Collaboration and mutual support as processes established by communities of practice to improve continuing professional teachers’ development in high schools

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Abstract: The purpose of the paper was to investigate how collaboration and mutual support as the processes established by communities of practice to improve continuing professional teachers’ development in high schools. This study is essential as it helped teachers to see the importance of working as teams through mutual support given to each other to boost their professional development. The study was qualitative in nature; semi-structured interviews were conducted in order to get expedient and in-depth information from the participants with the use of case study design. The study found that teachers participated effectively and had mutual relationship in collaborative learning activities in communities of practice. The findings indicated that teachers should collaborate and mutually engage in learning activities in communities of practice in high schools in order to enhance their professional development.

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PUBLIC INTEREST STATEMENT

Working as teams is vital for teachers’ to improve their professional development in schools. This improvement can only be achieved when teachers interact collectively through collaboration and mutual support. Sharing of ideas, knowledge and experiences as groups in learning environment which teachers as created as their communities of practice will go a long way to enhance continuing professional teachers’ development. Therefore, this study examined collaboration and mutual support as processes established by communities of practice to improve continuing professional teachers’ development in high schools. The study found that teachers engaged in collaborative learning activities support each other by interacting as groups rather than working in isolation to boost their professional development.
1. Introduction
Due to the continuing ineffectiveness of numerous interventions in promoting teachers’ professional growth, many research works on how teachers can improve their subject content knowledge and pedagogical content knowledge through communities of practice or teacher clusters started emerging in South Africa (Jita & Mokhele, 2014). Actually, it is not the existence of these communities that offer the prospect for effective professional development, but the interactions among teachers, together with relationships of trust and identity, that make communities means for stimulating and changing teachers’ professional knowledge and practice (Vangrieken, Meredith, Packer, & Kyndt, 2017).

Teachers’ cluster and network are structured to promote collaboration and mutual support for continuing professional teachers’ development (CPTD) with teachers within the same schools and other schools (Vangrieken et al., 2017; Vollenbroek, Wetterling, & de Vries, 2017). Processes for communities of practice enhance team work through collaboration and mutual support. Teachers work collaboratively to assist each other to learn and solve problems. They support each other by learning content knowledge and also shared issues relating to pedagogy content knowledge and classroom activities. (Dogan, Pringle, & Mesa, 2016). Isolation as a barrier among teachers in schools and classroom is being overcome through collaboration among teachers by sharing of ideas (Trust & Horrocks, 2016). Facilitators also ensure that learning activities are mutual and teachers are seen as co-learners.

However, concerns have been raised that teachers lack knowledge and appropriate teaching methods, content knowledge and pedagogical content knowledge despite the implementation of communities of practice or teacher clusters and networks in schools through collaborative learning activities (Eastern Cape Department of Education [EcDoE], 2010; Jita & Ndlalane, 2009). Hence, it is not clear how teachers are engaging in communities of practice or teacher clusters or networks. Moreover, it is also not clear how principals, heads of departments (HoDs) and cluster leaders within different contexts are supporting communities of practice or teachers clusters in their schools given the fact that it is a school based CPTD (Jita & Ndlalane, 2009).

Different terminologies have been used by many scholars for communities of practice, which is one of the models of continuing professional teachers’ development. These include professional learning communities, teacher clusters, teacher networks, professional and affiliation networks, learning team model, workplace learning, collaborative teacher research, networked learning communities and collaborative practices (Chappuis, Chappius, & Stiggins, 2009; Jita & Ndlalane, 2009; Katz & Earl, 2010; Lassonde & Israel, 2010). Thus, for the course of this study, any of the names or terms by various scholars will be used for communities of practice.

1.1. Literature review
Collaboration and mutual support are crucial in communities of practice as the processes established to enhance CPTD (Jita & Mokhele, 2014; Vangrieken et al., 2017). Hargreaves (2002) notes that professional learning communities demand that teachers develop grown-up norms in a grown-up profession—where difference, debate and disagreement are viewed as the foundation stones of improvement. Accordingly, collective learning is also apparent, through collective knowledge creation, whereby the school learning community work together, engages in serious dialogue and deliberates about information and data, interpreting it collectively and distributing it among them (Park & So, 2014). Thus, collaboration among teachers foster good working relationship and can be seen as a means of enhancing their professional development.
In professional learning communities, collaboration can involve a range of activities that are from teachers working together in an informal, unplanned way to implementation of more formal collaborative approaches. Wake, Swan, and Foster (2016) state that collaborating on all features of teaching includes planning, decision-making and problem-solving to a shared responsibility for the outcomes. Thus, effective collaboration is seen as a frequent and ongoing and when it is most successful, form an integral part of daily practices. Veelen, Sleeegers, and Endedijk (2017) argue that professional learning communities where collaboration exists among teachers, the focus shifts from individual learning goals to contributing to the learning and knowledge base of colleagues and the school.

