Learn and Teach: Communities of Practice as an Opportunity for Teachers' Professional Development

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Abstract: Involvement in professional development processes is characteristic of the majority of Portuguese teachers. This situation justifies the need to stir a discussion about the current models of teacher training based on the analysis of requirements and challenges related to social and professional teaching career. For this purpose, our debate focuses on the experience of a project carried out between 2010 and 2011 that confronts current models, most of them steered towards accelerated rehabilitation, with communities of practice among teachers in Portugal. The results presented aim to describe the characteristics of this approach and are based on produced documents and a questionnaire administrated to participating teachers. They also suggest that formed communities of practice pave the road for a professional development that is not individual, competitive or bureaucratic and counteract the attacks made by recent educational policies on some of the traditional pillars of teachers' professionalism.

Keywords: training of teachers, community of practice, reflective teacher.

1. Introduction: requirements and challenges for teacher training

In response to the social and political challenges posed by global interdependence and the demands of increased economic growth and employability, education takes a leading role. With the research evidence showing that student outcomes are related to the quality of teaching (e.g., Creemers, 1994), this context, not surprisingly, influences the teacher profession. Writing on the blackboard has become a small part of the teacher's work. The need for qualified professionals who can work collaboratively as well as independently, who have the ability to solve complex problems, reflect on their practice and deal with the social and technological change are some of the challenges that teachers face today (Sachs, 1997). On top of these challenges, as followers of the Global Citizenship Education (GCE) movement, we add the understanding of complex issues surrounding the processes of global interdependence, contributing to building a more just, equitable and inclusive world. This "mission" involves unfamiliar responses for teachers (Coolahan, 2002) and a set of contradictory requests (Day, 2002).

In Portugal, at a time of great complexity at teachers' work, there have been also implemented successive reforms that promote structural changes in the role of the teacher. In general terms, there are changes that have increased technical elements (Stoleroff and Pereira, 2009). According to a study by Day et al. (2007) for Portuguese teachers these changes have made "threats" to their autonomy and their commitment to moral and social purposes of the profession, the traditional pillars of professionalism of teachers.

These few images have fueled the belief that we need to promote the improvement and expansion of knowledge and skills of teachers for more effective performance of their work. The training of each teacher must be a mixture of necessity and obligation as an "answer for all the questions" (Ferry, 1983, cit. by Canário, 2000: 39). Merging between instrumental purposes is using, in most cases, the "normal" model, the one that best dominates: the "school model". These are formative processes that do not take into account the reality in which teachers move or build a deep and critical vision of their teaching practice. Maybe that's why 42% of Portuguese teachers refer to the inadequacy of professional development opportunities when asked about that (OECD, 2009).

Recognizing the contribution of these training programs as conventional sources of explicit knowledge, it seems evident that it necessary to revise the goals and strategies for teacher's continuous education programs. Different studies indicate an important idea to consider in this context: if we want an education process that actually makes a qualitative change, it is important and necessary to adopt educational models connected to the reality of professional teachers (Wallace, 2002), emphasizing a "situated learning" (Anderson et al. 1996). Teamwork can help to face these challenges (Hargreaves, 2000). Currently, in almost all European countries, official regulations require teachers to collaborate, although cooperation between teachers takes more often the form of ideas and information exchange that forms of "progressive" cooperation (OECD, 2009). It is also recognized in the literature the impact of collaborative educational professional processes for teachers. These studies show that communities of practice improve professional learning of teachers (Louis and Marks, 1998) and are vital for the promoting an educational change in schools (Ross and Regan, 1993). However, there remains a marked lack of research on the use of these formats out of school. This article also

represents an attempt to fill this gap.

Far from a technocratic conception, this article considers the teacher as an intellectual and critical professional. Using a project in the area of GCE developed in Portugal by a civil society organization, between 2010 and 2011, we illustrate the use of a community of practice as an opportunity for professional development. We intend to analyze the deeper issues of the use of community of practice - paths and challenges, as what they mean for the participating teachers - enriching it with our own field experience and in light of the theoretical framework that we have drafted. We think that this picture of a teacher training is important for those involved - teachers and civil society organizations - and, generally, is useful for the development of training opportunities in Portugal.

