

# Postgraduate Certificate in Education Student Teachers' Perceptions about Communities of Practice at Schools: Work Integrated Learning Reflections

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## Abstract

Postgraduate Certificate in Education (PGCE) student teachers participate in work-integrated learning to develop their professional skills by critically reflecting on their school experience. This study examined how PGCE student teachers perceived Communities of Practice during their work-integrated learning. This study adopted a generic qualitative research design and involved a group of PGCE student teachers at a South African university. Data, which was thematically analysed, was generated by means of reflective group discussions and summaries. The study was underpinned by the Cultural Historical Activity Theory as the underlying theoretical framework. The study revealed that student teachers perceived Communities of Practice as a sustainable and collaborative means through which their professional practices can be enhanced. In addition, Communities of Practice are viewed as an effective catalyst to strengthen school management in its broadest sense. Contextually appropriate recommendations for strengthening initial pre-service teacher training within the broader South African context are provided.

**Keywords:** Cultural Historical Activity Theory, discipline, educational excursion, school management, teaching and learning, work-integrated learning

## 1. Introduction

As part of teacher training, Postgraduate Certificate in Education (PGCE) student teachers participate in work-integrated learning (WIL) to develop their professional skills by critically reflecting on their practicum experiences. This study explored how PGCE student teachers at a South African university perceived Communities of Practice during their work-integrated learning. The PGCE is a teaching qualification offered in South African universities to students who have an academic qualification in different fields of study (not in education), but who would like to qualify as teachers. Most PGCE student teachers come to study teaching with limited exposure to real, authentic classroom environments except for their past experiences gained when they were learners. The majority of these PGCE student teachers enter the teaching profession without any firmly established pedagogic foundation and relevant tools to help them cope with the demands of the school and the nature of the classroom environment. In many instances, they feel that they are left to their own devices without the provision of appropriate assistance and professional guidance. Unlike their Bachelor of Education counterparts, most of these PGCE students often have inadequately developed professional skills required to help them cope with the complexities associated with work-integrated learning in particular. As a means to develop their professional skills, pedagogical knowledge (with a specific focus on general principles), classroom management skills, and pedagogical content knowledge (PCK) (Shulman 1987), the PGCE student teachers are afforded opportunities to critically reflect on their school experience through participation in work-integrated learning. On completion of a two-week long WIL early in the year, student teachers participate in an educational excursion in which they are given a chance to cooperatively reflect on their concerns, problems, and challenges with a view to reach a common goal (Wenger 1998). The purpose of this exercise is to improve student teachers' professional skills, pedagogical content knowledge (PCK), and classroom management through learning in community.

Although teacher reflection primarily focuses on education and teacher education research, there is a critical need to shift focus to self-assessment, personal development, and continuous professional growth and learning. Another important consideration is that reflection must include some action on the part of the teacher. Reflection and action together are necessary to close the theory-practice gap that poses problems, for pre-service teachers especially. Reflection helps student teachers to acquire a deeper understanding of the significance of their professional skills, teaching styles, teaching beliefs, and teacher professional identities as part of engagement in continuous learning (Edwards, Gilroy and Hartley 2002). Reflection is both an individual and a shared experience; thus, through reflections, student teachers also learn new skills from others who share similar goals and aspirations. In other words, at an individual level, reflection requires individuals to revisit their prior beliefs, knowledge, and experiences. Thus, individuals consider reasons and their way of thinking by examining the foundation of their understanding such as beliefs, values, attitudes, and assumptions (Mayes 2001). In support of this notion, Cochran-Smith and Zeichner (2005) assert that reflection amongst fellow student teachers serves to foster a better understanding of the nature of professional activities, leading to new insights into future-fit classroom practice.

