Teacher Collaboration, mentoring and team-building.

Drawing conclusions from Nordic Countries, and the Greek reality.

Supervisor: Dr. Konstantina Kottaridi

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Piraeus, January 2021

ΠΑΝΕΠΙΣΤΗΜΙΟ ΠΕΙΡΑΙΩΣ

UNIVERSITY OF PIRAEUS

ΤΜΗΜΑ ΟΙΚΟΝΟΜΙΚΗΣ ΕΠΙΣΤΗΜΗΣ

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For all Greek teachers,

who do so much, with so little…

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Abstract

In this study, we aim to explore notions such as team-work and collaboration among teachers, drawing conclusions from Nordic countries. Emphasis is placed on how lack of collaboration can cause work-related stress and whether collaboration, proper induction for new teachers and mentoring are effective methods that can improve working experience for teachers.

Not enough research has been conducted on how Greek teachers collaborate and whether they are open to team-building activities and revolutionary for Greek standards notions such as mentoring and peer-teaching. Therefore, after the literature review, the second part of this study describes the situation in Greek schools. The Greek educational system is studied so that conclusions can be drawn as to which factors hinder collaboration and what can be made to facilitate procedures towards joint tasks and collaboration.

keywords: team-work, collaboration, mentoring, induction week, team-building

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Contents

Introduction

In Greece, teaching is considered by many an easy, carefree profession where teachers work little and enjoy long holidays. More or less, everybody thinks that teachers work five hours a day and then go home and relax. The truth couldn't be farther from the truth. Teachers work hard and they work hard when they finish work. At home. In their free time. Almost incessantly they think of their students and ways to help them grow. Yet, parents disrespect teachers, students misbehave, school managers fail to set boundaries and governments do not support teachers in a meaningful way. The question is how we can help teachers become better so as to perform their duties more efficiently since their job affects the shaping of the next generations.

In Greece, governments over the years have not invested money and energy to help educators improve their skills beyond their basic academic training. Sometimes teachers are employed having the basic academic qualification and after that, if they do not choose to further their studies they may never pick up any new skills until retirement. It is vital to investigate how open they are to initiatives concerning improving their skills and what potentially hinders these initiatives.

Another interesting factor is collaboration. Teachers are thought to work alone and prepare their material individually so it will be interesting to see how much they collaborate, on what terms and with whom (school managers, teachers of the same level or the same field etc.). Collaboration is a crucial factor not only for professional development but also for emotional support among teachers in order to avoid work-related tress which runs high in the profession and results in reduced productivity, loss of sleep and motivation and more days off work.

Team-building and mentoring are also notions which are new and revolutionary even for private companies, let alone the school environment. Teachers participating in such activities to boost the sense of belonging in a team and reinforce collective spirit is almost unheard of in Greece. But, the interesting question is whether they are willing to try and if yes, are they willing to sacrifice personal time to do so?

Efficient collaboration and activities that make teachers come together have several prerequisites such as time invested, space, materials and clear organization and prior planning. Few if any activities that promote healthy relationships can be conducted if there is not enough space for teachers to attend, if there is not enough time because they are overworked or because they have other duties to carry out. No one would like to participate in a mentoring program where there are not clear guidelines and everyone is left to their own devices. An interesting question is what facilities Greek schools provide for their teachers and what may hinder collective activities.

All these questions concerning if and how Greek teachers collaborate, and how open they are to several new ideas are interesting because the results will give us insight to how enthusiastic and self-motivated teachers are considering that Greek teachers have significantly fewer teaching hours on a weekly basis than Nordic countries which are the point of reference (around 40h) and other European countries.

1. LITERATURE REVIEW
1.2 Theoretical background

Collaboration among colleagues is universally deemed as a method to promote productivity and emotional well-being in the professional environment. Without support from one's peers the optimal results cannot be achieved, at least in a timely manner. In teaching, to ensure that the lesson conducted is of high-quality two factors should apply. One, the right people are chosen to teach and two, these people should be appropriately developed into good instructors, through ongoing professional learning in the form of seminars, workshops or well-designed sessions but also through support from their working environment in the form of collaboration.

One of the most prominent methods to describe collaboration and more specifically the degree of collaboration among teachers was introduced by Little (1990). According to Little, there are four hierarchical steps towards full and productive collaboration, them being

1. storytelling and scanning for ideas
2. aid and assistance
3. sharing
4. joint work

Little (1990) analyses the different stages with descriptions and concrete examples. At stage 1, teachers simply exchange ideas and experiences. At this stage teachers are significantly independent. They merely search for "quick tips" and reassurance and the casual chitchat of the staffroom but they are not properly engaged in a meaningful partnership. This stage is, more or less, the most basic form of professional interaction. Although it is socially meaningful and somehow relaxing for the teacher, it does not offer profound support and bonding.

At stage 2, teachers are offered the opportunity to extend a helping hand and support each other practically. It is a concept which outlines all typical interactions among peers and teacher interactions but at this point colleagues carefully preserve the boundary between advice asked and interference in their colleagues' work. The

common prompting "just ask" is interpreted as a request for help while general questions about more fundamental issues like the mentality of school are rare.

At stage 3, teachers can share their materials and methods openly. Teaching becomes more transparent; the pool of ideas is expanded and collaboration extends further than the casual "tip" to the more targeted exchange of ideas concerning curriculum planning and assessment methods. Progressively, dependence increases and by stage 4, teachers are enabled to work together, teach together in co-teaching or team-teaching sessions. They share responsibility and they are interdependent on decisions that concern the school and students. At this stage careful coordination is necessary to ensure equal contribution on behalf of all teachers involved.

Little (1990) also went a step further, coining the term 'collective autonomy', describing the association between teachers' autonomy and collaboration, that is the interdependence related to collaboration and the shared responsibility of teaching.

As de Jong and colleagues (2019) suggest, stage 3, which is sharing, is hindered by teachers who have little experience and cannot share a variety of ideas or by teachers who do not have "particular pedagogical knowledge or skills". All these stages are independently useful and what works for one teacher may not work for another.

According to Wolgast and Fischer (2017) the levels of collaboration among teachers are as follows:

1. fragmented (teachers do not communicate what they teach)
2. differentiated (formal exchange of teaching practices)
3. coordinated (teachers plan together)
4.   interactive (teachers set common teaching goals and support each other)
5. integrated (teacher discuss and negotiate common teaching goals and evaluate their teaching behavior in a systemic way).

Kruse (1999) makes an interesting comparison between the notion of collaboration, collegiality and collaboration. She states that collaboration happens when teachers "provide basic assistance to their colleagues without sharing common values" whereas collegiality is defined as "joint learning and discussion about teaching practice and students' achievements. Collaboration, she states, is "shared values,

decision making about teaching practice and interaction among teachers which promote students' performance and professional development of staff". For this study, the term collaboration will be used henceforth.

In 1991, Friend and Cook examined the prerequisites for teachers' collaboration. They mentioned that collaboration should

- be voluntary (teachers can be expected to work together but collaboration cannot be forced upon them)
- be based on the idea of quality (all teachers are equal, regardless their experience, age, background; their contribution is equally valuable)
- be aiming at a common goal
- involve mutual responsibility for results
- develop virtues (respect, trust, understanding etc.)

Hargreaves (1994) suggested five forms of collaborative teachers' culture that have their own characteristics and are different from each other.

1. isolation
2. collaboration
3. contrived collegiality
4. balkanization
5. "moving mosaic"

According to Hargreaves (1994) isolation has been criticized by researchers but it can have positive effect on people who consciously choose to work alone or independently because they know they work alone better or because the conditions do not allow otherwise.

Hargreaves also identified the characteristics of collaborative culture as

1. spontaneous organization by teachers themselves and may be supported by management
2. voluntary-based without managerial support
3. development-oriented
4. spontaneous organization (any time, any place)
5. having unpredictable outcomes

Concerning contrived collegiality, he states that it lacks the true term of collegiality as it is based on a compulsory basis, it is regulated and monitored by administration, with fixed schedule and predictable outcomes.

Balkanization is a term describing independent groups of teachers and the presence of competition among them. In such an environment, some teams win and some lose. Subgroups are interdependent and with clear boundaries so there is no permeability of knowledge.

The "moving mosaic" is associated with flexibility, creativity, risk-taking and non-stop professional development among teachers. There are loose boundaries and teachers can belong to different sub-groups (unlike balkanization). There is a friendly atmosphere among teachers and this promotes free exchange of ideas.

1.2 Teacher collaboration in Nordic countries

Countries with successful educational systems also have successful team-building and group-support systems among teachers in place and there is no doubt that these two notions are interconnected. With the term "team" is defined "a number of people with complementary skills who are dedicated to a common purpose, performance goals and approach for which they hold themselves mutually accountable" (Katzenbach and Smith, 1993, p112). A team is usually characterized by plurality of backgrounds, ideas and practices and all team members bring different qualities to the table, that only reinforce the effectiveness and coherence of the team. Trust and collaboration can only create commitment to the education outcome and resistance to change, something which is crucial in teaching.

Visiting PISA-successful Finland, the emphasis on collaboration among teachers is obvious. According to Timothy Walker (2017, p.181), collaboration between colleagues rarely is a "serious and structured image of teachers putting their heads together, looking exhausted as they pore over unit plans". Rather, it is something that should come naturally. More importantly, Wheelan and colleagues were able to detect an association between how effective teacher teams are and their pupils' performance on standardized tests, that is the better collaboration among teachers

the better students perform. An effective team, consisting of people with shared goals and clear roles, will lead students to the pathway of success allowing them at the same time to witness collaboration first hand. Shared responsibility for classroom actions is considered important for effective teaching by Simmons and Maggiera (2017) who advocate for the negotiation process before decisions are made for joint actions and shared responsibilities. Rytivaara and Kershner (2012) take it a step further arguing that the different elements teachers bring to the table are blurred to the point there is only a "we" result instead of joint individual attempts. Researchers have found teachers' collaboration at the heart of the great Finnish educational system success along with trust and well-being. Darling-Hammond have argued that Finnish teachers "work together collegially, to design instruction that meets the demands of the subject matter as well as the needs of their students" (p. 172). In order for teachers to share information, plan and problem-solve together, they receive some additional compensation added to their salary for collaborating with colleagues for three hours a week beyond their normal contract (Sahlberg, 2015).

Eteläpelto, Vähäsantanen, and Hökkä (2015) have reported that "teachers saw collaboration with their colleagues as an important resource for exercising professional agency through actively developing teaching practices" (p. 668). Teachers have also reported that they found collaboration with peers as way towards "developing pedagogical practices and teaching methods; applications of new ideas" (p. 674), and "maintaining one's own ethical standards" (p.675). In addition, collaboration in planning instructional methods and materials was regarded as "the most important resource for developing teaching practices" (p.766).

Concerning collaboration during planning periods, Finnish schools appoint one afternoon of the week to have teachers sit together and not only lesson-plan or design curriculum but also to select textbooks, develop assessment methods and, even, allocate budget. Also, they are encouraged to work with teachers of the same municipality to exchange materials. Time for joint planning and curriculum development is embedded in their schedule.

Teacher inclusion in curriculum development is endorsed with arguments for increasing teachers' ownership of curricula, increasing the curriculum reform

introduction's effectiveness and promoting a holistic perception of the development's objectives (Goodson, 2014; Kennedy, 2010).

According to a report published by the Finnish Agency for Education (2018), teachers in general education are obliged to participate in a maximum of three days per year of CPD or school development under the collective agreements.

Participation in CPD activities does not provide teachers with formal benefits, such as salary increases or promotions. Part of the CPD is compulsory, but studies show that teachers participate in CPD much more than what is formally required. Thus, their main motivation is professional development, updating and renewing their knowledge and competence as well as professional ambition.

According to the Teachers and Principals in Finland 2016 data collection, teachers' participation in CPD as a whole had increased since the previous survey.

In Sweden the decentralization of curriculum and the rise of in-service training made collaboration among teachers even more essential, since teachers have to work in teams in order to discuss common matters pertaining to their students, including planning of lessons, welfare of students and evaluation (Wei and colleagues, 2009).

In Denmark, school leaders can assign less teaching time to their classroom teachers in favour of having them work with other teachers in their area of expertise with the aim of strengthening their collaboration skills (Nusche, 2016). School leaders also can benefit from collaboration practices in multiple ways. In case a novice teacher requires more preparation time, school leaders could make the decision to assign less teaching time and fewer classes to teach for the novice teacher to have more time for induction seminars. They also assign more experienced teachers more teaching hours (unlike Greece and other countries) so that the inexperienced ones can focus on learning and adjusting.

Alternatively, school leaders may assign more teaching time to teachers who are teaching several classes where very similar materials are delivered and which require less preparation, or to teachers who are receiving support of an expert teacher or who

are co-teaching with another teacher who, as a result, may also require less preparation time.

The 2014, Folkeskole reform in Denmark aimed to enhance collaboration between colleagues in schools. During school visits, teachers consistently expressed interest in working with other teachers in their school, receiving feedback on their teaching from them and working together towards common goals. Teachers also reported collaborating with other teachers of the same subject and year/level around what they are going to teach and working on their unit or lesson plans together is useful. This included sharing plans and material and applying the same standards across classrooms. Teachers did not report that they spent collaborative time discussing specific students and their learning although they expressed a wish to do so. In several schools visited during the review of OECD in 2018, specialised teachers, sometimes called coaches or impact coaches, had fewer teaching responsibilities and more time devoted to working with individual teachers on their teaching practice. This practice was to a great extent voluntary and teachers experiencing this type of work expressed very positive feelings concerning these practices.

In Estonia, according to Sarv (2014), a very important strategy, that of the induction year scheme, is already in place. The aim of the induction year is to ensure that university graduates are able to apply their knowledge and newly acquired skills in a professional environment and make the transition from theoretical knowledge to hands-on experience smoother. A novice teacher who is undergoing the induction year is paid throughout this procedure, equally to qualified teachers, and if they pass successfully the qualifying phase, then they are officially qualified as teachers. Evaluation of their application to become accredited is based on their official qualifications, an individual development portfolio and a school's evaluation of induction year. The induction year program is designed for novice teachers of pre-school child care institutions, special education teachers, speech therapists, teachers of general education schools and vocational educational institutions. This national initiative started in 2000 and it is financed by the Ministry of Education and Research and provided by the University of Tartu and the Tallinn University. Universities are responsible not only for educating teachers but for their professional development

and aspects such as support for junior teachers and training, mentor training, information exchange for mentors and junior teachers, supervision of teachers who have participated in the induction year program among others. Seminars are organized twice to three times a year for mentors who have received mentor training, management training or intern supervision training.

According to research, the novice teachers who received support for personal development and professional knowledge development reported positive feelings concerning feedback, collegiality, reciprocity of the relationship, mentor availability and mutual trust as indispensable parts of the mentor–mentee relationship. The study identified some aspects which are not adequately developed in mentoring related to three main areas: 1) facilitation of reflection, 2) mentor training, and 3) integration of mentoring into the school community as a whole (Löfström & Eisenschmidt, 2009).

In Santiago's study (2016) it is mentioned that Estonia has made a positive move towards organising teacher employment on the basis of a workload system. According to this system, compensation is associated with a teacher's workload. This is likely to improve teachers' efficiency and a reason for motivation. Employment under a workload system takes into consideration that teachers need time to participate actively in a range of other tasks, including the adequate preparation of lessons. This strategy is likely to make the profession more attractive, by recognising the variety of tasks a teacher performs, and to reduce the number of teachers seeking a high teaching load if pay was directly associated with the number of teaching hours. At the same time, this allows teachers to engage in activities other than teaching, in light of school priorities, including through the requirement to stay at the school outside teaching hours (and within working hours) as is the case in Estonia. It also fosters teacher engagement at the school and provides greater opportunities for collaboration among teachers.

Norwegian principals assign an experienced, highly qualified mentor to each teacher and the education institutions train the mentor (Wei and colleagues, 2009). In Swiss countries, the teachers attend session on a bimonthly basis discussing common problems occurring in classroom which is facilitated by an experienced teacher appointed by the district.

Collaborative practice in schools is also linked with teachers' levels of satisfaction - both their satisfaction with the profession and with their work environment. Among the different aspects of collaboration, job satisfaction is found to be most strongly linked to a collaborative school culture which is characterised by mutual support with other teachers and with the school leader, followed by the opportunity for employees to participate in school decisions. Collaborative practice at school is positively linked with how teachers feel appreciated and valued as professionals in society.

Schools should pledge to increase teacher collaboration by supporting means, providing physical and virtual spaces, and developing a collaborative school culture between teachers, students and the wider community; include collaborative-based approaches in teachers' professional development and learning; improve resource efficiency in school management and governance by increasing collaboration between schools which would allow for a pooling and sharing of resources. Governments should help schools engage with local organisations and businesses in community development, prevention of radicalisation and for promoting diversity.

The evidence from an Euridice report in 2015 will also guide and support EU-level collaboration to modernise education systems through peer exchanges between countries on education policies and the Erasmus+ program. The eTwinning community for schools in Europe and the newly launched scheme, which provide support and tools to teachers and schools, can be further developed in the future.

Across Nordic countries, professional-development activities and workshops are embedded in teachers' working time, meaning that professional development does not take up their free time and that it is considered the institutions or government's job to provide. Although it is a widespread false belief that teachers should only collaborate with teachers of the same field, according to Gast and colleagues (2017) teachers who share the same students can discuss student needs across classes or grade levels, thus sustaining a shared professional culture that helps both experienced teachers and new comers feel that they belong.

1.3 The emotional impact of working without support

According to 11th Revision of the International Classification of Diseases (ICD-11), published by the World Health Organization (Khoury and colleagues, 2017), burn-out is "a syndrome conceptualized as resulting from chronic workplace stress that has not been successfully managed. It is characterized by three dimensions: feelings of energy depletion or exhaustion; increased mental distance from one's job, or feelings of negativism or cynicism related to one's job; and reduced professional efficacy".

Burn-out refers specifically to phenomena in the occupational context and should not be applied to describe experiences in other areas of life, such as depression or anxiety disorder. Burnout is a common problem among professionals around the world and teachers are no exception. It is worth mentioning that burnout is detrimental to all professionals' mental health and it can greatly influence their work, but teachers have an important job: they deal with minors. It is, therefore, more vital that they be mentally healthy and happy because if their psychology is fragile the students will be affected in multiple ways.

In Finland, although the level of teacher burnout is relatively low, (Schaufeli 2017), the Trade Union of Education in Finland reported that around 1/3 of the teachers' body in Finland have had at some point extensive work-related stress (Länsikallio et al. 2018). Burnout is not only harmful for a teacher's physical health, but it also results in a decline in quality of work (Saleh and Shapiro 2008; Dupriez et al. 2016; Klusmann et al. 2008). Teachers who suffer from burnout usually report sleep disorders, lower quality of instruction and they tend to retire earlier (Dupriez et al. 2015; Goddard and Goddard 2006).

