

ASSESSING COMPREHENSIVE SCHOOLS IN ONE FINNISH MUNICIPALITY AS PROFESSIONAL LEARNING COMMUNITIES

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Abstract:

A professional learning community is an ideal way to build and sustain an effective school culture and turn the school around. As professional learning communities continue to offer tremendous rewards to teachers and students, it is time researchers focus more on school self-assessment issues, using the lenses of professional learning communities. This paper presents an insight of how Finnish teachers and principals in the selected schools in one municipality assess their schools as professional learning communities. This study used a quantitative research method. Questionnaires were administered to teachers and principals of schools in the municipality and the responses were from comprehensive schools. This study has presented how teachers and principals assess their schools as professional learning communities. The study has not only presented teachers' assessment of their schools; it has also presented the warning sign (poor performance) on supportive condition – structures' component and this add to the future challenges faced by these schools. This article helps to stir up debate in educational leadership and inspires educational leaders to ask questions like: From the teachers' self-assessment, in what areas do teachers need more support?

Keywords: Professional learning communities, shared supportive leadership, collective creativity, shared values and vision, community of learners, municipality, learning organizations

1. INTRODUCTION

The fundamental purpose of every professional learning community (PLC) is making sure that every student learns by improving teaching practice (Vescio et al., 2008). Learning is supported and guided by the core components of professional learning communities (PLCs), including shared supportive leadership and collective creativity. A study by Lee, Smith, and Croninger (1995) proved that the staff worked together and changed their classroom pedagogy in schools that were characterized by PLCs. According to Lee and colleagues (1995), teachers engaged students in high intellectual learning tasks, and students achieved greater academic gains with low achievement gaps between students from different backgrounds. For schools to develop as PLCs in today's

environment, they must overcome the conflict of culture and provide the much needed supportive conditions. While Hord (1997, p. 5) has argued that with schools as PLCs, there is a "higher likelihood that teachers will be well informed, professionally renewed and inspired to inspire students", Nkengbeza (2014a) believes that in addition to the core components of PLCs, there should also exist "genuine collaboration among the stakeholders, continuous inquiry, genuine relationships, purpose and focus vision, genuine communication and trust" for any PLC to be developed and sustained.

Our view is that improvement in these components has helped in reshaping the Finish education. This article is important

because it's the first (to the best of the authors knowledge) to use the conceptual framework of PLCs' questionnaire to understand teachers' and principals' assessment of their schools in the case municipality (Municipalities in the Finnish context are self-governing administrative units, which, under Finnish law, have the right to decide on their own matters [Enterprise Finland, 2015]). Even though the sample is limited, it has opened up a new area for further research. We think other researchers will find it interesting to repeat the research in all schools in a municipality or province. According to Harris (2013) "Looking at high performing systems like Finland, Ontario, Shanghai, Hong Kong, and Singapore that all invest in collaborative and focused on professional learning, it would suggest that this is a potentially important and powerful lever of educational change and improvement".

We conducted this study in the selected schools in one municipality in Finland. This paper begins with a brief background of professional learning communities in Finland. The core components of professional learning communities are used as the conceptual framework and are explained. The study used a quantitative research method, and convenient and judgemental sampling methods were used to select the municipality and schools (Burns and Grové, 2005). The findings show how teachers and principals assess their schools as PLCs, including their views on the existence of limited supportive conditions - structures in their schools.

1.1 The aim of this research and research question

The aim of this research was to find out how Finnish teachers and principals in the selected schools in one municipality assessed their schools as professional learning communities. The main research questions are - How do Finnish teachers and principals in selected schools in one municipality assess their schools as professional learning communities? What

areas do educators think their schools are doing well and which areas need improvement?

1.2 A brief background of PLCs in Finland

The term PLCs emerged only in the 1980's and became popular in the 1990's. As a result, some researchers like Nkengbeza (2014a) have explained that the 1990's mark a turning point in research in PLCs as researchers started embarking on school improvement issues through the lenses of these communities. As the term PLCs was somehow new, it led to different definitions. Senge (1990) for example define PLCs as organisations where people are in constant expansion in search for better results that they wish, where collective aspiration is set free, and where learning to learn together is a continuous process. PLCs provide teachers with opportunities to share practice, explore and develop teaching methods and approaches, and reflect on how to improve learning outcomes for students in a caring context (Steyn, 2014b).

After observing Finnish schools for many years, our view is that sharing responsibilities among professionals has been at the centre of establishing learning communities in Finnish schools. This view has been echoed by Bolam, McMahon, Stoll, Thomas, Wallace, Greenwood, Hawkey and Ingram (2005) as distributed leadership, and Nkengbeza (2014 & 2009) and Steyn (2014) as shared supportive leadership. Before the 1980's Finnish school principals still found it difficult to share responsibilities. This was further complicated by the fact that more than 95 percent of Finnish teachers belonged to the teacher's trade union and any additional work had to be paid (Webb, Vulliamy, Sarja, Hamalainen & Poikonen, 2009). With the provision of funding by government and municipality, the number of support staff increased. A need arose to bring all the teachers and other staff together to work as a team (Webb, et al. 2009).

According to Webb, et al. (2009) before the 1994 curriculum reform in Finland, many Finnish teachers were not used to joint planning. Today both teachers and principals see collective learning as a powerful tool in building communities of learners in schools. Collective learning has improved teachers' motivation and well-being, developed a collective identity and culture and built trust among teachers and students. Cooperation between schools in Finland has increased and this is explained in a study by Nkengbeza (2009), where he identified this cooperation not just between Finnish schools but also between a Finnish school and other schools in different countries. According to him, this inter-school cooperation is common in teaching, sports and other activities.

