
Teachers' perceptions of the dimensions of Hord's professional learning model in relation to their principal's expectations of collaboration

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Abstract

A case study was done to determine the perceptions of staff at a South African primary school with a strong Christian culture regarding the existence of a professional learning community (PLC) in relation to the expectations of the principal in implementing such a community. This involved a quantitative research design employing Hord's model to investigate the teachers' perceptions of how the five dimensions of the PLC were attained. These dimensions included: (1) shared leadership; (2) a shared vision and values; (3) individual and shared learning; (4) shared practice; and (5) supportive conditions. The study also used a qualitative research design to assess the expectations of the principal regarding these mentioned dimensions. The findings show that the dimensions of Hord's model to a large extent were realised, according to the teachers, which therefore met the expectations of the principal as explained in the study.

Opsomming

'n Gevallestudie is gedoen om die persepsies van personeel in 'n Suid-Afrikaanse skool met 'n sterk Christelike grondslag te bepaal aangaande die bestaan van 'n professionele leergemeenskap (PLG) met betrekking tot die verwagtinge van die skoolhoof in die implementering van hierdie gemeenskap. Dit het 'n kwantitatiewe navorsingsontwerp ingesluit waarin Hord se model gebruik is om te bepaal hoedanig daar voldoen is aan die vyf dimensies van PLG. Hierdie dimensies het die volgende ingesluit: (1) gedeelde leierskap; (2) 'n gedeelde visie en waardes; (3) individuele en gedeelde leer; (4) gedeelde praktyk; en (5) ondersteunende omstandighede. Die studie het ook 'n kwalitatiewe navorsingsontwerp gebruik om die skoolhoof se verwagtinge ten opsigte van die dimensies te bepaal. Die bevindinge het aangetoon dat daar tot 'n groot mate voldoen is aan dimensies van Hord se model volgens onderwysers se persepsies, wat gevolglik aan die verwagtinge van die skoolhoof voldoen het.

Key words:

collaborative culture; collaboration of teachers; professional learning community; Hord's model; South African primary school

1. Introduction

Current models on the development of teachers emphasise their collaborative learning as a way to promote the performance of both teachers and their students (Brouwer, Brekelmans, Nieuwenhuis & Simons, 2012; Dadds, 2014; Ertesvåg, 2011; Fulton & Britton, 2011; McLaughlin & Talbert, 2010; Nehring & Fitzsimons, 2011; Nkengbeza, 2014; Smith, 2014; Outhouse, 2012). Moreover, studies confirm that the effectiveness of educational initiatives depends on building school cultures that enhance both teachers' individual and collective capability through adult learning (Brouwer *et al.*, 2012; Katz & Earl, 2010). However, schools were traditionally designed so that teachers worked independently and had few opportunities to engage in professional dialogue (Dadds, 2014:10). The new paradigm requires that solo practice be replaced by a collaborative practice in schools (Fulton & Britton, 2011:5; Nkengbeza, 2014:31). In this collaborative practice teachers are continually involved in professional dialogue to improve their own professional learning,

which also enables them to meet students' needs and to improve their performance (Fulton & Britton, 2011:5; Nehring & Fitzsimons, 2011:526; Pedder & Opfer, 2011:742). In line with global efforts, education policy developments in South Africa also suggest that teachers, as members of a PLC, need to be at the centre of their professional development (Department of Education, 2011:82; 100).

In professional learning communities teachers have the opportunity to share their classroom experiences, to develop and explore new teaching methods and approaches and to reflect and improve on students' learning outcomes (Nelson, Deuel, Slavik & Kennedy, 2010:175; Sigurðardóttir, 2010:407). The emphasis of a PLC is not merely on the individual learning of teachers, but rather on professional learning within a caring and interpersonal context. This context involves an interconnected team that emphasises collective, professional skills and knowledge (Gaspar, 2010:5-6; Stoll & Louis, 2007:3). Sigurðardóttir (2010:407) confirms this view by stating that teachers' interdependence is required for collaborative learning.

There is a dearth of research into teacher collaboration as a way of enhancing the professional development of teachers (Katz & Earl, 2010:27-28). A number of studies focused on the cause of PLCs or examined the techniques for developing appropriate structures for such learning communities (Blacklock, 2009; Brouwer *et al.*, 2012; Cranston, 2009; Fulton & Britton, 2011; Higgins, 2010). Yet there appears to be a lack of empirical studies that explore professional learning communities and there is insufficient research that explores PLCs from teachers' perspectives (Brouwer, 2011:45; Williams, 2010:66). It is important that we understand teachers' experiences of a PLC for the sake of their sustained and meaningful professional development. Effective teacher collaboration within a PLC can fill the gap left by more traditional teacher development programmes. This type of collaboration in a PLC could also assist teachers with suitable professional learning that may have a deep impact on their teaching practice (Williams, 2010:4).