In order for communities of practice to enhance teacher's professional development, there is need for mutual support among the teachers in such communities of learning. School leaders and teachers need to give mutual support to one another so as to deal with issue of isolation in schools (Hord, 2016; Runhaar, 2017). Mutual support is seen as a means to enhance teachers’ development in the learning communities. Teachers working in isolation will inhibit professional development; therefore, joint effort from teachers with leadership support will also help teachers in developing their content knowledge and pedagogical content knowledge (Vangrieken et al., 2017).

In addition, professional learning communities actually emerge as a result of teachers’ need to cooperate and collaborate among themselves (Vangrieken et al., 2017). Collaborative cultures among teachers in schools are more deliberate, if it has been initiated and supported by leaders in the schools (Lu & Hallinger, 2017). This implies that collaboration in communities of practice can be realistic with full support of school leaders. Johnson, Dempster, and Wheeley (2016) argue that effective professional development is that which harnesses the advantages of collaboration through communities of practice. This is because such engagements contribute to teacher learning and make instructors acquire skills in curriculum designing and redesigning and technology integration for quality teaching and learning.

Also, King and Newmann (2001) argue that teacher learning is most likely to occur when:

- teachers can concentrate on instruction and student outcomes in the specific contexts in which they teach;
- teachers have sustained opportunities to study, to experiment with and to receive helpful feedback on specific innovations;
- teachers have opportunities to collaborate with professional peers, both within and outside of their schools, along with access to the expertise of researchers and program developers.

The points above show that learning in communities of practice should be a continuous one and at the same time be on a sustained basis with collaboration with experts within and outside the schools. Moore (1988) cited in Bolam et al. (2005) suggests that teacher learning opportunities, grounded by adult learning principles, should include the significance of fostering participation as well as working collaboratively in an atmosphere of mutual respect. Hakkarainen, Palonen, Paavola, and Lehtinen (2004) put forward that workers need to develop the capacity to form collaborative teams or communities of practice to quickly achieve a particular purpose. Thus, communities of practice in schools with collaborative teachers can achieve professional development.

More so, learning in professional learning communities is seen to involve active involvement of group members where they showcase their knowledge through reflection and analysis, rebuilding through action in a particular context as well as building it together through collaborative learning with peers (Mitchell & Sackney, 2000). The main point here is that such learning, which can indeed bring out the best in teachers for the purpose of professional development, cannot be done in isolation. There is a need for interaction and collaboration with others. As being put forward by Lave and Wenger (1991), they propose that in communities of practice, participants are gradually
engrossed in the learning practice and culture of practice in the community and as they interact with other members, they have a sense of belonging, thus increasing their understanding. They argue further that communities of practice provide teachers with a valuable platform for them to connect and interact among themselves, to share and support each other on their specific problems, experiences and lesson learned. These are usually done at their own chosen time and place or venue.

Jita and Mokhele (2014) claim that teacher collaboration is a vital component of any successful teacher-clustering initiative. They suggest that if a teacher cluster is to be successful, collaboration must take place among teachers, thus fostering professional development. Jita and Ndlalane (2009) argue that it is not simply the existence of a teacher cluster that provides the opportunity for effective professional development but the interactions and collaboration among teachers that make the cluster an attractive means for stimulating and probably changing teachers’ professional knowledge and practice. Cordingley, Bell and Thomason (2004, p. 2) state that collaborative continuing professional development is seen as specific plans to encourage and enable shared learning and support between at least two teacher colleagues on a sustained basis.

Investigation on teacher clusters reveals that teachers from schools in mutual clusters with mutual support experience less stress and difficulty when implementing a new curriculum (Muijs, 2008). This is because the teaching and learning activities in the cluster are seen as a joint effort in which all teachers must participate effectively. Community of practice theorists see this approach as addressing issues of engagement through continual renegotiation and mutual responses that bind the members of the group together to produce a shared repertoire of community knowledge and resources (Wenger, 1998).

McDermott (2000) suggests that a community of practice is a group of people who share knowledge, learn together and create common practices with mutual support. He identifies the following factors in successful communities of practice. They

- focus on topics of vital interest to the community members
- are facilitated by a well-respected community member
- create time and encouragement so people can participate properly
- build on the core values of the discipline community
- get key thought leaders involved
- build personal relationships among community members
- contain an active passionate core group
- use forums for thinking together as well as systems for sharing information
- are technically easy to access and contribute to, and
- create real dialogue about cutting edge issues. (Adapted from McDermott, 2000, p. 4)

From the factors stated above, it is obvious that for a community of practice to be successful, mutual support must be a priority among community members.