Professional development has also helped in improving teachers' professionalism in Finnish schools. Teachers' professionalism has been at the centre of the education success in Finland (Web, et al. 2009). There is a high level of trust between the Finnish government, municipality and the school. This level of trust led to the shifting from State to school self-evaluation which became mandatory in 1999. Even though critiques like Webb, et al. (2009) believe that this school self-evaluation has become an annual bureaucratic school routine with no time to implement all the issues raised, Partanen (2011) has concluded that "The main driver of education policy [in Finland] is not competition between teachers and between schools, but cooperation"

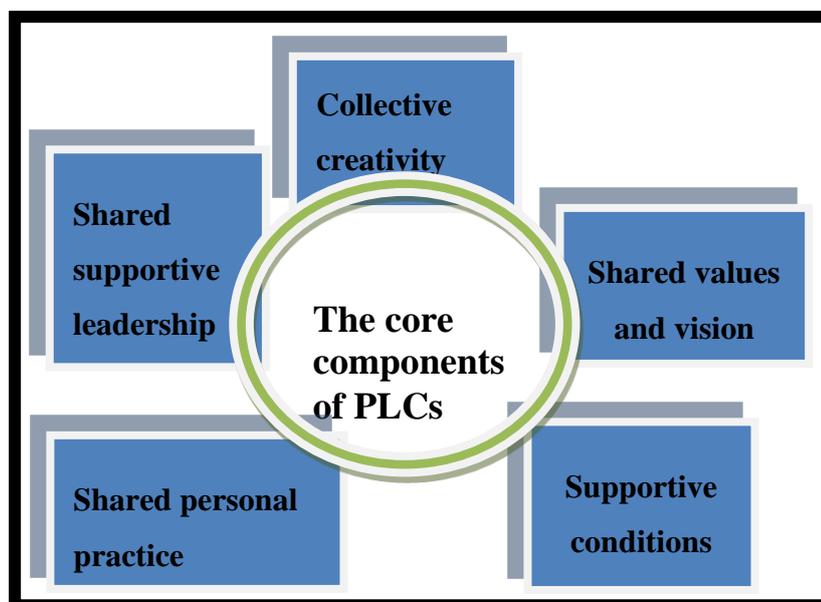
Despite the different views of PLCs, Maddin (2013), Bullough (2007), SEDL

(2014); Nkengbeza, (2014a & 2009), Steyn (2014), and Bausmith and Barry (2011) have all agreed on the following core components of PLCs: "shared supportive leadership, collective creativity, shared values and vision, supportive conditions and shared personal practice". These components are explained in details below under the conceptual framework of PLCs.

2. THE CONCEPTUAL FRAMEWORK OF PLCS

The conceptual framework that we have used in this study is based on the core components of PLCs as explained above (SEDL, 2014; Steyn, 2014a & b). The principal and his/her whole management team should look at the school strategies, structures and cultures to align them with the meaningful change that will lead to the establishment of a PLC. Bezzina (2004) has explained that, before establishing a PLC, the principal ought to make sure that there is a genuine belief in the benefit of the decentralisation, develop a clear strategic plan that will allow the stakeholder to change, adapt and develop the right values, take more responsibility and build the necessary infrastructure.

Table one below shows the conceptual framework of PLCs. The key components of this frame include Shared supportive leadership, Collective creativity, shared values and vision, supportive conditions and shared personal practice (SEDL, 2014). Each of these sub-components is explained in details below.

Table 1: The conceptual framework of PLCs

Source: Nkengbeza (2014a)

partnership with Hilltop University and formed leadership decision making

2.1 Shared supportive leadership

Shared supportive leadership, as illustrated on table one, requires that the principal works together with other staff and stakeholders as peers, questioning, investigating and seeking solutions to all the school problems, in an on-going and collaborative manner (Nkengbeza, 2014a; Steyn, 2014a). It is this relation, if well practiced that leads to the establishment of a community of learners (Hord, 2003). This entails the genuine distribution of leadership across the whole school. This was the case with Cottonwood Creek School in 1997, where the principal shared power across the school and teachers took up positions of responsibility and “Teachers felt empowered by this” (Hord and Rutherford, 1998). The principal did not only encourage innovation and change, he also applauded the school

structures across the school (Hord and Rutherford, 1998). In the context of Finland, all the schools have direct links with the teachers’ training institution – the university. All the schools recruit from the same pool of university trained teachers.

Researchers like Bezzina (2004) have suggested that PLCs need visionaries’ principals who can act like role models and empower teachers to take up responsibilities. According to Bezzina (2004), the school leadership and management ought to create a conducive environment for reforms on school improvement to take place. Hunter (2013) has stressed the importance of the principal and the management team to have a sense of direction in order to

control and manage the whole reform process.

2.2 Collective creativity

Collective creativity is another core component of PLCs. It promotes inquiry that “forces debate among teachers about what is important” (Hord, 1997). Collaboration plays a very important part in the establishment of PLCs (Hunter, 2013). It is a process whereby teachers work together in teams questioning and solving school problems in an on-going collaborative manner. Mullen and Kochan (2000) have argued that teacher’s network also plays an important part that enhances professional development by involving in networks that include activities where teachers solve problems together. By working in a group, questioning and solving problems together, members learn together and develop into a community of learners (Nkengbeza, 2014a). For this collaboration to be successful there must be trust among the learners and every member of the group must be accountable for his/her action and work professionally for the success of every student and the school. It is from this view that Hargreaves (2003) has explained that teachers are not deliverers but “Developers of learning”.

The principal and the school management team must facilitate the process of working together and sharing of information within each team and between teams (Steyn, 2014b). It is this process of collectively working together and sharing which will, if well practiced, develop collective learning – what Hunter (2013) called “collective intelligent”. Teach-net (2014) has explained that communities of learners implant curiosity in the students’ minds. As they get older they want to know more about what they learned previously, current events, and new things. According to teach-net, in a community of learners, students learn from what the teacher teaches and also from what they observe - the teacher is a role model for the students.

2.3 Share values and visions

Share values and visions is another component of building a professional learning community. A PLC should have a vision and shared values within the institution (Bullough, 2000; Maddin, 2013). Hunter (2013) has argued that a good vision deal with change and encourage faith and hope in the organization. It is the vision that guides the organization in decision making. A good vision should not be imposed (Hord and Rutherford, 1998 & Isaacson and Bamburg, 1993). Learning organizations establish good supportive relations and develop norms and values that promote the development of the institution (Fullan, 1995). Through sharing guided by a good vision and shared values, a community is gradually built on trust and this promotes the development of PLCs (Steyn, 2014a; Nkengbeza, 2014a). According to Fulton and Britton (2010) shared vision and values are crucial for the establishment of an effective community of learners.