Besides reflecting amongst their inexperienced peers, student teachers need to be prompted by more experienced teachers/mentors, at least early in their teaching careers. Mentors and experienced teachers must understand that, to simply provide student teachers with opportunities and activities that encourage reflection “does not guarantee that reflection will occur” (Mewborn 2009, 2). Various educational resources, such as videos capturing real-life school challenges, formed part of the PGCE reflective group discussions in order to ensure that the discourse centred around contemporary pedagogic challenges afflicting teachers as professionals in real instructional settings. In view of the practical considerations outlined in this regard, we argue that affordances of viable and sustainable Communities of Practice can be harnessed to enhance professional skills of PGCE student teachers as they largely have minimal experience of teaching practice. This study explored how PGCE student teachers perceived Communities of Practice during their work-integrated learning. Steenekamp, Van der Merwe and Mehmedova (2018) assert that, by interacting in groups with their peers and having open discussions with practicing teachers, PGCE student teachers are able to engage in deeper reflection. The study was underpinned by the following research question: What are Postgraduate Certificate in Education student teachers’ perceptions of Communities of Practice at South African schools as experienced during work-integrated learning?

## 2. Literature Review

The exploration of PGCE student teachers’ perceptions of the affordances of Communities of Practice at South African schools forms the nexus of this article. The term “Communities of Practice” was first coined by Lave and Wenger (1991) while studying apprenticeship as a learning model. Communities of Practice are characterised by members who are informally bound by what they do together, from engaging in discussions to solving difficult problems, and by what they have learned through their mutual engagement in these activities (Wenger 1998). In addition, Wenger (1998) argues that a Community of Practice is formed around mutual and shared work practices. He further perceives Communities of Practice as voluntary and critical knowledge reservoirs which are hard to recognise in organisations. The emphasis in this article is on the levels of commonalities and preparedness to engage in discussions for a common purpose demonstrated by PGCE student teachers, when afforded authentic opportunities to critically reflect on their WIL experiences. A Community of Practice is defined by Wenger, McDermott and Snyder (2002, 4) as “groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis”. This implies that Communities of Practice are formed by people who engage in a process of collective learning in a shared domain of human endeavour. Furthermore, Wenger and Snyder (2000, 139) define a Community of Practice as a “group of people informally bound together by shared expertise and passion for a joint enterprise”. Mládková (2015) views a Community of Practice as a group of people with common interests and which use best practices to solve problems in a friendly and supportive manner. The main features of Communities of Practice are a shared initiative, common commitment in social practices, and the development of a joint collection of practices, understandings, routines, actions, and artefacts (Wenger 1998). Wenger (1991) postulates three essential elements which characterise a Community of Practice, namely: domain, community, and practice.

- The domain: A community of practice is not merely a club of friends or a network of connections between people. It has an identity defined by a shared domain of interest. Membership therefore implies a commitment to the domain and a shared competence that distinguishes members from other people.
- The community: Members engage in joint activities and discussions in pursuing their interests in their domain. They build relationships that enable them to learn from each other.

- The practice: A community of practice is not merely a community of interest. Members of a community of practice are practitioners. They develop a shared repertoire of resources: experiences, stories, tools, and ways of addressing recurring problems as part of shared practice.

There are different ways of engaging in formal and informal Communities of Practice activities, as proposed by Rohde, Klamma, Jarke and Wulf (2007), wherein different teams of students are integrated into Communities of Practice through real-world projects. These students' teams are linked to each other and to their lecturers, and practise through a community system to afford them learning opportunities. Formal Communities of Practice focus mainly on mentoring and coaching in subjects (Bouchamma and Michaud 2010; Gola 2008). For instance, Cronjé (2010) asserts that science teachers have the potential to become a community of practice as they share the domain of science, engage in science-related activities, and share best practices and resources or ideas. Communities of Practice can therefore be very effective in supporting meaningful enhancement of teacher professional development within a school setting in particular. This can also be accomplished by establishing authentic team teaching partnerships which serve to provide mentorship to fellow teachers for purposes of strengthening key professional activities, thus characterising Communities of Practice. At another pragmatic level, Communities of Practice can afford student teachers opportunities to shape and share their tacit knowledge. This means that Communities of Practice can help in the development of content knowledge, practical skills, and attitudes (Wenger, McDermott and Snyder 2002).