In a systematic review of literature on communities of practice to discover evidence about sustained collaboration among teachers and its effect on teaching and learning, Cordingley et al. (2004) established that collaboration among teachers in communities of practice could have a positive impact on teachers’ professional development. They stated that changes in teacher behaviour include greater confidence, enhanced beliefs among teachers of their power to make a difference to pupils’ learning, the development of enthusiasm for collaborative working despite initial anxiety about classroom observation, and a greater commitment to changing practice and willingness to try new things. Collaboration among teachers in communities of practice is also seen to contribute to improved professional development (Jita & Mokhele, 2014; Jita & Ndlalane, 2009).
Consequently, Brook, Sawyer, and Rimm-Kaufman (2007) argue that schools which collaborate effectively create a base of pedagogical knowledge which is circulated among teachers within a school as opposed to being held by individual teachers. This implies that collaboration helps to prevent teachers working in isolation in schools, thus they interact with their colleagues and this enables them to acquire more knowledge and skills. Harris and Jones (2012) echoed it that to be most effective, collaborative learning should be driven by analysis of student data and focused upon the development of teachers’ knowledge and understanding. TALIS OECD (2013) also state that collaboration is regarded as a rewarding professional learning experience if it recognizes the crucial role teachers have in school improvement.

Furthermore, a study carried out in Canada on communities of practice in professional development, Widerman and Owston (2003) found that communities of practice were established as a strategy for providing teachers with skills to integrate ICT in teaching and learning through provision of a shared ground that allows participants to collectively develop the knowledge and skills needed for successful professional development. The study also reveals that through collaboration among teachers and the school leaders, communities of practice were established to introduce innovation and sustain change in pedagogical practices.

In another study carried out by Avery and Carlsen (2004) on knowledge, identity and teachers’ multiple communities of practice in New York, they note that when teachers are given the opportunity to collaborate and have ownership and rights in curricula and assessment, teaching and learning becomes a participatory event for all teachers involved. This actually helps them to be self-dependent and to be able to contribute positively to curriculum development in schools and also help them in their professional development.

Jita and Mokhele (2014), in their study in South Africa on South African teachers with the cluster approach to professional development, found that teachers were able to make substantial achievements in terms of content knowledge and pedagogical content knowledge through their collaboration in the clusters. A similar study in South Africa by Jita and Ndloane (2009) on teacher clusters reveals that in most cases, teachers work in isolation in their schools and classrooms, but it became clear that within the cluster possibilities exist for breaking down the barriers through teacher collaboration and sharing with regard to issues of content knowledge and pedagogical content knowledge. Thus, overcoming the barriers of isolation by sharing and collaboration is an essential step in using clusters as a vehicle for professional development of teachers.

1.2. Objectives
The main objective of this study was to find out how collaboration and mutual support as processes established by communities of practice help to improve CPTD in high schools in the Fort Beaufort Education District in South Africa. The study further seeks to:

● investigate teachers’ participation in collaborative learning in communities of practice;
● find out the relationship among teachers who are part of collaborative learning activities,
● know how to improve teaching and learning methodologies through working collectively with group members.

1.3. Limitations
In the course of carrying out the current study, the researchers were faced with some limitations. The limitations include complaints from teachers at the initial stage of data collection based on their busy schedules and workloads. However, the researchers were able to solicit for their participation in the study. Most of the schools were visited more than thrice in order to get permission from the school principals for data collection from the teachers. Also, because of the busy schedules in most school, the researchers had to arrive those schools at least one hour before the appointment time so as not to miss the appointments for that day. If not, it means booking for
another appointment which may take some weeks. In addition, most of the schools’ location were far especially the rural schools, the researchers, however had to go with a shuttle to those schools for easy accessibility and to meet up with the appointments.

Language barrier was another limitation; however, some colleagues who assisted with the interpretation of the language from Ixishoza to English Language in some schools accompanied the researchers. The good part of it, however, was that all the participants interviewed agreed to be interviewed in English Language. Some participants were not also comfortable with voice recording but they agreed later when they were informed that the purpose of the study was mainly for academic purpose.

2. Methodology
Qualitative research approach was used for this study with case study design, which was mainly centered on face-to-face interviews. This method was preferred because it helped to get rich information from the participants about their view and opinions on collaboration and mutual support as processes to improve CPTD in high schools (Creswell, 2014).

2.1. Research instrument
This study adopted semi-structured interview which has both structured and unstructured interviews and therefore use both closed and open questions. As a result, it has the advantage of both methods of interview. In order to be consistent with all participants, the researchers have set of pre-planned core questions which were interview guides. The interview guides were used for guidance such that the same areas were covered with each interviewee and the focus was on teachers’ participation in collaborative learning activities in communities of practice, relationship among teachers who are part of the collaborative learning and improving teaching and learning methodologies through working collectively with group members. The interviews enabled the researchers to get greater depth information as the researchers has the opportunity to probe the interviewee during the interviewing process to get in-depth and rich information on the phenomenon under study (Morris, 2015).