This study, which forms part of a larger project focusing on professional development and teacher collaboration, was significant for the school involved in the study, as it provided a better understanding of the PLC which could in turn lead to improved classroom practices and overall school improvement (Blacklock, 2009:20). Previous studies conducted in this school showed that it placed a strong focus on the professional development of teachers. When a new principal took office in 2010, a strong focus on and commitment to teacher collaboration emerged (Steyn, 2013a; Steyn, 2013b; Steyn, 2013c; Steyn, 2013; Steyn, 2014; Steyn, 2015). The existence

of a collaborative culture in this school provided the context to investigate how Hord's dimensions of a PLC model were realised in the school. The research question that emerged was: how did teachers experience the status of the dimensions of the PLC model within their school context in relation to the expectations of the principal who implemented a collaborative learning culture in the school? Previous studies in the school explored *inter alia* the role of the principal in creating a PLC in the school, while this study attempted to investigate staff experiences regarding the existence of a PLC in light of the principal's expectations of the implementation of collaborative learning, in particular in a school with a strong Christian character.

2. Conceptual framework

The concept of a professional learning community initially developed from organisational theory and human relations (Huffman & Hipp, 2003:5). This phenomenon does not merely emphasise the learning of individual teachers, but focuses on (1) the continual, intentional collaborative learning that happens (2) within a cohesive team of teachers in a particular environment (3) who emphasise collective skills and knowledge development (4) within a caring school milieu that permeates the lives of school managers, teachers and also their students (5) to ultimately promote student learning (Hord, 1997:2; Gaspar, 2010:6). This means that the emphasis of a professional learning community has been on the learning of teachers as a method and the academic performance of students as a result (McLaughlin & Talbert, 2010:36; Williams, 2009:6).

The social learning theory of Wenger (1999), which does not replace other existing learning theories, offers a new set of assumptions with a different focus. Wenger's learning theory sees learning primarily as a strong and social involvement of individuals within communities of practice (Wenger, 1999:31) which focus on individuals and on the social structures that enable people to learn (Wenger, 2007:4). Wenger (1999:32) believes that individuals' learning should be a fundamental component of their involvement in any community of practice. According to Wenger (2000:229) the concept "communities of practice" is a requirement for learning and central to ensuring meaningful learning. These communities of practice are considered to be the basic building blocks of all social learning systems (Wenger, 2000:229). Such communities develop when individuals are involved in "a process of collective learning in a shared domain of human endeavor" (Wenger, 2007:1). Wenger

(2007:1-2) identifies three characteristics that are necessary for a particular community to be a community of practice:

- (1) The domain, where the members in the community have a shared domain of interest;
- (2) the community, where members are involved in collaborative discussions and activities, assist each other and where they share their professional skills and knowledge; and
- (3) the practice, where the members are considered practitioners who make certain contributions towards a shared practice.

Gajda (2004:2) believes that the collaboration theory finds its power when professionals in a team work collaboratively to develop a strategic relationship which is based on shared values and beliefs. Gajda (2004:5-10) distinguishes five guiding principles of the collaboration theory: (1) collaboration is a necessity; (2) collaboration has many names; (3) collaboration appears on a low to high integration continuum; (4) collaboration depends on efficient positive and emotional relationships between members in the team; and (5) collaboration proceeds according to developmental stages.

Little (1982; 1990) identifies four distinctive types of teacher collaboration activities that are necessary for the professional development of teachers:

- 1) Teachers continuously and often participate in concrete and precise talk about teaching practice (Little, 1982:331).
- 2) Teachers are frequently observed and receive feedback on their teaching practice (Little, 1982:331).
- 3) In their teacher teams teachers plan, design, study, evaluate and prepare teaching materials, which Little (1990:512) refers to as “sharing”.
- 4) Teachers teach each other the practice of teaching (Little, 1982:331) which Little (1990:512) calls “joint work”, where they share the responsibility for teaching and as such are interdependent in the school.

With the focus of this study on teachers’ experiences regarding their collaboration in light of their principal’s expectations in a Christian school, it was necessary to confirm these constructs from a Biblical perspective (Irving, 2011:120). Moreover, the conceptual constructs of collaboration and its relation to leadership as outlined above also confirm the effectiveness of these constructs that are inherently Biblically valid (Irving, 2011:120). In his model on servant leadership, Irving (2011:120-123) states that the leadership behaviour of fostering collaboration emphasises the importance of a leader encouraging followers to work together. This particular study

of leadership does not compromise authority, but rather reflects the ideal mutual submission that the Bible calls Christians to live in. In this regard Lehman (2016: n.p.) states that a person can only be a Christian as part of a community which calls for collaboration – 'intensely and often'. Irving's model also stresses the necessity of leaders who need to understand their followers by valuing and appreciating them, creating a space for individuality and understanding relational skills (Irving, 2011:123). Grahn (2011:n.p) elaborates on this view by stating that a servant leader is committed to serve the needs of others and is courageous to lead with love and power as an expression of serving them.

