

# **Professional Learning Communities at the Classroom Level: Are They Having the Desired Outcome?**

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**ABSTRACT:** The application of professional learning communities (PLCs) is a well-known strategy in North American school systems. These communities are meant to bring about school change by having educators work collaboratively to improve student learning. A qualitative study utilizing a case study methodology was used to examine four participants across two sites in order to address how PLCs were being utilized to assist teachers in improving their instructional practices via assessment for learning strategies. Formal interviews, classroom observations, and physical artefacts, were triangulated and the following findings emerged: 1) Time that was provided was not used to discuss student learning. 2) Most participants could not identify any support that was provided. 3) Participants could not identify the “essential” work of PLCs. It is imperative that schools and school districts find away to provide time, within the school day, so teachers can embrace the collaborative work required to improve instructional practices.

**Résumé:** L'application des communautés d'apprentissage professionnel (CLP) est une stratégie bien connue dans les systèmes scolaires nord-américains. Ces communautés sont censées apporter des changements dans le milieu scolaire en faisant travailler les éducateurs en collaboration pour améliorer l'apprentissage des élèves. Une étude qualitative utilisant une méthodologie d'étude de cas a été utilisée pour examiner quatre participants de deux sites afin de déterminer comment les PLC sont utilisés pour aider les enseignants à améliorer leurs pratiques pédagogiques par l'évaluation des stratégies d'apprentissage. Des entrevues formelles, des observations en classe et des artefacts physiques ont été ramassés. Les données ont été triangulées et les résultats suivant sont ressortis : 1) Le temps qui a été fourni n'a pas été utilisé pour discuter de l'apprentissage des élèves. 2) La plupart des participants n'ont pu identifier aucun soutien fourni. 3) Les participants n'ont pas pu identifier le travail « essentiel » des PLC. Il est impératif que les écoles et les districts scolaires trouvent un moyen de

donner du temps, pendant la journée scolaire, afin que les enseignants puissent adopter le travail collaboratif nécessaire pour améliorer leurs pratiques pédagogiques.

## Introduction

Professional learning communities (PLCs) are a well-known idea in North American school systems (DuFour, 2015; Hargreaves, 2007; Servage, 2008; Thompson, Gregg & Niska, 2015). PLCs have come to represent a wide range of professional activities, ranging from book studies to modified data teams. While there have been pockets of successful implementation and focus (DuFour & Eaker, 1998), PLCs have largely become impacted by what Haertel termed “lethal mutation” (Brown & Campione, 1996, p. 291). Schools attempting to implement PLCs are often faced with the challenge of determining the true purpose of a PLC. PLCs are meant to bring about school change by having educators work collaboratively to improve student learning. There appears to be blurring between the vision DuFour, DuFour and Eaker (2008) had for PLCs and the “lethal mutation” as reaffirmed by Hord and Sommers (2008). Hord and Sommers (2008) have argued the idea of PLCs has been translated into a wide array of definitions and descriptions-most of which miss the mark of educators in a school coming together to learn in order to become more effective so that students learn more successfully (p. 2). As a result, educators and researchers alike, are left wondering about the extent and ways to which PLCs are influencing school change to improve student learning?

This paper speaks specifically to student learning as defined as a myriad of processes (emphasis added) that interact over time to influence the way people make sense of the world (National Academies Press, 2018). Key among these includes improved instructional practices and assessment for learning (AfL) practices. A PLC focused on improving student learning with a focus on AfL creates the conditions that hold strong potential for improved student learning (Donohoo, 2017; Donohoo et al., 2018; Ells, 2011; Hattie, 2015).

