

The challenges of school-based teacher development initiatives in South Africa and the potential of cluster teaching¹

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This article examines the challenges of teacher development strategies in post-1994 South Africa by arguing that school-based development initiatives address teachers' specific development needs and that it is imperative to understand the conditions under which these initiatives can have a positive impact on teachers. A framework is developed through which to examine why TD initiatives evolve over time and why teachers do not benefit equally from these. It illustrates this by reporting on some research findings on the potential and limitations of school-based teacher development through a cluster case study, which could be described as a South African version of a Professional Learning Community.

Keywords: teacher development, cluster teaching, professional learning community

Teacher development (TD) continues to be the most important challenge where the improvement of South African schooling is concerned. With the post-1994 commitment to equity and redress, teacher unions negotiated the 1998 Development Appraisal System (DAS) with education departments, aimed at redress and based on the principle of teachers driving their own development. However, it became clear that sufficient, meaningful support to teachers was difficult to mobilise as a follow-up to the 'teacher appraisal for development' exercise. By 2003, a ministerial report on TD led to the 2007 National Policy Framework for Teacher Education Development (NPFTED) (Department of Education [DoE], 2007). By 2008, the South African Council of Educators (SACE) was given the responsibility of coordinating and quality-assuring Continuous Professional Teacher Development (CPTD) as well as overseeing funds from the DoE (DoE/SACE, 2008). By mid-2009, a TD summit resulted in various stakeholders developing a statement of principles about TD and, by April 2011, the DoE publicised an Integrated Strategic Plan for Teacher Development, which is still to be implemented.

Yet, teacher unions continue to voice their frustration at the lack of meaningful, hands-on support for teachers. It has been a high priority to counter the apartheid legacy of poor in-service provisions and assist with the implementation of the complex and ambitious post-1994 teacher-related policies. On their side, education departments appear unsure as to how to implement their vision through concrete TD strategies which are to provide meaningful support opportunities to teachers with differentiated development needs. Apart from education departments having a weak impact with their TD programmes, many NGOs and service providers face similar challenges as their support interventions have encountered serious obstacles and produced little real or sustained changes in teacher and/or learner performances (Taylor, 2007).

As a result, new TD approaches have been attempted. The intention of this article is to develop a conceptual framework through which to examine why and under what conditions TD initiatives work for certain teachers and not for others. It focuses on reasons as to why school-based TD is increasingly recommended in the literature as one of the most effective interventions. Furthermore, by examining a case study of teacher clustering in Mpumalanga, the article reports on the conditions which were responsible for the success of one teacher-driven, school-based intervention, something that the recent 2011 Integrated Strategic Planning Framework for Teacher Education and Development in South Africa is promoting.

Towards a framework for assessing teacher development strategies and practices

Forms and models of teacher professional development evolve to adapt to changes which occurred over time in teachers' work, professional status and development needs. Scholars who study changes in teacher work and development in the UK and US (Kelley, 1997; Hargreaves, 2002) argue that, traditionally, teaching was conceived of as labour which had to follow departmental rules and regulations tightly, and transmit teacher-proof, pre-determined syllabi developed by curriculum experts. In this 'pre-professional' period, teachers were treated as workers with basic technical competencies. Pre- and in-service training consisted of basic subject content and a minimum of pedagogical competencies. According to Reitzug (2002), in-service teacher development was driven by the department, with little teacher involvement. It consisted of generic a-contextual training workshops at teacher centres, focusing mainly on technical and administrative issues.

By the 1970s, schools in Europe and the USA were pressurised to produce better quality education for all learners, especially those from an under-privileged background. Teachers became more than technicians and had to acquire pedagogical competences to adapt the syllabi to their learners' context and constraints. This 'autonomous professional' era, according to Hargreaves (2002:158), occurred when teachers gained more control over their work, as they now mediated learning to their learners. TD adapted accordingly and took the form of on-site teacher development as well as department-driven, in-service training workshops, focusing on correcting teachers' lack of pedagogical knowledge and competences (Christie, Harley & Penny, 2004). Increasing research evidence from developing countries, including Chile (Avalos, Tellez & Navarro, 2010), shows that teacher education programmes were ineffective with their generalist structures.

