Generational diversity and intergenerational collaboration among teachers: perspectives and experience

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CONTENT

Generational diversity and intergenerational collaboration in teaching and schools: an introduction

Roman Dorczak
Jagiellonian University, Poland
Antonio Portela Pruaño
University of Murcia, Spain

Abstract

Workforce ageing is on the rise and is projected to grow significantly in the coming years. As a consequence, workplaces are increasingly age diverse and multiple generations coexist in them. Teaching workforce and schools are no exception. Quite on the contrary, both are facing large and complex challenges as a consequence of the impact of population ageing and generational diversity. These challenges have brought into focus the importance of understanding generations in schools and identifying ways to cope with and seize generational diversity. Intergenerational collaboration and learning have been identified as needed to meet these challenges. Moreover, they are expected to bring new potentials and possibilities for organizational growth of schools and other organizations.

The chapters of this edited volume have either one or both of two major focuses: on generational diversity and on intergenerational collaboration among teachers and/or school leaders. It aims to shed light on these under-theorized and under-researched issues and their connections. Specifically, it aims to explore them in a theoretical, empirical or applied way. Therefore, relevant theoretical constructs, frameworks or perspectives are analyzed, empirical research is presented and some practical initiatives are described and examined. To that aim, the book coalesces scholars and some practitioners from different European countries (Czech Republic, Poland, Portugal, Spain, Turkey and United Kingdom) in a dialogue to make significant contributions on the issues mentioned above.

Keywords: generational diversity, intergenerational collaboration, educational management and leadership

RATIONALE

There is evidence that schools providing quality education are usually characterized by a strong *culture of learning* which promotes not only student learning but also teacher learning as a means of the former (Preston et al., 2017). In these schools, students take responsibility for their own learning and work together with teachers toward academic success. In addition, teachers take responsibility for their students' performance but, therefore, also for their work and learning, this leading to professional collaboration. In these contexts, well-resourced processes (i.e. instructional activities and professional development) matter, but high-quality relationships are another major factor (e.g. connectedness, respect for diversity and community). Thus, such cultures are likely to require what Kardos and collaborators (Kardos et al., 2001; Kardos & Johnson, 2007) have referred to as *integrated* professional cultures, which are characterized by ongoing professional exchange, sustained mutual support, friendly atmosphere, teamwork and community. Interestingly, these cultures are neither veteran-oriented ones, in which the modes of professional practice are determined by the veteran teachers, nor novice-oriented ones, which are dominated by views and values of new teachers. As stated by these scholars, experiences in veteran-oriented and novice-oriented cultures are quite different, yet the result is similar: both turn out to separate teachers (for instance, new teachers lack the guidance of experienced teachers about what or how to teach). In contrast, integrated cultures embrace different experience levels and other relevant differences and benefit from (and support) such diversity.

A condition likely to significantly affect an integrated culture of learning in schools is the rising phenomenon of teacher ageing. In developed societies at least, there is an ageing population and, as the overall population ages, increasingly older labour forces are expected (Mujahid & Ozminkowski, 2016). Similar projections have been made for teacher workforce (Berk & Weil, 2015). At least since the mid of 2000s, its age structure has been of concern to the OECD, which has been pointing out its risks regarding teacher recruitment, salary costs or costs associated with retraining older teachers (OECD, 2014). In the European context, the European Commission (2012, 2016) has warned in the last decade that the ageing of teachers is becoming an "alarming trend" in many Member States of the European Union (pp. 6 and 15, respectively). According to a recent report, the ageing teacher population is one of the major "challenges" affecting the teaching profession in Europe (European Commission/ EACEA/Eurydice, 2018, pp. 9 and 21). The other one is teacher shortages, which, at least in some cases, are connected to the first one. According to TALIS 2018, many education systems will have to renew at least one-third of their teaching workforce in the next 15 years,

assuming student numbers to be stable (OECD, 2019b). Very recently, the Council of the European Union has emphasized the ageing of teachers as a "challenge" specific to early childhood education and care, school education and vocational education and training (European Union, 2020).

The current situation is that, although teachers' age distribution varies considerably across OECD countries and levels of education due to a variety of factors, younger teachers under the age of 30 make up only a small proportion of the teaching population (overall, less than 25%), more than half of primary and secondary teachers are aged between 30 and 49 and a large share of teachers are aged 50 and over, which has increased by 5 percentage points over the past decade (OECD, 2019a). The figures for the European Union are line with these (European Commission, 2019). In these countries, 32.8% of primary school teachers and 39% of secondary school teachers were at least 50 years old in 2017. In primary education, the proportion of teachers aged 50 or over exceeded 40% in a number of countries, including Czech Republic (42.2%). At secondary level, there is a higher number of countries with more than 40% of teachers aged 50 or more, including Czech Republic (44.7%) and Portugal (41%). Just a very few countries have greater proportions of younger primary and secondary teachers (aged under 30), including the United Kingdom (30% of primary teachers and over 20% of secondary teachers). Overall, it has also been estimated that EU countries will also have to renew about one out of three members of their teaching workforce over the next decade or so. Moreover, the distribution of teachers by age suggests that the number of men in teaching is likely to diminish still further, as the gender imbalance is greater in the age groups under 60 years and, nevertheless, is slightly greater among the youngest teachers (although the relatively low proportion of men is common to all teacher age groups) (European Commission, 2015). Hence, the situation is not improving and the age of the teaching population continues to be a major concern (European Commission, 2019).

As a consequence of a rising teacher ageing (and despite associated declining shares of younger teachers), schools are expected to become increasingly age-diverse and, thus, multigenerational workplaces, which is another condition likely to significantly affect the development of integrated cultures of learning in them. As a result of demographic changes, workforces are not only becoming older but also more age diverse. The extent to which the aging of the population translates into the aging of the workforce is dependent on age-specific labor force participation rates, but we should expect a significant change in the age composition of the labour force (Berk & Weil, 2015). Today's workforce is more demographically diverse, and one major aspect of that diversity is age, as workers remain in the workforce longer than they once did, although, at the same time, a decline in

the labor supply market is anticipated as baby boomers move toward retirement (Green et al., 2012; Nyce, 2007). Different age cohorts will be involved and, as a consequence, workers will span several generations sharing particular experiences that have shaped their views. These changes are likely to be reflected in teacher workforce and its workplaces. Most schools employ at least three generations of teachers and leaders (Abrams & von Frank, 2014; Edge, 2014; Lovely & Buffum, 2007). The ageing of teachers has exacerbated the situation (Young, 2009) and led to a more prominent role of those older ones (Avanzi et al., 2012). Such changes are also likely to affect school leadership, as younger generations of teachers are accessing these positions (Edge et al., 2017; Galdames, 2019), although experienced teachers, who often moved into role of school leaders, are also expressing reluctance to do so and thus there a fewer applicants for such positions (Stone-Johnson, 2014).

Both conditions (i.e. ageing and age and generational diversity among teachers and school leaders) pose at least two challenges to schools, similar to those posed to other organizations (Joshi et al., 2010). On the one hand, organization-specific knowledge and skills need to be learned by their members (for instance, from retiring teachers to early career teachers), because otherwise there might be a critical loss of knowledge and skills difficult to replace or reconstitute (although, at the same time, there is also likely to be obsolete knowledge and skills no longer needed and requiring retraining) (Sandborn & Williams, 2016). On the other hand, enhancing interaction and avoiding (detrimental) conflict among generationally diverse members may become increasingly difficult when working together (McGuire et al., 2007). Moreover, high-quality interactions have a major role to play in the transfer of skills, knowledge, and experiences from one generation to the next and, in general, in learning among generations. Certainly, governments have been recommended to prepare for the consequences of an ageing teaching workforce by strengthening their policies to make teaching an attractive career choice to the best (younger) candidates (OECD, 2014, 2019a). In fact, the United Kingdom has been taken as an example of country with one of the youngest teaching workforces in the OECD and a large reduction in the share of older teachers supported by an ambitious recruitment campaign in the early 2000s aimed at improving the status of the teaching profession (OECD, 2014, 2019a). However, efforts will need to be made not only to recruit and select, but also to retain competent and qualified teachers (OECD, 2019a). Veteran teachers not only are sources of means difficult to replace, which are also key to the professional development of those entering the profession (Fibkins, 2012). Hence, interaction and mutual learning among teachers from different generations have to be enhanced and developed.

But schools, like many educational settings, are age-diverse and multi-generational. Moreover, they were so before the rising phenomenon of population ageing. According to Kaplan et al. (2017), "all schools are multigenerational sites by definition" (p. 90). Firstly, it is (and has been) usually taken for granted that teachers (even younger ones) are older than students they interact with in their classes on a daily basis and come from different generations: "It appears axiomatic that teachers and students will exhibit distinctive generational traits" (Young, 2009, p. 204). Moreover, the generational gap between teachers and students might have widened as the average age of the teacher population trends upwards. Secondly, students and teachers themselves, other staff, parents and other family members, and community members are of a variety of ages and, perhaps, generations (Whitehouse et al., 2020). The fact that schools include people from different generations and education in them that typically meet and even interact every day might lead to take for granted an intergenerational nature. However, these institutions tend to be age-segregated and interaction among people of different generations gathering side by side every day is limited (Kaplan et al., 2017). Hence, they are not necessarily intergenerational (Sánchez et al., 2018). Nevertheless, integrated cultures of learning would likely require more than multigenerational organizations and environments. They are likely to require intergenerational ones.

The terms intergenerational and multigenerational have been sometimes considered synonymous. However, differences have also been identified between them. Both terms share a focus on *relationship*, (Davis, 2007), but this common focus can also serve to make a distinction between them. In this vein, "intergenerational" denotes being or occurring between generations, while "multigenerational" denotes of or relating to several generations (Brownell & Resnick, 2005). Therefore, while multigenerational relationships can be used to refer to two or more generations and even their relationships in a broader sense, intergenerational relationships can be reserved for referring to relationships between, and among, members of different generations. Moreover, 'multigenerational' has also been used to describe activities or characteristics that are shared among generations but are not necessarily based on interaction or aimed at influence between or among generations (Bjursell, 2015), but 'intergenerational' has been used with a narrower meaning, implying the involvement of members of two or more generations in activities that potentially can make them aware of different (generational) perspectives and increasing interaction, cooperation to achieve common goals, a mutual influence (Villar, 2005). As articulated by Villar (2005), the contrast between both notions resembles the difference of meaning and use existing between "interdisciplinary" and "multidisciplinary": "interdisciplinary" efforts are those in which specialists drawing from on two or

more academic disciplines interact one another or even work together in pursuit of common goals maybe to tackle a complex problem, and "multidisciplinary" means that the same issue is approached from different perspectives, this not necessarily implying communication or convergence between disciplines (pp. 116-117). Collaboration can thus be considered to be at the core of intergenerational relationships and deeply ingrained in them.

INTRODUCING THE CHAPTERS

The second chapter of the book following introductory one has been written by Arleta Suwalska from Poland who tries to show the varied forms of intergenerational teachers cooperation in Finland. The study revealed the different dimensions of the intergenerational learning, it highlighted what and how do teachers learn from their younger and older colleagues. The article presented ways of existing cooperation among teachers and their preparations to the job in the context of education based on research in Finland. Teachers' local freedom, their moral responsibility in national curriculum and in-service training in schools was taken into concideration.

Third chapter written by Inetta Nowosad and Joanna Łukasik (also from Poland) shows specificity of learning community for teachers in the workplace. First, the authors analyzed assumptions of the community of learners from the perspective of the working atmosphere felt by teachers, especially young teachers starting their professional career in school. Barriers appearing in relations between teachers, which hinder building a learning community based on intergenerational transmission, were indicated. Factors conducive to teachers' learning from one another were also presented. The final part of text shows ways of changing the barriers and how to transform the working atmosphere of teachers into one conducive to intergenerational learning.

Next chapter by Ann Parfitt from England is pointing out that the practicum brings together pre-service teachers to work with experienced school staff and typically involves different generations through mentoring arrangements. The school-based experience in relation to the mentoring of pre-service teachers, is increasingly emphasized in policy recommendations at the international level, with the view that the workplace can offer attractive opportunities for learning the craft of teaching through IGL arrangements. Author argues, that in the English context, the realization of IGL through mentoring would appear to be somehow limited. To some extent it is evident in the mentoring dyad by preparing the pre-service teacher for the classroom. However, the transformative affordances of IGL for a school in the English context are unlikely to be realized, for whilst pre-service teachers can

contribute effectively at the classroom level, there are few channels, if any, for them to inject new knowledge at the institutional level.

Authors from Czech Republik: Karla Brücknerová, Lucie Škarková and Petr Novotný in their part present the study that aims to address the question of how intergenerational learning (IGL) among teachers takes place in various educational leadership contexts. They present an answer based on three case studies of schools with different approaches to educational leadership, each employing various support measures. They describe IGL within these three settings and show how educational leadership influences the contents, the depth, and the density of IGL interactions. Concluding they argue that more widespread IGL interactions might be secured by the general support of functional relationships among teachers. This kind of support is not able, in and of itself, to promote deeper learning. Deep and widespread IGL must be supported through three different methods: the prestige of teachers in charge; the development of skills to give and receive support and feedback, and the accepted belief that IGL can be inspirational and beneficial for professional learning for each teacher regardless the generation.

Mónica Vallejo Ruiz and María Luisa García Hernández from Spain in their chapter present a framework for the analysis and understanding of teaching learning outcomes that can be linked to professional development experiences, focusing on those involving intergenerational collaboration. They claim, that professional learning for teachers can be understood as an effect of professional development processes and experiences that can occur in multiple and diverse contexts, enabling an increase in the quality of professional activity. Therefore, those conditions that enable learning outcomes of greater and more significant impact are the subject to special attention in this chapter.

Next part written from Turkish context by Gülşah Hiçyilmaz and Soner Polat presents the study that was carried out to determine the intergenerational solidarity experiences of primary school teachers. It was carried out in the phenomenological research model, which is one of the qualitative research methods. Sample selection was carried out with thirty-one primary school teachers selected with the criterion sampling technique, one of the purposive sampling techniques. The data were collected through a semi-structured interview form and analyzed using content analysis. As a result of the research, intergenerational solidarity experiences of teachers were gathered in three themes: solidarity in personal context, solidarity in organizational context and solidarity in professional context. It has been observed that teachers experience intergenerational solidarity in their health and private lives on the theme of solidarity in the personal context. It has been observed that teachers' experiences of intergenerational solidarity related to solidarity theme in the

organizational context are mostly experienced in the point of social activities. It is also among the results that teachers experience their intergenerational solidarity experiences mostly in the context of the use of technology and teaching methods and techniques in the theme of solidarity. Authors conclude with the suggestion for researchers, that this study can be carried out with quantitative methods in order to increase its generalizability, as well as this study can be conducted with teachers at different school levels.

In their chapter Miguel Ángel Negrín Medina and Juan José Marrero Galván from Spain, describe how the continuity of retired teachers in educational centres is affected by the legal constraints that do not allow their participation. They argue that recently, the Spanish non-university educational authorities have promoted the cooperation between intergenerational teachers through collaboration proposals that involve beginning, experienced, and retired teachers. Furthermore, in Spanish universities, this collaboration has been favoured by the professor emeritus figures. In their chapter they analyse how the voluntary collaboration of teachers was introduced in Spain, particularly in the Canary Islands; moreover, it is determined which actions are necessary for the cooperation between teachers who are in different administrative situations, with the aim to promote positive synergies. Finally, the application of this collaboration in specific courses of the master's in 'initial training of teachers for secondary education' is presented as an example.

Next chapter written also by Spanish authors José Miguel Nieto Cano and Maria Begoña Alfageme-González argues that professional development is conceived as a means to an end, a type of process (activities and contexts) that can take very heterogeneous forms which, in general, pursue and / or provoke professional learning, that is, change and improvement of teaching skills, highlighting those that concern the teaching activity. Authors show that professional interactions within schools can serve multiple purposes; frequently they will be related to the participation and coordination of the internal activity of the organization, but our interest is focused on those experiences that serve as professional development and that are produced through teacher collaboration. In this sense, they present a framework for its analysis and understanding of teacher collaboration as professional development, focusing attention on the dimensions that define it and that explain its potential relevance in terms of its impact on teacher learning and improvement of teaching.

Chapter by four other Spanish authors - Antonio Portela Pruaño, Ana Torres Soto, Juan Antonio Salmerón Aroca and Silvia Margarita Martínez de Miguel López Points out that professional collaboration depends upon the conditions under which it emerges and unfold. Among those more relevant are the generational

differences of colleagues. Paper aims at presenting a tentative conceptual framework to analyze generational diversity and its influence on professional collaborative relationships. First, the relevance of generational diversity is discussed and argued. An introduction to some basic concepts needed to understand such differences follows. Special attention is given to ageism as a consequence of age diversity in workplaces and a hindering factor of collaborative processes among professionals. Next, the concept of generation is analyzed and some perspectives on it are introduced. Its relevance to understanding collaboration among professionals from different generations is discussed and argued. The paper concludes by offering some implications for professional relationships in university contexts and societal relations.

Last chapter of the book by Ana Mouraz, Amélia Lopes, José Carlos Morgado and Ana Cristina Torres from Portugal shows the issue of professional re-enchantment of veteran teachers in the context of a project that aimed to promote ICT as a vehicle for improving curriculum agency among these professionals, diminishing the intergenerational gap they face in their classrooms and in their schools. Rekindle+50 – Digital migrations and curricular innovation: giving new meaning to experience and rekindle teaching profession after 50, is a project that invested in an idea of training for professional development that aims to place teachers and their curricular decisions, assisted by ICT devices, at the heart of the training action. The chapter provides an overview concerning discourses about innovation, curriculum and technologies that challenge veteran teachers in Portugal, describes, briefly, the Rekindle+50 project in its attempt to study the conditions of professional re-enchantement of veteran teachers, and presents the preliminary results of the project.

