

Professional Learning Communities Online: a Means Towards Professional Development of Scholastic Agents

Mohamed Ali Bouker¹, Yamina Bouchamma²

Faculté des sciences de l'éducation

Département des fondements et pratiques en éducation

Université LAVAL, Québec (Québec), CANADA

¹mohamed-ali.bouker.1@ulaval.ca

²yamina.bouchamma@fse.ulaval.ca

Abstract— This paper is the culmination of an in-depth qualitative study concerning the participation in online Professional Learning Communities (PLCs). The study consisted of ten semi-structured interviews collected from teachers, school administrators and education consultants participating in online PLC in Quebec and New-Brunswick (Canada). The study aims to explore generally the functioning of these PLCs and specifically identifying the main actors who proceeded with the integration and promotion of these virtual professional communities of practice. Furthermore, it examined the tools ensuring the proper functioning of these communities and obstacles that hinder it. Although the interviewees divulged that the development of ICT skills does play a facilitating role in their work within such communities, they have emphasized the call for training in this area to improve their professional progress in such area. What's more, it was revealed that time and new ICTs adaptations represent the major obstacles to the real life implementation of online communities of practice.

Keywords— Professional learning communities (PLCs), information and communications technology (ICT), professional development, collaboration.

I. INTRODUCTION

Innovation and improving teacher competence cannot be achieved in the form of an isolated work for school agents [1]. In this path, collaboration between practitioners within a school is considered a favourable solution when it comes to develop and install lasting changes in educational organizations [2], [3]. But such collaboration is difficult to achieve, among others, due to the distances that acts as a major obstacle [4].

The concept of professional learning communities (PLCs) was first presented in 1990 and draws its origin from the organizational theory. The knowledge created by individuals represents a great asset for professionals and an even greater tool for an organisation [5]. PLCs are the tools of organizations whose aim in to encourage its members contribution and foster their engagement in collective activities [6], [7], [8].

PLCs aim to enhance students' academic performance, increase the efforts of the entire school staff and boost knowledge through questioning and stimulating the existing reflections, by analysing the gathered information [9]. The advantage of these PLCs is that they represent the best way to achieve staff development [10], [6]. And the use of ICT, as a virtual learning tool, is probably an efficient mean of communication and exchange within a school community [4]. In Quebec as well as New Brunswick, collaboration plays an important role. In Quebec, the education law states that it is the teacher's duty to work together to foster in each student the desire to learn and, that is achieved through the training of future teachers and support them in the early days of their careers. In New Brunswick, the revision procedures of the scholastic inclusion's report in New Brunswick schools presented to the Minister of Education and Early Childhood Development states that collaboration between the different agents in the school organization is displayed in the PLCs, which play an important role. The report indicates that a committee is set up to create professional learning communities (PLCs) to collaborate with the teacher and supervisor. The members of this community feel valued and display more confidence in their teaching practices [11].

II. CONCEPTUAL FRAMEWORK

The conceptual framework of this study is based on three models, namely: "Open collective cycle" (professional development cycle of Network teachers) [12], the model of human activity [13] and the model of skills development for online PLCs' [14].

Taking into account the common links between these three selected models, we retain an interconnected concept of them, namely:

- The concept of online shared directory;
- The subject (PLCs);
- Objective (find a solution to a problem);
- Instruments (ICT);
- The labor division (work distribution among Member);
- Peer Exchange (dialogue among community members);
- A debate (discussion between members);

- The result (results for the problem);
- The creation and development of a new method;
- A shared experience between peers;
- Analysis (analysis of the method effectiveness);
- The decision of the method's acceptance or abandonment;
- External factors (external concepts, pedagogical advices, observations, pedagogical analyzes coming from colleagues, researchers or trainers);

In sum, our conceptual framework contains three main blocks:

- The objectives definition by the PLC;
- The exchange process in a PLC;
- The process external elements;

A. The objectives definition by the PLC

This first block includes topics, objectives and practice. Let's consider a case where PLCs' members (i.e. subject) face a problem to solve (Goal), in which case they would pass directly to the next block which is the decision making process. The practice is only useful when a decision is made. Once this happens, a practice of the method adopted starts. If this practice reveals other problems, implementation of a further object shall be made and the process can be initiated.

B. The trade process in the PLC

When a PLC's members (subject) have a problem to solve (goal), they divide the work among themselves to better address the (division of labor). An exchange of information and ideas (peer exchange) will be done among peers about tasks assigned for each member. Then a debate will be held by members about the difficulties incurred and solutions that can be presented (debate). Finally, a primary decision is made (result) and the creation and development of a method will be initiated (creation and development of a method).

Once the selected method is running, PLC's members will share their experiences (sharing of experiences among peers) and analyze the effectiveness of the developed method (analysis). Therefore, a decision will be made upon the approval or rejection of the method (decision) followed by its implementation if the later was accepted (Practice). However, the final decision does not necessarily mean that the method is perfect. If other problems occur during the practice of this method, the system will be rebooted again (target).

