

**COMUNIDADES DE APRENDIZAGEM PROFISSIONAL COMO
ESTRATÉGIA DE LIDERANÇA NA GESTÃO ESCOLAR DO SÉCULO XXI**

**COMUNIDADES DE APRENDIZAJE PROFESIONAL COMO ESTRATEGIA DE
LIDERAZGO EN LA GESTIÓN ESCOLAR DEL SIGLO XXI**

**PROFESSIONAL LEARNING COMMUNITIES AS A LEADERSHIP STRATEGY
IN THE 21ST CENTURY SCHOOL MANAGEMENT**

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RESUMO: O presente artigo objetiva apresentar uma discussão teórica sobre o conceito de Comunidade de Aprendizagem Profissional (CAP), do inglês Professional Learning Community, e relacioná-lo à proposta de um modelo de gestão escolar focada no desenvolvimento profissional docente em consonância com as demandas do século XXI. Este artigo aborda também um estudo de caso, a partir de uma abordagem qualitativa, que buscou analisar a gestão escolar na manutenção de uma CAP em duas escolas na Finlândia⁵. Como conclusão, aponta-se para a necessidade de realização de pesquisa aplicada em escolas no Brasil para implantação e estudo dos resultados, partindo da hipótese de que uma CAP atende às demandas para um modelo de gestão escolar que pode empoderar a equipe de professores, promover o bem-estar destes, oportunizar aprendizagens ao longo da vida e conseqüentemente melhorar a qualidade de aprendizagem dos alunos.

PALAVRAS-CHAVE: Comunidade de Aprendizagem Profissional – CAP. Desenvolvimento profissional docente. Gestão escolar.

RESUMEN: *El presente artículo objetiva presentar una discusión sobre teoría de la Comunidad de Aprendizaje Profesional - CAP, del inglés Professional Learning Community, y relacionarlo a una propuesta de modelo de gestión escolar enfocada en el desarrollo profesional docente en consonancia con las demandas del siglo XXI. Esta investigación, de enfoque cualitativo, es un estudio de caso que busca una gestión de la educación en la gestión de una CAP en dos escuelas en la ciudad de Hämeenlinna, en Finlandia. Este estudio inicial apunta para la necesidad de realización de una investigación aplicada en escuelas en Brasil para implantación y estudio de los*

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resultados, y parte de la hipótesis de que una CAP atiende a las demandas de un modelo de gestión escolar que pueda empoderar a los profesores, promover el bienestar, crear oportunidades de aprendizaje a lo largo de la vida y consecuentemente mejorar la calidad del aprendizaje de los alumnos.

PALABRAS CLAVE: *Comunidad de Aprendizaje Profesional - CAP. Desarrollo profesional docente. Gestión escolar.*

ABSTRACT: This paper aims to present a theoretical discussion about the concept of Professional Learning Community (PLC) and to relate it to the proposal of a school management model, focused on the teacher professional development aligned with the demands of the 21st Century. This paper also represents a case study which analyses the school management regarding the maintenance of a PLC in two schools in Finland. This initial study points to the need of carrying out an applied research in schools in Brazil so that implementation and its assessment can be done, beginning with a hypothesis that a PLC meets the demands for a school management model that can empower teachers, promote staff well-being, provide lifelong learning opportunities and consequently improve the quality of students' learning.

KEYWORDS: Professional Learning Community. Teacher professional development. School management.

Introduction

There have been many discussions about Education in the 21st Century and its implications upon school management and lifelong learning, as we have been urging for more sustainable ways of learning, developing and administrating schools. In the end of 1996, UNESCO published an important guiding document, a report written by Jacques Delors and his team, which approaches the four pillars of learning: learning how to be, learning how to do, learning how to know and learning how to live together (DELORS, 1996). The document argues the importance of learning as an integration of those four dimensions. Learning should be aligned with social demands, technological progress and the way society is economically organized since it determines the production models and reflects the world of work needs.

As social demands are intensified in many fields, they are also intensified in all education sectors. That is the reason there is a claim for school management models that entail features of innovation, sharing and collaboration. New school management models have emerged from the so-called New Public Management (ARAÚJO; CASTRO, 2011), which influenced all public services, including education. Such models appear as a way of overcoming less flexible productive models moving towards

the improved ones that follow contemporary trends and make imperative changes. In this perspective, a school may be seen as a business and the student as a client, whose individual needs must be taken into account. A negative aspect of these models is that education can be seen as commercial endeavor, transferring a large portion of the State's responsibility to the education professionals. Nevertheless, with this decentralization process, there may be a gain when it comes to social service optimization, reorienting quality standards, which should be higher regarding infrastructure, professional development and relationships.