For this study the dimensions of a professional learning community as described in Hord's framework (1997) were used as guidelines, although these dimensions were expanded by other studies which are related to the identified dimensions. These five dimensions include the following:

- Supportive and shared leadership: Transforming a school organisation into a PLC requires the management and leadership of the school principal, who needs to actively cultivate the entire staff's development as a learning community (Cranston, 2009:2; Fulton & Britton, 2011:14; Gaspar, 2010:4). Moreover, Terry (2013:62) states that a principal is required to 'make a major shift from traditional teacher leadership to shared leadership'. Williams (2010:153) and Outhouse (2012:77) reinforce this view by stating that a strong leadership presence exists in schools with effective collaborative cultures. Such a leadership presence promotes shared decision-making, provides intellectual stimulation of individual staff members demonstrates a sincere interest in the development and welfare of others (Katz & Earl, 2010:32; Printy, 2010:115).
- Shared values and vision: For both the individual and the school the sharing of values and a vision are considered to be critical (Hord, 1997:2; Hord, 2004:8). An essential component of any school vision is a clear emphasis on student learning in which teachers are encouraged to share (Fulton & Britton, 2011:14; Greer, 2012:8; Jaquith, 2013:58; McLaughlin & Talbert, 2010:36). This shared vision then guides all decisions regarding teaching and learning in the schools (Hord, 1997:4). It is the responsibility of the principal to build a culture through an appropriate school vision and to empower followers to achieve this vision (Hord, 2004:9; Outhouse, 2012:87).
- Individual and collective learning: Hord (1997:5) bases this dimension on Senge's description of learning organisations. Senge (1990:3) views learning organisations as places "where people continually expand their capacity to create the results they truly desire, where new and expansive

patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together". To achieve the desired result, teachers should as individuals and in teams apply their professional beliefs and goals to interpret the suitability of new approaches (Blacklock, 2009:135; Fulton & Britton, 2010:6; Nelson *et al.*, 2010:175).

- Shared personal practice: Hord (1997:6) views this dimension as a component of the "peers helping peers" process. This process is supported by their trust and respect for one another (Cranston, 2009:10; Fulton & Britton, 2011:7). This dimension also includes classroom observations, in which teachers observe each other and discuss and debate such classroom observations (Hord, 1997:6).
- Supportive conditions: According to Hord (1997:5) the factors "when, where, and how" characterise a PLC and determine whether teachers often meet to make decisions, solve problems, work creatively and learn. In this dimension Greer (2012:39) and Hord (1997:5) identify physical and human conditions. Physical conditions refer to school policies and schedules, frequent meeting times, convenient venues to meet, peer accessibility, and processes for communication (Fulton & Britton, 2011:14; Hord, 1997:5; Greer, 2012:8; Jaquith, 2013:58; Williams, 2010:18; Terry, 2013:65). Human conditions refer to teachers' willingness to work collaboratively and their ability to accept constructive feedback to enhance student learning (Greer, 2012:39; Hord, 1997:5). This dimension also includes the necessary teacher qualities required for effective learning communities, trust and respect among teachers, a strong professional and skills base, and rigorous socialisation processes within the school (Hord, 1997:5).

3. Research design

Previous studies in the school revealed the principal's expectations in creating a collaborative learning culture, which is why this school was purposefully selected. This study attempted to determine the experiences of teachers regarding the presence of a professional learning community in the school (Brouwer *et al.*, 2012:409), in particular in light of the principal's expectations in implementing collaborative learning at the school. A literature review showed that most of the studies on PLCs include only qualitative studies that investigated the creation and early development of PLCs in schools (Gaspar, 2010:33). This study therefore included a quantitative research design that employed Hord's (1996) "School professional staff as learning community

questionnaire", which consists of 17 items based on teachers' experiences of the functioning of their school's PLC (Meehan, Orletsky & Sattes, 1997:iv). Meehan *et al.*, (1997:4) clarify the five dimensions of a PLC identified by Hord (1997:2-6) as follows:

- (1) The role of the principal in facilitating a PLC by sharing decision-making, power and leadership with teachers (with two descriptors);
- (2) Sharing a vision that reveals teachers' commitment to student learning and which is constantly communicated and applied to teachers' work (with three descriptors);
- (3) Collaborative learning to identify solutions to address the needs of students (with five descriptors);
- (4) Classroom observation and review to provide assistance and feedback on teachers' classroom practices in order to enhance both individual and community improvement (with two descriptors);
- (5) Supportive conditions, namely physical conditions and human capacities that enhance collaborative operations (with five descriptors).

