



NARRATIVES OF CHANGE:

**TEACHERS' LIVED EXPERIENCES OF ONLINE PROFESSIONAL
COMMUNITIES AND THEIR IMPACT ON TEACHING PRACTICE**

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Abstract

Continuous Professional Development (CPD) is widely recognised as essential for improving teaching quality; however, traditional models are often criticised for being prescriptive, decontextualised, and limited in their impact on classroom practice and teacher beliefs. The emergence of online professional communities offers alternative, teacher-driven spaces for professional learning, yet there remains limited understanding of how teachers' lived experiences within these environments influence their teaching practices and professional beliefs. This study aimed to explore teachers' lived experiences of participation in online CPD communities and examine how such engagement shapes their pedagogical practices and professional beliefs. A qualitative approach, grounded in a constructivist paradigm, was adopted. Data were collected from 100 teachers through an open-ended questionnaire, followed by semi-structured interviews with 20 purposively selected participants. The data were analysed using thematic analysis. The findings revealed that participation in online CPD communities significantly influenced teaching practice through improved learner engagement, resource mobilisation and curriculum development, pedagogical advancement, and innovation. Additionally, teachers experienced shifts in professional beliefs related to assessment,

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collaboration, leadership, and identity while demonstrating increased agency and confidence in their practice. These findings show that online communities function as dynamic spaces for collaborative learning, reflective practice, and professional transformation. The study recommends the design of context-responsive and inclusive CPD platforms, the promotion of teacher voice and leadership, and the strengthening of collaborative and interactive learning environments. It concludes that online CPD has the potential to transform professional development into a more participatory, flexible, and impactful process that supports both practice and belief transformation.

Keywords: *online CPD, teacher professional development, pedagogical change, teacher identity, teacher agency, communities of practice, professional learning.*

Introduction

Continuous Professional Development (CPD) has long been recognised as a cornerstone of effective teaching, enabling educators to adapt to evolving curricular demands, technological advancements, and diverse learner needs. Traditionally, CPD has been delivered through formal, top-down structures such as workshops and training sessions, often characterised by limited teacher input and contextual relevance (Lafferty et al., 2024; Merino et al., 2025). However, the increasing complexity of 21st-century education, requiring skills such as critical thinking, collaboration, and digital competence, has intensified the need for more responsive and meaningful professional learning models (Mor, 2025). In response, digital technologies have transformed the landscape of teacher professional learning by enabling participation in online professional communities. These communities, including platforms such as WhatsApp groups, Twitter EduChats, and online forums, function as communities of practice where teachers collaboratively construct knowledge through shared experiences and interactions (Jacobs et al., 2023; Mahlo & Waghid, 2026). Within such spaces, teachers engage in dialogue, exchange pedagogical strategies, and reflect on classroom practices, thereby contributing to the ongoing construction of their professional identities. Furthermore, participation in online communities is closely linked to teacher agency, defined as teachers' capacity to make informed decisions and enact change in their professional contexts (Krushinskaia et al., 2026; Mohammad Nezhad & Stolz, 2025). These informal, teacher-driven environments provide opportunities for experiential learning, collaboration, and identity formation, allowing teachers to move beyond passive recipients of knowledge to active contributors in their professional growth. As highlighted in recent studies, such engagement often results in shifts in teaching practices, beliefs, and professional confidence (Dyosini, 2024; Liu et al., 2025).

Despite significant investments in CPD, many traditional professional development programmes remain ineffective in bringing about meaningful changes in teachers' classroom practices and professional beliefs (Abakah, 2023; Li & Gu, 2026). These programmes are frequently criticised for being overly theoretical, prescriptive, and disconnected from the lived realities of teachers' classroom experiences. Consequently, teachers often struggle to translate acquired knowledge into practical application, leading to limited impact on teaching quality and learner outcomes. At the same time, while online professional communities have emerged as alternative spaces for teacher learning, there is insufficient understanding of how teachers' lived experiences within these communities influence their teaching practices and reshape their professional beliefs. The experiential dimension, how teachers narrate and interpret these changes, remains underexplored, particularly in relation to identity development and agency. Existing literature on teacher professional development has largely focused on formal CPD structures, with limited attention given to informal, digitally mediated learning environments (Abakah, 2023; Oikarinen et al., 2026). While some studies acknowledge the benefits of online communities for collaboration and knowledge sharing (Wijarwadi et al., 2025; Zamiri & Esmaeili, 2024), there is a paucity of research that captures teachers' lived experiences and narratives of change within these spaces. Moreover, current research tends to examine outcomes such as skill acquisition or technology integration (Amemasor et al., 2025; El-Soussi, 2025), without sufficiently interrogating how participation in online communities transforms teachers' professional identities, beliefs, and classroom practices over time. There is also limited empirical evidence linking participation in online CPD communities to teacher agency and voice, particularly within diverse and globalised educational contexts.

This study is grounded in the need to reconceptualise CPD as a dynamic, teacher-centred process that values experiential learning, collaboration, and contextual relevance. By focusing on teachers' lived experiences in online professional communities, the study seeks to foreground teacher voice and agency in professional development discourse. Understanding how teachers interpret and apply knowledge gained from online communities is crucial for designing more effective and inclusive CPD models. Such insights can inform policy and practice by highlighting the potential of informal, networked learning environments to complement or even transform traditional CPD approaches. Additionally, exploring the narratives of teachers provides a deeper understanding of how professional beliefs are shaped, challenged, and reconstructed through participation in communities of practice.

Aim of the Study

The aim of this study is to explore teachers' lived experiences of participation in online professional communities and examine how such engagement influences their teaching practices and professional beliefs.

Methodology

This study was grounded in the constructivist paradigm, which assumes that reality is socially constructed through individuals' lived experiences and interactions within specific contexts. The constructivist lens was appropriate for this study as it enabled an in-depth exploration of teachers' subjective meanings, interpretations, and experiences of participating in online professional communities. Within this paradigm, knowledge is co-constructed between the researcher and participants, allowing for rich insights into how teachers perceive the influence of online CPD on their teaching practices and professional beliefs (Pervin & Mokhtar, 2022). A qualitative research approach was adopted to capture the depth and complexity of teachers' lived experiences within online professional communities. Qualitative research is particularly suitable for exploring meanings, perceptions, and experiences in naturalistic settings, allowing participants to articulate how engagement in online CPD spaces has shaped their teaching practices and professional identities (Tenny et al., 2022).

The study employed a generic qualitative research design, which provides flexibility in exploring participants' perspectives without being confined to the strict procedures of established qualitative traditions such as phenomenology or grounded theory. This design was appropriate as the study sought to understand teachers' narratives of change and the influence of online professional communities on their teaching practice and beliefs. The generic qualitative design allowed for the collection and interpretation of rich, descriptive data while remaining aligned with the constructivist paradigm and the study's focus on meaning-making and lived experiences (Ellis & Hart, 2023). It also enabled the integration of theoretical insights from Communities of Practice and Teacher Agency to interpret how participation in online spaces shapes professional learning.

The population for this study comprised members of the Ubuntu Education Hub, an online professional learning community hosting over 20 000 teachers from diverse geographical and professional backgrounds. This platform was selected due to its active engagement, global representation, and focus on collaborative teacher learning and professional growth. As a community of practice, the Ubuntu Education Hub provides a dynamic environment where

educators share experiences, resources, and pedagogical strategies, making it an appropriate context for examining the influence of online CPD on teaching practice and professional beliefs. A purposive sampling strategy was employed to select participants who could provide rich and relevant insights into the research phenomenon. A total of 100 participants responded to the open-ended questionnaire. Following this, online interviews were conducted with 20 teachers who had indicated their interest in participating in follow-up interviews and expressed willingness to be part of the study. The selection criteria included active engagement in online discussions, demonstrated participation in professional exchanges, and the ability to critically reflect on how such engagement influenced their teaching practices and beliefs. This sampling approach ensured that participants possessed sufficient experience and depth of engagement to meaningfully contribute to the study. It is consistent with qualitative research principles that prioritise information-rich cases for in-depth understanding.