Burnout has been identified to have three distinct symptoms: exhaustion (analysed as lack of energy), cynicism (analysed as detachment from work, students, parents and colleagues), and professional inadequacy (Browers and Tomic 2000; Hakanen et al. 2006; Maslach 2015; Maslach et al. 2001; meta-analysis by Montgomery and Rupp 2005; Schaufeli and Buunk 2003).

Undoubtedly, social relations can help raise the strain and alleviate stress in teachers. More specifically, Richards and colleagues (2018) argue that positive relationships with colleagues are a positive reinforcement but at the same time strained relationships and friction with colleagues can cause severe stress. (Harmsen et al. 2018; Kyriacou 2001).

Different factors influence teachers' burnout likelihood. For example, female teachers are more prone to experience higher levels of work stress and exhaustion than male teachers, but male teachers are more susceptible to cynicism (Klassen and Chiu 2010; Skaalvik and Skaalvik 2017). Moreover, newly-qualified teachers seem to be more vulnerable to burnout than more experienced ones (Brewer and Shapard 2004).

As Jacobson (2016) suggests, teaching is considered a stressful profession and according to the national insurance agency in Sweden teachers have a relative risk for sleeping disorders and sick-absenteeism due to burnout. Well-being takes a centre stage when it comes to all professionals but considering the impact teachers have on their students, their mental health and well-being should be preserved at all costs. The emotional exhaustion and depletion hinder professional development and team-work may be the solution. Jacobson and colleagues (2001) conducted a survey in primary schools around Sweden, analyzing the relation between the effectiveness of team work and the levels of emotional exhaustion among teachers. The results provide evidence that supports that when the team is effectively working together, the members show fewer signs of emotional exhaustion. They also found a significantly positive relationship between teamwork and job satisfaction, being consistent to earlier studies concerning other job fields (health services and manufacturing).

According to Kirsi Pyhältö, Janne Pietarinen, Kaisa Haverinen, Lotta Tikkanen (2020) there are proactive strategies for reducing burnout, some of them are ignoring the situation, adapt to change, managing their emotions (Foley and Murphy, 2015). More importantly, though, teachers need to discuss their experiences in the classroom and how they may draw on each other's experiences to prepare lessons with their colleagues and teachers who miss this opportunity to interact with their colleagues might perceive higher levels of stress because they feel alone in facing the demands of instruction (Maag Merki, 2014). There is evidence that collaboration among

teachers not only can improve instruction (Klusmann et al. 2008) but setting goals with one's colleagues and the joint effort to achieve them will have a positive impact on burnout. Interventions to encourage collaboration and enhance colleague support among teachers should involve a common teaching goal and should be supported by the school principal, who will need to provide the necessary space (e.g., a quiet room), materials, and time during the workday (Wolgast and Fischer, 2017).

If team work and peer support systems fail then interpersonal relationships among teachers usually become strained (leading to further loss of job satisfaction) and differences in teaching style, mentality even personal character, become the reason why teachers cannot work well together towards a common goal. Further studies have been conducted concerning the level at which voluntary colleagues' selection in teams positively affects the outcome of shared responsibilities and as expected, there is a strong association. Wobak and Schnelzer (2015) find that when teachers choose their teammates, their job satisfaction and effectiveness increase, but naturally, due to administration reasons and limited numbers of teachers this is not usually the case. However, voluntary selection of colleagues to collaborate with opposes the whole idea of plurality of ideas and merging of differences, because self-selected teacher teams are driven by social pleasure and not professional effectiveness. Experiencing social satisfaction while partaking in professional activities can influence motivation in an ambivalent way. While some argue that this influence is positive as having fun with your colleagues stimulates motivation (Comelli and von Rosenstiel 2011), others argue that there are concerns about how effective self-selected teams can be. Results of the survey conducted by Krammer and colleagues (2018) suggest that self-selection is not necessarily suspicious, meaning that teachers instinctively know the people they are compatible with and they share the same teaching mentality so they could work well in a team.

1.4 Concrete examples from Nordic countries

In Finland, TALIS 2013 (Teaching and Learning International Survey) has brought to light many interesting aspects of professional development of teachers as well as induction and mentoring methods for newcomers. More specifically, while the school

community sees the development as a joint task and individual development is strongly connected to school development, there is no formal induction for new teachers. According to Hammond and colleagues (2010) generally, induction programs in high achieving nations (like Nordic countries and some Asian) include release time for new teachers and a mentor teacher to take part in coaching sessions and other induction activities, plus, training for mentor teachers. In order for this program to yield more results, mentor teachers are compensated for the additional work they put through. More than 60% of primary schools do not offer a mentoring system and neither do other countries participating in this survey. A mentoring system and an induction procedure are essential tools to welcome new teachers, eliminate anxiety and overload of new information and they play a paramount role in the smooth adaptation of new teachers to the environment. Professional development and joint work might be facilitated by such measures. According to surveys conducted my Niemi (2011) new teachers need mentoring to grow as professionals and commit to the profession on long-term basis. They need mentoring and guidance to consolidate their own teaching philosophy and be able to assess themselves and their results. TALIS results show that new teachers expressed explicitly that during pre-service time they did not need any support concerning academic knowledge or teaching tips but they did need assistance and support by peers and partners.

The results of Niemi's research are verified by TALIS 2013. Teachers felt that although they were academically sound, they were not prepared for interacting with parents, controlling disruptive behavior or addressing challenging students, for all which issues, peer support and collaboration can prove very helpful.

In order to provide the much-needed support during induction process (the missing link in the otherwise impeccable Finnish Education system) a handbook for mentoring was created (Niemi & Siljander, 2013) according to which a mentor was appointed to each newly qualified teacher (mentee) whose professional development they supervised and supported. Both mentor and mentee participated in intensive seminars concerning conflict management, multicultural classrooms and special needs support. The feedback after this initiative was clear. Both mentors and mentees benefitted significantly and reported they learned a lot form each other. The obvious

conclusion to be drawn is that peer support and a carefully-designed induction procedure are absolutely necessary not only for newly-qualified teachers but for experienced ones alike. By carefully-designed we aim to describe all the necessary steps towards a sustainable induction process with continuity and specific time allocation. A holistic in-service training that serves the purposes of a holistic education, which is the aim of all successful Nordic education systems.

Results from TALIS 2018 show more concrete evidence on teachers' collaboration around Europe and more specifically Nordic countries. In pioneering Finland, 75% of teachers report that teachers support each other in implementing new ideas, however, surprisingly, this is marginally lower than the average across OECD countries participating in TALIS, which is at around 78%. Although during education and training 87% (compared to the 79% average of OECD countries) of teachers reported sufficient instruction on pedagogy and classroom practice, only 57% of teachers reported having participated in any kind of formal or informal induction session when they started working. This is a higher percentage compared to the 42% average of OECD countries, but still remains a low percentage. Only half of the teachers were properly or even informally introduced to school practices and welcomed in a constructive way. As far as mentoring is concerned, while principals across OECD countries realize the importance of such a method, a mere 22% of novice teachers (with up to 5 years of experience) have an assigned mentor. In Finland this percentage is only 10%. Teachers across OECD region report that professional development based on collaboration and collaborative approaches are most impactful and enjoyable but a mere 14% of Finnish teachers participated in training based on peer learning and coaching.

In Sweden, 30% of teachers reported having participated in any kind of induction program and 17% of newly qualified teachers have an assigned mentor. Unlike Finland, in Sweden the percentage of teachers participating in professional development sessions based on peer teaching and collaboration reaches a staggering 47%. In Sweden, there is a positive association between mentoring, peer observation and coaching, and teachers' sense of self-efficacy and job satisfaction. However, teachers in Sweden report lower participation than average in induction and

mentoring activities. Also, a slight majority of Swedish teachers report (57%) never observing other teachers' lessons or giving them feedback.

In Norway, 35% of teachers reported having participated in any kind of induction program and 18% of newly qualified teachers have an assigned mentor. In Norway the percentage of teachers participating in professional development sessions based on peer teaching and collaboration reaches a 25%. In Norway, 95% of teachers say that they work in a collaborative school culture characterized by mutual support (OECD average 81%). Furthermore, 65% of principals in Norway took actions on a regular basis to support co-operation among teachers to develop new teaching practices. Also, 43% of teachers report participating in collaborative professional learning at least once a month (OECD average 21%) and 37% engage in team teaching with the same frequency (OECD average 28%).

In Iceland, a smaller proportion of teachers' report having taken part in a formal induction program compared to most other TALIS countries (29.5 %). In Iceland, 34% of teachers report having participated in some kind of formal or informal induction when they joined their current school, compared to 42% of teachers across OECD countries and economies participating in TALIS. While school principals across the OECD generally consider mentoring to be important for teachers' work and students' performance, 22% of novice teachers (with up to 5 years of experience) have an assigned mentor. In Iceland, this percentage amounts to 18%.

In Denmark, 85% of teachers say that they work in a collaborative school culture characterized by mutual support (OECD average 81%). Furthermore, 45% of principals in Denmark actively supported co-operation among teachers to develop new teaching practices in the 12 months prior to the survey. On average across the OECD, teachers who engage in professional collaboration which involves a higher degree of interdependence among teachers also tend to report more frequent use of effective teaching practices such as cognitive activation. However, professional collaboration is not a common practice across the OECD countries. In Denmark, 13% of teachers report participating in collaborative professional learning at least once a month (OECD

average 21%) and 36% engage in team teaching with the same frequency (OECD average 28%).

The OECD Teaching and Learning International Survey (TALIS) 2013 has yielded results concerning new teachers' access and participation in formal induction across many countries but focus will be placed on pioneering Nordic countries.

A 61% of novice teachers in Iceland, 65% of novice teachers in Finland, 66% of novice teachers have access to formal induction in the first year they start employment in a school (average percentage is 70%) and 21% of novice teachers in Iceland, 26% of novice teachers in Finland, 38% of novice teachers in Norway (average percentage in participating countries is 52%) participate in the formal induction.

Concerning availability of and participation in mentoring activities, teachers who reported having an assigned mentor to support them in Iceland represent the 6% of the teachers' population, 7% or Norwegian teachers and 4% of Danish and Swedish teachers and 3% of Estonian, Finnish teachers have an assigned mentor to support them. The average percentage of teachers with an assigned mentor in TALIS participating countries is 13%. In Iceland 37% of teachers reported availability of mentoring programs available for all teachers in the school. For the same index, the percentage in Norway is 11%, in Estonia is 15%, in Finland and Denmark is 6% and in Sweden is 0% (the average percentage in participating countries is 25%).

In TALIS 2018, Nordic teachers report the following concerning professional collaboration:

1. Joint teaching

The percentage of teachers who NEVER teach jointly as a team in the same class

Finland 24,3%, Norway 35,7%, Sweden 26,9%, Iceland 52,7%, Denmark 15,6%, Estonia 33,0%,

The percentage of teachers who teach jointly as a team in the same class LESS THAN ONCE A MONTH

Finland 41,3%, Norway 30,8%, Sweden 27,2%, Iceland 15,7%, Denmark 48,3%, Estonia 45,5%

The percentage of teachers who teach jointly as a team in the same class AT LEAST ONCE A MONTH

Finland 34,4%, Norway 42,3%, Sweden 37,1%, Iceland 31,7%, Denmark 36,1%, Estonia 21,5%

The average percentage for the OECD countries respectively is 39,2%, 32,9% and 27,9% respectively.

2. Joint activities

The percentage of teachers who NEVER engage in joint activities across different classes and age groups

Finland 9,0%, Norway 18,5%, Sweden 30,7%, Iceland 22,5%, Denmark 9,9%, Estonia 9,4%

The percentage of teachers who engage in joint activities across different classes and age groups LESS THAN ONCE A MONTH

Finland 82,1%, Norway 72,4%, Sweden 54,9%, Iceland 64,6%, Denmark 78,0%, Estonia 81,3%

The percentage of teachers who engage in joint activities across different classes and age groups AT LEAST ONCE A MONTH

Finland 8,9%, Norway 9,1%, Sweden 14,4%, Iceland 12,9%, Denmark 12,0%, Estonia 9,2%

The average percentage for the OECD countries respectively is 20,1%, 67,6% and 12,3% respectively.

3. Collaborative professional development

The percentage of teachers who NEVER participate in collaborative professional learning

Finland 31,0%, Norway 5,0%, Sweden 2,6%, Iceland 12,6%, Denmark 10,8%, Estonia 6,5%

The percentage of teachers who participate in collaborative professional learning LESS THAN ONCE A MONTH

Finland 60,4%, Norway 51,5%, Sweden 53,7%, Iceland 51,1%, Denmark 76,6%, Estonia 74,1%

The percentage of teachers who participate in collaborative professional learning AT LEAST ONCE A MONTH

Finland 8,5%, Norway 43,5%, Sweden 43,7%, Iceland 36,3%, Denmark 12,5%, Estonia 19,4%

The average percentage for the OECD countries respectively is 15,8%, 63,0% and 21,2% respectively.

In a cross-Nordic comparison, all Nordic teachers report regular participation in induction procedures more than the OECD average, with Norway leading the way. Norway also emerges as the country with the highest percentages among the Nordic region concerning participation of teachers in joint activities and collaboration, followed by Sweden and Iceland. The TALIS Survey 2013 and 2018 provide a wealth of information on several indexes related to teaching and collaboration and it is worth mentioning that Norway is the 23rd country in performance in Pisa 2018. On the other hand, Finland is 10th and Estonia is 5th but their scores in teachers' collaboration and availability of induction and mentoring systems are not remarkable. Further analysis of what drives Finnish and Estonian teachers to success should be sought elsewhere probably.

Unfortunately, no relevant data were not retrieved about Greece in TALIS surveys in order to compare and contrast.

1.5 The situation in Greece

The 2003 Greek compulsory school curriculum promotes a transition towards subject fusion and cross-thematic teaching (Matsaggouras, 2002). Schoolbooks have been changed to support inter-disciplinarity. Before analyzing co-teaching and teamwork conditions in Greece, we should mention that according to OECD data (2019) Greece

spends 2,7% of the GDP on education, while Sweden and Finland spend 3,6 and 4,1% respectively, so radical changes with little support are not easy to make. Kougioumtzis and Patricsson (2009) conducted a comparative study between Greece and Sweden about teachers' collaboration and this study constitutes one of the few, if not the only one, studies concerning the notion of collaboration in the Greek educational system. According to Kougioumtzis and Patricsson, in Sweden there is trust in people but in Greece "trust in processes seems to affect the action of the Greek state". And whereas Nordic countries have some autonomy and interaction between schools and the state are usually smooth, in Greece it is implied that there are some rigid procedures that hinder autonomy and innovation.

Concerning formal collaboration (which according to Kougioumtzis and Patricsson are the scheduled conferences at school with teachers of all or some subjects), it is initiated by school management in both Sweden and Greece, but in Greece there is a minimum number of gatherings to discuss about promotions or assessment while in Sweden these gatherings follow local needs. These gatherings happen more often in Sweden than in Greece and Swedish teachers report a friendlier atmosphere during these meetings that their Greek counterparts.

Except for formal meetings Kougioumtzis and Patricsson also refer to the notion of *deprivatised practices*. They explain that "they regard joint efforts to plan and carry out each teacher's classes, shared lessons and common projects". In Sweden (Kougioumtzis and Patricsson), teachers of PE, Biology and social sciences can come together to teach "lifestyle" or teachers of Art, Music and Language can teach the interdisciplinary subject of "philosophy".

Personalized interaction "indicated a degree of professional intimacy" because it is connected with sharing and working in tandem in private, an index which is particularly high for teachers of lower secondary schools in Greece but overall collaboration among teachers in Nordic teachers is stronger, embedded in their weekly schedule in a way that it is both mentally and financially rewarding and allows them to grow for themselves and their students.

According to Karagianni (2012) even though teachers nowadays are interested in self-development and lifelong learning, interaction among them and collaboration with peers concerning educational issues is low and their relationships are characterized by the spirit "let's get it over with".

1.6 Collaboration restrictions

There are also disadvantages to team work (whether self-selected or else selected teams are concerned) that should be mentioned for the sake of scientific objectivity. Research of Meyer, Schermuly and Kauffeld (2015) has shown that "social loafing" which is reduction in motivation and effort may result from team work and another very common problem that arises is the "free-rider" meaning the person who tends to put a little or no effort while the others do the hard work. Teachers often complain over loss of decision-making autonomy and that there is less flexibility and creativity when there are other teachers present in the classroom. Also, the differing philosophies is a very important cause of tension since teachers have different orientation and beliefs about teaching practice so it is not often easy to merge these.

Hargreaves (1994) claims that "collaboration carries great dangers, in ways that can be wasteful, harmful and unproductive for teachers and their students". He suggests that collaborations can be

1.   conformist (mandatory group-think that excludes solitude and individual work)

2.   contrived (administration-controlled collaboration, so teachers work with no enthusiasm and genuine interest)

3.   co-optative (teachers have to achieve goals that are set for them by other teachers)

4.   comfortable and complacent (teachers work together, share material and moral support, flexible organization)

Johnson (2003) also stated the dangers of collaboration as loss of autonomy, more interpersonal conflicts occurring because of more time spent together and work intensification because there will more working hours and mandatory presence in

after-school collaboration activities. Teacher collaboration is time-consuming and difficult to properly sustain in a school environment. Hargreaves (1994) identified three actors restricting the promotion of teacher collaborations and these are: time, culture and micropolitics.

Time "confounds the implementation of change" (Hargreaves, 1994) and constitutes the most important factor that hinders collaboration. According to Collinson and Cook (2013) there is simply not enough time to share ideas and material, there is not enough time to learn the overwhelming amount of new information, there is no designated time to sit down and collaborate for teachers, who usually have clashing schedules and common time is not easy to find.

Micropolitics is a factor that hinders all professionals' outcome, and teachers are no exception. Micropolitics is the power exerted by people or groups of people who have more influence than others and try to achieve their goals within an organization, usually through communication. In a school where the schedule is monitored and designed by administration and where no clear management pyramid exists, teachers are usually found in between and the conflict is inevitable.

Concerning culture, Hargreaves and Fullan (2012) stated that teachers should avoid situations where they may get too comfortable and just exchange ideas without sharing clear goals or participate in a collaboration which is forced by administration and they are not motivated to be a part of.

Opinions on the effectiveness of collaboration are many and the advantages of collaboration among teachers far outweigh the disadvantages. In Vangrieksen and colleagues' work (2015), advantages are grouped together. Some of them are: enhanced goal achievement and greater efficiency, decreased workload thanks to co-planning and co-teaching, improved communication skills, improved technological skills, capacity to initiate and improve professional development, enhanced goal achievement (Egodawatte, 2011),), moral support and reduced absenteeism (Johnson, 2003), flexible environment in terms of larger working space and more adaptable working time, raised professional dialogue, teacher collegiality, reduced personal isolation, increased sense of work-related enjoyment through socialization

(Main&Bryer, 2005) and many more that have to do with improving teacher work and teaching outcome.