C. External elements in the process

External elements are a part of the online creation and implementation's process of a new method by PLCs' members. External elements can be pedagogical advices, observations, pedagogical analysis that may come from colleagues, researchers or trainers.

III. METHODOLOGY

A total of ten school agents were interviewed (N = 10) namely four school directors, three counselors and educational consultants and three teachers, all involved in one or several online PLCs online. Research was conducted via a semi-structured interviews aiming to divulge into the needs of

online PLCs' members and the obstacles encountered through its implementation

IV. RESULTS

A. Who performed the integration of online PLCs?

The results show, first, that the implementation of online PLCs was encouraged mainly by the management "P7: *It was not an individual decision, it comes from the education department, so our boss has sensitized all the primary and secondary directions. She has given some throughout training modules about the kinds collaborative practices existing in the PLCs.*"

1) *The Ministry of Education:* PLCs in the case of New Brunswick were a decision that first emanated from the ministry that has established the online PLCs "P6: *I would say it was imposed by the Department after being requested by people who wanted to work together.*" In this sense, the Ministry of Education in New Brunswick formally granted a half-day meeting between teachers by providing the necessary education. This situation is different from that of Quebec where the initiatives depended on schools or groups whom were interested in this type of collaboration.

2) *The direction, teachers and educational counselors:* In general, it is the directions that are the first to take the initiative to find ways to team up their teaching staff. In some cases, teachers and pedagogical counselors have participated in this implementation through their direct involvement in finding solutions to their problems. Hence, they communicate to find a solution, thus by opting for collaboration they give birth to online PLCs " P8: *Actually this is the second year that I act as a teaching consultant here, and I have been a part in several PLCs "*; "P5: *We decided to make the PLCs every Wednesday afternoon. For example, as a team of distance learning school we meet to give distance courses and then we gather to discuss them"*.

B. The needs in terms of online professional development for PLCs members

All participants demonstrated that a smooth running an online LC can be achieved through the fulfillment of certain conditions. The needs of an online PLC can be summarized in five themes: The need for training, the need for time, the need for skills, the need for involvement and the need for evaluation.

1) *Need for Training:* Participants expressed their need for training when it comes to collaboration and sharing among colleagues by highlighting the richness it brings and the diversity of opinions and experiences "P1: *a PLC is a personal and professional interest of 'professional advantage, then me, at first it was the experience of nature, to live the experience. "*

Almost all participants expressed their need for training in online PLC. Some have referred to a type of more formal training, others have referred to the self-training "P8: *Me as a*

faculty advisor I have formed self last year. I am a self-taught regarding professional learning communities, I have not really received training at the university about it, "while others referred to continuing education " P3: *me I see it as a continuous training, how to apply the law of the public institution in our midst."*

They referred to the ICT training as it is the most essential element in an online PLC and several spoke of their weaknesses in technologies "P6: *we have sharing sites that exist but we need to sort it at this level, I think we should improve sharing sites "*; "P7: *In a PLC I need to create something, to create a tool, a questionnaire for students, a diagnostic tool to detect the flow ..."*.

2) *The need for time:* Time is a need that many participants stressed upon. A lack of time to promote the establishment and development of online PLC might be a limit for the latter "P2: *More time. Sustainability. One way to continue after even if the project itself was completed "*; "P7: *Probably more time, it is always the main issue to be times when we can meet then everyone will be available for that."*

3) *The need for evaluation:* Some members of the online PLC showed their need for informal assessment and bemoaned the fact that it is virtually non-existent in their community "P8: *There are some PLCs where I used a questionnaire for assessing the encounter which will enable me to establish greater level of evaluation"*.

4) *The need for involvement and skills:* Moreover, others are calling for a greater involvement and expertise of teachers and principals in the already implemented online PLCs "P2: *We had a very special customer needs but had not the expertise. On the other side, they had a very specific need but they had no expertise "*; "P3: *It had to be determined at the end of each meeting one or more elements that were retained in the PLC. Each online encounter had to determine what was going to be kept in that PLC to reinvest. This is how we evolve."*

C. PLCs' implementation obstacles

Our participants reported some obstacles that may arise during the life of an online PLC. Numerous constraints can slow and even sometimes be a major hindrance for an online PLC.

1) *Time:* The main impediment for a good Online PLC is the time "P8: *Time, lack of time is a limit."* *Indeed, time is a major obstacle since all PLC's members have important responsibilities and bringing them all together remains an enormous challenge "P1: This is the time available to the participants, I think an online PLC of more than an hour and half is too much. A PLC of just that amount of time is enough."*

2) *ICT's Problems:* The second obstacle raised by participants was the issue of ICT; Whether with the communication interface used for communication, the quality of the communication network or the problem of adaptation to

new technologies "P2: *It was the platform that was perhaps not ideal, it there are technical problems for two or three times with someone who was not properly connected "*; "P6: *It's unfortunate, sometimes people ignore the technology, all the technology that exists."*

V. DISCUSSION

Our paper focuses the start and life in an online PLC for teachers, school directors and educational counselors. It displays the impediments related to the implementation of online PLCs and the needs of these community members in terms of professional development.