Data were collected through an open-ended questionnaire and one-on-one online semi-structured interviews. These methods provided a flexible yet focused approach to eliciting participants' lived experiences. The use of online interviews was particularly appropriate given the virtual nature of the community under investigation, as it enabled participation from individuals across different geographical locations in a convenient and accessible manner. The interviews allowed participants to describe specific instances in which their involvement in online professional communities influenced their teaching practices and professional beliefs, thereby generating rich, narrative data. The data were analysed using thematic analysis, following the systematic process outlined by Braun and Clarke (2006). This involved familiarisation with the data, generation of initial codes, identification and review of themes, and the definition and naming of themes. Thematic analysis was appropriate for this study as it allowed for the identification of recurring patterns and meanings across participants' narratives, particularly regarding how online community participation influenced teaching practices and professional beliefs. The method also enabled the researcher to interpret both explicit and implicit meanings within the data, consistent with the constructivist paradigm and the study's emphasis on meaning-making and identity construction (Braun & Clarke, 2006).

Limitations of the Study

Despite its contributions, the study has several limitations. Firstly, the use of purposive sampling and the relatively small sample size limit the generalisability of the findings to broader populations. Secondly, the reliance on self-reported data collected through

questionnaires and interviews may introduce bias, as participants may provide socially desirable responses or may not fully recall their experiences. Thirdly, the study focused on a single online community, the Ubuntu Education Hub, which may not fully represent the diversity of online professional learning environments available to teachers globally. Additionally, the informal and dynamic nature of online interactions makes it challenging to capture the full extent of participants' engagement and its impact on their professional practice. Nevertheless, these limitations are consistent with qualitative research, which prioritises depth, context, and meaning over broad generalisability.

Findings and discussion

The analysis identified nine interrelated themes: improved learner engagement, resource mobilisation and curriculum development, pedagogical advancement, teacher identity, innovation, transforming assessment beliefs, collaborative mind-set and relationship building, teacher agency, and leadership beliefs.

1. Improved Learner Engagement

Participants opined that their involvement in the online CPD community positively influenced learner engagement in their classrooms. Teachers reported that exposure to webinars, discussion forums, and online training sessions equipped them with practical strategies to create more interactive, inclusive, and stimulating learning environments. Their reflections demonstrate a shift from traditional, teacher-centred approaches to more participatory and learner-centred pedagogies. Participant 1 described how attending a webinar on the Ubuntu Hub transformed their classroom practice. They explained that the session introduced practical engagement strategies that immediately enhanced classroom interaction:

There was a webinar on the Ubuntu Hub about enhancing learner engagement in the classroom. It was truly a game changer for me. After that session, I implemented the strategies I had learnt, such as interactive questioning and collaborative tasks, and my class was not the same. Learners became more active and interested in the lessons.

Similarly, Participant 35 reflected on how engagement in a discussion forum reshaped their assessment practices. The participant noted that learning from colleagues across regions broadened their perspective on inclusive and collaborative strategies:

One forum thread focused on inclusive assessment practices really resonated with me. A teacher from another region shared how they used Ubuntu's peer assessment tools to promote collaboration and self-reflection among students. Inspired by this, I integrated

structured peer review tasks into my lessons, and I was amazed by the results. My students became more engaged, took greater ownership of their learning, and demonstrated stronger critical thinking skills.

Participant 44 emphasised the value of learning playful and game-based approaches to teaching, highlighting how such strategies enhanced learner participation: *“The online community helped me gain insight into using educational games effectively. By incorporating games into my lessons, I noticed that learners were more enthusiastic, attentive, and willing to participate.”* Participant 74 pointed to discussions on making the classroom more lively and responsive to diverse learner needs. They indicated that exposure to these conversations broadened their classroom management and engagement strategies: *“I logged into the platform and found educators discussing how to make the classroom lively and how to cope with different personalities in a working environment. These discussions helped me adopt more inclusive strategies that made my classroom atmosphere more positive and engaging.”*

Participant 80 linked their participation in online training on inclusive education practices to improved participatory teaching methods: *“My participation in the online training on inclusive education practices sharpened my knowledge of how to make my lessons more participatory and inclusive. I now create opportunities for all learners to contribute, which has significantly improved engagement,”* Participant 91 highlighted the importance of incorporating movement and relaxation techniques into lessons to sustain learner attention: *“Through the online community, I learnt how to help learners relax by including short exercises in between topics. These brief activities refresh them and improve their concentration, which has made my lessons more engaging.”* Participant 89 reflected on improved classroom control and engagement as a result of strategies shared within the community: *“The strategies I learnt online have helped me manage and guide learners more effectively in the classroom. As a result, learners are more focused and actively involved in the learning process.”*

The data suggest that participation in online CPD communities plays a transformative role in reshaping teachers’ classroom practices and professional beliefs. Teachers’ accounts indicate a clear pedagogical shift towards more interactive, inclusive, and learner-centred approaches. This shift reflects an increased awareness of the importance of active learner participation, collaboration, and differentiated instructional strategies in enhancing classroom engagement. Such changes are consistent with recent studies which argue that online CPD environments expose teachers to innovative pedagogical practices that promote learner agency and participation (Asmare, 2025; Hoskin, 2025). The data therefore confirm that sustained

engagement in online professional learning spaces can positively influence how teachers conceptualise and enact effective teaching. From a communities-of-practice perspective, the improvement in learner engagement can be understood as a result of teachers' active participation in collaborative knowledge-sharing spaces. Through webinars, discussion forums, and shared resources, teachers engaged in collective meaning-making and accessed practical strategies that were immediately transferable to their classrooms. This aligns with the notion that learning occurs through participation in shared practices, where members move from passive recipients of knowledge to active contributors (Skarli & Stokke, 2025). The findings extend this theoretical proposition by demonstrating how virtual communities of practice not only support teacher learning but also have a direct impact on classroom dynamics, particularly in fostering more engaging learning environments.

The emphasis on inclusive and participatory teaching strategies further indicates a shift in teachers' professional beliefs about effective pedagogy. Teachers' adoption of peer assessment, game-based learning, and differentiated instructional approaches suggests a move away from transmission-based teaching towards constructivist and learner-centred paradigms. This finding corroborates existing literature which highlights that online professional communities encourage reflective practice and pedagogical innovation, enabling teachers to adopt strategies that cater for diverse learner needs (Kolajo, 2025; Shi et al., 2025). Moreover, the integration of inclusive practices demonstrates an increased commitment to equitable participation, which is central to contemporary educational discourse. The data also reveal that teachers' exposure to diverse perspectives within online communities contributed to the expansion of their instructional repertoire. Interaction with peers across different contexts enabled teachers to re-evaluate their existing practices and experiment with new approaches to enhance learner engagement. This supports sociocultural perspectives of learning, which emphasise the role of social interaction and dialogue in shaping professional knowledge and practice (Lehtinen et al., 2023). The findings extend this body of research by illustrating how digitally mediated interactions can facilitate not only professional learning but also tangible improvements in classroom engagement.

Furthermore, the incorporation of strategies aimed at sustaining learner attention, such as movement-based activities and varied instructional techniques, indicates a growing understanding of the cognitive and emotional dimensions of learning. This aligns with recent research suggesting that learner engagement is enhanced when teaching approaches address both cognitive stimulation and emotional well-being (Aliabadi & Weisi, 2023). The data

therefore suggest that online CPD participation contributes to a more holistic approach to teaching, where engagement is viewed as a multidimensional construct. Importantly, the findings highlight a shift in teachers' sense of agency and confidence in managing classroom engagement. Teachers demonstrated an increased ability to implement and adapt strategies that promote active participation and positive classroom environments. This reflects the empowering nature of online professional communities, where teachers are not only consumers of knowledge but also co-constructors of practice. In line with Communities of Practice theory, this enhanced agency can be interpreted as a result of legitimate participation in a professional learning community that values shared expertise and collaborative growth.

2. Resource Mobilisation and Curriculum Development

Another significant influence of participation in the online CPD community was teachers' ability to mobilise resources and enhance curriculum development. Participants reported that engagement in the online community exposed them to new digital tools, teaching materials, funding opportunities, and innovative pedagogical strategies that directly shaped their classroom practices and professional beliefs about teaching and learning. Several participants highlighted how the online CPD community enabled them to source and integrate digital resources into their schools. For example, Participant 2 explained how participation in the platform facilitated access to educational technology that benefited learners directly: *"Through the online community, I was able to source educational digital devices, and the results have been very pleasing. My learners are now using donated computers to enhance their digital literacy and confidence in using technology for learning."* This illustrates how online engagement extended beyond theoretical discussions to practical resource mobilisation that transformed classroom practice. Similarly, Participant 8 emphasised how exposure to discussions on emerging technologies supported curriculum enrichment, particularly in coding and robotics: *"I learnt how to introduce coding and robotics in my school, even with limited resources. The platform provided guidance on affordable tools and how to align them with the curriculum."*

Other participants reflected on how the online community supported curriculum delivery through shared teaching strategies and structured programmes. Participant 21 noted the value of structured educational resources accessed through the community: *"The teaching styles and resources from Ubuntu Education have been beneficial. They have helped me rethink how I present content and structure my lessons to make learning more engaging and learner-centred."* In the same vein, Participant 22 highlighted how professional development in

Artificial Intelligence enhanced lesson preparation and instructional design: *“The online training on Artificial Intelligence has significantly improved how I prepare my lesson notes. I now use AI tools to design activities, generate examples, and differentiate tasks according to learners’ needs.”* This demonstrates how online CPD participation influenced not only access to resources but also teachers’ professional beliefs about innovation and adaptability in curriculum planning.