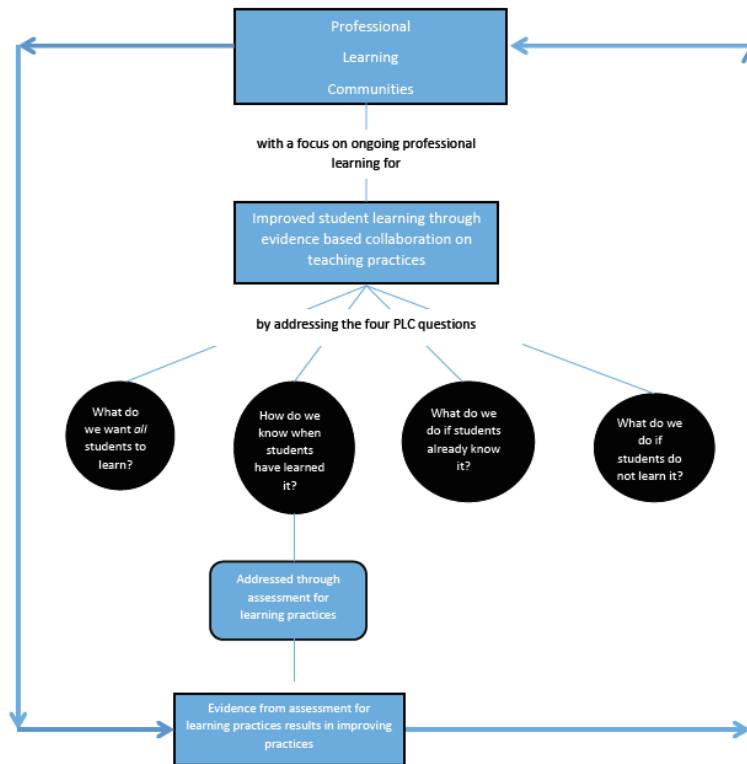
As an educator and researcher, I am interested in how schools utilized PLCs to bring about improved instructional practices, at the classroom level, and to determine how effective the teachers were in collaborative process. For this research, I chose to examine two schools using a case study methodology. The case study methodology allowed me to examine these schools, both indicating to have implemented PLCs, through a broader lens. Schools for this study were selected guided by the research questions and conceptual framework (Cameron, 2016). Criteria was utilized as a

starting point to sample demographic characteristics to deduce if they would be relevant to the emerging study (Glaser, 1978; Morse, 1991). Numerous schools throughout Saskatchewan and Alberta were initially invited to partake based on one of three grade configurations: K-8, 9-12, and K-12. As a result, the two schools, from Saskatchewan and Alberta, participating in the study fell into one of the grade configurations, had similar student populations, and similar full-time equivalents (FTEs) of professional staff members. The above school configurations can be found throughout rural Saskatchewan and Alberta and each provide the opportunity to gain a better understanding of how schools utilize PLCs to support teachers to improve student learning. Because rural schools and school divisions make up a large portion of the Saskatchewan and Alberta public school system, this was an area that needed further examination.

### Conceptual Framework

Educational change has been a common concept facing educators as they attempt to modify or change their practices to meet the increasing demands of accountability measures introduced by provincial education departments. Starr (2011) stated “research evidence suggests that schools are slow to change, that many individuals are resistant to change and that school reforms are often cursory or short lived” (p. 645). However, there is increasing support around PLCs, arguing that this is one of the most promising reform movements in education (Stoll & Louis, 2007). The conceptual framework for this study was based on utilizing the ongoing professional learning provided by PLCs to improve teachers’ instructional assessment practices by specifically reflecting on student evidence garnered through teacher interviews and classroom observations. Figure 1 below illustrates the conceptual framework for this study.

Figure 1. Conceptual Framework



Using the conceptual underpinnings of PLCs (Figure 1), articulated by Hargreaves (2003) and Reichstetter (2006), a school staff should be successful in improving their practices by continuously reflecting on evidence gained from assessment for learning (AfL) practices. Drawing upon the fundamental features of the purpose of PLCs to improve student learning, DuFour and Eaker (1998) contended that teachers' work focus on answering four key questions:

1. What do we want each student to learn?
2. How will we know when each student has learned it?
3. How will we respond when a student experiences difficulty in learning?
4. What do we do when a student already knows the content?