Diversity of issues that have been raised in all chapters but also diversity of national perspectives of authors allows to think that it will be a very good inspiration for both academics dealing with the issue of intergenerational learning in educational organizations but also for practitioners working in school contexts all over the world. With such hope we present this book.

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Inter-generational teaching on the map of varied forms of teachers cooperation in Finland

Arleta Suwalska
University of Lodz, Poland

"Personalization means teachers taking account of these differences in how they teach different students. It also means allowing for flexibility within the curriculum so that in addition to what all students need to learn in common, there are opportunities for them to pursue their individual interests and strengths as well."[1]
Ken Robinson, Creative Schools: The Grassroots Revolution That's Transforming Education

"When children aren't given the space to struggle through things on their own, they don't learn to problem–solve very well. They don't learn to be confident in their own abilities, and it can af-fect their self–esteem."
Ken Robinson, Creative Schools: The Grassroots Revolution That's Transforming Education

Abstract

Intergenerational learning (IGL) is significant and valuable process to build competences and retain knowledge in education. IGL is perceived as an interactive action between dif-ferent generations of teachers. The purpose of this article was mapping the varied forms of teachers cooperation in Finland. The study revealed the different dimensions of the inter-generational learning, it highlighted what and how do teachers learn from their younger and older colleagues. The article presented ways of existing cooperation among teachers and their preparations to the job in the context of education based on research in Finland.

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[1]   https://www.goodreads.com/work/quotes/42955413-creative-schools

It was taken into account teachers' local freedom, their moral responsibility in national curriculum and in-service training in schools.

INTRODUCTION

Well prepared teachers make Finnish educational system distinctively successful due to contemporary challenges and changes. In addition, Finland have designed and developed its own vision of educational change linked to creativity and inclusiveness since 1963. Consequently, Finland which relies on high-quality, well-trained teachers, with the highest level of academic qualifications and master's degrees deserved to be perceived as an educational leader in in the world.

Finnish teachers treat teachers' profession as a societal mission within conditions of school support and inter-generational learning. Finnish teachers have expanded teachers' capacity to be mutually responsible for curriculum development with its characteristic assessments. I will pay attention to the theory of inter-generational learning (IGL) among teachers. I will take into account teachers' cooperation and preparation to the job in the context of education based on research in Finland. I am going to take into account teachers' local freedom, their moral responsibility in National curriculum and in-service training in schools.

On the other side, young teachers have a closer contact with younger generations and easier, more direct communication with their pupils. Research into IGL among teachers is really significant for their profession. In this study, the following research questions are addressed: (1) What do teachers learn from their younger and older colleagues? (2) How do they learn from their younger and older colleagues?

My one week Erasmus visit in 2017 enabled me not only to use the library sources of University of Eastern Finland, which I use in this article, but also consult with academics at this university the legitimacy of their use.

INTER-GENERATIONAL LEARNING (IGL) AMONG TEACHERS

Intergenerational learning, according to Ropes is a „valuable process for competence building and knowledge retention in different disciplines such as sociology, education and organisational learning" (Ropes, 2011). IGL is perceived as an interactive

process between teachers from different generations (Novotný & Brücknerová, 2014; Ropes, 2011). As a result there is observed 'the acquisition of new knowledge, skills and values" (Ropes, 2013, 714) in schools. In addition, better intergenerational relationships and interactions contribute to the support of inter-generational learning among teachers.

Mannheim (1952) defined generations as groups of individuals who not only share social experiences, but mutual historical events through their life spans. Furthermore, the parts of one generation understand their living circumstances almost in the same way. When we take into consideration this definition we may perceive the generational cohorts as group of teachers who have participated in the same educational reforms.

These teachers experienced innovation according to the political changes in education. Teachers of different generations, who work together in one school create many interactions and opportunities to promote their professional development. The practical IT skills of younger generations of teachers may contribute to the higher level of learning environments in schools. Moreover, young teachers generations may be employed in 'mentoring' of older generations, especially in the use of ICT technologies (Marron, 2015). Darling-Hammond et al. (2005) recommends that research on teacher learning must be mutual in context of teachers learning nad ways how is it conducted.

On the other side, young teachers have a closer contact with younger generations and easier, more direct communicate with their pupils. Young teachers experience the concern related to the new teacher attrition (e.g. Heikkinen, 2015; Ingersoll & Strong, 2011). In this light, there is need to retain young teachers in teaching proffesion. The varied teacher induction and mentoring have been globally improved for this issue to ensure promising conditions for IGL.

The different generational cohorts contribute to awareness and opportunities for IGL at schools. There are omnipresent interactions in IGL, which are related to the concept of intergenerational knowledge brokerage. In this concept teachers are perceived as facilitators of knowledge which is shared between 'knowledge demands' and 'knowledge supplies' across generations of teachers (Geeraerts, Vanhoof & Van den Bossche, 2016). This concept include the socio-constructive nature of intergenerational knowledge. IGL approach contains a shift from 'succession of knowledge' to, 'co-creation of knowledge' Bjursell (2015). Moreover, (Brücknerová &Novotny, 2016; Novotný & Brücknerová, 2014) highlighted that IGL has the bidirectional character.

Learning from older and younger colleagues contribute to IGL which exist in schools and builds up a culture of lifelong learning (Schmidt-Hertha, Krasovec & Formosa, 2014). The passage of knowledge between young and old teachers is

not satisfactory as a process. According to (Bjursell, 2015) teachers of all ages need a support due to their experiences and skills. In (Geeraerts et al., 2017) works on intergenerational learning and teacher relationships we observe that young teachers prefer to work with colleagues from their age generation instead of interacting with older generations.

HOW DO TECHERS COOPERATE TO EACH OTHER?

The classical model of teacher learning was introduced by Shulman (1987). According to Shulman three decades ago, teacher knowledge presents „seven categories: (1) content knowledge, (2) general pedagogical knowledge, (3) curriculum knowledge, (4) pedagogical content knowledge, (5) knowledge of learners, (6) knowledge of educational contexts, communities and cultures, and (7) knowledge about educational ends and values". As a result, the existing categories predispose to the form of different knowledge and skills in teachers' professional learning.

According to Kyndt et al. (2016) there are only three main teacher learning outcomes as „subject knowledge, pedagogical knowledge and skills, and professional attitudes and identity". Comparing these outcomes with Shulmans' model, we observe that both mentioned arrangements consist of subject knowledge and pedagogical knowledge and skills. On the other side, professional attitudes and identity are not involved in Shulman's order.

Learning and professional development of teachers must involve the process which combines formal, non-formal and informal learning throughout different stages of the teaching career (Tynjälä & Heikkinen, 2011). Contemporary studies on how teachers learn take into consideration above all the informal type of learning. Kyndt et al. (2016) described the following typology of informal learning activities which are closely related to teachers' everyday professional development. These typologies include „interacting and discussing with others, doing/ experiencing, experimenting, learning from others (no interaction), consulting information sources, reflecting in/on action, engaging in extracurricular activities, and encountering difficulties".

On the other side, Richter et al. (2011) established that experienced teachers were in favour of reading professional literature as compared to teachers who started their careers. Furthermore, according to Van Daal, Donche, and De Maeyer 2014, experienced teachers were less interested in learning through experiments and collaboration. In addition, young teachers preferred learning by observing colleagues and by mentor interactions (Flores, 2005; Kyndt et al., 2016; Patrick et al., 2010).

TECHERS PROFESSIONAL DEVELOPMENT IN FINLAND

European Commission (2010) recommended to put an emphasis on teachers' support through a 3-phase model of teachers' professional development. They suggested initial teacher education, induction (3-5 years after graduation), and in-service teacher education.

On the other side, professional development of teachers is perceived as a lifelong process that starts at initial teacher education and ends at retirement. Lifelong process of professional development of teachers is divided into specific stages. „The first stage concerns the preparation of teachers during initial teacher education, where those who want to become a teacher master the basic knowledge and skills. The second stage is the first independent steps as teachers, the first years of confrontation with the reality to be a teacher in school. This phase is generally called the induction phase. The third phase is the phase of the continuing professional development of those teachers that have overcome the initial challenges of becoming a teacher" (European Commission, 2010, p. 3).

The Finnish National Board of Education (FNBE) (Rajakaltio, 2014, p. 5) put an amphasis on the following basic values for the development of teaching profession competences: „Life-long learning, Knowledge and research-based orientation, Effectiveness and Anticipation of future needs and competences in education".

EDUCATION BASED ON RESEARCH IN FINLAND

A master's degree have become the essential qualification for teaching in Finnish schools since the end of the 1970s. Future primary school teachers studied in teacher colleges or seminars for special teachers. For upper-secondary school subject teachers there were established subject-focused departments in Finnish universities. Both groups had prepared teacher education programs which were only offered by universities. Synchronously, education programs included scientific content and research in education which supplement curricula of teacher education.

Finnish teacher education is perceived as very academic. As a result, it depends on and sustains scientific knowledge with cognitive skills indispensable to design and carry on educational research (Jakku-Sihvonen & Niemi, 2006; Niemi, 2008). In this light, a specific foundation of research-based teacher education in Finland seems to be the ingrained combination of scientific educational knowledge with classroom didactics and practice. It facilitates teachers to improve their pedagogical skills and thinking with commitment in the professional community of teachers.

University teacher education in Finland concentrates on the proportional progress of a teachers' professional and personal competences. Teacher education in Finland is regulated with the framework of the European Higher Education Area which is advanced under the Bologna Process. Distinct scrutiny launches pedagogical thinking skills, which enable teachers to guide managing processes harmoniously with current educational knowledge and practice (Westbury, Hansen, Kansanen & Björkvist, 2005).

Finnish primary teachers study main subjects in such areas as „Theory of education, Pedagogical content knowledge, Subject didactics and practice" (Sahlberg, 2015, p. 107). Future primary school teachers graduate from university after five years of study with their master' thesis. Customarily, the area of a master's thesis is based on perspective teacher's own school or classroom practice. Subject student teachers generally choose their topics within their subjects.

It seems obvious that Finnish newly prepared teachers possess well-balanced and wide knowledge in theory and practice of teaching. Prospective teachers expand their professional understanding of education from varied perspectives, which include psychology, sociology, curriculum theory, student assessment, special needs education, didactics and student assessment in their teaching areas. Finnish subject teachers pursue the same path of education as primary school teachers, but it is organized variously. There are possible two main ways to become a subject teacher in Finland. Students can graduate from master's degree in their university with one major subject and one or two minor subjects. After this period, students aquire knowledge in the Department of Teacher Education with the special focus on strategies in subject oriented teaching. The second option is to apply straight to teacher education to track a major subject in selected academic program.

Teachers are often named as researchers in Finland and from this scientific perspective I try to present their duties in context of inter-generational learning. Firstly, teacher education help the school heads to guide newly prepared teachers, especially in their own classrooms. Every department of teacher education in Finland characterises an accurate, own strategy for advancement of the quality of teacher education programs.

A spiral sequence of cooexisting theoretical knowledge, practical training, and research-oriented inquiry build on the Finnish teacher education program. At the University of Oulu three faculties (science, humanities, and education) are involved in teacher education responsibilities. Professors and lecturers of these faculties specialize in methods of subject-oriented teaching. In addition, the Department of Teacher Education, coordinates curricula and the global organization of teacher education.

The Advisory Board for Professional Development of Education Personnel suggested state-funded professional development which implements the principles: „Collect and combine into a working entity the nationwide the orientation and mentor training supporting the initial phase of career and other necessary continuing education for new teachers in the process of transitioning from studies to work". It suggested to „reinforce teachers' research-oriented work. In cooperation with their stakeholders, the higher education institutions will develop long-term programs to enhance the professional development of education personnel and new specialist trainings starting in 2015". In addition, „Create a clear education path model enabling local variations from the fragmented offering of management trainings; the model will support the different career needs of managers and principals. Support the generation of peer-to-peer networks ensuring the professional competence required of the profession" (Niemi, 2015, p. 285).

TEACHERS ON THE MAP OF THE LOCAL FREEDOM AND MORAL RESPONSIBILITY IN NATIONAL CURRICULUM

Teachers in Finnish schools, due to decentralized educational system, have moral responsibility and freedom in ways how they teach and what kinds of methods they use. The provision and quality of educational service is dependent on the Local education authorities. There is not detailed, imposed national curriculum, but there is a curriculum system that equips values for the whole educational system. It also determines objectives for each educational level.

Halinen and Holappa (2013) reminded that local education authorities and schools possess an autonomy in ways how they organize education and implement the school curriculum. Finnish teachers have freedom in choosing and selecting textbooks and other learning materials and can even choose if they use textbooks at all. Local teachers cooperate with their principals and prepare the local school-based curriculum, they inter-generational learning depends on their relationships.

IN-SERVICE TRAINING IN SCHOOLS

Teachers' employers are obliged to provide resources for teachers' in-service training in schools. They can cooperate with state-funded projects of the Ministry of Education and Culture and the Finnish National Board of Education. Both institutions hold money for educational staff development. Local municipalities, cities

and schools can sign contracts with universities or their further education centers. On the other side, they can also employ local and in school training with the usage of teachers' expertise and peer-to-peer learning. In addition, The memorandum of the Advisory Board for Professional Development of Education Personnel (Hämäläinen, Hämäläinen & Kangasniemi, 2015) presented the possible options in the context of the professional development of teachers.

The main goal of memorandum was to establish that teachers obtain regular and sustainable support for their professional development. This allows schools prepare their own ways of in-school cooperation. Moreover, The Finnish National Board of Education (FNBE) (Rajakaltio, 2014, p. 5) maintained the following values for the development of teaching profession competences: „Life-long learning, Knowledge and research-based orientation, Effectiveness and Anticipation of future needs and competences in education" (Niemi, 2015, p. 284).

Finnish teacher education, due to its strong research orientation provides reflective and critical knowledge creation approach which seems the most sigificant for in-service training. Furthermore, as Rajakaltio, 2014 claimed there is observed among teachers in Finland a rapid movement towards long-lasting development projects and programs. These forms of inter-generational learning are perceived as sustainable in their effects.

According to the results (Niemi, 2011; Niemi & Siljander, 2013) which were conducted among student teachers and new teachers. It was observed that pre-service programs support professional skills that are crucial in teaching, due to indispensable instructions and teacher's work planning. These programs apply the usage of teaching methods, managing the classroom, and assessing varied students (Niemi, 2015, p. 289). In addition, student teachers also study how to develop professional skills and usually, in this light, they are able to design and use their own educational philosophy with useful self-evaluation.

There were mentioned the weakest competences (Niemi, 2015, p. 290) named as collaboration inside and outside of the school community. A characteristic feature of mentioned above weak skills was the cooperation with partners outside a school community or tasks outside classrooms. The other weakest area was how they could help students with difficulties and support them in their learning environment. The presentation of the same questionnaire resulted in information that they need support, they results fully corresponded with the pre-service study. „The competences that were weak in pre-service time were at the top of their list. Newly qualified teachers did not need support in basic pedagogical and curricula issues, but they did need support for collaboration and especially for cooperation with parents" (Niemi, 2015, p. 290).

THE FINNISH LIGHT AND SHADOWS
IN INTER-GENERATIONAL LEARNING

The are omnipresent challenges for the European Teaching Profession due to generational change. Europe is facing the problem of teachers age. European Commission, 2009 informed that one-third of all teachers in Europe are older than 50 and many experienced teachers will soon retire. On the other side, there is the next trend at the same time that some of junior teachers leave the teaching profession a few years after studying (Teacher Education in Europe, ETUCE, 2008). It contributes to a shortage of educational staff and the results in lovering the quality of education. It seems indispensable to encourage and support new teachers at the early stages of their careers. Moreover, it is significant to strengthen experienced teachers to continue their teaching careers and to carry on their professional development.

To meet the challenges, due to generational change, in the teaching profession there was set up The 2AgePro project (2010a, 2010b) in Europe. The main goal of the project was to motivate experienced teachers to stay in the profession by offering them occasions to improve their professional skills, to share their the competences and knowledge with new teachers. The second goal was to guide new teachers with pedagogical support.

2AgePro Consortium designed and tested intergenerational teacher collaboration from September 2009 to March 2010. The research took part in Finland, Germany, Czech Republic and the Netherlands. The participating teachers provided feedback on the benefits and challenges of the pilots and the intergenerational collaboration which took place.

The Finnish Approach in inter-generational learning was conducted when staff at the University of Oulu contacted two local education authorities in two cities near the university. Consequently, local education departments helped recruit teachers. In each city, one of the participating experienced teachers was as group leader and a mentor to the other participating teachers, and were formed three groups. The co-ordinators (teachers) organized meetings and the group activities. Finnish peer-group mentoring has its roots in the Verme project, which was based on the needs of newly qualified teachers (Heikkinen et al., 2010). The biggest challenge for the 2AgePro project was to include experienced teachers in project's works.

THE PROCEDURE OF THE FINNISH PILOT TWO GROUPS

To meet intergenerational challenges (Löfgren, 2013) there were engaged two groups. One group involved six junior teachers, who work less than five years, their mean age was 31 and a peer group mentor (teacher), who was an experienced teacher.

The second group included six new teachers less than five years of experience, their mean age was 29, and six experienced teachers, who work less than 15 years and whose mean age was 52. This group had one mentor who was a participant, too.

The participants were teachers in Oulu and Raahe (Löfgren, 2013) but they come from different basic and upper secondary schools. The base part of collaboration pilot were the teachers' discussions. They included such topics as everyday challenges in their jobs and how they share ideas with each other. Groups had meetings every month for 3 to 5 months and they were two hours long.