When student teachers undertake their WIL/practicum, they enter into Communities of Practice already existing in the schools. Due to their inexperience, they enter as peripheral participants. The more experienced teachers are, for obvious reasons, the central participants and thus engage more deeply, are more invested in the Communities of Practice, and have more experience to share. The peripheral participants (student teachers) often feel intimidated, lack the confidence to contribute, and so rarely interact in group discussions or offer their inputs freely (Murugaiah et al. 2012). This lack of confidence and experience affects participation, which in turn affects the student teachers' learning.

Wenger and Snyder (2000) identify key general features underpinning the formation and establishment of Communities of Practice, namely: Communities of Practice are formed for different reasons which can be within or outside the organisation, but which have direct impact on individual members' professional experiences; and Communities of Practice have to constantly engage in their renewal and reinforcement through the creation of knowledge and benefits generated as a result of collaborative construction of knowledge. There is thus a crucial need to initiate and nurture Communities of Practice in a coherent and sustainable manner to ensure holistic professional development of teachers as key agents of educational change. This key strategic imperative is commensurate with curriculum reform efforts in South Africa. Daniel, Auhl and Hastings (2013) allude to the significance of establishing a Community of Practice for student teachers in their initial semester in order to develop their confidence to engage in productive criticism. In a similar vein, Kaschak and Letwinsky (2015) contend that the emergence of a Community of Practice within teacher education serves to enhance student teachers' confidence and self-efficacy.

This article advocates for authentic Communities of Practice geared towards meaningful enhancement of holistic teacher professional development as opposed to Pseudo-Communities of Practice. According to Grossman, Wineburg and Woolworth (2001), Pseudo-Communities of Practice are characterised by the culture within a school setting where colleagues, though they might be polite to each other, are not necessarily mutually supportive of each other. Student teachers were required to reflect on both operational authentic CoPs and Pseudo-CoPs. Student teachers could distinguish between operational authentic CoPs and Pseudo-CoPs as they were exposed to and knowledgeable about these different types of CoPs. Although members of the Community of Practice have commonalities and share similar needs, critical reflection on each other's practice is of crucial significance. Teacher reflection is viewed as an entirely valuable practice for teachers as it holds the possibility to yield critical approaches to teaching and learning (Mayes 2001). Reflection affords teachers meaningful opportunities to regularly engage in a process of self-evaluation and self-assessment for purposes of improving and enhancing their professional practice. Student teachers' reflective thinking helps them come to the realisation that their contribution is critical to change as they are sharing valuable knowledge. Thus, they are afforded an opportunity to make connections between their knowledge and experiences and what is new to them, as a way of becoming actively aware and critical people (Wilson 2002).

Critical reflection refers to the testing of presuppositions and justifications of one's convictions when solving problems. Thus, there is a crucial need to challenge established and habitual patterns of doing things and meaning perspectives by fellow colleagues (others) and ourselves. As mentioned above, this has to do with challenging beliefs, habits, attitudes, assumptions, and values that govern the individual's thinking. Smith (2011, 1) argues that "critical reflection can support professional development through assessment of decisions and actions and it can lead to

improvements in service delivery”. This implies that honest and critical reflection of thoughts, ideas, and actions can engender a fundamental paradigm shift required for meaningful transformation of teaching practice. Furthermore, critical reflection also scaffolds the examination of subjective thoughts and identities in order to bring about improved professional practice when engaging in Communities of Practice (Wilson 2002). This key affordance of critical reflection serves to ensure the improvement of professional practice rather than simply reconstructing professional knowledge (Smit 2011). Professional honesty becomes a key factor when critically reflecting on the nature and efficacy of Communities of Practice. The inherent professional dishonesty associated with interpersonal relations within Pseudo-Communities of Practice is demonstrated by groups that ignore, or presuppose the non-existence of, power differentials, or varying levels of influence and authority (Grossman, Wineburg and Woolworth 2001). The affordances of authentic Communities of Practice ought to be harnessed with a view to forge collegial professional working environments at schools.