Each of these dimensions includes descriptors on a Likert response scale of 5 (high) to 1 (low), where higher scores show a more positive view of a dimension possessed by the school as a PLC (Gaspar, 2010:26). Regarding the construct validity of the instrument, Meehan *et al.*, (1997:45) maintain that "with respect to the concurrent validity of the Hord instrument, we conclude that it does possess satisfactory correlation with the school climate instrument used in this field test". Cronbach's Alpha was employed to ascertain the reliability of the total instrument, which showed a score of 0.9389 (Meehan *et al.*, 1997:29). Meehan *et al.*, (1997:36) declare that the content validity of Hord's instrument was established at three different stages.

The expectations of the principal regarding the implementation of collaborative learning in the school were revealed in five interviews. The findings of the first four interviews, which focused on the principal's socialisation and his establishment of a collaborative learning culture in the school, were recorded in Steyn (2013c; 2014; 2015). The fifth interview reflected the principal's expectations regarding teacher collaboration in the school. These five interviews were recorded and transcribed and used to interpret the findings of the teachers' perceptions.

Fifty-two questionnaires were returned, representing a return rate of 54.73%. This rate is considered relatively high, since only 40 out of the 95 staff members were permanent departmental appointments, while the rest were governing body appointments. The internal consistency of scale responses was determined by means of the Cronbach Alpha coefficients. The following

figures show the overall Cronbach Alpha coefficients for the different dimensions: 0.81 for supportive and shared leadership, 0.79 for developing a shared vision and values, 0.87 for collective learning and application, 0.76 for shared personal practice, and 0.85 for supportive school conditions. The results revealed that the Cronbach Alpha for the entire questionnaire was 0.94. The SAS JMP (version 10.0) was employed in the analysis of data. For the interviews with the principal, a thematic analysis (Nieuwenhuis, 2010:103) was used to code the principal's account of his expectations regarding a PLC as they relate to Hord's dimensions. In categorising the data, structural (Saldaña, 2009:68) and *in vivo* coding (Creswell, 2007:153) were used to identify the categories. *In vivo* coding was used in an effort to "honour the participant's voice" (Saldaña, 2009:74), while the conceptual framework of a PLC according to Hord's model provided an appropriate way of structuring the data collected.

Ethical approval for conducting the study was obtained from the Gauteng Department of Education and the University of South Africa. The researcher also obtained written permission from the Southwest Educational Development Laboratory (SEDL) to use Hord's questionnaire for the study. Moreover, the principal of the school agreed to continue his involvement in the project while the participation of teachers was voluntary and questionnaires were completed anonymously.

The following is considered to be a limitation of the study: only the frequency and not the quality of collaboration was measured, which meant that the various types of teacher collaboration operations were not reflected. However, the study can potentially provide an understanding of the different dimensions of the PLC in order to enhance collaboration in these different dimensions.

4. Results

This study was undertaken in a large primary school located with a strong Christian culture in an urban area of Gauteng, South Africa. This school had approximately 1 600 students and 95 staff members at the time when questionnaires were collected from the teachers participating in the study. Of the 95 staff members, 40 teachers were departmental and 55 were governing body appointments. The school vision focused primarily on student learning and on the collaboration of staff members to attain high performance. Previous studies at the school (Steyn, 2014; Steyn, 2015) showed that the principal, who took office in 2010, placed a strong emphasis

on the collaborative learning of teachers as a way to improve academic performance in the school. As such he played a key role in creating teacher collaboration opportunities by means of various horizontal and vertical teams in the school.

The empirical study determined the experiences of teachers regarding the five dimensions of Hord's model in relation to the expectations of the principal regarding collaborative learning in the school. The data showed that teachers rated themselves above average as a PLC, as indicated by the different dimensions in Table 1.

Table 1: Results of Hord's five dimensions

Dimensions	1	2	3	4	5
Percentages	% of Total	% of Total	% of Total	% of Total	% of Total
Dimension 1: Supportive and shared leadership					
1a The principal consistently involves staff in decision-making in the school.	0.00%	1.92%	13.46%	40.38%	44.23%
1b The principal involves the entire staff in the decision-making process.	0.00%	2.00%	28.00%	32.00%	38.00%
Dimension 2: Shared vision and values					
2a Staff shares visions of school improvement.	1.96%	0.00%	13.73%	33.33%	50.98%
2b Visions for improvement are focused on students, teaching and learning.	0.00%	0.00%	5.88%	19.61%	74.51%
2c Visions for improvement target quality learning for all students.	0.00%	1.92%	7.69%	19.23%	71.15%