2.2. Participants
The Fort Beaufort Education District was made up of six clusters with 48 high schools. Ten schools were purposively selected from the district because those schools have both formal and informal communities of practice existing in their school. Fifteen participants were purposively chosen as sample for this study because of their in-depth knowledge about the phenomenon under study (Creswell, 2014). The participants which include three teachers, three principals, three HoDs, three cluster leaders, two subject advisors and one education district official. This method of interview enabled the researchers to get expedient and rich information from all the participants.

2.3. Procedure
In order to have access to the sampled high schools, permission for data collection was sought at the provincial department of education and from each principal of the 10 sampled high schools. The researchers used digital voice recorder to record the interview schedules they had with all participants. Permission was taken from them before the commencement of the recording (Creswell, 2014). All the participants were given consent form to sign to show their voluntary involvement and participation in the study where it was clearly stated in the consent form that the participants can withdraw from participating in the study and opts out at any stage. The use of the interview guides was of help to the researchers, there was consistency with questions asked all the participants by the researcher. As noted by Brinkmann (2013), an interview guide is also a vital component for conducting semi-structured interviews. The interview guides which were used for this study contained a list of questions which the interviewers wished to cover during the interviewing process.
3. Results
This paper tried to respond to the main research question, which sought to find out how collaboration and mutual support as processes established by communities of practice help to improve CPTD in high schools in the Fort Beaufort Education District. However, this paper gives report of the sub questions that sought to investigate teachers’ participation in collaborative learning in communities of practice; relationship among teachers who are part of collaborative learning activities and how to improve teaching and learning methodologies through working collectively with group members.

The teacher, principal, cluster leader, head of department, subject advisor and education district official participants are abbreviated in this paper as T1–T3, P1–P3, CL1-3, SA1-2 and EDO respectively. The findings are presented below.

3.1. Teacher’s participation in collaborative learning activities in communities of practice
This paper attempted to investigate how teachers collaborate through their participation in collaborative learning activities in communities of practice which is meant to enhance their professional development. In the interviews held with teachers in order to get an in-depth information on teachers’ participation in communities of practice, they were asked if teachers in their various schools participate effectively in collaborative learning activities. Some of the comments from the participants are as follows:

TS1 said:
Yes, teachers participate effectively. It is a common practice here in this school as teachers are willingly to assist each other, so they participate effectively.

TS2 commented:
Yes, we do. We ensure we are committed and we attend all the schedule programs within our school and other schools.

TS3 disclosed:
Yes, very well. We get assistance from our colleagues in difficult areas, so we see it as an avenue to learn and develop ourselves.

HoDs interviewed on the same question also said teachers in their various schools participated very well in communities of practice and they contributed their best in the meeting as group members. The following are the comments made in this regard.

HOD1 said:
Teachers here participate effectively. We know the meeting time and we make sure we attend and also contribute positively during the meeting.

HOD2 revealed:
Yes, they make themselves available and show interest in assisting others. They attend meetings regularly.

HOD3 disclosed:
Yes. They are willingly especially let me put it in this way, when we sit in the staff room, we discuss learners’ behavior or performance and how we can develop ourselves to help learners perform better.
For their part, the school principals in their various interviews education expressed same views. The following are comments made in this regard:

PS1 noted:

*Teachers join the community organization for example and club for example and other social activities in the community. Teachers are participating actively and they are willingly to participate and take a leading role in activities that are done in the community of practice.*

PS2 said:

*Yes, teachers participate effectively. Because we do allow others to come here while our teachers go to other schools.*

PS3 commented:

*Yes. They come regularly for the meeting and we learn from each other.*

In the interviews held with cluster leaders, they were asked if teachers in their clusters participate effectively in communities of practice. The following are the responses from the cluster leaders indicating that teachers participate effectively in communities of practice.

CL1 remarked:

*They attend cluster meetings regularly and participate effectively in all tasks and activities.*

CL2 said:

*They do, they show willingness and commitment and they attend all meetings.*

CL3 stated:

*Yes. They attend all meeting and actively involved in all roles and tasks assigned to them.*

In the interviews with district officials in same regard, they were asked if teachers in their district participate effectively in communities of practice, they gave the following comments.

SA1 said:

*Yes, they do participate effectively and also that we are having committees, so they are part and parcel of the committee.*

SA2 revealed:

*Yes, especially when they are there, they are participating very well. Let alone those cases about those ones that will be absent. Because others are absent for different reasons, others are understandable reasons of not being fit that day. It is quiet understandable, somebody is permitted to do a follow up on that, you know, others are escaping because they know they are not implementing, they are not having good practices as discussed and planned, you know, that to us is a feedback as well. You have to know the reasons why teachers were absent for the meeting. You have to do a follow up, where you arrange for the next meeting, at the end of the day, we end up touching everybody and putting everybody on board.*
EDO commented:

"Teachers participate very well in the meetings; their attendance is encouraging. They are committed and engage very well in the group task given to them. Though some teachers will be absent but they do send apology through their principal before our meeting day."