At the very foundation of a PLC is the belief that all students can learn at high levels, given the necessary supports and time. However, strengthening, improving, and changing teaching practices to clearly identify what students need to learn, engaging students in the assessment process and providing differentiated

instruction and assessment practices for all students appears to be a significant hurdle. This important work is complicated with the number of new initiatives that administrators undertake in any given year. While the talks of research-based practices continue to monopolize education discussions, they do so on a fragmented front, each initiative disconnected from the next (Friesen, 2015). A key-missing element is the ability to connect all of these seemingly disparate “pieces”. Within such a milieu of disconnected initiatives, professional learning communities frequently becomes another of the many initiatives rather than a powerful opportunity that encourages teachers to embrace on going professional learning to improve their own practices. What is often over looked is that PLCs requires educators to come together in professional learning around student evidence making research informed decisions that ultimately impact instructional practices.

Professional learning communities have the potential to be a powerful change agent that could positively impact student learning. This research was a study of PLCs and how they serve as a change agent to improve instructional practices. Professional learning communities provide the structure for educators to embrace the change process while having difficult discussions around how assessment can be utilized to improve teachers’ instructional practices.

## Literature Review

### Professional Learning Communities

The introduction of PLCs with a focus on ongoing professional learning has gained significant traction. Developing PLCs appears to hold considerable promise for capacity building for sustainable improvement (Stoll, Bolman, McMahon, Wallace, & Thomas, 2006). Stoll et. al. (2006) claimed within PLCs the, “focus is not just about individual teachers’ professional learning but of professional learning with a community context” (p. 225).

The PLC framework is a “focus on learning, a focus on results, a commitment to collegiality and a willingness to reshape a school’s culture” (Crow, 2008, p. 4). It is this framework that enables groups of teachers to work together to plan, to share, to build knowledge and to critically interrogate their practices in an ongoing, reflective, collaborative, inclusive, learning-oriented, growth-promoting ways (Mitchell & Sackney, 2007; Toole & Louis, 2002). Intended to bring about school change starting at the classroom level, PLCs stress the importance of ongoing professional learning in an attempt to improve teaching practices and student learning.

DuFour and Eaker (1998) indicated a PLC needed to address four key areas or questions in education:

1. What do we want each student to learn?
2. How will we know when each student has learned it?
3. How will we respond when a student experiences difficulty in learning?
4. What do we do when a student already knows the content?

### Assessment for Learning

The ultimate goal of assessment practices should be to improve teaching practices, improve student learning and ensure students have the necessary skills to become more active participants in their own learning (Black & Wiliam, 1998; Brookhart, 2007; Brookhart, 2011; Guskey, 2010; Popham, 2008; Stiggins, 2006; Wiliam, 2011). Assessment for learning (AfL) is one of the assessment practices that is intended to improve teaching and learning. It is the process of seeking and interpreting evidence for use by learners and their teachers to decide where the learners are in their learning, where they need to go, and how best to get there (Broadfoot et. al., 2002).

Through AfL, students learn about the achievement expectations from the very beginning and understand the role that scaffolding plays to aide them in reaching the final goal or provincial outcomes. Stiggins (2005) made the case for AfL stating, "...during learning, students are inside the assessment process...believing that continued success is within reach if they keep trying" (p. 328). Wiliam (2011) concluded

An assessment functions formatively to the extent that evidence about student achievement is elicited, interpreted, and used by teachers, learners, or their peers to make decisions about the next steps in instruction that are likely to be better, or better founded, than the decisions they would have made in the absence of that evidence.

Hattie (2009) indicated that one of the primary ways to improve student learning is through assessment for learning. If teachers are to improve their practices, then they need to be supported in continuous professional development to build on the knowledge and skills necessary to analyze to interpret evidence of learning (Assessment Reform Group, 2002).

## Methodology

This research was designed as a descriptive case study to explore how a PLC supports teachers to improve their instructional practices. The case study methodology was selected because “the evidence from case studies is often considered more compelling, and the overall study is therefore regarded as being more robust” (Herriott & Firestone, 1983, p. 18). Stake (1995) stated “a case study is the study of the particularity and complexity of a single case, coming to understand its activity within important circumstances” (p. xi). The research was focused on the PLC, which is a space where professionals in a school site are collectively responsible for student learning as well as their own learning and that of their colleagues. The goal of a PLC is to build social and intellectual connections among professionals in order to build strong practice to improve student learning (Friesen, 2011). The case study methodology provided a more in-depth understanding into the research question, while “emphasizing...the sequentiality of happenings in context, the wholeness of the individual” (Stake, 1995, p. xii). The primary research question for this study was: In what ways does and professional learning community support and enable teachers to implement assessment for learning within their daily practice? Six underlying questions were utilized to examine the primary research question and identify common themes from formal interviews, observations, field notes and physical artefacts. The purpose of studying a case is generally to provide a rich description of the context in which the events occur and to reveal the underlying structure of social behaviour (Baxter & Jack, 2008).