The need to strengthen Communities of Practice to enhance functionality of schools cannot be over-emphasised. Several proponents have advocated for the strengthening of collaboration between teachers by means of promoting communities of teachers in schools (Levine and Marcus 2010; James et al., 2007). According to Louis, Marks and Kruse (1996:758), communities of teachers entail “teachers’ collective engagement in sustained efforts to improve practices”. Communities of teachers provide meaningful opportunities to embed teacher collaboration into the culture of the school (Vescio, Ross and Adams 2008), thereby making collaboration expected, inclusive, genuine, and ongoing (Seashore, Anderson and Riedel 2003). Despite the crucial role played by communities of teachers in enhancing school governance, there is still a pervasive paucity of research on communities of teachers (Imants 2003; Westheimer 1999). This state of affairs can partly be attributed to a perceived lack of conceptual clarity on communities of teachers (Westheimer 1999; Vescio, Ross and Adams 2008), as well as limited empirical research about teacher communities in the school workplace (Westheimer 1999). The key advantage of the Communities of Practice perspective is that it provides opportunities to specifically identify the culture of practice of teacher teams (Wenger 1998). While teacher teams are perceived to develop around a shared work objective (Skerrett 2010), the inherent identity and commitment to care for the domain gives these teams cohesiveness and intentionality (Wenger, McDermott and Snyder 2002).

A study conducted by Graven and Pausigere (2017) found that explicit consideration of the structural elements of a Community of Practice and their interrelationship in the design of teacher programmes could enable clearer articulation of programme aspects, and support reflection on the coherence between teacher feedback as the programmes evolve. The structural features of a Community of Practice referred to in this regard are domain, community, and practice. Teachers can experience tensions during participation in professional learning communities. These tensions are often manifested in the form of temporal negative feelings of stress, loss of self-efficacy or anxiety caused by conflicting personal features, and workplace affordances (Schaap et al. 2018). Within the broader South African educational context, these tensions can be defused by forging sustainable and viable Communities of Practice which serve to enhance holistic professional development of teachers.

Practicum forms an integral part of teacher preparation. Practicum experiences are often regarded by pre-service teachers as the most important and relevant aspects of teacher preparation (Mena, Hennissen and Loughran 2017). Student teachers on practicum are often confident in their personal and propositional (research-based theoretical) knowledge, but lack craft knowledge (pedagogical knowledge). They need to be afforded opportunities to reflect on their personal experiences, their propositional knowledge, and on their beliefs, to begin to understand how these beliefs and experiences may influence their views of teaching and learning. These views are often very traditional and conservative in nature, and notoriously difficult to change (Wilson & Cooney, 2000), often persisting into their early years as professionally-practising teachers (Prescott & Cavanagh, 2006). In order to change these preconceived notions of teaching and learning, student teachers need to learn how to reflect critically on their observations and experiences during their practicum sessions. Student teachers’ involvement in Communities of Practice at schools make it possible for them to teach in the context of teaching (Cavanagh and Prescott 2007), which means student teachers’ observation of Communities of Practice can also enhance their professional skills. Robinson (2016) states that vision, agency, shared expertise, material conditions, and institutional capacity are some of the key factors that ought to underpin a system-wide approach to enhance teacher education. In the context of this study, students’ perceptions about shared expertise in Communities of Practice can enhance teacher education.

### **3. Theoretical Framework**

The study is framed by social constructivist theory underpinned by the Cultural Historical Activity Theory (CHAT) (Engeström 1987) as the underlying theoretical framework. CHAT is essentially a socio-cultural and historical lens

through which human activity systems can be holistically analysed (Engeström 1999). The socio-cultural theory is predicated on the notion that learning takes place in a social and cognitive space known in Vygotskian parlance as the Zone of Proximal Development. The Zone of Proximal Development is defined by Vygotsky (1978, 86) as “the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance, or in collaboration with more capable peers”. Veresov (2008) posits that such a perspective considers learning a mediated process in which not only subject content is learnt, but in which the relationships of mediation are of crucial significance. CHAT was specifically employed in this study to explore the perceptions of PGCE student teachers at a South African university on the affordances of Communities of Practice during their work-integrated learning. The unit of analysis therefore was a critical reflection on the key affordances of Communities of Practice within a school setting with a view to establishing the extent to which PGCE student teachers’ professional knowledge and skills are enhanced by critically reflecting on their school experience. As a socio-cultural and historical lens, CHAT served to provide insightful elucidation into the nature of Communities of Practice as dynamic activity systems.