On one hand, there are those who advocate the State's responsibility should promote the whole society's well-being and guarantee a high-quality education for all. On the other hand, there are those who think that in a more advanced neoliberal model, everyone should supposedly have "freedom" to trade and select a public or private education model, and to try new models, even if it intensifies the education professionals' workload, yet brings more "quality".

A more dynamic and sustainable education system exempts the State's responsibility in many aspects and puts it on individuals. This last perspective often meets resistance and may bring a predisposed negativism that can block improvement efforts.

Endorsing sustainable school management models does not mean a compliance with injustices from the capitalistic system, but seeks more optimistic ideas in a critical and transparent way, unmasking a so-called neoliberal freedom. The Brazilian educational system has been pressing needs of approaches and models that promote the creation of a solid base, with learning for all and teachers' well-being, since these interfere in the students' learning and productivity; this attained through a more collaborative and less individualistic work.

In this context, the Professional Learning Community (PLC) approach emerges as a proposal for a more sustainable school management model, focusing on the creation and strengthening of a teaching community composed by important elements that achieve sustainability, such as collaboration, focus on learning, integration and shared leadership. In this paper we will discuss about four topics related to PLC; the concept of PLC, the relation with leadership and school management in the 21st Century, PLC and its relation with continuing teacher development and, finally, in the last topic, two cases of a PLC in Finland, in Hämeenlinna city, will be presented and analyzed under the theory argued in this paper.

The concept of Professional Learning Community

The concept of Professional Learning Community PLC has no single definition as it has been used in many professional sectors, not only in Education. When defining the term, Bolam et al (2005) argues that

Professional Learning Community may have shades of interpretation in different contexts, but there appears to be broad international consensus that it suggests a group of people sharing and critically interrogating their practice in an ongoing, reflective, collaborative, inclusive, learning-oriented, growth-promoting way (Toole and Lewis, 2002); operating as a collective enterprise (King and Newmann, 2001).

In many institutions and companies, from many sectors, PLC is used as a strategy of sustainable development, since, as Bolam et al (2005) points out it is continually growth-promoting. Many authors discuss the concept of PLC. In this paper, we bring Bolam et al (2005), Dufour et al (2006), Hord (2004, 2009), Stoll et al (2006), Webb et al (2009) to discuss it. Besides its continuous growth, a PLC has to do with collaboration and dialogical attitude. In school level research it refers to teachers' professional learning communities and it is sometimes expanded to relationships with students and their families. In this paper we focus on teachers' professional learning communities. Although there are many interpretations and definitions to PLC, there are some common understandings. The main one is related to the focus on students' learning, which necessarily involves teacher learning and continuous improvement; that is lifelong learning.

Aligned with Bolam and his team's study, Dufour et al (2006) points to the notions associated to the concept of PLC in the educational field, which can be summarized as 1. focus on learning, 2. collaboration culture with focus on learning for all (students and education professionals), 3. collective inquiry of the best pedagogical practices and trends; 4. action-oriented learning; 5. commitment to continuous improvement; 6. focus on results. The author explains that the core of a PLC is the responsibility for students' learning. Investing in lifelong learning as a professional commitment is a condition. Moreover, it is necessary to build a shared vision about education, school, learning and their role. A shared collective vision strengthens community bonds.

Thus, Dufour (op. cit.) argues “structures are created to ensure staff members engage in job-embedded learning as part of their routine work practices (p. 3).” A collaboration culture is the key of the PLC proposal, since collaborative groups work interdependently. Hord (2009) defines Professional Learning Community with focus on the three words which compose it.

Professionals: Those individuals who are responsible and accountable for delivering an effective instructional program to students so that they each learn well. Professionals show up with a passionate commitment to their own learning and that of students, and share responsibility to this purpose. **Learning:** The activity in which professionals engage in order to enhance their knowledge and skills. **Community:** Individuals coming together in a group in order to interact in meaningful activities to learn deeply with colleagues about an identified topic, to develop shared meaning, and identify shared purposes related to the topic (p. 41).

The notion of teachers’ professionalism is also based on students’ profiles, in other words, to whom teaching is directed. Even though the word teaching is not mentioned, we understand that “instructional program” refers to the teaching practice, even though it is also linked to learning. Effective learning relies on different variables, such as teaching quality, students’ involvement and contextual conditions. Hord (2009) relates learning more to the professional aspect, but there are those who relate learning to all school levels, individual, collective, students and professionals, as Dufour (op. cit), for instance.