A note about the project

The data presented and discussed in this paper were collected under a project developed by a Non-Governmental Development Organization (NGO). Since 2006, this NGO has strengthened the area of GCE in formal education and, in June 2010, initiated the project "Between Educators" until July 2011. The objectives were stated as follows: "to contribute to strengthening the role of teachers as key actors in GCE". The basic assumption was that teachers, although key actors in practice of GCE in schools, do not have enough opportunities in this area, working in isolation and with low impact on the education system. On the other hand, the strategy was to foster a learning process in which knowledge and actions of teachers was building in interaction with their peers, not only improving their own professional performance, but also generating collective knowledge to feed the thinking and practice of colleagues.

With this goal in mind four working groups¹ were created, composed of the total of 25 teachers, whose objectives, composition and resulting products are summarized in Table 1. We believe, for this study, all the working groups are a "community of practice" in the sense that corresponds to a space and time in which teachers collaborate and discuss what they do and how they want to do it, and learning it the main characteristic (Lave and Wenger, 1991).

Groups and objectives	Composition	Products
Group for economic and social literacy	4 teachers	Book on the welfare state for teachers
Reflect on and discuss socio-economic issues	2 NGO technical	and other educators
prioritized		
Group for disciplinary integration of GCE	7 teachers	Document linking the content and skills
Relate the curriculum to the issues of GCE	1 Education University techincal	of geography, pre-primary and primary
	2 NGO technical	education for teachers
Group for the construction of a didactical	10 teachers	Resource for pre-primary and primary
propose	1 NGO technical	students about migration and
Design a teaching GCE resource for students		development
Group for systematization of experiences	5 teachers	Book about education projects for
Put GCE practice in the center of systematic	2 NGO technical	teachers and other educations
and colective reflection		

Table 1 - Characterization of the working groups

In general, the viability of the project was guaranteed by the fact that Citizenship Education is considered a crosssectional area by the Ministry of Education. At an operational level, the adherence of teachers to work in different groups proposed was ensured by the fact of the "recruitment" was made among a larger group of teachers with a history of participation in projects developed by the NGO.

2. Methods of collecting and analyzing data

Because of the integration of qualitative and interpretative goal, we have chosen a model "from inside", from the perspective of teachers and the researcher' involvement in the process. Importantly, the researcher followed a participatory way throughout the whole process and has a personal knowledge and previous working relationship with

¹ By choice, we haven't analyzed separately the different working group's data, although we recognize that its size and configuration are important for the internal dynamics.

those involved, resulting in a conception of the issue that cannot be completely "off" in their way to investigate. In response, we have anticipated and accounted for some relativizing subjectivity. First, we conceptualize the object of study by reference to the theory, as suggested by literature. The categories of analysis and options of the questionnaire were based on references that are given in the article. Moreover, we expected a frank collaboration of teachers who understand the importance of scientific research in this theme, supported, in many cases, by mutual trust.

The collected results were based on a peculiar mix of techniques: documentary analysis and questionnaire administered to participating teachers. The quantitative method, in this case the questionnaire with closed questions, was used to access all of the participating teachers and identify patterns. We included different levels of information: identifying personal and professional, conceptual and methodological perspective about the project, motivation and commitment, relationship, satisfaction and dissatisfaction, the impacts of participation. The questionnaires were completed virtually in February 2012. We guaranteed the confidentiality of collected information² and made a commitment to return the results: *"I'd like to see the result"*, teachers wrote.