#### **4. Research Design and Methodology**

The study adopted a generic qualitative research approach located within the phenomenological design. Qualitative research focuses on the exploration of phenomena in their natural setting by studying all the complexities associated with them in order to portray the issue under investigation in different forms (Leedy and Ormrod 2005), while putting emphasis on perceptions and experiences of individuals or groups in relation to social or human phenomena (Simion 2016). A phenomenological design was used to understand PGCE student teachers’ perceptions of Communities of Practice at both rural and urban schools. By its very nature, a phenomenological study provides insights into people’s perceptions, perspectives, and understanding of a particular situation (Leedy and Ormrod 2005) and explores how individuals or groups of people experience phenomena in real life (Mohajan 2018). The student teachers reflected on Communities of Practice that already existed in schools. In addition, student teachers were required to observe the practices and operations of Communities of Practice in schools during their work-integrated learning. The cohort of all 230 PGCE student teachers who participated in the PGCE educational excursion organised by a South African university represented a purposive sample within the context of this study. All genders were represented and their ages ranged from 20 to 35 years. Most of the participants (95%) were doing teaching for the first time and 5% were teaching privately or were on learnerships. These student teachers participated in a two-week long work-integrated learning at schools as part of the intrinsic requirements of the PGCE programme. On completion of work-integrated learning, these student teachers participated in an educational excursion, during which they reflected on their observations and experiences at schools during work-integrated learning.

Reflection sessions formed an integral part of the educational excursion and, in one of the reflection sessions, student teachers were divided into five break-away groups. The student teachers were provided with an observation schedule, similar to the one provided to them for use during WIL, to reflect on and report back during breakaway sessions. In these break-away groups, student teachers were afforded opportunities to reflect critically on Communities of Practice as observed during work-integrated learning. The reflection sessions were facilitated by five subject lecturers – four of whom are authors involved in the PGCE programme. After these reflection sessions, the groups went back to a plenary session to provide feedback on their breakaway discussions. The reflections from different groups were discussed and consolidated, after which summaries were compiled. Data generated in this study were obtained from PGCE student teachers’ verbal and written responses when afforded opportunities to critically reflect on their work-integrated learning observations and experiences during these sessions.

Ethical clearance was obtained from the university where the study was conducted prior to the commencement of the empirical investigation. All the students who participated in the excursion voluntarily signed consent forms to give informed consent for the use of data generated during the excursion for research purposes. Ethical procedures such as confidentiality, voluntary participation, and free withdrawal from the study at any time were complied with, as alluded to by De Vos et al. (2011) and Kumar (2014). It was difficult to maintain confidentiality amongst the participants because they were in the same group. To mitigate this, the participants were requested not to reveal the names of other participants nor associate them with words found in research reports. As authors, we also tried to avoid using identifiable words of individuals in data presented to protect the participants. Noteworthy, is that there were no marks allocated for participation in the reflection activity.

Data generated from reflective group discussions and summaries were thematically analysed, as Mohajan (2018) asserts that a qualitative research approach provides opportunities to categorise key findings according to themes developed inductively from the patterns emerging during data analysis. During breakaway group discussions, a

number of responses came up and were consolidated in the plenary session. The responses were coded and categorised according to concomitant themes which emerged during data analysis and two main themes emerged. The following steps were followed to analyse data: data was read and reread; data related to a research question was identified; themes were formed; quotations were linked to the themes; and themes were interpreted in relation to a research question. The themes that emerged were: 1) improvement in school management as discipline is strengthened, and 2) enhancement of teaching and learning activity due to collaboration and co-teaching. All the responses were categorised into these two main themes to present the findings as discussed below. To improve confidentiality, data supporting the findings is presented in a manner that would make it not possible to associate it with a particular participant.