In a study review, Stoll et al (2006) and her team have brought up a significant contribution, since they gathered a range of arguments to discuss differences and concepts of PLC. According to them, the concept emerges from a variety of thoughts. Its essence comes up mainly from Dewey’s ideas, in the beginning of the 20th century, regarding the data provided by the educational practices, which constitute the essence of the investigation. In the late 20th century, other affiliated ideas, such as, Schon’s, about the reflexive practitioner, are related to the PLC concept. To explain the variety of notions that compose PLC term, Stoll et al (2006, p. 223) mentions several authors and their respective contributions:

A generation or so ago, Stenhouse (1975) argued that teachers ought to be school and classroom researchers and play an active part in the curriculum development process. Schon (1983) was influential in advocating the notion of the ‘reflective practitioner’. From the school-based curriculum development movement of the 1970s, a series of projects and activities emerged on the ‘thinking school’, ‘problem-

solving school' (Bolam, 1977) and, perhaps most notably, 'Creative School' (CERI, 1978). Later, in the 1980s, came the shift to the self-reviewing or self-evaluating school (McMahon; Bolam; Abbott; Holly, 1984).

It is noticeable that one cannot restrict notions to the concept, since it is not stable and has been currently acquiring new meanings, mainly with the advancement of new digital technologies and manners of school relationships. The PLC term composition denotes by itself a combination and relation of various concepts: community, professionalism and learning. In her review, Stoll et al (op. cit.) argues that the term has developed in a bilateral way. By learning community there is an understanding and by professional communities another one:

Most references to 'learning community' are related to learning through community service, ICT, HE and other community learning. 'Professional community' by contrast, is a body of research starting in the 1980s largely concerned with schools and departments as mediating contexts for teaching (Louis, Kruse & Bryk, 1995; Talbert, McLaughlin & Rowan, 1993). (STOLL, et al, p. 224)

Stoll et al (op. cit.) explains that the position of the word "learning", between professional and community, brings about a special meaning, since it conveys centrality to it. The centrality of learning in an organizational culture construction regards Senge's study (1990). This connection reveals the proximity between two different study areas which are school education, more specifically school management and teacher education, and organization management, as social applied science and the influence of the transferring of administration models from the private sector to public sector; which is a demand from the economic capitalist model with its necessities of more flexible standards, less centralized and more sustainable.

Senge (op.cit.) points out the need of breaking up with the illusion that the world is composed of independent forces. From that, according to him, it is possible to build learning organizations, which can help people achieve their goals and "...where people are continually learning how to learn together (p. 3)". That is the basis of a sustainable school management.

Professional Learning Community as a school leadership strategy in the 21st Century

A school management model based on the implementation and maintenance of a PLC has been used in many European countries and in the US. In the TALIS "*Teaching*

*Strategies for Instructional Quality*⁶ report, published every three months, a PLC formation has been pointed out as an effective leadership strategy. In this sense, the school administrator's posture and viewpoint is essential, since he/she provides models to a PLC accomplishment.

A PLC is considered as a leadership model which comprehends consistent actions towards the encouragement of a dialogical attitude and collaboration among teachers. A dialogical posture entails symmetry in interaction, active participation, letting go of egocentricity, engagement, reciprocity, open honest expression, and respecting oneself and others (AARNIO; ENQVIST, 2001). These are fundamental elements regarding a collaborative atmosphere construction. Hence, that may influence positively in their teaching practice. In TALIS (2013), school leadership is defined as the combination of instructional and shared leadership. The first one refers to the actions towards the improvement of teaching and learning practices; and the second one concerns the school leader capacity of involving school community participants in decision-making, what may contribute to a feeling of shared purpose and collective responsibility in students' learning.

The demand for new leadership models in school management, with more dynamic, flexible, shared and open strategies, is not disconnected from the political or economic aspects. Trends seem to be global. It is not a coincidence that the discussion about PLC comes up more intensively in the late 20th Century, becoming even more global in the early 21st Century.

Most of the transformations that occurred in the 20th Century are connected to the economic crisis brought on by the Welfare State, which was established in the post-war and by the need to overcome Fordist and Taylorist production models, which were considered inflexible and slow. Araújo e Castro (2011) elucidate that the New Public Management emerged as a way of looking for economic restoration and it pursued to overcome the bureaucratic model, embracing the business model vital elements, which entailed productivity, efficiency, efficacy in all sectors, including Education. Aligned with the demands for a new public management, new education trends arose established by international organizations, such as UNESCO.

⁶ TALIS (Estratégias de Ensino para a qualidade instrucional) é um relatório emitido a partir de uma avaliação realizada a cada três anos nos países credenciados pela OCDE – Organização para o Desenvolvimento e Cooperação Econômica, financiada pelos países membros, da qual o Brasil faz parte.

The Education for All World Conference, in Jomtiem/1990, Dakar Declaration of Education for All/2000 and the Education World Forum in South Korea/2015, organized by UNESCO along with UNICEF, The World Bank and other organizations; all those events highlighted the importance of improving quality of education and teacher development, which need to be led efficiently so the outcomes can be achieved. In consonance with those international actions, the leadership model proposed by the PLC expects lifelong learning in a sustainable way and may reduce costs with professional development, since responsibilities are shared. This may help countries' economic development in many ways. A cutting-edge idea is present when embracing the fact that a sustainable teacher professional development sways the quality of the education offered to the students.