Participants also reported gaining practical strategies for learner engagement and assessment design. Participant 71 described how exposure to digital learning games enriched classroom interaction: *“I discovered learning games that I now use in my classroom. They make lessons more interactive and motivate learners to participate actively.”* Similarly, Participant 68 explained how the community supported the development of formative assessment tools and project-based learning: *“I learnt how to create quizzes and guided projects for my students. This has improved my assessment strategies and allowed learners to demonstrate understanding in more practical ways.”* Furthermore, Participant 75 reflected on the value of accessing authentic and up-to-date information through the online community: *“I have had the opportunity to gain first-hand and current information about curriculum changes and new teaching approaches, which has strengthened my professional confidence.”*

Participants’ accounts indicate that participation in the online CPD community significantly enhanced teachers’ capacity for resource mobilisation and curriculum development, illustrating the productive interplay between access to shared resources and evolving professional beliefs. From a communities-of-practice perspective, the online CPD platform functioned as a collaborative space where teachers engaged in the exchange of tools, strategies, and knowledge, thereby facilitating both individual and collective learning. The findings indicate that teachers’ engagement extended beyond passive consumption of information to active participation in sourcing and adapting resources, which contributed to more contextually responsive teaching practices. This aligns with studies suggesting that participation in professional learning communities enhances teachers’ instructional capacity through access to shared expertise and material resources (Al Masroori et al., 2026; Yu & Chao, 2023).

The data further reveal that exposure to digital tools and emerging pedagogical approaches supported teachers in integrating technology into curriculum delivery, even in resource-constrained contexts. This suggests a shift in teachers’ professional beliefs towards embracing innovation and adaptability as core components of effective teaching. Such findings corroborate research indicating that online CPD environments play a critical role in promoting

digital competence and pedagogical transformation (Shi et al., 2025). The educational technologies and funding opportunities reflect an expansion of teachers' agency, enabling them to act as active contributors to curriculum development rather than mere implementers. This extends existing literature by highlighting how online communities can facilitate not only knowledge acquisition but also practical resource generation within disadvantaged educational contexts.

In addition, the findings demonstrate that participation in the online CPD community supported curriculum enrichment through the incorporation of contemporary content areas such as coding, robotics, and artificial intelligence. This indicates that teachers were able to align their instructional practices with evolving curriculum demands and 21st-century skills. This reflects the negotiation of meaning and shared repertoire development, where teachers collectively construct new understandings of curriculum relevance. These findings are consistent with research emphasising the role of collaborative professional networks in fostering curriculum innovation and responsiveness (Ningsih et al., 2025; Zhou et al., 2025). At the same time, the data extend prior studies by illustrating how teachers in under-resourced settings can leverage online communities to bridge gaps in curriculum knowledge and implementation.

Moreover, the influence of the online CPD community on instructional design and assessment practices suggests a deeper transformation in teachers' pedagogical orientations. Teachers' adoption of learner-centred strategies, differentiated instruction, and formative assessment tools reflects a move towards more inclusive and responsive teaching approaches. This aligns with existing literature that associates effective professional development with changes in both teaching practices and underlying beliefs about learning (Salo et al., 2024). The integration of digital tools to enhance lesson planning and assessment further demonstrates how online CPD can support reflective practice and continuous improvement. In this regard, the findings confirm that sustained engagement in professional learning communities contributes to meaningful pedagogical change.

Access to current and relevant curriculum information through the online community strengthened teachers' professional confidence and informed their instructional decision-making. This highlights the importance of timely and contextually relevant knowledge in shaping teachers' professional identities and beliefs. Within the Communities of Practice framework, such access can be understood as part of the shared knowledge base that members draw upon to inform practice. While previous studies have acknowledged the informational benefits of online professional networks (Baumann & Utz, 2021; Lu et al., 2025), the present

findings extend this understanding by demonstrating how such access translates into tangible improvements in curriculum development and resource utilisation. The data suggest that participation in online CPD communities fosters a dynamic process of resource mobilisation and curriculum innovation, underpinned by collaborative learning and shared practice. Teachers not only gained access to new materials and strategies but also redefined their roles as adaptive, resourceful, and innovative practitioners. This underscores the transformative potential of online professional communities in shaping both teaching practices and professional beliefs, particularly within contexts characterised by limited resources.

3. Pedagogical advancement

Participants opined that engagement in online CPD communities contributed meaningfully to their pedagogical advancement. Teachers described shifts in instructional strategies, greater confidence in integrating technology, adoption of learner-centred approaches, and renewed professional beliefs about inclusive and innovative practice. Participant 5 reflected on how exposure to creative digital pedagogies transformed both practice and belief about technology integration:

During my involvement in the KPLAY online community, I was introduced to the concept of creative learning through play and technology. Seeing how other educators integrated Scratch coding into their lessons inspired me to try it with my own learners. It completely shifted my belief about using technology not merely as a presentation tool but as a means to spark creativity, collaboration and critical thinking in the classroom.

Participant 6 explained how access to shared resources renewed instructional variety and problem-solving in mathematics teaching:

I had become tired of using the same methods to teach word problems. Through the community, I found well-structured worksheets and alternative strategies shared by other teachers. These resources helped me present the topic differently, and I noticed that learners were more engaged and able to understand the concepts more clearly.

Participant 12 highlighted the growing influence of artificial intelligence (AI) in reshaping teaching practices: *“Through the community discussions on AI technologies and educational applications, I learned how to use AI tools to improve both teaching and learning. It changed my perspective on lesson planning and assessment, making them more interactive and responsive to learners’ needs.”* Participant 13 emphasised the value of exposure to innovative approaches: *“Being given the opportunity to participate in sessions on new teaching approaches broadened my understanding of pedagogy. It encouraged me to move beyond*

traditional, teacher-centred methods and to experiment with more learner-centred strategies.”

Participant 18 described how learning about active learning strategies enhanced classroom participation: *“When I learnt about practical ways to achieve active learning in the classroom, I realised that my learners needed to be more involved in the lesson. Since applying these strategies, I have seen increased participation and deeper understanding.”*

Participant 20 associated pedagogical growth with increased technological confidence: *“A course on the use of AI in the classroom enlightened me significantly. I discovered practical ways to use AI to improve my lesson preparation and delivery. As a result, I have become more confident in integrating technology meaningfully into my teaching.”*

Participant 23 reflected on the long-term impact of digital learning during the COVID-19 pandemic: *“Participating in an online community during the COVID-19 pandemic introduced me to effective digital tools and strategies for remote learning. Even after returning to face-to-face teaching, I continued using these tools to enhance learner engagement and to differentiate instruction.”*

Participant 25 highlighted the influence of innovative instructional models: *“Learning about flipped learning transformed how I structure my lessons. Allowing learners to engage with content before class and using class time for discussion and problem-solving has improved participation and understanding.”*

Participant 31 pointed to the collaborative sharing of materials as central to pedagogical refinement: *“Sharing materials such as worksheets, solutions to Mathematics problems and teaching plans with colleagues in the community strengthened my pedagogy. The feedback and exchange of ideas helped me refine my instructional strategies.”*

Participant 52 described how participation in an international online network broadened possibilities for low-resource contexts:

In 2021, I joined an online group of teachers through DOT Rwanda. I learned how to use simple digital tools to make my science lessons more interactive and enjoyable. This experience changed my belief that effective technology integration requires expensive resources. Even in schools with limited facilities, we can use technology creatively to improve learning.

Participant 57 recognised shared challenges and methodological growth:

Through discussions with teachers from different countries, I realised that the challenges I face in teaching learners of low academic calibre are common. Learning alternative teaching methodologies from others has greatly improved my approach and strengthened my professional confidence.

