Article

Organizational Learning within the Context of the Functioning of Educational Teams: The Progressive Emergence of a Professional Metamorphosis

Generosa Pinheiro * and **José Matias Alves**

Faculty of Education and Psychology, Research Centre for Human Development,
Universidade Católica Portuguesa, 1649-023 Lisboa, Portugal; jalves@ucp.pt
* Correspondence: silva.vilela@sapo.pt

Abstract: Responding to contemporary global challenges will require quality education, which presupposes changes in schools' organizational structures, new roles and mentalities for the players involved and a culture of learning at the different levels of organizations. In this regard, we strive to understand how changing certain organizational structures, more specifically the organization of teaching by educational teams operating as professional learning communities, can have an impact on individual, collective and organizational learning at schools. To this end, we have adopted a qualitative research paradigm, put into operation through a case study, based on a qualitative-quantitative approach. We combined a descriptive statistical approach consisting of two questionnaires, which have been decoded and interpreted both structurally and semantically, with a content analysis of interviews, focused discussion groups and field diary notes, to examine a number of unique contexts and the perspectives of individual players. We concluded that a change in organizational structures is an essential but insufficient condition. What is needed is a change in the players' beliefs and collaboration that provides deep learning. As such, a substantial change in education at the level of educational organization requires joint action at the levels of structure, middle leadership, beliefs and professional cultures.

Keywords: educational teams; learning communities; school cultures; organizational structures; shared leadership

1. Introduction

Tackling global challenges such as environmental sustainability and social justice will require quality education, as the 2030 Agenda recognizes [1]. Engaging children and young people in continuous and deep learning, transformative processes in which long-standing assumptions are challenged, will require the same of teachers and school leaders by creating a new social contract for education [2]. Therefore, in order to provide this future learning, schools need to create new educational environments [3] to ensure learning takes place at every level of the school organization, or in other words, not only with regard to structures and the modus operandi, but also to mentality and culture, as having the capacity to learn requires conditions, culture and structures geared to promoting interrelationships and synergies [4]. The creation of Professional Learning Communities (PLCs) appears to be the most favorable context for improving student learning, professional development and teacher training, and as such triggers organizational learning, as suggested by various authors [5–7].

However, there is little consistent evidence on how participation in PLCs promotes changes in teaching practice [8] or the transformation of a school into a learning organization [9]. It should also be noted that PLCs and collaboration alone do not lead to learning for students, teachers or organizations [5]. Therefore, in this study, we are interested in how

collaborative practice is orchestrated within educational teams and its impact on the ways of organizing teacher and student work, of leading, teaching and making people learn.

Thus, the main objective of this study is to try to understand whether a different school organization, in educational teams, can implement more generative, equitable and effective work processes and dynamics that promote learning for all: students, teachers and the school organization itself.

1.1. Educational Teams Such as PLCs

Promoting deep and continuous learning among students requires the professional development of teachers. This is best achieved through the implementation of new structures and working dynamics, such as educational teams functioning as PLCs [10,11].

In fact, the organization of teaching by educational teams [12] consists of an innovative process based on the creation of teams of teachers of various subjects to whom every student in an academic year (or cycle) is allocated. In this way, the teachers in each team undertake educational responsibility for all these students, participating collaboratively in the integrated and contextualized management of the curriculum, both in terms of planning and operationalization, monitoring and evaluation. The educational team is also responsible for creating flexible groups of students, depending on the space available, the established times and the proposed activities and their learning profile, whereby they are also entrusted with curricular diversification activities [12–14]. Teaching is thereby conceived as a collective task, arising from the collaboration and interaction of every team member through sharing experiences, holding discussions and undertaking shared responsibility. Therefore, by giving teachers the role of agent (and decision-maker) in curriculum development and change, working in educational teams will enable them to improve professionally and students to develop [10,11]. In this way, this teaching perspective is part of the concept of interactive professionalism [15], which involves not only a redefinition of the role of the teacher, but also of their working conditions, enhancing their professional development and transforming the school into a learning organization [16].

1.2. An Empirical Analysis of Professional Learning Communities

Although there is no single definition for the concept of a PLC, there seems to be an international consensus that it consists of a group of teachers with shared interests dedicated to improving their practices on a constant basis, examining them with a critical eye in order to improve their students' learning [5], which involves a focus on learning, a collaborative culture and collective responsibility, as well as an orientation towards educational outcomes [17]. It also involves a process in which teachers' autonomy is recognized to enable them to focus on their practice and take steps to improve it [18]. In a literature review of PLC evaluation tools over the last 30 years, Lee et al. [7] found three common elements in the eleven tools analyzed: shared vision and norms; student learning (the goal of PLCs) and teacher learning (the driving force behind PLCs); collaboration and collegiality as a way of maintaining them. In addition to these three basic elements, they presented other elements that fluctuate according to the tools: favorable structural conditions and shared leadership.

In accordance with this conceptual framework for the empirical analysis of educational teams such as PLCs, we opted for an analytical model based on the studies of Huijboom et al. [19], which includes the aforementioned basic characteristics, as illustrated in Figure 1.

Thus, in terms of individual and collective learning, collaboration, reflection, providing and receiving feedback, experimentation, individual and collective professional commitment, and ethical and moral commitment appear as dimensions capable of enabling the creation of collective knowledge. Regarding collegiality, it seems pertinent to analyze trust, mutual knowledge and respect, collegial support and encouragement and professional cohesion as characteristics of social groups capable of fostering a sense of community and influencing learning in PLCs, promoting the development thereof. As for the team's professional orientation, it is supposed to include a shared vision and responsibility focused

on the continuous learning of teachers and the learning of every student. This model also includes two steering factors that act as inputs to the creation and maintenance of PLCs: organizational facilitators (organization of teaching by educational teams, stability and composition of these teams, available and sufficient time) and leadership, which has an irrefutable role due to its influence on teachers and working conditions [19].
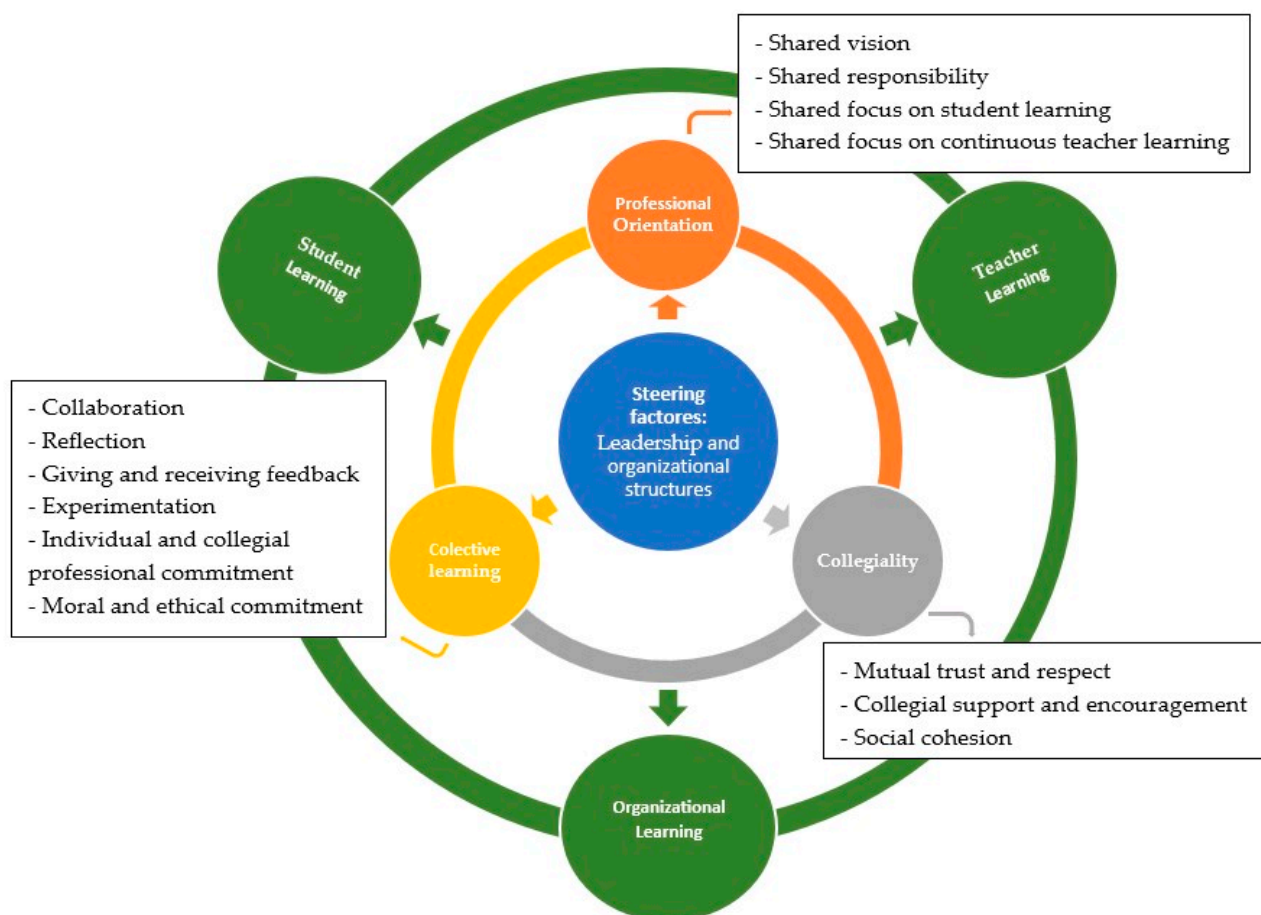