1.8 Factors and methods promoting collaboration

In Silva and Morgado's study (2005) three broad categories are identified. Personal and professional factors, the social atmosphere within the team and the organizational issues. Personal and professional factors are no other that openness to different ideas, sense of responsibility, willingness to learn, motivation and relationships with colleagues, that is a mentality that embraces (or not) change, a teacher who is eager to collaborate and share. The social atmosphere among teachers should be warm and welcoming, with mutual respect and ability to listen to others. Organizational issues refer to distribution of tasks, support form management, distribution of resources, teachers' schedules etc.

Kelchtermans (2015) classified factors into structural conditions and interpersonal dynamics. For structural conditions he focused on the physical space and formal/informal time needed to conduct proper collaboration sessions. Also, he mentioned the need to have time to observe colleagues' lessons and be observed by them. For interpersonal dynamics he mentioned the following are prerequisites for a fruitful collaboration:

•   dialogue and active participation

•   trust

•   positive attitude to learning

•   shared beliefs

•   openness and respect

•   teachers' initiatives

For Tinker Sachs and colleagues (2011) it is vital to create a school culture with a welcoming environment where teachers can freely discuss what is happening in their classroom without the fear of being considered as inadequate.

Some methods to promote collaboration among teachers are:

- joint work
- co-teaching
- mentorship
- teambuilding games and activities

Joint work

The number of academic and administrative tasks teachers are required to carry out leaves them with very little free time. In fact, most teachers work additional hours to ensure their students get the best education. Enabling teachers to meet face-to-face in subject groups, grade groups or as a teaching body ensures they have time to work with one another and touch base regularly on issues concerning students and not only. School leaders can apply several strategies with the aim of facilitating everyday collaboration among teachers and reducing work-related stress. School leaders can turn to substitute teachers to give teachers time to collaborate with other teachers and lesson-plan together. Also, they should facilitate teachers' attendance in seminars and workshops so that they can participate with other members of the staff and develop their professional skills and strengthen their interpersonal relationships at the same time. School leaders should also create collaboration groups that teachers should not consider a necessary evil but a part of their working experience. Such groups should be carefully planned and depending on the size of the workforce, they can be made by 2-3 or more teachers. They can pair students based on the subject they teach, or the level they teach as they will be able to exchange material easier and work jointly.

Create lesson plans together

Planning lessons in advance is a key part of teaching and there is no doubt that in most tasks two people working together can yield better results. When teachers plan their lessons together, they can learn from one another and can brainstorm how to approach complex subjects or learning aims. As teachers will often be familiar with the same students, they will be able to predict how the classes will respond to the new

material and adjust their teaching strategies and/or warn each other of possible mistakes.

Lessons can sometimes be planned well in advance, with teachers determining how to deliver the curriculum across a semester or a school year. Individual lesson plans may be created with a short-term view, however. This enables teachers to be flexible and adapt the curriculum plan according to their students' needs. If pupils have struggled to grasp a concept, an extra lesson may be spent on this topic before the class moves on to new material.

Co-teaching

Co-teaching is typically perceived as two educators working in tandem to serve the needs of a heterogenous group of learners. There are three important considerations in co-teaching that should be mentioned according to Dieker (2014).

1. Planning – Co-teachers need time to plan and commit to the process. Time necessary may be more in the first years of collaboration and then reduced.
2. Disposition - Before starting the co-teaching process, the teachers should discuss about their teaching mentality and try to find a middle ground if there are major differences. It is important to be united and share a common philosophy when it comes to teaching, grading, discipline, fairness and crisis management.
3. Evaluation – A coherent method should be used to evaluate both teacher satisfaction and student learning with this model. If teachers are working in a team setting, then at least every 4 weeks, they should discuss whether they are satisfied with the procedure and how students benefit from it. At this stage, teachers can resolve any problems and re-calibrate goals previously set.

In their book, Interactions: Collaboration Skills for School Professionals, Marilyn Friend and Lynne Cook (2003) analyse the six different forms of co-teaching.

1. One Teach, One Observe. One of the advantages in co-teaching is that there is ample time to observe students and take notes. In this type of co-teaching, teachers can decide beforehand which aspects they can focus on (eg. which student has short attention span, which student likes to collaborate etc.) and then, after gathering the data, they can analyze the information together.

2. One Teach, One Assist. In this approach, one educator has the leading role, teaching, while the other (usually the inexperienced one) circulates around, providing students with help and support, under the instruction of the experienced educator.

3. Parallel Teaching. Students learning can be greatly facilitated in this case. In parallel teaching, both teachers cover the same information and they divide the class into two groups, and teach them simultaneously. In cases where the class in big or when it is mixed-abilities parallel teaching can stimulate learning.

4. Station Teaching. In this co-teaching approach, teachers divide content and students. Each teacher teaches the content to one group and then repeats the information for the other group. The other teacher works similarly. They can follow the first teacher of they can work with the team B while the first teacher works with group A and then swap. Friend and Cook suggest that a third station can be provided, where students can work independently.

5. Alternative Teaching: In most class groups, very often there are students who need specialized teaching. In alternative teaching, one teacher takes responsibility for the large group (eg. strong students) while the other works with a smaller group (weaker students).

6. Team Teaching: In team teaching, both teachers are delivering the same instruction at the same time. It is a complex approach which requires that the teachers have similar teaching styles.

Mentorship: Another way to encourage collaboration is by development of programs that regularly bring senior and less-experiences teachers together in a bid to exchange ideas and teaching tips.

According to Head, Reiman and Thies-Sprinthall (1992), major aspects that contribute to the complexity of mentoring include the multiple needs of beginning teachers as well as their mentors, their developmental issues or concerns, their repertoire of teaching skills, the school culture that may impact positively or negatively on the mentoring process and numerous other variables. Research shows that mentoring is more challenging than classroom teaching, and that even experienced teachers cannot always "objectively assess the quality of teaching performance of beginning teachers" (Bey and Holmes, 1992).

In The Mentor Handbook (2013) issued by the University of Greenwhich and Surrey in collaboration with CEDEFOP[1], the different stages of mentoring are mapped, adapted from Miller's (2004) work.

Stage 1: Conception: Gaining commitment to the mentoring process.

The mentor embarks on a commitment journey with the mentee and the mentee identifies the educational needs that need to be addressed.

Stage 2: Giving birth: Creating a relationship based on a common understanding of the mentoring process and each other's roles and expectations and a healthy rapport;

The mentor explains his education style and his professional values while the mentee outlines his expectations and gets acquainted with the mentoring process and format of meetings.

Stage 3: Babyhood: Exploring professional development(PD) needs, setting goals and preparing proformas (guides/templates) to be used for the rest of the mentoring relationship;

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[1] using case studies from Cyprus, Denmark, Estonia, Finland, Lithuania, The Netherlands, Slovakia, the United Kingdom

The mentor shows genuine interest in the mentee's professional development needs and creates the relevant documents and forms, while the mentee shares his professional needs with the mentor and formulates his/her needs and expectations.

Stage 4: Childhood: Develop a common understanding of the mentor's style and its effectiveness;

The mentor explains the documents and forms and discusses the style of mentoring and feedback strategies while the mentee understands the documentation and voice expectations of the proposed plan of action presented by the mentor.

Stage 5: Adolescence: Assist in goal-setting;

The mentor helps the mentee set goals and objectives and suggest the relevant action plan for a certain time period. The mentee discusses and revises the proposed action plan and is responsible for the implementation of the action plan.

Stage 6: Adult maturity: Mutual learning and development;

The mentor observes mentee's working and learning processes, consults mentee to evaluate the process, presents criteria of assessment and observes mentee's behavior for any signs of emotional breakdown. The mentee is open to constructive criticism and feedback, reflects on their actions, observes themselves to avoid dependence on mentor.

Stage 7: Old age: Reflecting together on what has been achieved through the relationship;

The mentor prepares the plan for reflection on the process, and ask for feedback from the mentee. The mentee informs the mentor on what could have been better and offers feedback on the process.

Stage 8: Death: Achieving closure and moving on once goals are attained;

The mentor and mentee together or separately reflect on mentoring process and its effectiveness.

Stage 9: Rebirth: Identifying needs for future collaboration.

The mentor explores areas to extend professional collaboration and the mentee shows willingness to participate in professional collaboration again in the future if there is need.

Gray (2010) makes the distinction between mentoring and coaching, which are two practices easily confused. Gray specifies that mentoring is a long-term process, compared to short-term coaching, and its range of focus is quite wide, whereas coaching focuses of a specific set of issues and goals each time. Another difference is that mentoring focuses on career and personal development, but coaching focuses on overall performance and development issues. Finally, mentoring is a profound process with the eyes on the future, while coaching is focused on the present.

Applying mentorship

An effective mentoring scheme should be based on sufficient resources of both time and money. The most significant aspect of these is probably compensation of mentors for their efforts and their pivotal role. Compensation should not necessarily be financial but also extra days-off or other perks. Other resources include administration costs and the costs of training.

According to the handbook, there are specific steps for the school manager or mentorship manager to follow to apply the scheme:

(a) recruiting mentors;

(b) holding regular reviews of the progress of the system;

(c) acting as an arbiter in any disagreement or dispute (for example between mentor and mentee);

(d) evaluating and amending the system;

(e) planning for the training of mentors.

Before mentors offer their insight to mentees, they should be trained in an organized way. In some countries the teachers' education institutes provide relevant programs and universities offer mentor training sessions (Lithuania). There are also countries,

where the mentors' training is incorporated in an induction program for inexperienced teachers, which is supported at national level (Estonia). In other cases, a brief training in organized prior to the beginning of a mentor/mentee collaboration with a view to setting common goals and familiarizing the mentor with all the administrative documentation and paperwork and giving necessary information and advice as a basis for a constructive relationship. Some of these documents concern observation of teaching and giving feedback to the mentee. If in situ training is not a possibility, then an e-training session could be implemented. The e-training program can embed a variety of information and exercises. Information would be given about expectations, about the mentoring relationship, about the stages of mentoring and about the subject taught. The mentor could be asked to complete online activities to self-assess their own skills, or lay 'ground rules' of an initial meeting or devise forms related to observation or feedback. The resulting forms should be assessed by the coordinator, and feedback should be provided to the mentor.

1.9 Mentoring and Induction in Nordic Countries

The structural reforms and the changing of the personnel's age structure in Amiedu, the largest vocational training centre for adults in Finland, was a process that made mentoring emerge as a useful tool to prepare the new generation of educators to take the lead. The mentorship program was structured in groups, not in pairs with the following structure: four introductory lectures for all groups together followed by four mentoring sessions with an external facilitator and four meetings without the facilitator. Mentoring period from October till June and follow-up sessions, four face-to-face and web-based sessions.

The mentoring training can be organised as group training, where one and the same training specialist can be in the role of both mentor and mentee. Changing perspective and roles is beneficial for both parties. Mentors need to be willing to able to share their experience and be open to listen to the ideas of others. Mentoring is one of the tools to reform an educational institution and can and should be combined with other professional development tools for further success.

The mentor appointed by the school does not have to teach the same subject but they have to be teaching in the same field preferably. Some municipalities may appoint mentors with only some years of experience, because they assume that a mentor with just a few years' experience in teaching understands the system better. Other municipalities on the other hand appoint only very experienced colleagues, or seniors, as mentors. Still other municipalities may appoint mentors with various levels of experience. The mentor and the mentee can be matched in different ways based on different criteria, e.g. school stage, subject and school, depending on the local objectives and the local school development (Fransson & Morberg, 2001; Morberg & Gustafsson, 2007).

The people bearing responsibility for the mentor program in Sweden differ from one municipality to another. Most often it is the headmaster of the school, but it can also be the local boards of schools, which are the central school organisations in the municipality. Part of the induction material sent to schools aimed at headmasters include information on how to select the best mentors for novice teachers and recommendations. Mentors who are experienced and competent not only help novice teachers but the school as a community too. Mentors have been part of an effort to support novice teachers since about 1998 with the government compensating both mentee and mentor financially. The state develops evaluation criteria for new teachers and after the completion of the course they are evaluated and then they can apply to register as qualified teachers. Evaluation is a responsibility of the headmaster of the school. Some mentors do evaluate, but that is not in accordance with neither the system in force nor the intentions outlined in the national agreement. The main policies concerning school management in Sweden can be characterised by the word decentralization. The mentor program is locally decided, locally planned, locally conducted and locally evaluated and therefore differs from one municipality to another. Often mentoring lasts for one year, as set forth in the former national agreement, but the introduction can be prolonged if needed. The mentor and the mentee often meet regularly during the introduction year, but the number of meetings may vary from only a few meetings to one meeting per fortnight during the whole introduction year. Mentors may receive payment for their work as mentor, and

being a mentor may foster their career (Morberg & Gustafsson, 2007). Municipalities consider mentor programs as essential for the development of schools and investment for the future of the country so they give priority to these programs.

Norway provides novice teachers with a mentoring system (Helleve, 2017) According to the researcher, Norwegian politicians have long argued that all newly qualified teachers should have a mentor. Therefore, the state has subsidized a formal mentor education with academic credit points for new teachers. Teacher education institutions provide the relevant courses and the aim of the project is not only for the mentor to help new teachers but to "transform the teaching profession".

In Estonia (Mets, 2018), since 2004, beginning teacher mentoring has been promoted by Tallinn University and the University of Tartu as part of the induction, a program that had traditionally been offered to teacher training graduates during their first year of teaching. The program has also been available for those who have not completed teacher training. The universities have also been in charge of mentor preparation. A minimum of three years of working experience - teaching and development work - is required as the pre-condition for enrolling on mentor training. Unfortunately, the 2017/18 school year beginner teacher survey revealed that only 55% of the beginning teachers had a mentor. In order to become an official mentor, there are no uniform criteria. The school leader usually assigns a mentor for the beginning teacher.

1.10 Teambuilding activities

Team-building aims at the motivation of teams for fulfillment of organizational goals. Team-building skills and activities are essential for any employee's effectiveness . Kidd (2007) provided basic methods for team building: "diversity of skills and personalities, good communication and harmony among the team members".

Miller (2004) analyses the steps which are necessary for the design of an effective team-building activity. The team leader should initially develop a clear objective for the activity. The activity should be feasible for the team, appropriate for the group and its needs, with trust being an important factor of all teambuilding activities. Miller

states that "if a team has not worked together or does not know one another, team-building activities might need to be implemented".

Preparation is key for a team-building activity. The activity-leader should study the activity beforehand and know the group and its needs. The activity-leader should be able to predict any "glitches". Expect problems and have a back-up plan or corrective actions. Materials should be ready before the activity and equipment should be checked. The layout of the room the activity will take place should ready so that there is no time waste preparing the environment.

Miller states that once the activity begins, the leader should explain the rules clearly to the team and "set the mood" for the activity. A lot of the mood is dictated by the leader so it is wise to choose a leader who is energetic. During the activity the leader should participate actively, walking around, clarifying and prompting the participants, redirect them and remind them of time left, offering hints and support. If the activity is successful, it can be repeated in the future but not in the next 3-4 sessions. Miller clarifies that the impact of the activity on their job performance should be discussed at a later date.

The right components are needed to build a successful team. Lee (2007) developed seven key components in building a successful team:

1. Find the right team members, who are enthusiastic and eager to participate.

2. Give each person in the team a valued role. It is important for team members to feel valued and appreciated. "High-profile" roles should not be assumed by the same members all the time but rotate.

3. Create a unique identity for the team. In order for the team to have confidence they should be encouraged to create their own nickname.

4. Commit to excellence. The team members should be driven by passion and pride, to achieve the best results.

5. Give them a vision. A vision motivates all employees and teachers as well.

6. Play or work with passion. Everyone on the team should love what they do. The choice of activity can influence this factor as well.

7. Get out of the way. Leaders should initiate the game and then let the team shine. Autonomy is of paramount importance. Leader should explain the rules and support if necessary. Not guide the activity.

Several researchers have come up with different team building activities. Some effective examples which can easily be implemented in a school environment are:

1. "Me, Myself and I" is a storytelling activity that makes participants talk about anything but themselves. The participants are not allowed to use "I" and listeners become aware of how the speaker can refer indirectly to themselves. Other participants take turns after 3 minutes of non-stop talk (Miller, 2004).

2. White Water Rafting, staff cookouts, or holiday parties are activities away from the school environment where team members can get to know each other in a more relaxed atmosphere. Very often colleagues discover a totally different disposition when they are outside work. They can take time to talk about their families, hobbies, gossip etch. In a group event they may meet each other's family in a relaxed framework (Miller, 2004).

3. "Toxic Waste" is a team-building activity for small groups. Team members hold a rope attached to a bucket. A small group must work to transport the bucket of "Toxic Waste" and empty it into the neutralization bucket. This activity is really versatile to all environments (Pell, 1999).

4. "Shared Values" is a sharing team-building activity in which participants agree on the most important shared values in the group. Team members write the three most important values to the staff privately and divide into groups of four or six to share those values with the rest of the team. The team then choose the most important values on the list for the organization. Teams create posters with words, symbols, or pictures that reflect the three values and they present their posters (Miller, 2004). This type of activity is ideal as the first activity of the school-year to lay some ground on common virtues and values.

5. "Zoom" is an activity where participants created a cohesive story out of a set of sequential pictures. The leader hands out the pictures and each participant receives a picture. They cannot show the picture to others and at the end of the activity they should make a story using these pictures. team-building activity builds patience and communication (Neill, 2006).

6. "Tower Building" promotes team collaboration but also competition among different groups. The participants are divided into a minimum of two groups of five to eight participants and they have to construct a free-standing tower using material provided, such as plastic cups or wooden tiles. One person is selected to be the judge for all teams. After the time allotted passes, the judge examines the towers and chooses the winner. At the end of the activity the judge can ask questions like: What happened? How did the group work? Were everyone's ideas heard? What was observed about teamwork? (California State Polytechnic University, 2005). This activity's most important part is the part when the team members discuss and realize the strengths and weaknesses of the team.

7. "Catch" increases collaboration and promotes working together as a team.

Participants need to throw the ball around, form a pattern and then repeat the pattern faster and faster. If anyone drops the ball, the sequence has to be restarted. The group creates a strategy to improve its time and plays the game again. When the game is over, the facilitator leader initiates discussion related to the methods of success and how this activity can help them collaborate better I the future (Miller, 2004).

An important part of team-building activities, if not the most important, is participant reflections and discussion about the activity, how they approached the situation, and possible points of learning.

To fully understand the scope of team-building activities it is deemed necessary to refer to some reasons team building activities may fail. Some of them are:

1. Participants do not want to participate at all, or they do not want to be a part of a specific team. participants do not understand the goal of the activity.

2. Team building is not linked to results. The participants understand the aim of the activity but they cannot connect the results to necessary changes in mentality and practices.