The questionnaire response rate was 85%, which equates to 22 teachers from 26 participants in total. The analysis was performed using SPSS. We highlight the imbalance on the gender issue, since the vast majority (86.4%) was female, confirming data from OECD (2009) suggesting that female teachers participate more often in collaboration processes. The teachers were aged between 36 and 71 years, with most (50%) in the age group between 45 and 54 years. In this case, it seems that the variable "age" has divergent effects concerning what happens with the population of teachers in most European countries, since the participation in training activities tends to decrease with increasing age (OECD, 2009). This may be related to greater job security that experienced teachers have - there is no participant with less than 13 years of service and only one teacher has an unstable contractual relationship - which ensures a willingness to invest in this kind of education and training. Furthermore, the data show that this group of teachers has invested in their continuing professional development, since 59% have more advanced studies than those required for teaching.

Qualitative methodology was applied to document analysis. From the numerous documents produced by the working groups, fifteen were selected for analysis, i.e. three/four documents per group. The selected documents refer to memories of meetings and describe activities, decisions and sometimes the evaluation of the participants. Again, in order to reduce the subjectivity of the researcher, we turn to a content analysis assisted by software "Tropes". Content analysis allowed us to make an analysis of events, but also make inferences about the strategic level of intervention.

3. Analysis and discussion of results

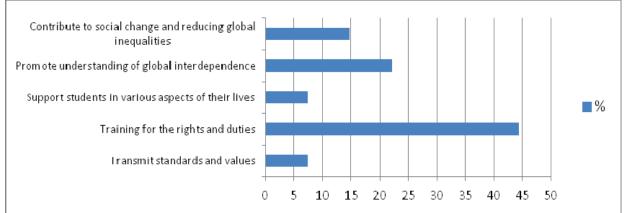
The findings raise a number of important issues that deserve discussion. Here we consider it important to develop five key elements, relating theoretical and empirical data, in a community of practice as an opportunity for teacher training.

Shared commitment, but attention to the pluralism of conceptions

It seems imperative that teachers share beliefs. In this community, all teachers emphasize their belief in the importance of GCE as what moved them to take part in this community (47%). "I've always been very interested in social justice and really believe it is important to educate our youth about these issues", said one teacher. This shared commitment of teachers reinforces the identification with this community and as a consequence, their motivation and commitment in participation. Hargreaves (1994) confirms these data, however, warns that projects that promote collaboration of teachers have good learning results only when their educational conceptions are compatible. Do teachers aspire to the same kind of education? In this case: do teachers aspire to the same type of GCE? Freire (1996) emphasized that the way to understand the world affects the way in which it can be changed.

Most teachers had some previous experience of ECG and it was assumed that this would ensure shared values and understandings, consensus regarding the fundamental meaning of their collective action. But the data show otherwise. A large percentage of teachers (44.4%) view the ECG as "a form to the rights and responsibilities", rather than a perspective related to the integration of a global dimension in the educational processes. It is also relevant considering the disparity of responses observed in Graph 1.

² The specific question of characterization in a small universe known by the investigator would not ensure anonymity. However, once after completing the questionnaire all teachers spontaneously sent an e-mail, confirming their participation in the study, we believe that there was no intention on the part of teachers to hide the answers.



Graph 1 – Teachers' conception regarding the role of GCE

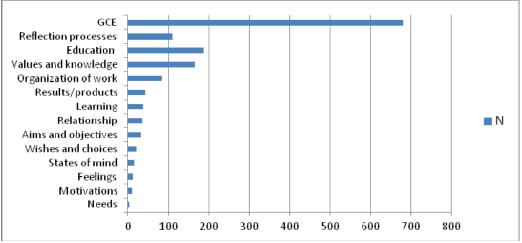
GCE means changes: changes of behavior and of the way we understand the world. Because of that, it is imperative to know closely the beliefs, values and attitudes internalized, learned over the personal and professional history, influencing and sustaining teachers' conceptions of the discussed topics. Just recognizing the organic nature of knowledge - acquiring new meanings through understandings - we can promote a sustainable and meaningful change in these conceptions. If we neglect this dimension, we may end up addressing complex issues only at a superficial level, teachers becoming attached to their initial interpretations, making the achievement of more ambitious goals of this intervention difficult.