2.4 Supportive conditions

Supportive conditions are another core component that makes PLCs function and be sustained. Without supportive conditions, PLCs will be short-lived and ineffective. These supportive conditions include structures and relationships (Hord and Rutherford, 1998; Steyn, 2014a & b). Structural supportive conditions include for example a place and time to meet, teacher’s empowerment, school policies, a good communication process, appropriate technology and materials for teachers (Olivier, Antoine, Cormier, Lewis, Minckler, & Stadalis, 2009; Steyn, 2014b). Relationship supportive conditions include a caring relation among the students and staff, and for this to be effective teachers should be ready to genuinely receive feedback from their peers (Nkengbeza, 2014a; Steyn, 2013 & 2014b). Morrow (2010) has stressed the importance of establishing an effective supportive condition system that will lead to the establishment of a collegial atmosphere in the school which will in turn promote the development of PLCs.

2.5 Share personal practice

Share personal practice is another core component that helps teachers to discuss key issues with peers and exchange good practices, but this depends on mutual respect and understanding within the group or institution (Nkengbeza, 2014a). Every school system must therefore provide an opportunity for teachers and other stakeholders to learn and develop through seminars and other development meetings that give the opportunity for teachers and others to share and learn from each other (Bezzina, 2006). It is important to note that, for the core component to effectively work together there must be a genuine collaboration among all the stakeholders that aims at student learning. There must also be genuine accountability, continuous enquiry guided by a purpose and focus vision, and supported by genuine communication, trust and good relation among all the stakeholders in the institution (Nkengbeza, 2014a).

3. METHODOLOGY

This research was conducted using a quantitative research method. Quantitative research aims to describe the tendency (predict) or explain the relationship between variables (Muijs, 2011; Creswell, 2008; Gay, 1987). This type of research deals with data in the form of numbers and uses “mathematical operations to investigate properties” (Walliman, 2011). Quantitative research’s main aim for example survey includes: to “measure, make comparisons, examine relationships [and] make forecasts, explore, control, and explain” (Walliman, 2011).

3.1 Selection of the schools

Of the three sampling methods that are usually used in research (convenient sampling, judgement sampling, and theoretical sampling [Marshall, 1996]), convenient and judgement samplings were used to select the schools. Convenient sampling was used to select the case municipality because the

researchers were living in that municipality, and had access to the email list of principals of various schools. The researchers were also acquainted with some of the principals in the municipality because they had worked with them in the past. Judgement sampling was also used because the municipality was selected to represent a typical middle size Finnish municipality with 140 000 inhabitants. The first grammar school in Finland was started in the case municipality in 1858. This municipality has been the centre of educational development in Finland since 1863, when the first teacher training school was started (Frederickson, 2002; Salminen, 1995).

The researchers’ target of the schools’ sample was 25 comprehensive schools. There are 44 comprehensive schools in this municipality and in order to select the 25 schools, we decided to give the questionnaire to all the 44 schools and to select the first 25 schools that returned the questionnaire within three weeks. We received questionnaires from 18 schools after extending the period to one month.

Targeted number of schools = 25

Targeted number of teachers = + or – 470

Targeted number of principals = 25

Total number of targeted teachers and principals = 495

The actual number of schools that responded to the questionnaire was 18, with 79 teachers and 26 principals and vice principals. The total number of respondents was 105.

3.2 Data collection method

The data was collected using questionnaires because we wanted to establish teachers’ and principals’ perceptions of their schools as PLCs. The electronic questionnaires were sent by e-mail to all comprehensive school principals in the municipality and every principal then delivered the questionnaires to all teachers in his/her school. In Finland the electronic questionnaire is a common data collection system (Kanervio & Risku, 2009). The questionnaire was translated into Finnish because Finnish is the native

language in Finland and understood by all teachers in the case municipality.

The questionnaire

The questionnaire was derived from the core components of PLCs and it consisted of two main sections. Respondents were asked to read each statement carefully and use the scale (Likert Scale from 1 to 4 (Scale: 1. = Strongly Agree [SA], 2. = Agree [A], 3. = Disagree [D], and 4. = Strongly Disagree [SD]) to select his/her degree of agreement. Section 'A' of the questionnaire was sub divided into three main subsections: gender, age group and teacher's position in each school. Section 'B' consisted of the core components of PLCs: shared supportive leadership, collective creativity, shared values and vision, supportive conditions – relations, supportive conditions – structures, shared personal practice and additional statements. The additional statements component is not used in this article. The return rate was low (105). The questionnaire had to be sent through principals because the education office did not supply the email addresses of the teachers. The time the questionnaire went out was one of the busiest in the school year. Due to the above mentioned reasons, some of the principals protected their teachers and did not deliver the questionnaire to all the teachers in their institutions.

4. DATA ANALYSIS AND PRESENTATION OF FINDINGS

The data was analysed using a statistical package for social science (SPSS) program which is the most common statistical analysis software in educational research (Muijs, 2011). Many quantitative researchers use this program to perform complex data manipulation with reliable results. SPSS emanated from positivist tradition and it is associated with large scale research (Cohen, Manion, & Morrison, 2011). The results of the variables in this research are given in percentage form as shown in section 'B'

below. The analysis is presented from figure two to nine below. Due to the fact that the online data collection did not identify the different schools, the analysis is done for all the respondents.

The Cronbach's Alpha was between 0.70 and 0.90 in all the core components. This was calculated using Kaiser's measuring of sample adequacy (MSA), and the index range is from 0 to 1 (Hair et al, 1998). This measure was interpreted as follows:

- ≥ 0.80: meritorious (excellent)
- ≥ 0.70: middling (moderate)
- ≥ 0.60: mediocre (average)
- ≥ 0.50: miserable (inadequate)
- < 0.50: unacceptable (Hair et al.,

1998).