Firstly, the staff of the university led discussions with local education departments and teachers. Secondly, the mentoring groups were prepared. The university staff was responsible for running the groups. One teacher, per group was chosen as a group coordinator, he or she ran and supervised the meetings. The university staff after visiting the group conducted the evaluation.

 The results revealed the importance of the mentor in the cohesion of the group. Mentor also supported the discussions and mentoring processes. The teacher groups' discussions focused on professional issues, i.e. events in classrooms or communication with parents. Albeit, the pilot was not involved in replacement of typical support systems which were offered by the schools, it suggested some support for the participants in their everyday school activities.

Participating teachers claimed that it was significant to be involved in open discussion with peers and not only pay attention to particular school. Moreover, teachers participated in a forum discuss problems in a comfortable and less stressful environment. The results highlighted that new teachers appreciated the ideas and opinions of more experienced teachers who face almost the same problems and challenges each day. As a result, both new and experienced teachers learned from the process. Oulu and Raahe local school districts are going to carry on these types of teachers' discussions in the future.

FINDINGS

The memorandum of the Advisory Board for Professional Development of Education Personnel (Hämäläinen, Hämäläinen & Kangasniemi, 2015) presented the possible options in the context of the professional development of teachers. There can be employed local and in school training with the usage of teachers' expertise and peer-to-peer learning.

As a result, in pre-service programs (Niemi, 2015) were supported professional skills which are crucial in teaching, due to indispensable instructions and teacher's

work to plan teaching methods, managing the classroom, and assessing varied students. Furthermore, student teachers also study how to develop professional skills and usually are able to design and use their own educational philosophy with useful self-evaluation.

On the other side, teachers participating in the Finnish pilot two groups (Löfgren, 2013) claimed that it was significant to be involved in open discussion with peers and to participate in a forum, in which they discuss problems in a comfortable less stressful environment.

The results answered research questions and revealed that new teachers appreciated the ideas and opinions of more experienced teachers who face almost the same problems and challenges each day. As a result, all teachers suggested these types of teachers' discussions in the future, due to the fact that younger teachers learn from older and vice versa. It is especially significant due to more complicated teaching world, and teachers' duties which demand working in multi-professional cooperation.

As Finnish sisu terms means to overcome obstacles and to be remember about 'endurance, resilience, tenacity, determination, perseverance' is key in life. Finnish teachers learn together all indispensable methods, ways of solving school problems and better overcome obstacles of the contemporary day at Finnish school.

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Community of teachers at work and intergenerational learning opportunities

Joanna M. Łukasik,
Pedagogical University in Cracow, Poland
Inetta Nowosad
University of Zielona Góra, Poland

Abstract

In this article authors shows learning community for teachers in the workplace. First, the assumptions of the community of learners were discussed. The author analyzed those assumptions from the perspective of the working atmosphere felt by teachers, especially young teachers starting their professional career in school. Barriers appearing in relations between teachers, which hinder building a learning community based on intergenerational transmission, were indicated. Factors conducive to teachers' learning from one another were also pointed out. The final part shows ways of changing the barriers and how to transform the working atmosphere of teachers into one conducive to intergenerational learning.

Keywords: intergenerational learning, teacher, community of teachers

INTRODUCTION

The importance of community in social research has assumed various positive connotations. In the field of social sciences, community research boasts significant achievements, as it has been intensively developed from the initial concept of social bond elaborated by Ferdinand Tönnies, in which he isolated a separate category of community (*Gemeinschaft*) and its specificity. Over time, the importance of communities has been linked to organisational learning, sensitising to the process of changing and shaping communities which may more or less effectively achieve

organisational goals and lead to increased efficiency. In relation to schools and the quality of educational processes, a community of teachers is an important category. As a result, contemporary exploration of the concepts of *team / community* belongs to extremely important fields in research focused on the quality and effectiveness of both organisational and educational processes in order to better understand their significance in / for the functioning of organisations; building the paths to democracy and achieving high efficiency of organisational processes in the implementation of educational missions.

The focus on the category of *community* can direct researchers' interest onto many cognitive areas. Investigations oriented on the process of building social bonds may emerge, in which the sense of individual's belonging to a group as well as the conditions for creating communities are equally important. There may also arise questions about the place of individuals on the continuum between individualism and collectivism as well as their mutual relations. Also, as a relatively new area, the intergenerational aspect has been intensively explored in recent years. This interest arose in the wake of demographic changes in populations around the world and the fact that people live longer. This has significant effects not only on such communities as family, but also on a much wider range where changes in the existing social ties are visible. There is a noticeable increase in the proverbial generation gap, a process that began in highly developed countries about 50 years ago (Sánchez, Whitehouse, Johnston, 2018) and which has naturally emerged the need for research and a new approach, including counteracting adverse phenomena. This need was also reinforced by the fear of losing specialist knowledge as more and more older workers retire. Such circumstances draw researchers' attention to new practices and to the need to understand another dimension of the concept of *community*, and precisely how contemporary intergenerational learning can be instituted to the mutual benefit of younger and older generations (Nowosad, 2017, 2018).

This wide group of needs and the still open questions translate into the area of education and its institutional framework with teamwork / community-prone activities can be undertaken to support the effectiveness of educational processes. Recognising the community of teachers seems to be crucial here. Teachers as a community can achieve greater efficiency by mobilising collective involvement and questioning or reinforcing traditional organisational forms, as well as by learning and sharing knowledge (Bolden, 2011). Achieving sustainable intergenerational practice supports active and relational lifelong learning and strengthens communities. It broadens and enriches relationships within them with intergenerational commitment, strengthening reciprocity and mutual learning, which promotes joint actions designed to overcome challenges. Therefore, learning can be understood as

acquisition of new knowledge, skills and dispositions or values as part of a potentially reciprocal process across generational divisions.

The aim of the article is to recognise teachers' social environment as a community within the reality of Polish school. The presented research results are to help determine the potential for intergenerational learning of different age groups of teachers with different professional experience. It is appropriate here to refer to the theory of situational learning developed by Etienne Wenger and Jean Lave back in 1987, which draws attention to such terms as *action community* or *communities of practice* (Wenger, Lave, 1991), i.e. communities with characteristic features such as a community of goals or smooth and self-organising membership. These communities are groups connected with each other by informal relationships, in which specific bonds are created as a result of cooperation, enabling efficient creation and distribution of knowledge within a given created group. These groups can be formed spontaneously or can be created intentionally.

In their workplace, teachers, as a community of practitioners, constitute an effective and purposeful professional group, whose essence revolves around the mission of learning from each other. Accomplishing their school's mission should be as much of a goal as it is to master their profession. Many formal regulations present in Polish educational legislation are to support this process, such as orientation on securing the quality of school work, including guidelines for teachers' professional promotion. However, what is expected of schools and how they will meet these expectations is not always consistent. Hence, the recognition of the functioning of teachers' groups in their professional environment through the prism of the existence or non-existence of communities of practitioners seems highly justified and constitutes a basis for recognising the potential of intergenerational learning. In the article, this was shown from two perspectives: from the perspective of novice teachers and teachers with extensive experience. The adoption of this approach was to draw attention to the possibilities of using the potential of intergenerational learning as one of the ways to effectively use school resources in improving the quality of its functioning. For this purpose, reference was made to the results of research conducted by Joanna Łukasik in the field of well-being at novice teachers' workplaces and at nominated and qualified teachers' workplaces (with varied professional experience).

ATMOSPHERE AT TEACHERS' WORKPLACE

In the literature on the subject of social relations in educational institutions, there exist multiple terms referring to the notion of *work atmosphere*. The most common are:

social climate, psychosocial climate, emotional environment. We may say that atmosphere at work in school is characterised by the manner in which we relate to colleagues' values, to our own beliefs, prejudices or behaviour. It can be assumed that this is the way "members of school communities perceive what is happening at school and the extent to which their needs and feelings that are evoked in them are met" (Dotka, 2010).

From the perspective of various definitions, it can be assumed that work atmosphere can be expressed in four dimensions: educational, physical, social and emotional. In these considerations, attention has been focused only on the social and emotional dimension, which can be considered of key importance in creating communities. The first refers to communication processes and relationships between teachers (affects work commitment and bond formation), the second – to feelings and values (which translates into behaviour and identification with one's own workplace). Analyses of these areas can reveal the specificity of particular groups, in this case, the nature of teacher teams, including whether they possess the characteristics of a community (cf. Łukasik, 2010b, 2015, 2016c, 2019).

The findings of the study are hardly optimistic. Teachers pay attention to numerous factors that prevent building a real community and focusing on efficient work (cf. Łukasik, 2009b, 2010a, 2015, 2016c, 2019). As a professional group, they point to high polarisation, especially in terms of apprenticeship and experience. A similar diagnosis is made by many Polish researchers analysing this environment many years ago. According to a study by H. Kwiatkowska (1997, p. 59), carried out in the late 1990s, 30% of the surveyed teachers do not find a favourable atmosphere in their school environment. School is seen as a place which you want to leave as soon as possible (this feeling is more common for male than female teachers). Also teachers surveyed in the 1970s by J. Poplucz (1973, pp. 124–128) emphasised that they felt reluctant to improve their work in conflict situations. They signalled that tensions diverted their interest from the field of education, focusing their attention on the ongoing competition. Isn't it a generational phenomenon then? Are conflicts in the teaching environment a permanent feature inscribed in Polish schools? As a result, the amount of energy invested into teachers' professional practice decreases, as they focus on self-defense; schematism, at the same time, minimising their professional efforts and increasing liberalism in relation to their pupils (Fig. 1).

The results of own research confirm that conflicts in teaching teams are a common phenomenon. Work atmosphere and effective implementation of professional roles are co-created by friendly relations. Among the surveyed teachers, the majority maintain friendly relations with several people at work (74.45%). Only a few respondents maintain friendly relations with all teachers (11.67%), more often in small schools from rural and small-town environments. It is worrying that among

Figure 1.

Teachers' description of their relationships
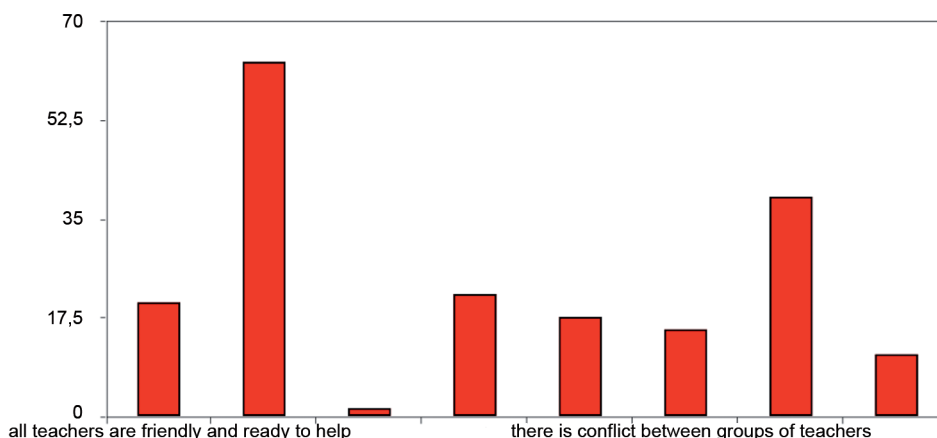
Source: J. Łukasik (2009a). Between school and home. Professional and family roles of modern teachers. Krakow, UP Scientific Publishing House, p. 136.

the respondents there are people who do not maintain friendly relations with any teacher working at school (12.3%). According to the majority of respondents (62.78%), only some teachers from a given school team are kind to each other and help. At the same time, teachers emphasise that their colleagues are envious and that everyone works for themselves and their own successes (21.74%). It is worth recognising this image more deeply (see Łukasik, 2010a).

LOST AT THE "START"

The most disadvantaged group are people who start work as teachers and those with short apprenticeships and young age. They indicate several key factors that make it difficult for them to establish good relations with teacher groups, and thus prevent well-being in the community and the achievement of common goals. Among them, they most often mention:

- abuse of position due to seniority,
- treating young teachers as students,
- burdening them with additional tasks (e.g. writing reports at meetings of educational councils, checking classrooms, additional duties and others),

Analysing entries on teachers' forums (Łukasik, 2009, Łukasik et al, 2020), it was noted that especially novice teachers write about negative behaviour in teacher teams (even during the coronavirus pandemic, experienced teachers e.g. due to their poor ability to work in virtual space with preschool children or school pupils, presented novice teachers in negative light for fear of losing their job). Appropriate relationships in peer teams, as revealed in forums, are the mostly disturbed by the following: envy of successes and rewards, and lack of sincere willingness to support or receive help from colleagues.

Despite the fact that 20.5% of the surveyed teachers think that all teachers are nice and willing to help, the atmosphere in teaching teams is not friendly and does not favour teachers' comprehensive professional development. As many as 17.98% of the surveyed teachers state that there is a conflict at their school between teacher camps, which means that they cannot count on help from their colleagues.

Some teachers also experience problems in relationships at work due to their own life problems, the disclosure of which would cause gossip and intrigue (39.12%), as well as their own professional and life achievements (which causes envy and intensifies intrigues, «the desire to prove that they are not so good» – 11.36%). Research also shows that men much more often than women negatively assess peer relationships manifesting themselves in many aspects of professional and family life. Similar problem situations have been highlighted in the course of analysing the content of teachers' diaries (Łukasik, 2010a), which further highlights barriers in building learning communities, making use of teachers' knowledge, resources and potential regardless of age and seniority, and thus intergenerational learning.

Therefore, young interns and novice teachers do not try to establish relationships with their group and often do not see any sense in taking any action towards rapprochement with the community (cf. Łukasik, 2015, 2016c). The consequence of this is rapid loss of motivation to work, to the sense of undertaking joint actions and establishing personal relationships with the whole group (often seen as a «closed circle»). Therefore, it is difficult to talk about communities and own development if you work at a school where you do not care about all its employees (cf. Łukasik, 2019). In addition, the experience of such a climate of workplaces closes intergenerational learning, especially if it is an initiative from novice teachers. Then older teachers undermine novice teachers' competences, skills or efficiency and resist broadening their own horizons by learning from their younger colleagues. Probably, if older teachers initiated such sharing of knowledge and were willing to shape novice teachers› skills, there would be no such resistance (non-existent rooting in pre-configurative culture).

RELATIONS BETWEEN TEACHERS AND SCHOOL MANAGEMENT

The findings on relationships between teachers indicate that not only are they bad, but also that relationships between teachers and management are not always constructive (see: Łukasik, 2009b, 2010a). Teachers believe that head teachers:

- use their power to split communities,
- make hasty, sometimes absurd decisions (e.g. introducing uniforms for teachers),
- discriminate against teachers on the basis of clothing,
- underestimate their achievements and successes,
- „defend and keep parents' and pupils' side".

Teachers' letters to the Editorial Office of a weekly newspaper *Gazeta Szkolna* (GS), published in the section entitled 'Motives from everyday life. Letters from various places on various matters ...', as well as teachers' statements posted on the pages of *Gazeta Wyborcza* (GW), may constitute interesting diagnostic material (cf. Łukasik, 2009b, 2010a) to describe the relationship between teachers and school management. In the letters, the content of which concerned teachers' opinions on cooperation with school management, the authors focused on negatives, signalling the impossibility of good relations based on joint pursuit of goals. By introducing various modifications in their own schools, some head teachers were "more ministerial than the minister" and implemented their ideas to emphasise power. It's all "under the guise of" improving the school's functioning. In such a situation, it is difficult to label such working atmosphere a favourable. It follows from the content of the letters that cooperation between teachers and management (and also between teachers themselves, as attested by teachers who write to "GS") requires a thorough change. The relations between teachers and school management are described a little better in the content of diaries sent for journalism competitions (Łukasik, 2011, 2016a, 2016b), because in them, some teachers write about positive relationships focused on their own and their educational institution's development (most often, it concerns small pre-school and school institutions (see Łukasik, 2011, 2015, 2016 a, 2016b, 2016c)). A question arises at this point: if teachers cannot be partners for cooperation with each other, can they effectively cooperate with pupils and their parents?

COMMUNITY BUILDING BARRIERS

Other factors that make establishing a community difficult are mentioned by all teachers regardless of their seniority:

- envy of professional successes and awards,
- no possibility to speak in a discussion, to express an opinion, to speak on important matters (they resign from "being authorised" so as not to "expose themselves" to colleagues),
- lack of trust,
- "reporting" colleagues to the head teacher,
- rumours and intrigues,
- chatting, jealousy, envy,
- conflicts between teacher camps, quarrels, „trickery",
- lack of tolerance and acceptance of colleagues' personal life (commenting, publicising life situations or problems of teachers' personal life) (cf. Łukasik, 2016c, 2019).

Therefore, it can be said that correct relations in the teams of the surveyed teachers are mostly disturbed by: envy of successes and rewards; lack of sincere willingness to support and help from colleagues; competition between teachers; gossip and intrigue, which is also a common cause of conflict. These situations, and additionally taking advantage of teachers' life situation against them leads to splits, wounds and unwillingness to be a member of a community, and sometimes to acts of revenge, which in turn propels a vicious circle of intrigues and hatred between teachers or teacher camps. It may not be a common situation, but the fact that teachers write about it shows how deeply it can hurt and destroy good relationships, and how it triggers defense mechanisms. Unfortunately, as also emphasised by D. Chętkowski (2007, p. 130), criticism, commenting on events, behaviours of colleagues (and pupils), current (and past) school experiences are a feature of most teachers. Teacher's room is often their arena. Chętkowski diagnosed teachers' exceptional ability to comment and interpret everything. The attitudes and behaviours that he describes testify to the fact that in order to create a real community of teachers, work on interpersonal communication, emotions, and ethical behaviour must be undertaken. Otherwise, it will be impossible to focus on achieving common goals. A community of teachers exists when all teachers together with the head teacher have a sense of common mission.