Figure 1. PLC analysis model—adapted from Huijboom et al. [19].

1.3. Learning Communities and Organizational Culture

In an exploratory literature review on the cultural changes generated by PLCs at schools, Pinheiro and Alves [9], like Stoll et al. [5], found positive results regarding the effects of PLCs on organizational culture, more specifically in promoting a culture of collaboration and collegiality and, consequently, in developing teachers' professionalism [20–24].

This research aims to understand how a PLC contributed to changing the culture of the school organization studied. To achieve this, we will provide a brief explanation of the concept and its various dimensions.

School culture is characterized by the qualities and characteristics of the school context, linked to norms, objectives, interpersonal relationships, teaching and learning, leadership, and organizational structure [25]. This is the school's ethos, as it is defined by the way in which values, beliefs, prejudices and behaviors are put into practice on a daily basis [26–28]. There are two different dimensions in school culture: form and content—content being beliefs, values, habits, and ways of doing things, and form being the characteristic patterns of relationships and the ways in which the members of a team associate [29,30]. Thus, different school cultures can be identified according to the interactions between teachers: individualism, collaboration, artificial collegiality and balkanization [15,29], characterized by different types of collegial relationships, marked by different degrees of intensity and

interaction, in a continuum ranging from telling stories and looking for ideas, through help, support and sharing, to working together [31]. These cultures help give meaning, support and identity to teachers and their work [29], as teachers' cultures and their relationships with their colleagues are among the most significant aspects of their life and work [32].

A culture conducive to ecological development at all levels of the system and the community, involving teachers, leaders and other stakeholders in genuine collaboration [4], contributes not only to promoting student learning, but also mobilizes teachers to be capable of working together to realize a school's visions, missions and aspirations, and can be characterized on the basis of six elements: shared planning; professional value; an emphasis on learning; collaboration; collegiality; and transformational leadership [25,33].

1.4. Leadership in PLC

Leadership can be translated as the ability to convince others to get involved in order to achieve common goals, visions, purposes and values [26,33], and is therefore one of the basic components of a learning community [5,18], one of the basic dimensions of a learning organization [34] and one of the irrefutable factors in the implementation and development thereof [19,35], and it also promotes teachers' effectiveness, students' results [36] and the collective development of the school [20].

In this sense, schools and educational teams, as learning communities, require a type of leadership that has the primary goal of enhancing student learning: leadership for learning [37]. A leadership should recognize the active role of colleagues and share responsibilities [38], known as shared leadership. It should be both strong and compassionate, able to understand difficulties and help overcome them, known as transformational leadership [4,39], while remaining a driving force in the entire process of change [40].

Thus, it will be up to leaders to define how change should be made, aligning employees with this vision and inspiring them to act, despite the obstacles [41], replacing the exercise of bureaucratically controlled management with the redesign of organizational structures designed to promote the capacity of teachers and schools to respond to the needs of students and current challenges, through pedagogical, transformational and shared leadership [42].

1.5. The Current Study

The second decade of the 21st century in Portugal has borne witness to a reconfiguration of public educational policies, in line with a new model of school governance, in which a centralized and bureaucratic tradition has been giving way to a pendulum-like strategy that tends to value the school as the intermediate (middle) level of analysis and management between the educational system (macro) and the classroom (micro), and sees it as a center of change [11,43]. Order No. 6478/2017 of 26 July 2017 [44], Decree-Law No. 54/2018 of 6 July 2018 [45] and Decree-Law No. 55 of 6 July 2018 [46] have provided scope for greater autonomy, giving organizational and curricular flexibility, in which the organization of the school by educational teams can be framed [12]—a technology that appeals to professional and organizational autonomy, opening up the possibility of contextualized educational responses [13].

This study was carried out at a group of schools in northern Portugal, open to students from pre-school to the 9th grade. The group of schools had 85 teachers and 980 students in 2023. Following the COVID-19 pandemic, the school drew up the 2021/2023 *More School* plan to catch up on missed learning. One of the organizational strategies that was planned and implemented was to split the school into educational teams, one for each grade. Ninety minutes of the teachers' schedules were set aside for a fortnightly meeting of these educational teams, to enable the teachers, in conjunction with the team coordinators, to manage the learning of every student in their year, responding to the problems diagnosed in a contextualized and timely manner, in addition to setting up flexible and temporary groups of students (Class Plus) in accordance with their learning profile in order to facilitate pedagogical differentiation.

Given the conceptual framework outlined above and the contextual reality of the group of schools under analysis, the following research-related question was raised for this study:

Are there any educational teams at schools that organize, operate and self-regulate as Learning Communities? If so, what effects do they have on those involved, on educational processes and on school culture(s)?

2. Methodology

In order to understand how collective professional practice is orchestrated within educational teams and the effects thereof on organizational improvement, we opted for a qualitative, naturalistic and interpretive type of research, through which we sought to investigate participants as they went about their normal activity, aiming for a detailed description that goes beyond a superficial understanding, to explain contextual meanings of behavior in a holistic manner [47–49]. We put this research into operation in an intrinsic case study [50] to enable us to carry out an in-depth analysis, relying on multiple sources of evidence and different perspectives from the participants to help us to understand complex phenomena [50], and a quali-quantitative approach.

2.1. Data Collection Procedures and Instruments

We began our data collection by observing classes (*n* = 12) in various subjects in the eighth and ninth grades, corresponding to the classes of the students who answered the questionnaires. This was followed by two questionnaires: one addressed to all teachers in the school from first to ninth grade (*n* = 70), and the other to a sample of eighth- and ninth-grade students (*n* = 75)—the best and worst class (in terms of academic results) in each of the school years in question. We chose these students because they were the oldest in the school and would have a better idea of the developments taking place, because they also have different learning profiles and because we focused our study on the educational teams in these academic years. We felt it was important to start with the questionnaires, as they would enable us to listen to a large number of players and gather a set of data that would provide a good basis for understanding the phenomenon being studied in general, thereby enabling us to draw up a set of interesting ideas for the creation of data collection instruments for use at a later date.