The Cronbach's Alpha for each component was as follows: Shared supportive leadership - 0.89, collective creativity - 0.90, shared values and vision - 0.89, shared personal practice - 0.85, supportive conditions – relationships - 0.72, supportive conditions – structures - 0.70. The additional statements supporting PLCs section is not useful in this article and it has been left out. Section "A" of the questionnaires contained personal information: gender, age group and teacher's position in the school. This data is not need in this article and has not been used.

4.1 Section 'B' of the questionnaire

Section 'B' of the questionnaire consisted of the respondents' evaluation. The evaluation was done using a four-point Linker Scale as follows: 1 = Strongly Disagree (SD), 2 = Disagree (D), 3 = Agree (A) and 4 = Strongly Agree (SA). There were statements under the following core components of PLCs.

- Shared supportive leadership
- Collective creativity
- Shared values and vision
- Supportive conditions – relationships
- Supportive conditions – structures
- Shared personal practice

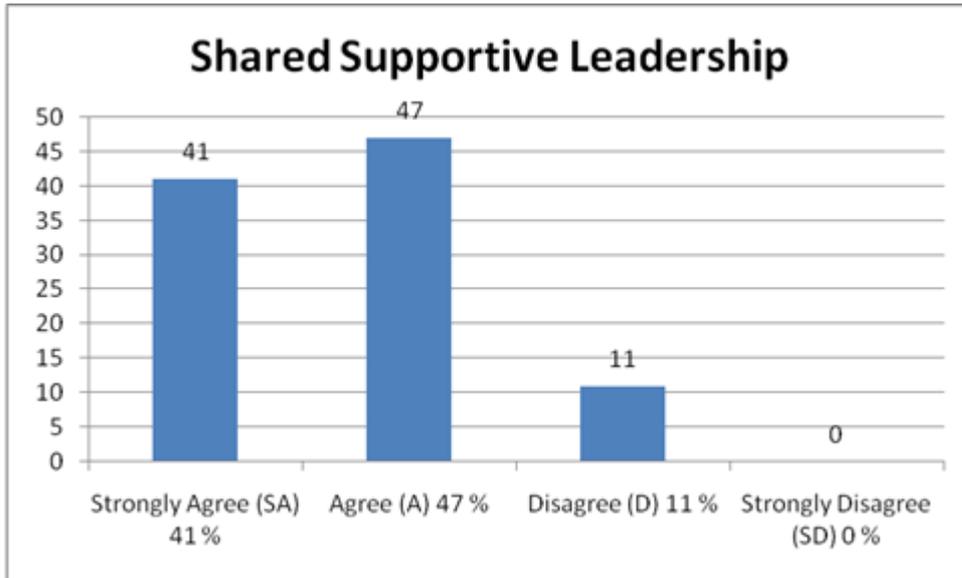


Figure 1: Shared supportive leadership

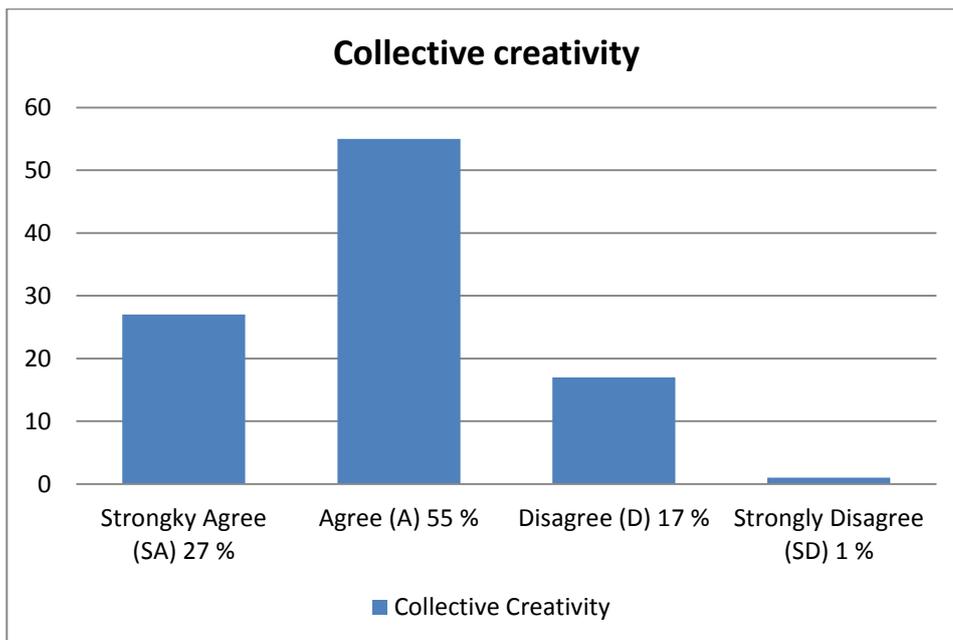


Figure 2: Collective creativity

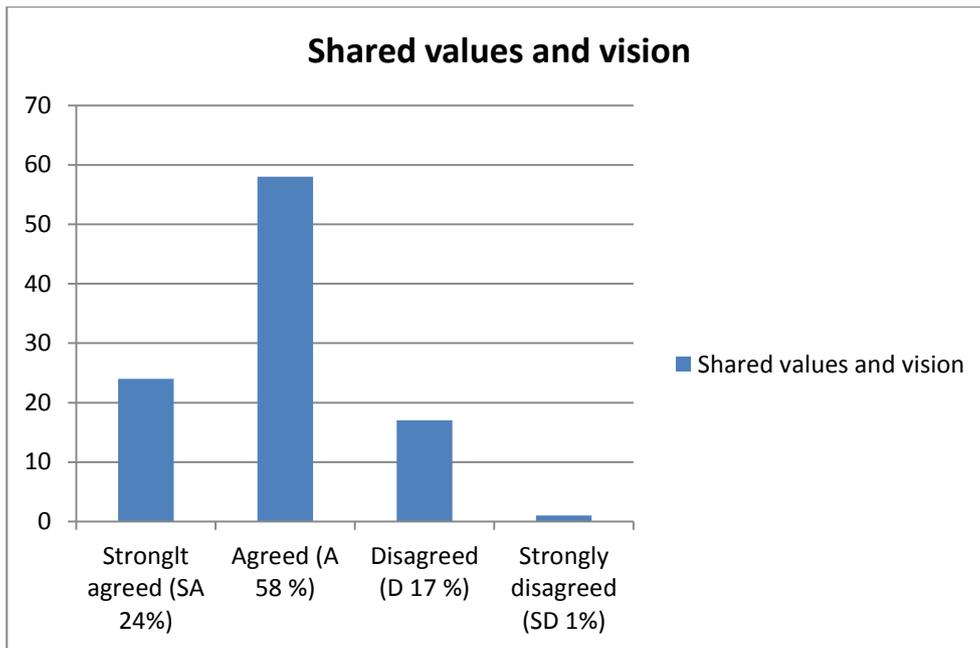


Figure 3: Shared values and vision

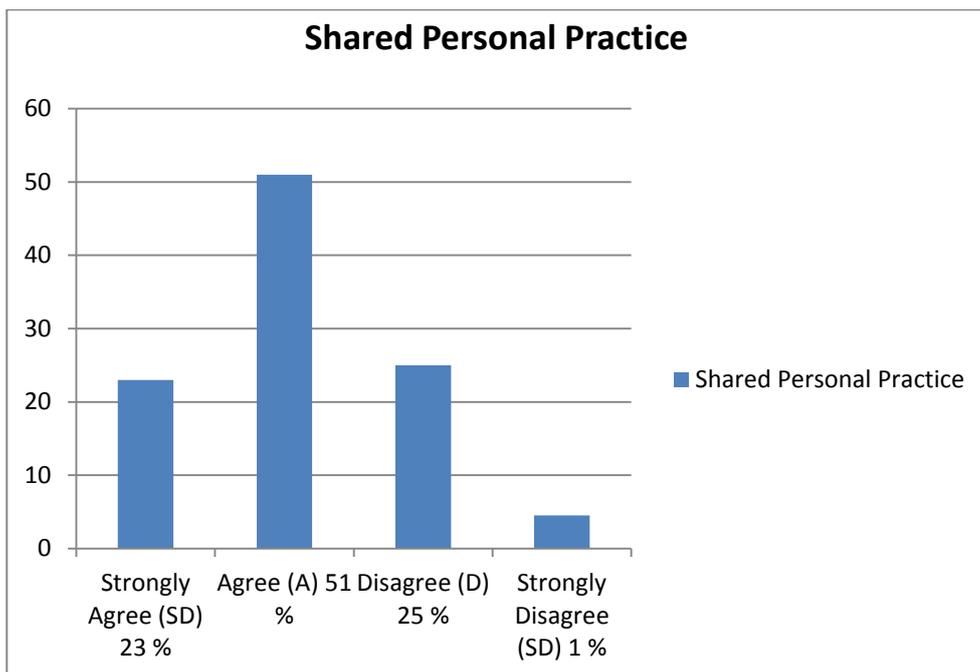


Figure 4: Shared personal practice

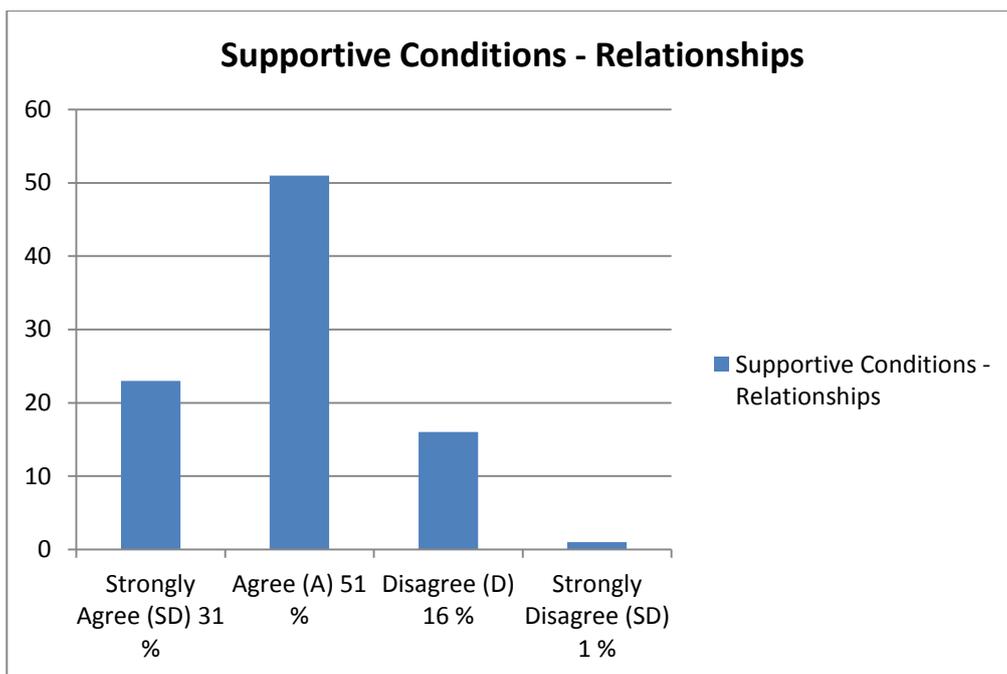


Figure 5: Supportive conditions - relationships

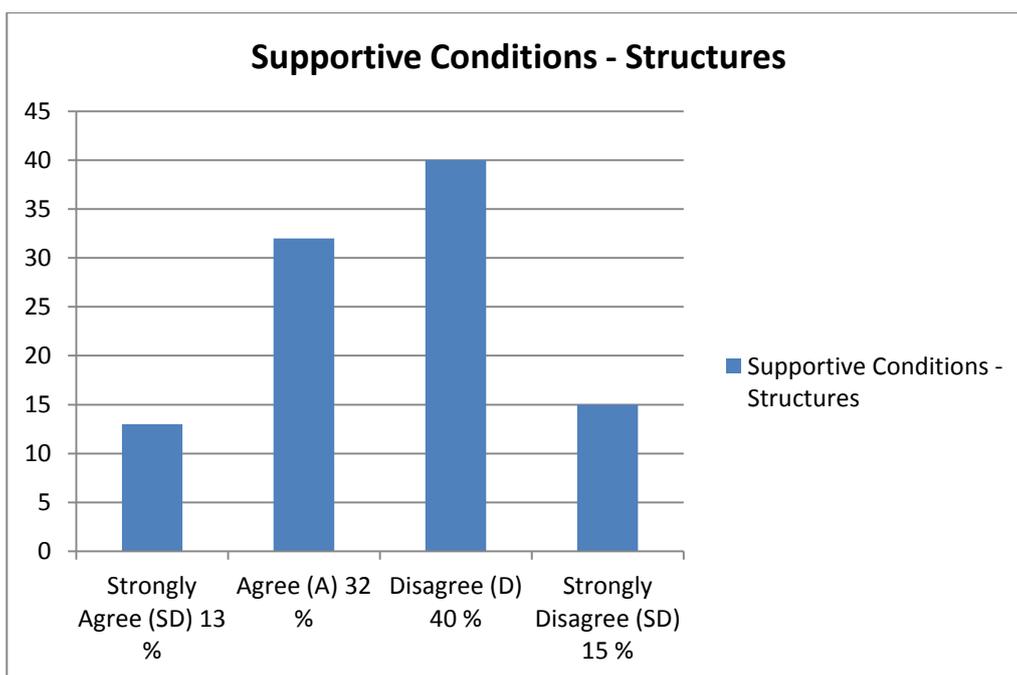


Figure 6: Supportive conditions – structures

4.2 Discription of findings

The findings from this research are as follows:

- Shared supportive leadership is very strong in these schools. The highest number of respondents, 47 percent, ‘agreed’ on

the shared supportive leadership statements. Fourty one (41) percent of the respondents ‘strongly agreed’ on the statements on how the leadership is shared and supportive in their school. Only 11 percent of the respondents ‘disagreed’ on the shared supportive leadership statements and

no respondents 'strongly disagreed' on the leadership statements.

- Collective creativity is also very strong among the components with 55 percent of the respondents who 'agreed' on the statements on collective creativity in their schools. Twenty seven (27) percent of the respondents 'strongly agreed' with the statements, while 17 percent 'disagreed' and only one percent of the respondents 'strongly disagreed'.