Participant 62 illustrated how shared inclusive strategies led to immediate classroom impact:

A teacher from another country shared a simple visual schedule used to support autistic learners during transitions. I adapted the idea to suit my classroom context. The impact was immediate; my learner became more settled, confident and independent. This experience strengthened my belief in inclusive and adaptive pedagogy.

Participant 63 noted how a webinar deepened understanding of technology integration: *“When I attended a webinar on technology integration, I realised how foundational teaching practices could be enhanced through digital tools. It opened my eyes to blending traditional methods with innovative practices.”* Participant 70 described a transformative professional moment:

“When I was first introduced to AI and its appropriate use in education, I had no idea how it could serve as a teaching tool. After attending a two-hour online session, my approach to lesson planning and learner engagement completely changed.” Participant 76 emphasised culturally responsive pedagogy and contextual relevance: *“Learning to use traditional language and local materials in my teaching has helped learners who previously found learning challenging. By connecting lessons to familiar contexts, I have seen significant progress in their performance, and I am proud of their achievements.”*

Participant 83 acknowledged the practical value of technological literacy: *“I gained knowledge of technological tools that make teaching and learning easier. This has simplified lesson preparation and improved the clarity of my instruction.”* Participants 87 and 94 both highlighted the pedagogical power of visual and contextually relevant teaching strategies.

Participant 87 explained: *“I learnt the importance of using visuals that learners are familiar with when explaining concepts. Using local and real-life objects, and sometimes referencing familiar personalities, has made lessons more meaningful and easier for learners to grasp.”*

Similarly, Participant 94 stated: *“Through the hub, I learned to use local and real items to explain complex concepts. Since applying this strategy consistently, I have observed improved comprehension and greater learner interest.”* Participant 92 succinctly affirmed the impact of AI-focused professional learning:

“Participating in sessions on AI tools for effective teaching and learning expanded my pedagogical skills and strengthened my confidence in digital instruction.” Participant 97 reflected on professional enlightenment gained through a themed methodological event: *“During an Ubuntu hub event focused on teaching methodologies for primary education, I was greatly enlightened by the presentations. The discussions encouraged me to rethink my classroom strategies and adopt more inclusive and interactive methods.”*

The data indicate that participation in online CPD communities significantly influenced teachers' instructional practices and professional beliefs. Across the data, teachers demonstrated a clear shift from routine, teacher-centred approaches towards more innovative, learner-centred, and technology-enhanced pedagogies. This suggests that online CPD communities function as dynamic learning spaces where teachers are exposed to diverse instructional strategies, enabling them to critically reflect on and refine their pedagogical practices. From a communities of practice perspective, such transformation can be understood as a process of participation in shared practices where teachers negotiate meaning, adopt new strategies, and gradually reshape their professional identities through engagement with peers (Tran, 2022). The data further reveal that pedagogical advancement was closely linked to collaborative knowledge sharing and access to practical teaching resources. Teachers reported that exposure to alternative instructional materials and strategies enhanced their ability to address persistent classroom challenges, particularly in subjects such as Mathematics and inclusive education. This aligns with existing research which shows that online professional communities facilitate the co-construction of pedagogical knowledge and provide contextually relevant solutions to instructional problems (Lehtinen et al., 2023; van der Westhuizen & Hannaway, 2024). The findings extend these studies by demonstrating that such exchanges not only improve instructional techniques but also strengthen teachers' confidence in experimenting with new approaches, even in resource-constrained environments.

A notable dimension of pedagogical advancement emerging from the data is the integration of digital technologies, including AI, into teaching and learning. Teachers' growing confidence in using digital tools for lesson planning, assessment, and learner engagement reflects a shift in professional beliefs about the role of technology in education. This supports recent studies which argue that online CPD plays a critical role in developing teachers' digital pedagogical competence and fostering innovative teaching practices (Oikarinen et al., 2026; Shi et al., 2025). However, the findings also extend the literature by illustrating that teachers moved beyond basic technology use towards more transformative applications, such as promoting creativity, differentiation, and interactive learning, thereby reflecting deeper pedagogical change rather than superficial adoption. In addition, the data highlight the emergence of learner-centred and inclusive pedagogies as key outcomes of online community participation. Teachers reported increased use of active learning strategies, culturally responsive teaching, and adaptive practices to support diverse learners, including those with special educational needs. This confirms prior research that positions collaborative professional learning as a catalyst for

inclusive and responsive teaching practices (Zorde & Lapidot-Lefler, 2025). Notably, the findings also suggest that exposure to global perspectives within online communities enabled teachers to contextualise and adapt strategies to their local realities, reinforcing the communities of practice notion of learning as situated and socially negotiated.

Furthermore, the findings reveal that pedagogical advancement was not limited to skill acquisition but involved a deeper transformation of teachers' professional beliefs and identities. Teachers began to view themselves as innovative practitioners capable of integrating new methodologies, rather than passive implementers of prescribed curricula. This interpretive shift reflects identity reformation through participation, a core principle of communities of practice, where sustained engagement leads to changes in how individuals perceive their roles and capabilities within a professional community (Wenger, 1998). In this regard, the study confirms and extends existing literature by demonstrating that online CPD communities serve not only as sites of knowledge exchange but also as spaces for professional reorientation and empowerment. The data suggest that online CPD community participation fosters meaningful pedagogical advancement through collaborative engagement, exposure to innovative practices, and the integration of digital tools.

4. Teacher Identity

Participants expressed how online CPD communities influenced teachers' sense of professional self, confidence, competence, and leadership identity. Several teachers highlighted how online CPD reaffirmed their professional roles, strengthened their confidence, expanded their knowledge base, and positioned them as reflective and empowered practitioners. Participant 26 explained how engaging in online webinars reaffirmed her professional practice and strengthened her sense of belonging within the Early Childhood Development (ECD) sector. She reflected that: *"After listening to an online webinar, it was refreshing to realise that I am still aligned with what is expected in the ECD sector. It reassured me that my teaching practices are relevant and professionally sound."* Participant 33 described how participating in multiple online learning platforms contributed significantly to her professional growth and confidence. She referred to structured programmes such as One Million Teachers, the AI course on the Ubuntu platform, and her master's degree studies, explaining that these experiences reshaped her self-perception as a capable and evolving professional:

Through online CPD, including the One Million Teachers initiative and the current AI course on the Ubuntu platform that I am pursuing, alongside my master's in project management, I have realised that I can gain extensive knowledge from the comfort of

my home at any time. These opportunities have built my confidence and made me believe that I am capable of achieving more academically and professionally.

Participant 37 emphasised how online communities provided safe, non-judgemental spaces where teachers could share authentic classroom experiences. This openness contributed to her professional identity as a reflective practitioner who learns collaboratively:

I attended many sessions with the Ubuntu Hub and other online webinar platforms. The topics discussed reflect real classroom situations. What I appreciate most is that teachers share both their successes and their challenges without fear of judgement. I have shared some of my own struggles and adopted practical solutions from colleagues. This has not only made my work easier but has also strengthened my identity as a collaborative and reflective teacher.

Participant 53 highlighted how online CPD strengthened both her technological competence and her intellectual identity, particularly her interest in African-centred educational thought:

Online CPD has improved my confidence in using technology for teaching. It has also given me the opportunity to explore Africanist educationists, which aligns with my passion and has deepened my understanding of education from an African perspective. This has shaped how I see myself as a teacher.

Participant 54 described how participation in online professional communities extended beyond learning to leadership development. Through coaching, mentoring, and presenting, she began to see herself not only as a participant but as a contributor and leader within the profession: “*Through coaching and mentorship opportunities, as well as leading sessions and speaking at conferences, I have developed professionally. These experiences have strengthened my identity as a leader and not just a classroom teacher.*”

The data illustrate that participation in online CPD communities plays a significant role in shaping teachers’ sense of professional self, confidence, and agency. Drawing on Communities of Practice, these findings can be understood as reflecting how identity is constructed through active participation, shared meaning-making, and engagement within professional communities. Teachers’ involvement in online CPD spaces appears to facilitate movement from peripheral participation towards fuller engagement, thereby strengthening their professional identities. The data suggest that online CPD contributes to the reaffirmation of professional competence and alignment with disciplinary expectations. Teachers’ reflections indicate that exposure to shared practices and standards within online communities reinforces their sense of belonging to a professional field. This aligns with studies which argue that participation in

professional learning communities enhances teachers' confidence and validates their pedagogical practices (van der Westhuizen & Hannaway, 2024; Lehtinen et al., 2023). From a Communities of Practice perspective, such reaffirmation emerges through mutual engagement and the negotiation of shared professional norms, which in turn stabilises teachers' professional identities.

