep reflection, addressing the challenges of CDP, including what worked, what

didn't, and why, coded in red. Finally, we searched for evidence of how our reflections led to new learning, related to new comprehensions, and aligned with the theme of transcending knowledge boundaries, coded in pink.

*Table 1:
An example of some findings leading to common themes in alignment to Shulmans
pedagogic reasoning phases*

Pedagogical Reasoning phases	Findings leading to themes
Comprehension	<p><i>Digital creativity</i> through experiencing the process of the course and not only the product: Understanding what we engage in currently and the facilitating online course is geared toward digital creativity because of the portfolio and not prescribing what is to be engaged in by participants. Levels of digital competence that are augmented further through interacting with the course and its participants. We also augmented our academic agency with digital agency to ensure that we were digitally literate to a large degree. In doing so, we attempted to create a safe space for our participants and us. We agree with Sykes & Gachago (2018) that it is not possible for a space to be 'safe' for everyone. The safety of spaces is relative and is determined by each individual participant. As facilitators we could only attempt to create learning environments where participants felt emotionally supported, treated with respect and where confidentiality and dignity are maintained (Sykes & Gachago, 2018). Which is what is referred to as 'safe-ish' spaces.</p>
Transformation	<p>Through creating the online space as a <i>safe space</i> that upheld democratic participation, we engaged, through empathy, while preparing, representing <i>selecting and tailoring</i> activities to participants' needs. The course was developed and included many activities that participants were supposed to understand and complete. After engaging with the participants, understanding their complexities and lived experiences, and through the mentoring sessions, we understood how certain activities may need more scaffolding, or extended timelines, or softer deadlines, and we changed them as needed. We looked at these aspects through an empathetic lens because we reasoned through previous iterations of the course that each of the participants entered the course with their own lived experiences. Most participants possessed disciplinary knowledge since they were professionals in their own fields</p>

	where much complexity resided. We were entangled in the L&T complexity, and this resulted in participants opening up to their vulnerabilities.
Facilitation	<i>Co-creation</i> : This is how we ended up facilitating the course as we learned from the participants. As we mentored them, we learned from them in as much as they learned from us. The reflexive practice entailed us questioning our comfort in the space in terms of participants' discomfort. Participants felt that their input would be a catalyst to transform certain aspects of the course. This is exactly what we intended in our transformation phase.
Evaluation	<i>Self-awareness</i> due to our reflections and the conceptualisation of terms that we employed. this reflexive practice was reasoned further at later stages through reflective practices. This awareness informed how we approached mentorship, facilitation and being attuned to the ethic of care.
Reflection	On-going critical reflexive practice. Our reflections were critical. Critical meant that we were critical of ourselves through awareness of our actions and the need for transformation which was due to reflexive practice. We also had to decipher healthy boundaries so that participants could also place themselves in the seats of their students. This specific aspect led us to thinking about the <i>challenges of CDP</i> practices. We note that our journals did not include explicit headings for ambiguities, issues and concerns around power dynamics and socio-political structures. However, as critical pedagogues who are passionate about social justice, it is ever-present in our engagements with participants and among one another. Each seemingly simple incident, request, or decision was traced back to the wider social justice issue as they appeared.
New Comprehensions	<i>Transcending knowledge boundaries</i> : We reasoned around what we learned through our interactions with participants. This informed new ways of what and how we learned. It could only be achieved as a result of our interactions with participants and foregrounding their views while we remained in the background. We did not undermine the views of participants as we believed that their assumptions and views would help us grow as academics and facilitators through collaborative practices. By not undermining participants we reframed the powers at play by encouraging participants to augment their academic agency.

As depicted in Table 1, our findings demonstrated that pedagogic reasoning is a complex and multi-dimensional way of being that integrates with reframing of practice as further narrated in the sub-themes below.

Digital creativity and safe spaces

Due to the rapid evolution of online tools and methods of work, a flexible approach that allows participants to experiment with new technologies is preferable to a prescriptive one. After creative exploration, critical reflection led to reflexive practice and a journey of continuous learning. Our reflections depicted fostering a caring and empathetic attitude with clarity. Through reflection we realised that we had adopted a maternalistic approach to care. Facilitator B reflected at a specific moment:

Participant x would like to have buttons on her homepage that link the various elements to their pages. So, I suggested we try it out since I know my way around uLwazi. So, we started figuring it out ourselves, we tried different ways of embedding the links until we got it right. We had fun learning together creatively, collaborating in a way that felt comfortable.