Dimension 3: Collective learning and the application thereof					
3a The entire staff meets to discuss issues, share information and learn with and from each other.	0.00%	3.85%	26.92%	23.08%	46.15%
3b Staff meet regularly and frequently on substantive student-centred issues.	0.00%	0.00%	14.00%	32.00%	54.00%
3c The staff discuss the quality of their teaching and of students' learning.	0.00%	1.92%	11.54%	28.85%	57.69%
3d Based on the learning staff make and implement plans to address students' needs to achieve more effective teaching and more successful learning.	0.00%	1.96%	9.80%	27.45%	60.78%
3e Staff assess and debrief the impact of their actions and make revisions.	0.00%	1.96%	3.92%	39.22%	54.90%
Dimension 4: Shared practice					
4a Staff regularly observe one another's teaching.	0.00%	3.85%	5.77%	50.00%	15.38%
4b Staff provide feedback to one another about teaching and learning based on their observations.	1.92%	1.92%	9.62%	50.00%	36.54%
Dimension 5: Supportive conditions					
5a Time is arranged for whole staff interactions.	0.00%	2.04%	4.08%	59.18%	34.69%

5b The size, structure and arrangements of the school facilitate staff proximity and interaction.	0.00%	1.96%	3.92%	60.78%	33.33%
5c A variety of processes and procedures is used to encourage staff communication.	0.00%	0.00%	9.80%	37.25%	52.94%
5d Trust and openness characterise all of the staff members.	0.00%	1.96%	15.69%	41.18%	41.18%
5e Caring, collaborative and productive relationships exist among all staff members.	0.00%	0.00%	7.84%	62.75%	29.41%

Table 2: Mean and standard deviation of dimensions

Dimensions	Mean	Standard deviation
Dimension 1	4.1	0.75
Dimension 2	4.54	0.61
Dimension 3	4.37	0.64
Dimension 4	3.92	0.80
Dimension 5	4.27	0.53

4.1 Dimension 1: Supportive and shared leadership in the school: “It was my job and still is to make sure that there is cohesion.”

This dimension of the School Professional Staff as Learning Community (SPSaLC) questionnaire determines whether a principal participates democratically with staff members in sharing power, authority and decision-making (Hord, 1996:1). Table 1 indicates that 84.61% of the teachers confirmed that their principal continuously involved them in decision-making in the school, while 70.00% were of the opinion that he involved the entire staff when decisions were made. In this dimension no “strongly disagree”

responses were indicated, while only 1.92% and 2.00%, respectively, disagreed with the statements in 1a and 1b. The high score of 5 (44.23%) on the scale is worth mentioning as it indicates that the principal was successful in allowing teachers to participate in the decision-making processes of the school. Table 2 shows that the mean for this dimension was 4.17 with a standard deviation of 0.75.

The principal believed that teachers should play a key role in the school, but acknowledged that someone should be responsible and also accountable for teacher collaboration in the school. He explained his leadership role in Steyn (2015:166):

The role which I played here was in creating some of those structures which weren't necessarily here or just streamlining those which were here ...We had little islands of excellence in the school, but there was no cohesion. It was my job and still is to make sure that there is cohesion and there can only be cohesion if everyone understands where we are going and why we are going there ...it is important that we collaborate so that we see the big picture ...that is my role.

The leading role of the principal implied that he had to carefully listen to teachers' concerns, address their professional needs and provide "uninhibited support to every teacher".

Various theoretical models on PLCs refer to the importance of supportive and shared leadership to the effective functioning of such communities (Gaspar, 2010:4; Terry, 2013:65). The findings regarding this dimension showed that teachers were involved in decision-making and shared power and authority in the school. For the principal it was also important to play a key role in supporting learning communities (Blacklock, 2009:125). The findings of this study contradicted the findings of Higgins' study (2010:106), which showed that principals provided little opportunity for teachers to be involved in decision making and that they were not comfortable sharing authority and power with teachers. Changing a school's organisation into a PLC requires the leadership of a principal who nurtures the whole staff's development as a PLC (Chappuis, Chappuis & Stiggins, 2009:57; Cranston, 2009:2; Hord, 1997:2; Hord, 2004:8; Fulton & Britton, 2011:14; Williams, 2010:4). This implies that a principal needs the voice and expertise of teachers for the sake of developing and maintaining an effective PLC (McLaughlin & Talbert, 2007:157). Leadership is therefore required, as confirmed by the study, to find a shared vision that ensures commitment to meet the identified goals (Williams, 2010:22). The principal in the study was a keen promoter of teacher collaboration and believed it to be his responsibility to create the

appropriate collaborative culture in the school. In previous studies it was noted that the principal viewed himself as authoritative, and this view is supported by the teachers who participated in this study (Steyn, 2014: in press; Steyn, 2015:165).

4.2 Dimension 2: Shared vision and values: “see the big picture of what we are busy with.”

This dimension of Hord's model (1996:1) measures the shared visions of staff for school improvement with an undeviating emphasis on student learning, and which are consistently referenced in teachers' work.