3. After the activity there is no follow-up session. No reflection, no discussion, no feedback. Continued learning and reinforcement are essential (Lantz&Brav, 2007). According to Grimme (2007) teams that do not receive positive feedback for what they accomplish might give less effort in the future (Grimme, 2007).

Lantz covered possible issues that could negatively affect team building, including: Fuzzy Focus, lack of leadership and suck on sameness. In Fuzzy Focus, the teams do not know how to operate a s team. The goals are not clear and they can only speculate and make assumptions. There is not clear strategic focus of the activity.

Lack of leadership is vital in helping a team succeed; if there is no structured leadership, members might resort to making teams with their friends and avoid others and apply their own methods. Stuck on sameness is when teams repeat practices and avoid novelty. Experienced teachers or colleagues can insist the way things have always been done.

Cardus (2007) offered four possible reasons that corporate team-building activities failed to achieve results. They are:

1. Lack of understanding why they are there. Participants do not understand why they participate in the activity and it is the leaders' role to clarify any misunderstandings. Participants may be unmotivated but the team-building leaders should inform them about the goal of the activity and motivate them to participate energetically.

2. Improper sequencing of activities. The team should not begin with a complex physical, mental, or emotional challenge. The activity should star with simple activities and climax steadily. The sequencing of activities is very important so the leader has to be experienced in order to know how to build a series of activities.

3. Poor or inadequate debriefing. A skilled leader should know how to prepare team members for the activity and clarify details at the beginning of each activity.

4. Lacking commitment of management and executive team. Everyone should be involved in the team-building process, even higher management levels. In a school environment, the principal can participate in these activities and often, but not necessarily always, administration can participate too.

2. DATA ANALYSIS
2.1 Questionnaire formatting and distribution

Using the platform Google Forms, I created a questionnaire addressing teachers who work in private and public education. The initial goal, which was achieved, was for the questionnaire to be no longer than 45 questions so that the participants would not have to spend more than 10 full minutes answering the questions. Having had the experience of answering multiple questionnaires for other students, friends or even strangers, it has been made clear that longer questionnaires discourage participants who start clicking irrelevant answers just to submit the questionnaire quickly. The questionnaire I distributed had a clear indication of a 10-minute limit and it was timed by several colleagues during the testing stage.

The questionnaire, as mentioned above, was addressed to teachers in public and private education (kindergarten through high school) who are currently employed or were employed during the previous academic year. To attract a bigger number of participants the questionnaire was written in Greek. The teachers were instructed to respond to the questions with the last school environment they worked for (academic year 2019-2020) in mind as school year 2020-2021 was not fully underway when the questionnaire was distributed.

The questionnaire's primary goal was to assess how much Greek teachers collaborate and their willingness to open up to new ideas and to what extent they realize that collaboration and team building are beneficial for them. A secondary goal was to probe into all the possible obstacles that hinder solidarity and team building among teachers in Greek schools so that emphasis can be placed in the future research on how to overcome these problems to ensure smooth collaboration and a healthy working environment for teachers.

The questionnaire was structured in six sections. The first one is the demographic data, concerning the age, working experience, gender, specialty and some other questions concerning the type of contract they hold with the school they work in or the geographical area they live in. The last question included was whether these teachers had studied and/or worked abroad with a view to comparing how much more "open-minded" to change are teachers who have experienced living abroad to these ideas.

The second section is focusing on the notion of mentoring, a notion which is practically non-existent in Greek schools. To tackle the problem of receiving just negative answers to questions such as "do you have a mentor?" YES or NO, I tried to probe into how much teachers deem it is necessary and the conditions that should normally apply to maximize results. For example, the questionnaire asks the teachers' opinion on whether a mentor should be someone with 10 years or more of experience or if the mentor should receive formal training to resume his duties and also explores their willingness to be a mentor for a new colleague.

The third section is focusing on the induction program and team-building spirit development. Again, since these ideas are alien to Greek teachers, the questions were structured in a way to look into whether teachers believe it would be beneficial to have induction programs in place for newcomers or to what extend they would appreciate somebody welcoming them on their first day at school and introducing them to the rest of the personnel. Concerning team building, the philosophy of questions is the same. Having to choose to what extent they would like the school to organize team building activities teachers are allowed to express their enthusiasm or lack thereof on new ideas. The next step is the game-changer though. Teachers may be enthusiastic to the potential idea of team building but to what extent are they willing to sacrifice free time to participate in such activities, and whether they are willing to participate in such activities if no renumeration is involved.

The next section of the questionnaire is focusing on how often teacher collaborate with their colleagues (either of the same specialty or other) in order to talk about issues concerning teaching methods, materials etc. but also to discuss issues concerning students. The questionnaire includes more questions in this section,

having to do with the frequency of collaboration between a teacher and the school administration and the frequency of participating in observation or co-teaching sessions, methods which are widespread abroad but rare in Greece.

The fifth section concentrates on the obstacles which are present when efforts are made to promote team-spirit and collaboration, with specific and practical examples which teachers need to identify in their school environment. Another important element of this section is the extent to which teachers agree that collaboration development can benefit them and in what areas (stress relief, personal development, etc.)

The last section is the section where teachers are invited to describe the situation in their own school. Having expressed to what extent they are open to new ideas and whether they would welcome changes and make sacrifices, teachers are now invited to respond to more practical question like whether there is an appropriate space where teachers can rest and collaborate, with all the necessary equipment, what the climate in the school is like, if the school administration organized seminars, workshops and learning opportunities for teachers and if the school environment is open to innovation among others.

Distributing the questionnaire, several problems arose which were successfully tackled. The first one was to ensure that the participants would cover different parts of the country and not only the capital or bigger cities. The easiest route was to distribute the questionnaire to friends and acquaintances working in schools in Athens and collect data that concern only the capital. But that would not be a good sample. It was deemed necessary to cover as much geographical area as possible to ensure that teachers who work in the countryside, even remote islands were included and with the aim to compare how the big two cities (Athens and Thessaloniki) compare to the rest of the country.

Another issue was the number of participants who work in a private school. Not having worked in a public school but having had some experience with private schools, it would be easier to distribute the questionnaire to colleagues in private education but private schools in Greece represent a small percentage of schools

(according to the site of the Ministry of Education there were 1021 private schools in the academic year 2018-2019 and the public schools were approximately 14.000) so again, the sample would not be representative of the situation. Also, another important factor that would interfere with the results is that private schools are usually more well-organized that public schools so practices like "observation" and "co-teaching" are more common and so are the fully -equipped teachers' lounges etc. If the questionnaire was distributed mainly to private teachers, then the results would be that Greek schools have the prerequisites for a successful collaborative environment.

The method used to distribute the questionnaires was two-fold. First of all, it was distributed via practically all Facebook groups available (private teachers, public teachers, primary school teachers, high-school teachers, teachers by specialty, substitute teachers etc.). Also, an email was sent to approximately 50-60 private schools around Greece asking the administration to distribute the questionnaires to the teaching staff explaining the aim of the research. Last but not least, an email with a link to the questionnaire was sent to all the directorates of primary and secondary schools around Greece, again asking the office to distribute the link to all the schools of their region. Some emails were individually sent to schools which provided their email online.

The response was quick and overwhelming. Within a week, 309 answers were received. colleagues from around Greece filled in the questionnaire, forwarded it to their colleagues and commented to my emails and posts with encouraging words.

2.2 Research questions

The research was organized and designed around the idea there is not enough data concerning collaboration among Greek teachers, their ability to adapt to change and participate in team-building activities. Although there is evidence about teachers abroad, especially in the European Union, not many surveys have been carried out in order to gauge the situation in Greek schools. Greece did not participate in TALIS - The OECD Teaching and Learning International Survey (2018), the Teaching and Learning International Survey (TALIS) which asks teachers and school leaders about

working conditions and learning environments at their schools to help countries face diverse challenges. There is a limited number of scientific papers on collaboration but they concern a specific part of the teaching body (primary school teachers, or special education teachers). There has never been conducted a survey across the teaching body, about collaboration and more importantly team-building and the present paper also draws comparison between private and public education in terms of openness to change.

The research questions therefore are whether Greek teachers cooperate and what obstructs furthering collaboration, whether Greek teachers are open to team-building activities and whether peer support (either through unofficial, casual methods or mentoring) is in place in Greek schools, drawing conclusion from both private and public schools.

## 2.3 Analysis of the demographics

Out of the 309 participants that responded to the online questionnaire, there was good distribution of age. The slight majority (28,7%) was teachers aged 51-60, followed by teachers 41-50 (26,7%) and teachers aged 31-40 (26,1%). The lowest number of participants were part of the up-to-30-years-old age group (16,3%) and at the bottom are the teachers aged sixty plus.

According to statistics drawn from Myschool platform, teachers aged 50 plus, account for the 72,68% of permanent teachers, and specifically, those between the age of 51 to 56 are the 1/3 of the total. Young teachers (below the age of 40) are around 5,34% of the total teachers, positioning Greece at the top three countries with the oldest teaching staff of the European Union.

Cornering gender, the results were not surprising. The percentage of women participants reaches the staggering 77,2% and men account for the 22,8% but this can be easily explained by the overall percentage of women teaching in Greek schools. Over the last decades, education and teaching has been associated with the female gender. According to a survey conducted by ELSTAT for the year 2018, female teachers constitute the 67% of all educators and men constitute the 33%. Our

findings are rather close to the official statistics. In the graph below, women are represented with red and men with blue.

Graph 1. Percentage of male-female teachers Q2

ς

76,7%

23,3%
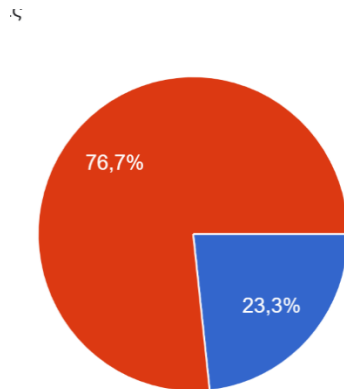
According to the graph, where Athens is represented with blue, Thessaloniki with red, Patras with yellow the rest of Greece with green, just 30,3% of respondents work in Athens, 5,2% live in Thessaloniki, 2,3% live in the third largest city in Greece, Patras, and the rest (62,2%) live in the rest of Greece.

Graph 2. Geographical distribution of participants Q3

62,1%

30,4%

- Athens
- Thessaloniki
- Patras
- Rest of Greece
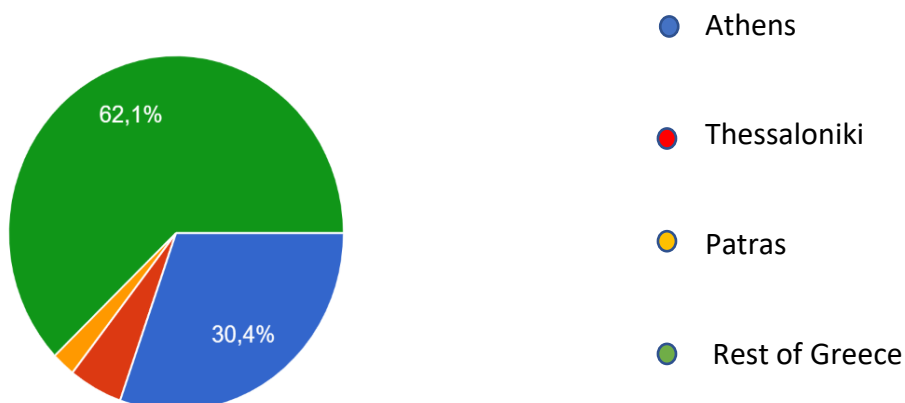
The vast majority of teachers (83,4%) who responded to the questionnaire work in public schools and just 16,6% work in private schools.

According to ELSTAT statistics of 2015, approximately 95% of teachers work in public schools whereas 5% work in private schools. Concerning employment contract, 52,4% of participants work with a permanent contract on full time basis (yellow), 39,4% work with a fixed contract on a full-time basis (blue), followed by those who work with a fixed contract on a part-time basis (5,2%) (red) and the teachers who work with a permanent contract on a part-time basis (2,9%) (green). This question was included to investigate the extent to which the permanent contract affects enthusiasm and openness to change.

Good distribution of responses was also achieved regarding the participants' work experience. A 22,8% of participants have 26-30 years of teaching experience, 21,2% have 16-20 years of experience, 19,9% have 11-15 years of experience, 10,4% of participants have 21-25 years of experience and the same percentage applies to those who have 6-10 years of experience. The lowest percentage is that of teachers who have 26-30 years of experience (9,2%) and more than 30 years of experience (6,2%).

Graph 3. Teaching experience of participants Q6
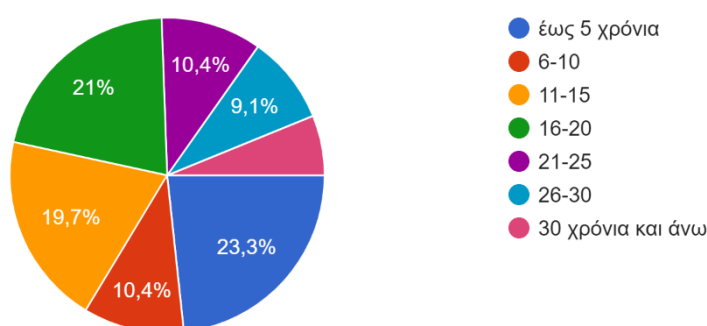
The majority of participants are primary school teachers (25,1%) followed by teachers of Science (including Physics, Chemistry, Biology, Maths) with a 14,7%. teachers of Greek Language, teachers of foreign languages, and other specialties amount for around 11% of responses each. teachers of IT and Economics represent

7,8% of responses. teachers of Drama and Art are 4,6% and PE teachers are only 2,3% of the total responses.

Last, a surprising finding is the number of teachers who have broadened their horizons by working or studying abroad. Only 18,2% have had such an experience, whereas 81,2% of participants have only studied and worked here. This finding is important because we may be able to draw conclusions on to what extent teachers who have lived abroad are open to more innovative methods.

Mentoring

The majority of teachers (36,2%) agree that a formally appointed mentor to guide a new teacher would be a positive change, followed by a strong 26,2% who strongly agree with this idea and 23,3% who are neutral and a combined 14,3% who disagree or strongly disagree with this idea.

Graph 4. It would be nice for a newly qualified teacher to have a formal mentor (appointed by the school) Q9
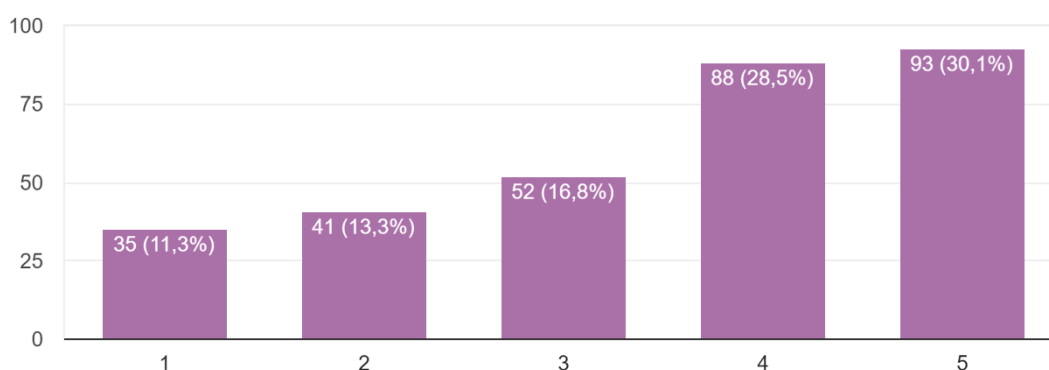
 A strong 30,1% of teachers strongly agree that in order for someone to resume the role of a mentor, prior formal training is necessary, so that they can officially assess new colleagues and have educational material in place to facilitate the process. teachers who agree with the idea represent a 28,5%, followed by the neutrals who represent the 16,8 and last, the teachers who disagree or strongly disagree with this idea combined, at 24,6%.

Years of experience play a paramount role in the conscience of teachers when deciding someone to become a mentor. Specifically, 39,8 % of teachers strongly

agree that a mentor should have at least ten years of experience, followed by 32,4 who agree with the idea, 13,3% who are neutral, 8,4% disagree with the idea and last 6,1% strongly disagree with this idea because they believe that a mentor does not have necessarily to be somebody with ten years of experience or more but somebody who is just eager to assume this role and guide.

Graph 5. It would be better for a teacher to have 10+ years of experience in order to become a mentor Q11
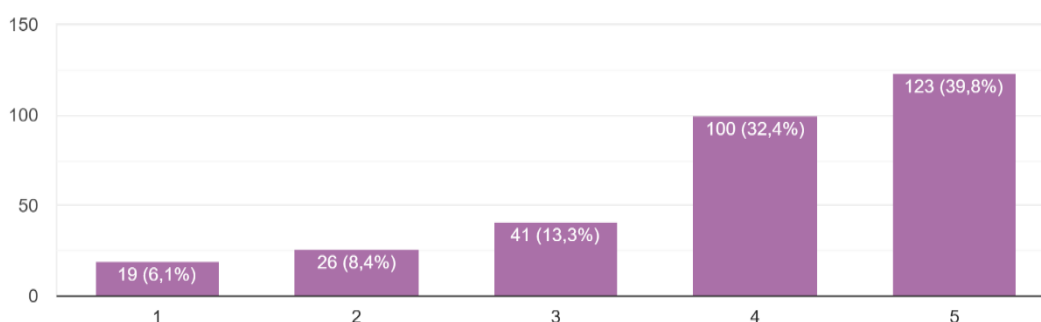
In Greece the idea of a formally appointed mentor is limited in practice but it is important to know what the teachers think about it and whether they are willing to try this role. The results were well spread through the scale with high percentages in the negative side. Specifically, 22,3% of teachers would strongly desire to become a mentor for a new colleague, 24,3% desire the role, 25,6% of the teachers (marginal majority) are neutral, 12,9% would not desire to become mentors and 14,9% are strongly against the idea.

Comparing question 9 and question 12 results it is worth noting that although 62,4% of respondents agree or strongly agree that the role of mentor is a positive step towards a more productive and stress-free working environment, 46,6% of the respondents are willing to go through a formal training (or not) to become a mentor for a new colleague.