CONCLUSIONS AND RECOMMENDATIONS

The cited research results do not allow adopting the category of community in relation to teachers, let alone the assumption that school is a community (cf. Łukasik, 2010b, 2016c). There is a lack of shared standards and values, conversations focused on reflection, exchanges of experiences, and open relationships (Day, 2008, p. 166) that would mark the way towards a community of practitioners, including any opportunities for intergenerational learning of teachers in a school environment.

In their everyday school experience, teachers are overwhelmed by apathy in their malfunctioning and disinterested professional group. They feel powerless and remain passive, which does not bring them satisfaction. Deprived of belonging to a group, they will feel worse, cut off, isolated, lonely and unhappy" (cf. Łukasik, 2009b), and without changing or interrupting the existing situation, this hostility and unwillingness will be reinforced, and as such, it will make it impossible to building a community of practitioners connected at work in order to accomplish school missions and high moral values.

It is true that there will always be differences of views where people need or want to work together, and the way we deal with these dilemmas is an important indicator of our ability to cooperate. In the description of atmosphere within teacher groups, teachers refer to it as "dull, anonymous" or indicate at "isolation, loneliness (…) distrust, lack of spontaneity, understatement". Sometimes, distrust, envious shunning of others or hostile separation from other colleagues are so clear that all attempts to organise effective cooperation are nipped in the bud. But even then it is possible to show good will and tact (assuming that the atmosphere will improve slightly over time) (Łukasik, 2015, 2019). In the reality, teachers' opinions of Polish schools mainly emanate resentment and disappointment with: people, ideals, and also a lack of trust in superiors, or ill-considered ministerial ordinances. Teachers mainly focus on problems that they face in their every day practice. Equally often, there is a reported lack of ability to deal with difficult didactic and educational situations that could be solved with the support of fellow teachers.

The value of intergenerational learning is worth reinforcing already at the level of teacher training, which can be seen as an interactive process between teachers from different generations (Novotný & Brücknerová 2014; Ropes, 2011). As a result, new knowledge, skills and values will be gained in schools. It is important in this process to show that better intergenerational relationships and interactions can contribute to supporting learning also in relationships with pupils. Teachers of different generations who work together in one school create many interactions and

opportunities to promote professional development. The practical digital skills of younger generations can contribute to achieving a higher level of educational environment in schools. Moreover, young generations of teachers may be employed in the mentoring of older generations, especially in the use of new technologies (Marron, 2015). Young teachers also have more direct contact with younger generations and use more direct communication with their pupils. However, novice teachers experience concerns about the progressive weakening of the prestige of the teaching profession (e.g. Heikkinen, 2015; Ingersoll & Strong, 2011). In this light, special attention should be paid to the need of keeping young teachers in the profession and striving for the strengthening of their position at the start.

The appearance of constructive factors strengthening community building in the conditions of Polish school can be reduced to three important levels: individual, school and regional. It is reasonable to **assume that the fourth, widest level, i.e. na**-tional, is governed by educational provisions that do not block the building of communities, and are even oriented on the value of its creation. The problem emerges in translating these entries into the school everyday.

Individual level. The strength of a community depends mainly on the people who create it, that is, on their identification with their profession, job satisfaction and well-being in it, on successes and failures at work and at home, as well as on morality, norms and principles that rule their life. So what needs to change? In order to change schools to focus on building communities, it is worth for every teacher to confront his or her relation with him / herself and to start changing the quality of communication of their feelings, needs and possibilities. Constructive messages and active listening (without evaluation, criticism, etc.) can become a basis, an introduction to building real communities, where in a somewhat perverse way, diversity will mean unity.

School level. Another important step towards the community is the need to change the approach to leadership and to involve the management in shaping teacher leadership to flatten hierarchical structures in the school and to guide the school (teaching staff) through the process of change. This process is seen as shaping a positive school culture oriented on the value of the learning process (Nowosad, 2019). The head teacher can institute it by appointing leading teachers, by organising peer presentations, encouraging discussions, by checking the effectiveness of theoretical solutions in practice in order to better understand and improve them, or by more traditional types of training" (Day, 2008, p. 170).

Regional level. Organisation of not only support for teachers, but also of re-inforcement of the value of (lifelong) learning at the regional level. This can be done by creating so-called learning regions. Cooperation between various educational institutions and creating a good practice base that promotes the value of

inter-institutional and inter-generational learning. It is nothing but strengthening the value of learning from each other and respecting the predispositions, values, knowledge or experience of others, i.e. everything that can reinforce the effectiveness of schools as educational institutions.

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Pre-service teacher education in English secondary schools

Opportunities for intergenerational learning through mentoring

Anne Parfitt
Bath Spa University, United Kingdom

Abstract

The practicum brings together pre-service teachers to work with experienced school staff and typically involves different generations through mentoring arrangements. The school-based experience in relation to the mentoring of pre-service teachers, is increasingly emphasised in policy recommendations at the international level, with the view that the workplace can offer attractive opportunities for learning the craft of teaching through IGL arrangements. However, in the English context, the realisation of IGL through mentoring would appear to be limited. To some extent it is evident in the mentoring dyad by preparing the pre-service teacher for the classroom. However, the transformative affordances of IGL for a school in the English context are unlikely to be realised, for whilst pre-service teachers can contribute effectively at the classroom level, there are few channels, if any, for them to inject new knowledge at the institutional level.

Keywords: mentoring, pre-service preparation, transformation

INTRODUCTION

The preparation of new staff for careers within teaching is a challenge, something that intergenerational collaboration appears to be perfectly positioned to achieve. However, the affordances of intergenerational diversity regarding pre-service preparation

and the contributions that this could make to school improvement agendas are yet to be realised in full in the English context. Accordingly, intergenerational learning (IGL) is analysed in this chapter with respect to its education sector and the mentoring of pre-service teachers. The rapidly changing education policy landscape has led some to consider the English situation regarding pre-service teacher preparation and the reorganisation of schooling, in general, to be an outlier (Menter, 2017). That is, it is seen as being an extreme case of reform by a government following its own radical political agenda. Even though the English context offers a very idiosyncratic outlook on teacher education, worthwhile insights can be gained from its examination. In this chapter, collaboration happening in pre-service teacher mentoring in the school workplace is analysed from an IGL perspective, which leads to the revelation that opportunities are being missed in relation to capitalising on intergenerational diversity in the school setting, thereby hindering the potential for new learning, in particular, for the institution.

Pre-service teacher education has been extensively investigated to understand its nature in various countries, with researchers often making the distinction between programmes that are consecutive or concurrent in format. Regardless of the format of delivery in any particular country, the school is arguably the most important setting for learning for pre-service teachers (Maandag, Deinum, Hofman & Buitink, 2007). For being the workplace, it presents training and learning opportunities unavailable in other settings, such as the university or college faculty. The time spent in a school is variously known as the practicum, field or clinical experience and/or teaching practice. Key to this time in school being a productive learning experience, is the mentoring partnership set up, whereby an established member of staff takes on the role of teacher educator and partners with a mentee: the novice. Mentoring of pre-service as well as new career entrants is commonplace, with an extensive literature from international researchers that is dedicated to unpacking what factors go towards an effective relation for both parties in the dyad. To contribute to this scholarship, in this chapter, I evaluate the mentoring of pre-service teachers in English secondary schools through the lens of IGL. I adopt the concept of IGL as learning that takes place through interactions involving different generations. It is a recognised pathway for generating the transfer and capture of knowledge in the workplace (Ropes, 2013).

Policymakers in the UK have been avidly focussed on ensuring that teacher education is delivered so as to master the enduring challenges faced by British schools: recruitment and retention of the workforce, improving performance, particularly in those school in socioeconomically left behind areas of the country and most salient of all, promoting the delivery of high quality human capital that can compete successfully in the global economy. Successive British administrations, like leaders

in many countries, appear to be convinced that 'the implementation of appropriate policies regarding teacher education will solve the teacher supply problem and enhance the quality of the teachers being prepared for the nation's schools, thus leading to desired school outcomes, especially pupils' learning' (Cochran Smith 2005, p.6). The governmental stance towards schools has, amongst other impacts, created a shift in the nature of school leadership, which can be characterised as being driven by regular auditing by central agencies regarding their performance outcomes. In accordance with such changes, it is unsurprising to find that teachers' opportunities for learning throughout their careers have been remodelled (Day & Gu, 2010). The specific focus in this chapter is the mentoring of prospective new entrants to teaching whilst participating in pre-service preparation programmes within this remodelled school environment.

In this chapter, first, I examine the notion of generations with regards to the school workforce, present reasons why IGL is beneficial to schools and review the features of workplace learning. This is followed by a presentation of the debates regarding pre-service teacher preparation that set the scene for the practicum element contained in programmes in England. The role of mentoring and recent reviews of its functionality are included. Next, the National Standards for School-based Initial Teacher Training (ITT) Mentors (Teaching Schools Council, 2016) are introduced to provide a baseline for the four IGL rationalities, which serve as an analytical heuristic. For each, evidence is given from narrative accounts of mentors in secondary schools working on conventional university-led pre-service teacher education programmes as pathways to teacher qualification for their mentees. Particular attention is paid to the rationality that addresses the transformational qualities of mentoring as a form of IG. In conclusion I consider reasons why this transformational dimension of IGL appears to be lacking and reflect on the as yet unfulfilled possibilities that it could offer.

BRINGING THE DIFFERENT GENERATIONS IN THE SCHOOL WORK-PLACE TOGETHER TO COLLABORATE

The majority of people becoming (secondary) schoolteachers in England and Wales are graduates in their early twenties entering their first full-time employment. Few teachers in maintained schools work beyond 60 years of age, with the participation level for this age group currently recorded at under 3% (Department for Education [DfE], 2018). The majority, nearly three quarters of the workforce, are aged over 30 years. Hence, whilst the pre-service cohort are stereotypically categorised as Gen Z, mentors in a high proportion of cases are of a different generation, typically

Gen X. Hence, it is reasonable to expect that in a mentoring dyad individuals from different generations are involved.

When evaluating the mentoring dyad, it needs to be borne in mind that it is possible to group cohorts in ways other than by chronological age (Dencker, Joshi & Martocchio, 2007). In a rapidly evolving policy field, such as that of pre-service teacher preparation in England, a useful approach is to consider teachers according to common social experiences or their shared historical backgrounds (Edge, Descours & Frayman, 2016). With respect to individuals working together as mentor and mentee, the policy discourses underpinning teacher education may have vastly different connotations for the members of the different generational cohorts collaborating in mentoring. In the context of contemporary pre-service teacher preparation, very few established teachers with sufficient seniority to be serving as mentors became qualified teachers under a regime resembling anything like the present one. This intergenerational difference in this experience will not only most likely exhibit contrasting orientations towards the workplace, but also, produce variations in the expectations held by the mentor and mentee regarding the desired teacher preparation outcomes (Rajuan, Douwe Beijaard & Verloop, 2010; Urick, 2016).

IGL is an important but little acknowledged phenomenon that involves exploring knowledge flows between different generations, such as those involved in mentoring dyads. Scholars of cohort theory have reported extensively on how to engage individuals who fall into generational cohorts (Özçelik, 2015; PwC, 2013). By enabling these different cohorts to collaborate, organisations, including schools, can benefit in a great number of ways: grow human capital, stave off the loss of the capabilities of older workers as well as build the talent of the younger generation of employees. In the best cases, this results in the combination of 'the fresh perspectives of the young and the wisdom of experience' (Zemke, Raines & Filipczak, 2000, p. 2). While some schools in England face considerable churn of established teachers as they leave the workforce (Hillary, Andrade & Worth, 2018), recognition of the value of their accumulated insight and deploying it for the benefit of the school community is not always acknowledged in today's fast moving race towards achieving school improvement goals (Courtney & Gunter, 2015). Mentoring of newcomers to the profession appears to offer a formalised solution to this problem, in that it allows for the sharing of knowledge across cohorts and most importantly, can produce innovative thinking for tackling tasks in the workplace. In sum, the mentoring dyad brings together participants from different spaces to share information, advice and support. In the school context, IGL, as witnessed through the mentoring relationship, can constitute planned learning targeted on the teaching tasks that need to be fulfilled within the organisational structure of the institution (Ropes, 2013).

Time spent on placement in a school is reported as highly valued by pre-service teachers since it offers an important opportunity for them to develop as practitioners. From the perspective of workplace learning, mentoring is the main vehicle through which the pre-service teacher is expected to consolidate the learning that he/she gains on the job during the practicum. Workplace learning is usually considered as comprising informal and formal learning (Eraut, 2004). The opportunities to participate in learning in the school setting give the novice access to different forms of knowledge: explicit knowledge, that which is canonical and available to be disseminated amongst team members and from one generation to the next (Brown & Duguid, 2001). Being present in the workplace alongside a practising teacher is designed to facilitate understanding that is difficult to verbalise, namely, the tacit dimension of the work (Nonaka, 1991). While mentoring of pre-service teachers is a formally arranged mechanism, the sharing of advice and information between the two participants, largely from the mentor to the mentee, can typically involve informal as well as formal experiences, including: discussions, lesson observations and feedback sessions. In the development of the mentee's proficiency, tacit insights as well as explicit instruction may be gained on issues such as how to manage classes, lesson planning and navigating the school as a hierarchical organisation. Billett (2002) points out that the context for workplace learning needs to be taken into consideration as different work based cultures determine the nature of the acquisition of knowledge and its content. (Fuller & Unwin, 2011). Indeed, mentoring is situated in schools/school departments, often exhibiting variant cultures of staff learning. However, due to intense government attention, the context of mentoring has been shaped by intervention at the national level. The trickledown effects of policy to the local level where the mentoring takes place can be expected to result in some similarities and potentially a degree of isomorphism in the delivery of pre-service teacher education programmes. The backdrop to mentoring in terms of key debates around the role of the practicum and developments on this are outlined next.

THE CONTEXT OF THE PRACTICUM AND MENTORING

There has been ongoing fierce debate regarding pre-service teacher preparation in the English context. The crux of the matter lies in the extent to which this should be situated in the workplace (school) or a university environment. That is, should the key focus be on the acquisition of practical capabilities or on building the theoretical knowledge of the neophyte professional (McIntyre & Hagger, 1996; Fish 1992). The UK governmental position over the last decade has strongly supported the

stance that the pre-service teacher should learn how to teach on the job, with the argument that teaching is a practical skill that should be developed in the workplace. This would appear to support the proposition that purposeful interaction for learning occurs between the experienced teacher and the pre-service teacher: 'teaching is a craft and one best learnt as an apprentice' (DfE, 2012a). However, through increasingly deterministic involvement, government agencies are exerting control by regulating the space in which the pre-service teacher is learning this craft. To understand the status of mentoring today, it is helpful to outline how pre-service teacher preparation has evolved in light of the governmental policy preference.

Historically, an apprenticeship format was commonplace in the 19th century and it involved pupil-teachers working alongside experienced practitioners in the classroom. However, there was a shift away from relying solely on gaining experience during the early to mid 20th century. Over time, there was the creation of institutions, such as day training colleges and later still, colleges solely devoted to the education of schoolteachers. With the reform of English universities in the early 1960s, teacher education was integrated into mainstream higher education. Hence, at this point it could be said that universities dominated pre-service teacher preparation provision (Furlong, 2013), but this lasted for a very brief period after which there was a return to policy that prioritised the notion of learning on the job. That is, as abovementioned, the view that neophytes would learn their professional skills most effectively by being in the school with their experienced counterparts became germane to the English teacher education agenda.

The dominance of the university as the setting for teacher preparation was rejected on the grounds that it tended to be overly focussed on giving pre-service teachers theoretical knowledge. In its place, the view that this should centre on a partnership model was introduced in the 1970s. The partnership framework, which is still in place today, is a triad comprising the practising teacher (mentor), the pre-service teacher (mentee) on placement in the school and an academic tutor, a university-based professional, who supports the practicum. The emphasis was put on school staff making the major contribution to pre-service preparation, whilst the university academics had a lesser role. During the 1990s school centred initial teacher training (SCITT) programmes were rolled out which underlined the growing importance placed on the workplace for equipping pre-service teachers with the practical skills needed for their future careers.

Regulation in terms of what pre-service teachers needed to learn began in 1994 with the inception of the Teacher Training Agency (TTA). The agency oversaw compliance of school/university partnerships and established the criteria that candidates needed to demonstrate in order to be recommended as a registered teacher,

i.e. gain qualified teacher status. The criteria against which pre-service teachers were judged was originally termed the National Curriculum for Initial Teacher Training (Department for Education and Employment, 1998) and over the intervening decades, these requirements have passed through a number of iterations: currently known as the Teachers' Standards (DfE, 2012b). Today, the mentor has a very significant role in supporting the mentee towards achieving these Standards, whilst also having the 'signing off' power regarding the mentee's competence in relation to the teaching criteria. This situation has been criticised in that the former is tasked with what can be construed as conflicting roles such that trust in the dyadic relationship becomes problematic. The term 'judgementoring' has been coined by Hobson and Malderez (2013) to explain the dissonance created by the conflation in one role of the two duties. A third person, who is outside the dyad, is the teacher educator, who in conventionally run programmes is a university tutor. In this current discussion I do not analyse the role of the tutor in relation to the dyad as he/she is not usually a central participant in the day to day working of the mentoring arrangements.