Furthermore, the findings reveal that online CPD expands teachers' perceptions of their own capabilities, particularly in relation to continuous learning and academic advancement. Teachers' increased confidence and belief in their professional potential reflect identity transformation processes that are consistent with the view that teacher identity is dynamic and continuously reconstructed through experience (Ncube & Ajani, 2025). The accessibility and flexibility of online platforms appear to democratise learning opportunities, thereby enabling teachers to reposition themselves as lifelong learners and competent professionals within evolving educational landscapes. The data also highlight the importance of collaborative and non-judgemental spaces in fostering reflective practice. Teachers' engagement in open dialogue, where both successes and challenges are shared, supports the development of a reflective and collaborative professional identity. This finding confirms existing literature which emphasises that online communities promote critical reflection and collective problem-solving, key elements in identity formation (Warhurst et al., 2025). Within a Communities of Practice framework, such interactions facilitate identity development through joint enterprise and shared repertoires, where teachers co-construct knowledge and meaning.

In addition, the findings extend previous research by illustrating how online CPD contributes to the development of specialised and contextually relevant identities, such as technologically competent and culturally responsive practitioners. Teachers' engagement with digital tools and African-centred educational perspectives suggests that online CPD not only enhances technical skills but also supports the construction of contextually grounded professional identities. This resonates with recent studies highlighting the role of digital professional learning in fostering both technological pedagogical knowledge and culturally responsive teaching identities (Amemasor et al., 2025; Adler et al., 2025). The data indicate that online CPD can facilitate the emergence of leadership identities among teachers. Opportunities for mentoring, coaching, and presenting within online communities enable teachers to transition from knowledge consumers to knowledge contributors. This progression reflects the Communities of Practice notion of identity as a trajectory, where increased participation leads to greater ownership and leadership within the community. This finding extends existing literature by demonstrating that online

CPD not only supports professional learning but also creates pathways for distributed leadership and professional recognition in digital spaces. The findings confirm, extend, and deepen existing scholarship by showing that online CPD communities serve as powerful spaces for identity negotiation, professional validation, and leadership development. The integration of participation, reflection, and collaboration within these communities highlights their transformative potential in reshaping teachers' professional identities in contemporary education contexts.

5. Transforming Assessment Beliefs

Participants indicated that online CPD communities significantly reshaped their beliefs about assessment. They stated that engagement in global forums, professional discussions, and collaborative platforms encouraged a shift from traditional, summative-driven approaches towards more formative, learner-centred assessment practices. Participants emphasised that online communities provided practical strategies, reflective dialogue, and exposure to diverse assessment philosophies, which influenced both their teaching practice and professional beliefs. Participant 24 reflected on how engagement with an international professional platform reshaped their understanding of formative assessment. Through a discussion forum on the British Council Teaching English platform, the participant encountered practical strategies for large classrooms that were both manageable and impactful.

A memorable experience that influenced my teaching practice was participating in a discussion forum on the British Council's Teaching English platform titled 'Incorporating formative assessment in large classrooms'. I engaged with teachers from different parts of the world who shared practical strategies such as exit tickets, peer assessment, mini whiteboard responses, and quick digital quizzes to gauge understanding in real time. One idea that particularly resonated with me was combining think-pair-share with simple learner-friendly rubrics to promote self-assessment and reflection. When I implemented this in my classroom, learner participation increased significantly, and I gained clearer insight into individual progress without being overwhelmed by excessive marking. This experience transformed my belief that effective assessment does not have to be formal, high-stakes, or time-consuming. I now see assessment as an ongoing, interactive process that supports learning rather than merely measuring it.

Similarly, several other participants described how online CPD communities challenged their previously rigid perceptions of assessment as primarily examination-orientated. They reported

moving towards continuous, feedback-driven, and reflective approaches. For instance, Participant 51 explained how exposure to discussions on authentic assessment practices reshaped their philosophy:

Before joining the online CPD group, I believed assessment was mainly about tests and end-of-term examinations. Through webinars and shared classroom examples, I learned about project-based assessment and reflective journals. I realised that assessment should capture learners' understanding in multiple ways. I now design tasks that allow learners to demonstrate critical thinking and creativity, not just memorisation. My belief has shifted from assessment of learning to assessment for learning.

Participant 68 highlighted the importance of feedback in reshaping their assessment practices:

The online discussions emphasised timely, constructive feedback. I used to return marked scripts with grades only, but colleagues in the community demonstrated how narrative feedback and questioning techniques could deepen learning. I now prioritise written and verbal feedback that guides improvement. This has strengthened my belief that feedback is central to effective teaching.

In addition, Participant 77 noted how digital tools introduced through the online community enhanced formative monitoring:

“Through the CPD platform, I was introduced to digital formative assessment tools such as live polls and collaborative quizzes. These tools allowed me to assess understanding instantly and adjust my teaching accordingly. My belief has evolved to view assessment as dynamic and responsive rather than static and final.”

Participants' opinions indicate a substantive shift in teachers' assessment beliefs as a result of participation in online CPD communities. Participants' accounts collectively suggest a movement away from traditional, summative and examination-oriented assessment towards more formative, learner-centred, and feedback-driven practices. This transformation reflects a broader reconceptualisation of assessment as an integral component of teaching and learning rather than a terminal evaluative act. Such a shift aligns with contemporary scholarship, which positions assessment as a continuous, dialogic process that supports learning and informs instruction (Nguyen & Nguyen, 2026). The data therefore confirm existing literature that emphasises the pedagogical value of formative assessment in enhancing learner engagement and achievement. Interpreted through the lens of Communities of Practice, these changes in assessment beliefs can be understood as socially mediated processes emerging from

participation in shared professional spaces. Within these online communities, teachers engaged in the exchange of practical strategies, collaborative problem-solving, and reflective dialogue, which facilitated the negotiation of new meanings around assessment. As members moved from peripheral to more active participation, they appropriated innovative practices, such as peer assessment, self-assessment, and real-time feedback, and integrated them into their teaching repertoires. This supports Salo et al.'s (2024) argument that learning in communities of practice involves not only the acquisition of knowledge but also the transformation of professional identities and beliefs through participation.

Furthermore, the exposure to diverse, global perspectives appears to have played a critical role in challenging entrenched assessment norms. Participants reported that engagement with international educators broadened their understanding of assessment beyond standardised testing, enabling them to adopt more authentic and inclusive approaches. This finding extends prior research by Segev et al. (2025), which highlights how online professional networks expand teachers' access to varied pedagogical ideas and foster reflective practice. In this study, such exposure did not merely introduce new techniques but prompted a deeper epistemological shift in how assessment is conceptualised, moving from a focus on measuring learning to supporting and enhancing it. The emphasis on feedback as central to effective assessment further illustrates this transformation. Participants' evolving practices demonstrate a growing recognition of feedback as a dialogic and developmental process rather than a unidirectional transmission of grades. This resonates with recent studies that foreground feedback literacy and its role in promoting learner autonomy and deeper engagement (Annandale et al., 2025; Mohammadi Zenouzagh et al., 2023). The data thus confirm that participation in online CPD communities can cultivate more sophisticated understandings of feedback, leading to practices that prioritise guidance, reflection, and improvement.

Additionally, the integration of digital formative assessment tools highlights the role of technology as a mediating artefact in reshaping assessment beliefs. Participants' use of tools such as live polls and collaborative quizzes reflects a shift towards more responsive and adaptive teaching practices. This aligns with sociocultural perspectives that view digital tools as instrumental in mediating learning and professional growth (Hao, 2024; Nyathi & Joseph, 2024). The findings extend this literature by demonstrating how technology, when embedded within collaborative professional communities, not only enhances assessment practices but also transforms underlying beliefs about the purpose and nature of assessment. The data suggest that online CPD community participation facilitates a profound reorientation of teachers'

assessment beliefs through social interaction, exposure to diverse practices, and reflective engagement. Rather than merely adopting new strategies, teachers appear to reconstruct their understanding of assessment as a dynamic, learner-centred, and context-responsive process. This transformation shows the potential of online communities of practice to serve as powerful sites for professional learning, where changes in practice are accompanied by deeper shifts in professional beliefs and identities.