## 5. Research Findings

The key findings were framed according to two broad themes which reflected student teachers' perceptions of the affordances of Communities of Practice at the respective schools at which work-integrated learning were undertaken, namely: improvement in school management as discipline is strengthened, and enhancement of teaching and learning activity due to collaboration and co-teaching.

### ***Theme 1: Improvement in school management as discipline is strengthened***

As observed by the student teachers during their WIL experiences at schools, Communities of Practice serve to considerably improve the management of the school through provision of the necessary support to the School Management Team for progressive realisation of the school vision. This support is manifested in the form of active mutual cooperation between teachers and the School Management Team as key participants within a Community of Practice. The following excerpts from the summaries attest to this sentiment:

*Teachers worked together to support management.*

*Where teachers supported management the school have (sic) strong management.*

*The schools with strong management functioned properly.*

*Teachers took a lead in planning school activities.*

*Late coming was controlled by teachers.*

*Teachers participated in disciplining learners.*

The capacity to defuse socially difficult situations is of vital significance in any instructional setting. These situations often arise as a result of pervasive lack of discipline by learners and sustained conflict among staff members. In addition, these situations may also have an adverse impact on the efficient and effective management of schools as professional organisational entities. Sustained involvement in viable Communities of Practice serves to instil professional discipline in teachers and engenders a collegial working environment at schools. The essence of this sentiment is encapsulated in the following excerpts:

*There are conflicts at schools but where teachers worked together they helped each other to solve them.*

*All staff members were concerned about school discipline; it was not the responsibility of school management only.*

*Learners knew that teachers work together in discipline matters.*

Classroom management is one of the critical challenges facing student teachers during the WIL undertakings at schools. In particular, South African schools have been plagued by varying levels of violence and this state of affairs poses enormous challenges to school governance. Dealing adequately with pernicious levels of violence at schools requires a coordinated response from all key stakeholders with vested interest in education. The student teachers asserted that these untenable levels of violence at schools can be alleviated through well-functioning and effective Communities of Practice as encapsulated in the following excerpts:

*Teachers worked together and protected each other in violent situations like when learners attack them.*

*Teachers protected each other when learners tried to fight (with their) colleagues.*

*Teachers worked together to discipline unruly learners.*

*Teachers help their colleagues to cool down instead of fighting back.*

The prevalence of violence at schools may have a devastating impact on the professional growth of pre-service teachers in particular. However, Communities of Practice appear to be a viable alternative that can be harnessed to safeguard and strengthen the professional growth of student teachers.

***Theme 2: Enhancement of teaching and learning activity due to collaboration and co-teaching***

Involvement in work-integrated learning is aimed at providing student teachers with meaningful opportunities to acquire requisite professional knowledge and skills with a view to building and strengthening their professional capacity. Mentor teachers play an increasingly important role in guiding and assisting student teachers to navigate the professional complexities and intricacies associated with work-integrated learning. This implies that student teachers discharge their professional responsibilities as key participants within Communities of Practice existing at schools. The student teachers in this study were largely pleased with the professional benefits derived from their active involvement in Communities of Practice at schools. The following excerpts attest to this assertion:

*Teachers were co-teaching in classes and learners benefited from learning content in a facilitated manner when teachers worked together.*

*I observed how different teachers can teach the same lesson at the same time.*

*Teachers did not compete but helped each other.*

*I never thought two teachers can teach the same lesson.*

Co-teaching provided opportunities for teachers to assist each other across subjects. For instance, Economics and Geography teachers worked together to demystify and enhance conceptual understanding of concepts common to both subjects for the benefit of learners. This dynamic relationship was extended to other knowledge domains such as Mathematics, Physical Sciences, Life Sciences as well as Languages. By its very nature, the dynamic co-teaching relationship also provided opportunities for novice teachers to learn from experienced teachers. The essence of this assertion is reflected in the following excerpts:

*Teachers were open to each other and shared personal issues which affected their teaching.*

*Teachers were open to ask for help where they struggled with content.*

*Geography teachers and Economics teachers worked together to plan related lessons.*

*Physics and Life Sciences teachers shared their subject content.*

*I saw an English teacher telling a Maths teacher how to simplify Maths concepts.*

Students reflected on how they perceived Communities of Practice as observed during work-integrated learning. The next section discusses the findings with support of literature.