Graph 6. Would you like to be mentor for a new colleague? Q12 by age
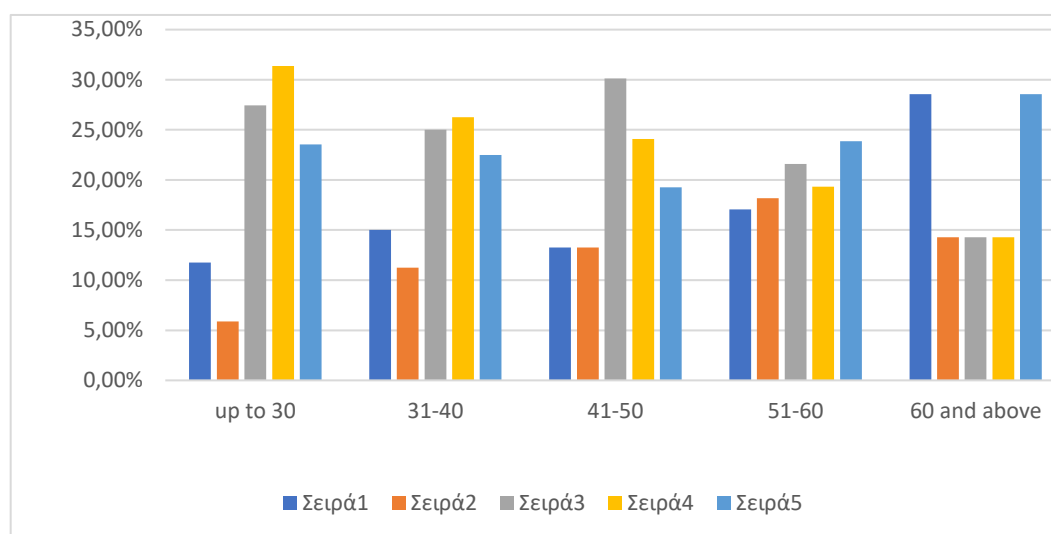
The graph shows the age distribution of the respondents for the question of whether they would like to become a mentor for a new colleague (Q12) and the results show that the age 60+ either strongly want to be a mentor or the exact opposite whereas young teachers aged express a lot of willingness to participate in such a program even I their expertise is not adequate, ages 31-40 and 41-50 are also very positive to the idea and ages 51-60 are mostly neutral. The results of combined data graph show that enthusiasm reduces with the years and although aged 60 plus express a strong will to me a mentor it is not clear whether they want to help new colleagues or the prestige of such a role.

Induction and team building development program

Very few respondents answered that they strongly disagree with the idea that it would be better if the school they work in provided an organized program of induction and training for new students (2,3%). A 4,5% just disagree with the idea, 11% remain neutral and the percentages skyrocket after that. Teachers who agree with the idea amount to 37,5% of the answers and those who strongly agree are 44,7%. Collectively 82,2% of teachers agree or strongly agree with an induction and training program and the conclusions to be drawn are obvious.

Graph 7. It would be better if the school where I work had an organized welcome and induction program for new teachers Q13
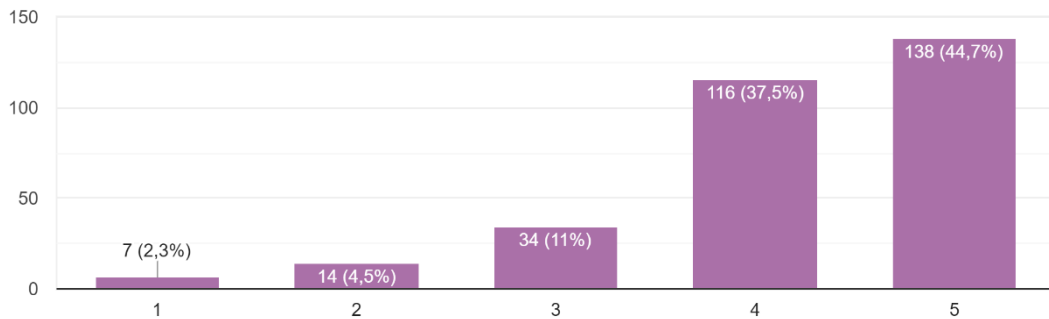
Teachers are in need of better preparation before they enter a new workplace. The academic background they have from university and prior experience in not adequate to prepare them for all the challenges the new workplace will pose for them. Such an induction and training program could include information about specific students, internal affairs, the school philosophy, icebreaking activities with the other colleagues etc.

A vast majority of teachers strongly agree (62,1%) with the idea that it would be better if there were someone there to welcome the officially at school on the first day there, show them around the premises and introduce them to the colleagues. Those who just agree with the statement are much fewer (21,4%). Those who are neutral are 10% of the respondents, and those who disagree (strongly or not) are 6,4%.

Graph 8. It would be better if there was someone there to welcome me formally at school on my first day there, to show me around and introduce me to my colleagues Q14
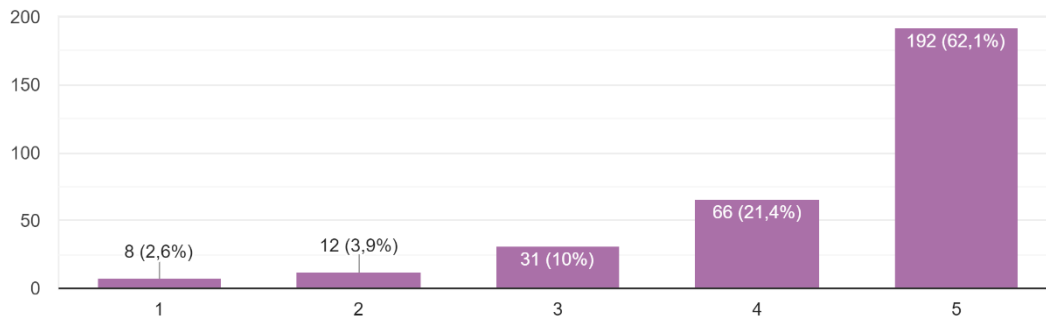
Not welcoming someone in your house or your workplace is culturally unacceptable and creates a whirlpool of emotions for the person who knows that they will have to work there for a year or more. A good first impression is everything. There are several choices as to who would be the ideal candidate to welcome a new colleague and show them around: A headmaster or deputy headmaster is the official representative of the school, the manager of studies may be responsible for acquainting the newcomer with procedures or a colleague who has already done it in the past. The results show that teachers prefer a colleague with relative experience to welcome the n their first day (44%) but only 1% more than those who believe that the right person for this job is either the head master or the deputy head master. Just 10,7% would prefer the manager of studies (here we should note that this position is not prevalent in private school and does not exist in public schools) and 2,3% chose the option "other".

Strongly in favour of having space for team-building activities at school are 52,1% of the respondents, followed by those who agree with 27,8% and those who are neutral with 15,9%. Those who are negative towards such a trend are 4,2% of the sample. The numbers do not change greatly when teachers are asked whether it would be better if the school actually organized team-building activities. 53,4% actually strongly agree with the idea, 28,8% agree with the idea, 12% remain neutral, 4,2% disagree and 1,6% strongly disagree.

Graph 9. It would be better if the school where I work had space for team building activities Q16
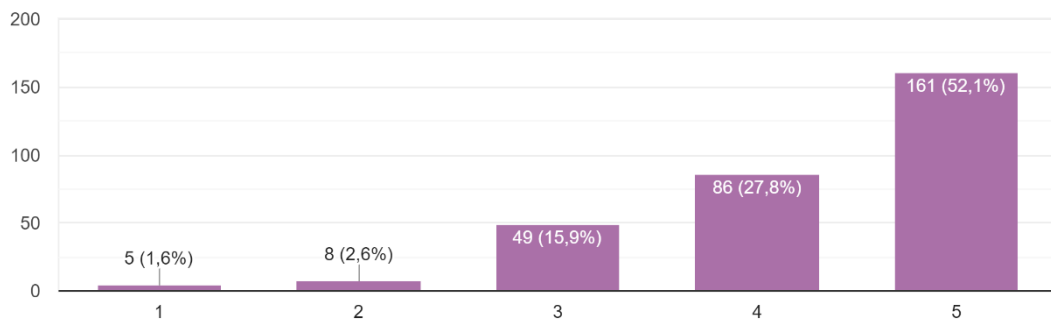
The high number of teachers who wish for team-building activities is a pleasant surprise. Teacher collaboration is a relatively new notion for Greek teachers and team-building activities are not common in a school environment. Teachers are used to working alone or in small groups and they do not usually feel as part of a school-cluster. This sense of belonging and solidarity are the final aim of team-building activities so it is positive to see that they are more than open to this idea.

Concerning participating in team-building activities within their working hours, 36,9% strongly agree that his should happen, 31,45 agree with this idea, 20,7% of teachers are neutral, 5,5% disagree and 5,5% strongly disagree with this idea.

Graph 10. It would be better if the school organized team -building activities Q17
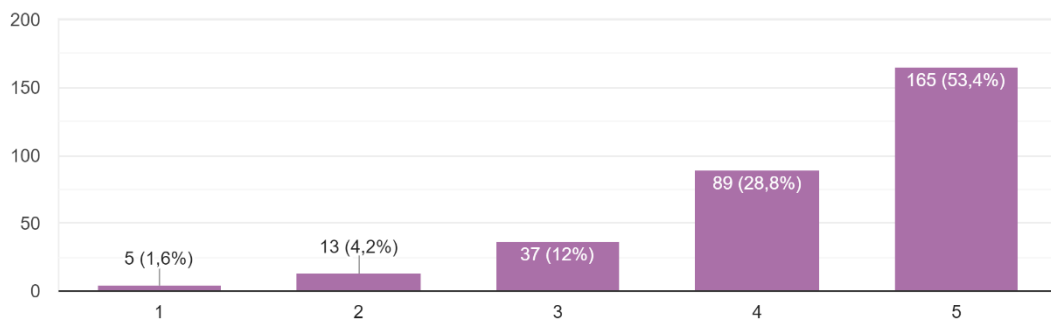
To probe into how willing teachers are to cooperate in such activities, the following question was added to the questionnaire. Teachers were asked if it is right for team-building activities to take place outside teachers' working hours, maybe in the afternoon. The results here are spread throughout the scale. The majority (24,9%) strongly disagree, and this comes as no surprise, 20,4% disagree, 22% remain neutral and this constitutes a high percentage of teachers who could not make up their mind. Those who agree and strongly agree with this idea are 32,6% and this is a percentage which shows that there are plenty of teachers who recognize the importance of such activities and are willing to sacrifice their personal time to further their development.

Graph 11. Willingness to participate in team-building activities according to age
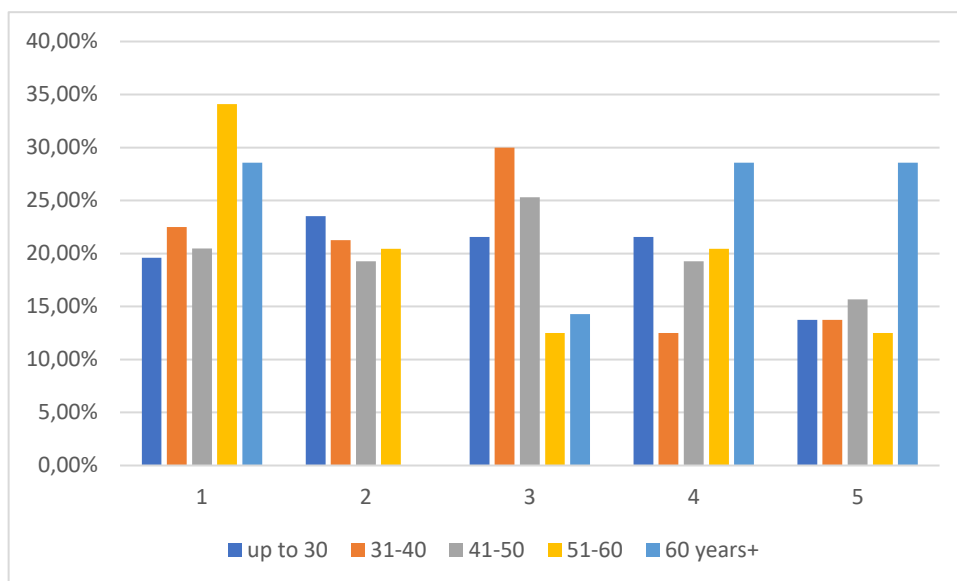
Comparing the results from question Q19 with the age groups of teachers, the results show several facts. First of all, the age group 60 plus, who would probably be expected not willing to be present at school for extra time is the age group which mostly agrees with such an idea. Specifically, 28,7% of teachers aged 60 plus strongly agree that team-building activities should take place outside working hours which says a lot about their willingness and enthusiasm. The age which follows does so with a quite lower percentage. Teachers aged 41-50 strongly agree with this idea with a percentage of 15,66%, followed closely by the other groups. Similarly, the

percentage of teachers aged sixty plus who agree with this idea is considerably higher than all the other groups. Surprisingly, 60 plus teachers also strongly disagree with this idea, with the 51-60 at the top of the list of those who strongly disagree. The less enthusiastic age group to participate in team building activities beyond working hours is the age group 51-50 and 31-40.

Concerning compensation, 21,4% strongly disagree with the idea that teachers should not be compensated for the time spent in team-building activities, 18,1% disagree, 28,2% remain neutral (this can be explained maybe by the fact that in Greece the idea of compensating employees for extra activities, induction weeks and training is not prevalent, so they may realize that it is something that should be done, yet it does not happen) 14,6% agree to do team-building for free and a surprising 17,8% strongly agree with this idea.

Teachers sometimes have free hours at school. Free hours at school are not per se free. Free hours are spent meeting parents or correcting papers, doing administrative work or lesson planning. Just 7,8% of teachers strongly believe that this free tie should be spent doing team-building activities, 13,6% agree with this idea, 27,2% are neutral, 20,1% disagree and of course, last but not least, the majority of 31,4% strongly disagree that teachers' free time at school should be spent this way.

Graph 12. It is right for the teacher to participate in team-building activities sacrificing his free hours at school Q21
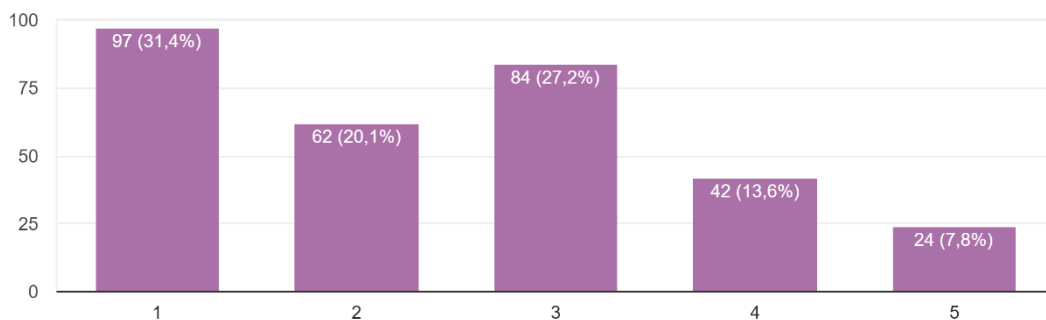
Co-operation

The main focus of this study is the extent to which Greek teachers co-operate with other teachers in order to be more productive and at the same time share ideas with others. The first thing to investigate is how much teachers cooperate with the headmaster or deputy headmaster of the school they work in. Gladly, the majority of teachers cooperate with the management to a moderate extent (33%) and 31,4% cooperate with teachers to a large extent. A 22% of teachers cooperate with the headmaster or deputy headmaster to some extent, 11,3% cooperate to a small extent and only 2,3% do not cooperate with them at all.

Graph 13. How often I cooperate with the head master/deputy head master of the school unit for issues that preoccupy me Q22
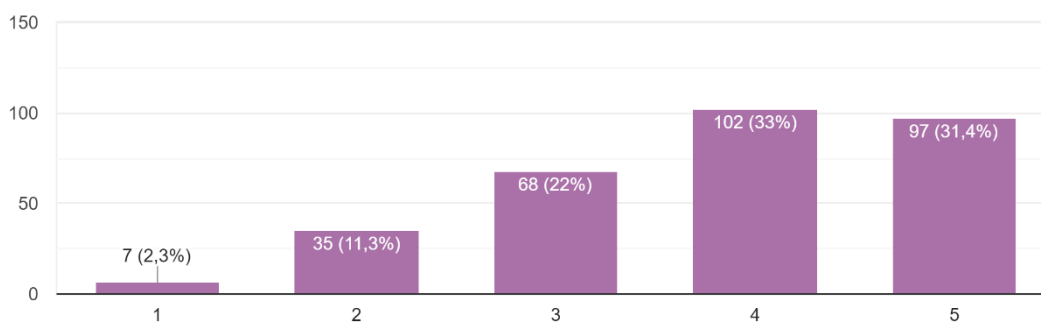
Collaboration with the management of the school is vital and the results are promising but they beg the question as to what constitutes collaboration in the mind of Greek teachers. Very often teachers turn to management to complain and just unload their issues and the management very often just receive the comments without concrete feedback and/or support but it is important to note that, at least, teachers report that they feel that they are "close" to the management.

Positive results were also drawn concerning teachers' collaboration with teachers of the same specialty. Specifically, 42,1% of teachers cooperate with their colleagues of the same subject to a large extent, followed by 35,6% of teachers who cooperate with teachers of the same subject to a moderate extent. Only 12,3% cooperate to some extent, 5,5% to a small extent and last but not least 4,5% of the teachers cooperate with teachers of the same subject not at all. Here it should be mentioned

that in Greek schools there is often one teacher of specific subjects (e.g. IT) so this is a reason why some teachers reported limited or no collaboration at all.

Graph 14. How often I cooperate with colleagues of the same specialty Q23
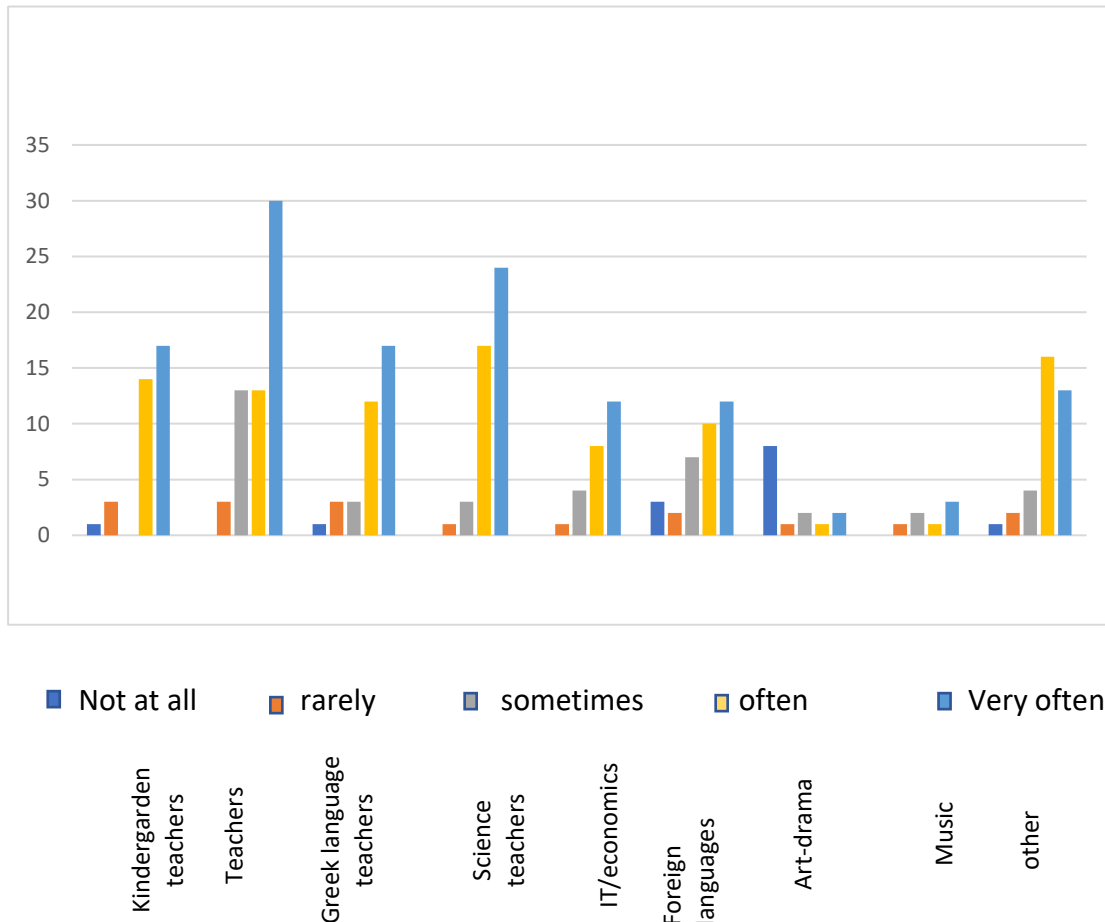
Comparing findings with specialties it is interesting to observe the graph and the conclusions it offers. Kindergarten school teachers, primary school teachers and Greek school teachers co-operate a lot, with primary school teachers being at the top of the list. Science teachers also cooperate a lot as well as IT/economics teachers. The Drama/Art teachers of PE teachers do not report high levels of collaboration maybe because they may have no one to cooperate with.