By the 1980s – a period called by Hargreaves (2002:162) the 'collegial professional' era – teachers were treated as high professionals, encouraged to grow and improve their professional practices by sharing and reflecting together on their experiences and practices. Shulman (1986:9) argues that, beyond content knowledge, teachers need what he calls pedagogical content knowledge (PCK), the transformation of content into pedagogically powerful forms or 'the aspects of content most germane to its teachability'. Thus, PCK refers to teachers interpreting the subject matter, finding different ways to represent it and making it accessible to learners. International research pointed to the value of school-based TD with senior coaches/mentors modelling good practices to their colleagues (McLaughlin & Talbert, 2006). This was considered much more effective than previous TD interventions, which were based on 'outside of classroom' practices and criticised for providing teachers with ideas which could not easily be tested in teachers' own practices. Guskey (2002) researched various TD models and argues that teachers are likely to stick to old practices when TD focuses on changing their values and attitudes with orientation/advocacy workshops. However, they are more likely to change practices when they experience these changes positively in real classroom contexts.

Teachers were encouraged to become reflective practitioners by working collegially in professional learning communities (PLCs) (Dufour, Dufour & Eaker, 2008) to develop creative responses to their various teaching and learning challenges (Christie *et al.*, 2004). Such job-embedded TD activities were beneficial by being continuous, collaborative and based on shared, reflective practices. Teachers gained new information, reconsidered previous knowledge and beliefs, and built on their colleagues' ideas and experiences (McLaughlin & Talbert, 2006). Haughley, Howard and Marshall (1996) note that such TD activities had to be located in a collaborative school culture, with trusting and collegial relationships.

This teacher collaboration took from what Lave and Wenger (1991) argue about learning (in corporate settings), namely that it does not occur in isolation but is socially constructed and specific to the situation in which it is learned. Applied to schools, this 'situated workplace learning' theory pushes for teachers participating in a collegial reflection to improve learners' achievements by reflecting on and comparing their practices in a real classroom situation, and by examining concretely areas that work and those that need changes.

African countries, on their side, were constrained by serious economic and fiscal austerity constraints, which did not allow them to translate their TD vision into large-scale programmes. Their commitment to Basic Education for All further exacerbated this situation because TD was not a main priority for the department with their already stretched scarce resources. Donor-funded projects became important and were targeted at moving teachers from their role of technicians to that of reflective practitioners. However, because it was difficult to fully train teachers before placing them in schools, INSET became a way of completing PRESET rather than being part of a continuum (Christie *et al.*, 2004). As a result, a tension developed in the assumptions of INSET programmes aimed at producing teachers both as effective technicians and as reflective practitioners. Stuart and Kunje (2000, in Christie *et al.*, 2004:13) note on a Malawian teacher INSET programme: “The aims of training a large number of teachers in the shortest possible time are probably incompatible with the aim of producing and supporting innovative teachers equipped to act as change agents”.

This was also a time when education departments in these countries introduced a new form of TD: the school cluster, whereby teachers from neighbouring schools were brought together “to improve the quality of education by enabling the sharing of resources, experience and expertise among clusters and facilitating school administration by pooling resources from several schools to be shared equally” (Aiping, 2007: ii). Mc Neil (2004) mentions that, in many developing countries, teacher development activities then took the form of teacher clustering, aimed at addressing scarcity problems faced by teachers in rural areas by giving them access to better facilities and staff (Ribchester & Edwards, 1998).

Such teacher clusters had pedagogical and/or administrative objectives. They encouraged teachers to assist one another in understanding their practices and break teachers’ isolation by experiencing a form of collaborative learning (Jita & Ndjalane, 2009; Giordano, 2008). They provided a context in which teachers observed how others teach, enticing them to try out new ways of teaching. They could also constitute a special learning community, committed to discussing and planning curriculum development innovations and improving their understanding of innovations (Giordano, 2008; Bray, 1987).

Alternatively, clusters were used as formal administrative units in the hierarchy between districts and schools (Bray, 1987). In South Africa, cluster meetings were used by districts faced with a human resource (HR) shortage to familiarise teachers with assessment moderation. Clusters simplified the work of district officials as they then worked through cluster leaders (CLs), instead of dealing with individual schools. CLs possessed delegated authority from district officials to ensure that tasks are carried out timely. CLs knew their schools better than district officials and could therefore be more effective in making certain decisions and in planning (Giordano, 2008). However, abuse by district officials could also occur, especially with officials who were not qualified or committed but more interested in delegating to clusters so as not to visit their schools and teachers.