Responses from majority of the participants revealed that teachers participated very well in communities of practice. Teachers were committed to attending the meeting, and the attendance of teachers in the meetings had been encouraging. However, there were cases of some teachers who were absent from the formal cluster meeting for various reasons. Some teachers could not make it for the meeting due to health reasons, while some did not attend intentionally because they were applying and practicing what they had been taught in the cluster meeting. Such teachers just felt they should excuse themselves from the meeting with various reasons. It emerged from the findings of the study that any teacher who would not be able to attend formal cluster meetings must inform the group members by sending his or her apology through the principal or any group member stating reasons why he or she would not attend the meeting. The district officials on their part do made a follow up or send someone to make a follow up on why some teachers were absent from the cluster meting so as to know how to address the issue of their absence.

Also, the information gathered indicated that in communities of practice meetings, teachers participated effectively. They were willing to assist each other in their schools and other schools and this willingness made them to participated very well. The teachers attended their meeting regularly at the schedule time and they were fully involved in the group activities and tasks.

3.2. Relationship among teachers who are part of collaborative learning activities

The study sought to find out more about the relationship teachers who are part of collaborative learning activities in communities of practice have with each other. Participants revealed that they had mutual relationship and they related well with their colleagues. However, it was stated by one of the district officials interviewed that at times the relationship is emotional and that differs from subject to subject and teacher to teacher. This was so because some teachers are having challenges with their subjects due to the fact that the minimum work expected by them by the department of education has not been met. Below are their comments in this regard.

TS1 affirmed:

"The relationship is good. It is supportive, so we always want to develop each other. Yes, it is a mutual relationship."

TS2 pointed out:

"The relationship is a good one. We are happy to meet and learn together. You have the opportunity to learn from others and others will also learn from you."

TS3 agreed:

"Our relationship is fine. We go along very well, we relate and share our ideas and experiences with one another."

The HoD responses are also in accord that there is good relationship among teachers in communities of practice and this has helped in them to collaborate well in learning activities they engaged in.
HOD1 said:

I will say we have a smooth relationship. The spirit of tolerance helps in this area and we all go along very well. If the relationship is not smooth, we cannot learn because no one is a highland of knowledge. So we go along very well.

HOD2 reported:

It is a good relationship. We helped other schools and they have helped us too in teaching and learning activities. In our school, teachers and I have good relationship, we help ourselves and encourage one another.

HOD3 disclosed:

The relationship, we have a good relationship, let me put it that way, it is what you call teacher to another teacher relationship and teacher to learner relationship. It is a mutual relationship. I do benefit from my colleagues and they also benefit from me. As I said earlier, we have new teachers who are fresh graduates from the university. They are full of new knowledge, we collaborate and combine experience with knowledge.

In their part, in the interviews held with principals on the same subject, they also concurred that they have mutual relationship as teachers with one another. They have this to say as their responses.

PS1 said:

It is really a healthy one, the relationship is a healthy one indeed. We see it as a means of developing each other. I think the relationship is mutual one that’s why they attend meetings and they are always willingly to be part of the group.

PS2 commented:

They are good. Because teachers will tell you when they are about to leave, reminding you. You know most invitations come late and others will come very early and then you forget about it. Then the teacher will tell you after if there were problems they will just site them and discuss them.

PS3 remarked:

The relationship is cordial and good. We go along very fine. We relate very well and share our ideas among ourselves.

Cluster leaders interviewed also gave the following responses about the relationship with other teachers in their communities of practice:

CL1 said:

We enjoy a cordial relationship. We go along well since we are ready to learn from each other and to assist each other.

CL2 pointed out:

To me we have a mutual relationship, we work along well and fine. If we notice any problem or issue, we address it together and find a solution to it.
CL3 revealed:

Well so far so good we have enjoyed good relationship otherwise, we will not go on well and enjoy working as a group.

In their interviews the district officials also agreed that there is cordial relationship between them and teachers in collaborative learning activities in communities of practice.

SA1 said:

I believe that we got a good relationship because in each and every subject, there is subject committee. So we as subject advisors, we liaise with the subject committee in order to emphasize the necessity of the cluster meetings to our educators. We also have a good relationship with the principals. They are aware that this is a departmental procedure and we should take teachers away from school for professional development.

However, SA2 said the relationship sometimes become emotional because some teachers have not meet up with their school work but according to her, the relationship is a bit good.

SA2 disclosed:

The relationship a times become emotional and that differs from subject to subject. You know, that will differ from subject to subject and teacher to teacher. For instance, what am trying to say is that you find those teachers that are having challenges in a subject, challenges in the sense that the minimum work expected has not been finished. Then during the meeting, they will be needed to account on that. Why are they behind, why is the standard like that, you know, definitely the teacher feels so emotional about it. Sometimes others feel they are exposed in front of their colleagues because mind you, it is mixture of teachers from various schools. I will say the relationship is a bit good let alone those cases of those particular teachers that are having challenges because they feel a times they are humiliated rather than being supported.