No one felt they knew more than the other, we were simply exploring something we had both never done before. I was using my prior knowledge of the LMS, and participant x was using her existing technology knowledge to find a way of solving the problem.

In a similar vein, Facilitator C reflected as follows:

One of the participants taught Human Computer Interaction and experienced a few navigational challenges in the design of our course on the LMS. She suggested a few ways to improve the navigational experience. I noted her suggestions were which will be forwarded when the course is reviewed for the next iteration. Improvement and learning is continuous, and we can learn much from our participants.

Selecting and tailoring activities

When educators engage in pedagogical reasoning during facilitation, planning, and implementation, they transform their understanding of the subject matter into pedagogically effective forms that are adaptable to the diverse abilities and backgrounds of their students (Shulman, 1987: 15). While Shulman focused on schoolteachers, we understood this to be relevant in our context as well. The mentoring of a diverse group of participants with varying backgrounds, technological skills, and life experiences resulted in an array of adaptable mentorship models, evident in our collective reflections. As facilitators, we realised the need for different ways of mentoring, since each mentee had a different lived experience that needed to be considered. This consideration of lived experiences resulted in the humanisation of L&T practices, which serves as a catalyst for change. Such change meant that, as facilitators, we reflected on creating more meaningful interactions with course participants in the future.

Transcending knowledge boundaries and co-creation of knowledge

One of the issues that stood out when reflecting on what worked and did not work during the facilitation of the course was the negotiation and meeting of deadlines. Deadlines remain important aspects in any learning environment to manage expectations from both facilitator

and participant perspectives. Deadlines are set to hold one another accountable. Amongst the basic principles of CDP is that 'education is a human process' and that 'knowledge should relate and develop from the lived experiences' (Rowell, 2022: 3) of both the facilitators and participants. Humanising the education process meant considering the needs of participants first by ensuring that set deadlines were reasonable, negotiated and agreed upon by all involved to create a democratic learning environment. Knowledge is socially produced and acquired in a specific context while possessing properties that take it beyond boundaries that were initially constructed. This transcendence is precisely what led to co-creation of knowledge since the pedagogical structure of the course was focused on co-creating with course participants. This translated to allowing open-ended and student-centred activities and discussions. Often, we used our personal time to assist participants in their online facilitation journey. According to Facilitator A,

My mentees would send WhatsApp messages in the evenings to inquire about some activities, more so around navigating in the online space and tool usage. I understood that many of them have heavy workloads and would normally get into the course in the evenings. I would then take their calls or messages and guide them accordingly while discussing other aspects that did not relate directly to the course but rather around their ontologies. Subsequently, these moments collectively led to other digital moments and took the role of collective critical reflection.

Similarly, through the embodiment of the dialectic (looking both ways) via negotiation and time management, balanced boundaries appeared somewhat established and transcended. However, these structural forces intersect with and potentially shape the transformative/reflexive learning process of this study. Our reflexive practices around issues such as constant online communication, the proliferation of Edtech, and the neo-liberalisation of education remained, but they informed our practice toward a deeper understanding of the complex socio-political contexts in which L&T occurs. This meant that we reflected on the dynamics of constant online interaction, considering both the opportunities for increased accessibility and engagement and the challenges such as communication overload and the potential for miscommunication. This reflexivity led to more thoughtful communication strategies, like setting clear expectations about response times, type of language used to communicate and using asynchronous forums to mitigate the intensity of constant communication. In terms of proliferation of Edtech, we considered how each tool influenced learning. This reflection assisted us in choosing appropriate tools that align with learning objectives and are inclusive of all participants' needs. By reflecting on these influences, we tried to balance these pressures with the goal of fostering critical thinking. This led to co-creation of knowledge of the course and other forms of knowledge as well. Facilitator B reflected as follows:

What have I learned?

I have learned how much we learn from each other, whether you are a mentee or mentor - we all have something we can learn from each. Co-creation is a beautiful thing when it happens.

Facilitator C felt that

Feedback is important for continuous improvement. When a participant experienced difficulty navigating the LMS, a suggestion was to include a more detailed component on use of the LMS in future. We shouldn't take for granted that everyone is familiar with the system.

Self-awareness and reasoning

Through reflection and understanding of the self, our motivations, strengths, skills and values allowed us to identify and recognise certain areas of our pedagogy that needed development to improve. Possessing this ability meant that we critically analysed our own behaviours to improve our students understanding.

This interaction to me revealed the true meaning of peer learning and learning situated within the community. No one felt they knew more than the other, we were simply exploring something we had both never done before.

In hindsight we made ourselves vulnerable within our pedagogy. Our reflective journals had in fact forced us to look at pedagogic events and analyse them further within a collective. This in turn opened up the conversation to improved ways of teaching.