Table 1 reveals relatively high scores for the different sub-dimensions; 84.31% of teachers agreed that they shared a vision for improving the school; 94.12% confirmed that the vision of improvement focused on students, and also on teaching and learning, while 90.38% agreed that their vision predominantly emphasised quality learning for all their students. Compared with attribute 1, this attribute showed an even higher mean (4.54) and lower standard deviation (0.61), which confirmed staff members' experience of a shared vision and values.

For the principal the “whole is more than the parts, and the system cannot function if all the parts do not work together”. He also referred to the necessity of teachers sharing responsibility and that they needed to take ownership of the process of which they were part. As regards the school's success in becoming a learning community, he said: “We all strive towards the same goal(s), therefore we have become a team.” The vision of the school revealed the ideal for the school: “The barefoot, fun, performance school with a Christian character that strives towards excellence and aims to develop each child in totality” (Steyn, 2013:7). He strived to create a culture in which the values; faith, hope, love, integrity and excellence should prevail. In order to attain the vision and shared goals he indicated that it was crucial to have an “open conversation” about what they wanted to achieve and that “absolutely honest communication of exactly what is expected” was required. He elaborated on this view as follows:

In the PLC, the role players will not collaborate because of incentives, or any other superfluous reasons. They will only collaborate if they have bought into the bigger picture. They have to understand the goals; they have to support the vision; and they have to trust their leaders to lead them honestly and with integrity. Only then will teacher collaboration be a reality.

The data from the survey showed the presence of a shared vision and values that focus on student learning and support school improvement, which was

also confirmed by the principal. In Steyn's previous studies (2014: in press; 2015:165) academic excellence was extremely important to the principal, which explained his strong focus on teacher collaboration for the sake of improving the performance of students. He also reinforced the importance of teachers buying 100% into the ideal of teacher collaboration in order to make this ideal effective (Steyn, 2014: in press; 2015:165). This study confirms the findings of other studies that show that teachers in a PLC create a shared vision and values in order to attain their goals (Blacklock, 2009: 312; Greer, 2012:88; Fulton & Britton, 2011:14; Huffman & Hipp, 2003:43).

4.3 Dimension 3: Collective learning and the application thereof: "Without professional collaboration, there can be no growth."

According to Hord (1996:2) this dimension attempts to measure collective learning among staff members and whether the application of their learning leads to a high intellectual learning responsibility and addresses the needs of their students.

As seen from Table 1 fewer teachers (69.23%) agreed that the staff as a whole met to debate important issues, share information and learn with and from each other. With a relatively large number of staff members (95) constructive dialogue was not practical since other forums for such dialogue existed in the school. The data results confirmed that collective learning occurred in various teacher teams, with 86.00% of teachers agreeing that they met frequently to discuss student-centred issues; 86.54% stating that they met to discuss the quality of their teaching and students' learning; 88.23% indicating that they made and implemented appropriate plans to meet students' needs, to provide more effective teaching and ensure successful learning, while 94.12% of them believed that their discussions had influenced their actions and also encouraged them to make improvements. Dimensions 3b to 3e in particular showed that teachers acknowledged constructive dialogue in teams and that they implemented decisions for more successful teacher and student learning. This attribute also showed a relatively high mean of 4.37 with a relatively low standard deviation of 0.64.

The principal was unwavering in his view that "without professional collaboration, there can be no growth; no advancement; no development; no refinement; no synergy". He referred to the system formerly in place in South Africa where teachers "never worked as a whole" and stated that it was very difficult for them "to come out of that frame of mind". He believed that teacher collaboration was at the novice level where teachers create team norms by

utilising data to experiment and inquire how change processes work in their teams. As such he believed that teachers in the school were “still learning to get out of their comfort zone” – they were making progress, but still had “some way to go”. He acknowledged that this “will not be a huge success overnight, and that patience is key”.

In this regard the study of Steyn (2015:168) showed that the principal was of the opinion that “It [teacher collaboration] sounds small, but it made a huge impact. I am very proud of it. It turned out much better than expected ... Everyone began to realise that they are interdependent.”

The findings in this study support Hord's third dimension of individual and collective learning to an extent. As in the case of Drago-Severson's study (2007:87), the principal in this school used teaming to build a PLC, construct collegial relationships in the school and thereby decrease isolation. Moreover, Gajda's (2004:5) stated need for teacher collaboration, Little's (1982:331) different types of teacher collaboration opportunities and Wenger's (1999:32) idea of communities of practice also support the importance of this dimension in an effective PLC. (Chappuis *et al.*, 2009:60). By collaborating teachers broke down their isolation, which benefited their own professional learning as well as that of their students (Williams, 2010; Fulton & Britton, 2011).