There is also the danger of asking too much in a short time, without sufficient attention to the extent of the changes concerned. As one participant noted, "even after a long period of time, one does not know enough about these issues". The complex nature and constant changing means that results need to be update, and that the confidence of teachers to discuss these issues should not be underestimated. As indicated by some studies, more self-confident teachers tend to be more open to new ideas and methods. In the area of citizenship, Salema et al. (2003) found that teachers who know more than the subject are usually the most interested and able to incorporate its principles in the teaching. This result is consistent with the fact that most teachers who promote actions such activities with students (24.3%) and dissemination and sharing of materials and activities with colleagues (24.3%), and the "organization of debates", "material production" or "interconnection the curriculum with GCE" - actions that require greater ownership of content - have small percentages.

Active trust based only on a balance of power

The challenges associated with the strategies established to accomplish a mutual and sustainable partnership are also noteworthy in that they contribute to the construction of autonomy and responsibility as a desirable result of this community. According to the model of Guskey and Huberman (1995), this community can be understood as an open collective cycle because it is a group that comes from different places and schools, sharing a conviction. But instead of this theoretical model, the cycle is not as managed by the group as managed by the NGO technicians. This structural feature is particularly useful because the central position occupied by the technicians tend to be associated with more power and influence.

Despite the democratic dynamics, the process described here is not born from a real need of teachers. This is visible in the flow of information and knowledge not due to a synergistic action of all actors, but to a proactive action by the NGO technicians. It is they who "create" the needs of knowledge and activity. The document analysis also allowed us to verify that the issues of GCE, the organization of work in the group (distribution of tasks) and the issues of education and teaching stand out in the strategy outlined at the expense of factors such as choices, motivations and needs that are less salient (Graph 2).



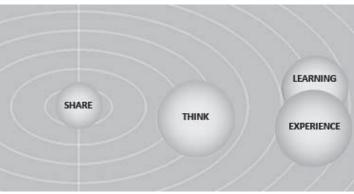
Graph 2 - Distribution of thematic occurrences in the speech of the documents analyzed

This situation means that teachers internalize less the proposed objectives and do not feel so responsible for their development, are less concerned with, for example, collecting new information and knowledge and may stifle the sustainability of the community. On the other hand, some teachers in informal conversations spoke about fluctuations in the level of autonomy, due to the leadership style of the NGO worker. When this movement was towards the diminution of autonomy, situations of obvious malaise were evident in the responses, especially in the type of group identification, the characterization of the relationship between members and continuity in the process: "*To tell the truth I do not know why* [*I'm still in the group*], but I'm seriously thinking about leaving", one teacher said.

Writing about education networks, Day and Hadfield (2004: 583) note that "trust is the glue that holds partnerships". It is necessary skip a "pseudo-collaboration", where teachers seem to "make decisions that had already been made" (Corrie, 1995: 94) for a truly active collaboration based on active trust. Active trust is not blind faith in other people, but a process of training in negotiation. For Giddens et al. (1994: 127) trust involves a "positive spiral": "trust in others leads to solidarity and shared responsibility". These are processes that cannot happen suddenly. They are slow and progressive. On the one hand, it is important for teachers to raise their level of involvement, which requires a commitment and energy sometimes not compatible with the heavy workload in schools. In the case of project analysis, institutional impediments, are added on top of this, and make it not always possible to design the foundations of communities with everybody involved. Nevertheless, all the elements of a community should be transparent - administrative and financial aspects, conceptual as all as practical ones - to allow teachers to have a clear vision of goals and the type of collaboration that is sought.

Dialogue learning

Teachers felt they benefited from the participatory nature of learning done in this community. Most teachers saw the community as a space for sharing experiences (42.8%), followed by "opportunity for professional development" (25%). Participants place a strong emphasis on the collective process also when asked about the characteristics that define the methodology used within: from eleven options given, the teachers chose only "pluralism of opinions" (52.4%) and "collective responsibility" (28.6%). In assessing the meetings described in the documents, expressions such as "learning with colleagues" and "sharing with colleagues" are common and the word "sharing" is always associated with the words "ideas", "experience" and "learning" as shown in Graph 3. Feeling they had benefited from the sharing of experiences as well one teacher confided: "One of the most interesting things of this participation is that you hear what the most silent person has to say".