We tried to ensure that the different items in these questionnaires expressed the constructs to be analyzed, that these constructs were duly grounded according to existing knowledge and theories in the area being studied and that the items in the questionnaires provided as much information as possible and as effectively as possible. Thus, the creation thereof was supported not only by the literature review carried out previously, but also by the experience of the researchers and, in the case of the questionnaires aimed at students, by the exploratory interviews carried out with some of them. The questionnaire for teachers consisted of five thematic blocks: personal and professional data; teacher collaboration practices; the dynamics of educational teamwork and its effects; the role of top and middle leadership; and pedagogical practices implemented in the classroom. The questionnaire for students was divided into three structuring categories: personal and school data; teaching and assessment practices in the context of the organization of teaching by educational teams; and participation in flexible student groups.

In order to validate the questionnaires, we also subjected them to a qualitative analysis carried out not only by experts, but also by individuals who, although in other contexts, were in the same situation as the participants and were able to assess the content and form of the different items in terms of clarity, comprehensibility and consistency with the goals of the instrument, through the method of spoken reflection [49,51].

This instrument was provided in computerized format by sharing an access link sent by email to facilitate the statistical analysis of the data collected. In the case of the teachers, it was shared in a personal e-mail addressed to each of them; as for the students, the

questionnaire was completed on their cell phone in a class attended by the researchers, meaning any doubts related to answering it could be dealt with.

As for the timing of these data collection instruments, they were implemented in the middle of the second semester of the 2022/2023 academic year, at a time when neither students nor teachers were overburdened with tasks and work. As far as we were concerned, this was the ideal time for the participants to be able to provide a more reliable and consistent retrospective of all the work carried out in the first three quarters of the academic year.

An initial statistical analysis of the two questionnaires provided us with a set of data that allowed us to understand the participants' overall perception of the subject matter of the study, and that made it easier for us to finetune the data collection instruments/techniques that followed in order to understand some of the results for which there was still no explanation and some of the incongruities found.

We followed up with semi-structured interviews with three educational team coordinators and the school principal in order to gather the opinions of the senior and middle leaders regarding the changes in teachers' ways of working and their perception of the profession as a result of the work dynamics promoted in educational teams, in addition to the factors that promote and/or inhibit collaborative and reflective work in an educational team.

In order to obtain relevant data from these interviews that would answer the aforementioned research question and enable us to complement/reveal the data obtained through the questionnaires, interview scripts were drawn up which included the relevant thematic blocks, the general and specific goals thereof, as well as some of the foreseeable questions to be put to the participants. As with the questionnaire, we also validated the interview script through a qualitative analysis by experts and individuals who, although in other contexts, were in the same situation as the participants, as explained previously.

We chose to conduct these interviews online, via Zoom, not only to ensure greater availability, comfort and convenience for the participants, but also to make it easier to record them.

We also held two focus groups: one with six teachers and another with eight students. We selected teachers from different disciplines working in educational teams, whose meetings and classes were objects of observation. We chose eight ninth-graders because they had already answered the questionnaire, because they were the oldest and therefore had greater insight into the developments taking place, and because they had been part of different flexible groups of students, Class Plus. The primary aim of setting up these focused discussion groups was for individual speeches to reveal the widespread social discourse.

Regarding the focused discussion groups held with the students, we were attempting to understand whether or not more collaborative and reflective work between teachers, as well as the Class Plus technology, was an incentive for experimenting with fairer and more effective pedagogical-evaluative approaches. With regard to the focused discussion groups held with the teachers, we were attempting to understand, from their perspective, to what extent the collaborative dynamics of the educational teams promoted or did not promote the practice of new methodologies in the classroom, as well as changes in the teachers' ways of working and their perception of the profession, in addition to the factors that promote and/or inhibit collaborative and reflective work in an educational team.

As with the semi-structured interviews, these focus groups were carried out on the basis of previously defined scripts, which also underwent the aforementioned validation process.

For the same reasons listed above, we chose to hold these online focus groups via Zoom, in May and June 2023, after carrying out the statistical analysis of the data collected through the questionnaires and listening to the leaders' perceptions.

While listening to the different school stakeholders, we carried out structured classroom observations (n = 12) and participant observations at educational team meetings (n = 7), with the aim of obtaining a more complete picture of the reality, combining information arising from intersubjective communication with more objective information

arising from direct the observation of the phenomena being studied. The primary purpose of our classroom observations, which took place from January to March 2023, was to go beyond what the participants said they did by watching and listening to what they did. Observing the work carried out in the different educational teams (*n* = 7) between January and May 2023 gave us the chance to gain a more consistent perception of the interrelationships between the different working groups, enhancing our knowledge of group cultures and trying to understand not only the values adopted by the participants, but also the way in which they experience them on a daily basis [52]. The observations carried out were guided by predefined goals and planned in stages, involving different locations and different participants and controlled through their relationship with the theoretical lenses of this research.

To complement the data obtained through the aforementioned instruments and techniques, we carried out a documentary analysis of some of the school's guiding documents, the School's Educational Project and the 2021/2023 More School plan, as well as the memos of the educational teams, to provide a better understanding of how some of the innovative ideas provided for in Decree-Law No. 55/2018 of 6 July 2018 [46] are being adopted at the school.

The research project, conducted from January to August 2023, also involved the use of a field diary that enabled us to document facts experienced in practice, as well as to exercise the researchers' thinking, to enable them to distance themselves from the situations registered. The field notes were subjected to a content analysis in accordance with the procedures suggested by Bardin [53], according to the transcripts of the interviews and focus groups, to understand whether or not they supported the participants' responses.

2.2. Data Analysis

We carried out a descriptive statistical analysis, using IBM SPSS (version 28), of the data taken from the questionnaires, which we subjected to a structural and semantic analysis and interpretation. All the data from the interviews and focus groups were digitally recorded, transcribed and categorized into emerging themes. We used content analysis in accordance with the methodology proposed by Bardin [53] and used the NVivo 14 program to create analytical matrices, which facilitated the interpretation and triangulation of the data in order to find patterns and relationships between the different themes and participants.

2.3. Validity and Reliability

As a means of guaranteeing the validity and reliability of our study, we strove to triangulate different points of view, different sources of data, different theoretical approaches, and data collection methods throughout our research work [49]. This inter-method and intra-method triangulation enabled us to clarify the meaning of the information collected, reinforcing or questioning the interpretation created and identifying complementary or alternative meanings accounting for the complexity of the contexts being studied [48].

We also ensured that the participants reviewed the transcripts of the interviews and focus groups, as well as the observation grids from the meetings and classes, enabling them to check that the researchers' interpretations were consistent with their own experiences, ideas and thoughts. We also ensured a peer review—an expert with knowledge of the issue and the research process, although outside the context, accompanied and validated the data analysis and listened to the researchers' ideas [49].

In turn, the field diary allowed for a detailed, rich description of the research setting, the people and the themes, in addition to allowing for the exercise of reflexivity, as it facilitated not only an analysis of the research practices when the researchers were in action, but also a reflection on how their experience, background and prejudices influenced their interpretation, with the aim of rendering the study more accurate [52].

2.4. Ethical Procedures

The entire data collection process was preceded by a request for authorization to carry out the study, addressed to the school principal, and the signing of informed consent forms by every participant or their legal representative, in the case of minors, in accordance with the Ethics Charter of the Portuguese Society of Educational Sciences [54] and the Code of Ethics and Conduct of the Portuguese Catholic University. As such, we entered into an ethics agreement with every participant to ensure that they were aware of the scope and goals of the study, provided their informed consent, had the right to withdraw and remained anonymous.

3. Results and Discussion

We will begin the presentation and discussion of the results of this research by answering the first part of our Research Question, Are there any educational teams at schools that are organized, operate and self-regulate as a PLC? using the analysis model adopted for this study. We will then answer the second part of the research question, What effects do PLCs have on those involved, on educational processes and on school culture(s)? using the six dimensions of organizational culture advocated by Cavanagh [33] and taken up in the studies by Jafar et al. [25] as theoretical lenses.

