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Social learning, collaborative professional learning, professional learning communities and communities of practice: Implications for praxis

Charmaine Bissessar*
Senior Lecturer
University of Guyana

This paper starts with an introduction to the topic of professional development and contextualizes it by citing literature from international, regional and national landscapes on issues with the implementation of professional development. With this validation of the need to research the topic, the literature review segues. There is a discussion of the concepts of Social Learning in the form of Collaborative Professional Learning, Professional Learning Communities and Communities of Practices. Then, the methodology is discussed and the findings presented. Discussions link the findings to the extant literature and conclusions are drawn.

Professional development has been the perennial preoccupation of most countries globally. The No Child Left Behind Act (NCLB) 2001 resulted in emphasis on teaching proficiency, practices and teaching (Faraci, 2008). In fact. Bove et al. (2016) highlighted the need to invest in teacher professional development in their study in Denmark, Italy and Poland. In Pakistan, Shah et al. (2015) implemented Continuous Professional Development with 3,158 primary schools and found that teachers' performances increased after the CPD was implemented. Furthermore, Lindberg (2011) purported that, in Sweden, teacher professional development is orchestrated by the "government with financing, organization and content" also under the government's purview (p. 66). She indicated that TPD controlled by the state ensures that "teachers are loyal to the curriculum rather than to the traditions of the profession" (p. 66). Lindberg continued that TPD was characterized by top-down decision-making with a lack of ownership and autonomy for the types of professional development that take place. She also argued that TPD is a one shot attempt at training teachers with little follow-through. Similarly, Darling-Hammond and Richardson (2009) cited Stein, Smith and Silver (1999) who coined this one off TPD, "drive by" workshop model.

On the issue of implementing effective TPD, Burns and Luque (2014) concluded that teaching practices in Latin America and the Caribbean are comprised of "weak mastery of academic content as well as ineffective classroom practices" (p. 2). In fact, in the study of classroom teachers in Latin America and the Caribbean, Burns and Luque found that teachers spent only 65% of time on classroom instruction as opposed to 85% in other countries. This highlights a deficit of 20% less for Latin American and Caribbean teachers. Moreover, Svendsen (2020) indicated, "Belgium, Nordic countries and Singapore are better at integrating TPD into the teaching schedule than other countries such as the USA" (p. 112).

However, Patton and Parker (2017) cited Murray (2016) who indicated that the teacher educator is an "under-researched, poorly understood, and ill-defined occupational group" (p. 35). Patton and Parker underscored the complexity of teacher educators and indicated that more research is needed to clearly derive a sense of their everyday experiences. Therefore, it is not surprising that

* Email: charmaine.bissessar@uog.edu.gy

there is an obvious gap in the literature on TPD within the Caribbean region. A google search of the term "Teacher Professional Development in the Caribbean" on the 21st December 2020 yielded more policy framework on Teacher Professional Development rather than empirical articles in the Caribbean. Consequently, this article expands the body of information available on Teacher Professional Development in the Caribbean.

Teacher Professional Development (TPD) continues to be a polemical topic with some teachers seeing it as useless and time-consuming whilst others view it as having a positive influence on their pedagogy. The perspective is based upon whether TPD is orchestrated in tandem with teachers or is being done to teachers (Svendson, 2020). Indeed, teachers are no longer passive recipients of knowledge and have become active participants in their learning especially via TPD (Desimone, 2009; Svendsen, 2020). Teachers are taking the responsibility for improving their repertoire of skills in the classroom as well as their knowledge of content. It is well-known that workshops that occur only once with no planning, relevance and follow-through are a waste of time and money (Darling-Hammond, Chung-Wei, Andree, Richardson, & Orphanos, 2009, as cited by Meijs, 2013; Jones & Dexter, 2014; Meijs et al., 2013). Congruently, Jones and Dexter (2014) and Svendsen suggested focusing on teacher learning rather than teacher professional development. They recommended that in highlighting teacher learning, there will be a need for more emphasis on continuous professional development through discussions, meetings and continuous follow-up sessions.

Furthermore, Meijs et al. (2013) agreed that learning takes place informally in discussions with peers and general sharing rather than in short periods of TPD sessions. In fact, they cited Lovett and Cameron (2011) who indicated that 60% of learning takes place informally through discussions with colleagues and via experiences whilst only 40% takes place within the TPD sessions. These informal sessions can be termed Communities of Practices (CoP) where such discussions have effects that are not tangible or clearly defined (Glaze-Crampes, 2020; Wenger & Wenger-Trayer, 2015). Other researchers such as Desimone (2009), Duncombe and Armour (2004), Colmer (2017), Gutierez (2015) confirmed that there is a need to establish a culture of collaborative professional learning. Therefore, there is a need to promote Professional Learning Communities (Oddone et al., 2019) and Communities of Practices (Glaze-Crampes, 2020). These communities involve social learning and are a valuable component of teacher networking. With the aforementioned in mind, the following research questions were answered:

1. What are the current PD practices in each context?
2. What would the participants like to see as a vital part of their PD sessions?

Literature Review

This literature review consists of a discussion of Social Learning in the form of Collaborative Professional Learning, Professional Learning Communities and Communities of Practices exist. These theories and concepts were chosen because they exemplify how professional development is a socially constructed and community-driven process that is a dynamic interplay between members of a community and their desire to improve their professional pedagogy. Additionally, peer-reviewed scholarly articles are discussed.