EDO commented:

I will say the relationship is quite smooth, though we are dealing with adults and sometimes we encountered some challenges, but these are not obvious if well managed. I would rather say teachers showed willingness to learn and get support, except for few that hide their challenges. Otherwise, we have enjoyed good relationship with one another.

It was established that teachers enjoyed good relationship with their colleagues as well as district official in their various schools’ communities of practice. Though some teachers felt emotional to relate very well because they had not meet up with their required minimum work according to the department of education specification, so they felt they were being humiliated in the presence of their colleagues. Despite this, it has been established that teachers still related well with their colleagues as they see this practice as a learning avenue through which they can develop themselves professionally.

3.3. Improving teaching and learning methodologies through working collectively with group members

The researchers sought to establish whether teachers have made improvement in their teaching and learning methodologies through working collectively with group members in communities of practice. In order to get an in-depth information on how working collectively with group members in communities of practice has helped teachers to improve on their teaching and learning methodologies, teachers interviewed were asked to briefly describe what they have gained or acquired through participating in communities of practice. Responses got from the teachers
showed that most of them have been able to improve on their teaching and learning methodologies, some have acquired new knowledge and skills as well as how to handle their learners in classroom.

TS1 said:

We as teachers we have. Let me put it that I have received a lot of growth in terms of knowledge content. So that is what I can say.

TS2 remarked:

I have learnt so many new things, my knowledge has improved. Have learnt new method of teaching and handling learners. In fact, I am not where I used to be before in terms of my content knowledge, it has increased. I think have developed (smiles).

TS3 disclosed:

I know and know how to tolerate other teachers. I have gained positive attitude to my work. I have gained new skills and this has helped in the way I teach my students.

Responses from HoDs interviewed correlated with the ones from the teachers as they agreed that they had benefited from working collectively as a group in communities of practice. They said the program has helped them with their methodologies and classroom management.

HOD1 stated:

For us this program has helped us a lot. As a person I have improved very well with my methodologies. Have learnt a lot from other teachers in term of classroom management in line with student needs.

HOD2 revealed:

My knowledge keeps increasing every day and have been exposed to different ideas and ways of tackling classroom problems.

HOD3 echoed that:

Working collectively as a group in communities of practice has been of an advantage to her as she learnt new strategies of handling and teaching her subject. According to her, despite her years of teaching experience, she still learnt new methods of teaching from her colleagues who are young graduates from university and have new experience on new strategies of teaching a particular subject.

HOD3 disclosed:

For instance, we have a subject which we called AMP (Agricultural Management and Practice), these new teachers, let me put it that way, they have new strategies on how to do that subject. For instance, one of the new teachers explained something to me on how to cultivate or plant without preparing the soil and this is new to me. If not for meeting as a group of teachers to learn and discuss together, I will not know this.

In their own part, the school principals interviewed were asked to describe what their schools has gained or acquired through participating in communities of practice. The following are their comments.
PS1 noted:

... the school has gained the skill of how the school can become a tool of sustainable developing the community. That is one, one, one skill that the school has gained from this practice and how to work together towards solving the problem that affect the teachers and as well as the school being a community itself.

PS2 revealed:

We gained a lot, we have really gained a lot. You know especially in the science subjects, you know the learners sometimes they do not understand the teacher well but if someone from other school come and teach them same thing, it become different, you know, we see that they understand the other teacher better when they come here and as a result, we use it last year, that was year 2015 especially with the Grade 12 and you know what, we were number 1 in the district, we have 100% pass rate as a result of that.

PS3 commented:

We have improved as teachers, we have received awards from department of education, credit to this program. Students’ performance has improved also. This learning forum has helped our teachers to be so close and work like a team.

Cluster leaders interviewed were asked to briefly describe what high schools in their cluster have gained or acquired through participating in communities of practice. They also unanimously agreed with the responses from other participants interviewed. They said teachers had been able to develop through communities of practice meetings and they had acquired more knowledge and skills. They gave the following comments. CL1 said:

There are a lot. Teachers have developed very well. So many high schools in this cluster have various awards in the district in different subjects. The content gap training has helped teachers to acquire more knowledge in their various subjects.

CL2 stated:

Teachers in high schools have gained more experience in terms of teaching. The schools have won prizes and awards and students performance have improved too.

CL3 affirmed:

... We have gained a lot of new skills in our teaching and learning. We have acquired more knowledge. Our teachers have imparted their learners very well and that has earned us awards from the department of education.