Jita and Ndjalane (2009:59) argue that the mere presence of cluster structures does not lead to effective TD as this requires certain preconditions. Effective clusters should focus on improving teacher performance for better learner achievements and need quality teacher-led interactions, based on professional knowledge and skills, and a collegial reflective culture.

On-site professional learning communities have their limitations. While they may be effective at encouraging teachers to improve their practices through sharing and reflecting on their knowledge and practices, they also depend on the collective professional expertise of its members (Marneweck, 2004). To generate new conceptual knowledge around curriculum and learning orientation, non-school-based educationists or experts are usually needed to assist in that respect as partners (Maistry, 2008).

Thus, it is clear that several TD strategies are needed for differentiated teachers’ needs and that these are best assessed by looking at the work teachers are expected to perform, as well as their existing level of knowledge, competences and professionalism. However, before testing the notion of reflective collaboration and its conditions in South Africa, the various post-1994 TD challenges need to be reviewed.

Challenges of teachers' work and development strategies in post-1994 SA

In the apartheid era, teachers' work and status were shaped by racially segregated education departments, with top-down authoritarian structures and bureaucratic procedures. Teachers were expected to use prescribed textbooks and transmit syllabuses, designed by white curriculum experts to ensure that apartheid ideology was transmitted in schools. The often under-resourced black education departments controlled their teachers in a rather more oppressive bureaucratic manner.

Many post-1994 policies, such as the 2000 Norms and Standards for Educators, curriculum and assessment policies, aimed at transforming teachers into professionals with high levels of competences and knowledge, a commitment to learners' achievements as well as the capacity to reflect on what and how to teach and improve (Barasa & Mattson, 1998). Such ambitious goals meant that teachers had to learn rapidly to act as high professionals, which represented a serious challenge as they had not been trained in performing such demanding roles. As the research of Taylor and Vinjevoold (1999) and the Centre for Development and Enterprise (CDE, 2011) reveal, by the 1990s, disadvantaged (black) teachers lacked serious subject knowledge, professional competences and the commitment to improve their professionalism.

The TD challenges were enormous as teachers required different forms of TD to move from where they were to where they had to be. The scholarship in teacher education grew fast to investigate, *inter alia*, teachers as facilitators, problems and possibilities of cooperative learning, the importance of context and the idea of teaching for learning. The latter category examines the need for "consolidation work, unpacking, modelling or making explicit the relationship between disciplinary content and the manner in which it should be learned, along with the rules and operations associated with learning it" (Deacon, Osman & Buchler, 2010:6). Yet, one of the main TD challenges was to identify teachers' developmental needs and mobilise the human and financial resources to provide appropriate and sustainable TD activities. So, how were the post-1994 TD strategies conceived?

Non-school-based departmental teacher development

Provincial education departments implemented a national in-service programme to disseminate the new curriculum knowledge to districts and schools. A ministerial review of C2005 (Chisholm, 2000) found that provinces and teachers were frustrated by the short timeframe, planning and execution of this in-service programme. Thus, a cascade approach was adopted to reach as many teachers as possible in a short time; however, this proved problematic and did not work. Most training took the form of workshops, organised by districts to provide generic information for orientation purposes. These were poorly contextualised, of short duration and without any demonstration, modelling or follow-up at school level. In addition, trainers were of poor quality and unable to act as change agents in facilitating the implementation of the new policies which they did not understand themselves (Narsee, 2006). As Christie *et al.* (2004:29) state:

when TD is aimed instrumentally at hastily achieving a new teacher ... in a context in which many teachers have a low base of skills and competences, the way in which teachers appropriate the new paradigm may be antithetical to its premises and aims.

Beyond this, other forms of teacher development were organised and funded by education departments, such as university programmes in various subject content or pedagogical content programmes but without much impact on teachers' performance. One of the most successful fora for non-school-based teacher development emerged with teacher networks, formed by professional associations such as the Association of Mathematics Educators of South Africa (AMESA), led by highly competent professionals, committed and focused on improving teachers' competences, practices, and attitudes.

Thus, non-school-based TD was rarely able to make teachers change paradigm and improve their classroom practices. As Guskey (2002) argues, teachers need to experience changes positively in real-life contexts. This is not to say that there is no place for non-school-based TD, especially with South African teachers with their lack in basic content and pedagogical knowledge, but rather to argue that there is no

'one-size-fits-all' TD for all. What is needed is a thorough analysis of teachers' work, competences and knowledge as well as expectations and needs to inform the design of differentiated TD interventions.