Critical reflexive practice and reframing powers at play

To reframe means to step back and reconsider how an experience can be viewed from a different perspective. Reasoning through meaning-making (discussed previously) is often viewed as a shared process based on co-creation of knowledge. However, a crucial political dimension of critical pedagogic practice is the reflective and democratic process that views the humanisation of L&T as both an aim and reference for pedagogical praxis. This aligns to hooks (1996: 14) who stated that 'there is the need for a cycle of action and reflection upon the world in order to change it'. For us, pedagogical praxis in critical digital pedagogy was the outcome of our facilitations based on critical reflective practice. Reflection assisted us to make sense of complex situations. Through the weekly reflective reviews and meetings between facilitators, collective action was fostered in our efforts to create conditions whereby all our participants could be heard, together with us.

Challenges in enacting CDP

As much as we wanted to assist participants with reaching deadlines, some did not reach them, and this impacted on our deadlines as well. We were dialogic around these challenges. We were of the view that, in trying to consider and cater for the diverse range of experiences of the participants, and each participants personal circumstances, the flexibility of deadlines and requirements may be viewed as unfair to those who met the deadlines and requirements. This was mediated by allowing those participants who met the original deadlines to review and resubmit their outputs, if they wished to do so, in line with extended deadlines. Additionally, we remained aware of one aspect of enacting critical digital pedagogy since sometimes the enactment of CDP can be made to appear as though it is utopian in nature and that it can resolve various social challenges (Bartlett, 2005). Another assumption is that enactors of CDP tend to assume self-righteous positions with the assumption that theirs is the best practice (Popkewitz, 1993). This is specifically the practice that we refrained from engaging in throughout our CDP enactment and our reflective practices. We engaged in reflexivity around our practices

and reflected on contextual dynamics too. For an example issues like online communication strategies and increased accessibility and engagement were constantly concerning us. We worried about bandwidth and looked at challenges like communication overload, communication strategies. There is a session in the course that deals with managing lurkers for instance. The proliferation of digital technologies was another one where participants were given a choice in which technologies are aligned with their needs. We dealt with the political nature of technology and participants were always conscientised about these and other broad structural issues as discussed further up.

Achieving reliability and validity

To enhance validity, we engaged in member checking by sharing our journals with one another to seek feedback while allowing us to verify the accuracy of our recorded experiences. We also reflected on our own biases and assumptions when interpreting our journals while engaging in lengthy discussions. This process assisted us in maintaining validity of our data at all times. We were also cognisant of consistency in one another's journals in that we took time to identify patterns or inconsistencies and when there were significant fluctuations, we explored the reasons behind them. This aspect also related to our inter-rater reliability since we analysed data and aimed for agreement among our interpretations. We tried our best to mitigate biases in self-reporting through the use of neutral language.

Strengths and limitations of this study

One of the strengths of this study was that we engaged in constant pedagogical reasoning through reflective and reflexive processes. What was reflected on in one session was implemented in the next session. Another strength was that the influence of CDP practices through reasoning became inherent in our L&T practices. These strengths would also benefit the scholarly community. One limitation of the study was its focus on a single course with a small sample size and only three facilitators. Another limitation was that the enactment of CDP was foregrounded on a professional learning course that was facilitated to academics. However, the learning from this course could be scaled to students.

Implications and recommendations

One recommendation would be for us to now move to observing our course recipients in their L&T practices. Our intention would be to ascertain if they are enacting CDP through pedagogical reasoning in their teaching practice. This would be important due to the complex nature of integrating educational technology with limited consideration of the lived experiences of students. Similarly, another implication that would be a recommendation is that if our facilitation led to course participants enacting CDP practices in their L&T, then what would be the influence on the holistic learning experience of students? Would educational technologies be mere grounds for content distribution or employed in a critical manner?

CONCLUSION

Our aim in this study was to investigate how our pedagogical reasoning influenced the enactment of CDP when facilitating a course. Criticality for us was a commitment to understanding ourselves and the world better through connections with course participants as this remained a self-reflective and dialogic experience. These two qualities of critical pedagogy

made it apparent why it is difficult to prescribe a specific method of enacting critical pedagogical practice in digital contexts. Like Bolton & Delderfield (2018: 13), we engaged in ongoing inquiry into our 'attitudes, thought processes, values, assumptions, prejudices and habitual actions'. Since our view of pedagogy is always reflective, CDP appeared to be constantly under construction as we transcended knowledge boundaries among other boundaries more often than not.

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