Collaboration of teachers who teach the same year/level are high. The majority 40,1% report that they cooperate with colleagues who teach at the same level to a

moderate extent, 35% report that they cooperate to a large extent, 16,2% respond that they cooperate to some extent, 6,5% to a small extent and 2,3% report that they cooperate with the colleagues of the same level not at all. Again, in this section the results may be affected by the fact that not all teachers have somebody of the same level to cooperate with. For example there are primary school where there is only one class per level, or there are teachers who are unique in a school unit (e.g. PE teachers).

The majority of teachers (36,9%) report that they cooperate with teachers of other specialty who issues concerning teaching or the students to a moderate extent. The teachers that do the exact same but to a large extent are 22,7% and those that do it to some extent are 26,2%. Teachers who cooperate on such basis to a small extent or not at all are collectively 14,3%.

Beyond collaboration, teachers discuss with their peers about issues concerning teaching per se (methods, material etc.) on a daily basis. Specifically, the majority of teachers discuss with their peers to a moderate extent, followed by those who discuss with their peers to a large extent (33,7%). those who discuss with their peers to some extent account for 20,4%, to a small extent 5,5% and not at all 1,9%.

A major part of teaching, besides material and teaching methods is the relationship between the teacher and the student. Very often teachers come across students who are disruptive, or gifted or unique and they feel the need to share their thoughts with other colleagues. In Greece 47,2% of teachers report that they talk about students to a large extent, 38,8% talk about students to a moderate extent, and only 11,3% to some extent, 2,3% to little extent and 0,3% not at all. These percentages are higher that other sections, meaning that more teachers discuss issues concerning students than teaching or material.

Graph 15. How often I discuss with other teachers issues concerning students Q27
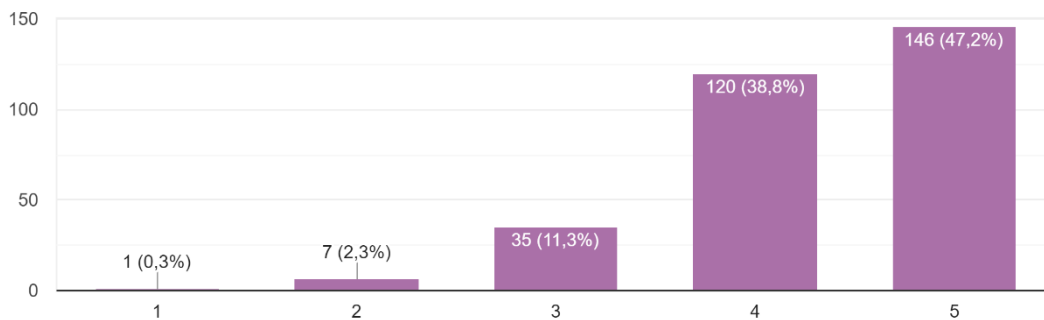
Solidarity exists in Greek schools and the numbers are testament to this. In the question of how often teachers exchange material with teachers of the same specialty, those who report that they practice exchange of material to a moderate and large scale are collectively 63,5% of the sample (32,4% and 31,1% respectively), to some extent 23%, to a small extent 9,7 and not at all 3,9%.

Teacher meetings are not so frequent in Greek schools. from the answers given it may be concluded that they do not take place on a weekly basis. Just a 9,7% of answers report teacher meeting that take place very often, 26,9% report meetings that take place often, 31,1% report meetings that take place sometimes and 23% of teachers say that meeting are rare. A shocking 9,4% of teachers report that teacher meetings do not happen at all.

Graph 16. How often teacher meetings are organized at my school Q29
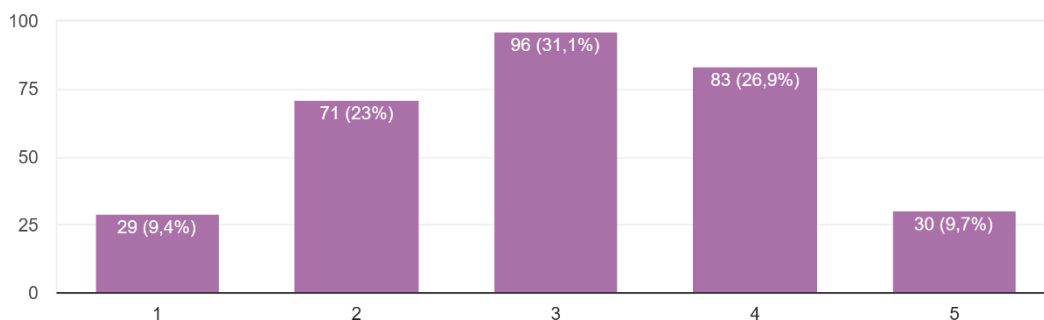
Teachers meetings are essential for the smooth collaboration of teachers and the effective function of a school unit. During a meeting, problems with disruptive students can be discusses, goals can be set, schedules can be clarified, teachers can

be morally supported and so on. Drawing conclusions from the unexpected high numbers of teachers who report that they cooperate with colleagues of the same specialty but not necessarily, the number of teachers who reported that meetings are organized in their schools very often or often are lower, which means that probably teachers will cooperate but on their own terms (with people they choose to work with and for the best interest of their lesson) but the school administration is reluctant to organize more meetings either because teachers are reluctant to do more or because they do not feel the need to.

Graph 17. How often meetings are organized in my school by type of school
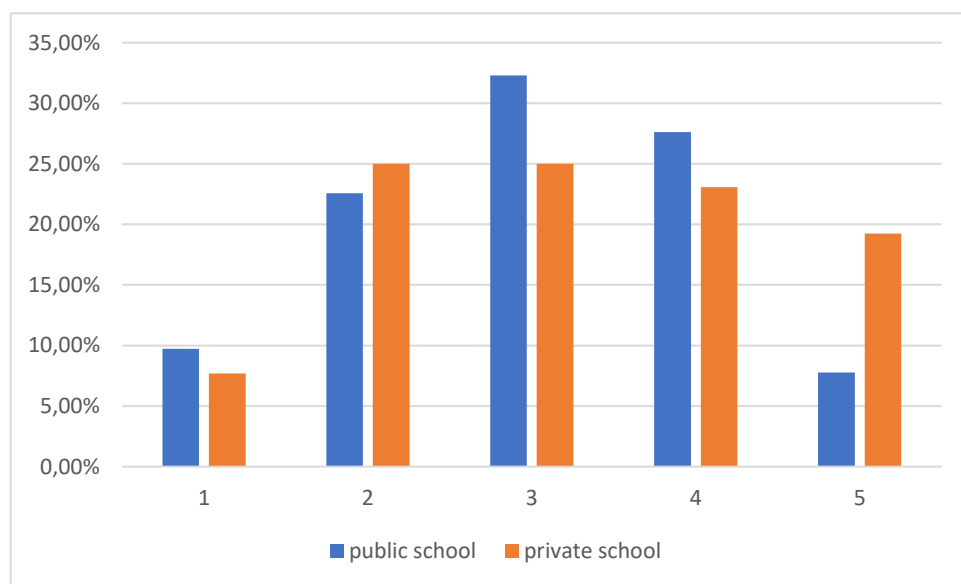
Combining question 29 and question 4 in the graph above, we were able to draw conclusion as to whether public schools organize more meetings than private schools other way around. The results show an interesting tendency. For "5" which represents very often, the percentage of private school teachers who chose this option is more than double than their public school counterparts, but teachers of public schools who report than meeting in their schools happen often or sometimes are slightly more than private school teachers. Public school teachers are also more in the section "not at all" represented by 1. For rarely, again, private school teachers are more, but the percentage is slightly higher than the one of public school teachers.

Concerning lesson-planning with a teacher of the same specialty, numbers show a clear preference to lesson-plan alone. Just 8,4% of teachers lesson-plan with a colleague of the same specialty very often, 16,8% often, 21,7% sometimes and 29,8% rarely. A 23,3% report that they do not lesson-pan with a colleague at all. In this category fall the teachers who do not have a lot of lesson planning to do (e.g. PE teachers) or teachers who do not have a colleague o the same specialty at the school.

Observation is a practice which is quite common abroad, with teachers strongly encouraged to observe their colleagues' lessons regularly. In Greece it is not at all common. The vast majority, 58,9% report that they do not practice lesson observation at all, 19,7% rarely, 9,4% sometimes, 8,7% often and 3,2% very often.

Graph 18. How often I observe a colleague's lesson by type of school
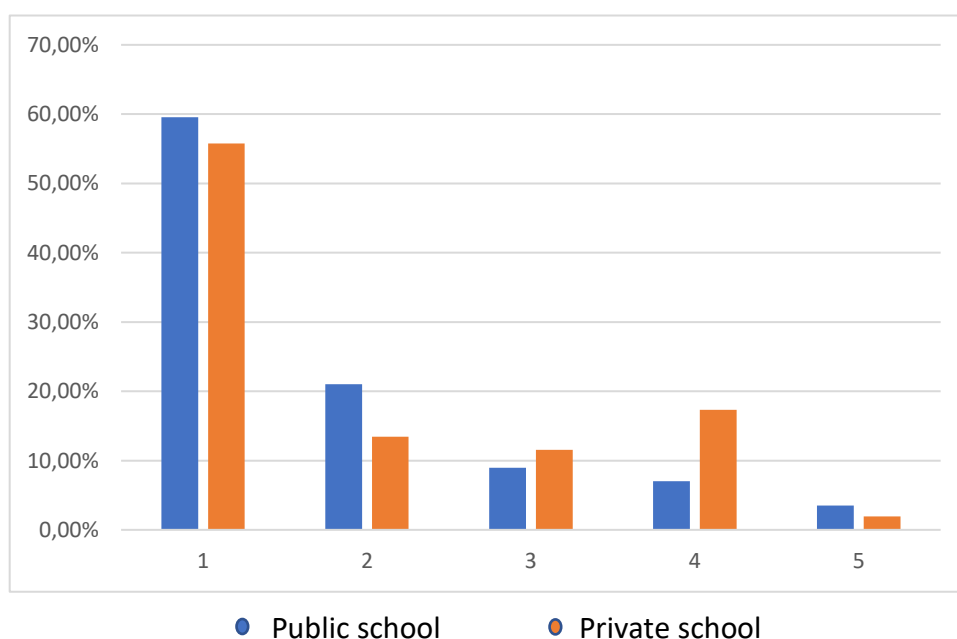
In order to draw safer conclusions a correlation between Q31 and Q4 was attempted and it is depicted on the graph above. In this graph we can see the percentage of private school teachers and public school teachers who responded to how often they observe a colleague's class. Although percentages remain higher around negative answers, for "sometimes" and "often" percentages of private school teachers are significantly higher than those of their public school counterparts. For 5 (very often)

although the percentage is very low in both categories, public school teachers outnumber their private school counterparts.

Co-teaching is another practice which is not prevalent in Greece but, unlike observation which can be an individual initiative without prior organization, co-teaching is a method that requires planning and coo-ordination from the administration. It would be pointless to ask whether teachers practice co-teaching at school (the answer would be a deafening 'no') but to what extent it would be beneficial for a teacher to participate in co-teaching. The answers given proved that they are willing to try. 33,3% of the teachers strongly agree that it would benefit them, the same percentage just agree, 23,6% remain neutral, 7,4% disagree and 2,3% strongly disagree.

Obstacles

Teachers realize that there are important factors hindering team-building and collaboration development in schools and the questions in this section were designed to shed light in what obstacles there are so that the identification can lead to resolution.

Although the previous sections showed that Greek teachers cooperate rather well, a high percentage report that they strongly agree (25,2%) that there are obstacles in the implementation on team building and collaboration development programs. Those who agree account for the 37,9& of the respondents, those who remain neutral are 24,9%, the ones who disagree are 10,4% and the ones who strongly disagree are 1,6%.

When given the choice of several factors, teachers reported the following. Out of the 309 answers, 123 teachers reported that competitiveness is an obstacle, 144 that it may be an obstacle and 42 that it is not an obstacle. When it comes to lack of appropriate space (room, equipment, availability etc.) teachers are more divided. 189 say that it is an important hindering factor, 79 that it may be and 41 say that it is not an obstacle. Lack of common time seems to be the factor that attracted most positive answers. 219 out of 308 teachers reported that they do not have free time when their peers do, 75 say that this may be a problem and just 15 believe that this

is not an issue. When it comes to lack of common goal among teachers, yes and maybe answers are very close, 137 and 132 respectively and 40 teachers report that this is not a factor. 140 teachers say that problematic relationships among teachers are a factor that hinders collaboration and team building, followed by 123 teachers who say that this may be an obstacle and 46 who believe that this is not a problem. Maybe answers skyrocket for the option "goals are not clear". 162 teachers this that this may be a problem, whereas 102 report that this is a problem and 44 that it is not. Concerning boredom and indifference, 133 teachers believe that it is an obstacle, 138 that it may be an obstacle and just 38 that it is not.

The most promising result is that almost 62% of the teachers strongly believe that collaboration development can benefit them, 29,1% believe this idea, and just 7,8% remain neutral, 0,3% and 1% disagree and strongly disagree respectively. To clarify this question even further teachers were asked to choose how collaboration can benefit them in a more practical way. Almost half of the respondents (49,2%) report that the exchange of ideas is the area where collaboration will most help them in. Reduction of work-related stress and personal development share almost equal percentages (12,9% and 12,3% respectively), but professional development receives 20,7% of the answers. 3,2% of the teachers believe that collaboration will help them have for free time and 1,6% say that collaboration will help them otherwise.

Graph 19. Cooperation development may potentially benefit me with… Q36

- Reduction if work-related stress
- Exchange of ideas
- Personal development
- Professional development
- More free time
- Other
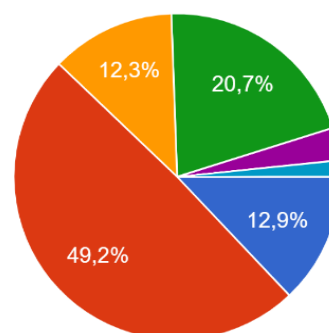
Considering the high number of teachers who report that the lack of appropriate pace is or may be an obstacle for successful cooperation and team-building, it is sad to find out that 36,9% of the total number of teachers report that in their school there is not a designated area where teachers can spend time together for relaxation, cooperation and others.

Graph 20. In the school I work in there is a designated space where the teachers can spend time together (for relaxation, cooperation etc.) Public vs private schools

Yes　　　　　　　　　　No

■ Public school　　　　　　■ Private school
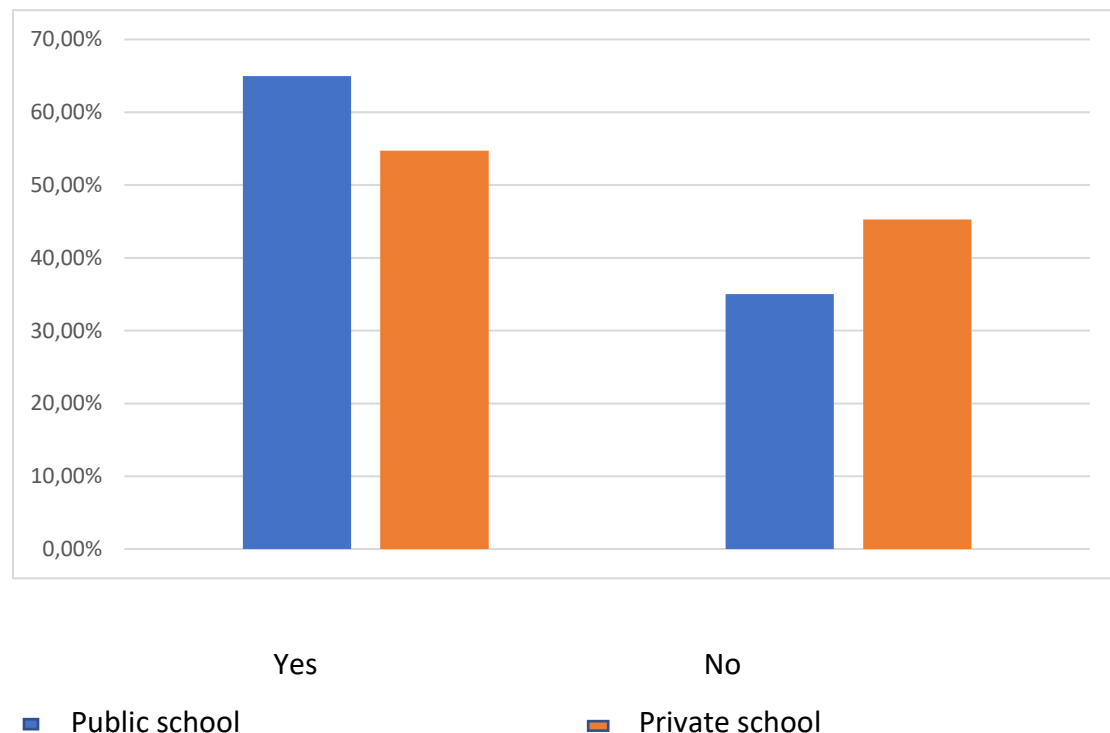
It would probably be expected for private schools to have better facilities and more space for their teachers to relax and cooperate but the graph above shows, surprisingly, that more public school teachers (blue) reported that they feel there is a designated space for them. More specifically 64,98% of the public school teachers reported there is a space for them, whereas for the same question, 54,72 of the private school (orange) teachers reported the same.