UNESCO report on Education for the 21st Century, led by Delors (1996) is the basis of many guiding principles for learning and teaching processes and for school management, as well. It is possible to recognize its consonance with capitalism demands, for instance when it claims a pedagogical practice with emphasis on developing skills required by the world of work and highlights the imperative focus on lifelong learning – to respond to the world of work's dynamisms, especially with the advent of new technologies which are constantly changing and improving. From the teachers, it is expected that they learn how to learn, adapt to the frenetic rhythm of transformations produced by the economic development. Therefore, critical facts concerning this pedagogical thought that responds to capital interests cannot be denied. There is a strong tendency of teacher work intensification to achieve more participation, collaboration and leadership sharing. In Brazil, where compensation policies over the damages generated by the economic model are still unbalanced and income distribution is extremely unequal, some global trends presumed as innovative measures must be carefully adjusted to the context reality. Despite the critical facts related to the Brazilian context, new school management models are necessary, otherwise commitments made in international declarations are far from being achieved as old patterns related to old production models are still used.

Overcoming that, the Professional Learning Community implementation as a school management model may bring many advantages, as Webb et al (2009) explains, in which the teacher's work hours are carefully preserved, aiming at stress reduction caused by isolated work, turnover decreases and well-being is promoted as a result of collaborative work. It is possible to plan a variety of implementing and managerial

strategies for a PLC due to its open configuration, for instance, by setting a diagnostic assessment of its initial state, and establishing strengthening tactics, by using specific instruments that may facilitate its development. DuFour et al (2006) presents some instruments that can generate input to the implementation of the strategic plan. Inspired by his ideas, we can list some procedures, such as:

1. establishing initial school assessment – students’ results and achievements survey concerning learning, discipline, school service uses etc;
2. helping educators develop a common lexis of PLC’s key concepts;
3. negotiating the shared meaning of the school’s mission, visions, values and objectives;
4. planning strategies to observe students’ progress, to systematically intervene so that struggling students have support; and to foster collaboration among teachers;
5. organizing teachers into groups using specific criteria (e.g. cycle, digital platforms, specialization fields etc.);
6. organizing teachers’ working hours in order to make time for collaboration possible;
7. assessing results and taking them as data for the next steps and plans.

These are some basic procedures which must be systematically structured, planned and led from the instrumental and shared leadership fundamentals. Stoll (et.al., 2006) argues that shared leadership is a PLC feature. In this understanding, school administrators promote opportunities for teachers to take up leadership roles to improve teaching and learning processes. The leadership model adopted by the school leader is crucial and influences the school ethos. The established culture may focus on either procedures or people, according to Webb et al (2006): “Where teachers were most enthusiastic about their school’s supportive culture, they attributed this in large measure to the personality, values and actions of the headteacher (p. 409)”. The leader’s attitude, in this context, is determinant for the PLC promotion. The leader can create operations for schools to become learning organizations as professional learning communities for teachers, which according to Fullan (1996) needs ‘restructuring, reculturing, and retiming’ to be able to develop. By supporting the construction of PLCs for teachers, the leader can influence the whole culture by enabling teachers’ sense of competence, autonomy and collegiality, which may have an impact on teacher motivation. This can make drastic changes to their traditional teaching approaches (Lam, Cheng, & Choy, 2010). A dialogical and collaborative culture is first made feasible by the leader and presents itself as the basis for the teacher and other education professionals’ development.

PLC as a teacher professional development program

In spite of the multiplicity of notions and the lack of uniformity to the PLC definitions, we could state that it is not merely related to the tacit knowledge; more readily it comprehends a variety of efforts to foster teacher development, since it undertakes far more than just reflection in practice. There is, hence, a risk of comprehending a PLC as learning only by doing, in other words, learn by acting (disregarding theoretical input). That often happens due to the lack of consensus in literature.

Hord (2004) stresses that a learning community must search for new knowledge, and then apply and share it. Therefore, practical knowledge is not enough. Hord (2004) highlights the importance of studying and reading about new practices when building common new knowledge:

In professional learning communities, teachers and administrators are actively involved in a process of continuous learning. They are active in their own learning and are open to new ideas. Collectively they seek new knowledge and ways of applying that knowledge to their work (p. 20).

Collective learning and application of learning requires that school staff at all levels are engaged in process that collectively seek new knowledge among staff and application of learning to solutions that address students' needs (p. 7).

Aligned with Hord (op.cit.), Stoll (et.al., 2006) claims that an inquiry leadership helps promote a more reflexive culture and presents three features: 1. promote research and assessment in schools; 2. adopt a systematic collection, analysis and use of data to generate evidences; and 3. explore researches developed in a broader educational context. Therefore, consolidating a tendency of valuing research from the teaching practice. Teaching is a source of applied research.