Graph 3 - Analysis "Tropes" - words related to "sharing"

This community of practice was a place and time in which teachers were able to share concerns, knowledge, experience and methodologies. It is assumed, based on some motivational theories (e.g., Slavin, 1995) that communicative action inherent in these processes results on cognitive and non-cognitive learnings. It is dialogue learning. The dialogic learning is then coming from the contributions of pairs produced in an equal dialogue. The dynamics adopted is to allow the interaction of individual knowledge to become a democratic knowledge. The contribution of others in reflection makes it unique in that it gives the participants the feeling of a group, in each part of the other activity. Each comment becomes a contribution to the dialogue process and all contributions should also be heard and considered. The opinion of the NGO technical is only as valid as the teachers' opinions and contributions are assessed according to the validity of the arguments. The movement to be formed moves apart from each member. As Nóvoa (cit. by Canário, 2000: 5) says: "Training is a process that cannot be easily controlled. It happens more often when there's hope that when it is scheduled".

This dynamic gives strength to withstand adversity, providing another way to work, which is not individual. This community of practice has become a community of affection (McLaughlin, 1993), where collaboration creates opportunities for emotional support especially for teachers working in a more isolated way in their schools. This relationship based on solidarity is well expressed in a conversation: *"We must support each other"*. Only like that can we promote feelings of self-efficacy and reduce feelings of uncertainty in the face of new content and methodologies. But participating as reflective practitioner also requires learning, reflection and discussion as to work in a group means talking and listening, and being exposed. The idea of gain, and not loss, is essential for the teacher who feels that sharing compensates for the loss of some autonomy: moving from an idea of "self" that produces for an idea of "we".

Climate of relationship create space for cognitive conflict

The climate does not produce visible products, but is the soul of the process. It mitigates the professional isolation of many teachers, bringing the "world news", becoming a motivating factor as well as professional dimension, contributing to the promotion of learning. In general, the teachers strongly felt as members of the group they belonged in (81.8%). However, the relationship between peers has meant different things to different teachers. For some, it was interpreted as a relationship of "mutual respect" (52.3%) and "trust" (28.6%), for others it was defined as "friendship" (19%), while in two cases it was defined as a relationship of "anxiety" and "tension".

In a case where the collective work is the result of contributions from individual experience of everyone who come from diverse backgrounds, different stories and a variety of perspectives, disagreements are inevitable. The cognitive conflict may have beneficial effects in collaborative processes. The challenge is to find positive ways to deal with this conflict, rather than deny its existence or artificially underestimate its importance (Lima, 2001). The result of this avoidance may have negative consequences, it may even have led to the "disappearance" of the need to increase the shared understanding on GCE. It is even possible that this course of action may have had negative impacts on the quality of interpersonal relationships within the community. Research in this area has shown that while cognitive conflict increases productivity, affective conflicts affect negatively the community. Isolated actors with little or no relationships are called "outsiders" whose skills, experience and perspectives "are not used effectively" (Cross and Parker, 2004: 79). This was the case of two teachers who did not identify "really" with group members for whom the experience had little influence on their professional development.

When well-managed, cognitive conflict releases tension and opens new avenues for collaboration. De Dreu (1997) distinguished three levels at which the effect of cognitive conflict on performance can be felt: the individual level, the promotion and encouragement of individual creativity and independent thinking; the group level, the quality of the results

of a joint negotiation, on the acceptance and quality of group decision, and the creation of contexts in which the development of thinking is divergent; the organizational level, an increase of personal commitment, enhancing communication. This is less likely to engage in friendship, than with some of the teachers. Friends are more likely to be similar in ideas and behavior, and are less likely to differ from each other. In many cases, the ties of friendship may even be a hindrance, may discourage the acquisition of new information.