Social Learning Theory

Bandura's (1976) theory of social learning indicates that everyone learns from the other through a process of merging behavioural and cognitive processes in a social context. There is vicarious reinforcement through observation, modelling, reinforcement of the particular behaviour, and reciprocal determinism where behaviour, the environment and cognition intermingle. The five components of the social learning theory suggest that learning is behavioural and cognitive and occurs in a social context. Examples of this can be collaborative professional learning, professional learning communities, and communities of practices. Learning occurs also through observation of behaviors and their consequences. This occurs when teachers watch another teacher implement a particular strategy or new technique in order to see the results of such an implementation. Individual teachers also serve as a critical friend who gives constructive feedback/feed forward based on performance (Morrison, 2018; Senge, 1990).

Thirdly, Bandura (1976) indicated that learning results from observations and making assumptions from these observations entails inductive reasoning and can occur via peer-modelling. Reinforcement is an important element of learning. Finally, learners need to be active participants in their learning. Reciprocal determinism occurs when an individual's behaviors and actions influence his/her peers' behaviour and vice versa (Morrison, 2018). This behaviour can also influence the learning environment. Both Bandura and Meijs et al.'s (2016) concept of social learning aligns with the idea of collaborative professional development/learning (CPL) where opportunities for observation, imitation and modelling exist (Duncombe & Armour, 2004).

Meijs et al.'s (2016) concept of social learning mindedness entails three aspects: (a) learning takes place via social interactions via face-to-face or technology, learning networks and communities and institutions; (b) learning has to move from one learner to another or groups of learners; and (c) learning results in a change in the learner where new practices are applied. The idea of social learning is mirrored in the concepts of Collaborative Professional Learning (CPL), Professional Learning Communities (PLCs), and Communities of Practices (CoPs). Furthermore, this concept of social learning is similar to the idea of Continuous Professional Development where, as per Julius (2017), there are three components: (a) reciprocal group experiences and the sharing of experiences; (b) "consultation on innovativeness"; and (c) creating a tool kit of intellectual capacity that is accessible to all over a period of time (p. 40).

This concept is also akin to community-based and cooperative models of professional development (Darling-Hammond 1997; Fullan & Hargreaves 1991; Meier 1995; Morrison, 2018). These two concepts closely resemble the social constructivist theory where learning occurs through social interactions and collaboration (Redden, Simon, & Alls, 2007). Researchers have found that learning that exists through social interactions provided more collegial opportunities for learning, resulted in learning richer content at a deeper level, and enhanced teaching and learning (Darling-Hammond & Richardson, 2009; Ronfeldt, Owens-Farmer, McQueen, & Grissom, 2015; Vescio, Ross, & Adams 2008). This also shows the Gestalt concept in action where the whole is greater than the sum of its parts.

Meijs et al. (2016) conducted a study of 110 primary school and pre-education teachers using a constructed instrument to determine teachers' social-mindedness. They found that social learning mindedness encompassed five subscales: "counteracting social-learning preferences; teachers' opinions and preferences related to learning from colleagues and others; their orientation and collaboration towards orientation in new approaches to PD; an autonomy factor and more general approaches to knowledge dissemination" (p. 85). They discussed the components of social learning and made a strong case for a qualitative study. Meijs et al. (2016) indicated that most studies on social

learning and teacher professional development have been quantitative which shows a lacuna in the extant literature. They found that participants preferred to work alone.

Collaborative Professional Learning (CPL)

Both Social Learning Theory and Collaborative Professional Learning share a symbiotic dyad. Duncombe and Armour (2004) suggested that CPL includes "the learning of new skills or knowledge by one or more members of a group that occurs when professionals work together" (p. 147). Inherent in this concept is the idea of sharing which is the quintessential nature of the Social Learning theory (Bandura, 1976). Duncombe and Armour (2004) purported three aspects of this theory: (a) behaviourism; (b) cognitivism and (c) constructivism. These components exemplify Bandura's social learning construct. In each aspect of this collaborative professional learning, researchers noted that significant paradigm shifts take place when teachers share and engage in reciprocal determinism when an individual's behaviours and actions influence his/her peers' behaviours and vice versa. This again undergirds Bandura's (1976) five components of the social learning theory.

On the subject of collaborative professional learning, Gutierez (2015) indicated that other researchers such as Darling-Hammond and Mc Laughin (2011) and Brownwell et al. (2005) found that collaborative professional learning practices have resulted in "teachers' improving their professional practices, teacher professional well-being and students' learning" (p. 120). Gutierez selected 30 primary school Science Teachers in the Philippines to determine the challenges facing these teachers. In this year-long study, she found that teachers' knowledge and practices deepened as they collaborated with each other. Hung and Yeh (2013, as cited by Gutierez) further substantiated this finding and stated that teachers expand their professional knowledge when they are exposed to more collaborative activities. Similarly, Rondfeldt et al. (2015) concluded that schools with a better quality of teacher collaboration obtain better student achievement in Mathematics and Reading. Another study conducted by Colmer (2017) among Australian Early Childhood Educators in two centres concluded that their personal identity and collaborative professional learning were inextricably linked.