4.4 Dimension 4: Shared practice: “They understand their interdependency and they embrace it.”

Dimension 4 of Hord's model (Hord, 1996:2-3) measures the opportunities teachers have to observe and review each other's classroom practices and provide feedback in order to increase individual and school capacity. Compared to other dimensions, this dimension in Table 1 shows that fewer teachers (65.38%) were of the opinion that there were opportunities to regularly visit and observe one another's teaching practice. Although such opportunities did not often occur, teachers nevertheless gave a high score (86.54%) to indicate that constructive feedback was provided after such visits and observation. The mean for this dimension (3.92) was lower than that of the other dimensions, while the standard deviation (0.80) was slightly higher than that of the others. Scheduling opportunities for teachers to observe and visit each other's classrooms in addition to the peer observation required by the Integrated Quality Management System (IQMS) could be challenging, considering the school timetable and expected teaching time required of teachers.

For the principal the idea of sharing “intellectual property” was extremely important. In Steyn (2015:168) the principal indicated that sharing practices

were not only limited to the school. Other schools in the neighbourhood respected the teachers' expertise and the teachers willingly shared their expertise with them. This school also took the initiative to present a conference on Grade R, thus becoming an information source for other schools before this grade was officially mandated in the South African education system.

The principal explained how vertical teams were structured to ensure continuity and collaborative learning:

In this school the members of teams have to work together in order for them to succeed as a team ... There are very well-structured avenues of communication between the different role-players. For example, the Grade 6 educators have to know exactly what the Grade 7 educators expect from their learners when they first walk into the Grade 7 classroom ... The transition from one grade to the next must be a smooth, flawless and effortless continuation of the previous year's work. There is no need for children to be intimidated and/or frightened by the new academic year.

In Steyn's study (2015:170) the principal explained how horizontal teams in a particular grade worked:

We have grade meetings, where the grade leader leads them [teachers] and they share whatever works for them ... They [teachers in the foundation phase] work in cycles ... They take one topic and that becomes the centre in all the different subjects and learning areas ... One person in that grade works out the mathematics work charts, another one does the English language, the other one does social sciences, et cetera. They rotate this so that everyone gets a chance ... they all do exactly the same work and they learn from each other ... So that is actually fantastic ... I love that.

The success of teachers sharing their practice made the principal "very proud ... Where the different grades were in competition with each other some years ago, that is no more the case. They understand their interdependency of each other, and they embrace it."

Data in this dimension of Hord's model (1997:6) showed a lower score regarding the opportunities for teachers to observe each other's classroom practices. They nevertheless valued the feedback they received after such visits. South African teachers are required to use the IQMS to observe each other, but a previous study showed that teachers often invited colleagues to observe a new approach that they were using in their classrooms (Steyn, 2015). IQMS is a performance measurement strategy designed to improve the quality of education throughout South African schools (Department of Education, 2008:41; Rabichund & Steyn, 2014:349). In a previous study by Steyn (2014: in press), the principal indicated that teachers should stop being

competitive and start sharing their intellectual property. Although scheduling sufficient opportunities for class visits is a challenge (Gaspar, 2010:98), such opportunities are necessary for teachers to debate and share their experiences for the benefit of their professional learning and the learning of their students (Fulton & Britton, 2010; Greer, 2012; Katz & Earl, 2010; Nelson *et al.*, 2010). Moreover, teachers should be open to constructive feedback on their classroom practice in order to improve their practice (Hord, 1997:4; Blacklock, 2009:312). A known benefit of teacher collaboration, according to Williams (2010:104), lies in the idea of "pooled intelligence", which is based on the principle that their collaboration has the potential to encourage teachers to share their expertise and thereby increase the skills and knowledge of all the teachers in a particular team.

4.5 Dimension 5: Supportive conditions: teacher collaboration "must be monitored and it must be guided".

This dimension measures the physical and human conditions that support a school's arrangement as a PLC (Hord, 1996:3). Table 1 shows that teachers rated four of the five items in the dimension "agreed" or "strongly agreed" at 90% or even higher; 93.87% of teachers indicated that time was scheduled for teacher interactions in the school; 94.11% were of the opinion that the size, structure and arrangements of the school facilitated staff proximity and interaction; 90.19% of them believed that various processes and procedures were in place to encourage teacher communication; 82,26% of respondents felt that trust and openness characterised all of the teachers in the school; while 92.16% were of the opinion that caring, collaborative and productive relationships existed among the staff members. The high positive responses in the sub-dimensions showed that the school was successful in providing a conducive environment for teacher collaboration to occur within a professional learning community. The mean of this dimension is in line with dimensions 1, 2 and 3, while the standard deviation is the lowest (0.53) of all the dimensions.