3.1. Do Schools Have any Educational Teams That Organize, Operate and Self-Regulate as a PLC?

Based on the questionnaire given to the school's teachers ($n = 54$) working in educational teams, we determined a set of variables to characterize the three dimensions of a PLC: professional orientation, collegiality and collective learning, as illustrated in Table 1.

Calculating the total score for each of the dimensions, the variables of which were assessed on a five-point Likert scale, we can see, as illustrated in Table 2, that the average of the three is positive, leading us to conclude that according to the teachers' perception, the educational teams have been operating as a PLC.

Table 1. Variables of the three dimensions of PLCs—questionnaire survey for teachers.

PLC Dimension	Variables
Professional orientation	The educational teams have defined the essential learning process students need to master in each year of schooling; The educational teams have defined common work goals; The educational teams have developed common strategies to overcome the difficulties diagnosed; The educational teams have the autonomy to determine flexible groups of students to facilitate learning for everyone; Educational teamwork contributes to the academic success of all students; Educational teamwork is an effective way of supporting colleagues facing difficulties; Educational teamwork contributes to professional interactions with positive effects on teaching practices; Educational teamwork makes it possible to get to know all the students in a given school year; Educational teamwork promotes the sharing of responsibilities; I feel that there is a common purpose towards quality performance; I feel I am developing professionally.
Collegiality	I feel I have someone to talk to when faced with difficulties; I feel I can trust my colleagues when faced with a problem or challenge; I feel more comfortable sharing my experiences; I feel more open to receiving feedback on my performance; I feel more open to changing my opinions; I feel that my suggestions are taken into account; I feel disappointed in my colleagues; I feel I find it hard to approach my colleagues; I feel there are human connections: colleagues creating relationships of mutual trust and friendship; I feel like I am just fulfilling my teaching duties; I feel more fulfilled.

Table 1. *Cont.*

PLC Dimension	Variables
Collective learning	The educational teams have promoted interdisciplinary work projects by grade level; The educational teams have analyzed the data resulting from the formative evaluation; The educational teams have implemented new ideas/strategies; The educational teams have analyzed the impact of the changes implemented in order to discover the most effective ones; In the educational teams, there has been room for the exchange of experiences/sharing of practices; There has been room for sharing difficulties in the educational teams; I create teaching materials together with other colleagues in the educational teams; I sit in on other colleagues' lessons to learn/improve teaching strategies in the educational teams; I reflect on my teaching practices and those of my colleagues in the educational teams; I practice joint teaching in the educational teams; I practice class exchange in the educational teams.

Table 2. PLC dimension average—questionnaire survey for teachers (*n* = 54).

PLC Dimension	N	Minimum	Maximum	Average	Standard Deviation
Professional orientation (total score)	53	3.00	4.83	3.99	0.44
Collegiality (total score)	54	2.67	5.00	3.91	0.59
Collective learning (total score)	51	2.35	4.00	3.16	0.41

These positive averages in the three dimensions of PLC may be predictive of emerging modes of collective professional practices at the level of educational teams. Indeed, according to the perceptions of the majority of teachers, educational teams define common goals and strategies for overcoming students' difficulties, and there seems to be a shared responsibility for achieving these goals, hence the positive result for the dimension of professional orientation.

The dimension of collegiality received the highest score due to the long-standing collaboration between teachers who work in the educational teams. According to their perception, there is mutual trust, peer support, and a sense of community. Additionally, they feel encouraged to share their opinions and perceive an atmosphere of openness.

However, we also found that collective learning is the dimension with the lowest average, which may be partly explained by the low frequency (number of times it occurs) and breadth (number of colleagues with whom it occurs) of more complex professional interactions such as lesson observations, joint teaching and class exchanges, as illustrated in Figures 2 and 3.

Although these interactions require more time and greater conceptual appropriation on the part of the teachers, they are the ones that contribute most to their collaborative learning. Indeed, Lund [23] concluded that observing colleagues enables teachers to acquire a meta-perspective on their own teaching, or in other words, observing the practices of their colleagues enables them to learn a new way of looking at their own practices, gaining inspiration and discussing problems. Moreover, Wedder-Weiss et al. [55] proved that collaboration, in order to contribute to teacher learning, involves not only the exchange of teaching materials, but essentially the ability to question the ideas and practices of others and to generate disagreement, which presupposes a critical analysis of the problems of practice, based on the observation thereof.

We carried out the same analysis in relation to the performance of senior and middle leadership, one of the driving forces behind PLCs [19], and as illustrated in Table 3, according to the teachers' perception, both have a positive impact on the creation of educational teams as PLCs, although the influence of middle leadership seems to be greater than that of senior leadership.
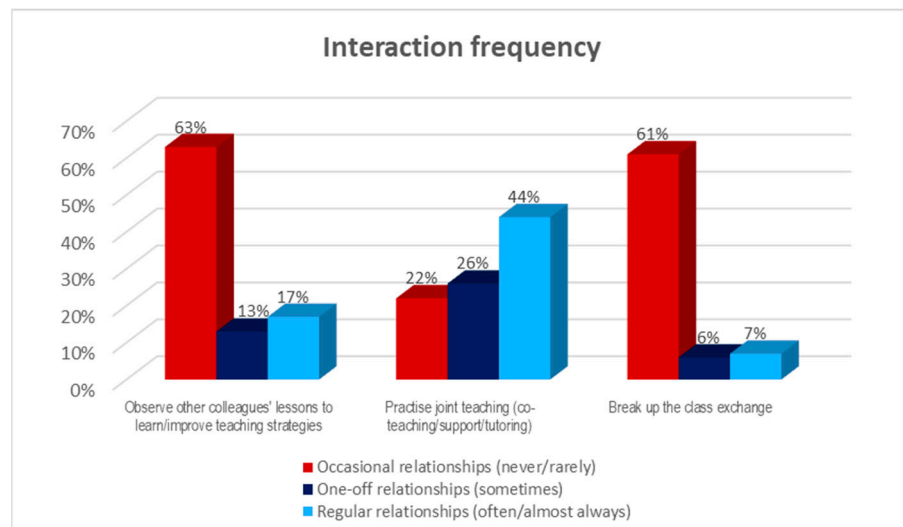
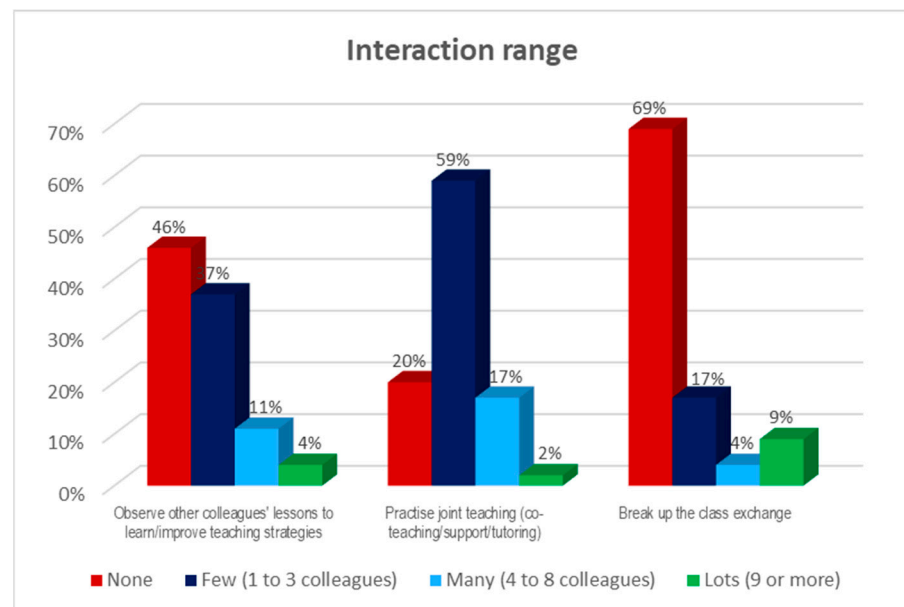**Figure 2.** Frequency of the most complex professional interactions (*n* = 54).