In order to ensure successful collaboration among teachers a teachers' lounge should fulfill some requirements like internet connection, printer, stationary etc. In this section fewer than 309 teachers participated because not all teachers reported having a designated teachers' area in their school. Concerning internet connection 193 teachers reported that there was connection in the school teachers' lounge and fortunately only 24 reported there was no internet. 110 teachers said that there are enough chairs and desks for all teachers in this lounge and 105 that there are not. 167 teachers say that there are computers in the teachers' lounge and 48 that there are not and this must be the most worrying result. About printing equipment, 163 teachers say that their lounge has a printer but 51 say that there in not one, 145 say that there is adequate stationary and 69 that there is not, 171 that there is a photocopier and 43 that there is not and last but not least, 106 teachers say that in the teachers' lounge there are appliances to prepare hot snacks and/or beverages and 107 say there aren't any.

The following question investigated the climate in the school unit of the respondents. More specifically, the teachers were asked if in their school there is a positive climate of collaboration and support among teachers and administration. The results were again, conducive to the idea that Greek teachers work to maintain a positive environment for the most part. A 27,8% of the teachers strongly agree that there is a positive climate, 32,4% of the teachers agree, 27,2% are neutral and only 8,1% and 4,5% of the teachers disagree and strongly disagree with this idea.

Graph 21. In the school I work in, there is positive climate of cooperation and support among teachers and management Q39
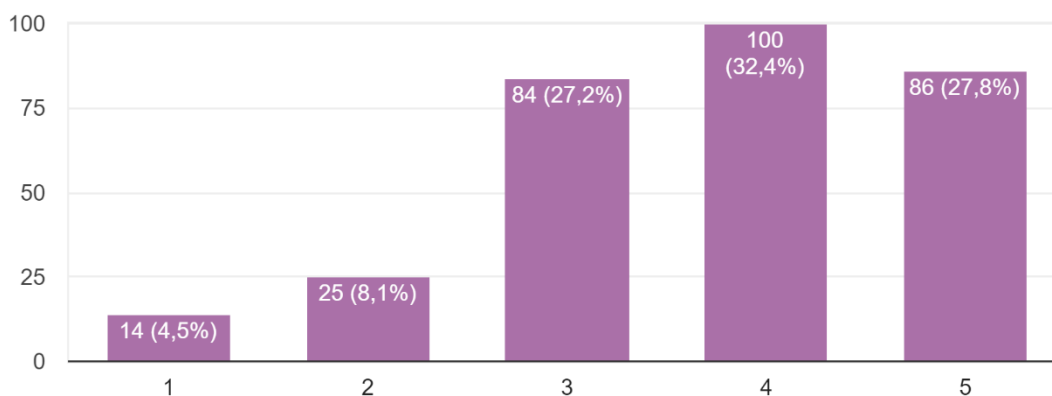
Induction and welcome procedures were probed into in another part of the questionnaire but in this section teachers had to answer a straightforward question whether there was somebody to officially welcome them on their first day at their school unit and show the around the premises. The positive outcome percentage is marginally higher than the negative. Specifically, 54,7% of the teachers reported that there was indeed someone there, but for 45,3% of the teachers there was no one there to greet them.

Those who responded "no" to the above question were directed to an optional question exploring the different feelings they have felt when they entered a new school and no one was there to meet them. The majority of teachers felt anxiety (33,5%). Teachers felt disappointment at 21,9%, confusion at 11,6, sadness at 1,9% and other feelings, not specified at 31%. Included in the non-specified feelings may be neutral feelings, meaning that there may be teachers who are not emotionally affected by this. The results show that teachers receive mostly negative feelings and this can be a negative first impression laying the wrong foundation for a future collaboration.

According to many recent researches carried out by the ministry of education and academics or researchers, Greek teachers suffer from high levels of anxiety and

stress caused by the insecurity of working and financial conditions and all the political changes that lead to a multicultural learning environment in which teachers have to teach successfully but without proper assistance. All this anxiety is reinforced when the climate with colleagues is not supportive and teachers end up suffering from inability to control their feelings.

One of the most important aspects of teaching (and possibly all professions) is training and lifelong learning. Teachers have to be up-to-date with changes motioned by the ministry of education, study new teaching techniques and methods, and generally never cease learning and enriching their material. The school administration should be part of educating the teachers because teachers' potential raises the school standards. In the question of whether in the school they work in are organized seminars, training programs and workshops for teachers, results are not positive. The majority of respondents (31,7%) say that the school almost never organizes training for them, 21,4% say that this happens rarely, 26,2% say that training is organized sometimes, and the percentage of teachers who say that this happens often and very often are 15,2& and 5,5% respectively.

Graph 22. In the school I work in, seminars, training programs or workshops are organized for the teachers Q42
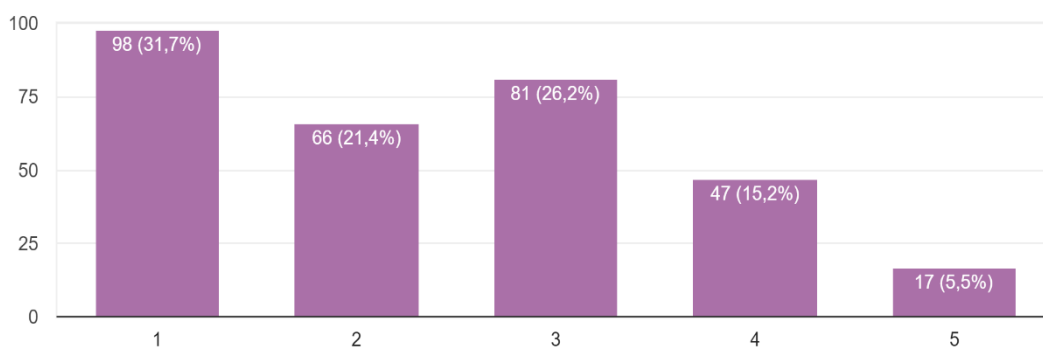
Mentoring, as previously stated, is not very common in Greek schools, nevertheless there is always individual initiative and willingness to help. The next question investigates whether more experienced teachers guide their young or/and new colleagues even if unofficially. Percentages are edging towards the positive side. Specifically, 19,1% of the teachers strongly agree that more experienced teachers in

their school guide new colleagues, 29,8% agree, followed closed at 23,6% of teachers who remain neutral. The teachers who disagree and strongly disagree account for 18,4% and 9,1% respectively.

The second to last question of the questionnaire investigates openness to innovation, new ideas and programs. A 10,7% of teachers strongly agree with that in their school, their colleagues participate enthusiastically in changes, new ideas, projects and programs, followed by those who agree at 21%. The majority of teachers (35,6%) remain neutral and 23% of teachers unfortunately disagree with this idea and 9,7% strongly disagree.

Graph 23. In the school I work in, colleagues participate with enthusiasm in changes, new ideas, projects and programs Q44
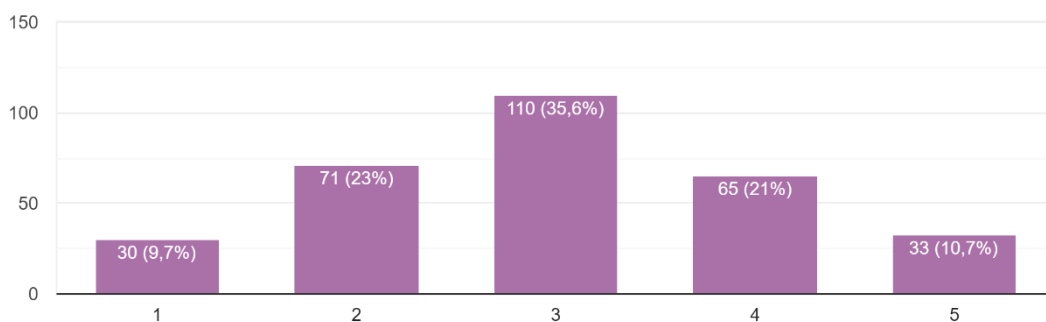
Teachers were given a choice of keywords to respond to with yes/maybe/no to characterize the climate in the school they work in. Out of 309 respondents, 233 say that the climate is toxic, 49 say that it may be toxic and 27 say that it is. For the keyword "friendly", 23 out of the 309 respondents say that it does not characterize their school, 103 say maybe and 183 say that it does. Out of the respondents, 129 say that competition is not a keyword that characterizes their school, 132 say that it may do and 48 teachers say that it does. For innovation, 102 teachers say this keyword does not characterize their school, 138 say that it may do and 69 say it does. Ninety teachers say that the keyword "young" teachers does not characterize their school, 82 remain neutral and 137 say it does. For "supportive administration" 55 teachers say that it does not describe their school, 93 are neutral and 161 say that

it does. Very few teachers (19) say that in their school there is not eagerness for work, 130 say that eagerness for work may describe their school environment and 160 say that it does. Concerning flexibility, 55 teachers say this word does not describe their school unit, 132 say that it may do and 122 say that it does not. For the final keywork "cooperation" closing the questionnaire, just 33 teachers say that the keyword does not describe their school, 111 say that it may do and 164 say that this keyword describes effectively their school.

The highest percentage difference in favour of positive answers are observed in "cooperation", "friendly environment" and "supportive administration" where the positive answers are more than double the negative answers. For "toxic" a vast majority responded negatively.

2.4 Comparison of research results to literature and suggestions for further action

This research paper attempted to probe into how Greek teachers perceive ideas such as co-operation, mentoring and team building and more specifically to what extent they are willing to participate in team building activities and mentoring schemes. Another focal point of this research paper was to what extent Greek teachers cooperate with each other in order to improve their skills and avoid work-related stress. So far no similar research has been carried out concerning Greek teachers, except for Kougioumtzis and Patricsson's (2009) work on comparing collaboration among Greek teachers and Swedish teachers, which refers to an older version of Greek and Swedish schools. Therefore, it is difficult to make comparisons with other similar papers concerning Greece and that is what makes this paper unique of its kind.

Concerning Nordic countries, which are revolutionizing the world of education, reference was made in the first part of the paper and comparisons with the Greek system although there is not enough evidence on a European Union wide scale. First of all, there should be better assessment of teachers' practices across EU countries and comparative data on how they cooperate and what drives them to become

better in order to draw conclusions from more successful countries. Also, the results should be cross-examined from a financial point of view in order to assess the mentality of teachers and their motivation in future scientific research. Specifically, when Nordic countries spend 6,9% (Sweden), or 5,9 % (Finland) of their GDP for education and Greece only 3,9% (2018, Eurostat) then some new projects like mentoring and team-building are difficult to implement so, schools should rely on highly-motivated teachers who are willing to work even on a voluntary basis. Also, there should also be carried out research in terms of teachers' salaries and how a higher salary can reflect on their motivation to participate in more advanced professional activities.

Another field also worth researching is what steps can be implemented on a political level in order to facilitate these activities. The present paper has shown that Greek teachers do cooperate and they are willing to try new methods in order to hone their skills and improve as professionals but they recognize the presence of limitations, which were identified on a primary level such as limited space, equipment, common time among others. The next step would be for the government to identify clearly all limitations and make all necessary changes so that teachers can put into practice all these new ideas that are already underway in more developed countries in terms of teaching.

Collaboration, mentoring and team-building schemes are easy to organize if the practical boundaries are overcome and if the Greek government decentralizes procedures concerning teachers' growth and further development and training. If school managers or the district office could organize team building activities or collaboration sessions to exchange ideas among teachers of the same field, procedures would be easier to implement and teachers would participate more enthusiastically because they would have the chance to meet with fellow teachers of the region. It would not be impersonal, something dictated by the government but rather, something organized by the community to help teachers improve.

2.5 Statistics

Grouping together all questions referring to Collaboration (Q22-Q32) and producing and average number, and after using the Bonferroni Correction the following findings were observed.

Multiple Comparisons

TABLE 1. Multiple Comparisons

Dependent Variable: COLLABORATION

Bonferroni

(I) q1	(J) q1	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	Upper Bound
1	2	-3,650*	1,154	,017	-6,91	-,39
	3	-2,178	1,146	,583	-5,42	1,06
	4	-2,797	1,134	,142	-6,00	,41
	5	-4,417	2,596	,899	-11,76	2,92
2	1	3,650*	1,154	,017	,39	6,91
	3	1,471	1,009	1,000	-1,38	4,33
	4	,852	,995	1,000	-1,96	3,67
	5	-,768	2,539	1,000	-7,95	6,41
3	1	2,178	1,146	,583	-1,06	5,42
	2	-1,471	1,009	1,000	-4,33	1,38
	4	-,619	,986	1,000	-3,41	2,17
	5	-2,239	2,535	1,000	-9,41	4,93
4	1	2,797	1,134	,142	-,41	6,00
	2	-,852	,995	1,000	-3,67	1,96
	3	,619	,986	1,000	-2,17	3,41
	5	-1,620	2,530	1,000	-8,77	5,53
5	1	4,417	2,596	,899	-2,92	11,76
	2	,768	2,539	1,000	-6,41	7,95
	3	2,239	2,535	1,000	-4,93	9,41
	4	1,620	2,530	1,000	-5,53	8,77

*. The mean difference is significant at the 0.05 level.

TABLE 2. Multiple comparisons

Dependent Variable: TEAM_BULDING

Bonferroni

(I) q7	(J) q7	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	2,226	,893	,476	-,66	5,11
	3	2,279	1,040	1,000	-1,08	5,64
	4	3,213*	,987	,046	,03	6,40
	5	-1,103	1,147	1,000	-4,80	2,60
	6	1,645	1,055	1,000	-1,76	5,05
	7	-,300	1,385	1,000	-4,77	4,17
	8	-1,229	1,814	1,000	-7,08	4,62
	9	1,418	1,040	1,000	-1,94	4,77
2	1	-2,226	,893	,476	-5,11	,66
	3	,053	,884	1,000	-2,80	2,91
	4	,987	,822	1,000	-1,67	3,64
	5	-3,329*	1,008	,039	-6,58	-,07
	6	-,581	,902	1,000	-3,49	2,33
	7	-2,526	1,273	1,000	-6,63	1,58
	8	-3,455	1,729	1,000	-9,04	2,13
	9	-,808	,884	1,000	-3,66	2,05
3	1	-2,279	1,040	1,000	-5,64	1,08
	2	-,053	,884	1,000	-2,91	2,80
	4	,933	,980	1,000	-2,23	4,09
	5	-3,382	1,140	,118	-7,06	,30
	6	-,634	1,048	1,000	-4,01	2,75

	7	-2,579	1,380	1,000	-7,03	1,87
	8	-3,508	1,810	1,000	-9,35	2,33
	9	-,861	1,033	1,000	-4,19	2,47
4	1	-3,213*	,987	,046	-6,40	-,03
	2	-,987	,822	1,000	-3,64	1,67
	3	-,933	,980	1,000	-4,09	2,23
	5	-4,316*	1,093	,004	-7,84	-,79
	6	-1,567	,995	1,000	-4,78	1,65
	7	-3,513	1,341	,332	-7,84	,81
	8	-4,441	1,780	,473	-10,19	1,30
	9	-1,794	,980	1,000	-4,96	1,37
5	1	1,103	1,147	1,000	-2,60	4,80
	2	3,329*	1,008	,039	,07	6,58
	3	3,382	1,140	,118	-,30	7,06
	4	4,316*	1,093	,004	,79	7,84
	6	2,748	1,154	,644	-,98	6,47
	7	,803	1,462	1,000	-3,92	5,52
	8	-,126	1,873	1,000	-6,17	5,92
	9	2,521	1,140	1,000	-1,16	6,20
6	1	-1,645	1,055	1,000	-5,05	1,76
	2	,581	,902	1,000	-2,33	3,49
	3	,634	1,048	1,000	-2,75	4,01
	4	1,567	,995	1,000	-1,65	4,78
	5	-2,748	1,154	,644	-6,47	,98
	7	-1,945	1,391	1,000	-6,43	2,54
	8	-2,874	1,818	1,000	-8,74	2,99
	9	-,227	1,048	1,000	-3,61	3,15

7	1	,300	1,385	1,000	-4,17	4,77
	2	2,526	1,273	1,000	-1,58	6,63
	3	2,579	1,380	1,000	-1,87	7,03
	4	3,513	1,341	,332	-,81	7,84
	5	-,803	1,462	1,000	-5,52	3,92
	6	1,945	1,391	1,000	-2,54	6,43
	8	-,929	2,028	1,000	-7,47	5,62
	9	1,718	1,380	1,000	-2,73	6,17
8	1	1,229	1,814	1,000	-4,62	7,08
	2	3,455	1,729	1,000	-2,13	9,04
	3	3,508	1,810	1,000	-2,33	9,35
	4	4,441	1,780	,473	-1,30	10,19
	5	,126	1,873	1,000	-5,92	6,17
	6	2,874	1,818	1,000	-2,99	8,74
	7	,929	2,028	1,000	-5,62	7,47
	9	2,647	1,810	1,000	-3,19	8,49
9	1	-1,418	1,040	1,000	-4,77	1,94
	2	,808	,884	1,000	-2,05	3,66
	3	,861	1,033	1,000	-2,47	4,19
	4	1,794	,980	1,000	-1,37	4,96
	5	-2,521	1,140	1,000	-6,20	1,16
	6	,227	1,048	1,000	-3,15	3,61
	7	-1,718	1,380	1,000	-6,17	2,73
	8	-2,647	1,810	1,000	-8,49	3,19

Statistically significant differences were only observed in the answers of young educators (below the age of 30) and those who are aged 31-40. Grouping together Teambuilding-related questions (Q16-Q21) in a similar method, more statistically significant differences in the responses were observed. First of all, kindergarten teachers gave significantly different answers concerning team-building than science teachers, (statistic significance 0,047), primary school teachers gave statistically significant different answers than those of the IT/economics teachers (statistic significance 0,039), but surprising so did science teachers compared to IT/economics teachers.

Using Chi-square testing on an excel form, the following correlations brought statistically significant results. Teaching fields like primary school teachers and kindergarten teachers cooperate more than science teachers, which proves that cooperation levels depend on the specialty of teachers.

TABLE 3. Collaboration index comparison with specialty

category question	demographic	Confidence interval 95%		
Collaboration index	Specialty	Draw conclusions		
		CHI-SQ	0,02394	

RESULT							
	SPECIALTY						
Collaboration index	Kindergarten teacher	Primary school teacher	Language teachers	Science	other	SUM	
Low index 0-5	9%	16%	34%	26%	30%	74	24%
Average index 5,1-7,5	49%	60%	46%	53%	51%	161	52%
High index 7,5-10	43%	25%	20%	21%	19%	74	24%
SUM	35 100%	77 100%	70 100%	70 100%	57 100%	309	100%

Also, another important finding is collaboration is closely connected to willingness to mentor a new colleagues(Q12), and/or participation in team-building activities, which means that those who expressed positive feelings towards collaboration are also open to help formally a new colleague with their duties and/or take part in activities that aim at strengthening the bonding among teachers in a structured and professional way.