6. Collaborative Mind-set and Relationship Building

The participants reported how an online CPD community cultivated a collaborative orientation among teachers and strengthened professional relationships across schools and geographical boundaries. They expressed that engagement in online platforms encouraged collegial dialogue, mutual support, shared problem-solving, and the development of professional networks. These interactions not only enhanced their teaching practices but also reshaped their professional beliefs towards collective growth and lifelong learning. Participant 27 reflected on how the online CPD community fostered collegial collaboration within and beyond their school context. Through shared engagement, they became more open to benchmarking practices and addressing challenges collectively: *“Through the online community, I learnt to work alongside my fellow teachers within and beyond my school, to share best practices, benchmark our approaches, discuss possibilities and challenges, and continuously advance my own teaching practices.”* Participant 29 emphasised the value of digital networking in strengthening professional relationships: *“Participation has significantly improved my online networking as a teacher. I am now more confident in engaging with colleagues across different contexts and sustaining professional relationships beyond my immediate environment.”* Participant 42 described how active involvement in the community positioned them as both learner and contributor. Serving as a guest speaker in a coaching session enhanced their professional identity and collaborative engagement: *“I was invited as a guest speaker in a coaching session where I shared my experiences and my understanding of coaching. This opportunity strengthened my confidence and reinforced my belief in collaborative professional growth.”* Participant 45 highlighted the reciprocal nature of collaboration within the community: *“We share knowledge and sharpen one another professionally. The exchange of ideas challenges me to reflect critically on my own teaching.”*

Participant 65 pointed to the relevance of online communities in the contemporary educational landscape: *“It showed me the importance of belonging to an online professional community. In this century, online communities are central to professional growth and staying relevant as an*

educator.” Participant 72 described how attending webinars broadened their professional outlook and deepened relational connections with educational leaders: *“Participating in a webinar with other professional leaders in education, where they shared their teaching experiences, was eye-opening. It helped me see new possibilities and strengthened my appreciation for shared professional dialogue.”* Participant 85 framed collaboration as both networking and comparative professional learning: *“Networking and collaborating on shared practices is essential. Engaging with colleagues from different contexts allows for comparative learning, which strengthens my cognitive skills and reinforces my commitment as a lifelong learner.”* Participant 86 explained how exposure to diverse strategies influenced both practice and belief systems, particularly regarding inclusive education:

Participating in an online teaching community exposed me to diverse strategies for inclusive learning. A fellow educator’s post on differentiated instruction inspired me to adapt my lessons to cater for varied learner needs. This experience deepened my belief in learner-centred teaching and affirmed the power of shared professional growth.

Participant 96 described how collective dialogue expanded their perception of what is possible within the education sector: *“An online meeting with various teachers and educators made me realise that we can achieve far more in the education sector when we collaborate and share our expertise.”* Participant 98 highlighted the cross-continental networking benefits of belonging to the Ubuntu community: *“Being part of the Ubuntu community has enabled me to network with many educators across Africa, broadening my professional relationships and cultural understanding.”* Participant 99 stated the authenticity and credibility of shared experiences within the community: *“Teachers share lived experiences supported by real classroom examples, which makes the information more valuable to me. It has transformed my perspective on teaching and strengthened my professional judgement.”* Participant 100 connected collaboration with self-directed professional growth: *“I have realised that I can improve through collaboration and self-driven learning. The courses offered through the Ubuntu community have significantly contributed to my professional development.”*

The data reveals that participation in online CPD communities cultivates a collaborative mindset and strengthens professional relationships, which in turn reshapes teachers’ pedagogical practices and professional beliefs. Drawing on Communities of Practice, these outcomes can be interpreted as evidence of teachers engaging in shared practices, negotiating meaning, and co-constructing knowledge within a digitally mediated professional space. The reported shift towards collegial dialogue, benchmarking, and collective problem-solving reflects movement

from isolated practice to active participation in a community where learning is inherently social and relational. This supports the argument that professional learning is most effective when situated within collaborative networks that enable sustained interaction and shared engagement (Al Masroori et al., 2026; Lehtinen et al., 2023). The data further suggest that online CPD communities expand teachers' professional networks beyond immediate institutional boundaries, fostering relational trust and a sense of belonging to a broader professional collective. This aligns with recent studies indicating that digital professional networks enhance social capital and create opportunities for cross-contextual learning and support (Grotto & Buja, 2025; Samuel-Azran et al., 2025). The strengthening of relationships across geographical contexts also extends existing literature by demonstrating how African-centred platforms, such as Ubuntu-oriented communities, facilitate culturally relevant collaboration and knowledge exchange. In this regard, the findings contribute to scholarship by foregrounding the role of contextually grounded online communities in promoting both professional connectedness and culturally responsive practice.

Moreover, the reciprocal nature of participation, where teachers assume dual roles as both contributors and learners, reinforces the communities of practice principle of mutual engagement. Opportunities to share expertise, lead discussions, or contribute to professional dialogue appear to enhance teachers' confidence and agency. This supports existing research that positions teacher agency as emerging through participation in collaborative professional spaces (Yu & Chao, 2023). The data extend this perspective by illustrating how digitally mediated participation not only enhances agency but also repositions teachers as knowledge producers rather than passive recipients of professional development. In addition, the exposure to diverse teaching strategies and perspectives appears to stimulate critical reflection and influence teachers' professional beliefs, particularly regarding inclusive and learner-centred practices. This finding corroborates studies that highlight the role of collaborative professional learning in challenging existing assumptions and fostering reflective practice (Zhou et al., 2025; Shi et al., 2025). From a sociocultural perspective, these interactions function as mediational processes through which teachers internalise new ideas and reconstruct their professional identities. The interpretation here is that collaborative engagement does not merely support skill acquisition but facilitates deeper epistemological shifts in how teachers understand teaching and learning.

Furthermore, the emphasis on lifelong learning and self-directed professional growth suggests that participation in online CPD communities nurtures a sustained commitment to professional

development. This resonates with contemporary literature that positions online communities as catalysts for continuous, informal learning that complements formal CPD structures (Oesterle, 2025). The findings extend this body of work by demonstrating that such engagement fosters not only ongoing learning but also a reorientation of professional beliefs towards collective advancement and shared responsibility for improvement. The data illustrate that collaborative mind-sets and relationship building within online CPD communities are central to transforming teachers' teaching practices and professional beliefs. Interpreted through a communities of practice lens, the findings underscore that identity, learning, and practice are co-constructed through participation, interaction, and shared meaning-making. This highlights the transformative potential of online professional communities in fostering relational, reflective, and agentic teachers who are better positioned to navigate the complexities of contemporary education.

7. Teacher Agency

Teacher agency refers to teachers' capacity to act purposefully and constructively to direct their professional growth, shape their instructional practices, and transform their professional identities. Data from the participants indicate that engagement in online CPD communities strengthened their sense of autonomy, initiative, and self-efficacy. Teachers were not passive recipients of knowledge; rather, they exercised intentional choice in selecting platforms, courses, and webinars that aligned with their professional aspirations and contextual needs. Participant 90 reflected on how proactive engagement in an international online learning platform enabled significant professional transformation. The participant demonstrated strong agency by independently enrolling in an online programme, completing it, and applying the acquired knowledge within a new professional role. This experience illustrates how online CPD communities can empower teachers to reposition themselves professionally and expand their career trajectories beyond their original roles.

Four years ago, I joined the Open2Learn platform in Australia, where I completed the entire early childhood education programme. The knowledge and practical skills I gained transformed my professional identity and strengthened my competence as an ECD practitioner. Today, I lecture and train other teachers in Ghana, and much of what I teach is informed by what I learnt through that online programme. It gave me the confidence and expertise to move from being a classroom teacher to becoming a teacher educator.

Participant 93 emphasised the value of selecting relevant webinars and professional learning sessions that align with contemporary educational trends, such as coding, robotics, AI, and teacher development. The participant's account reflects deliberate engagement with content that enhances both pedagogical knowledge and professional motivation.

The webinars on coding, robotics, teacher development, and the use of AI in classrooms have been incredibly beneficial. They allow me to gain valuable knowledge without leaving my environment, which is important given my responsibilities. The content is consistently practical and directly applicable to my classroom. Some sessions are facilitated by educators from more developed countries, and they share innovative practices and technological advancements from their contexts. Engaging with such knowledgeable professionals inspires me and strengthens my belief that I can also contribute meaningfully to educational advancement. It motivates me to pursue further studies and continuously improve myself as an educator.