Since the White Paper 'The Importance of Teaching' (DfE, 2010), there has been the opening up of opportunities for schools to take the initiative in what has become known as a school-led system (Whitty, 2014). In all, the expansion of 'alternative routes', such as Teach First and Now Teach programmes in pre-service preparation has underscored how the partnership model that was already heavily skewed towards schools has moved further towards favouring the workplace provider as the major partner. Whilst the role of the university has not been entirely discounted, the practicum lies at the core of teacher education, whether this be through a placement or salaried employment, in a maintained school, multi academy trust or a free school. With the opening up of the types of routes into teaching and the proliferation of providers, more than ever before great store is placed on the learning that the pre-service teacher gains whilst working alongside an established teacher. The interaction between the two participants in the mentoring relation takes place in an environment that is tightly regulated by government, but one that is still open to interpretation by the dominant partner in the dyad, namely, the mentor.

Improving the practicum experience was called for in a review of the reforms of pre-service teacher education that have been rolled out since 2010 (DfE, 2015). In the recommendations following this, mentoring was deemed a way forward and a set of national standards was devised. Since the National Standards for School-based Initial Teacher Training (ITT) Mentors (Teaching Schools Council, 2016) were introduced, researchers have criticised their impoverished outlook and noted how these could offer much more than they do at present (Lofthouse, 2018; Jerome & Brook,

2019). Moreover, the mentoring still appears to be delivered with variable quality. Despite the ongoing perceived weaknesses in school-based mentoring, the Early Career Framework (DfE, 2020) extends the period of mentoring for newly qualified teachers. That is, during the first two years of employment in schools, teachers will be assisted through formally planned mentoring with time allocated to their support.

TO WHAT EXTENT DOES THE MENTORING OF PRE-SERVICE TEACHERS PROVIDE THE BENEFITS OF IGL?

The non-statutory mentor standards were developed 'to help bring greater coherence and consistency to the school-based mentoring arrangements for trainee teachers' (Teaching Schools Council, 2016, p. 3). The creation of these standards could be interpreted as acknowledgement that school-based mentoring is not always effectively delivered, but nonetheless, remains crucial for the development of pre-service teachers/trainees. The primary purpose set out in them is the development of the mentee's competency across the Teachers' Standards (DfE, 2012), with a further general requirement that the mentee demonstrates professionalism, while carrying out the prescribed duties of a member of school staff.

The contents of the standards address the mentor's desired qualities and expected duties, which are presented at length. However, little explanation or guidance on how the mentoring process should be designed and executed in the school setting is provided. Previous research has critiqued the absence of a pedagogical model for dyads to fashion their collaboration around (Jerome & Brook, 2019) and consequently, decried the nature of the resultant mentoring found operating in many school settings. I apply an IGL lens to evaluate the mentoring and by so doing, offer a novel contribution to this scholarship.

Using this approach, the central issue is whether there is scope in the mentoring for achieving any of the affordances offered by IGL, other than those directly connected to the mentee achieving the competences specified in the Teachers' Standards (DfE, 2012). As the dyad is centred on learning from practice, it is hoped that the pair engage in: fostering the vocational calling for the mentee, developing his/her capabilities for entering the profession as well as building a strong foundation for his/her continuous future learning (Billett, 2011). The application of an IGL lens arguably requires more than consideration of the development of the mentee and for the purpose of this current evaluation, includes whether these arrangements feed into the agenda of school improvement. To explore in-school mentoring activities as a form of IGL, the heuristic device of goal rationalities is adopted (Nieuwenhuis & Van Woerkom,

2007). These rationalities summarise the reasons why and how organisations foster IGL and provide four goals that cover individuals' affordances as well as that for the organisation (Ropes & Ypsilanti, 2012) while the conditions that facilitate or hinder the realisation of these goals is dependent on the learning culture and environment prevailing within an institution. Recall that the advocates of IGL see it as providing multiple benefits (Newman & Hatton-Yeo, 2008), with those accruing to the organisation being: intergenerational flows of expertise that develop innovation, the passing on of the collective workplace history as well as the creation of organisational cohesion and synergies. The four rationalities used to assess the IGL taking place in mentoring dyads are defined and applied as follows.

- Preparation for work pertains to mentoring as a means to certifying the mentee as being competent to practise.
- Optimisation refers to mentoring as a way of achieving improved capabilities over and above the mentee demonstrating a basic level of competency.
- Personal development in this analysis considers the degree to which mentoring contributes to satisfying the individual's motivations, for example, the desire for a sense of fulfilment when working as a teacher.
- Transformation evaluates the impacts on the school in terms of whether the deployment of mentoring contributes to school improvement agendas, that is, through fostering intergenerational knowledge flows across the institution.

The narrative evidence for my evaluation is drawn from mentors situated within their own particular workplace, i.e. secondary schools in partnership with a university to provide practicum placements, under conventional, concurrent, university-led pre-service teacher preparation programmes. These data are part of a large set collected for a research study on the reforms taking place in pre-service teacher education in England (Whiting et al., 2018). The mentors whose comments are presented are used as illustration of mentoring in action and not as a case study of a school setting. That is, the core focus is the sharing of knowledge leading to IGL: to what extent does the dyad share knowledge, learn about practice and thus, develop innovative thinking in a way that is 'beneficial to both workers and the work organisation alike' (Ropes & Ypsilanti, 2012, p. 281).

RATIONALITIES

Finding evidence for the first three rationalities listed above is fairly straightforward, whilst transformation is more difficult to pin down and yet, is probably the

most important potential contribution of IGL. Hence, the three foremost are considered together as follows, whilst transformation is provided a specific focus.

As aforementioned, according to the mentor standards, equipping the mentee to become sufficiently competent to be recommended for certification as a qualified teacher is the primary purpose of the mentor's role, i.e. preparation work. The snippets of narrative data collected in the school settings reveal the effort expended by mentors in setting up opportunities for the mentee to demonstrate competencies, subsequently evaluating whether or not these are accomplished and finally, documenting the justification for the performance grade. The documented evidence of mentee competency is subject to audit under the regime of strict inspection of the provider institutions (Office for Standards in Education, 2015). This can place considerable pressure on the mentor to be diligent and requires that he/she is a trusted 'pair of hands' in terms of compliance with the bureaucratic demands of the role.

We have our Mentor Meeting and we discuss how the week's gone, we discuss targets for the next week and just general talk, providing general teaching tips about how to improve certain areas and how to provide evidence for certain Teacher Standards. (Mentor A)

When you ask a trainee to do something, they need to know that you expect that to be done and that deadlines are kept. You're not a friend necessarily, but as mentor you are a respected figure, who they know is going to help and do all what they can. (Mentor B)

To support the mentee, the mentor draws on personal reserves of practical wisdom when explaining complexities, such as how to manage classrooms and foster pupils' learning. The essential requirement is that he/she is established in the profession. In addition, this individual needs to be motivated positively towards handing on his/her knowledge about teaching to the next generation. The above data excerpts allude to formal instruction towards attaining the Teachers' Standards as well as more informal instances of chat, meetings and casual 'catch ups' (sic). The content matter of these suggests a shift towards focussing on the optimisation of mentee performance. That is, these mentors address areas of practice that are over and above basic compliance, aimed at supporting the mentee in making the best possible choices regarding his/her work. The advice and guidance offered in the excerpts below appear to show mentors attempting to pass on some so called 'craft' dimensions of teaching.

There were lots of details he needed to learn, little tricks in the classroom, ways to approach things. So, it was thickening out and broadening his experience, and pointing him towards things that he might not think about doing, to give himself confidence in the classroom. (Mentor A)

We give them lots of little hints and tips that aren't necessarily about managing the classroom, but actually how could you make your lesson so that classroom management isn't so much of an issue. (Mentor C)

Regarding personal development, first, the role of mentor can be seen as a means for low ranking teachers to gain career advancement into middle management: they usually receive no extra payment and no reduction in other duties, hence for some, anticipated 'payment in kind' takes the form of successful promotion in the near future: '..*doing the mentoring is seen as a sign of commitment and readiness to take on more senior roles' (Mentor E).* In terms of personal development of mentees, mentors have mixed aspirations. The following extracts indicate that in schools some mentors are concerned that mentees do not have the ability to reflect on what they really want from their work life. The mentors might be aware that the ideal outcome of their relation is to inspire a strong vocational calling in mentees, but they may feel a driving need to be very candid in terms of explaining the realities and thus, the potential pitfalls of the teaching career choice.

It is a high stress job, people can maintain it for a year, but can they maintain it for two or three? If mentees are thinking 'no, I can't', then they should try and cut loose while they can. (Mentor E)

A mentee recognises 'I'm working hard, like everyone else is. We are all expected to work hard'. That in itself is a sense of being a professional and that respect for others and self needs to be strong. (Mentor B)

Effective mentoring has to be more than simple instruction on classroom management, for it is much more complex than this. That is, it must involve fostering a mentee's engagement with some problematic and yet fundamental questions, including: becoming a teacher, how a school operates and the functioning of the education system as a whole. Nevertheless, these aspects of the mentor's role are absent from the prescribed national mentor standards (Teaching School Council, 2016), despite more diligent ones endeavouring to imbue this deep knowledge in the mentee through the mentoring process. This in depth engagement requires that the novice combine theoretical insight with practice based experience through critical dialogue with the mentor and contemporary research outputs (Kemmis, Heikkinen, Fransson, Aspfors & Edwards-Groves, 2014). Acquisition of well-informed dispositions can increase the likelihood of the optimisation of classroom teaching as the mentee would no longer simply be going through the motions when executing practice, i.e. he/she would understand the bigger picture in regard to his/her chosen vocation by being well versed in teaching as a virtuous moral undertaking that comprises more than a set of practical routines.

I think mentees do need to have an understanding, not only that you're doing it, and these are some ideas about how you can do it, but why you are doing it. Mentees have got to get an understanding of why schools put in place these various policies etc., not just follow them for the sake of it. (Mentor D)

TRANSFORMATION RATIONALITY

The final rationality, that of transformation, is accorded a separate discussion be-cause it refers to transformational possibilities that go beyond 'mere improvement' (Nieuwenhuis & Van Woerkom, 2007, p.74). With regards to IGL, according to the above discussion, the dyad will invariably involve the bringing together of two different generations, the interaction of which could generate transformational out-comes that reach beyond the participants to the level of the institution. However, such an outcome would appear to have generally failed to materialise in English teacher preparation, according to the evidence drawn upon for this research. The contributions that pre-service teacher preparation could potentially unleash for schools have been identified, but very different systems are needed for this to be realised (Korthagen, 2017; Lofthouse, 2018).

By way of explanation, it has emerged from the analysis that the Teachers' Stand-ards (DfE, 2012) and the requirement to demonstrate competence in the criteria for these is the primary driver in mentoring dyads. A considerable amount of time is absorbed with the administration of these duties, thereby leaving little time, if any, for consideration of matters unrelated to these criteria and the management of the classroom. As aforementioned, the fostering of understanding teaching as a virtuous endeavour would appear to be currently lacking. Moreover, given the asymmetry in the power relation, whereby the mentor is the mentee's assessor as well as support entity, there are very few opportunities for challenging ideas being introduced by the latter, if he/she has the temerity to do so. Further, there are no channels within pre-service teacher mentoring schemes for any proposed innova-tions from the pre-service cohort to be shared with other cohorts of staff: the flow of knowledge is designed to be from the staff members to the novice and there seems to be little encouragement for novel input in the other direction.

Hence, it seems that rather than transformation, in many instances, mentoring schemes lead to the confirmation of existing practices, with mentors complying with the school leadership's strong attachment to perpetuating the tried and tested. As mentioned above, the learning culture of a workplace can shape the openness of an institution towards fostering IGL. A good school reputation, one built on gov-ernmental inspections that have rated it as excellent, provides the institution with strong justification for the mentoring to be shaped around 'the ways we do things here'. In this situation, the pre-service teacher has little option but to fall into line, and the mentor likewise. Given this stymieing of the mentee perspective in the IGL relationship during mentoring, there is no channel established that could lead to new external knowledge being brought in by that person, which in turn, might

result in innovative practice being introduced by the senior leadership. Lack of opportunities for novice teachers to have an impact on the institutional mission will hinder a school's capacity to take advantage of the potential benefits that effective IGL could provide.

In terms of how trainees plan a lesson, how they might deliver a lesson, they probably are engrained with this school's way, you know, so in that respect, yes, they probably are stuck. We don't get the breadth brought in from outside and trainees need to start doing that for us as soon as possible. (Mentor A)

If you look around now at the senior management, middle and senior, the number who have come from within this school is considerable. That's good from the school's point of view, it means it's doing a good job, but it is questionable. (Mentor D)

CONCLUDING REMARKS

The first part of this chapter contains an overview of the policy trajectory surrounding the practicum element of pre-service preparation in the English context of teacher education. Over time, the involvement of government agencies has created a tightly audited and centrally controlled environment that impacts on the management of schools, in general and the provision of pre-service programmes, in particular. The evidence presented above reveals that mentoring dyads are likely to be situated in workplaces where the introduction of creative, bottom up, innovations, as fostered through IGL, becomes problematic. Notwithstanding the positive contribution that they can engender in classroom practices, mentoring dyads are likely to have little transformational impact in the IGL context. This is because the evident technicist approach to mentoring within the practicum invariably reduces the actions of the dyad to dealing with day to day practical challenges faced by the novice teachers. In regard to the above rationalities, whilst the current mentoring system provides for the certification and optimisation of performance of the pre-service teacher in line with the desired classroom practice, there are scant opportunities for transformation at the individual and hence, institutional levels.

According to some proponents of IGL, transformation should be considered the most sought after rationality, but the evidence would appear to suggest that this is largely absent in pre-service preparation provision. There are few openings, if any, for learning to be disseminated across the institution and thus, schools are missing the opportunity to benefit from novel, potentially disruptive ideas that could be introduced by pre-service teachers. These affordances could encourage the organisation to change routines and thus, be positioned to keep abreast of the ever evolving

domestic and global education landscape. Further, the notion of transformation puts on the agenda need to promote rich reflective learning experiences through IGL dyadic interaction, something that appears to be lacking in the English teacher preparation context. As mentioned above, the transformational possibilities of IGL rest on the premise that learners in the dyad constantly 'question the assumptions that guide their actions and inform how they frame or interpret a situation' (Nieuwenhuis & Van Woerkom, 2007, p.74). Hence, such a critical stance towards teaching needs to be put firmly at the heart of pre-service teacher mentoring programmes, thus ensuring that teacher preparation is an IGL engine geared towards innovative change.

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Educational leadership for intergenerational learning among teachers

Karla Brücknerová, Lucie Škarková, Petr Novotný
Masaryk University, Czech Republic

Abstract

The study aims to address the question of how intergenerational learning (IGL) among teachers takes place in various educational leadership contexts. We present an answer based on three case studies of schools with different approaches to educational leadership, each employing various support measures.

We describe IGL within these three settings. We show how educational leadership influences the contents, the depth, and the density of IGL interactions. We conclude that more widespread IGL interactions might be secured by the general support of functional relationships among teachers. This kind of support is not able, in and of itself, to promote deeper learning. Deep and widespread IGL must be supported through a) the prestige of teachers in charge, b) the development of skills to give and receive support and feedback, and c) the accepted belief that IGL can be inspirational and beneficial for professional learning for each teacher no matter the generation.

Keywords: intergenerational learning, learning among teachers, educational leadership

INTRODUCTION

The need for broader and more intensive intergenerational contact, collaboration, and learning among teachers has been asserted by many researchers (Geeraerts, Vanhoof, & Van den Bossche, 2018). Older teachers are staying longer in the workplace, so the generational divide between them and the youngest teachers is expanding.

However, the increasing age differences among teachers in schools might not be automatically incorporated for use as a source for mutual learning. Many prejudices, the tendency to prefer interactions within the same generation, and the structural barriers of school life can prevent the flow of beneficial information among different generations of teachers (Meredith, Van den Noortgate, Struyve, Gielen, & Kyndt, 2017).

Intergenerational learning (IGL) among teachers should be supported as part of educational leadership in the schools. In this chapter, we present three very different ways that this support might be managed. At the same time, we analyze how actual IGL happens in various contexts. This approach enables us to discuss the possibilities, strengths, and weaknesses of various educational leadership measures to enhance IGL.

INTERGENERATIONAL LEARNING AMONG TEACHERS

IGL among teachers is professional learning based on interactions among teachers from different generations (Brücknerová & Novotný, 2016). Though there are many ways to define generations (Geeraerts, 2018), we distinguish three teacher generations according to their self-perception: younger, middle, and older (Brücknerová & Novotný, 2017a). IGL can include both formal and informal learning. We focus on informal learning interactions among school staff, both intentionally supported and naturally arising in the course of everyday life (Heikkinen, Jokinen & Tynjälä, 2012). IGL can happen during subject team meetings, classroom visitations, mentoring sessions, digital learning platforms, training sessions, pedagogical seminars, collaboration with colleagues, and knowledge-sharing between young and old teachers (Geeraerts, Vanhoof & Van den Bossche, 2016).

Brücknerová and Novotný (2016; Novotný & Brücknerová, 2014) showed that different kinds of IGL interactions happen within the structures mentioned above. According to their findings, there are overt and covert forms of IGL interactions among teachers. The overt forms, where both teachers are aware that they are happening, are transmission (most often giving advice), imitation (behaving like someone else), and experience (reflection after classroom visitation). Covert forms of IGL interactions are those where only the learner is aware of them. They include participation (learning during cooperation) and perception (watching others work). A more evaluative perspective was offered by Little (1990), who claimed that there were a range of interactions with different potentials for learning. She sorted them from the lowest to the highest potential: storytelling and scanning ideas, aid and

assistance, sharing, and joint work. The final category, joint work, involves cooperation based on perceived interdependence and autonomy at the same time. The elaborated view on IGL interactions emphasizes that different kinds of IGL might take place in the course of one occasion or event. In light of this, it is clear that the current information about support measures is insufficient for understanding IGL in a particular school.