Webb et al (2009), in a comparative study on PLC and the teacher's wellbeing, in elementary schools between England and Finland, points out some critiques made by teachers in relation to the former in-service teacher education models, which promoted short courses described as superficial and fragmented. The guidance from the Ministry of Education in Finland (2001), considering a PLC implementation combined with teacher education, is to promote a continuing professional development aligned with the teachers' community needs, planned and connected to the institutional development.

It is important to highlight that even though scientific knowledge-oriented learning may not seem a consensus in literature concerning PLC, it can be planned in a way that knowledge beyond mere action is guaranteed, avoiding that people get stuck in their daily school routine, consequently making decisions based on superficial ideas that tend to mislead minds. In an optimal situation, PLC operates as a learning environment for teachers, in which, according to Vermunt et al (2008), the most appropriate approach to teacher development is an integrated meaning oriented approach, where teachers combine new ideas with their current practice, think about the underlying reasons why things work as they work, and try to create their own personal theory of practice. Therefore, an implementation and maintenance program of a PLC must ponder studies, reading routine and applied research in Education.

Possible problems that may arise during implementing of a PLC must be taken into consideration, so that solutions to minimize them are possible. In that sense, Fullan and Hargreaves (2000), regarding the North-American education system, point out some problems such as: 1. teachers' work intensification, which has been getting even more drawn-out; 2. the isolation problem, which limits the access to new ideas and burdens inner stress; 3. the problem of "group thinking", which may contribute to good or evil, and it happens when people lose their capacity to individually produce valuable mindset changes for themselves and just follow the group to not disagree; 4. the problem of unexploited competence (and the neglected competence) – when good practices are unnoticed and bad practices are not adjusted; 5. the problem of limitation of a teacher's role (that might be a leadership problem), which happens when leadership is not shared – teachers tend to have their views limited to the classroom and the formal leaders limited to their administrative duties; 6. the problem of failed reform, which happens when there is not an institutional effort to mobilize teachers. Problems are complex and multifaceted; therefore, they must be analyzed by taking the context into consideration so that the solutions are suitable.

In Brazil, all those problems may occur. When constructing new school management models, considering that teacher education is a key element towards the promotion of qualified teaching and learning processes, it is crucial to analyze real problems, which may not be scarce regarding budget, physical structure, teachers' work hours, insufficient teachers' planning hours and others.

Many researches have been carried out in Brazil pertinent to teachers' work intensification and the burnout syndrome. According to Pereira (2000) and Codo (2006)

that syndrome of physical and mental breakdown, and resignation, is a result of the work intensification engendered by capitalism. There are many factors that may trigger that syndrome in teachers, which is not only related to teachers' work intensification, but also to education depreciation in Brazil, for instance, budget constraints even for basic purposes such as creating a school environment barely adequate to the learning process, including a safe and convenient physical structure.

As there are differences in public educational policies between Brazil and other countries, which invest more in Education and in compensation policies, contending disparities generated by capitalism, it is critical to ponder how new management models can be adjusted to the Brazilian context, without further intensification of teachers' workload or guilty consciences concerning uncompleted responsibilities regarding new demands and "innovations". Priorities and feasibilities must be carefully thought out. The consensus is that changes for teachers' improvement, development and well-being must be implemented in the Brazilian context.

Professional Learning Community: a case study in Finland

According to the TALIS report (OECD, 2016a, 2016b), teachers' development through the creation of a PLC is an effective practice to generate better results in students' learning. Finland has been one of the countries adopting this model in teachers' continuing development. Webb et al (2009) elucidates that the Ministry of Education in Finland considers in-service teachers' development springing from the "communities of work", and essential to the educational practice and teachers' well-being.

In this sequence, we will present a case study from two schools in Finland. Two school principals, from different schools, were interviewed about the organization and management of teachers' PLC, in the first semester of 2015. The thematic interviews consist on the following themes: 1. The foundations of a PLC; and 2. Organization of a PLC in school routine. These principals participated voluntarily in the study (more information about the participants in Table1).

Table 1: Participants' information

Participants	School level	Amount of teachers and students
School Principal 1 – SP1	Elementary School	50 teachers /250 students
School Principal 2 – SP2	Upper Secondary School	32 teachers /550 students

Source: the authors' research notes.

The interviews were videoed and transcribed. English was used as a second language, for participants and interviewer. Data was analyzed using a content analysis method (BARDIN, 2016) so that information could be prepared, content transformed in units and then categories. Due to the interview guide structure and similarities in the PLC organization, it was possible to categorize data from the second theme, in which the units found were: grouping, the group leader's role, selection of development topics, meeting routine, and other development possibilities.