The data analysis showed that the mean and standard deviation for the entire score of all five dimensions were 4.29 and 0.55, respectively. This mean score shows the extent to which teachers experienced the school as an environment in which they were supported as a professional learning community. The higher the entire scale score is, the more positively teachers in the school viewed their school as a professional learning community.

The principal regarded it his responsibility to ensure that the necessary teams and structures for teacher collaboration were put in place. According to him he also had a key role to play in guiding and monitoring these structures. The

principal also acknowledged the two aspects of Hord's supportive conditions (2004:10), namely structural and physical factors, and human capabilities. As mentioned before the structural conditions in the school included the institution of various vertical and horizontal teams for teacher collaboration (Steyn, 2015:169), such as staff meetings and team meetings in particular subject areas and various meetings among particular grade levels and between all the grade levels. Finding the appropriate time to structure such meetings remained a challenge for the principal. As regards the human dimension of Hord's supportive conditions (2004:10), the principal in Steyn (2015:166) referred to the human characteristics required for effective teacher collaboration: "Trust between each other and trust in each other, trust in the process ... expertise in the team ... and the willingness to work together." Although the development of trust took time, the principal believed that teachers were working together because they trusted each other. Their close interactions in teams eventually developed into a "brotherhood" among teachers (Steyn, 2015:170), which made the principal proud.

The survey confirmed the existence of supportive conditions in Hord's learning community model (1996:3). Both structural conditions and conditions that promote human relationships were found to be present (Huffman & Hipp, 2003:12). The results also support the findings regarding the structural conditions from the principal's perspective in previous studies (Steyn, 2014: in press; Steyn, 2015). The studies conducted by Blacklock (2009:312) and Greer (2012:89) also support these findings. Greer (2012:22) explicitly explains that learning teams should be intentionally structured and should emphasise teachers' practice in order to improve schooling. The issue of finding appropriate time in a school programme for teacher collaboration is often identified as a barrier to an effective PLC (Hord, 2007:10; Nelson *et al.*, 2010:175; Steyn, 2014: in press; Terry, 2013:65). The principal was creative (Steyn, 2014: in press) in changing the school timetable and structuring time for staff meetings and team meetings.

Supportive conditions also refer to the development of positive relationships among staff members (Gajda, 2004:7). Both the survey and the principal supported the presence of such relationships. Studies show that it takes time to build trust and to develop a common language and norms for a team to function effectively as a PLC (Fulton & Britton, 2011:15; Katz & Earl, 2010:29-30; Terry, 2013:65). The principal in Steyn's study (2014: in press) confirmed the importance of trust among teachers in their collaboration. According to the principal the "brotherhood" that developed from teachers' interactions in the school was regarded as remarkable (Steyn, 2015:170). For Williams (2010:99) this feeling of closeness is considered to be very important.

5. Conclusion

This study attempted to explore staff experiences of their professional learning community in relation to the expectations of the principal in a school with its strong Christian character. The findings showed that the five dimensions of Hord's model were evident in the school. The data showed that the school exhibited, to a varying degree, the aspects of each of these dimensions and that it can therefore be regarded as a successful professional learning community. In the majority of these dimensions staff's responses were exceptionally high, which also indicated that they met the expectations of the principal. In a Christian culture it is important that care and respect for people and their development should prevail, in particular when they strive towards a collaborative structure in order to ensure quality teaching and learning.

The significant contribution of this particular study is the verification and validation of Hord's learning community model. According to both the teachers and the principal supportive leadership existed in the school where staff shared power and authority and where they were involved in decision-making. Teachers also shared the vision for improving the school by focusing on student learning. Although the findings showed that time was a challenge for teacher collaboration, teachers nevertheless had opportunities for professional dialogue and discussions.

The following conclusions can be drawn from the study:

- The critical role of the principal in developing and supporting a PLC and sharing leadership is crucial to endorse the effectiveness of such a community.
- Moving towards an effective PLC requires a shared vision and values, and for teachers to take ownership thereof. It is the responsibility of the principal to ensure that their shared vision is consistently instilled.
- Teacher collaboration requires clearly structured horizontal and vertical teams in which staff can actively participate and engage in constructive dialogue to improve their own professional learning and the learning of their students.

This study theoretically and empirically contributed to the body of knowledge that was identified in previous studies in the literature. It also offered a suitable basis for designing a self-audit tool in which the success of a PLC can be evaluated so that teams' strengths and weaknesses in their community building efforts can be identified.

However, the findings are limited since this study cannot be generalised. It focused on a single case study, and was limited by the fact that not all teachers in the school were willing to be involved in the study. Moreover, school contexts may differ, which means that the way in which PLCs function could vary, producing different results in similar studies. It is therefore necessary to establish appropriate collaborative practices for different school contexts to suit a particular context. It is recommended that schools that do not have a collaborative culture use the same survey instrument to identify the assistance and support required to move towards a professional learning community.

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