Professional Learning Communities (PLCs)

The concept of PLCs emerged from the business sphere where the focus was on the organizations' ability to learn (Vescio, Ross, & Adams, 2007). This transitioned from the business world to the education sector and grew from learning organizations into learning communities with a collaborative culture (Vescio et al.). According to Hord (1997), a professional learning community is both process and product-oriented. Hord defined professional learning community as a community "in which teachers in a school and its administrators continuously seek and share learning, and act on their learning. The goal of their actions is to enhance their effectiveness as professionals for the students' benefit" (p. 6). Similarly, Reichstetter (2006) defined a PLC "as a team that regularly collaborates toward continued improvement in meeting learner needs through a shared curricular-focused vision" (p. 1). These two definitions take into account the key stakeholders and their drive to learn and create a culture of shared learning towards the advantages of the clients or students. The researchers suggest a collective visionary approach to developing professional learning communities. These definitions also contain snippets of Bandura's (1976) Social Learning Theory where teachers combine behavior and cognition, engage in vicarious reinforcement by observing others, model what was observed, reinforce what was observed, are influenced by and influence their peers.

Similarly, aspects of Bandura's (1976) theory of Social Learning can also be found in Hord's (2004, as cited by Blankenship & Ruona, 2006) five interrelated dimensions of professional learning communities: a) supportive and shared leadership; b) shared values and vision; c) collective learning

and application of learning; d) supportive conditions; and e) shared practice. These five dimensions resonate the collective aspect of professional learning communities as well as the social, visionary, ethical components that fuel human capital capacity building. They also demonstrate that vicarious reinforcement, reciprocal determinism, modelling and merging behaviour and cognitive into a shared space is part of its essential nature.

Du Four and Eaker (1998) suggested six interconnected dimensions of a PLC, which encompass the concepts of collective inquiry and collaborative teams and is inherent in Hord's (2004) dimensions. Dimensions posited by Hord and Du Four and Eaker (1998, as cited by Blankenship & Ruona, 2006) indicated that a paradigm shift occurs within the individuals involved in the PLC as well as in those who are recipients of these changes. This also applies to Bandura's (1976) Social Learning Theory where a shift takes place in the participants engaged in the process of merging behaviour and cognition within a social context. Therefore, learning becomes transformative for both key stakeholders (teachers and students) and alters the culture within the school (Mezirow, 2000). This idea is echoed in Fullan's (1982; 2016) view that the advantageous aspect of a PLC is that of transforming the school's culture. He stated, "It is not an innovation to be implemented, but rather a new culture to be developed" (p. 119).

Rosenholtz (1989, as cited by Stoll et al., 2006) differentiated between "learning enriched schools" and "learning impoverished schools" (p. 224). Later, Little (1999, as cited by Stoll et al.,) contrasted "tradition learning communities" with "teacher learning communities" (p. 225), thereby extending the focus. However, as the concept of professional learning expanded, it encompassed mutual sharing, feedback/feed forward, peer-coaching and mentoring, knowledge sharing (Blankenship & Ruona, 2006), and reflection in and on praxis (Schon, 1987). Blankenship and Ruona furthered that "professional learning communities are a way for schools to reduce isolation and learn together to create sustainable change" (p. 1).

Ronfeldt, Owens-Farmer, McQueen, and Grissom (2015) conducted a quantitative two-year study with 9,000 teachers in 336 Miami-Dade County public schools. They determined that teacher collaborations and the quality of such collaborations are critical to students' achievement. Indeed, they concluded that teachers and schools that were involved in collaboration tended to attain better achievement gains in Mathematics and Reading.

Vescio, Ross and Adams (2007) in their meta-analysis of 10 American studies and one English study of the influence of PLCs on teaching practices and students' learning outcomes, found that more empirical research is needed on the effect of PLCs on teachers' practices and students' learning outcomes. They concluded that teachers who participated in PLCs improved their pedagogical repertoire. However, they only found five studies that highlighted improvements that teachers made because of being part of PLCs.

In his study of the effectiveness of PLCs in seven elementary schools in the USA, Hudson (2015) set out to determine teachers' experiences of PLCs in classroom decision-making, fostering teacher learning, engagement, collaboration and student engagement. Via interviews, teachers indicated that they needed more time for collaboration and that learning needed to be embedded into the PLC's initiatives.

Reichstetter and Baenen (2007) conducted a quantitative study of 7,103 elementary, middle, and high schools participants in Wake County Public Schools. Results indicated that 88% of participants supported the use of PLCs in the schools and saw them as medium or high priority. However, actual implementation of PLCs were 60 to 73% and sustained implementation was only 24 to 30%. The variables that Reichstetter and Baenen used in their survey mirror those of the

components of PLCs as espoused by Hord (2004), Du Four and Eaker (1998) and Bandura's (1976) Social Learning theory.

Communities of Practice (CoP)

Communities of practice is another key component of the Social Learning theory (Bandura, 1976) where there is collective knowledge building and sharing towards the common goal of increasing individual and collective knowledge in a particular sphere (Johnson, 2001; Lave & Wenger, 1991; Wick, 2000). CoPs originated from a study by Wenger (2009) who believed that learning did not occur individually but was rooted in "social and historical contexts" (Fransworth, Kleanthous & Wenger, 2016, p. 2). Wenger, McDermott and Snyder (2002) defined communities of practice as "groups of people who share a common passion for something they do and learn how to do it better as they interact regularly" (p. 1). The very nature of this definition reinforces the Social Learning theory (Bandura, 1976) where there is emphasis on changed behaviour because of the interconnections between behaviour and cognition within a social setting. There is the implication of observation (vicarious reinforcement), modelling, reinforcement, and reciprocal determinism.