The main findings from the interviews are presented in Table 2 and 3. Even though the two schools represented two different levels, a lot of similarities were found. When referring to the foundations of a PLC, both school principals expressed some features pointed out by Hord (2004,2009), Stoll et al (2006), DuFour (2006), Bolam et al (2005) regarding the importance of knowledge sharing and a shared view on education. SP2 addressed more subjectively about PLC formation, for instance when he argues about "... sharing views on education". On the other hand, SP1 focused on PLC practical implementation, approaching topics such as time, group structuring, school context and institutional plan attentiveness. In both models, we can observe instructional and shared leadership. Concerns with continuous improvement of teaching and learning processes motivates the selection of the developmental themes for the school annual plan.

Table 2: PLC management – Elementary School

<p>1. The foundations of a PLC</p> <ul style="list-style-type: none"> • Create possibilities for teachers to use their own skills. • Create guidelines and make sure everyone knows them, the school context and the institutional plan. • Provide time and structure in the organization.
<p>2. Organization of a PLC in school routine</p> <p>Grouping</p> <ul style="list-style-type: none"> • Groups of teachers must be organized. • Groups are organized in two different ways. There are groups related to the school year (or cycle) and there are groups organized by development topics (e.g. information technology, special education etc.). • There are 8-10 teachers in each group, which is divided into two subgroups.

<ul style="list-style-type: none"> • A group must not be too large, so that members remain gathered. • Teachers are organized in 3 large groups, in each group there are two subgroups, totalizing 6 different development topics. <p>The group leader's role</p> <ul style="list-style-type: none"> • The leader is selected to coordinate activities in each group. The same leader coordinates the school year group and the development group. • The group leader coordinates activities, organizes agenda, participates in meetings with school principals – representing the voices and choices of others. • The group leader is paid to perform this role. • The group leader should remain in this function for up to two years so that all teachers can be a leader. <p>Selection of development topics</p> <ul style="list-style-type: none"> • The development topics are chosen by the teachers' community, considering the institutional development goals and what improvement they think is needed. They are elected for the whole year, though these may be changed if needed. • There is flexibility in case participants want to change from one group to another, during the whole school year. • If the group decides to change the development topic, they can present their case and the decision will be accepted. • Each development group is responsible for teaching their themes to the other groups. • The participants choose the group they want to be part of, based on their experiences and affinities with the theme. • It is recommendable that a member in each group remains in the same development group if the theme is kept for the following school year, so that knowledge dissemination is secured. <p>Meeting routine</p> <ul style="list-style-type: none"> • The group leader participates in the school administration board twice a month. • The developing group and the School year group gather every week for an hour. <p>Other development possibilities</p> <ul style="list-style-type: none"> • In addition to the development groups, there is the possibility of having external help. The school may pay the costs when the subject is considered interesting to the institutional development.

Source: the authors' research notes

Table 3: PLC management – Upper Secondary School

<p>1. The foundations of a PLC</p> <ul style="list-style-type: none"> • Share knowledge. • Share views on Education, for instance, about assessment.
<p>2. Organization of a PLC in school routine</p> <p>Grouping</p> <ul style="list-style-type: none"> • Groups of teachers are organized according to the specialization areas, called department. E.g. Fields from group 1: Mathematics, Physics, Chemistry, Biology; Fields from group 2: Culture: History, Religion, Music, Physical Education, Philosophy etc.; Fields from group 3: Languages. • The groups are organized into three departments. • In addition to the departments, developing groups are also divided. • Developing groups are responsible for improvements concerning their topic. <p>Group leader's role</p>

- A department leader is chosen to coordinate activities in every group.
- The group leader coordinates activities, organizes agenda, participates in meetings with school principals – representing the voices and choices of others.
- The group leader is paid to perform this role.

Selection of development topics

- Topics are selected according to the institutional goals.
- The themes are elected collectively.
- In 2016, the chosen themes were related to the new curriculum: computer-based learning, safety and well-being, and communication and media competence.

Meeting routine

- Every 15 days, department groups get together to discuss priorities.

Other development possibilities

- Teachers have in-service courses three days a year. The themes are selected collectively.

Source: the authors' research notes

According to the principals, organizing teachers in groups for PLC formation favors shared leadership. Each group has its leader, who participates in management meetings and decision making. SP1 mentioned how a reduced number of leaders facilitates school management, so it is preferable to organize teams into three large groups and each group into subgroups. Thus, everyone is heard and the leader of each group ensures everyone participates. SP1 cited the importance of leader rotation within the development groups, for two reasons: a) so that everyone has the chance to be a leader; b) so that new ideas can arise.

The group leader's role in developmental groups was pointed out in both cases as a strategy of shared leadership, given that he/she performs some functions, related to the discussions and coordination of group activities, listens to other professionals and represents the group's decisions before the school management board. Thus, the group leaders are seen as community builders.