Online PLCs are an asset to the professional development as they facilitate communication between members despite the barriers of distance and time. Also, this mode of collaboration is encouraged by members of the school community and by the ministry of education whom sees it as a dependable way to resolve problems that arise. Several authors [15],[16] follow the same path by showing that professional learning communities are networked to serve the professional development of the members and its impact is positive on the professional identity. This community allows some people to transform their learning and make important life changes all while increasing innovation and professional expertise.

Moreover, the obstacles do impede the path of professional development of online PLC's members and pose a problem of integration in this virtual community such as the problem of time and availability of agents which remains the biggest concern for the PLCs' sustainability .In addition, the technology's barrier causes some major difficulties of adaptation and familiarization for some members.

VI. CONCLUSION

This research aims to study the needs of teachers, principals and pedagogical counselors in online PLCs when it comes to professional development. The study showed that their introduction may come from formal and informal initiatives.

The study is an analysis of how these PLCs function in general and the identification of the agents who performed the integration and promotion of these online PLCs and the ways ensuring their smooth operation and the barriers hindering it.

The participants made reference to their training needs in this field in order to increase their professional development. The time and adapting to new ICTs also represent some major obstacles to the implementation of life in online PLCs. They expressed a need for time, skills, involvement and evaluation. Despite the presence of obstacles related to the complexity of the technology use, lack of knowledge and availability of participants, online PLCs remain an alternative to counter this problem.

Moreover, new promising research paths show themselves when taking into account the maturity levels of PLCs (advanced, intermediate and new PLCs).

REFERENCES

- [1] D. Tapscott and A.D. Williams, *Wikinomics: How Mass Collaboration Changes Everything*, New-York, Portfolio, 2006.
- [2] E. Davel and D. G. Tremblay, *L'Apprentissage par la pratique ; les défis*. Québec, Télé-université, 2005.
- [3] J. Howden and M. Kopiec, *Cultiver la collaboration: Un outil pour les leaders pédagogiques*, Chenelière/ McGraw-Hill, Montréal, 2002.
- [4] P. Dillenbourg, C. Poirier and L. Carles, *Communautés virtuelles d'apprentissage: e-jargon ou nouveau paradigme ?* In A. Taurisson et A. Sentini, Pédagogies,Net, Montréal, Presses, 2003.
- [5] E. Wenger, *Communities of Practice: Learning, Meaning, and Identity*. Cambridge: Cambridge University Press. ISBN 978-0-521-66363-2, 1998.
- [6] L. Dionne, F. Lemyre and L. Savoie-Zajc, « Vers une définition compréhensive de la communauté d'apprentissage (CA) comme dispositif de développement professionnel des enseignants, » *Revue des sciences de l'éducation*, 36(1), pp. 25-43, 2010.
- [7] Y. Bouchamma and C. Michaud, « Communities of Practice with Teaching Supervisors: A Discussion of Community Members' Experiences, » *Journal of Educational Change*, 12, pp. 403-420, 2011.
- [8] M. Leclerc, *Communauté d'apprentissage professionnelle : Guide à l'intention des leaders scolaires*, Québec : Presses de l'Université du Québec, 2012.
- [9] R. Bolam, A. McMahon, L. Stoll, S. Thomas, M. Wallace, A. Greenwood, K. Hawkey, M. Ingram, A. Atkinson and M. Smith, *Creating and sustaining effective professional learning communities*. Research Report 637. London: DfES and University of Bristol, 2005.
- [10] M. Schmoker, *Results NOW: How we can achieve unprecedented improvements in teaching and learning*, Alexandria, VA: ASCD, 2006.
- [11] G. Porter and A. AuCoin, *Strengthening Inclusion, Strengthening Schools*, Report of the Review of Inclusive Education Programs and Practices in New Brunswick Schools, 2012.
- [12] M. Huberman, *Networks That Alter Teaching: conceptualizations, exchanges and experiments*. *Teachers and Teaching: theory and practice*, 1(2), pp. 193-211, 1995.
- [13] Y. Engeström (1994), *Teachers as Collaborative Thinkers: Activity-theoretical Study of an Innovative Teacher Team*. In I. Carlgren, G. Handal et S. Vaage (Eds.). *Teachers' Minds and Actions: Research on Teachers' Thinking and Practice*. Londres : The Falmer Press, pp. 43-61, 1994
- [14] A. Daele, *Développement professionnel des enseignants dans un contexte de participation à une communauté virtuelle : une étude exploratoire*, 2004.
- [15] B. Allan and D. Lewis, D, "The impact of membership of a virtual learning community on individual learning careers and professional identity," *British Journal Of Educational Technology*, 37(6), pp. 841-852, Retrieved from EBSCOHost database, 2006
- [16] C. Hamel, S. Turcotte and T. Laferrière, «L'accompagnement d'une communauté d'apprentissage professionnelle en réseau au service du développement professionnel de ses membres,» *Éducation et francophonie*, 41 (2), pp. 84-101, 2013.