Reflect, but with experimentation

This community refused to be reduced to a frenetic activism without depth or capacity and therefore is blind to the understanding and analysis of the processes involved. But this result in a intervention guided by the equation-reflection-sharing collective construction, lacking in action. Teachers were critical about that, saying that the lasted liked was their "intervention in social change" (24.2%) and "intervention in school" (15.1%). It is interesting to note that participation in this community promoted a greater activism in this area, teachers want to work more directly in schools in order to promote GCE.

Reflecting on the practice, questioning it, distinguishing difficulties is important, but not enough. The experience in the classroom is what gives meaning to a reflexive formation. It's like an invisible thread that binds but is consistent with what the teacher thinks and does in the classroom and with what the class does and thinks during the process of dialogic learning. Investigations in the field of educational psychology (Lave and Wenger, 1991) have shown that for most people, learning is not immediately transformed into practice that could be easily transferred to other contexts. This means that learning is essentially located in a specific context.

We also point out that the agreement among participants on the importance of incorporating a global perspective in formal education has difficult implications with regard to the curriculum. This confirms some informal conversations in which teachers emphasized the significance imprecise and subject to multiple interpretations of the concepts used. Teachers need to be "convinced" that they can be successful and only the practice of taking advantage of, mobilize and organize the knowledge in order to apply it in a practical way in real life settings. When they try different approaches to the practice, teachers become more confident and willing to articulate GCE with its educational reality in a coherent and systematic way. When your practice in the classroom differs from the current thought in personal goals, teachers may feel they need to be more informed and updated.

Of course, if these teachers are not central actors in their own schools, the project risks to assume a potential change that may not actually exist. But such was not the case: 11 out of 22 teachers hold the office of "Project Coordinator" at school and nine play roles of director of group that is preferably one who teaches the area "Civics" and who defines the project with colleagues of the curriculum for a class.

4. Conclusion

Identifying the relevant elements for analysis of a community of practice as an opportunity for professional development for teachers, it is worth making a few final notes. Firstly, all training models help to develop a type of thinking and acting, a certain vision of the world and the development of communities of practice is a new understanding of the teaching profession, although atypical in most education systems. The project presented in this article it is an initiative challenging the established conceptions on teacher training - to pave the way for a professional development that is not individual, competitive and bureaucratic, and to counteract the attacks made by recent educational policies one some of the traditional pillars of teachers' professionalism.

Secondly, all components that are basis for analysis and discussion are organic, influencing each other. For example, higher teachers' collaboration gives more opportunities to internalize the goals of the community. In turn, collaboration between teachers and greater involvement of teachers in decision-making processes relate positively. Further, more teachers feel participants in a dialogic learning environment are more encouraged to reflect on their beliefs and values, to find a consensual conception of GCE. The dialogic learning promotes cognitive conflicts and influences, sometimes negatively, commitment and motivation of teachers. Experimentation and action are powerful predictor of teachers' conception in this area.

Thirdly, it was revealed as interesting that the participation of teachers in this community of practice, also gave greater professional motivation, indicating that these processes have the potential to revive the life and the practice of teachers in school. In some way, this participation allowed them to meet the desired professional identity and increased the "possibility of social intervention" (although in practice just a little) at the expense of possible professional identity, which is defined according to the limitations and obstacles of everyday work. The possibility of evolving opportunities for professional development is to a large extent, the capacity for change, rather, through this process of emancipation in

which teachers are no longer a backward step in the process, participating in what is essentially proposed by others, to be a step forward, enhancing the development of their interests.

To convert the aspirations of this model of learning in reality is a challenge, it takes time and effort, it requires significant changes. Moreover, the socio-economic circumstances and political-institutional framework in Portugal determine conditions that are extremely unfavorable to the development of this type of training model. We have no concrete proposals to this problem. We feel, however, the obligation to contribute to knowledge and recognition, and to identify at the outset the need to deepen the scientific knowledge on this subject from other experiences in other areas, with other organizations.

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