Although there is a meeting routine, with scheduled frequency, both SP1 and SP2 argued that dialogue happens on a daily-basis. Thus, discussion may happen any time and all the time. Because of the strategic position and important role, that accumulates functions, the group leader is paid. Even though the wage is not considered high, approximately 10% on the salary, calculated per hour, was claimed to be essential. Trust is a crucial element between school administrators and teachers since it is a key component in a shared leadership model. That situation was perceived in both cases. Decisions can be made in groups, aligned with the institutional goals.

Regarding selection of topics and other development possibilities, which are related to a group's knowledge and learning, school principals claim they rely on the demands for improvement, whether at local or national level. SP2 argued that topics from the new curriculum were selected to create the professional development agenda during the school year. In both cases, a variety of sources was mentioned, that is both theoretical and practical sources, such as study groups, in-service courses and others.

Final considerations

The guarantee of a Professional Learning Community accomplishment is primarily a matter of understanding the basic principles that should permeate its development. Trust, collaboration, shared and instructional leadership need to be experienced daily in the school community. Shared vision about education needs to be created with a dialogical attitude, as Aarnio and Enqvist (2001) argue, it involves a set of elements comprehending symmetry in interaction, that means everyone must have voice and choice; active participation, where everybody feels comfortable to participate; letting go of egocentricity, no one is more important than anyone; engagement, when everyone is also responsible to engage in the dialogue; reciprocity, when you really care about what the others have to say and you are cared for as well; open honest expression, when feedback and feedforward are enriching because they are authentic and express real situations. The element that is the core of a dialogical attitude is respecting oneself and others. These skills are not self-evident or automatic but need to be consciously developed. Lifelong learning attitudes, like searching for new knowledge, is essential, as school development needs to meet the development demands of society as a whole. Teachers and school leaders are required to have a new mindset, one in which teachers' work is not only considered at the individual level but as a part of communities and networks (KUNNARI; ILOMÄKI, 2016).

Secondly, the effectiveness of a PLC depends on adequate procedures like structuring, including collective planning and institutional objectives-oriented actions, such structuring should consider time, remuneration, group organization and the development topics selection. In these new structures, teachers can receive social support from colleagues and supervisors and have a stimulating environment for developing creativity, which enhances teachers' motivation and creates a social norm that innovative work is appreciated (MESSMANN; MULDER, 2011). Furthermore,

even though it has not been mentioned in the researched literature, physical structure must also be considered, since the ambiance can facilitate or hinder group interaction.

The case study has comprehended two schools in Finland, where educational public policies favor and encourage setting up a PLC, as interviewees and literature have pointed out (WEBB et al, 2006). A PLC has a lot of elements that compose it and those must be considered, such as the role of a group leader, group leaders' compensation, work hours, trust, teacher sustainable development and well-being in education. PLC as a school management model has been perceived as a possibility that meets the demands of the 21st century, in line with international policies for education, focusing on the teachers' professional development, making the learning process a fundamental and sustainable principle throughout the teaching career.

As the studies have pointed out Webb et al (2006), the establishment of a PLC may contribute to reduce the feeling of isolation and contribute to the teachers' well-being. When implementing a PLC, it is extremely important to consider the contextual problems. In Brazil, for instance, there are many aspects that must be carefully regarded, such as teacher's workload, work intensification, school physical and budgetary structure, cultural issues, number of students and teachers.

Due to rapid progresses in technologies and how they influence our way of life and consequently learning and teaching practices, there is a need for a sustainable school management and teacher education, aligned with social dynamics, without producing greater and further teacher suffering. Learning possibilities should be expanded, beginning with an effective implementation of a systemic program; that program must be well-coordinated and monitored with constant development oriented evaluation. To succeed in development, teachers need to have ownership of their own learning (KUNNARI & ILOMÄKI, 2016; SMITH, 2012; VERMUNT & ENDEDJIK, 2011). When considering in-service development carried out by the teachers themselves, external guests and experts, formal courses inside and outside the institution, applied research and study groups are practical solutions to enrich the learning processes of PLC.

This initial study points out, nevertheless, the need of applied research concerning implementation, maintenance and evaluation of a PLC in Brazilian schools.