## **6. Discussions**

PGCE student teachers perceived that Communities of Practice contribute positively to management of the school. Where authentic Communities of Practice were operational, School Management Teams are supported towards realisation of the school vision. Louis et al. (1996) argue that teacher professional practice can be improved when teachers are collectively engaged in Communities of Practice. Furthermore, Levine and Marcus (2010), as well as James et al. (2007), highlight the importance of strengthening communities of teachers in schools. The PGCE student teachers perceived Communities of Practice as a sustainable means to create a collegial working environment in which staff members can help each other in defusing difficult situations such as violence at schools. Student teachers indicated that they could grow professionally if they could work within Communities of Practice, as active involvement in Communities of Practice at schools provides immense professional benefits. In support of this notion, Wenger and Snyder (2000) maintain that Communities of Practice have a direct impact on individual members' professional experiences as a result of collaborative construction of knowledge. Furthermore, Wenger et al. (2002) posit that Communities of Practice can help in the development of practical skills and attitudes, and content knowledge can be developed through co-teaching. Student teachers perceived co-teaching as a developmental process for teachers, as it allows teachers to learn from other teachers within a domain and across domains. Cronjé (2010) asserts that science teachers have the potential to become a community of practice as they share the domain of science, engage in science activities, and share best practices and resources or ideas. Accordingly, Communities of Practice are critical for strengthening both pre-service and in-service teacher professional development and there is a need to establish meaningful relationships between institutions providing teacher training and schools. Graven and Pausigere (2017) contend that it is important to give due consideration to the structural elements of a Community of Practice and their interrelationship in the design of teacher programmes.

As a socio-cultural and historical lens, the Cultural Historical Activity Theory (CHAT) served to provide insightful elucidation into the structural tensions associated with a Community of Practice as a dynamic activity system. The dynamic nature of Communities of Practice is explicated in terms of the basic elements constituting CHAT itself, namely, subject, object, tools, community, rules, and division of labour (Engeström 1987). Characterisation of the dynamic nature of a Community of Practice is depicted in Figure 1 below. In this article, Communities of Practice essentially served to pave the way for strengthening teacher professional capacity and development of sustainable professional relationships. However, there were various challenges that adversely impacted on the efficacy of Communities of Practice as an activity system. These challenges included prevailing conflicts and violence at schools. The prevalence of these challenges appeared to have a detrimental impact on the realisation of the enhanced development of PGCE student teachers' professional skills as a key outcome.