The data show a significant outcome of participation in online CPD communities, reflecting teachers' capacity to take intentional, self-directed actions that shape both their instructional practices and professional trajectories. The data indicate that teachers exercised autonomy in identifying learning opportunities aligned with their contextual needs and career aspirations, thereby positioning themselves as active agents in their professional growth rather than passive recipients of externally prescribed knowledge. This finding resonates with contemporary understandings of teacher agency as an ecological and contextually situated achievement, shaped by the interplay of individual capacities, available resources, and structural conditions (Hardman, 2025; Mohammad Nezhad & Stolz, 2025). From a communities of practice perspective, the participants' engagement in online CPD communities can be interpreted as active participation in shared spaces of practice where learning, identity, and agency are co-constructed. Through sustained interaction with diverse educators and access to global knowledge networks, teachers moved beyond peripheral participation towards more central and influential roles within these communities. This progression enabled them to appropriate new knowledge, adapt innovative practices, and recontextualise these within their own teaching environments. Such findings align with recent studies suggesting that online professional communities enhance teacher agency by fostering collaborative knowledge-building, reflective dialogue, and professional autonomy (Al Masroori et al., 2026; Lehtinen et al., 2023).

The data illustrate that teacher agency extended beyond immediate classroom practice to encompass long-term professional repositioning and identity transformation. Teachers

demonstrated the capacity to leverage online CPD experiences to expand their professional roles, indicating a shift in beliefs about what is possible within their careers. This supports the argument that agency is closely intertwined with identity development, as teachers reconstruct their professional selves through engagement in meaningful learning experiences (Truong et al., 2025; Ye et al., 2025). In this regard, online CPD communities functioned as enabling environments that not only provided access to knowledge but also legitimised new forms of participation and leadership. Furthermore, the deliberate selection of relevant and future-oriented learning content, such as digital pedagogies and emerging technologies, reflects a forward-looking dimension of teacher agency characterised by adaptability and innovation. This aligns with recent literature emphasising that teacher agency in the digital era involves the capacity to navigate, evaluate, and integrate diverse knowledge sources to remain pedagogically responsive (Cruz et al., 2025; Shi et al., 2025). The exposure to global perspectives within online communities also appeared to challenge and expand teachers' professional beliefs, reinforcing a sense of competence and motivating ongoing professional engagement. In contrast to studies that highlight structural constraints limiting teacher agency in traditional CPD models (Hoskin, 2025), the present findings suggest that online environments may mitigate such constraints by offering flexible, accessible, and self-directed learning opportunities.

The data extend existing scholarship by demonstrating that online CPD communities not only support the development of teacher agency but also facilitate its enactment across multiple dimensions, including pedagogical practice, professional identity, and career advancement. The findings highlight the importance of viewing teacher agency as a socially mediated and contextually enabled process, where participation in dynamic communities of practice plays a central role in empowering teachers to reclaim their voices and shape their professional futures.

8. Leadership Beliefs

Participants strongly emphasised that the online CPD community influenced teachers' leadership beliefs and practices. Across the 100 participants, many reported that engagement in leadership-focused sessions reshaped their understanding of leadership from a positional authority model to a more collaborative, reflective, and transformational approach. Participants highlighted how the online community equipped them with practical leadership strategies, strengthened their confidence, and deepened their sense of responsibility within their schools. Participant 45 reflected on how the leadership sessions significantly shifted their perspective on what it means to lead within a school context. The participant indicated that exposure to

discussions on ethical leadership, distributed leadership, and team empowerment encouraged a move away from authoritarian tendencies towards inclusive leadership practices:

The leadership sessions completely changed my perspective. I used to think leadership was mainly about giving instructions and ensuring compliance. Through the discussions and shared experiences in the online community, I realised that leadership is about influence, collaboration, and supporting others to grow. It made me more reflective and intentional in how I guide my colleagues.

Similarly, Participant 73, who had recently been promoted to the position of deputy principal, explained how participation in the online CPD community provided practical tools and confidence to navigate their new leadership role. The participant emphasised that the leadership sessions offered actionable strategies for team management, communication, and decision-making:

When I was promoted to deputy principal, the leadership sessions were extremely helpful. They gave me practical tips and strategies on how to become an effective manager while still being a supportive leader. I learnt how to manage conflict, motivate staff, and build a cohesive team. The online discussions and shared 'hacks' from experienced leaders made the transition much smoother for me.

Participants' opinions indicate that participation in the online CPD community significantly reshaped teachers' conceptualisations of leadership, shifting them from hierarchical and compliance-driven models towards more collaborative, reflective, and transformational orientations. This shift suggests that online CPD spaces function not merely as sites of skill acquisition but as social learning environments where leadership meanings are negotiated and reconstructed. Drawing on Communities of Practice, the findings can be interpreted as evidence that teachers' leadership beliefs are formed through participation, dialogue, and shared practice within a community. As teachers engage with peers, they move from peripheral understandings of leadership to more nuanced and participatory interpretations, thereby redefining leadership as a collective and relational practice rather than an individual, positional authority. This finding confirms existing literature that positions professional learning communities as critical spaces for developing distributed and transformational leadership capacities. Studies have shown that when teachers participate in collaborative professional networks, they are more likely to adopt leadership approaches that emphasise collegiality, shared responsibility, and reflective practice (Al Masroori et al., 2026; Evert & Stein, 2022). The emphasis on ethical leadership, collaboration, and empowerment emerging from the data

aligns with research suggesting that CPD initiatives grounded in interaction and reflection promote leadership practices that are inclusive and growth-oriented (Lysfjord & Skarstein, 2024). The data therefore reinforce the argument that leadership development is socially constructed and enhanced through sustained engagement in professional communities.

Furthermore, the findings extend prior research by highlighting the specific affordances of online CPD environments in shaping leadership beliefs. While traditional studies on leadership development often focus on face-to-face professional learning communities, the present data demonstrate that virtual spaces can be equally, if not more, effective in facilitating leadership learning. The accessibility of diverse perspectives, real-time sharing of strategies, and exposure to broader professional experiences appear to have strengthened participants' confidence and practical leadership capabilities. This supports recent scholarship which argues that digitally mediated communities expand opportunities for distributed leadership learning and enable teachers to access contextually relevant leadership practices beyond their immediate institutional settings (Amemasor et al., 2025; Ghamrawi et al., 2024). In addition, the findings suggest that participation in online CPD contributes to the development of leadership agency, particularly for teachers transitioning into formal leadership roles. The reported increase in confidence, decision-making capacity, and ability to manage teams indicates that online communities provide both cognitive and affective support for leadership enactment. From a communities of practice perspective, this reflects the process of legitimate peripheral participation, where less experienced members gradually acquire the knowledge, skills, and identity of more experienced practitioners through engagement with the community. The data therefore illustrate how online CPD communities act as incubators for emerging leaders, enabling them to internalise leadership practices through observation, interaction, and application.

However, the findings also subtly challenge earlier assumptions that leadership development requires formal, structured training programmes. Instead, the data indicate that informal, peer-driven learning within online communities can play a substantial role in reshaping leadership beliefs. This aligns with emerging perspectives that advocate for more decentralised and practice-based approaches to leadership development (Lehtinen et al., 2023; Svensson & von Knorring, 2025). The implication is that leadership learning is not confined to formal hierarchies or designated programmes but is continuously constructed through everyday professional interactions. The data demonstrate that online CPD community participation has a transformative influence on teachers' leadership beliefs by fostering collaborative, reflective,

and context-responsive leadership practices. The findings confirm and extend existing literature by showing that leadership development is deeply embedded in social participation and can be effectively facilitated within digital communities of practice. The interpretation shows that such communities do not only enhance leadership knowledge but also reshape how teachers understand and enact leadership within their professional contexts.

Contribution of the Study

This study makes a significant contribution to the scholarship on online CPD by providing a rich, practice-based understanding of how teachers' participation in online professional communities shapes their teaching practices, professional beliefs, identity, and agency. By synthesising multiple interrelated themes, including improved learner engagement, resource mobilisation, pedagogical advancement, teacher identity, innovation, collaborative mind-set, teacher agency, leadership beliefs, mindset shift, and assessment transformation, the study demonstrates that online CPD operates as a holistic and transformative ecosystem of professional learning rather than a discrete or fragmented intervention. Across these themes, a clear pattern emerges: teachers' learning is socially mediated, contextually situated, and identity-driven. Pedagogical advancement, innovation, and improved learner engagement intersect with collaborative engagement and resource sharing, suggesting that changes in classroom practice are inseparable from participation in professional communities. Similarly, teacher agency, identity development, and leadership beliefs overlap, indicating that professional learning extends beyond skill acquisition to include shifts in how teachers perceive themselves as innovators, leaders, and knowledge producers. At the same time, themes such as resource constraints and contextual adaptation highlight tensions between global knowledge and local realities, requiring teachers to reinterpret and recontextualise practices.