School-based teacher development

School-based TD became a priority in 2004 when the DoE introduced the posts of master and senior teachers, whose roles were to mentor and assist less experienced or knowledgeable colleagues. However, accusations of poor appointments surfaced, making the department re-think, together with teacher unions, a more formal institutionalised system through which to appoint senior teachers, namely the 2008 Occupation-Specific Dispensation.

Another department-driven, school-based TD strategy emerged with the cluster system which entails districts bringing teachers of neighbouring schools together to reflect on aspects of their work. The first clusters organised were designed to make teachers work through the common assessment tasks (CAT). NGOs and other service providers used a similar form of TD to build teacher capacity. They worked with groups of schools and teachers as experts or consultants, guiding development workshops, initially without, but increasingly together with districts, as they realised the need for district capacity building to enable them to be a permanent source of school support. These projects met with mixed success, and tended to be more effective when dealing with relatively functional schools (such as the Dinaledi schools) rather than with poorly performing ones (Taylor, 2007).

Many doubted the benefits and sustainability of the cluster system as a large-scale solution for teacher development. This is because clusters were rarely driven by teachers, or consisted of teachers who did not possess sufficiently strong professional competences or knowledge to improve the competences of the teacher collective (Marneweck, 2004). The few effective clusters tend to have access to and the support of professional teachers or external facilitators, with strong knowledge and competences to assist teachers to reflect and improve their practices (CDE, 2011). Maistry (2008) also found that effective school-based teacher development was associated with factors such as leadership, strategic thinking and understanding, expert assistance, mobilisation of resources through partnership and social networks.

While not arguing that teacher clusters are the only effective TD form in 21st century South Africa, this article now turns towards research findings on a successful form of teacher clustering, which has not yet been reported in the South African TD literature.

Case study of a teacher cluster in Mpumalanga

This study was conducted as part of a post-graduate research study by the second author of this article. It was an exploratory case study in a region of Mpumalanga, designed to gain in-depth understanding of the context and characteristics of a teacher cluster, the kind of teacher learning it facilitated, the reasons for teachers' interest in this form of teacher learning as well as its impact on teachers and learners alike. The researcher gained permission from the Mpumalanga Department of Education Ehlanzeni region. Before carrying out this study permission was granted by the University of the Witwatersrand's ethics committee.

To develop a rich picture of these teachers' views on the complex interplay of contextual and other conditions under which this cluster functioned, it was decided to rely mainly on perceptual data gathered through semi-structured interviews of a district official, a cluster leader and seven teachers of a same subject area (geography) from seven neighbouring secondary schools. Observations and document analysis were also used to cross-check the perceptual data. Observation of the planning and conducting of one cluster teaching meeting was done to comprehend how teaching topics were assigned to individual teachers, what happened while one teacher was teaching and also after s/he had been teaching, as well as how teachers related to each other during the whole process. This added to what participants said or did not say in the interviews. Analysis of the cluster policy and other provincial documents on clusters assisted in understanding the origins and purposes of this cluster system, its sponsors, and how this programme was set up and functioned.

History and context of cluster teaching

As with other provincial education departments, school clusters were set up in Mpumalanga as a result of a policy stipulating that circuits/districts had to organise teacher clusters for the moderation of the continuous assessment (CASS) process (Mpumalanga Department of Education [MDE], undated:1). But many Mpumalanga teachers felt frustrated at the circuits which rarely organised content workshops (one per year), and most teachers had little energy, resources or social capital to look for alternative sources of meaningful support:

You don't get anything from curriculum implementers [CIs], even if you submitted an area to be developed. When they come to your school, which is rare, they just check your files and learners' files to see if you comply with the requirements. CIs don't know much about the subject content. When teachers are discussing challenging topics, CIs are stuck and it is teachers who help them out.

However, some teachers decided to use these clusters as a form of school-based, in-service education. This teacher collaboration, modelled on the Japanese *jyugyo kenkyu* (lesson study), was born out of an intervention in science and mathematics conceived by the MDE, supported financially and technically by the Japanese International Cooperation Agency and academically by UP (MDE, undated). It began with maths and sciences but spread to other subject areas to become formalised as a compulsory element of teacher education in the province (Jita & Ndjalane, 2009).