- Shared values and vision component was also outstanding. While 58 percent of the respondents 'agreed' with the statements on shared values and vision, 24 percent 'strongly agreed' and only one percent 'strongly disagree'.

- Shared personal practice is also highly practiced by teachers in the selected schools. While 51 percent of respondents 'agreed' on the statements on shared personal practice, 23 percent 'strongly agreed'. Only 25 percent and one percent 'disagreed' and 'strongly disagreed' of the statements on shared personal practice respectively.

- Supportive conditions – Relationships was also very strong as a key component. While 51 percent of the respondents 'agreed' on the supportive conditions - relationships statements, 31 percent 'strongly agreed'. Only 16 percent and one percent of the respondents 'disagreed' and 'strongly disagreed' respectively.

- Surprisingly, supportive conditions – Structures was the weakest of all the components. The highest number of respondents (40 percent) in this section disagreed with the statements. While 32 percent 'agreed' with the statements, only 13 percent 'strongly agreed', and 15 percent 'strongly disagreed'.

5. DISCUSSION

This study has offered us an opportunity to see how the teachers and principals of the selected comprehensive schools in one municipality assess their schools as PLCs. Looking at the general assessment through the lenses of the conceptual framework of PLCs ('shared supportive leadership, collective creativity, shared values and vision, and supportive conditions – [relationships & structures], shared personal practice') this study has shaded more light on Finnish schools as PLCs. It is from this view of Finnish educational development that Sahlberg (2007) has explained that;

Sustainable political and educational leadership has enabled Finnish schools and teachers to concentrate on developing teaching and learning as they best see it to be needed. Teachers in Finland have been given professional freedom to develop pedagogical knowledge and skills related to their individual needs. The focus of professional development programs has shifted to meet authentic demands and expectations of schools and individuals. Sahlberg (2007)

The respondents who 'strongly agree' and those who 'agree' were 82 percent or more in four of the six core components.

- Shared supportive leadership was the highest with 88 percent