Figure 3. Range of the most complex professional interactions (*n* = 54).

Table 3. Senior and middle leadership average—questionnaire survey for teachers (*n* = 54).

Steering factors	N	Minimum	Maximum	Average	Standard Deviation
Senior leadership (total score)	53	2.20	5.00	3.82	0.57
Middle leadership (total score)	52	2.64	4.91	4.17	0.58

This is another piece of information confirming that educational teams are turning into learning communities, as leadership is very important in the creation and sustainability of learning communities [19,35,56] due to the fact that it plays a fundamental role in bringing together visions, wills and resources [57].

Senior leadership plays a decisive role in changing organizational structures, another of the driving forces behind PLCs, by creating the time and space for teachers to work together. This was the case at the school under study, where the teachers were divided into nine educational teams responsible for managing the learning process of students in each

of the school years. To allow for this to be carried out in a collaborative manner, teachers set aside ninety minutes of their schedule every two weeks for team meetings. Each team now has a coordinator to manage all their work.

These middle leaders, operating at a level between strategic leadership and the classroom context, came to play a fundamental role in the distribution of leadership and teachers' capacity for action [58], as they sought to implement, through formative and pedagogical leadership, new collaborative practices capable of contributing to people's development [59].

From the data discussed above, it seems clear that the educational teams are organizing, functioning and self-regulating as a PLC. In the next section, we will look more closely at the collaborative micro-processes that have developed among the teachers in these teams and their effects.

3.2. What Effects Do PLCs Have on Their Stakeholders, Educational Processes and School Culture(s)?

We will now reveal how the collective practice of teachers is orchestrated within educational teams, as well as its effects on the mentalities and practices of teachers and middle leaders, as well as on school culture, in accordance with the six dimensions of organizational culture advocated by Cavanagh [33]: collaboration, which includes shared planning; collegiality; leadership; professional value; and an emphasis on learning.

3.2.1. Collaboration

The teachers at the school under study now meet every two weeks to manage the learning process of all the students in a given year in interdisciplinary teams, whereby the core curriculum management unit is no longer the subject departments but the educational teams, as a means of promoting more interdisciplinary work. The results of the questionnaires administered to the teachers (*n* = 54) illustrate that their perceptions of the dynamics of the work they do are very positive, as shown in Table 4.

Table 4. Teachers' perceptions of the dynamics of collaborative work developed in educational teams—questionnaire survey for teachers (*n* = 54).

Collaborative Dynamics in Educational Teams	Sporadically (Never/Rarely)	Occasionally (Sometimes)	Regularly (Often/Almost Always)	Not Applicable
They have defined the essential learning process students should master in each year of schooling.	10%	19%	69%	2%
They have promoted interdisciplinary work projects by school year.		19%	81%	
They share common work goals.		11%	89%	
They have analyzed the data arising from formative assessment.	2%	6%	92%	
They have developed common strategies to overcome difficulties diagnosed.		6%	94%	
They have implemented new ideas and strategies.	2%	28%	70%	
They have analyzed the impact of the changes implemented to discover the most effective ones.	2%	17%	81%	
They have the autonomy to determine flexible groups of students.	17%	13%	63%	7%
They have been supported by other technicians.	9%	22%	67%	2%
There has been room for exchanging experiences/sharing good practices in the educational teams.	7%	20%	73%	
There has been room for sharing difficulties in the educational teams.	4%	15%	81%	
They have generated a scenario of increased trust and professional well-being.	17%	17%	64%	2%

Observations, interviews, focus groups and the analysis of meeting memos provided us with a better understanding of how these collaborative dynamics are interknit within these teams.

As far as collaborative curriculum management is concerned, although the educational teams are interdisciplinary, it is clear that the work continues to be carried out in an essentially disciplinary dynamic, with only occasional moments of interdisciplinary planning, as confirmed by one of the educational team coordinators (C):

"Everyone works on a given document to the best of their ability, but it's still done within the scope of their subject with regard to their pupils." (C2)

In the area of collaborative student management, each teacher felt responsible for all the students' learning processes, as one teacher (T) said, and were free to form flexible groups of students, but only in two of the educational teams, the seventh and ninth grades, due to work distribution constraints, as the principal (P) explained. Moreover, they felt that this form of management placed an excessive focus on the students with the most difficulties.

"Prior to working in the educational team, I was responsible for the classes I taught. Now, I feel responsible for all the fifth-graders, which is the educational team I belong to. . ." (T1)

"First of all, it's a question of drawing up timetables. It's very difficult to draw up timetables that are well-balanced, both for the class and the students, and for the teacher. That's why we can only work with two school years." (P)

Regarding the production of documents, various documents were drawn up together, including plans, recovery plans, meeting memos and curricular specifications, but they had little time to collaborate on teaching materials.

"With regard to the production of teaching materials, I think this part was missing." (T3)

Therefore, we have seen an investment in plans, in a more bureaucratic approach, but we have also noticed a lack of time for planning teaching activities and the production of didactic materials in a joint manner, which may have hindered the collaborative management of the curriculum, as well as the implementation of interdisciplinary projects with the use of more active methodologies.

The teachers in the educational teams also had the opportunity to make joint decisions regarding the group of students comprising *Class Plus,* the transversal strategies for remedial students—the students to be given educational support, tutoring or mentoring. However, their efforts to increase flexibility were limited by their impotence to adjust timetables or curricula during the teaching cycle. In addition, they were still very much tied to the annual planning of subjects and essential learning, which is assessed in external tests.

"However, the team should have more autonomy to manage their work, to draw up timetables, curricula and more flexible groups of pupils, which are still very restricted and are a major constraint to effective curricular flexibility." (C2)

With regard to sitting in on colleagues' lessons, as we have seen previously, this is not a common practice at the school. However, a certain amount of co-teaching does exist, which has been viewed in a very positive light, as this has enabled teachers to learn new strategies and new ways of dealing with students, more individualized support for students, enhanced management of time and the classroom environment, as well as the exchange of roles between assistant teachers and lead teachers.

"The assistant teacher, who is closer to the students, encourages them to participate orally and to ask questions, which is very important in the students' learning process, in addition, of course, to the class being managed differently. We have another teacher in the classroom." (T1)

"Of course, if we're there, we're learning, aren't we? As T5 said earlier, it's just another class, [. . .] we're learning our colleagues' strategies, we sometimes don't even think about them, do we? It's just like that. And the way we react to certain problems. . ." (T2)

The collaborative dynamics between the teachers were also characterized by an evaluation of the functioning of *Class Plus*, of indiscipline in the different classes and by an analysis of formative assessment: diagnosis of weaknesses and analysis of student progress.

> *"As for assessment, there is constant reflection on the data arising from formative assessment. We try to understand what is behind the failure of some students…but there is always a tendency to blame the lack of work and autonomy of the students, the lack of support from families and we don't address teaching practices head-on." (C2)*

We also realized that the analysis of data was very much focused on the students with the most difficulties and their attitude, and there was rarely any reflection on the teaching practices that might be promoting or hindering these students' learning. In fact, the remediation strategies, both at a disciplinary level and in a more transdisciplinary way, aimed at changing the student's attitude without directly implying a review or reformulation of the teaching practices used in the classroom.

As for the sharing of knowledge and practices, although we have seen information on all the students shared in a given year, we still notice certain difficulties on the part of some teachers in sharing good practices or knowledge acquired in other training experiences.