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REFERENCES

- AARNIO, H.; Enqvist, J. **Dialoginen oppiminen verkossa – DIANA-malli ammatillisen osaamisen rakentamiseen** [Dialogic Learning on the Net - DIANA model for construction of professional competence]. Helsinki: Hakapaino Oy, 2001.
- ARAÚJO, S. de.; CASTRO, A. M. D. A. Gestão educativa gerencial: superação do modelo burocrático? **Ensaio: aval. pol. pública Educ.**, Rio de Janeiro, v. 19, n. 70, p. 81-106, jan./mar., 2011.
- BARDIN, L. **Análise do Conteúdo**. 3ª reimp. da 1ªed. São Paulo: Edições 70, 2016.
- CODO, W. (coord.). **Educação- carinho e trabalho: burnout, a síndrome da desistência do educador que pode levar à falência da educação**. Petrópolis: Vozes, 2006.
- DELORS, J. **Educação: um tesouro a descobrir**. Relatório para Unesco da Comissão Internacional sobre Educação para o século XXI. UNESCO, 1996.
- DUFOUR, R. et al. **Learning by doing: a handbook for Professional Learning Communities at Work**. USA: Solution Tree Press, 2006.
- FULLAN, M.; HARGREAVES, A. **A Escola como organização aprendente: buscando uma educação de qualidade**. Porto Alegre: Artes Médicas Sul, 2000.
- FULLAN, M. Professional culture and educational change. **School Psychology Review**, 25, 496–500, 1996.
- HEIKKINEN, H. L. T et al. **Peer-Group mentoring for teacher development**. Canada: Routledge, 2012.
- HORD, S. M. Professional Learning Community: Educators work together toward a shared purpose – improved student learning. National Staff Development Council. **Journal of Staff Development**, Winter, 2009, V. 30, n. 1 p. 40-43.
- HORD, S. M. **Learning together, leading together: Changing Schools through Professional Learning Communities**. USA: Teachers College Press, 2004.
- KUNNARI, I.; Ilomäki, L. Reframing teachers’ work for educational innovation. **Innovation of Education and Teaching International**, v. 53, n. 2, p. 167-178, 2016.
- LAM, S.; Cheng, R.; Choy, H. C. School support and teacher motivation to implement project-based learning. **Learning & Instruction**, 20, p. 487–497, 2010.

MESSMANN, G.; Mulder, R. Innovative work behaviour in vocational colleges: Understanding how and why innovations are developed. **Vocations and Learning**, 4, 63–84, 2011.

OECD. **School Leadership for Learning**: Insights from TALIS 2013, TALIS, OECD Publishing, 2016a. Paris. DOI:10.1787/9789264258341-en.

OECD. **Teaching Strategies for Instructional Quality**: Insights from the Talis-Pisa Link Data. 2016b.

PEREIRA, A. M. T. B. **Burnout**: quando o trabalho ameaça o bem-estar do trabalhador. São Paulo: Casa do Psicólogo, 2000.

SENGE, P. **The Fifth Discipline**: The art and practice of learning organizations. United State of America: Doubleday, 1994.

SMITH, K. Lessons learnt from literature on the diffusion of innovative learning and teaching practices in higher education. **Innovations in Education & Teaching International**, 49, 173–182, 2012.

STOLL, L.; BOLAM, R.; McMAHON, A.; WALLACE, M.; THOMAS, S. Professional Learning Communities: A Review of the Literature. **Journal of Educational Change**, v. 7, n. 4, p. 221-258, dez., 2006. DOI: 10.1007/s10833-006-0001-8.

TARDIF, M. Saberes profissionais dos professores e conhecimentos universitários: elementos para uma epistemologia da prática profissional dos professores e suas consequências em relação à formação para o magistério. **Revista Brasileira de Educação**, n. 13, jan./abr., 2000.

TYNJÄLÄ, P. Pedagogy for professional expertise development. In: COLLINS, K.; PALONIEMI, H.; TYNJÄLÄ, P. (Eds.). **Creativity, learning and professional expertise**: The perspectives of education and working life. Helsinki: WSOY (in Finnish), 2010. p. 79-95.

UNESCO, 1998. **Declaração Mundial sobre a Educação Para Todos** – Jomtien, 1990. Disponível em: <https://www.unicef.org/brazil/pt/resources_10230.htm>. Acesso em: 10 set. 2017.

UNESCO, 2001. **Educação para Todos**: o compromisso de Dakar. UNESCO, CONSED, Ação Educativa, 2001. Disponível em: <unesdoc.unesco.org/images/0012/001275/127509porb.pdf>. Acesso em: 15 jul. 2017.

UNESCO, 2015. **Incheon Declaration and Framework for Action**: for the implementation of Sustainable Development Goal 4. Disponível em: <unesdoc.unesco.org/images/0024/002456/245656e.pdf>. Acesso em: 15 set. 2017.

WEBB, R.; VULLIAMY, G.; SARJA, A. H.; POIKONEN, Pirjo-Liisa. Professional Learning communities and teacher well-being? A comparative analysis of primary

schools in England and Finland. **Oxford Review of Education**, v. 35, n. 3, p. 405-422, june 2009.

VERMUNT, J. D.; Endedijk, M. E. Patterns in teacher learning in different phases of the professional career. **Learning and Individual Differences**, 21, p. 294–302, 2011.

VERMUNT, J. D.; BAKKENES, I.; WUBBELS, T.; BREKELMANS, M. Personal and contextual factors and secondary school teachers' adaptation of innovation. **Paper presented at the 11th International Conference on Motivation**, Turku, Finland, p. 21-23, august 2008.

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