The seven teachers explained how frustrated they were with the district and how they wanted to improve their Grade 12 learners' performance (Phiri, 2011). This is when they decided to turn the cluster idea into a voluntary teacher development opportunity to share content and pedagogical knowledge and improve their practices by observing one another and modelling good practices in concrete classroom situations. They brought their learners together once a month at one school, on a Saturday or after a school day, so that teachers could teach them and in the process learn from one another how to be more effective. Learners were mixed and divided randomly into four groups, where four teachers at a time taught four groups of learners on a particular geography topic. This allowed each teacher to be observed by at least one other teacher. Teachers met twice a month to prepare. So, while such cluster teaching appears as supplementary tuition to Gr 12 learners, it started as a teacher-driven initiative to improve subject and pedagogical knowledge to benefit both teachers and learners (Phiri, 2011).

Cluster teaching and teacher learning

Participant teachers (with an m+4 professional qualification and from disadvantaged schools, as the better-off schools in the circuit did not join) explained that they wanted to pool their resources for the benefit of all, as well as learn from colleagues' different skills and competencies related to their subject and pedagogical knowledge. Because teachers had varied knowledge of the curriculum, they believed they could help one another understand different content and pedagogical knowledge by modelling it in a real-life classroom.

...it benefits to work with other teachers, you learn a lot from just listening to what others are doing. Some of these teachers are very good in their subjects and cluster teaching shows you which teachers are good in which area of the subject (Phiri, 2011).

The teacher learning was not instant but gradual. Teachers were encouraged to receive and provide assistance. Even though they learnt around what they taught and observed, they also acquired some basic knowledge which laid a foundation from which they could grow further (Phiri, 2011). Observation of different teaching techniques from more experienced teachers became valuable learning as they experienced these directly as well as noticed learners' reactions to different teaching techniques.

...educators often have an idea of what to teach but the problem is one of methodology, on how to deliver a particular topic to learners in a way they can understand. Learners respect the teacher who knows his/her stuff and are always attentive when such a teacher is teaching (Phiri, 2011).

The cluster teaching also resulted in teachers moving at a similar pace in the curriculum coverage, since learners wrote their assessment tasks at the same time. This encouraged teachers to work hard to catch up with their colleagues and master aspects of their subject which they found difficult (Phiri, 2011).

This observation empowered teachers as it broke their isolation, helped them develop trust towards one another and accept comments from colleagues whom they soon recognised as ‘critical’ friends. The less experienced teachers initially felt insecure when being observed as it laid bare their vulnerabilities, but they started to relax when they heard positive, practical feedback from more experienced colleagues. They had never felt at ease when observed before but, once trust developed, they accepted this help with greater ease:

Acknowledging weakness is something that makes people develop because they are then able to seek help (Phiri, 2011).

Cluster teaching became a safe space which broke down fears and barriers to sharing, as teachers started to look forward to the useful feedback on the strengths and weaknesses of their teaching techniques. Being provided with evidence on other teachers’ teaching, on what learners did not understand and why this was the case, teachers experienced the process as a valuable learning experience and were encouraged to adopt new practices. They soon witnessed positive reactions and results from the learners. This caused them to continue with these practices which, in turn, changed some of their beliefs and attitudes.

Cluster teaching and enhanced teacher skills

Besides subject content and pedagogical knowledge, cluster teaching taught teachers additional skills and competencies. They mentioned learning to work together, to improve their planning and preparation of lessons, solve professional problems, as well as share skills and resources with others. It was evident that the whole cluster of teachers and learners felt the benefits.

...teachers no longer struggle alone; they consult with each other on anything. Besides, if one has a problem, it becomes a problem of every member as we deal with it together; we do not wait for cluster meetings we just call each other (Phiri, 2011).

Cluster teaching also resulted in teachers taking the initiative to run the cluster together and make decisions in a participatory manner. They mentioned being encouraged to take initiatives and stopped looking to the cluster leader, who operated as a link between teachers, heads and the district (Phiri, 2011). Cluster teaching enhanced their commitment, as they also learnt how teaching can be effective in similar poorly resourced contexts.

Cluster teaching and teachers’ sustained interest in further learning

The driving force behind the cluster was teachers, committed to learn and improve their practices so their learners could perform better (Phiri, 2011). Teachers were proud of their calling and wanted to be recognised by the district and the region. They wanted to become eligible for career progression by adding to their portfolios for submission for an Occupation-Specific Dispensation (OSD) evaluation.