> *"I think the open sharing of good practices is starting to happen, but it's not exactly widespread yet." (C1)*

> *"Others do, but they always focus on the student's behavior and not on the teacher's strategies. It's difficult, you know…" (C2)*

This brief description of the collaborative dynamics of the educational teams reveals that most of the time dedicated to team meetings was spent discussing official issues with the other teachers, namely the following: compliance with the programs, the planning and assessment tools to be used and reflections on the formative assessment of students. However, teachers rarely shared their personal practices—their way of approaching difficult content—by drawing on their experience to exchange knowledge with colleagues. Furthermore, the reflections carried out rarely invaded the privacy of the classroom and each other's practices. We also saw constant reflection on the data arising from formative assessments, striving to understand what is behind the failure of some students; however, this reflection was marked by a tendency to blame the failure on the students' lack of work and autonomy, and on a lack of support from their families.

Hence, there seem to be a number of dynamics in educational teams that are favoring collaboration between teachers, with a gradual increase in interdependence and collectivity. However, it seems that teachers' learning may be limited in these teams due to a lack of critical analysis of the problems of practice, as Wedder-Weiss et al. [55] and Chua et al. [21] also concluded. Indeed, learning in PLCs involves deep reflection on what is being done, on why and how it may be contributing to the problems faced by children in their learning and checking whether the actions reviewed make a positive difference to the students. Therefore, we conclude that in order to create individual and collective knowledge, these educational teams need to reinforce the extent of their tacit knowledge based on observation, but fundamentally based on a reflective dialogue that enables them to understand what has been observed [4].

3.2.2. Collegiality

According to a preliminary analysis based on the questionnaire survey administered to the teachers (*n* = 54), they seem to believe there is a working culture in the educational teams that encourages solidarity, cooperation, mutual assistance and mutual respect among its members, as illustrated in Table 5.

Table 5. Teachers' perceptions of the feelings they experience when working in educational teams—teacher questionnaire survey (*n* = 54).

Working in Educational Teams, I Feel That …	Disagreement (Completely Disagree and Disagree)	Agreement (Agree and Completely Agree)	I Neither Agree nor Disagree
I have someone to talk to when I find something difficult.	7%	87%	6%
I can trust my colleagues when faced with a problem or challenge.	4%	87%	9%
I am more comfortable sharing my experiences.	11%	80%	9%
I am more open to receiving feedback on my performance from colleagues.	6%	85%	9%
I am more open to changing my opinions/perspectives.	4%	85%	11%
My suggestions are taken into account.	6%	87%	7%
I am disappointed in my colleagues.	83%	9%	8%
I find it difficult to approach my colleagues.	91%	6%	3%
My colleagues give me positive feedback on my performance.	13%	59%	28%
There is a common goal for high-quality collective performance.	2%	93%	5%
There are human connections: colleagues build relationships of mutual trust and friendship.	17%	74%	9%
I'm just doing my job.	67%	26%	7%
I am developing professionally.	13%	80%	7%
I feel more fulfilled.	30%	57%	13%

However, a more in-depth analysis, based on the observations made at the meetings of the educational teams and the interviews and focus groups, led us to realize that there is a core group of teachers in the teams that support, encourage and help each other; however, we noticed the existence of a fringe of teachers, more specifically those that experience difficulties working with more complex content or dealing with classes, who felt embarrassed to share their weaknesses and expose their vulnerability.

"This mutual support does and doesn't exist, unfortunately. Unfortunately, I think it exists among those who don't need it as much and it doesn't exist among certain people who would probably benefit from it enormously." (C1)

Therefore, it seems that the teachers showed confidence in their team generally speaking, but this confidence was not tested by confronting difficulties or less consistent and effective practices, or by openly sharing everything that happened in the classroom. Not all the teachers felt confident enough to acknowledge their weaknesses and preferred not to reveal them.

"The working environment is positive, because everyone is very respectful of each other's glass enclosure, no-one encroaches on each other's space, and nothing is questioned … In this sense, everything works well, there seems to be trust. [. . .] When there are problems, teachers in difficulty still don't have the courage to open up to their colleagues. You have to remember that teacher evaluation requires this. . .you have to hide your weaknesses and not open up too much. In this sense, it seems to me that there is no consistent, solid trust." (C2)

We found that most teams enjoyed a good working environment; however, the stand-offish attitude of the teachers that were unwilling to engage in collaborative dynamics sometimes led to them failing to show mutual respect for their colleagues, striking up parallel conversations and permanently disagreeing with every idea put forward.

"While this debate was going on, the three teachers [. . .] continued with their parallel conversations, paying very little attention to what was being discussed at the meeting." (Field diary note)

As a result, it seemed to us that not all the members of the team were on the same page when it came to meeting their common goals. There is a core group of teachers who have provided the work carried out with cohesion and consistency, but there are still teachers marked by a professional culture of individualism that end up undermining the team's professional cohesion and, consequently, the work of co-creation.

> "[...M]isaligned teachers still exist, and come to meetings because they've been invited in advance by the principal, behave like employees, only attend so they're not registered as absent and who add little to the conclusions drawn or to the decisions being made." (Field diary note)

Along the lines of Ismail et al. [6] and Zhang et al. [60], we can see that this lack of individual and collegial commitment on the part of some teachers, their lack of understanding of the concept of PLCs and their lack of a collaborative professional culture may be hindering the effective functioning of the teams, insofar as a sense of belonging and professional and social cohesion among teachers is fundamental to enabling them to hold open discussions in order to improve and strengthen pedagogical practices in the classroom [61]. Moreover, teacher commitment and motivation are two of the determining variables of educational change [62].

3.2.3. Leadership

The creation of the educational teams gave rise to a new middle management structure, the year coordination, carried out by the educational team coordinators. We will focus our attention on the actions of these middle leaders in order to understand the effect they have on promoting collaborative work among teachers and on their professional development. As illustrated in Table 6, the teachers' perceptions of the performance of the educational team coordinators are very positive.

Table 6. Teachers' perceptions of the work carried out by educational team coordinators—teacher questionnaire survey (*n* = 54).

About the Educational Teams Coordinators	Sporadically (Never/Rarely)	Occasionally (Sometimes)	Regularly (Often/Almost Always)	Not Applicable
He/she helps to clarify the common goals to be met by the team.		11%	87%	2%
He/she provides moments of co-creation as a team.	2%	18%	76%	4%
He/she helps to clarify any doubts that may arise.		13%	85%	2%
He/she takes into account the suggestions that are made.		11%	87%	2%
He/she provides moments for reflection.	4%	4%	88%	4%
He/she favors collective decision-making.		7%	91%	2%
He/she encourages team members to share suggestions and ideas.	4%	11%	83%	2%
He/she finds it hard to listen to the difficulties presented.	78%	5%	15%	2%
He/she knows how to manage, integrate and value the different positions and perspectives of the group.		11%	87%	2%
He/she shares information and knowledge openly.	2%	5%	91%	2%
He/she asserts his/her perspectives.	67%	15%	13%	5%

To analyze and interpret this data, we based our research on the dimensions of effective leadership according to Bolivar [42]: setting goals and expectations; ensuring an appropriate context and the necessary support (providing intellectual stimulation); promoting and participating in teachers' professional development, evaluating them through regular classroom visits and providing feedback.

According to the perception of the majority of the teachers, in accordance with the data in Table 6, it seems that the educational team coordinators ensured a suitable scenario

for collaboration and the necessary support for the teachers, as they regularly created and clarified common work goals, helped to clarify doubts and shared relevant information. They also tried to stimulate the teachers intellectually, taking their opinions and suggestions into account, promoting moments of reflection and collective decision-making, integrating, and valuing the group's different standpoints and perspectives.

Observing educational team meetings and interviewing the coordinators and teachers enabled us to see that the educational team coordinators were concerned with promoting a set of collaborative dynamics based on the definition of common goals to be achieved and common strategies to achieve them.