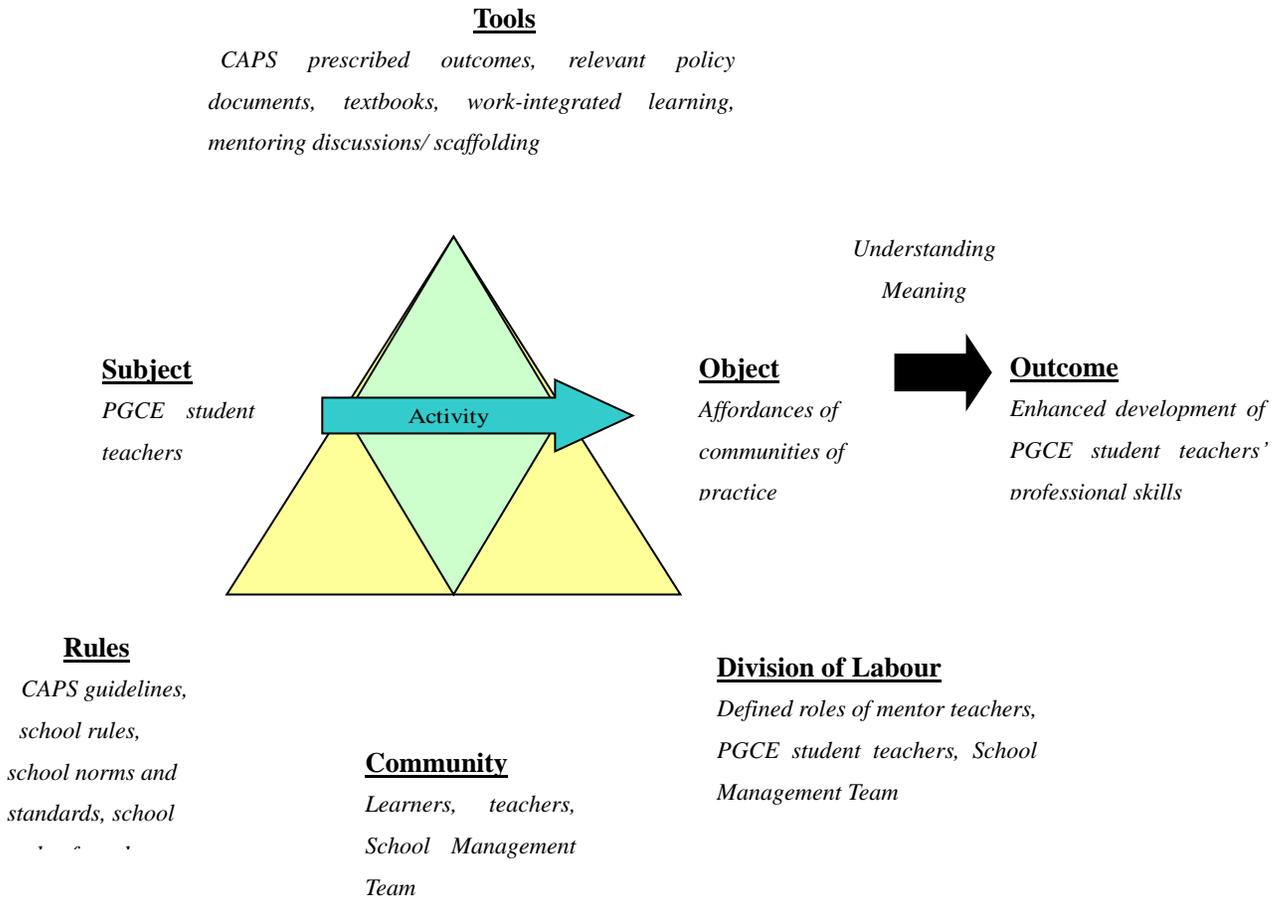


Figure 1. Characterisation of the dynamic nature of a community of practice

**Recommendations arising from the study**

Sustainable Communities of Practice can serve as a meaningful vehicle for the enhancement of teacher professional development. This key strategic imperative calls for fundamental restructuring of work-integrated learning with a view to ensuring enhanced professional benefits for pre-service teachers. Teacher training programmes ought to create and develop awareness of the affordances of sustainable Communities of Practice as an integral part of work-integrated learning. This implies that the establishment of sustainable Communities of Practice cannot be left to schools without meaningful involvement of institutions providing teacher training. Quality assurance is a key curriculum imperative in the provision of basic and higher education in South Africa. This mission can be accomplished by critically reviewing the nature of the assessment practices underpinning the provision of work-integrated learning opportunities.

## 7. Conclusion

PGCE student teachers perceived Communities of Practice as effective mechanisms that can build and strengthen their professional capacity. The study found that the affordances of authentic Communities of Practice can be exploited with a view to enhancing meaningful development of student teachers' professional skills. Critical reflection on the efficacy of Communities of Practice as dynamic systems representing social phenomena is increasingly important for the purposes of enhancing pre-service teachers' professional capacity as engaged participants. The key findings reported in this article have profound implications for meaningful enhancement of sustainable professional development of both pre-service and in-service teachers within the broader South African context.

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