- Collective creativity had 82 percent
- Shared values and vision had 82 percent
- Supportive conditions – relationships had 82 percent
- Shared personal practice was the last but one with 74 percent
- Supportive conditions – structures was at the bottom with only 45 percent

Implication of the study: While this study has shed more light on the views of many writers like Sahlberg (2010), Bloodworth (2013) and Darling-Hammond (2010) on the success of Finnish schools, the study findings

however point out “shared supportive leadership, collective creativity, shared values and vision, and supportive conditions – relationships” as the high performing components within this measuring framework. Teachers and principals in this study have questioned the existence of enough ‘supportive conditions – structures’ in the selected schools. This study revealed that the majority of the respondents (65 percent) both ‘disagreed’ (40%) and ‘strongly disagreed’ (15%) with the statements on supportive conditions – structures. While only 13 percent of the respondents ‘strongly agreed’ with the statements; 32 percent ‘agreed’ with the statements on supportive conditions - structures. This section needs more attention and it does add to the warning signs of future challenges identified in these 18 schools. While only 8 percent of the teachers are under 35, 25 percent are above the age of 55.

It should be noted that the data was collected during schools restructuring period in Finland. Since 1995, Finland has witnessed a period of education restructuring; a period that witnessed the merging of schools due to the shrinking population, a period where schools have been given more local autonomy (Antikainen 2006).

Limitations, validity of this research, and suggestions for further research

Data collection: The data was collected using an online questionnaire. Due to the principle of anonymity of the respondents, we decided not to ask the respondents the names of their school. This has made it impossible for us to know how many respondents were from each school. The number of respondents is also very small. The findings cannot be generalised to its municipality or Finland because of this small respondent number. This research is however valid as the topic is very current, correct procedures were followed during the data collection and ethical issues were

observed. Even though the questionnaire return rate is low, it is above 10 percent which is acceptable.