"Yes, what was defined at the beginning of the educational team's work was to accompany and make sure that all the students concluded the year successfully." (C2)

"Recovering lost learning, everyone on the road to the educational success of the students, of every student, right from the start of the year, that was the goal." (T2)

Furthermore, we noticed that the coordinators were keen to promote collaboration between the members of the team, striving to involve everyone in the dialogue, sharing the structure of the memo on Drive beforehand, in order to guide the preparation of colleagues and to promote their participation, as well as sharing a set of relevant data to promote reflection and monitoring of the students' results and learning.

"As the person in charge, I take stock of the results in good time and present them to the team, and we all discuss them together." (C1)

However, the discussions focused largely on the most unsuccessful students, and we did not see any concern on the part of the coordinators in triggering an analysis—a confrontation of the teaching practices that could be at the root of this failure, which was usually attributed to external causes.

"Over the course of all the educational team meetings we observed, difficulties in getting certain students to develop were undoubtedly shared, but the focus was always on the lack of family support, their lack of autonomy, their lack of organization, their lack of interest. At no time did the discussions lead to an analysis of the classroom practices that might be the cause of the student's lack of interest." (Field diary note)

We also found that not only did the educational team coordinators fail to address the practices implemented in the classroom during the meetings, but they also did not supervise these practices either, as it is not their job to observe their colleagues' lessons. Thus, as in Leithwood's [63] findings on the performance of department coordinators, it seems that the educational team coordinators also find the activity of evaluating and reviewing the work of their team's teachers embarrassing, avoiding addressing some of the practices implemented, as well as difficult questions, and concentrating their efforts on verifying compliance with previously defined plans. This approach may also be limiting teachers' deep learning, which, on the contrary, involves the desire and courage to reflect and examine in order to improve practices. However, egalitarian, autonomous standards, high levels of work-related pressure on teachers and the risk of dropping out or resistance make leadership for deep learning highly complex [64].

3.2.4. Professional Value

However, this fragile dialogical reflection, a lack of investigative capacity, a certain lack of trust and professional cohesion and a tenuous role for middle leadership in promoting a change in teachers' mentality may be acting as obstacles to the promotion of teachers' professional value, or in other words, to changing the way in which they view teaching, their positive behavior and the way they teach.

Indeed, the mentality of these teachers still seems very balkanized, focused on their specific knowledge of each discipline and not very open to interdisciplinarity and collaboration with colleagues from other disciplines.

"Now, in order to ensure students are better prepared, we need to change the way teachers think, stop them from thinking in terms of their area, from thinking exclusively about their subject area, their classroom and their class, and to start thinking about a year of schooling, thinking in a transdisciplinary manner and in such a way that the contents of their subject area make sense in other subject areas." (P)

Moreover, a persistent mentality of insecurity exists, which may explain a certain lack of confidence and a fear of experimenting, rehearsing, and failing—essential processes in individual and collective learning.

"You have to get to grips with it, you have to try it, you have to fail, you have to live it all . . . so that you can grow in the profession." (C1)

Teachers are still marked by an individualistic mentality, blocked by the idea that the teacher is a transmitter of knowledge, who knows what they can and should do in their classroom to resolve their students' problems, preferring to stay in their comfort zone and manage their personal affairs. Indeed, a closed and passive mentality persists, with little receptiveness to sharing weaknesses, confronting practices and criticizing colleagues. This perspective leads teachers to opt for a passive role, not actively engaging in the work dynamics and waiting for orders from leaders on how to proceed, from a continuously and highly bureaucratic perspective.

"They still think that being a teacher means preparing lessons, teaching subjects, filling in tables and little else . . . Collaborative work and joint thinking are not part of their job description, not least because they are capable of resolving the problems that arise in their classrooms." (C2)

We also see a mentality marked by a lack of ethical and moral commitment: it seems that everyone is responsible, but no one takes responsibility for failures.

"[. . . T]here's a tendency to blame the lack of work and autonomy on the students, the lack of support from families, and the teaching practices aren't tackled head-on. Everyone is in their own little bubble and it's very difficult to approach them in this way . . . " (C2)

Therefore, it seems to us that teachers' deep learning is being blocked by the persistence of a fossilized, closed, individualistic, balkanized, conformist mentality, marked by insecurity and mistrust. However, according to Lund [23], changing teachers' mindsets and practices implies that their habitual thoughts and actions are examined and called into question, which only happens, on the one hand, when every member opens up their mind and is willing to be criticized [5] in a logic of understanding, empowerment and support. On the other hand, this reflection cannot and should not be exclusively technical or instrumental, i.e., focused, as was the case in the educational teams studied, on the students' results. On the contrary, it must be much broader, including moral, emotional and political aspects of teaching, and much deeper, touching on the beliefs and representations teachers have of themselves and of teaching. Without this critical and in-depth character, reflection runs the risk of being a mere procedure, a method or a confrontational strategy that perpetuates the status quo, and which can contribute to the devaluation of a teacher's professionalism [65].

In this way, this reserved and tendentiously closed mentality typical of some teachers can explain the negative and passive attitude of some towards participating in educational teams, their lack of ethical and moral commitment, which is one of the major inhibitors of collaborative PLC practices [60,66], and the affirmation of a teacher's professionalism [62].

3.2.5. Focus on Student Learning

The basic principle of a PLC is to improve student learning by improving teaching practices. It therefore seems relevant to us to demonstrate how belonging to an educational team has affected the pedagogical activities themselves. To do this, we will base ourselves not only on the three basic functions of the school, instruction, socialization and stimulation [67], reflected in the four pillars of education, learning to know, learning to do, learning

to live together and learning to be [68], but also in the data resulting from the students' evaluation of the quality of teaching, the classroom environment and the well-being and support of the teachers.

As far as instruction is concerned, based on lesson observations (*n* = 12), we recorded the most frequently implemented practices and found that, as illustrated in Table 7, the most frequent practices continue to be the methodologies of explanation and training [69], operationalized through the presentation of content in interaction with the students and/or using PowerPoint (version 2401) and interactive platforms; the resolution of exercises using worksheets and activity books; individual and pair work. Our observations did not provide us with the opportunity to observe more active and exploratory methodologies such as project work, research work, experimental activities or the flipped classroom technique.

Table 7. Frequency of teaching practices—lesson observation (*n* = 12).

Frequency of Pedagogical Practices	N	Minimum	Maximum	Average	Standard Deviation
Use of new technologies	12	0.00	3.00	1.41	1.24
Displaying content from the manual	12	0.00	3.00	0.83	1.26
Presenting content in PPT or on interactive platforms	12	0.00	3.00	1.16	1.46
Presenting content based on interaction with students	12	0.00	3.00	2.50	1.16
Solving exercises from worksheets/activity books	12	0.00	3.00	1.66	1.30
Solving exercises using interactive platforms	12	0.00	2.00	0.16	0.57
Systematization of content in concept maps/schemes	12	0.00	3.00	0.91	1.24
Individual work	12	0.00	3.00	1.33	1.43
Pair work	12	0.00	3.00	1.08	1.31
Group work	12	0.00	0.00	0.00	0.00
Video/film presentations	12	0.00	3.00	0.58	1.16
Oral presentations of students' work	12	0.00	3.00	0.25	0.86
Analyzing and discussing situations/problems/observations or experiences	12	0.00	3.00	0.25	0.86
Recording conclusions/solutions/possibilities	12	0.00	3.00	0.50	1.16

This data was confirmed by the students (**S**) in the focused discussion group. From their interventions, we can see that the methodologies of participation, production and experimentation are to their liking, as they consider them to be more motivating, more attention-grabbing and to allow for a better understanding of the content, but they have rarely been implemented by teachers.

> *"I liked the (experimental) classes. It was much more interesting … than sitting there for two hours listening to a teacher, not wishing to be disrespectful. I think there should be more classes like this over the year, because students are more interested in that than sitting there listening and nothing is happening." (S1)*

Moreover, they also revealed that they enjoyed working in groups, but as there is still no culture of group work at the school, they sometimes confessed that they did not feel prepared to do so consistently and effectively.