In the interviews with the district officials, they were asked to briefly describe what high schools in their education district have gained or acquired through participating in communities of practice. They had the following to say about working collectively as a group in communities of practice. SA1 remarked:

Yes, because each and every meeting they do have an evaluation workshop form where they fill, so most of the time it is usually filled that they have gained something especially the new educators because yearly there are new educators that come for the meetings.
SA2 said:

I think most of the high schools do gained and acquired a lot through this meeting. For instance, the district office is getting the feedback on this program, so if there are challenges from teachers, those teachers are supported to solve their challenges. We also do follow up for teachers who have challenges. Also teachers are meeting together so it is a forum of disseminating information by getting the secrets of schools that are performing well. They share their secrets with others, what and how they are doing it, we share those good practices openly for other schools to emulate. Also teachers are being corrected in practices that are not been accepted, thus, they acquired more knowledge which to me helped them to developed as professional teachers.

EDO stated:

At the district level, we normally lay emphasis on teachers’ content knowledge and we organize workshop in this regard. Teachers have gained so much about their content knowledge. It is not about years of experience of teachers but what they are made of. They have improved on their methodologies and also have learnt new skills and ways of going about their subjects.

The comments and discussions from the participants interviewed showed that teachers had gained a lot through their participation in communities of practice which involved working collectively with group members. According to them they had improve on their methodologies, acquired new skills in terms of their teaching and learning, acquired more knowledge as well improvement on their content knowledge. Some schools had won prizes and awards and learners performance had improved too, credit to learning activities teachers engaged themselves with in communities of practice.

4. Discussion

It has been argued that for collaboration and collective learning to take place, it should begin with frequent interaction among members which lead to establishing positive relationships with colleagues and this, in turn, leads to building trust and feeling safe about opening up and disclosing one’s problems in the classroom, after which solutions will be discussed and then implemented (Bolam et al., 2005; Jita & Mokhele, 2014). West (2007) refers these aspects to emotional parameters which include a feeling of a sense of belonging to the community, independence or reliance among members, trust among members and faith in the combined purpose of the community. These aspects play a big part in identifying how communities of practice enhance CPTD. Those in formal communities of practice interacted with each other and worked as teams in the cluster workshops. In this case they were able to know each other and built close and positive relationships. They will know who is more skilled in different areas and who has more expertise in areas as they interact. They feel safe to work together. At the same time given the limited time devoted in those communities of practice they extended the positive relationship by forming informal communities at both cluster level and between schools.

Teachers who were participants of communities of practice in their school settings, that is, educational environment had the opportunity to enjoyed mutual support from colleagues in certain areas they required help to improve on their subject matter or methodologies. This clearly pointed out they benefited as participants in collaborative learning activities in communities of practice in the educational environment. Among the benefits of communities of practice that teachers enjoyed include: experience sharing and development of new methods (Osuji, 2009). Teachers were privileged to share their experience with their colleagues, interact and gain new ideas which they were not aware of through collaborative learning. Through continuous collaboration with each other, participants had the opportunities of developed trust for themselves and they engaged in and embraced sense of common purpose (McDermott, 2000). Values were added to individual lives daily as they pursued their professional
development through mutual engagement (McDermott, 2000). Differs of ideas, experience, skills, knowledge, ability were harnessed together to improve their professional development in their communities of practice.

The findings of this study are in line with an argument made by Allen and Cherrey (2000) that trust and positive relationships form the thread of networked learning communities and provide the social capital that allows teachers to work together over time and achieve what any of them could not accomplish alone. The good relationships among teachers coupled with their level of trust enable them to develop professionally as a group in communities of practice. The current study found that teachers feel safe with their colleagues because they get assistance from them, there is closeness among group members, and teachers enjoy friendly interaction in a conducive environment with their colleagues. These have emerged as strategies for enhancing CPTD in the sense that when teachers interact in friendly environment with the assurance of getting assistance from their colleagues, will make them feel safe to share their problems and challenges without holding back.

However, Katz and Earl (2010) argue that collegial interaction is not enough or adequate to change the status quo in communities of practice. “The type of interaction that may influence knowledge creation and conceptual change includes collegial dialogue between teachers who openly share their differing opinions, values and views on teaching” (Katz & Earl, 2010, p. 45). Collegial dialogue explores teaching and learning more deeply instead of friendly discussions which is more on the surface and superficial. In order to be effective collegial dialogue “assumes a level of personal confidence and trust which allows teachers to be willing, honest and transparent to review their own practices and beliefs” (Steyn, 2013, p. 284). Nelson, Deuel, Slavit, and Kennedy (2010, p. 175) argue that for this to occur “a circle of inquiry is required on a particular topic in which they identify a shared vision for that aspect and then start identifying gaps in this vision and their current practice”. The acquired knowledge should in turn be implemented and data collected and analysed to determine the impact on learning (Steyn, 2013). This is what Kennedy (2005) refers to as transformative CPTD model. The model in this case includes Action Research model which is a powerful tool for change and improvement at the local level (Cohen, Manion, & Morrison, 2000, p. 221). It involves teachers in research and the evaluation of their own performance. Action research as a model of CPTD has been acknowledged as being successful in allowing teachers to ask critical questions of their practice (Kennedy, 2005).