## Participants

Participants for this study were selected using purposive sampling. Purposive sampling was used as schools needed to be rural and have active PLCs with a focus on AfL practices in order to be included. The following selection criteria were based on student population, number of teaching staff members, and grade configuration. Attempts were made to select schools that were similar for each of the three criteria. One school in rural Alberta and one school in rural Saskatchewan agreed to participate in this research. Teacher participants (n=4) from four classrooms agreed to be interviewed and to have me conduct classroom observations. The teachers taught grades 2 through 10. Ethics for this study was obtained from the University of Calgary Conjoint Faculty Research Ethics Review Board (CFREB).

## Methods and Analysis

Marshall and Rossman (2006) argued “qualitative researchers typically rely on four methods of gathering information: (a) participating in the setting, (b) observing directly, (c) interviewing in depth, and (d) analyzing documents and material culture” (p. 97). To gain an understanding of what educators were being introduced to, with regards to PLCs and AfL, and how that improved their classroom practices, three primary methods were utilized: participant observation, physical artefacts, and semi-structured interviews. The principle of triangulation was utilized in the analysis of the three data sources to develop a comprehensive understanding of the phenomenon and establish credibility of the research findings. In research, the principle of triangulation pertains to the goal of seeking at least three ways of verifying or corroborating a particular event, description, or fact being reported by a study (Yin, 2009, p. 81).

This research utilized the work of Miles, Huberman and Saldaña (2014) to analyze and synthesize the data that was collected from observations and field notes, semi-structured interviews, and physical artefacts. More specifically, first cycle coding was used to create codes that aligned with the six underlying questions asked of participants. All semi-structured interviews, observations and field notes were coded, based on the codes created in the first cycle. Tables 1, 2, and 3 present how the data was organized in the first cycle. Five colleagues used the coding framework to establish inter-rater reliability to determine the internal consistency (Bloomberg & Volpe, 2008; Miles, Huberman & Saldaña, 2014). Based on the internal consistency results, an internal consistency rate of 80% or higher, it was determined whether or not the codes would need to be further redefined. The defined codes were applied to analytic memoing which was adopted to analyze the visual data that was gathered throughout the research. “The visuals have always been a vital part of fieldwork investigation” (Miles et al, 2014, p. 98) and analytic memoing, in unison with the defined codes, allowed for the collected visuals to be examined and determined how they supported the findings from interviews, field notes and participant observations.



Table 1

*Coding Framework: Four PLC Questions*

Name	What do we want each student to learn?				How will we know when each student has learned it?				How will we respond when a student experiences difficulty in learning?				What do we do when a student already knows the content?			
	Support		Enable		Support		Enable		Support		Enable		Support		Enable	
	School	School Div.	School	School Div.	School	School Div.	School	School Div.	School	School Div.	School	School Div.	School	School Div.	School	School Div.
Participant 1																
Participant 2																
Participant 3																
Participant 4																

Table 2

*Coding Framework: Questions Time and Support*

Name	How often does your staff meet, formally, to collaboratively discuss ways to together improve student learning?	Discuss what your school/school division has done to assist educators in your school to see the interconnectedness of these initiatives.		How has your school/school division introduced the PLC culture to you?	
		School	School Division	School	School Division
Participant 1					
Participant 2					
Participant 3					
Participant 4					

Table 3

*Coding Framework: Questions Regarding Support*

Name	How are these initiatives introduced in your school/school division?				Discuss what your school/school division could do better to assist educators in implementing these initiatives in your school. Classroom.				Discuss what your school/school division has done to assist educators in your school to see the interconnectedness of these initiatives.			
	Support		Enable		Support		Enable		Support		Enable	
	School	School Division	School	School Division	School	School Division	School	School Division	School	School Division	School	School Division
Participant 1												
Participant 2												
Participant 3												
Participant 4												

Once the first cycle codes and coding was completed, and the internal consistency was determined, I applied a second cycle coding to take the large amount of data and grouped those summaries into smaller categories and themes (Miles et al., 2014). The themes that evolved from the second cycle coding were then analyzed in relationship to how they addressed and supported the research.