Suggestions for further studies: It is noted that this study was done in 18 schools in one municipality in Finland. It will be a good idea to repeat the study in all the schools in this municipality and also in other municipalities in Finland so that we can see if the findings will be similar – after all, the Finnish society is “homogenous” (Darling-Hammond, 2010).

It is also suggested that in future studies, the time that the questionnaire is administered should be looked into because there are times that teachers are very busy. It may also be suggested that the questionnaire be email directly to the teachers or the principals be reminded constantly to forward the email to their teachers. Data from principals, teachers and different schools should be differentiated during collection so as to make a detailed analysis possible. Sending questionnaires through emails should also be considered carefully because either many teachers did not open their email boxes within the time period, or the emails went to spam mails and were never seen.

6. CONCLUSION

It can therefore be concluded from this study that assessing schools as PLCs, using the lenses of the conceptual framework of PLCs by teachers and principals is another school assessment strategy at various levels like school and municipalities in the Finnish context. The study has shown how teachers and principals in the selected schools in one municipality assess their schools - showing their approval with the majority of the components, and their expression of the limited “supportive conditions – structures” in their schools. It is a wake-up-call for the school leadership and other stakeholders in these schools to start looking for other strategies to improve these structures in their schools. It is our wish that this article will help to stir up

debate in educational leadership and also inspire educational leaders to ask questions like “From the teachers’ and principals’ school-assessment questionnaire, in which areas do teachers need more support?”

This assessment is an integral part of every education institution. It touches school leadership, collective learning, vision, supportive conditions and shared personal practice. Today the changes taking place in the education environment and the job market are enormous, and our schools need to change to adapt to these

changing situations. If we see our teachers and principals as professionals who are training our next generation, we must listen and support them, so that they can better lead and teach our next generation better. This PLCs assessment questionnaire is one way of investigating how our educators feel about their schools. It is our view that this article will give our educators the opportunity to reflect on how we can reform our school as PLCs, and build communities of learners in every school.

6. REFERENCES

- Antikainen, A. (2006). In Search of the Nordic Model in Education. *Scandinavian Journal of Educational Research* 50, (3), 229-243.
- Bausmith, J. M. & Barry, C. (2011). Revisiting professional learning communities to increase college readiness: The importance of pedagogical content knowledge. *Educational researchers* Vol.40, No.4, 175-178. DOI: 10.3102/0013189X11409927
- Bezzina, C. (2004). Towards the learning community: A Maltese Experience. *International Journal of Educational Management*, 18(7), 446–456. <http://www.emeraldinsight.com/Insight/ViewContentServlet?Filename=Published/EmeraldFullTextArticle/Articles/0600180706.html>
- Bezzina, C. (2006). “The road less travelled”: Professional communities in secondary schools. *Theory into Practice*, 45(2), 159–167.
- Bloodworth, J. (2013). Why is the Finnish school system so good? | Left Foot Forward <http://leftfootforward.org/2013/12/why-is-the-finnish-school-system-so-good/>
- Bolam, R., McMahon, A., Stoll, L., Thomas, S., Wallace, M., Greenwood, A., Hawkey, K., & Ingram, M. (2005). Creating and sustaining effective professional learning communities (National College for School Leadership. Research Report RR637).doi: ISBN 1 84478 460 6
- Botha, E. M. (2012). Turning the tide: creating Professional Learning Communities (PLC) to improve teaching practice and learning in South African public schools. *Africa Education Review*. Vol. 9, Iss. 2
- Bullough, R. V. Jr. (2007). Professional learning communities and the eight-year study. *Educational Horizons*, 85(3), 168–180.
- Burns, N. & Grove, S. K. (2005). *The practice of nursing research: Critique and utilization* (5th Ed), St. Louis, Elsevier Saunders
- Cohen, L., Manion, L., & Morrison, K. (2011). *Research Methods in education* seven edition. London, Routledge.
- Creswell, J. W. (2008). *Educational Research. Planning, Conducting, and Evaluating Quantitative and Qualitative Research*, 3rd edition. New Jersey: Pearson Prentice Hall.
- Darling-Hammond, L. (2010). What we can learn from Finland’s successful school reform. National education association: Great public schools for every student. <http://www.nea.org/home/40991.htm> exploration. Southwest Educational Development Laboratory.