Concerning all the questions connected to mentoring (Q9-Q12), surprisingly neither age nor experience (in any way grouped) are relevant to willingness to mentor a new colleague or how valuable teachers see mentoring as a notion. Yet a positive correlation was observed between mentoring and whether teachers work in a private or public school. Private school teachers are more open to the idea of mentoring and evaluate positively its potential.

Running more specific correlations with ANOVA, in terms of mentoring, there is significant correlation between those who responded positively as to whether they would like to become a mentor(Q12) and that it would be nice for a newly qualified teacher to have a formal mentor (Q9) at the level of 57% and 55% correlation of those who responded positively in Q9 and Q10 which refers to prior training.

TABLE 4. Correlation of mentoring related questions

	Q9	*Q10*	*Q11*	*Q12*
Q9	**100%**			
Q10	**55%**	**100%**		
Q11	30%	**44%**	**100%**	
Q12	**57%**	**48%**	30%	**100%**

Very strong correlation (89,7%) is observed also between Q17 and Q16 which refer to whether it would be positive for the school to organize team building activities and for the school to have proper space for these activities to be conducted, respectively. Another correlation was between Q19 and Q21 which refer to those who believe that team-building activities should take place sacrificing free-time at school and those who rated positively the idea of participating in team building activities outside working hours (49,9%) or those who believe that it is right for teachers who participate in such activities not to be paid Q20 (42,2%).

TABLE 5. Correlation of Team building related questions

	Q16	Q17	Q18	Q19	Q20	Q21
Q16	**100,0%**					
Q17	**89,7%**	**100,0%**				
Q18	**40,5%**	**44,3%**	**100,0%**			
Q19	31,4%	31,5%	-13,9%	**100,0%**		
Q20	21,5%	24,9%	12,4%	**37,2%**	**100,0%**	
Q21	21,8%	24,0%	4,3%	**49,9%**	**42,2%**	**100,0%**

For collaboration, there are multiple findings and correlations. Teachers who cooperate with teachers of the same level are those who cooperate who teachers of the same specialty (63%) and teachers who discuss with other teachers about issues related to students are related to those who discuss with their peers about teaching methods and material, etc. (67%). Also, there is positive correlation between teachers who discuss and collaborate with teachers of the same class/level and teachers who exchange material (53%).

TABLE 6. Correlation collaboration related questions

	Q22	Q23	Q24	Q25	Q26	Q27	Q28	Q29	Q30	Q31	Q32
Q22	**100%**										
Q23	**37%**	**100%**									
Q24	**40%**	**63%**	**100%**								
Q25	**48%**	35%	**53%**	**100%**							
Q26	**44%**	**51%**	**58%**	**55%**	**100%**						
Q27	**42%**	**43%**	**51%**	**48%**	**67%**	**100%**					
Q28	**37%**	**64%**	**53%**	**44%**	**60%**	48%	**100%**				
Q29	33%	15%	23%	17%	23%	29%	20%	**100%**			
Q30	34%	**41%**	**40%**	32%	**36%**	33%	**53%**	40%	**100%**		
Q31	20%	26%	23%	16%	19%	11%	25%	24%	35%	**100%**	
Q32	17%	14%	8%	8%	19%	17%	13%	12%	17%	24%	**100%**

Generally, no correlation was found between demographic data such as age, gender and geographic area and responses. Some differences were observed in the mentality of private school teachers but, surprisingly, not statistically significant differences were observed between teachers who have lived and worked in Greece compared to their peers who have experienced living and/or working abroad.

2.6 Conclusions

This research attempted to investigate the relationships among teachers and their attitudes in terms of cooperation, solidarity and team-building in Greek private and public schools. The initial expectation was to prove that Greek teachers are not open to new ideas such as mentoring or co-teaching. It was expected that Greek teachers do not cooperate with other colleagues of the same year and/or specialty on issues concerning teaching, they do not exchange ideas and ideas, they not lesson plan together often and they may feel that the environment they work in is not supportive or friendly. One reason behind all these was expected to be a battery of obstacles including lack of appropriate space for team-building activities or lack of common time and enthusiasm. Having maybe an older version of Greek schools in mind, the expected results were probably edging towards negative findings but the research proved the initial expectations wrong.

Greek teachers do cooperate. They cooperate with colleagues of the same specialty and they do exchange material on teaching. They appreciate the idea of mentoring and they do believe that prior training is necessary for successful implementation of this program. Irrespective of age teachers are open to the idea of becoming a mentor for a new colleague.

Greek teachers believe that an induction program to welcome and train new colleagues should be in palace in schools around the country and they believe that team-building is an idea that should be supported. Both private and public school teachers believe that teachers should participate in team-building activities, within, or even, beyond working hours. They do not believe that this should happen without compensation but that is probably understandable.

Cooperation is strong among teachers and between teachers and administration. Greek teachers cooperate with their colleagues for issues concerning teaching or students and they exchange material to facilitate procedures. Meetings are organized at school, not often, but sometimes. The frequency is not, as initially expected, much different between private and public schools.

Greek teachers lesson plan together when there is a colleague of the same specialty in the school they work in and, observation, may be a new practice but not unknown in Greece. Still, 58,9% of teachers reported that they never observe a colleague's lesson, with a very low percentage practicing observation often or very often although it is a practice that does not require prior planning or even coordination from administration.

Concerning co-teaching, another novel idea for Greek reality, teachers report that they agree of strongly agree that it would be beneficial for them to co-teach lessons with a colleague.

The vast majority of teachers realize that there are obstacles that hinder the implementation of team work and cooperation development, prioritizing as major obstacles the lack of common time with other colleagues and the absence of appropriate space. Other problems that appear as obstacles are problematic relationships with other colleagues, and lack of common goal.

Most teachers agree and strongly agree (more than 90,0%) that cooperation development can potentially help them and more specifically in areas like exchange of ideas, professional development and personal development.

When asked to describe the school they work in, teachers (63,1%) report that for the most part there is a designated space for them to relax and cooperate with the equipment necessary to facilitate procedures. They also report that in this space there are all the necessary conditions like internet and stationary etc. although in many cases there are not enough desks and chairs and snack/beverage preparing devices.

Greek teachers report a positive climate at school, one that promotes cooperation and support among teachers and administration. More than 60% of respondents either agree or strongly agree that the climate is positive and 27,2% remain neutral.

On their first day at work, 54,7% were greeted formally by someone while the rest were not. This caused them anxiety (33,5%) and other feelings (31%) and disappointment (21,9%) among others.

An important finding is that in Greek schools seminars, training and workshops are almost never or rarely organized (53,1%). The teachers who report that this happens in their school very often or often account for 20,7% and the rest remain neutral. On a more casual basis, though, more experienced teachers guide young colleagues. Those who strongly agree or agree with this statement account for 48,9% of respondents which comes to verify the previous answers about collaboration in schools among colleagues.

Another finding was that Greek teachers report mixed feelings when it comes to how their colleagues participate in change, new ideas projects and programs. Specifically, 9,7% do not agree at all that their colleagues participate enthusiastically, 23% disagree and the majority 35,6% remain neutral. A 21% of teachers agrees that their colleagues participate with enthusiasm in change, new ideas and project etc. and a 10,7% strongly agree with the statement.

Very few report that "toxic" characterizes their school environment (8,7%), a high number say that the climate is friendly (59,2%). The percentage of those who report absence of competition is 41,7% and innovation characterizes schools at 33%. A 44,3% and 52,1% of respondents respond positively to the keyword young colleagues and supportive administration respectively. For eagerness for work, flexibility, cooperation, again, results are positive with 51,7%, 39,55 and 53% of respondents who report that these keywords, respectively, describe their workplace climate.

Greek teachers are ready for new ideas such as mentorship and peer observation, methods that already are employed in other countries. They are open to innovation and they cooperate well for the sake of their students. Team-building activities are rare if not absent among teachers but teachers are willing to participate in such activities.

2.7 Policy implications

There are several things that should be revisited with regards to teaching and how Greek teachers can be more effective in their profession. First and foremost, education of teachers should change. Currently, all universities that offer graduates a teaching certification along with their degree only ask for a short period spent at schools under vague supervision and attendance of modules related to theory and practice of teaching to grant the certificate that entitles graduates to work in a school. Such universities should incorporate in their syllabi modules related to cooperation and team work and generally lectures that promote a sense of professionalism and the idea that teachers are part of a team and they should not work alone. Long are the days when teachers were considered wise and did not need to exchange ideas with others. The profession of the educator should be established in a way that graduates are not only trained in teaching but also in other aspects like how to work in a team and how to facilitate change and promote innovation.

The notion of mentorship which was analysed in the present research is very rare in Greek schools and where it exists, it has a very casual format. In Nordic countries, it is during the teacher's induction year in teaching that they are introduced to a mentor. Something similar can take place in Greece. During the placement organized by the university so that students get familiar with teaching they should be appointed a mentor (who may be academic staff or a mentor appointed by each regional office) and refer to them for support. This mentor can support the students after graduation and during their first year(s) of professional career. This of course is a rather temporary solution, until the ministry of education can organize a plan where mentors are available per teaching speciality in every region for every new teacher or even a mentor in every school to welcome newly qualified teachers and support them in their initiation in the profession. A mentor should not only be advised by newly qualified teaches but by experienced teachers as well when they want inspiration, psychological support when they are emotionally drained and overall guidance.

Another idea is to make lifelong learning for teachers and ongoing training mandatory and maybe connect these practices with their professional assessment, yet another important change that needs to be implemented. There are few professions where there is no formal assessment method or procedure and teaching should have never been among them. It is true that the issue of teachers' assessment is complex and it is a source of profound controversy but some form of assessment should be established so that teachers have the motivation to become better and participate in activities promoting collaboration and lifelong learning. If their assessment is not only connected to their students' results but also to what extent they want to improve their skills then they will participate in the activities suggested in this research with newfound enthusiasm. Lifelong learning and ongoing training can be based on short and frequent seminars and workshops. These can be taught by external visitors such as psychologists or experienced teachers or even by teachers themselves. For example, teachers who have completed a project can present their project and the procedure to their colleagues or a teacher can share examples of good practice or something they learnt during a seminar they attended on their own.

Seminars, workshops and different kinds of training should be made mandatory and facilitated by the school or the regional school of education. The educational system is rather decentralized, so regional offices could organize training sessions and seminars for their teachers. Seminars could relate to the subjects they teach and teaching methods but also how to deal with disruptive behavior, how to handle their own stress, how to cooperate with other teachers etc. During these seminars, the relationship of colleagues can easily be strengthened. Team-building activities such as the ones mentioned in the present research can make teachers understand that even interdisciplinary cooperation is useful and healthy relationships among colleagues is key to all professions, let alone teaching.

To facilitate cooperation and team-building, there should be made practical changes. Not all schools have enough free space to afford for a spacious teachers' office and/or lounge but the idea is that there should be a teachers' office with enough computers which are connected to the internet and preferably a round table

because research has shown that round tables promote professionalism and connectedness. Proximity may also help with collaboration and feeling of belonging. The idea is that if colleagues can see one another, they are more likely to understand and recognize each other as a potential aid. A secondary room, even small, can be used for teachers to relax between classes when they do not want to correct of deal with tasks. This lounge should be equipped (and here comes the school manager's vision and the teachers' enthusiasm) with a fridge and anything that can help them relax, like a coffee maker or a makeshift bookcase etc. This lounge should not be accessed by students (unlike the office where students come and go regularly) and it should not be used to lesson plan or to work in privacy. It should be used for healthy socialization and exchange of ideas.

In conclusion, it should be mentioned that there exists a way to switch teachers' mentality and practices but it demands reform of the tertiary education system. Ideally, the teaching certificate should not be provided by each school when a student has attended a few modules related to teaching and completing some hours of observed teaching in a school as part of their placement. Every student should study what they want, eg. Physics, Maths, IT or Philosophy in the relevant school in the university of their choice. After graduation they should attend a mandatory one-year course with a uniform structure for all graduates offered by several universities around the country. This certificate is similar to PGCE in the UK. During this course, all graduates together should be taught teaching methods, psychology, XXXXX and they should be encouraged to work together in teams so that they get accustomed to the idea that teachers from different specialties coming together with a single aim. To become better so that they can teach better. During this course they should be appointed a mentor who will be available for support throughout the course and most importantly after its completion. The mentor can provide the graduate with feedback and maybe, if the system changes ad school managers have the freedom to choose their own staff, the mentor can work as a referee for the graduate and facilitate job applications.

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Appendix

Questionnaire translation

Teachers collaboration and team-building in Greek schools.

Your answers should refer to the last educational unit where you worked or are currently working.

Estimated required time: 10 minutes

Nikolidaki A. Kalliopi

MA in Economics of Education

University of Piraeus

*mandatory

Demographic data

1.   You age is *

up to 30 years old

31-40

41-50

51-60

60+

2.   Your gender is *

male

female

other

3.   In your last job, you worked/work in *

Athens

Thessaloniki

Patras

rest of Greece

4.   In your last job, you worked/work in *

private school

public school

5.   In your last job, you worked/work with*

fixed contract, full-time basis

fixed contract, part-time basis

permanent contract, full-time basis

permanent contract, part-time basis

6.   You have been working for…*

up to 5 years

6-10

11-15

16-20

21-25

26-30

30+

7.   Specialty*

Kindergarten teacher

primary school teacher

Greek language teacher

Science teacher (Physics, Chemistry, Biology Maths)

IT/Economics teacher

Foreign Language teacher

Drama/Art teacher

PE teacher

Other

8.   Have you worked and/or studied abroad?*

yes

no

MENTORING

9.   It would be nice for a newly qualified teacher to have a formal mentor (appointed by the school) *

Strongly disagree _____ _____ ____ ____ _____ strongly agree

10.   It would be nice for a teacher to receive formal training in order to become a mentor, draw educational material and be able to assess the newly qualified teacher.

Strongly disagree _____ _____ ____ ____ _____ strongly agree

11.   It would be better for a teacher to have 10+ years of experience in order to become a mentor *

Strongly disagree _____ _____ ____ ____ _____ strongly agree

12.   I would like to be a mentor for a new colleague *

Strongly disagree _____ _____ ____ ____ _____ strongly agree

INDUCTION PROGRAM AND TEAM BUILDING

13.   It would be better if the school where I work had an organized welcome and induction program for new teachers.

Strongly disagree _____ _____ ____ ____ _____ strongly agree

14.   It would be better if there was someone there to welcome me formally at school on my first day there, to show me around and introduce me to my colleagues*

Strongly disagree _____ _____ ____ ____ _____ strongly agree

15.   Who would be the appropriate person for this?

head teacher/deputy head teacher

director of studies

a colleague with relevant experience

OTHER

16.   It would be better if the school where I work had space for team building activities*.

  Strongly disagree _____ _____ ____ ____ _____ strongly agree

17.   It would be better if the school organized team-building activities.

Strongly disagree _____ _____ ____ ____ _____ strongly agree

18.   It is right for the teacher to participate in team-building activities within working hours *

Strongly disagree _____ _____ ____ ____ _____ strongly agree

19.   It is right for the teacher to participate in team-building activities beyond working hours*

Strongly disagree _____ _____ ____ ____ _____ strongly agree

20.   It is right for the teacher to participate in team-building activities without compensation*

Strongly disagree _____ _____ ____ ____ _____ strongly agree

21.   It is right for the teacher to participate in team-building activities sacrificing his free hours at school*

Strongly disagree _____ _____ ____ ____ _____ strongly agree

Co-operation

22.   How often I cooperate with the head master/deputy head master of the school unit for issues that preoccupy me*

not at all _____ _____ _____ _____ _____ very often

23.   How often I cooperate with teachers of the same specialty*

not at all _____ _____ _____ _____ _____ very often

24.   How often I cooperate with teachers of the same level*

not at all _____ _____ _____ _____ _____ very often

25.   How often I cooperate with teachers of other specialty*

not at all _____ _____ _____ _____ _____ very often

26.   How often I discuss with teacher about issues that concern teaching (methods, material etc.)

not at all _____ _____ _____ _____ _____ very often

27.   How often I discuss with teachers about issues that concern the students*

not at all _____ _____ _____ _____ _____ very often

28.   How often I exchange material with teachers of the same specialty*

not at all _____ _____ _____ _____ _____ very often

29.   How often teacher meetings are organized at my school*

not at all _____ _____ _____ _____ _____ very often

30.   How often I lesson plan with a teacher of the same or different specialty*

not at all _____ _____ _____ _____ _____ very often

31.   How often I observe a colleague's lesson*

not at all _____ _____ _____ _____ _____ very often

32.   It would be beneficial for a teacher to participate in co-teaching*

not at all _____ _____ _____ _____ _____ very often

Obstacles

33.   There are obstacles in the implementation of team-building program development*

Strongly disagree ____ ____ ____ ____ ____ strongly agree

34.   What hinders the implementation of team-building or cooperation development programs*

                            yes   maybe   no

Competition

Lack of appropriate space (availability, size, appropriateness etc.)

Lack of common time

Lack of common goal

Problematic relationships among teachers

Indifference, boredom

Unclear goal

35.   Cooperation development may benefit me*

Strongly disagree ____ ____ ____ ____ ____ strongly agree

36.   Cooperation development may potentially benefit me with*

Reduction of work -related stress

Exchange of ideas

Personal development

Professional development

More free time

Other

The situation in the school I work in

37.   In the school I work in there is a designated space where the teachers can spend time together (for relaxation, cooperation etc) *

Yes

No

38.   If yes, in this space there is

        Yes   no

Internet

Enough desks/seats

Computers

Printer

Sufficient stationary

Photocopier

Beverage and snack preparation devices

39.   In the school I work in, there is positive climate of cooperation and support among teachers and management*

Strongly disagree ____ ____ ____ ____ ____ strongly agree

40.   On the first day at the school I work in, there was someone there to welcome and me show me around *

Yes

no

41.   If not, this caused me

sadness

anxiety

confusion

disappointment

other

42.   In the school I work in, seminars, training programs or workshops are organized for the teachers*

Almost never ____ ____ ____ ____ ____ very often

43. In the school I work in, the most experienced teachers guide the new colleagues, even informally*

Strongly disagree ____ ____ ____ ____ ____ strongly agree

44. In the school I work in, colleagues participate with enthusiasm in changes, new ideas, projects and programs*

Strongly disagree ____ ____ ____ ____ ____ strongly agree

45. Which of the following keywords reflect better the climate in the school I work in*

	Yes	Maybe	no
Toxic			
Friendly			
Competition			
Innovation			
Young teachers			
Supportive management			
Eagerness for work			
flexibility			
cooperation			