The study noted some competition among teachers who wanted to outwit one another and gain recognition as one of the best teachers in the cluster. They worked hard to impress their colleagues and learners. They showed commitment to change and to continuous learning to develop their knowledge, skills and competencies (Phiri, 2011). This competitive spirit appeared healthy as teachers felt the consequences of not improving their practices and were incentivised in keeping abreast with developments in their field.

Besides this competition, teachers were keen to learn and improve for the sake of their learners. Learners compared, contrasted and reacted to different teachers’ teaching. Teachers mentioned that, when learners experienced how their teachers were not well versed in the material they taught, they tended to misbehave in class or asked difficult questions to expose the teachers’ lack of knowledge (Phiri, 2011). It was difficult to ignore the negative responses of learners who had been exposed to teachers with greater expertise and knowledge, and this made teachers conscientious and committed to improve. In that sense, cluster teaching acted as a form of quality assurance – close to some form of professional accountability

(Darling-Hammond, 1989), because teachers were pushed to set and achieve common standards of content and practice. In fact, by providing a conducive learning environment, and knowledge and incentives to learn more, such cluster teaching combined professional development and professional accountability effectively.

Cluster teaching and learners' learning

One of the main goals of cluster teaching was improved tuition to learners, which is a priority goal of effective professional development (Schlager & Fusco, 2003). Teacher development that does not lead to improvement in learners' performance is a waste of time, as teacher practices only improve and become sustained if they produce improved learners' performance (Villegas-Reimers, 2003).

Cluster teaching enriched learners' learning experiences, partly because teachers shared their school resources and learning materials for the benefit of learners (Phiri, 2011). It also exposed learners to a variety of learning experiences since they were taught by teachers who used different teaching techniques, which met different learning needs.

The way I teach is not the same as another teacher. This is because all teachers teach differently and so are learners when it comes to learning. When I am teaching, I might not reach out to all my learners but, if many teachers teach together, there is a greater likelihood that most learners are going to get something out of it (Phiri, 2011).

Teachers took collective responsibility for their learners' success and actively assisted learners who struggled, to prevent them from lagging behind. In that sense, learners also benefitted from the teaching improvement of teachers (Phiri, 2011).

As McLaughlin and Talbert (2006) and Schwille and Dembele (2007) show, learner learning is enhanced by continuous, collaborative teacher learning, which focuses on instruction and learning in specific contexts. As teachers learn experientially with and from other teachers in their daily practices, they develop new knowledge and competences, as they test what they experience from other teachers.

How did cluster teaching impact on matric results? Teachers said that the cluster teaching was initiated because something had to be done to make the region perform better:

It is fruitful, it is helping our learners and we can see the improvements of [matric] results since it started. We are now one of the best clusters not just in the region but also the province as a whole, that's a very big improvement (Phiri, 2011).

Although the geography matric results of these schools improved in 2009 and 2010, it is difficult to establish a direct link between these results and the cluster teaching exercise. However, teachers believed that, once cluster teaching became fully fledged, learners' learning was enhanced and their schools were back on the provincial map (Phiri, 2011).

Conclusion

Cluster teaching, driven by teachers committed to improving their learners' performance, had many intended and unintended consequences. It made teachers pool their individual expertise and resources and experience the benefits of collegiality, and the principle of 'we are stronger as a team'. It did this by promoting direct experiential learning and colleagues' competition which was a powerful incentive to improving teachers' reflections and to advancing their subject and pedagogical content knowledge as well as classroom practices. It assisted teachers to deal with real rather than hypothesised problems; it pointed to areas of development and teachers witnessed immediate results from different teaching practices on their learners. The workplace learning boosted teachers' morale and confidence, contributed to a needed collegial culture in schools and made them appreciate positive elements in teachers' competition. Thus, cluster teaching changed these teachers' practices, beliefs and attitudes, and acted as an effective teacher-initiated TD and accountability, which compensated for the lack of district support and poor resources.

Could cluster teaching be promoted as an effective form of TD at district level? Yes, but as long as similar conditions, attitudes and competences exist among teachers. It is also argued that clusters

have their limitations as their knowledge and teaching practices can be limited to what is known by, or accessible to, the cluster teachers. Whereas this cluster community did not have access to external support from professional experts for new ideas or concepts to improve on teachers' subject, teaching and learning practices, other communities may require experts to facilitate or guide teachers' knowledge, competences and reflection. Indeed, school-based TD needs to look at and beyond the cluster system to ensure that teachers acquire new ideas, professional knowledge, competences and attitudes as well as remain motivated.

Endnote

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