Nevertheless, according to Patton and Parker (2017), although there are issues with different interpretations of CoPs, its most redeeming quality is that it can provide compelling information on teacher learning. However, Wenger and Wenger-Trayer (2015) defined different types of CoPs:

> Some are quite small; some are very large, often with a core group and many peripheral members. Some are local and some cover the globe. Some meet mainly face-to-face, some mostly online. Some are within an organization and some include members from various organizations. Some are formally recognized, often supported with a budget; and some are completely informal and even invisible. (p. 15)

Although a CoP is collective in nature, it also provides opportunities for individual growth (Patton & Parker, 2017). According to Wenger, McDermott, and Synder (2002), a CoP embodies social learning (Bandura. 1976) where membership within this community is voluntary and membership can be assigned or self-selected (Blankenship & Ruona, 2007). Wenger and Wenger-Trayer (2015) purported three dimensions of a CoP, which are domain, community, and practice.

Domain encompasses individuals' shared interests, passions, their shared competencies and skills in the area of expertise. Community encapsulates the group's culture and ways in which this culture fuels meaningful, constructive interactions, activities, and shared learning. Practice involves the shared tool kit of capital (human, intellectual, and abstract) available to the group and created by the group. The shared group experiences help with any issues that may need to be solved. Another aspect of CoPs is that the groups do not have to be co-located and could meet virtually. Given, the current issues of COVID-19, there will obviously be an influx of Virtual CoPs within the teacher/teacher dyad. However, whether face-to-face or virtual, CoPs consist of active practitioners who share tips, best practices and innovate together. An example of CoPs in action is a study conducted by Patton and Parker (2017) of 36 physical education teachers in North America, Europe, Scandinavia, and Southeast Asia. They concluded that CoPs provided an effective forum for engagement, lessened the effects of isolation and allowed participants to share knowledge and expertise, which created a natural Gestalt.

To say that PLCs and CoPs are interconnected and inter-related is axiomatic. They share commonalities but are distinct. However, germane to both concepts is the way in which they foster teaching practices (Blankenshop & Ruona, 2006) and shared learning (Bandura, 1976). Glaze-Crampes (2020) contended that CoP could be a subset of PLC if its focus is on students' learning outcomes as per the definition of a PLC. However, a CoP does not necessarily embrace the student learning

outcome component and can be as varied and diverse as the compositions of its group members. Therefore, in terms of purpose they can be different. In terms of structure, CoPs tend to be more informal versus the formal shared goals and expectations necessary for PLC (Glaze-Crampes, 2020). In learning communities, teachers determine how best they can utilize their resources to improve student achievement; however, CoPs are based on sharing knowledge. Glaze-Crampes summed it up by stating, "In essence, the professional learning communities decide how to share and teach the information that is given meaning in the respective communities of practice that define each field of study" (p. 5). Therefore, a reciprocal relationship exists between the two phenomena where there is shared learning.

Methodology

The research design used was the interpretivist paradigm since this study was qualitative in nature. The interpretive phenomenology approach was used where participants described their lived experiences of teacher professional development in order to understand the phenomenon under examination and how participants make sense of teacher professional development (Creswell, 2012). Fourteen female participants (35-55 years) from the Caribbean islands completed an online list of six open-ended questions from December 2017 to August 2018. The sampling method used was purposive sampling since it was emailed specifically to teachers. The instrument was emailed to a list of 20 participants and only 14 responded. The questions were constructed to obtain an understanding of what pertains in the participants' context vis a vis the type of professional development already in place and the type of content they would like to see implemented for PD workshops. The participants were asked the following questions.

1. What is the approach to staff development in your school? Please could you describe in as much detail as possible.
2. What techniques are there in place to measure the success of teacher professional development programmes?
3. Is there teachers' buy-in to the teacher professional development? If yes, what strategies do you think are employed?
4. How do you think the success of teacher professional development for enhanced student learning is determined? Explain.
5. What type of teacher professional development activities work best in your school and why?
6. What type of teacher professional development activities do you think most enhance student learning?

Data Analysis

The responses were coded based on Braun and Clarke's (2006) six-step framework: become familiar with the data; generate initial codes; search for themes; review the themes; define themes; and wrap up. Interviews were recorded and transcribed. They were read and re-read to identify themes and patterns in the data. These themes were identified based on recurring words and phrases implementing, initially, semantic level of theme identification and later the latent level of theme identification. The inductive approach to coding was used based on the responses to the research question inherent in the transcribed data. Based on Saldaña's (2013) list of coding processes specific to exploratory epistemological research questions, the researcher implemented the "theming data approach" where phrases or sentences were used to describe or capture the meaning of an aspect of the data (p. 64).

The researcher ensured credibility by re-examining the data so that the codes and themes were consistent. Dependability of the themes was observed through the code/re-code process whereby the researcher coded and reduced the data to themes and left it for two weeks and re-coded the data to ensure consistency. There were no evident threats to external and internal consistency of the data. The researcher conducted an intra-class correlation coefficient (ICC) reliability test after coding the data and re-coding the data two weeks later and found a reliability of .817, which is a good level according to Cicchetti's (1994) standards for ICC. Intra-rater reliability was based on Shrout and Fleiss' (1979) convention of the third model of ICC (3.1) where the researcher was the only rater of interest to assess the data. In this instance, the researcher assessed each data set and the reliability was calculated from a single measurement, that of the researcher when a code/recode was conducted.