- Ellis, S.M. & Steyn, H.S. (2003). Practical significance (effect sizes) versus or in combination with statistical significance (p-values), *Management Dynamics*, 12(4): 51-53.
- Encyclopaedia of the nations, (2011). Primary education, teachers (% female) gender statistics. <http://www.nationsencyclopedia.com/WorldStats/Gender-primary-education-teachers.html>
- Enterprise, Finland (2015). Municipalities and local government. https://www.suomi.fi/suomifi/english/state_and_municipalities/municipalities_and_local_government/index.html
- Frederickson, E. (2002). Lyseotalon vuosisata: Jyväskylän lyseon päärakennuksen jaopinkäynnin vaiheita 1900-luvulla. E. Frederickson ja Jyly ry.
- Fullan, M. (1995). The school as a learning organization: Distant dreams. *Theory into Practice*, 34(4), 230–236.
- Fulton, K. & Britton, T. (2011). *STEM Teachers in Professional Learning Communities: From Good Teachers to Great Teaching*. Washington, DC: NCTAF.
- Gay, L. R. (1987). *Educational Research: Competencies for Analysis and Application*, 3rd edition. Columbus: Merrill Publishing Company.
- Gephardt, M. A., & Marsick, V. J. (1996). Learning organizations come alive. *Training and Development*, 50(12), 34–46.
- Hargreaves, A. (2003). *Teaching in the knowledge society*. Buckingham: Open University Press.
- Harris, A. (2013). What's new, what's good, and what's effective in education around the world. *International education news*. <http://internationalednews.com/2013/05/18/professional-learning-communities-and-collaboration/>
- Hord, S. M. (2003). *Professional learning communities: Communities of continuous inquiry and improvement* (reprint). SEDL: Southwest Education Development Laboratory <http://www.sedl.org/pubs/change34/plc-cha34.pdf>
- Hord, S. M. (1997). Professional learning communities: What they are and why they are important (revised). *Issues about Change*, 6(1), 1–8.
- Hord, S. M., & Rutherford W. L. (1998). Creating a professional learning community: Cottonwood Creek School. *Issues about Change*, 6(2).
- Hunter, J. (2013). Professional learning communities. <http://johunter.pbworks.com/f/PLC.pdf>
- Isaacson, N., & Bamberg, J. (1992). Can schools become learning organizations? *Educational Leadership*, 50(3), 42–45.
- Kanervio, P. & Risku M. (2009). Tutkimus kuntien yleissivistävän koulutuksen opeustoitimenjohtamisen tilasta ja muutoksista Suomessa. Helsinki: Opetusministeriön julkaisu 2009:16.
- Lee, V.E., Smith, J.B. & Croninger, R.G. (1995). Another look at high school restructuring. *Issues in restructuring schools*. Madison, WI: Centre on Organization and Restructuring of Schools, School of Education, University of Wisconsin-Madison.
- Maddin, E. (2013). Using wikis to extend and transform professional learning communities. <http://nkutech4k12transformation.pbworks.com/f/PLCWikis.pdf>
- Marshall, M. N. (1996). Sampling for qualitative research. *Family Practice* Vol. 13, No. 6. Oxford University Press
- Morrissey, M. S. (2000). Professional learning communities: An on-going exploration. Southwest Educational Development Laboratory. <http://www.allthingsplc.info/files/uploads/plc-ongoing.pdf>
- Morrow, J. (2010). Teachers' perceptions of professional learning communities as opportunities for promoting professional growth (Doctoral dissertation, University of North Carolina, 2010). <https://mailattachment.googleusercontent.com/attachment/u/0/?ui=2&ik=061b2c1fc4&view=att&th=13d6cd4d022e21b2&attid=>

0.1&disp=inline&safe=1&zw&saduie=AG9B_P_nd5YpR2jJXPz3Vvn_qfSv&sadet=1363601111990&sads=MUpUzPrxNChCvp2TqPaFGH8eQgU&sadssc=1

Muijs, D. (2011). *Doing Quantitative research in Education with SPSS*, 2nd edition. Thousand Oaks, CA: Sage Publications Inc.

Mullen, C. A., & Kochan, F. K. (2000). *Creating a collaborative leadership network: An organic view of change*. *International Journal of Leadership*

Nkengbeza, D. (2014a). *Building a professional learning community in a conflict and post-conflict environment: a case study of a high school in Liberia* (Doctoral dissertation, University of Jyväskylä, Jyväskylä, Finland). https://jyx.iyu.fi/dspace/bitstream/handle/123456789/42773/978-951-39-5552-6_vaitos17012014.pdf?sequence=1

Nkengbeza, D. (2014b). *School leadership tools in preventing student dropout in one Finnish school*. In *Mind the gap: creating social justice through education policy* (Kanervio, Pulkkinen & Halttunen, eds). Jyväskylä, University of Jyväskylä printing house.

Nkengbeza, D. (2009). *Professional learning communities: A comparative study of Finland and Cameroon*. Jyväskylä: University of Jyväskylä.

OECD, (2010). *Finland: Slow and Steady Reform for Consistently High Results. Strong performance and successful reforms in education: Lessons from PISA for the United States*. OECD Publishing. <http://www.oecd.org/pisa/pisaproducts/46581035.pdf>

Olivier, D. F., Antoine, S., Cormier, R., Lewis, V., Minckler, C., & Stadalis, M. (2009).

Assessing schools as professional learning communities' symposium. Paper presented at the annual meeting of the Louisiana Education Research Association, Lafayette. Retrieved from http://ullresearch.pbworks.com/f/Olivier_Assessing_PLCS_

[Symposium_-_PLCA-R_Introduction.pdf](#)

Partanen, A. (2011). *What Americans keep ignoring about Finland's school success*.

<http://www.theatlantic.com/national/archives/2011/12/what-americans-keep-ignoring-about-finlands-school-success/250564/>

Sahlberg, P. (2010). *The Secret to Finland's Success: Educating Teachers*. Retrieved from Stanford Centre for Opportunity Policy in Education ~ Research Brief website: <https://edpolicy.stanford.edu/sites/default/files/publications/secretfinland%E2%80%99s-success-educating-teachers.pdf>

Sahlberg, P. (2007). *Education policies for raising student learning: the Finnish approach*. *Journal of Education Policy*, 22(2), 147-171. DOI: 10.1080/02680930601158919

Salminen, J. (1995). *Yksityiskoulujen historia 1872-1977*. Helsinki: Painatuskeskus.

SEDL, (2014). *Statewide Use of Professional Learning Communities*. http://secc.sedl.org/orc/ir/ir_01141.pdf

Senge, P. (1990). *The fifth discipline: The art and practice of the learning organization*. London: Doubleday.

Steyn, G. M. (2014a). *Comparing the status of a professional learning community in two South African inviting primary schools*, *Pensée Multidisciplinary Journal*. May, 76(5): 323 –341

Steyn, G. M. (2014b). *Exploring the status of a professional learning community in a South African primary school*, *Pensée Multidisciplinary Journal*, 76(5):256-269.

Steyn, G. M. (2013). *Building professional learning communities to enhance continuing professional development in South African schools*. *Anthropologist*, 15 (3): 277-289

Teach-net, (2014). *How to build a community of learners*. <http://www.teachnet.org/ntny/nychelp/build.htm>

Vescio, V., Ross, D., & Adams, A. (2008). *A review of research on the impact of professional learning communities on teaching practice and student learning*.

Teaching and Teacher Education, 24(1), 80-91.

Walliman, N. (2011). Research methods: the basics. New York, Routledge

Webb, R., Vulliamy, G., Sarja, A., Hamalainen, S. & Poikonen, P. (2009). Professional learning communities and teachers well-being? A comparative analysis of primary schools in England and Finland. *Oxford Review of Education*, 35:3, 405-422, DOI: 10.1080/03054980902935008