IGL contents are closely related to specific workplace contexts (Evans & Kersh, 2014) and the specific needs of teachers and pupils, and they are rooted in the particular school setting. A potential benefit of IGL is the maintenance of specific knowledge gained by previous generations of teachers, thereby providing consistency and stability within a school. The role of IGL is not merely to stabilize, but also to contribute to the evolution of knowledge. Brücknerová and Novotný (2016) showed that the contents received during IGL are sometimes directly accepted, and sometimes they are changed, developed, and transformed according to the teacher's needs (Novotný & Brücknerová, 2014). Geeraerts, Vanhoof, and Van den Bossche (2018) found that teachers tend to interact differently with teachers from different generations according to the desired content. The younger teachers are more likely to be asked for advice concerning innovative methods and ICT, while older teachers are often asked for advice on subject-matter knowledge. These differences in information flows support each generation's irreplaceable potential in all of the teachers' professional learning.

Even though IGL offers a range of benefits, IGL scarcely occurs at some schools. This may be due to the differing values, experiences, and expectations of members of different generations (Carbary, Fredericks, Mishra, & Mishra, 2016). The feelings of isolation that often occur in the teaching profession may also be a contributing factor (Schlichte, Yssel, & Merbler, 2005). Another barrier might be that the school settings are not equipped for IGL, or that the school climate and school vision have negative impacts on the teachers' professional development (Mitchell & Sackney, 2011). The enhancement of IGL by educational leadership is therefore crucial.

EDUCATIONAL LEADERSHIP FOR INTERGENERATIONAL LEARNING AMONG TEACHERS

Educational leadership involves the structuring of learning activities and relationships by people in positions of responsibility (Mulford & Silins, 2010; Evans, 1998). Educational leadership should include individual support, support of learning culture, establishing adequate structures for learning, and incorporating professional development into school vision (Mulford, 2003). Bredeson (2000) adds that

educational leadership means the direct involvement of school principals in the design and realization of professional development, including the assessment of learning outcomes. More generally, Verbiest (2011) points out that successful educational leadership should endeavor to broaden learning among as many teachers as possible, to deepen the contents delivered, and to anchor learning into school structures.

Regarding educational leadership toward IGL, a body of research deals with induction and mentoring. School principals influence these processes by managing resources, including time and space for mentoring, and through individualized interactions with appointed teachers, through evaluation, and through the introduction of mentor training (Rosenholtz, 1989; Stoll, Bolam, McMahon & Thomas, 2006; Pogodzinski, 2015). Pogodzinski (2015) showed that the frequency of novice-mentor learning interactions is influenced by how the novices perceive the support from their leadership. Moreover, Brücknerová and Novotný (2019) showed that the school principal's support is demonstrated in the frequency of interactions and also manifests in the perceived meaningfulness of induction, the relationship of novice teachers to professional development, and in the relationship with the principal. The influence of leadership on other aspects of IGL for teachers is still insufficiently researched. Geeraerts, Vanhoof, and Van den Bossche (2016) stated that little is known about how leadership intentionally or unintentionally supports the intergenerational aspect of teamwork and other teacher activities.

METHODOLOGY

This chapter investigates how IGL among teachers happens in schools with various educational leadership approaches. To fulfill this aim, we will (1) describe three different educational leadership approaches to IGL in three schools and (2) show what processes of IGL happen among teachers in such settings.

We conducted multiple case studies of IGL among teachers in eight Czech schools. The selected schools differed in the region, the number of pupils, and teachers (Rabušicová, Brücknerová, Kamanová, Novotný, Pevná, & Vařejková, 2017). The data were gathered through interviews with teachers and principals and by observing different kinds of informal teacher meetings. For this study, we selected three purposeful samples (Creswell, 2012): three schools that manifest different educational leadership toward IGL among teachers (Stake, 2013; Yin, 2009). School A represents low-structured measures; school B had simple, intensive support of selected groups; and school C demonstrates extensive support for the whole staff (Table 1).

Table 1.

Descriptions of Schools

	Number of teachers	Number of pupils (approx.)	Region	Means of educational leadership employed
School A	12	200	Village (1,800 inhabitants)	Team spirit events
School B	60	1000	District town (100,000 inhabitants)	Supervised induction and mutual classroom visits
School C	63	640	Capital city (1,300,000 inhabitants)	Three-member evaluating teams, external support, mentoring, mentor training

Source: own work

For data analysis, we employed initial and selective coding (Charmaz, 2014) to determine the key characteristics of IGL and educational leadership in the selected schools. We used situational maps to understand social and spatial contexts, influences, and ranges of learning activities in each school (Clarke, 2003). During the analytical procedures, we compared and discussed situational maps and categories to understand, choose, and describe the most varied ways of educational leadership and corresponding IGL among teachers.

THREE DIFFERENT CASES OF EDUCATIONAL LEADERSHIP AND INTER-GENERATIONAL LEARNING

School A: Cohesion support and widespread sharing

Context for intergenerational learning

School A is a village school with a generationally diverse staff of 12 teachers (including three pairs of relatives from different generations), one principal, and one vice-principal. The village setting is reflected in broad shared knowledge about the teachers and their families going back even several generations. The school building is small, so teachers use two offices, for six teachers each. The spatial arrangement is perceived by teachers as follows: "There are only a few of us, all in one office, which might seem dreadful. On the other hand, you can solve all the problems

immediately and in a straightforward manner. There's no gossip, because when you have something to solve, you come right to all the others with your problem."

Educational leadership at school A: Cohesion support

The educational leadership toward IGL in school A consists of preventing conflicts, increasing cohesion, and minimalizing burden. The principal sees generational diversity as part of the school life that has to be taken into consideration, specifically in terms of the lack of experience on the part of young teachers and the limits of particular knowledge (English, ICT) in the older teachers. These limits have to be overcome through mutual respect and goodwill. Therefore the principal emphasizes enhancing the social climate, perceived by this principal as a critical basis for mutual help and instructional support.

The vice-principal continuously monitors the teachers' relationships through informal visits to their offices. Teachers positively view these visits as an expression of genuine interest in their work. If there is any potential issue, the principal is directly informed and solves the situation in a straightforward and kindly manner.

The cohesion of the staff is enhanced by team spirit events, such as trips and dinners. Such activities are welcomed by the teachers and interpreted as the principal's appreciation of their work. Moreover, celebrations of various kinds (birthdays, teachers' days) with festive food and singing are a part of the school culture.

The principal also demonstrates care in minimizing any avoidable teacher burdens. As specifically regards IGL, the principal canceled the duty of twice-yearly classroom visits when starting at the school five years ago, and also canceled all measures supporting induction. The principal believes that sufficient initial information is given on the first day by the principal and the vice-principal. For any other needs, a novice teacher can ask anyone on the staff, as the relationships and will to help are at a high level.

Intergenerational learning in school A: Widespread sharing

Teachers agree on having friendly and attentive attitudes toward mutual advice and support. Immediately after returning from class, they share their experiences. The understanding of others encourages them; sometimes, this understanding is enriched by an offer of particular teaching material or a tested instructional solution. Thus fast information exchanges take place during the short breaks throughout the day and also after classes. In the afternoon, teachers spent 30-120 minutes in their offices to prepare themselves for the next day. During this time, discussions may

be lengthened by one particular pupil or topic. The discussions take the forms of sharing, short narratives, and joking. If there is any perceived trouble, the teachers try to encourage their colleagues, but they take care not to affect their professional confidence or question their processes.

In teacher interactions, mutual respect overcomes the need to confront different attitudes or notions. One teacher who commutes with her colleague half an hour to work every day says: *"Sometimes, we talk about work. When I think that there is a need to punish a pupil, she [the other teacher] does not see it that way. I think I am more radical. I am radical in solving things. It is perhaps a matter of age; she is younger than me...."* The narrating teacher perceives collegial differences, but she tends to explain or even defend those differences in terms of age. With this reasoning, there is no reason to seek a "correct" solution, but only to demonstrate under-standing and respect. It is possible that for this reason potentially tricky topics are discussed only rarely.

Novice teachers in school A find it challenging to start teaching without struc-tured induction. However, although they missed having a particular teacher who would be permanently available, at the same time, they mention a general willing-ness to be helpful. Moreover, they shared the belief that there are many issues in the teaching profession in which the teachers cannot be helped; the teachers must solve such problems on their own.

IGL in school A is spread in a richly connected network, providing friendly sup-port and encouragement for every teacher. Thus support helps to deal with day-to-day problems without any extra burden but also without any challenge toward professional growth.

School B: Focused support and individual growth

Context for intergenerational learning

School B is a large school with a traditionally good reputation. Teachers identify themselves with the school and respect their principal highly. The staff is therefore stable; hardly any teacher leaves the school and they expect newcomers rarely. The middle and older generation slightly prevails. Teachers share their offices with two to four teachers in an office according to the teaching subjects. They perceive the school climate as follows: *"In our school, there is such a pleasant atmosphere that there was never quarreling among the teachers. Nor were they looking down on others. Some people don't want to believe us – so many teachers in such a big school! But that is really how it is."*

Educational leadership toward intergenerational learning: Focused support

The principal, who has been leading the school for over twenty years, prioritizes a stable staff who are willing to enrich themselves. The principal introduced two primary measures: structured induction support and classroom visits.

Structured induction is financially rewarded, and the role of an inducting teacher is connected with prestige. As one inducting teacher puts it: *"It makes you think that you are a good teacher when the principal gives you the title of inducting teacher. It is a kind of award."* Induction, however, represents an enormous investment, as another teacher describes*: "It is a huge, huge burden. You have to make a plan for the whole year of what you intend to do each month. And you present this to the principal. And you cannot stay on the surface, because when the principal visits the class of your novice teacher, he sees if she can do things. And when she is not good at something, the principal goes to you and asks you why you have not taught her. So I write notes of what I explained to her and what did after I visited her class. And she visits my classes. And we are consulting daily."* The principal carefully selects pairs of teachers for this intensive induction to ensure that the cooperation will spontaneously continue after one year of official support.

The second measure to support IGL is the duty of mutual classroom visitations. The principal does not force teachers to make notes or reports; on the contrary, he stresses the learning potential of such opportunity: *"I say to them, I do not want you to make any report, I want you to visit each other and discuss things. I think when two friends have a discussion, they can also talk about negative things they have seen."*

Intergenerational learning among teachers in school B: Individual growth

Intensive induction support promotes in-depth learning interactions in which young teachers learn from older ones. The principal's supervision and evaluation of the induction increases motivation and positive mutual dependence among generations of teachers. Novice teachers that are not willing to bear such intensive learning leave the school and only those who are motivated toward professional development become an integral part of the stable staff.

Intensive one-year cooperation between teachers of different generations also introduces novice teachers into cross-generational staff networks. These relationships continue after the first year and gradually become more mutual. Due to the extensive induction support, intergenerational networks are firmly anchored among the teaching staff.

An essential part of induction are the discussions after class visitations; the reflections and corrections are a natural part of learning interactions among teachers.

This type of learning interaction is further encouraged by the duty of regular mutual class visitations across the staff. Though not all of these interactions are cross-generational, many of them quite naturally are. In this case learning is in both directions, from older to younger and vice versa. Teachers perceive these visits as inspirational and very useful, mainly for learning new methods.

In school B, only two quite simple measures were introduced, but they are promoted consistently with the emphasis on their usefulness and on the professional growth of teachers. Firm cross-generational bonds are thereby created, enhancing the individualized learning and stability of the staff.

School C: Extensive support, omnipresent learning

Context for intergenerational learning

School C is a well-known rapidly growing school with excellent external evaluation results. Its excellence dwells in educational leadership, teacher teamwork, pair teaching in several classes, and the material equipment of the school. The vice-principal said: *"I think we are further ahead of the other schools because of the effort of our people. Not just their efforts for teaching their subject, but for all the school community. That is what moves our school continually forward."* As to generations, they are quite eventually distributed in daily interactions. The younger generation is represented by teachers and by university students from teacher training programs who serve here as pre-service assistant teachers. The middle and older generations are represented by the teachers and by external mentors and other educators who are seen to some extent as a part of the staff as their contribution to school life is long-term and extensive.

Educational leadership at school C: Extensive support

IGL is part of the school vision, not just in terms of sharing ideas but as a way to achieve teaching mastery for each teacher in the school. Many measures are employed to fulfill this vision. We consider the most crucial to be: three-member evaluation teams, external personalized professional development support, and an elaborated mentoring system.

Three-member evaluation teams are meant to create cross-structural and often cross-generational teams, enabling staff to reflect upon their professional development. Teams consist of one primary school teacher, one lower secondary teacher, and one assistant teacher or leisure time teacher. Such diversity enables teachers to

plan, reflect, and evaluate their professional goals, get support, and view their work from a broader perspective. Moreover, due to such cooperation, the networks are strengthened throughout the school.

The second means of IGL support is external personalized professional development support. The external consultant belonging to the older generation offers constructive and supportive feedback, which she does not report to the school leaders. Her work is described by the vice-principal: *"She was always giving positive feedback, asking good questions, stimulating thinking, coaching. She offers help and support, and that was a big deal when teachers realized that she was exactly what they needed. Somebody who is on their side and is safe, as she is not part of the school leadership."* This method of support is even more important in a school where the teachers perceive huge pressure on their professional performance.

The third important part of educational leadership is the establishment of a mentoring system. Selected teachers undertake a one-year external mentoring course and are mentored for two more years. After such preparation, they are available to support other teachers in several ways. They teach open lessons focused on the partial instructional issue, followed by collegial discussion. They offer class visits to their colleagues, followed by descriptive feedback. They are prepared to teach in pairs, mentor other teachers for several months, and work with students from the faculty of education.

Intergenerational learning among teachers in school C: Omnipresent learning

Teacher learning at school C was described as follows: *"You cannot fall asleep here; you have to work hard on yourself all the time."* The pressure on continual professional development goes hand-in-hand with extensive support for any professional goal. All the teachers are part of stable structures supporting their professional development (three-member evaluation teams), and they additionally take part in periodic opportunities according to their needs. The pressure to grow causes teachers to use the available opportunities extensively. Moreover, the best of the best have the privilege of being part of the mentoring program and becoming mentors themselves afterward.

As the leadership manages to secure external resources, all the support is of excellent quality, which is another motivational factor for joining it. Moreover, each measure connects different people and fosters reflective communication with elaborated descriptive feedback. These measures bring open, straightforward, constructive, and supportive communication, together with a drive for professional growth. This combination enables teachers to survive the pressure for perfection, as one of

the teachers expressed. "*The demands on the teachers here are enormous, true, but they are all very hardworking and friendly. I do not feel any rivalry here; it is so cooperative. Many people endure the pressure, because of good relationships.*"

IGL in school C is outstanding in terms of extensive measures based on both external and internal resources. The pressure for teaching excellence is balanced by the support of diverse relationships and constructive attentive communication. In this way, multidimensional support of the community's professional growth is created using the potential of all positions, experiences, and generations.

EDUCATIONAL LEADERSHIP TOWARD INTERGENERATIONAL LEARNING: COMPARING AND DISCUSSING CASES

Elstad (2008) points out that the relationship between leadership and teacher actions is not one of straightforward causality but one of mutual dependency. With this observation in mind, we will discuss the results described above to highlight the probable connections between educational leadership and the quality of IGL among teachers (Table 2). We structure our remarks based on Verbiest's (2011) conception of broadening, deepening, and anchoring the school's learning processes.

Table 2.

Comparison of the cases

	School A	School B	School C
Leadership support	Team spirit events	Supervised induction and mutual classroom visits	Three-member evaluating teams, external support, mentoring, mentor training
Prevailing educational leadership strategy (Verbiest)	Broadening (all teachers included)	Anchoring and deepening (networks through deep relationships, predominantly older transmit to younger)	Broadening, deepening, anchoring (all included at some level, some very extensively)
Prevalent types of learning	Storytelling and scanning ideas, sharing	aid and assistance, sharing	joint work, aid and assistance, sharing

Source: own work

As to broadening, IGL was observed in all the teachers in schools A and C. At school A, the broadening is supported by spatial closeness and team spirit events; at school C by three-member evaluative teams including all levels of staff. At school B, the measures do not cover all the teachers, as the induction is only for novice teachers, and mutual visitations need not be cross-generational. Therefore, even though there are strong binary bonds among teachers employed in induction, these relationships do not apply for all the teachers. We might presume that widening in school A covers all the teachers because of the small number of teachers. If the staff were larger, generally focused team spirit events might not be sufficient to include all the teachers into IGL interactions. If broadening is an aim of the educational leadership, adequate measures are those that network each teacher in an intergenerational group.

As to deepening, we observed various depths in IGL interactions. In school A, learning took the shape of storytelling and sharing (Little, 1990) with avoidance of confrontation and reflection of practice (Moon, 2004). The teachers had no opportunities to see each other while teaching, so their support was based only on the reported pieces of information, which might exclude crucial information needed for sufficient advice. Moreover, since they have no direct support for mutual learning, even the most experienced teachers might not be able to promote constructive feedback and mentor others.

Deepening at school B was secured by supervised induction. Though the mentors were not trained, they were supported by the principal's supervision, and building up the curriculum of induction may have served to make their tacit knowledge explicit. Together with a careful choice of mentors and intensive class visitations, these processes provide focused reflective learning (Moon, 2004). Nevertheless, since the primary source of IGL is induction, IGL at school B is primarily seen as one-sided, from older teachers to younger.

At school C, the deepening was provided by various means. First, the principal did not consider the ability to give constructive feedback and mentor others as the natural ability of mature teachers. On the contrary, he established measures that aimed to develop those competencies on different levels. The constructive feedback was practiced in three-member evaluative meetings, during the mentoring program, and during external support. This focus enabled the staff as a whole to be a source for professional development. Mixing teachers from different positions and generations emphasizes the potential of variability for learning. As professional learning toward mastery is a clearly claimed goal of school C, the potential was extensively utilized. We suggest that deepening does not tend to come spontaneously based only on friendly and widespread intergenerational relationships. The more focused

and instructive the support of skills to reflect, to mentor, and to provide feedback, the more chance to promote deep IGL throughout the staff.