Findings

Identified Themes

This section discusses the themes found when coding was implemented to obtain the themes from the interview questions. Professional Learning Communities (PLCs) in the form of team building recurred nine times with such words as "team," "collaboration," and "team-building" repeated. Vicarious reinforcement, modelling and reciprocal determinism were found with such repeated words, phrases and ideas as "hands-on training;" "practice meaningful teaching;" "activities that challenge students' critical thinking;" "creating classrooms to meet the needs of individual learners and making learning meaningful." Collaborative Professional Learning and CoPs with structured professional development were reflected in recurring words and ideas such as "team meetings," "The staff is divided into groups and the topic is discussed along with strategies for implementation;" "Workshops are conducted throughout the course of the school year;" and "It is mandatory for all schools to host at least one professional development session per term." Table 1 exemplifies the above information.

Table 1. Frequency count of semantic and latent levels of analyses

Professional Development	Recurring words and phrases	Frequency Count
PLCs (Teamwork)	"The team must be on the same page;" "Teachers observe each other and give feedback;" "Collaboration among teachers;" "I advocate for team-building."	9
Social Learning: Vicarious Reinforcement, Modelling, and Reciprocal Determinism	"hands-on training;" "practice meaningful teaching;" "activities that challenge students' critical thinking;" "creating classrooms to meet the needs of individual learners and making learning meaningful."	8
CPL (CoPs)	"team meetings," "The staff is divided into groups and the topic is discussed along with strategies for implementation;" "Workshops are conducted throughout the course of the school year;" "It is mandatory for all schools to host at least one professional development session per term."	6

Social Learning Theory, CPL and PCL

The participants in this study indicated that they preferred to collaborate with their peers in order to improve themselves. They all saw the value of PLCs in the form of teamwork and

collaboration and CoPs. Participants 1 and 9 explained what pertains in their particular contexts. Participant 1 stated that:

> The school operates on a rotation basis. The class teacher teaches one core subject. The children rotate to other teachers. It is very important that teachers communicate effectively to each other about each child. To do this effectively, the team must be on the same page. (Primary Level, Guyanese living in St. Eustatius).

These statements by Participant 1 indicate that there is a professional learning community in place in this school since there are shared practices and knowledge among key individuals (Du Four & Eaker, 1998; Hord, 2004). Albeit, Participant 1 does not directly indicate that the conditions at the schools are supportive, there is still that underlying culture of supporting each other and the students in his/her words. The culture inherent here is obviously one of transformation as suggested by Fullan (1982; 2016). Specifically, it points to aspects of a CoP where, in this instance, this team/group is concerned with students' performance and share common domain, practices, and communities. In this example, the school operates as the main PLC within which there are distinct CoPs (Glaze-Crampes, 2020). Participant 1 belongs to both the PLC and the CoP but it seems obvious that he/she sees the CoP as more influential in enhancing teacher professional development.

Participant 9 gave extensive information on what pertains at her school and the fact that:

> Conferencing using our own teachers and resource persons as opposed to someone on the outside. Mentors- especially for new teachers (and that person remains your mentor), a more experienced teacher is assigned to that teacher who assists them. Peer coaching- At our school, there is a culture that exists at the infant department (Grades K-3) where the teachers would observe each other teach and give feedback. (Grenadian, Primary Level)

From these two examples, it is evident that both participants operate in a context of collaboration and the development of professional learning communities. Moreover, the words indicated by Participant 9 suggest that there is a strong collaborative culture. This strong collaborative culture can operate with the school as the main PLC with the infant department as the CoP (Glaze-Crampes, 2020). In fact, an important aspect of a PLC, according to Hord (1997; 2004) and Du Four and Eaker (1998), is providing peer-coaching and mentorship. Additionally, there is an obvious culture of shared leadership, conditions are supportive, and there is collective learning and application of such learning (vicarious reinforcement, modelling, and reciprocal determinism, Bandura, 1976).

Participant 9 indicated that there is a culture that exists which again points to the idea of a transformative culture being developed (Fullan, 1982; 2016). This statement also indicates the concept of the critical friend being implemented in this particular context (Morrison, 2018) and reflects Bandura's (1976) Social Learning theory of vicarious reinforcement, modelling and reciprocal determinism where each individual's behaviour influences the other and vice versa. Interestingly, Reichstetter and Baenen (2007) concluded that sustained PLCs were between 24 to 30% in their context, which begs the question as to whether the practice discussed by Participant 9 is sustained.

On a slightly different note, Participant 11 stated, "Conferences, workshops and courses also enhance students' learning" (St. Eustatius, Secondary Level). An advantageous aspect of a PLC is that students' learning outcomes and students' achievements are higher (Reichstetter & Baenen, 2007; Ronfeldt et al., 2015). In this instance, the general PLCs would be the conferences and workshop set

up by the school. However, the CoPs would be the actual group that attends those sessions and the synergy encountered in those sessions as well as the follow-up mobile and virtual conversations that could have taken place after the sessions. In fact, the lunchtime and hallway conversations form part of a CoP. Obviously, Participant 11 underscores this aspect of a PLC. Whereas, this is what occurs in his/her specific context, other participants indicated that their ideal PD would include collaboration. Participant 4 explained that she would prefer:

> Those activities that develop teachers' skills and introduce new approaches to teaching and learning for enhancing pupils' performance. Collaboration among teachers is also important for enhancing skills and providing support. (Grenadian, Primary Level)

This response captures PLC in action, points to the value of teacher collaboration in enhancing students' achievement, and has been corroborated by Ronfeldt et al. (2015). This response by Participant 4 suggests the need for the implementation of a CoP in order to fill the silos. Simultaneously, Participants 7 and 8 were more specific about the need for cooperation, collaboration and team building as part of the PD sessions. Participant 7 opined:

> I would think that PD activities that reflect cooperative/group learning, engaging in differentiation instruction, real-life scenarios (inside/outside classroom), integrating technology activities (where relevant) and more importantly engaging your students (where possible) in areas of the lesson planning/delivery that could possibly support the overall success of the desired outcomes. (Barbadian, Tertiary Level)

Similarly, Participant 8 posited:

> I advocate for team building. When students observe the teachers cooperating with each other, it inspires them to do the same. They will develop a relationship that empowers students to strive for excellence. I also believe students may even develop an admiration for their teachers and aspire to be like them. Teachers have a significant amount of influence over their students, and if students observe their pursuit for professional excellence, they will be inspired to do the same. (St. Eustatius, Secondary Level)

She saw collaboration among teachers as role-modelling for students so that it becomes infectious and part of the culture of the school. This is similar to Bandura's (1976) theory of social learning where the teacher models the specific behaviour he/she wants students or other teachers to inculcate. This moves from the stage of observation (vicarious reinforcement) and modelling to reciprocal determinism. There is reciprocal determinism where the behaviour of one person influences the behaviour of the other person and vice versa. The responses of Participants 7 and 8 also resonate Hord's (1997; 2004) and Du Four and Eaker's (1998) dimensions of a PLC where there are supportive shared leadership, shared values and visions, collective learning and application of learning, supportive conditions and shared practices. This aspect of role-modelling, peer-coaching, and mentoring is also an underlying recurring theme which embodies the idea of Social Learning, CPL, PLC and CoP. Indeed, such activities as peer-coaching and learning communities encourage social interactions and reification so that meaningful learning takes place.

However, Participant 10 envisioned partnerships where there would be action research. She advocated for, "Engaging in learning communities where active research across the Grade-level could take place. I believe that a critical reflective team approach is best" (Grenadian, Primary Level). This relates to the concept of social learning theory as espoused by Bandura (1976) where learning takes place through sharing and the merging of behaviour and cognition. This relates to the concept of Collaborative Professional Learning where there is an exchange of behavioural, cognitive and constructive ideas.

Moreover, Participant 10 seems to be yearning for more CoPs to be implemented based on the concept defined by Wenger, McDermott and Synder (2002). This also reinforces the idea of reflection, in and on practice (Schon, 1987) as well as the desire for shifts in paradigms and fostering a culture of transformative learning (Mezirow, 2000).

Observation (Vicarious Reinforcement), Modelling, and Reciprocal Determinism as Collaborative Professional Learning and CoP

Current Practices
According to Participant 3, at present, the school she is at engages in "hands-on" teacher professional development. She stated:

> Staff development approach for this high school educational setting is hands-on training. The Principal liaises with the specialist within the ministry of education and invites them throughout the academic year to share their job requirements and experiences within the Ministry. Areas of focus are record keeping, assessment of students, external examination protocols, creating classrooms to meet the needs of individual learners and making learning meaningful by linking the home and school environments.

This suggests that there is observation through vicarious reinforcement, which is a vital aspect of Bandura's (1976) social learning theory. This also indicates that there is reciprocal determinism where the environment and each individual's behavior and cognitive practices affect the other. In addition, it indicates that there is a structured approach to CPL and that the emphasis is on changing behavior through constructivism where the participants are involved in the learning process and are then able to implement new techniques in the classroom (Duncombe & Armour, 2004). This response also embodies the concept of a CoP where more opportunities should be given for shared experiences, ideas and expertise in the areas of interest. This aligns with Desimone's (2009) components of effective teacher professional development where there is a need for an efficient system of PD. However, more probing questions would have determined the outcome of the PD sessions and how teachers and students benefitted from the training sessions.

Future Practices
Three of the participants highlighted the need for instruction that supports social learning and should be meaningful. Participant 3 explained:

> Developmental activities that are directly linked with enhancing students' learning are understanding how to create the classroom atmosphere that maximises learning and the practice of meaningful teaching by allowing students to move from the known to the

> unknown. Here, the teacher uses familiar examples and scenarios within students' cultural setting and guides students into understanding the requisite concepts. (Primary Level, Guyanese living in Bahamas)

Likewise, Participant 11 stipulated that, "Instructors choose meaningful and challenging tasks for the students to work" (Secondary Level, St. Eustatius). Participant 12 advocated for the need to have more hands-on-training so that teachers could return to their classrooms and implement specific ideas. She explained:

> Professional development activities that model for teachers, student-learning activities that they can utilize in their classrooms and activities that they can practice on and with their colleagues. Critical thinking activities that uses the gamut of Bloom's Taxonomy and allow students to think at various stages and not just the lower levels – memorization, etc. Activities, which challenge the thinking processes of students after they have been taught how to use higher levels of thinking. (Secondary Level, St. Eustatius)

The responses from these three participants as to what they would like to see in the future mirror the responses of the participants who said that, at present, they are engaged in "hands on" PD sessions. Furthermore, there is a definite need for participants to decide on what type of PD sessions they would like to see since they clearly articulated their needs. Participant 11 also indicated the value of Shared Learning theory through observation (vicarious reinforcement), modelling and reciprocal determinism (Bandura, 1976). Participant 12 underscored the value of implementing critical thinking skills in the classroom.