Teachers working in isolation will hinder continuing professional teachers’ development, hence, joint effort from teachers by participating in communities of practice activities with leadership support will also help teachers in developing their content knowledge and pedagogical content knowledge (Benedict, Brownell, Griffin, Wang, & Myers, 2016; Jita & Mokhele, 2014). It emerged from this study that the participants also indicated that they participated effectively in learning activities in school communities of practice. It was seen as a common practice in schools as teachers are willingly to assist each other. It was revealed that the teachers know the meeting time, so they made themselves available and they show interest in assisting their colleagues.

The kind of relationship that exist among teachers who are group members in communities of practice will go a long way to determine how they will collaborate and how such collaborative relationship would enhance continuing professional teachers’ development. Veelen et al. (2017) argue that professional learning communities where collaboration exist among teachers, the focus shifts from individual learning goals to contributing to the learning and knowledge base of colleagues and the school. The study found that the relationship that exists among the teachers in communities of practice in sampled high school was a good and supportive one. This implies they teachers enjoyed mutual relationship with one another. Mutual support was seen as a means to enhance teachers’ development in the learning communities. Teachers working in isolation will inhibit professional development; therefore, joint effort from teachers with leadership support will also help teachers in developing their content knowledge and pedagogical content knowledge (Jita & Mokhele, 2014; Vangrieken et al., 2017).
The findings of the current study are consistent with what Vangrieken et al. (2017) in their study on supporting teachers learning team found that in order for communities of practice to enhance teachers' professional development, there is need for mutual support among the teachers in such communities of learning. Also, the findings of the study are in line with the view of Middlewood, Abbott, Netshandama, and Whitehead (2017) that school leaders and teachers need to give mutual support to one another so as to deal with issue of isolation in schools. Jita and Mokhele (2014) argue that investigation on teachers' clusters reveals that teachers from schools in mutual clusters with mutual support experience less stress and difficulty when implementing a new curriculum or addressing an issue. This is so as the teaching and learning activities in the cluster are seen as a joint effort in which all teachers must participate effectively. This is in line with the findings of the current study as the study further revealed that teachers have mutual relationship and work along well and fine in some of the sampled schools. The finding of the study showed that if teachers notice any problem or issue, they address it together and find solution to it. They do not have issues with implementing new ideas and deliberating on professional issues that will enhance their professional development.

Nevertheless, the study found that in some schools, the relationship among teachers who are group members in formal communities of practice become emotional at times. This was mainly due to the fact some teachers are having challenges with their subject because they were unable to finish the expected minimum work for the term, as it is expected of them to give account on the minimum work expected from them and why they are behind. The emotion set in when they felt they were being exposed in front of their colleagues who are mostly from other high schools, thus, they feel humiliated rather than being supported. The findings of this study contradict the study conducted by Tshiningayamwe and Songqwaru (2017) in South Africa on teacher clusters where they found that in most cases teachers work in isolation in their schools and classrooms; thus, it became clearer that within the cluster there are possibilities for breaking down the barriers through collaboration and sharing their problems and challenges with other teachers so as to not feel emotional or feel humiliated.

It was established from this study that the participants have gained and acquired a lot through participating in communities of practice. The finding revealed that what the participants have gained and acquired for participating in communities of practice include; growth in terms of content knowledge, learnt new method of teaching and handling learners, positive attitude to work, new skills, improvement with methodologies, some schools have received awards from the department of education, improvement in students' performance, teachers' work like a team and teachers are being corrected in practices that are not accepted, thus, they acquired more knowledge which to me helped them to develop as professional teachers.

4.1. Conclusion
Collaborative learning activities with mutual support are imperative in communities of practice to improve teachers' professional development. From the study, it emerged that majority of the teachers participated in collaborative learning activities in their schools' communities of practice. These were processes established by communities of practice to improve CPTD. Teacher's participation in communities of practice have helped them to improve on their professional development, the study further found that there were good and supportive relationship among teachers' in communities of practice in most of the high schools. Teachers enjoyed mutual relationship with one another and worked as a team instead of working in isolation. Collaboration and mutual support enabled teachers' to gained and acquired growth in their content knowledge, learnt new method of teaching, positive attitude to work, new skills, and improvement in their methodologies.

4.2. Recommendations
From the findings of the study, it is therefore recommended that the school heads should motivate and encourage all teachers to participate effectively in collaborative learning activities in communities of practice in their schools. The department of education should encourage joint communities
of practice within the cluster, across the clusters, within the district, across districts and up to the national level to foster effective collaboration among teachers in communities of practice in high schools in South Africa.

4.3. Area of further research

This study focuses on collaboration and mutual support as processes established by communities of practice to enhance CPTD in high schools in the Fort Beaufort Education District only. There is a need for a study that will cover the Eastern Cape Province and other provinces in the country to make it a national study. Such a holistic picture can easily influence education policy in the area of improving CPTD through communities of practice.

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