Anchoring was also variously manifested in the researched schools. In school A, the principal aimed to avoid the anchoring of IGL as a way to protect teachers from being overburdened. In school B, there were two measures, but primarily the induction was precisely structured. At school C, various measures anchored IGL in the school, each with a different goal. Overall, we perceived the anchoring level as a reflection of the principal's view of the importance of IGL in the school (Brücknerová & Novotný, 2019). Where the IGL is not anchored, it takes the form of surface sharing of stories and materials (school A). Where it is anchored and clearly communicated and supported with prestige, it develops well (school B). However, if the anchoring emphasizes one direction of IGL, it might be predominantly perceived as such by the staff.

At school C, IGL was anchored in a sophisticated and thorough way and enhanced both the deepening and broadening of the IGL. Nevertheless, the context of school C was exceptional in terms of both resources and staff commitment, so the method of anchoring cannot be taken as an example for other schools. We see the three-member evaluative teams as the most portable measure. This low-cost measure might induce cross-generational and cross-structural joint work in the school while serving as a strong and clear signal from the principal that IGL matters.

CONCLUSIONS

Though we see mutual dependency between educational leadership and IGL among teachers, we have to conclude that the more focused the educational leadership is on IGL, the more in-depth the IGL will be. This straightforward result might be due to sample selection, as all of the selected schools had a positive climate, and the teachers had trust in their principals (Brücknerová & Novotný, 2017b). Nevertheless, we have shown that more widespread IGL interactions might be secured by the general support of functional relationships among teachers. This kind of support is not able, in and of itself, to promote deeper learning. Deep and widespread IGL has to be supported through a) the prestige of teachers in charge, b) the development of skills to give and receive support and feedback, and c) the accepted belief that IGL can be inspirational and beneficial for professional learning for each teacher no matter the generation. All of these principles should be anchored in school structures to promote sound educational leadership supporting IGL.

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Professional intergenerational learning:
a challenge for the education of the XXIst century

Mónica Vallejo Ruiz, María Luisa García Hernández
University of Murcia, Spain

Abstract

This book chapter presents a framework for the analysis and understanding of teaching learning outcomes that can be linked to professional development experiences, focusing on those involving intergenerational collaboration. More specifically, professional learning for teachers is understood as an effect of professional development processes and experiences that can occur in multiple and diverse contexts, enabling an increase in the quality of professional activity. Therefore, those conditions that enable learning outcomes of greater and more significant impact will be subject to special attention.

Keywords: experiential learning, professional staff, social change, intergenerational, learning, relationship

INTRODUCTION

According to O'Hara's investigation, Corrigan & McNamara (2013) manifests that the intergenerational learning is an adequate mechanism to promote a quality education. Without a doubt, people learn from each other by observation, repetition, and imitation among other aspects. In that sense, programs of professional intergenerational learning provide valuable opportunities to learn from members of the same educational community. However, developing intergenerational learning

activities is not an easy task. Likewise, being a source of quality learning has not been an exploited theme in the investigation field, although we do find that in the last years its proliferation has increased (Ben-Peretz & McCulloch, 2009; Carbone, et al. 2017, Ingersoll & Strong, 2011;Veldman, Admiraal, van Tartwijk, Mainhard & Wubbels, 2016, etc.).

The intergenerational learning, consists in the fact that people of all ages learn from one another, something that has always been present in all the human communities, independently of the context we are in. Therefore, if we focus our attention in the education, the students must develop professionally in an adequate manner which brings quality in the relation between students of one centre. This professional integrated culture is characterized by the professional exchange between more experienced teachers and less experienced teachers.

This chapter of the book pretends to explain, in a summarized manner, the importance of experiences of professional development between veteran/ retired and new teachers in professional learning. From this perspective, the generation concept is taken as a reference, understood as a multidimensional concept, associated in some occasions to age groups, as a vital stage where people find themselves and in others to the birth cohort where they belong. For this reason, in the case of intergenerational professional evolution, two generations are conceived; on one hand, the teachers that have completed their professional career and on the other those that are in its initials. To develop the contribution of professional evolution between novel teachers and veteran or retired teachers in a collaborative manner will allow to analyze:

- The possible generational significant differences between veteran and retired, on one hand, and those that are studying in order to initiate the profession, that can be relevant for their professional growth and learning, without a repercussion limit and other also relevant aspects.
- The generational singularities are relevant in the interaction and learning from those that differ from one another (without limiting that they can also be relevant in the interaction and learning from those that share generational singularities). In particular, the generational singularities of veteran and retired professors are relevant in the interaction with those that are preparing to be teachers and the procedures of professional learning of these; but also, the generational singularities of the second can be relevant in the interaction with the first and the processes of learning of these.

In terms of the characterization of the learning procedures' nature during the intergenerational interaction, at least, two features that can be attributed to them

deserve to be highlighted. On one hand, what is discovered between different generations is not always defined and explicit, but it is usually undetermined and tacit, as can be the case of learning from professional dispositions. In which case, the learning tends to occur in an incidental and informal manner, being the narrations, but it also occurs deliberately, in which case the narrations and the mentors' actions usually are fundamental (Swap, Leonard, Shields & Abrams, 2001; Youngs, 2007; Sandvik, Solhaug, Lejonberg, Elstad, & Christophersen, 2020). On the other hand, some authors have differentiated three learning modalities:

1. Transmission where the learning consists of the acquisition, reproduction, and accumulation of stable or even static content (for example, determined facts, skills, rules, or values).
2. Transaction where the learning consists in an inquest procedure and the resolution of problems in the interaction with the means (physical and social) through which a cognitive capacity is developed and allows to face the changes.
3. Transformation where the learning is identified as a process of global personal change reached by examining the previous position through critical reflection, which leads to adopt a new position, and, therefore, to think, feel and act in a new manner (Ukpokodu, 2016).

The perspective of intergenerational professional learning outlined assertively higher up settles the attention in transfer or transmission procedures and even in "transactional" learning procedures. However, to fix the attention in the development and the change of what has been designated as "professional disposal" can imply a transformational learning (Calleja, 2014).

A NECESSARY CLARIFICATION: PROFESSIONAL DEVELOPMENT AND/OR PROFESSIONAL LEARNING?

The distinction between the meanings of the professional "development" and the "learning" has been the object of continuous attention (Boylan, Coldwell, Maxwell & Jordan, 2017; Boylan & Demack, 2018; Desimone, 2009; Opfer & Pedder, 2011; Stewart, 2014; Webster-Wright, 2009) since frequently these concepts have been object of alternate and complementary uses. Both can basically refer to three different meanings, although related, which we represent schematically in Figure 1.

Figure 1.
Alternate and complementary meanings of "development" and "learning"
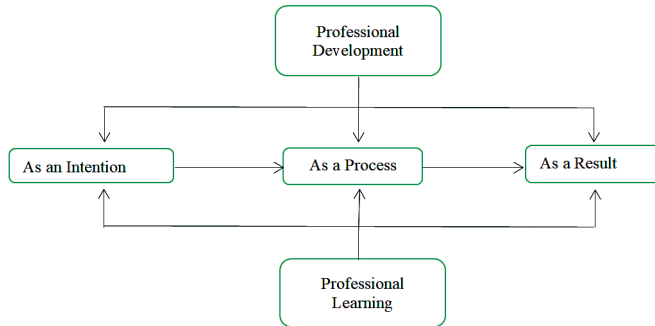
Source: own work

These three main uses are:

a)   *As an Intention* (the for what or the why): refers to what constitutes a deliberate action of transformative character, a proactive conduct, motivated or instrumentally rational in the way it originates and deploys as a *mean* to reach a *goal* (a state or desired result). Meanwhile, this proactive character does not wear out in the conscient possibilities. Illeris (2017), for example, talks about a sensibility and a dynamic balance between volition, motivation, and emotion as precursors of the action. Schugurensky (2000) warns that there is not necessarily an intentionality in incidental experiences or socialization that drive to learning, including consciousness in the moment these occur.

b)   As a Process (the how): when interpreting the "development" from a process perspective, there is an emphasis in the functionality or operative dimension of the *activity*, although without forgetting the *context* of these, understanding that the circumstances when the activity is produced determine in such way that they constitute these. In that sense, the development can adopt multiple and different forms (types of modalities) of activity, as much as individual as interactive order, as well as contexts, both formal and informal (Kennedy, 2014; Schugurensky, 2000).

Meanwhile, with the "learning" there is a reference to two types of procedures that must necessarily activate themselves in the subject but these are different and can produce themselves simultaneously or separately; on one hand, an *interaction*

process between the subject and the environment (material and social); on the other, a psychological intern process (cognitive and affective) of *acquisition* that occurs in the subject drawn from the impulses and influences that involve the interaction and that will have effects or consequences in terms of results (Illeris, 2017, p.24).Moreover, the process in general can also be conceptual in terms of "experience", in which case a psychological process is also alluded, but emphasizing in the perceived experience and valued by the subject (satisfaction) and incorporating personal meanings and also more emotional.

c)   *As a Result* (the what): generally, refers to what has been achieved (*outcomes*) or how it is taking place as effect or consequence of the process and the concept of changes, transformations, or alterations in terms of development or learning. It is common to find descriptive changes (state or level alterations, of quality or quantity), either evaluative changes (interpretable from criterions of particular value as kindness, improvement or progress to the desired state) relative to knowledge (wisdom), skill (know-how, abilities) and/ or provisions (know how to be, attitude, personality) in the cognitive order and own emotion of the subject. Normally, with the "development" term an evolutionary process is alluded, and a complex change consist in an increase of the *capacity* (to act with one's available resources), in contrast with what would be a mere increase of the r*esources*, a type of change that is usually referred to as "growth"(Odor, 2018). Thus, what is object of change would conceptualize as a *resource* from a "growth" perspective (a quantitative vision of change) or as a *capacity* or *competence* if a "development" perspective is adopted (a qualitative vision of change), which is the most extensive and accepted.

Likewise, both expressions are used with complementary meanings (it is common that, if one term is given a meaning, the other term is provided with another different meaning but related from a rational logic). For example, it is very frequent to use the "development" as a process (mean or cause) and the "learning" as a result (goal or effect) associated to this. In this case, the efficiency of the "development" activities will be determined by the level of impact and the incidence of the "learning". From this point of view, it must be noted that the terms "development" and "learning" the professional teachers can be object of an indistinct use that can induce confusion. In case of conceiving "development" like "learning" and vice versa, is comparable to the mistake of treating like synonyms "education" and "learning", terms that, although they are closely related, are completely differentiated. This is usually contextualized in socio- educational schooling of alumni or students and can

be linked to erroneous beliefs that all the learning of the alumni is always caused by the professors' teachings. When we move to a professional scenario, where the paper of the alumni or apprentice is performed by the professor, the most current will be to employ the terms of "education" or "training", occasionally assimilable to the "development" (in replacement to "education") and the "trainer" (substituting the "professor") in order to refer to the action and to the respective subject.

DISCUSSION AND CONCLUSIONS

The important changes that have occurred in the University in the last years, and other factors that must be faced in order to maintain its potential role of training and social transformation, combined with the unstoppable aging of its staff make it necessary to offer a diverse number of proposals of educational innovation that will allow the University to be in the forefront of scientific, social and cultural progress. Otherwise, we would be in a similar scenario presented by Barber, Donnelly & Rizvi (2013).

It is true that the University has less resources available but, fortunately, it possesses a human capital, stable with high capacity, susceptible to develop multiple and diverse ways to improve the university teachings. Many good examples exist that we must consider, both national and international (Bain, 2007; Biggs & Tang, 2011; Lai, Li & Gong, 2016). However, for this to be possible, it is necessary to introduce important changes in the cultural and professional order of the university system (Rué, 2014).

A possible approach, could be the one that is outlined here and where the possibility of a new teaching innovation field and professional development focused in intergenerational professional learning procedures are raised; these are, interactive procedures that occur between people and groups generationally different and that generate or, at least, contribute to learnings (Ropes, 2013) between veteran or retired professors, on one side, and those that are acquiring its initial training as teachers, not only affecting the learning of these but also learning of the others. This way it is raised that, if these are recurrent and they extend in time, the innovation experiences and the procedures of professional development in collaboration will contribute to introducing transformations in the professional disposal of the participants, being either novel professors, veteran or retired.

From this perspective we adhere to a sociocultural approach focused in the subject. This implies that the professional learning will be a dual process, that involves identity negotiation and development of professional practices (including the

practice of the agency). We look at the professional identity as the one made up of the concepts that the teachers have of themselves as professional actors as individuals with commitments, ideals, interests, beliefs, values, and professional ethical standards. An agency is needed for the renegotiation of the labour identities and for the continuous and innovating development of the professional practices. This way, we consider that the professional agency pursues when the professional subjects and the communities influence, take decisions and adopt positions over their work and their professional identity (Eteläpelto, Vähäsantanen, Hökkä & Paloniemi, 2014).

In conclusion, it is suggested to implement and encourage innovation experiences based on professional intergenerational learning since this favour an opportunity for change and improvement that will affect both teaching skills and enables an increase in the quality of the professional activity.

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Intergenerational solidarity among primary school teachers: intergenerational solidarity experiences in turkey sample

Gülşah Hiçyilmaz, Soner Polat
Kocaeli University, Turkey

Abstract

This study was carried out to determine the intergenerational solidarity experiences of primary school teachers. The research was carried out in the phenomenological research model, which is one of the qualitative research methods. Sample selection was carried out with thirty-one primary school teachers selected with the criterion sampling technique, one of the purposive sampling techniques. The data were collected through a semi-structured interview form and analyzed using content analysis. As a result of the research, intergenerational solidarity experiences of teachers were gathered in three themes: solidarity in personal context, solidarity in organizational context and solidarity in professional context. It has been observed that teachers experience intergenerational solidarity in their health and private lives on the theme of solidarity in the personal context. It has been observed that teachers' experiences of intergenerational solidarity related to solidarity theme in the organizational context are mostly experienced in the point of social activities. It is also among the results that teachers experience their intergenerational solidarity experiences mostly in the context of the use of technology and teaching methods and techniques in the theme of solidarity. As the suggestions for researchers, it can be stated that this study can be carried out with quantitative methods in order to increase its generalizability, as well as this study can be conducted with teachers at different school levels.

Keywords: intergenerational learning, intergenerational solidarity, teacher's professional development, teacher's experience

INTRODUCTION

Today, the retirement age increases with the increase in the life span of individuals due to reasons such as the development of the economy, the advancement of technology and the improvement of living conditions. On the other hand, with the increasing population, newly recruited individuals take their place in the business areas. In addition, both young and mature and experienced individuals have to work in the same organization. This situation makes it necessary for different generations to work together within organizations. These demographic differences can be advantageous for organizations (Watson, Kumar & Michaelsen, 1993, p. 599). Different experiences and values of each generation can give different perspectives to the organization and contribute to the increase of both individual and organizational performance (Jackson, May & Whitney, 1995, p. 224, Watson et al., 1993, p. 599). Ropes (2011) states that generational differences in organizations are beneficial because different aspects of different ages and experiences shape the attitudes and behaviors of another employee to a certain extent. At this point it will be appropriate to touch on the concept of generation.

THE CONCEPT OF GENERATION

In the philosophy dictionary of the Turkish Language Institution, the concept of generation is defined as the group of people who were born in the same years, therefore, shared the conditions of the same era, similar troubles and destinies, and were obliged by similar assignments. Individuals born in the same years in the process of historical development are affected by common historical and social events, world order and their results in the context of the events experienced (Crumpacker, Crumpacker, 2007, p. 351). These individuals born in the similar years who experienced the same event and were affected by the same result show similarities in terms of their point of view, how they react, and their approach to interpretation. The working values, perceptions, decisions, thoughts and desires of individuals belonging to each generation differ (Chen, 2010, p. 132). The fact that individuals in the same generation show similar characteristics led to the emergence of the generation theory (cohort).

Generations / cohorts have been classified by many researchers in different ways according to their specific characteristics. The classification based on this study is the most accepted classification made by William Strauss and Neil Howe. Strauss and Howe examined the generations in five classes, the Silent Generation (1925-1945),

the Baby Boomer Generation (1946-1964), the Generation X (1965-1970), the Generation Y (1965-1979) and the Generation Z (2000-2021). (Atak, 2016, p. 9). It has been observed that individuals in each generation generally have similar characteristics. Now we can look at the generations and the general characteristics of the individuals involved in these generations.

The Silent Generation (Heselbarth, 1999, p. 10): It is stated that the individuals in this generation are idealistic within the organization, maintaining the environment in which they live, and displaying frugal behavior. For their characteristics of work, it has been stated that individuals in the silent generation are loyal, hardworking and respectful to people (Kuran, 2018, p. 41).

The Baby Boomer Generation: For individuals in this generation, it can be said that they are the generation with the highest social awareness and productivity (İzmirlioğlu, 2008, p. 6). In the business life, it is stated that they are able to work in a process-oriented manner, although they give importance to teamwork and cooperation and are result-oriented (Tolbize, 2008, p. 2).

Generation X: Individuals in this generation have expressed themselves with their opposition to society, they have come to the fore with harsh political outcomes, hardcore music, different life and clothing styles. It has been shown that they give importance to money, high status and socialization (Coupland, 1989, p. 83). Tolbize (2008, p. 2) stated that individuals in this generation have features like continuing working only if they find it fun, enterprising, creative, seeking feedback, adopting a flexible working system and able to keep up with changes.