Collaborative Professional Learning, CoP- Structured System of PD

Current Practices

Participants 1 and 8 belong to the Dutch system. They indicated that there are four types of meetings set up at different times among different sections of the organization so that there is continuous communication and understanding of what is taking place. Participant 1 stated:

> General staff meeting which takes place three times a term. A topic of interest is selected by the School's director and shared with the staff. The staff is divided into groups and the topic is discussed along with strategies for implementation. Team Meetings (Level Meetings).We have team meetings where the members share the responsibility for coordinating the meetings and leading the team into discussion on matters relating to staff development(classroom management, enhance teaching strategies). Sector Meetings (Specialist Meetings).The school operates on a rotation system, so the teachers assemble to discuss the learning line. If there are challenges. Care Meetings: These are specifically to discuss the needs of each learner. Emphasis on those with special needs. Additionally, Professional Development sessions are conducted with a team by Professional Firms at least twice yearly.

Participant 8 added:

> Workshops are conducted throughout the course of the school year. In the Dutch system, there are quite a bit of regulations regarding education. Most of the teachers have a minimum of a Bachelor's degree or an MBO (which is similar to an associate degree). There are also aid

> workers, but the federal government gives incentives for teachers to upgrade such as the teachers grant. This grant allows teachers to pursue tertiary education with the condition that if they fail they have to repay all the funds that are used.

Likewise, Participant 3 indicated that, currently:

> The senior teachers who are computer savvy work individually with teachers who are experiencing challenges with record keeping and calculating students' scores. The use of technology is highly regarded for home-school connectivity. Teachers are required to create and manage Google classroom by collaborating with Parents and students for the varying subject areas.

Participant 7 indicated that, "The approach used is that of training workshops: Inside and outside instructors of various disciplines are invited to give sessions on furthering the use and integration of technology. Egs: Voice Thread, e-portfolios, student assessing via institution's e-learning website."

Participant 9 continued:

> Staff professional development follows protocol outlined by the Ministry of Education. It is mandatory for all schools to host at least one professional development session per term. These are normally two-hour sessions. Additionally the ministry allocates one professional development day during the first term of the school year (during the month of October).

These participants indicated that there is a structured system in place in their institutions. Concomitantly, Desimone (2009) posited that there needs to be a structured system in place in order to facilitate effective Teacher Professional Development. These examples also illustrate the concept of the Social Learning theory in action where there is shared learning and the provision of professional learning communities to ensure that key stakeholders are involved in all aspects of TPD from planning to implementation. Such responses also indicate that the institutions capitalize on their current staff's abilities. The responses also mirror the aspects of CoPs and PLCs in action where the school comprises the main PLC unit with sub-units that are engaged in CoPs at varying levels and degrees. For example, groups are set up based on the diverse needs, the technophobes with the tech savvy teachers, which should be even more prevalent, at present, given the COVID-19 pandemic and the subsequent constraints experienced.

On the other hand, Participant 14, indicated, "Staff development is not viewed as integral. For the past 4 years, nothing to that effect has been done. Staff development is viewed as negative in the school environment as teachers are viewed as spending time away from school" (Trinidadian, Secondary Level). This is similar to the views expressed by another Trinidadian participant who indicated:

> The approach to staff development in all the schools I have been in is the same. SD is done on days when teachers are free; such as, CSE (Caribbean Secondary Examination) Math and English exam days when teachers are required to report to work but have no students to teach. Teachers, therefore, see SD as a means of "keeping us in School" and not really training for our professional development. (Trinidadian, Secondary Level)

This indicates a need to value TPD sessions and create a structured format for TPD. However, this was just one participant so a definitive summation could not be drawn from one example of what occurs in one secondary school.

Discussion and Recommendations

Social Learning Theory, CPL and PLC

Respondents in this study underscored the value of teamwork, cooperative learning, and collaboration in order to improve themselves. Therefore, their responses reflect the concepts of PLCs and CoPs where there are formal and informal teams and collaboration within the schools. There is also a culture of shared learning (Bandura, 1976), which suggests CPL is also relevant to the participants. There is a preoccupation with how teachers communicate to improve students' performances. Nevertheless, participants in this study related ways in which they were already collaborating whilst others advocated for the need to collaborate more and inculcate team-building activities. Similarly, Burns and Luque (2014) found that there was a need for more peer collaboration to improve teacher quality. Therefore, Burns and Luque's conclusions are similar to the findings in this study where participants are engaged in or would like to be engaged in more collaborative, cooperative, team building TPD. However, Meijs et al. (2016) did not find this in their quantitative study. They found that teachers showed a preference for working alone. However, they indicated that, generally, they would not mind working collaboratively with others. Perhaps this is due to the cultural differences of teachers participating in the different studies.

It is recommended that the participants in this study develop an understanding of PLCs and how they operate. Furthermore, it is proposed that participants in PLCs "Develop a consistent, common vocabulary and understanding of the PLC concept across all schools" (Reichstetter & Baenen, 2007, p. 15). It is suggested that an action plan for PLC and CoP should be organized and implemented with monitoring and evaluation mechanisms in place (Reichstetter & Baenen, 2007). Collaborative and cooperative professional development were also promoted by other researchers as a means of ensuring diverse and rich content, an atmosphere of synergy and collegiality (Darling-Hammond & Richardson, 2009; Ronfeldt, Owens-Farmer, McQueen, & Grissom, 2015; Vescio, Ross, & Adams 2008).