## Results

Participants were asked questions to determine how PLCs were being embraced to bring about change, starting at the classroom level. The interview questions, along with the conceptual framework for the study, served as the foundation for analyzing the data and determining common themes from the structured interviews, observations, field notes, and physical artefacts.

Following are three key findings from the study. These findings include:

1. Time that was provided for PLCs was not used to collaboratively discuss student learning.
  - a. Discussions that did occur were focused on student behaviour as opposed to student learning.
  - b. Participants reported that the time to meet within the school day did not support the PLC framework or enhance their assessment practices.
2. A focus on AfL within a PLC is difficult to put into practice. The introduction of PLC's and AfL only occurred in one of the schools. None of the participants could identify any support or follow through that was provided to them.
3. The Essential Work of a PLC and the Key Elements Associated with AfL are Mostly Elusive. Participants were unable to identify the essential work of a PLC or the key elements associated with assessment for learning.

### Finding 1: Time That Was Provided for PLCs Was Not Used to Collaboratively Discuss Student Learning.

- a. Discussions that did occur were focused on student behavior.
- b. The time to meet within the school day did not support the PLC purpose or enhance assessment practices.

Based on the research of John Hattie (2009), one of the greatest factors impacting student learning is that of “providing formative evaluation” ( $d = 0.90$ ). “Teachers becoming learners of their own teaching” (Hattie, 2009, p.22) formed the basis of this first finding. Leaders in both schools indicated they wanted their teachers to work collaboratively to explicitly examine their teaching practices and examine the impact those practices were having on student learning. Such a commitment to building collective expertise requires collaborative teacher learning, on behalf of student learning, engaging in professional dialogue. The question asked participants was: “How often does your staff meet, formally, to collaboratively discuss ways to together improve student learning?”

When participants were asked about how often they met, formally, to discuss student learning, the answers ranged from once a week to monthly. Jordan stated, “Our staff meets twice per month to discuss ways to improve student learning”. Jordan did not indicate how much time was allocated for those bi-monthly meetings or whether they occurred during the school day. At no point during classroom visits was Jordan observed meeting with

colleagues, either formally or informally, to discuss student learning or teaching practices.

When the same question was asked of participants from a second site, the responses indicated some discrepancy with regards to how often they formally met. When asked about how often the staff met formally, Charley responded by stating “as a complete staff, we meet I believe its one Friday a month”. When Jamie was asked about how often their staff formally met she replied with:

This is a tough one (question) because every Friday afternoon is considered our PD time. So we don't take PD days, it's every Friday afternoon and the kids get out at 12:15. So it's used either as work time for teachers and Educational Assistants (EA's) but we do get together to discuss certain topics but the topics are usually picked by administration...I don't know how productive the time is or how well spent it is.

Ainsley viewed the formal meeting time similar to Charley. He stated, “our staff meets formally, once a month in normal staff meetings that doesn't always include collaborative learning and improving student learning”.

During formal site visits, there was no observations that would indicate teachers were meeting formally or even informally to discuss student learning based on evidence collected from assessment for learning practices. It was stated, and the frustration was noted, by one of the participants that they were disappointed that the time teachers met together was not being used to discuss the needs of their students, or student learning. That participant stated, “I'm just going to close the door”. The frustration with regards to not having time to meet about student learning was echoed by another participant when they stated, “In my interview it was stressed that we have this community...and we'll meet every two weeks to discuss how things are going in your classroom”.

Even after sharing the observation criteria with participants, after the first formal observation, teaching practices that would have aligned with a collaborative approach to talking about student learning were absent.

