

# PROFESSIONAL LEARNING E-COMMUNITIES AS A DYNAMIC TOOL FOR PRE-SERVICE TEACHERS' EDUCATION: PREPARING THE NEW GENERATION OF TEACHERS

*A growing body of research has highlighted the positive impact of Teacher Professional Learning Communities (TPLCs) on improving student learning and promoting a culture of cooperation, trust and support among the teachers involved. In this paper we argue that pre-service teachers (PsTs) should become familiar with TPLC as early as their teacher studies. Research has shown that PsTs in TPLCs may be supported to think critically, approach pedagogical problems from various perspectives, support each other and learn to professionally address educational challenges. The purpose of this descriptive case study was to develop a better understanding of the characteristics of TPLC of PsTs. Data derived from 2 TPLCs in which 15 PsTs volunteered to participate, within the context of a pre-school Science Education course they were enrolled in. Our findings suggest that the participants (a) realized the need to work in their TPLCs with a professional culture, instead of a student-teacher culture; (b) acknowledged their valuable experience regardless of the members or the member numbers of their TPLCs, mostly due to the structure of the meetings, and (c) recognized the positive effect of the TPLC meetings on the fulfillment of their course tasks and the way they dealt with understanding ideas discussed in that course. (d) Finally, reflections during their meetings helped participants apply pedagogical ideas that they had discussed in the course, to talk about and evaluate their learning experience in the course. We discuss insights into the process of professionalization of PsTs about how this group of PsTs started as early as their 5<sup>th</sup> week in the TPLC to utilize opportunities for professional growth and how they could de-activate modes of working as undergraduate students and engaged in a professional-teacher mode.*

**Keywords:** Professional Learning Communities, Pre-service teachers, Pre-school Science Education

## INTRODUCTION

Teacher Professional Learning Communities (TPLCs) as a form of teacher professional development is widely recognized to serve school development associated with better student achievement (e.g., Vescio & Adams, 2015). Within this framework, teachers act as students and schools as learning communities for the teachers themselves (Clarke & Hollingsworth, 2002) in a collaborative, reflective, mutual and collective responsibility (McLaughlin & Talbert, 2006). Research has highlighted the positive impact of teacher involvement in TPLCs on improving student learning as well as on promoting a culture of cooperation, trust and support that develops among the teachers involved (Vescio & Adams, 2015). TPLCs refers to small groups of collaboratively working teachers. TPLCs are characterized by their learning-focused collaboration (Margalef & Roblin, 2016). Teachers in TPLCs share common interests, values and visions and follow common approaches (Bolam et al., 2005; Stoll et al., 2006) and have a collective responsibility for student learning (King & Newmann, 2001; Leithwood & Louis, 1998; Kruse & Louis, 1995). Teachers in TPLCs work collectively with the aim of deepening their professional knowledge and improving their teaching practice by enhancing their knowledge and skills (Brookhart, 2009; Margalef & Roblin, 2016).

Participating in TPLCs as early as during their university studies, may provide pre-service teachers (PsTs) the opportunity to be involved in the processes of monitoring and responding to students' learning, and cooperation and mutual support with other teachers. Despite the lack of professional experience, limited or no teaching experience (Kagle, 2014), the involvement of PsTs in TPLCs may provide opportunities for experiencing collaborative learning, reflective practice and the ability to link between teaching practice and learning outcomes. A number of studies have investigated the participation of PsTs in TPLCs. Bond (2013) suggested that through TPLC meetings PsTs started to think critically, to approach pedagogical problems from different perspectives, and to support each other. Kagle (2014) found that PsTs working in TPLCs built basic pedagogical skills, reflected on their practice and professionally addressed the educational challenges. Hoaglund, Birkenfeld and Box (2014) reported that PsTs working in TPLCs showed an improvement in their perceptions of the various indicators studied.

The purpose of this descriptive case study was to develop a better understanding of the characteristics of TPLC of PsTs in the context of their undergraduate studies, seeking to provide detailed descriptions of the process of professionalization of PsTs.

## **METHODS**

This descriptive case study (Yin, 2017) took part during Fall 2020 semester, in the context of an undergraduate course in Science Pre-school Education in South Europe. Due to COVID-19 restrictions, the course was delivered fully online, designed to engage participants on almost a daily manner, including a number of different tasks that were designed to support PsTs' weekly studying of the course ideas. The course was taught by the second author; the first author was the teaching assistant of the course and coordinated the TPLC meetings. PsTs in the course volunteered to participate in TPLCs organized as online synchronous sessions. Two TPLCs were created in which a total of 15 PsTs participated for a total of 7 1-hour meetings. All TPLC meetings took place online and were videorecorded and transcribed for analysis. Using discourse-based approaches and grounded theory techniques we analyzed all transcripts looking for characteristics in PsTs' work during the TPLCs. All data were analyzed by both authors independently and differences were resolved through discussion. From the analysis, we identified a number of themes that we describe below along with data from one of the sub-case studies groups.

## **FINDINGS**

### **1. Student vs Professional Culture**

In one of the TPLC meetings, PsTs recognized the need to work within a different culture when it comes to providing feedback to each other. Starting from a discussion about differences between the feedback they offered to their peers about a task in their course and the feedback received from the instructor, participants realized that when received peer feedback, they mostly got positive comments, without any justifications of comments or any identifications for areas for improvement. From the differences that between their own comments and those of the instructor, PsTs acknowledged that solely positive feedback does not lead to any improvement on their side. They, therefore, considered the need to start working more "professionally", expressing their honest, "still-under-development" professional opinion and providing more specific comments to each other, so that the feedback can be used to improve their work.