> *"[…] We work more individually, but I think that, above all, we need to feel comfortable in the group we're in and … to see that the whole group is working towards the same goal …If I feel comfortable, I'll work in the group, but if I don't, then I prefer to work individually." (S4)*

Regarding the use of new technologies, we found that this was a regular practice on the part of both teachers and students, but although it served as an aid to pedagogical practices, it did not revolutionize them, or in other words it remained essentially at the service of the pedagogies of explanation and training.

> *"In addition to teachers using their platform to register students as absent, who often don't attend, they use other platforms, such as Kahoot, to supposedly help students understand the subject in a practical way with online exercises." (S3)*

We therefore conclude that, despite the use of new technologies and some very specific practices of exploration and research pedagogy, there is a weakness in the implementation of student-centered pedagogical approaches geared to promoting active learning and decision-making—with teaching based on specific problems and cases—and capable of promoting critical thinking, which is necessary to face the challenges of the future [70].

Regarding assessment practices, the students confirmed that concerns have already arisen with regard to assessing different types of essential and transversal learning, using a variety of assessment techniques and instruments, as well as assessing not only the product, but also the process.

"I think it's important for us to do this kind of work, because I don't think tests alone will determine our grade, but what we do, what we work on over the year. I think these small assignments are important, above all, for us to improve our grade if we don't get a good grade in the test or if the test went badly. In fact, I think it's also a way for us to broaden our knowledge." (S4)

Regarding the feedback provided by the teacher, which is an indispensable tool if assessment is to be fully integrated into the learning process [71], we found that although students regard understanding what they need to do to improve as important, thus providing an incentive for their progress, this is not a common practice at school, either. Oral feedback is more common, while written feedback is almost never given by teachers.

"Yes, I agree, and I think this conversation is important, because students sometimes become lost and don't know what to do to improve, and this helps them to take a step forward." (S2)

"Most teachers just write down the grade (on written work) and don't put anything in writing, so we don't...We often don't understand what we did wrong, or what we should try to innovate and improve." (S3)

This systematic lack of the use of feedback may be hindering assessment that serves every student's learning, focusing on the learning process and understanding successes and failures [72].

Moving on to the functions of socialization and stimulation, the questionnaire survey administered to the students (*n* = 75) shows that the total score for each of these basic school functions, in their perception, is positive, as illustrated in Table 8.

Table 8. Students' perceptions of the school's socialization and stimulation functions—student questionnaire survey (*n* = 75).

The School's Functions	N	Minimum	Maximum	Average	Standard Deviation
Socialization (total score)	74	2.13	5.00	3.91	0.54
Stimulation (total score)	73	1.17	5.00	3.61	0.91

We also found through the focus group that these functions of socialization and stimulation have been leveraged by *Class Plus*, which, according to the students, has been the best innovative initiative at the school in recent years.

"I also agree. In my opinion, I believe that Class Plus was one of the best things that happened during the school year." (S8)

According to the eight students who took part in the focus group, this temporary and more homogeneous group of students led to an improvement in their sense of belonging, greater identification with their colleagues in the group and, consequently, greater well-being, a better working environment and a greater willingness to participate, collaborate and learn.

"[…] I think it helped create a good atmosphere, to ensure students are at the same level, which makes us look at each other without thinking that someone is at a different level than others, we're all, as I say, in the same boat. And I think all this has led to a good atmosphere, to everyone having a good experience and improving their skills and grades." (S4)

We note that stimulation for learning was also promoted by the existence of *Class Plus*, where the homogeneity of the group made it easier for the teachers to adapt the instruction to their learning profile, which was also reflected in a greater predisposition for learning and, consequently, an improvement in learning, according to the students and to the teachers.

"I think it was a time when we were able to improve, perhaps even our grades, but above all we were able to improve our skills, especially in languages." (S4)

"[…] because we had more support, and we were able to understand the subject better and respond to the things we were asked correctly. Hence, we gained more confidence." (S7)

"[…] and the students with difficulties, and this happened in my class last year, which was a very good class, but which had two or three students with difficulties who were afraid to participate, because their classmates were so good that they were afraid of saying something silly, while in Class Plus they were with students with the same profile, the same level, and they realized that, after all, they weren't the only ones and they started to enjoy participating and lost their fear, which was very, very positive." (T3)

"Of course, of course it will improve students' learning. Yes, it's a long-term project." (T2)

Therefore, it seems to us that a gradual shift is taking place from a paradigm of instruction and transmission, in which the act of educating appears as a formatting operation to a paradigm of learning, where students are seen as the center of educational activity, in which the dimensions of affection and help take on major importance. However, we are still a long way from the communication paradigm, where the focus is on students' interaction with a given wealth of information, which is culturally valid and considered necessary for life in today's societies [73]. This slow change in practices is also proof that we are still facing emerging modes of collective professional practice at the level of educational teams, which need to be reinforced and made more consistent to enable teachers to develop deep learning, which happens in more advanced PLCs in which teachers have already adopted teaching methods that allow students to deal with their learning in an active and cooperative manner [8].

4. Conclusions

The change in some organizational structures, such as the organization of teaching by educational teams and the creation of flexible groups of students, promoted and supported by senior and middle leadership, has enabled, through the creation of learning communities, the promotion of a culture of collaboration and collegiality among teachers through the participation and contributions of the majority of teachers at educational team meetings, their involvement in dialogue, the sharing of information, the collaborative management of student learning and the creation of flexible student groups. However, these working dynamics have not been enough to establish a culture of learning among the teachers, the teams and the school. The tenuous individual and collective learning that has arisen from these collaborative dynamics was essentially due to a fragile reflection on classroom practices, which were hardly ever shared at meetings due to a lack of confidence on the part of some of the teachers, and were never addressed by the middle leaders, either through observation or by raising difficult questions at meetings. The creation of learning capacity involves challenging tacit knowledge through critical, dialogical, in-depth and wide-ranging reflection that is not limited to technical reflection on student results but questions the beliefs and representations teachers have of themselves and of teaching, which was not the case in the educational teams we studied. This also explains why the mentality of some teachers has not changed, which could, on the one hand, justify

their lack of involvement, their lack of ethical and moral commitment to the collaborative dynamics of the team, their colleagues, and the students. On the other, it may explain a slow change in classroom practices and a very cautious evolution from individual to collective performance, as teacher involvement is one of the most promising and effective ways of improving schools [62].

Thus, deeper learning for teachers, students, and the school organization involves creating learning communities. These communities should focus on critical and in-depth analysis of problems of practice and students' difficulties through an investigative approach. This approach will help to understand what is working best and why, requiring observation and comparison of practices. This requires a good working environment among its members, mutual respect, openness to criticism and trust that can withstand the sharing of personal and professional weaknesses. In this context, middle leaders can also make a significant contribution by starting to observe practices, giving constructive feedback to colleagues, asking difficult questions and confronting weaker practices, and going on to make innovative strategic decisions rooted in their values and professional practices. This critical and in-depth reflection on what goes on in the classroom, the ability to investigate in order to change and a more active and intervening role for the middle leadership can lead to a change in the mentality of teachers, resulting from the examination of their actions and thoughts, and consequently to a positive change in their vision of teaching and in their pedagogical performance.

In this sense, our research may have an impact on policymakers, school leaders and teachers because, by showing that changing structures without changing beliefs and collaboration without learning does not lead to substantial change, we have provided a number of leads regarding the action and role of each of the players in transforming a school into a learning organization.

However, we suggest that future work could investigate the collaborative dynamics and the actions of the players in the educational teams at a greater number of schools, in order to gain an understanding of to what extent the results of this research, limited to a specific case, can be extended to similar contexts.

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