## Finding 2: A Focus on AfL Within a PLC is Difficult to Put Into Practice.

Participants made it clear, throughout the formal interview, that both the school and school divisions they worked in did not provide the support or follow through required for them to be successful with

PLCs and AfL. When participants were asked specifically about how the school and/or school division introduced these two initiatives to them, the answers varied significantly.

Common across all participant responses was a lack of an indication of follow through or support provided for current or staff new to the building or division. Jordan reflected on his introduction to PLCs stating

our school attended a division wide workshop, with all schools (in the division), at the start of the school year in, I want to say, is it 12 or 13, 2012. So that's kind of a first introduction to it.

Responses from other participants indicated that perhaps PLCs had not, at any point, been introduced to them. When Charley was asked about the introduction of PLCs, she responded, "lets see, I would say that I'm kind of, I don't – I'm lost for words". This confusion around the introduction of PLCs was echoed by Charley's colleague Ainsley, "I think here you're just kind of immersed in it" and he followed this up by acknowledging "when I was getting my degree, they were already starting to talk about the PLC there, so I was kind of familiar with what it was and the definition". When Jamie was asked about her recollection of being introduced to PLCs, she indicated, "I think it was stressed, like even in my interview for my job, it was stressed that we have this community, we have like a mentorship put in place". Although Charley, Ainsley and Jamie did not come out and say it, it was clear from their interviews that at no point had PLCs been formally introduced to them. As I listened to the participants talk about their experiences with PLCs, at no point did they refer to using this change agent for ongoing professional learning to help them improve their teaching practices. It was based on this and that they seldom spoke about using assessment for learning evidence to determine their impact on student learning that I was able to infer that no formal introduction to PLCs had been carried out with the participants.

### Finding 3: The Essential Work of a PLC and the Key Elements Associated with AfL are Mostly Elusive.

Most participants were unable to identify the "essential work of a PLC or the key elements associated with AfL.

Participants were asked to reflect on the four PLC questions in a formal interview with regards to:

- clear learning targets;

- essential questions; and
- AfL strategies at the end of class to bring the lesson full circle.

Participants were asked how they collaboratively worked together to address the question, “What do we want all students to learn?” the answers were varied indicating a misunderstanding of the key elements of PLCs. Ainsley answered,

...I was told when I was hired here to always do your best by each child. You don't want to forget about the curriculum, teach it, but teach what you teach well.

Charley provided a similar response.

Well we want students to learn at their level...then we try and make sure they are getting what they need, so that their workbooks and their lessons are at the correct level.

At no point during the interview did Charley indicate how student evidence would be used to determine a student's current level.

Jordan was the only participant that spoke about essential outcomes during the interview. As Jordan talked about this question he stated, “...we sort of discussed how we would know, what are the essential outcomes”. Jordan shared his collaborative work with subject alike groups and determining “big idea questions”. Although Jordan spoke about this very important practice, it was not observed during the classroom observations or evidenced in the artifacts.

The responses from the participants, when asked how they collaboratively determined whether a student had learned the essential learnings', was equally varied given there was no evidence that the first PLC question had been examined in collaborative groups. In some cases, there was little reference to assessment practices from the participants. Jordan, who demonstrated the greatest understanding of assessment for learning practices, spoke about how the division brought teachers together to examine different ways to assess students besides the traditional summative practices. Jordan also spoke to the work he and others had done in developing rubrics, “to bring clarity”, for student learning as opposed to simply assigning percentages.

When participants were asked about how they used PLCs to focus on student learning, they answered:

- See this is a tough one because every Friday afternoon is considered our PD time. So it's used either as work time for teachers but sometimes we do get together to discuss certain topics but the topics are usually picked by administration.
- ...we don't always include collaborative learning and improving student learning.
- Right, let's see I would say that I'm kind of, I don't – I'm lost for words...we get a lot of time to use to do what we feel is necessary. That gives us time to meet with other teachers and discuss about upcoming school events, or if there's been a student that the other teachers had previously.
- ...I guess it was kind of *mandated* (emphasis added), like this is what your PLC should be doing.

Based on the responses of the participants it was evident that designated PLC time was used to discuss either student behaviour problems or organizational matters such as timetables, use of resources.