Furthermore, social media can have a positive influence on PD as indicated by Bissessar (2014). Bissessar suggested that more Professional Learning Communities in the form of team-building, informal and continuous teacher professional development opportunities could be fostered since the Trinidadian teachers' Facebook page is used for such informal PD sharing. Nevertheless, Julius (2017) proffers the advice that in order to create and sustain a Professional Learning Community, there is the need to ensure that there is "structured interchange" and "high levels of trust" (p. 41). Therefore, Communities of Practices (CoPs) can be established as a means of creating informal groups so that teachers can use each other as sounding boards.

Observation (Vicarious Reinforcement), Modelling, and Reciprocal Determinism as Collaborative Professional Learning and CoP

Based on the findings, participants indicated that they were involved in the process of observation (vicarious reinforcement), modelling, and reciprocal determinism (Bandura, 1976). They showed aspects of reciprocal determinism in their discussion where they indicated how the environment and each individual's behaviour and cognitive practices affect the other. This aligns with Julius' (2017) discussion of the three components of Continuous Professional Development where there is

reciprocal group experiences and the sharing of experiences. In fact, participants also spoke about an existing culture of peer-coaching and mentorship which fosters professional learning communities and social interactions and reification in order to achieve meaningful learning. Additionally, there is "consultation on innovativeness" and there is the creation of a tool kit of intellectual capacity that is accessible to all over a period of time (p. 40). This also concurs with Desimone's (2011) view that effective professional development should involve observation, implementation and feedback.

Based on the discussion, participants felt that there was a need for more meaningful interactions that support social learning. This should be implemented at the level of training and in the classroom. They also advised that professional development sessions should model what should be implemented in the classroom and chose activities that cater to lower- and higher-order Bloom's Taxonomy Verbs. Additionally, participants suggested that activities should be geared towards challenging the students. This researcher believes that problem-solving and heuristic learning play a key role in the creation of specific assignments, which can capitalize on the teachers' critical thinking, reflection and have a ripple effect on the types of assignments given.

In addition, Redden, Simon and Aulls (2007) recommended that assignments should allow learners to "reflect on and use new information" (p. 151). This author suggests assigning tasks that entail determining gap/problem/issues; determining the causes of the gaps; and suggesting intervention strategies. Additionally, this author proposed that assignments should allow student/teachers to become actively involved in the whole process of professional development. They determine areas that are needed for professional development; implement workshops on those particular areas themselves and/or with the help of others; and provide a personal framework reference of the entire process where they chart their growth. Therefore, professional development becomes individual and personal rather than implementing professional development for its own sake. Going forward, this author would also like to recommend that students be given assignments such as setting up and implementing PLCs and CoPs in order to promote a culture of sharing and transformation as described by Fullan (1982; 2016). This would ensure that they are active participants in the process rather than being invested in the final product alone.

Collaborative Professional Learning, CoP- Structured System of PD

Current practices in TPD indicate that some islands are more organized than others are. For example, participants in the Dutch colonized island described specific measures that take place to ensure that TPD occurs annually. On the other hand, one Trinidadian secondary level teacher described practices that are ad hoc and do not indicate cohesive and standardized TPD sessions. This is similar to Bissessar's (2013) findings that primary school Trinidadian teachers felt that they were not given input into the TPD sessions nor were there follow-up measures. This also mirrors Lindberg's (2011) views that TPD controlled by the government tends to be focused more on completion of the curriculum rather than teaching the students.

Joseph (2007) suggested that the quality of teacher professional development should be harnessed, that TPD should be relevant to the key stakeholder and that the TPD sessions should cater to the participants' needs and previous knowledge. Burns and Luque's (2014) study further buttressed this idea when they cited Mourshed, Chiijoke, and Barber (2010) who suggested four broad categories for teacher professional development: (a) scripted training; (b) content mastery; (c) curriculum mastery; and (d) peer-collaboration.

Moreover, it is suggested that TPD in Trinidad follow a more specific design where teachers have input into the types of TPD sessions that are conducted. A more detailed articulation of TPD workshops are needed to ensure that the key stakeholders are satisfied with what is taking place and

see the relevance of it. There should also be a culture of value for the TPD sessions, which could change how teachers view TPD (Bissessar, 2013). In fact, Bissessar (2013) recommended that teacher professional development should entail "more teacher impetus in the design, structure, content, implementation, and follow-up of staff development. Additionally, it would be practical to implement Joseph's (2007) ideas of relevance, quality, and intensity to determine levels of teacher involvement" (p. 54). Coupled with this and based on his study of Continuous Professional Development in Antigua, Anguilla, and Montserrat, Julius (2017) recommended that "sustained learning particularly as it relates to CPD would require the combined processes of these leadership constructs and a supporting atmosphere of structured dialogues between policy-makers and practitioners" (p. ii).

Conclusions

Teacher professional development continues to be one of the critical areas of improving the intellectual and human teaching capital in education. As this study shows, participants indicated a need for more meaningful and structured teacher professional development. These regional teachers wanted more social and collaborative professional learning. Moreover, there was evidence of both PLCs and CoPs at work in schools in the Caribbean. Nevertheless, in islands where this was not practised, participants indicated a need for the introduction of PLC and CoP. More research on teacher professional development in the Caribbean needs to be conducted in order to understand the drivers of teacher professional development in the Caribbean and how it is planned, implemented and monitored. There is also a need to compare the TPD that is delivered in the Caribbean with the international benchmarks as yardsticks in order to determine what has already been done and what needs to be done to meet the global standards of TPD.

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