From a theoretical perspective, the findings extend and refine the communities of practice framework by demonstrating that in online environments, learning is not only participatory but also transformative, networked, and context-responsive. While communities of practice traditionally emphasise participation and shared practice, this study reveals that agency, identity transformation, and pedagogical change are central outcomes of participation in digital communities. The findings challenge static interpretations of communities of practice by showing that participation is fluid, multi-layered, and extends beyond local communities to global, transnational networks. As such, the study proposes an expanded conceptualisation of communities of practice as digitally mediated, boundary-crossing, and innovation-driven

communities of practice. The findings suggest that existing conceptualisations of professional learning frameworks require modification to account for the unique demands of online and resource-constrained contexts. Elements such as flexibility, self-directed learning, digital mediation, cross-cultural exchange, and contextual adaptation emerge as critical dimensions that are not fully captured in traditional models of CPD. Furthermore, the prominence of African-centred values such as collaboration and Ubuntu points to the need for contextually grounded theoretical frameworks that recognise relational and communal approaches to professional learning.

The study also reveals important intersections and tensions across themes. For instance, innovation is enabled by collaboration and resource sharing, while teacher agency is strengthened through access to flexible, self-directed learning opportunities. However, tensions arise where global practices may not align with local constraints, requiring teachers to adapt creatively. Similarly, while collaboration enhances professional growth, it also demands sustained engagement and reflexivity. These dynamics highlight that professional learning within online CPD is complex, negotiated, and non-linear. In terms of implications, the study contributes to theory by positioning teacher learning as an integrated process of practice transformation, identity reconstruction, and agency development. For policy, it indicates the need to design CPD systems that are flexible, accessible, collaborative, and context-responsive, particularly in under-resourced settings. For practice, the findings highlight the importance of interactive platforms, peer learning, resource sharing, and opportunities for teacher leadership to sustain meaningful professional development. The study also contributes methodologically by foregrounding teachers' lived experiences and positioning them as active agents in shaping professional learning. It advances a more humanising and participatory understanding of CPD, where teachers are not passive recipients of knowledge but co-constructors of practice, innovators, and leaders within dynamic professional communities.

Recommendations

Based on the findings of the study, the following recommendations are proposed to enhance the effectiveness, inclusivity, and transformative potential of online CPD communities:

1. Design Context-Responsive and Inclusive Online CPD Platforms

Policymakers, curriculum developers, and CPD providers, particularly departments of education and professional learning organisations, should prioritise the design of online CPD platforms that are context-responsive and inclusive of diverse teaching realities. This can be

achieved by incorporating locally relevant case studies, culturally responsive pedagogies, and examples drawn from under-resourced and Global South contexts into CPD content. In addition, teachers should be actively consulted during the design phase through needs analyses, surveys, and participatory workshops to ensure that programmes reflect their lived experiences and professional challenges. Platform developers should also integrate multilingual support and low-bandwidth options to enhance accessibility. The significance of this recommendation lies in its potential to bridge the gap between theory and practice, ensuring that professional learning is not only relevant but also implementable. When teachers see their contexts reflected in CPD, they are more likely to engage meaningfully, apply new knowledge, and sustain professional growth.

2. Strengthen Structured Opportunities for Teacher Voice and Leadership

Educational institutions, CPD facilitators, and online platform coordinators should intentionally create structured opportunities for teachers to exercise voice and leadership within CPD communities. This can be operationalised through the inclusion of teacher-led webinars, peer-facilitated discussion forums, blogging platforms, and mentorship programmes where experienced teachers guide others. Schools and districts can further support this by recognising and incentivising teacher contributions to professional learning communities as part of career development and appraisal systems. Implementation should involve clear frameworks that rotate leadership roles and ensure diverse representation across experience levels and contexts. The significance of this approach is that it shifts teachers from passive recipients to active knowledge producers, thereby strengthening professional identity, agency, and ownership of learning. It also promotes distributed leadership, which is essential for sustainable school improvement.

3. Promote Collaborative and Interactive Learning Environments

CPD designers, facilitators, and educational technology providers should prioritise the creation of interactive and collaborative learning environments within online CPD platforms. This can be achieved by embedding structured activities such as discussion forums, peer review tasks, collaborative projects, and synchronous webinars that encourage dialogue and shared problem-solving. Facilitators should be trained to guide discussions, pose critical questions, and ensure that interactions remain purposeful and inclusive. Schools can support this by allocating time within teachers' schedules for active participation in online communities. The significance of fostering collaboration is that it enhances reflective practice, deepens professional learning, and reduces teacher isolation. When teachers engage in meaningful dialogue and co-construct

knowledge, they are more likely to adopt innovative practices and respond effectively to classroom challenges.

4. Provide Continuous Support for Digital Pedagogical Competence

Departments of education, teacher training institutions, and CPD providers should invest in sustained professional development initiatives that build teachers' digital pedagogical competence. This includes offering ongoing training in the integration of digital tools, such as artificial intelligence, online assessment platforms, and interactive learning technologies, as well as providing technical support and access to necessary infrastructure. Implementation should involve a combination of formal training sessions, peer mentoring, and just-in-time support mechanisms, such as help desks and online tutorials. Importantly, training should move beyond basic technical skills to focus on pedagogically sound and contextually relevant use of technology. The significance of this recommendation is that it equips teachers with the skills and confidence needed to navigate contemporary digital learning environments, thereby enhancing teaching effectiveness, learner engagement, and educational innovation.

5. Ensure Equitable Participation Through Facilitation and Moderation

CPD facilitators, platform moderators, and community leaders should play an active role in ensuring equitable participation within online professional learning spaces. This can be achieved by implementing facilitation strategies such as structured turn-taking, targeted prompts for quieter participants, and the use of small-group discussions to create safer spaces for contribution. Moderators should also monitor interactions to address dominance by a few voices and to maintain respectful, inclusive dialogue. Training should be provided to facilitators on inclusive moderation practices and the management of power dynamics in online environments. Additionally, platform features such as anonymous contributions or polling tools can be used to encourage broader participation. The significance of this recommendation lies in its ability to ensure that all teachers, regardless of experience, confidence level, or background, have an equal opportunity to contribute and be heard. This not only strengthens inclusivity and belonging but also enriches the collective knowledge base of the community.

Conclusion

This study set out to explore teachers' lived experiences of participating in online CPD communities and the extent to which such participation influences their teaching practices, professional beliefs, identity, and agency. The findings reveal that online CPD communities are not merely supplementary spaces for professional learning but transformative ecosystems that

reshape how teachers teach, think, and position themselves within the profession. Through collaborative engagement, exposure to diverse perspectives, and access to shared resources, teachers experienced significant shifts in pedagogical practices, assessment beliefs, professional identity, and leadership orientations. Notably, the study demonstrates that online CPD fosters a transition from isolated, teacher-centred practices to more collaborative, learner-centred, and innovative approaches. Teachers reported increased confidence, enhanced agency, and a renewed sense of professional purpose. Participation in these communities enabled them to move beyond being passive recipients of knowledge to becoming active contributors, knowledge producers, and leaders within their professional networks. At the same time, the findings highlight the critical role of inclusivity, recognition, and contextual relevance in ensuring that teacher voice is not only expressed but meaningfully valued.

However, the study also highlights the need for intentional design and facilitation of online CPD environments. While flexibility and accessibility are key strengths, they must be balanced with structured opportunities for engagement, equitable participation, and sustained interaction. Without such intentionality, there is a risk that some voices may remain marginalised despite the openness of digital platforms. The implications of this study extend beyond individual teacher development to broader educational transformation. For theory, it reinforces the relevance of communities of practice while calling for their adaptation to digitally mediated and contextually diverse environments. For policy, it highlights the need for CPD frameworks that are inclusive, flexible, and responsive to teachers' realities. For practice, it emphasises the importance of fostering collaborative, dialogic, and empowering professional learning spaces.

The study, therefore, calls for educational stakeholders, policymakers, school leaders, CPD designers, and teacher educators to reimagine professional development as a participatory, context-responsive, and teacher-driven process. Online CPD communities must be intentionally designed to amplify teacher voice, promote equity, and support sustained professional growth. Teachers, in turn, are encouraged to actively engage, contribute, and lead within these spaces, recognising their role as co-constructors of knowledge and agents of change. By collectively investing in meaningful and inclusive online professional learning ecosystems, the education sector can move closer to achieving transformative, equitable, and future-oriented teaching and learning.

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