## Discussion

In the two sites that participated in this study, school-based administrators indicated they had embraced PLCs as a change agent. This study found there was minimal evidence to suggest that teachers were aware they were catalysts for bringing about change from the classroom level up. All participants were committed to improving their practices but lacked an understanding of the role that PLCs plays in that process. However, as McNulty and Besser (2010) concluded, "all too often we are quick to judge something didn't work, when the reality was, we never really implemented the practice deeply or well" (p. 57).

The research reaffirms a need to remain focused on the purpose of PLCs (Stoll & Louis, 2007; Sims & Penny, 2014; Talbert, 2010; Thompson, Gregg & Niska, 2004; Vescio, Ross & Adams, 2008), that being to improve student learning via improved instructional practices. This research found that, while the purpose of PLCs appears to be clear at an administrative level, how schools go about that work remains varied. It was evident that it is far more difficult to effectively implement PLCs than to create a structure called PLC. This study suggests that the elusive work of PLCs might be attributed to teachers not knowing what it is they are focusing on. It could be that struggles associated with PLCs stems from classroom teachers not being an active part of the change process (Talbert, 2010). While key elements of a PLC, such as a shared vision, collaboration and results focused, are important, equally

important is ensuring that support is available to guide teachers as they begin to examine their own practices in light of student evidence.

The findings of this study mirror previous findings and arguments forwarded by DuFour, DuFour and Eaker (2008). I was first introduced to the work of the DuFours and Eaker in 1998. Almost 20 years later, the same arguments persist. Although DuFour's latest book is a very specific examination of what has happened in the American education system, there are a number of similarities found in Canada. As evidenced in this paper, educators in Canada typically work in isolation and as a result do not often enough participate in the meaningful discussions that might result from a well-established PLC with a focus of AfL to improve teacher and student learning.

## Limitations and Delimitations

The number of schools and participants in this study is a limiting factor. In addition, in-depth interviews and classroom observations may have influenced the responses and teaching practices of the participants. The study was delimited by site, participant selection, and inclusion of a PLC structure with a focus on AfL.

Qualitative research that is socially bounded, such as this one that draws upon case study methodology, is not generalizable to all other settings. However, the study does draw upon the trustworthiness of transferability. The concept of transferability "is about how well the study has made it possible for readers to decide whether similar processes will be at work in their settings and community by understanding in-depth how they occur at the research site" (Bloomberg & Volpe, 2016). As a result, transferability may be achieved when the reader determines the similarities between the research site and its local site.

## Conclusion

The results suggest that schools and school systems examine the ways in which time continues to be a major hurdle when implementing new initiatives. Teachers appear to be called upon to examine their practices in terms of the impact they have on student learning but are frequently expected to do so outside of school hours. This study found that even though professional learning was the stated focus of the PLCs, there was little to no time for teachers to meet with colleagues to examine their practices based on student evidence. This result suggests school-based administrators and

district administrators need to find ways to prioritize time for teachers within the school day.

Additionally, the results suggest district and school administrators support teachers to see the interconnectedness of all the different initiatives. Every time a new initiative is added to the “teachers plate”, without showing the connections, it increases the chances that initiative is merely an add-on to existing and often competing demands. While some district and school leaders might find it difficult to find and communicate the interconnected nature of the various initiatives, it is important that they identify these and communicate those connections to their teachers. This conclusion supports Hattie (2009), learning needs to be visible for everyone, it cannot be something that is expected of our teachers and not expected at the leadership level.

### Recommendations for Further Research

I would recommend further studies in the area of PLCs and AfL practices and more specifically how these two powerful components can transform teacher practices and improve student learning. While there is an abundance of research in both these areas independently, research into the ways in which PLCs support the development of effective AfL is still an emerging field. Additional research could include, a longitudinal study, where researchers work closely with a school, to ensure the foundational basis of a PLC is in place and that AfL practices are being utilized. Also expanding the research to involve more sites, both urban and rural and increasing the number of participating teachers would provide a more accurate picture of how schools are interpreting PLCs and AfL practices. Involving students, school administrators, and division leadership in the study would add depth to a study on the interconnectedness of PLCs and AfL practices.

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