*Renos: All the comments [we received] were positive. [...] However, the instructor indicated that our whole presentation was wrong [...] our [peers'] comments [...] had a positive intention [...], but in fact, all these were wrongly focused... If we are asked for an evaluation of a peer's work or to state our point of view, we need to state our real point of view.*

### **2. TPLC time is used for reflection on the course experience**

The participants spent some time in TPLCs reflecting about their experience in their course. PsTs were comfortable sharing and criticizing issues related to the topics discussed in the course (content), the way their course meetings were structured, and the tasks they had to complete as part of their course obligations. They also talked about their concerns about the online form of teaching, including the course seeming to have an unusual workload as opposed to face-to-face courses the participants had taken in the past. The participants suggested that their TPLC provided them with productive time to talk about abstract ideas or assignments, exchange ideas, help each other and try to resolve any questions raised. This reflection also seemed to help participants use pedagogical ideas that they had discussed in the course, to talk about and evaluate their learning experience in the course.

*Fani: The way we worked [the other day during class] helped me as well. We worked and talked in groups, if we had a question, we could ask our peers and they would help us seek the answer and that can help us understand the new idea more easily than if it [the class] was just a lecture.*

### **3. Engagement in small groups – practical issues (does not matter if they actually know each other)**

TPLCs participants reported satisfied working in group activities during TPLC meetings regardless of the members of their subgroups or the member numbers – sometimes they worked with peers they worked before in course assignments and other times with peers they hadn't worked before. In both cases, they

talked positively about this collaboration and its end result. This also highlights the fact that this e-e-interaction was an important component of their experience, which due to covid-19 was minimized.

*Stella: We now know the people who are in the [TPLC] group, but there are also people in the class with whom we never got in touch because the class was online. [...] But now, like the lesson we discuss now, our work in groups has evolved, it has become better and... more productive and more helpful for us.*

#### 4. Recognition of the work accomplished in the TPLC meetings

The participants considered important the way they worked in the TPLC as well as the outcomes of their participation. They recognized the effect of the meetings on the tasks that they had to fulfil, but also on the way they dealt with understanding ideas discussed during the course meetings.

*Chara: They [the TPCL meetings] make us appreciate what the instructor does during class. Here, we look at them from a different perspective, we actually evaluate what we do in the lesson and it helps to see a little clearer and in more detail. And all these become a little bit more understandable and more compatible with our previous experiences.*

## DISCUSSION AND CONCLUSIONS

Most PsTs peer group work is related to working on group assignments or studying together for an exam. However, if TPLCs is an instrument of professionalization in the teaching profession (e.g., Vescio & Adams, 2015; Warwas & Helm, 2018; McLaughlin & Talbert, 2006), PsTs should become familiar with it as early as during their teacher education. In combination with university courses on practical issues and phases of internship, participation of PsTs in TPLCs offers the opportunity to anticipate the job, and to practice and to reflect on practical experience. Following a series of studies on the effects of PsTs participation in TPLCs (e.g., Kagle, 2014; Bond, 2013) the findings we presented provide insights into the process of professionalization of PsTs. We content that despite their limited professional experience, PsTs can easily participate in TPLC as early as their teacher studies. In this study, the PsTs started as early as their 5<sup>th</sup> week in the TPLC to utilize opportunities for professional growth and how they could de-activate modes of working as undergraduate students and engaged in a professional-teacher mode, collaboratively reflecting on teaching practice, on the relation between teaching practice and learning outcomes, and making conceptual and practical changes that improve teaching (McLaughlin & Talbert, 2006).

## REFERENCES

- Bolam, R., McMahon, A., Stoll, L., Thomas, S., Wallace, M., Greenwood, A., Hawkey, K., Ingram, M., et al. (2005). *Creating and sustaining effective professional learning communities*. London: DfES and University of Bristol.
- Bond, N. (2013). Developing a professional learning community among preservice teachers. *Current issues in education*, 16(2).
- Brookhart, S. M. (2009). *Exploring Formative Assessment. The Professional Learning Community Series*. Association for Supervision and Curriculum Development. 1703 North Beauregard Street, Alexandria, VA 22311-1714.
- Clarke, D. & Hollingsworth, H. (2002). Elaborating a model of teacher professional growth. *Teaching and teacher education*, 18(8), 947-967. 18
- Hoaglund, A., Birkenfeld, K., & Box, J. (2014). Professional learning communities: Creating a foundation for collaboration skills in pre-service teachers. *Education*, 134(4), 521-528.
- Kagle, M. (2014). Professional Learning Communities for Pre-Service Teachers. *N. Teacher Education Journal*, 7(2).
- King, M. B. & Newmann, F. M. (2001). Building school capacity through professional development: Conceptual and empirical considerations. *International journal of educational management*, 15(2), 86-94.
- Kruse, S. & Louis, K. S. (Spring, 1995). Teacher teaming—opportunities and dilemmas. Brief to Principals, *Center on Organization and Restructuring of Schools*, Brief No. 11, 2-7.
- Leithwood, K. & Louis, K. (1998). *Organisational learning in schools*. Lisse: Swets & Zeitlinger.
- Margalef, L., & Pareja Roblin, N. (2016). Unpacking the roles of the facilitator in higher education professional learning communities. *Educational Research and Evaluation*, 22(3-4), 155-172.
- McLaughlin, M. W. & Talbert, J. E. (2006). *Building school-based teacher learning communities: Professional strategies to improve student achievement* (Vol. 45). Teachers College Press.
- Stoll, L., Bolam, R., McMahon, A., Wallace, M., & Thomas, S. (2006). Professional learning communities: A review of the literature. *Journal of educational change*, 7(4), 221-258.
- Vescio, V. & Adams, A. (2015). *Learning in a Professional Learning Community: The Challenge Evolves*. The Sage Handbook of Learning, 274-284.