Generation Y: The characteristics of this generation are listed in the workshop report of the University of Iowa School of Social Work (2008). Some of these can be stated as high level of education, self-confidence, global focus, moral stance, value difference, and even seeking difference. In business life, as in their private life, they have demanding and entrepreneurial features that care about social networks and communication (Tolbize, 2008, p. 3).

Generation Z: Since this generation was born in the age of technology in 2000s, they are completely intertwined with technology and technological developments. For this reason, individuals in this generation are also referred to as "Internet generation, iGen, Generation i" or even "Instant Online (always online)" (Levicate, 2012, p. 173). Strauss and Howe (1999, p. 335) stated that individuals in this generation will experience extreme individualization and isolation.

Each generation carries its own generation features to the organization it works with. Each generation has its own way of working, its expectation from management, its way of living, its culture and its response. It is clear that if the differences between these different generations are perceived as wealth and managed correctly,

it will have a great contribution to the organization. For this reason, it is important for the success of the organization that organizations search for ways to benefit from individuals of different generations at a high level. In this era where technology is advancing rapidly and information is produced in a short time and so much, the effects of rapid growth and development affect individuals as well as organizations. Having to stay behind the era, using the newly produced tools and materials, updating the old information, adapting to the new working styles and understandings both forced individuals to develop themselves personally and professionally, and organizations to improve themselves. On behalf of organizations, this led to the emergence of the concept of learning organization.

Although the concept of the learning organization was first used by Chris Agryris and Donald Schon, it was Peter Senge that extended its use in the sense of today's living organization (Özgener, 2000, p. 52). Learning is important for organizations as well as individuals (Xie, 2005, p. 12). Organizations capture the development and stay up-to-date thanks to learning, and the most important skill in the competitive environment is to learn faster (Senge, 2006, p. 17). Along with organizational learning, organizations adapt to new changes, learn from mistakes, store and develop the necessary information (Senge, 2006, p. 22). Although there are many different definitions about organizational learning, the common point of these definitions is that organizations are open systems, and these definitions are listed as acquiring information from the environment, processing this information, organizing memory and organizing learning at the organizational level to adapt to the environment (Avcı & Küçükusta, 2009, p. 35).

The most important task of the countries in the science race with other countries, which plays a fundamental role in the development of a society, educates people in all aspects and makes it among the society again, falls on the educational organizations.

The most effective role of educational organizations in achieving their goals is teachers. The importance of the role of the teacher emerges with social, economic and cultural developments. The quality of the teacher is related to professional competence. Professional competence is based on knowledge, experience and professional development (Ataünal, 2003, p. 59). Teachers have many important tasks; Celebrating certain days and weeks, professional development seminars, coping with problematic student behaviors, and having a successful teaching process are some of these tasks. In this process, it is very difficult to know every task and apply it completely. At this point, teachers, like all professions, may need help to successfully overcome this difficult process, it is necessary to ensure cooperation, cooperation and support among teachers. One of the ways to achieve this is through colleague solidarity.

The ability of teachers to fulfill their duties and success is directly proportional to their self-development and completing their shortcomings. In the most general sense, colleague solidarity has been defined as the professional support of individuals of the same profession. This support is expressed as sharing the knowledge, techniques and skills required to solve a problem experienced while performing the profession or to perform the profession more successfully (Ünüvar, Çalışandemir &Tagay, 2018, p. 25).

Colleague solidarity in today›s organizations has turned into intergenerational solidarity as a result of individuals from different generations working in a common purpose.

INTERGENERATIONAL SOLIDARITY

Intergenerational solidarity can be addressed at the micro and macro levels. While there is solidarity between individuals belonging to different generations in the family at micro level, there is solidarity between individuals from different generations in society at the macro level (Schütze, 2000). The first relationships between solidarity structures were examined by Bengston, Olander and Haddad (1976). In this structure, three main factors of solidarity are emphasized: consensus, unity and affection. As a result, the theory argued that intergenerational solidarity is a one-dimensional commodity represented by love, unity and agreement (Bengtson & Roberts, 1991, p. 858). Later on, the concept of intergenerational solidarity came to the fore as solidarity between different generations became a necessity in the same environment and in the same organization. Intergenerational solidarity has been defined as an approach that examines, on the one hand, a certain behavior and on the other hand, the relationship and bond between individuals of different generations (Hazer and Özsungur, 2017, p. 451). In this case, we can define intergenerational solidarity as the working process for individuals from different generations to come together and conclude a common goal successfully. Therefore, it is the case that there is a common purpose for intergenerational solidarity, different generations, at this point, come together and act together to reach the result.

Intergenerational solidarity is based on the assumption that the more interactions with a person, the closer their relationship will be (Palmieri, 2006). Then, it can be said that the areas that will increase the interaction between individuals from different generations play a role in the formation of intergenerational solidarity. On the other hand, the purpose of creating these areas is either to provide an environment that appeals to different age groups or to encourage them to spend meaningful time by interacting (Kaplan, Thang, Sanchez & Hoffman, 2016). Activities organized to increase the quality of intergenerational interactions play an important role in the

sustainability of the organization (Polat, Okçu & Çelik, 2019, p. 1). One of the factors affecting intergenerational solidarity is the organizational climate. Chen and Huang (2007) stated that if employees perceive the climate of working together within the organization, they will interact more with other employees. One of the similar views belongs to Adenıjı (2011) and stated that if they perceive that loyalty and understanding among employees are weak, non-communication and conflict can be seen within the organization. Therefore, it can be said that there are factors such as the existence of common areas that affect intergenerational solidarity, organized social activities and positive organizational climates.

Intergenerational solidarity not only helps deepening the relations between employees of different generations, but also contributes to the individual and the organization. Benshoff and Paisley (1996, cited in Çoban, 2005, p. 171) listed the benefits of colleague solidarity after working on psychological counselors: It increases the interdependence of colleagues, their ability to help each other professionally, their self-confidence and their sense of responsibility to develop themselves professionally. It may be thought that colleague solidarity provides similar benefits when experienced among different generations or other professionals. It is therefore possible to say that intergenerational solidarity increases the self-confidence of employees, their sense of responsibility for their professional development, their ability to help their colleagues and their commitment to the organization. On the other hand, Caroll (2001) stated that it plays a role in the integration of employees with the support and support of the employees, and it paves the way for the formation of a democratic environment with the equal power of everyone. Therefore, it can be said that intergenerational solidarity creates a democratic working environment and develops strong ties among employees.

Establishing intergenerational solidarity plays an important role in ensuring the organization to be a learning organization and ensuring its continuity. In addition, intergenerational solidarity should be a part of organizational culture in order to develop understanding and respect among employees (Rupčić, 2018, p. 137). Educational organizations are one of the organizations where individuals from different generations work together and need solidarity between these different generations.

INTERGENERATIONAL SOLIDARITY IN EDUCATIONAL ORGANIZATIONS

Like many organizations, educational organizations are one of the organizations where teachers from different generations work together. Edge (2014) stated that individuals belonging to the Baby Boomer Generation, Generation X and Generation Y work together in educational organizations.

The contribution of each generation to the organization is different, as well as the problems faced by teachers from every generation while performing their profession, and the way they perform their profession. Today, when technology and knowledge are developing rapidly, teachers also have to improve themselves. One of the many definitions of colleague solidarity among teachers is that one teacher relies on the professional skills of the other teacher and uses the knowledge and experiences he uses (Peterson, 1995, p. 101- 102). Experiencing solidarity in educational organizations among teachers from different generations can be expressed as intergenerational solidarity. In the Turkish National Education system, it has been stated that the application of guidance teachers for teachers who have just started the profession and the eligibility of peer teachers' meetings held at different times during education period can be discussed (Taşdan, 2008, p. 88).

Intergenerational solidarity has many contributions to educational organizations as well as to every other organization. The first factor influencing the development of educational organizations, being a learning organization and catching up with the age is possible with the development of teachers. Studies have found that there is a positive relationship between the development of teachers and the development of schools (Wallace, 1996; Lieberman & Miller, 2004). As a result of teachers working together, their professional relationships will deepen and as a result of solidarity among teachers, teachers' thoughts, materials, and solutions will develop (Little, 1989; Act. Davis and Thomas, 1989, p. 179- 180). In addition, quality of interaction will increase in schools where trust, open communication, and respect elements come together with colleague solidarity (Selçuk & Palta, 2018, p. 178). In addition, it has been suggested that teachers play a more active role in a more structuralist framework in environments where colleague solidarity is experienced (Yuvayapan, 2013).

It is understood that intergenerational solidarity has many benefits on behalf of educational organizations. Therefore, it is important to know in which situations teachers experience intergenerational solidarity in order to increase the benefit of the organization by increasing these situations. In the literature, there are researches on colleague solidarity in educational organizations: Taşdan (2008), Wallace, (1996), Davis and Thomas (1989), Peterson (1995), Little (1987), Selçuk and Palta, (2018), Yuvayapan (2013); however, no research on intergenerational solidarity has been found in educational organizations. This study is important in terms of overcoming the deficiency in the literature.

In this context, it is aimed to reveal the intergenerational solidarity experiences of teachers working in primary schools. For this purpose, the answer to the following question is sought:

What are the opinions of teachers about intergenerational solidarity?

METHOD

This section includes information about the design of the research, the participants of the research, and data collection.

MODEL OF THE STUDY

This study was carried out with the phenomenology pattern, which is one of the qualitative research methods. Phenomenology examines concepts that we are aware of but do not have in-depth and detailed knowledge of (Yıldırım & Şimşek, 2013, p. 78). Phenomenological research questions the experiences related to the phenomenon; therefore, experience has a very important place for phenomenological researches (Saban & Ersoy, 2016, p. 56). In this study, descriptive phenomenology pattern, one of the phenomenological research patterns, is used. The main purpose of the descriptive phenomenological pattern is to describe individuals' perceptions and experiences about the phenomenon (Saban & Ersoy, 2016, p. 59). In this study, the experiences about the intergenerational solidarity phenomenon in schools are questioned.

PARTICIPANTS

In phenomenological researches, one of the suitable purposeful sampling methods is chosen (Saban & Ersoy, 2016, p. 79). In this study, the participants were selected by the criterion determination method among the purposeful sampling methods. The basis of this sampling method is to examine all of the situations that meet a set of predetermined criteria. The main criterion in this study is that there are teachers working in schools with different generations of teachers.

The participants of the study consisted of a total of 31 classroom teachers, including at least 10 from each generation, who voluntarily participated in the interview in the schools with teachers from different generations among the 151 public schools at the primary school level in Kocaeli in the 2018-2019 academic year.

COLLECTION OF DATA

In this study, the data were obtained through semi-structured interview, which is one of the interview techniques. The data in this study were collected through the

'Semi-Structured Interview Form' developed by the researchers. While preparing the questions in the interview form, expert opinion was taken to ensure internal validity and the questions were shaped accordingly.

The overall aim of this study is to reveal the intergenerational solidarity experiences of classroom teachers in schools. For this general purpose, the following question was asked to teachers:

We define intergenerational solidarity as individuals from different generations interacting, completing the areas they are missing and helping. Have you experienced intergenerational solidarity? If yes, can you give an example?

For the interviews with the teachers, the necessary permissions were obtained from the school administration, and the interviews were held at the time and place where the teachers were available. In the interviews, the data were collected by recording the sound, and notes were taken in the interviews made with the teachers who did not allow recording sound. The sound recordings obtained were later written. Thus, qualitative data were obtained.

DATA ANALYSIS

The qualitative data obtained were analyzed by content analysis. Content analysis is a four-step analysis technique that helps the reader by grouping the obtained data by classifying them under themes, coding data, creating themes, editing codes and themes, and identifying and interpreting the findings (Yıldırım & Şimşek, 2013).

In this context, the qualitative data obtained were examined and codes, categories and themes were created first. In this process, the relevant literature has been taken into consideration. While analyzing the data, the expressions of the teachers were directly quoted. Teachers were abbreviated as (T) and each teacher was given a number.

FINDINGS

In this section, findings and comments regarding the data obtained from teachers' experiences about the concept of intergenerational solidarity are included. The findings were presented as themes and teacher opinions were presented directly. The opinions of the teachers expressing the situation best are included.

INTERGENERATIONAL SOLIDARITY EXPERIENCES OF TEACHERS

The question "We define intergenerational solidarity as the class teachers' interaction with individuals from different generations, completing the areas they are missing and helping each other. Have you experienced intergenerational solidarity? If yes, can you give an example?" was asked so that the intergenerational solidarity experiences of the classroom teachers were tried to be presented. The data obtained are summarized in the table below in the context of the main theme, theme and code:

Table 1.
Intergenerational Solidarity Experiences of Teachers

Main Theme	Theme	Code	Descriptions
Intergenerational Solidarity Experience	Solidarity in Personal Context	Health Situation	T.14, T.18, T.25
		Private Life	T.23, T.25, T.29
	Solidarity in Organizational Context	Adaptation to School Culture	T.7, T.31
		Social Activities	T.15, T.21, T.27
	Solidarity in Professional Context	Teaching method – technique	T.3, T.4, T.5, T.6, T.8, T.9, T.14, T.21, T.23, T.27, T.29, T.30
		Celebration programs for specific days and weeks	T.1, T.7, T.16, T.19, T.20, T.21, T.29
		Board preparation	T.2, T.4, T.6, T.12, T.15, T.26
		Use of technology	T.2, T.4, T.7, T.11, T.13, T.14, T.18, T.21, T.22, T.25, T.29, T.30
		Experience acquisition	T.7, T.22, T.23, T.30
		Preparing/using material	T.5, T.11, T.14, T.16, T.18, T.20, T.29
		Classroom management	T.3, T.5, T.12, T.14, T.17, T.21, T.23, T.24, T.27
		Teaching literacy	T.4, T.6, T.8, T.11
		Preparing the plan (daily/yearly)	T.14, T.17, T.23, T.25, T.26

Source: own work

Data obtained from teachers' intergenerational solidarity experience were collected under three themes: solidarity in personal context, solidarity in organizational context and solidarity in professional context.

The first theme regarding teachers' intergenerational solidarity is the solidarity in the personal context. This theme shows that there is intergenerational solidarity when there are problems with teachers' health and private life. Teachers' views on this situation are as follows:

*"If there is a teacher who cannot attend her class because of certain difficulties, we are in her class." (*T.18), "*We share our pain, we share our joys"* (T.23).

Another theme regarding teachers' intergenerational solidarity is the solidarity made in the organizational context. This theme shows that there is intergenerational solidarity when it comes to teachers' adaptation to school culture and social activities. Teachers' views on this situation are as follows:

"Of course, I know, as much as we can, we can act as an orientation for newly started teachers. Well, we can help her with some issues that she is inexperienced." (T.31); *"…. yes, they come together in any social event, but they ask us something as an idea. We help them as much as we can. We try to give examples of our previous experiences, our work. We try to contribute to them."* (T.21)

Another theme regarding teachers' intergenerational solidarity is the solidarity in the professional context. This theme is the area where the most solidarity is experienced among teachers of different generations. This theme shows that there is intergenerational solidarity among teachers from different generations in teaching methods-techniques, certain day and week celebration programs, panel preparation, technology use, material supply / use, gaining experience, classroom management, teaching literacy, and plan (daily / yearly) preparation. Teachers' views on this situation are as follows:

"I can give you an example, for example, when I get stuck on a question in class, I can ask my colleague how I can do it if I get stuck on the subject, I can get support, so they can also come to me." (T.9) is an example of teachers' intergenerational solidarity experiences in teaching- method - technique.;

"About a new event…. Whether it's an invitation making, a poem… For example, I am a first class. At first, we couldn't memorize poetry. If reading poetry on Republic Day was given to me, I could ask another teacher, he could help me." (T.1) in celebration schedule of certain days and weeks;

"For example, we are doing so in the preparation of panels, from each branch, for example, we prepare panels according to the age group" (T.15) in board preparation;

"Use of the typewriter, writing; We were preparing the exams with handwriting, I was preparing them with a typewriter. Because I made it, it was both attractive to children and attractive to them. In that way, we contributed to each other." (T.4), *"In the older generations, they have no knowledge of computers; Let's say they do not make efforts, 30 years – 20 years of teachers, Young people are more knowledgeable about this, they are*

very helpful in this regard " (T.11), *"Let me go 20 years ago, here we all wrote the exam papers in their own handwriting. After that, we would write on the board, children wrote it or something. After I switched to the photocopier, I started reproducing it with some photocopies from some teacher friends."* (T.14), *""We went to the course or something, but using a computer is a bit of a chauffeur. You develop it as you use it. They help us with that because they meet that new job. They help us a lot with the computer."* (T.21), *"For example, the report cards used to be written by hand. we would write it manually, then the computer came out. Plans were being made on the computer. most teachers could not plan on the computer. He couldn't, for example, I helped, I was taking it to my house, I was writing it at my house, I was delivering their plans. they were very pleased. I was not buying paint from them, I was buying the paint with my own money, so that my friends would not be victims, because then plans were important. plans were made and controlled. the principal and the inspectors were looking at these plans."* (T.29) in the use of technology;

"… As a teacher experience, they were much better than me in terms of teaching lessons and efficiency. For example, when I first came to this school, I gained those achievements from them." (T.4), *"They support us in their experience."* (T.22) in experience acquisition;

"There weren't many in the previous years, they have become widespread in the past 10 years, but never before. There were other things because there was no projection and a computer. for example, there were VCDs. In those VCDs, people would set up a television, for example, on television, we would take the broadcasts from that television, and we would have learned from it. science lesson, social studies lesson. There were VCDs. we transferred images from those VCDs there. I would help him with problems related to this, for example placing them in classes, operating them." (T.29) in material supply / use;

"For example, one of the lessons I had a hard time was a art lesson. For some reason, there was a noise in the art classes, I could not prevent it. After the first years, these art lessons have become very enjoyable with the tips I have received from my sister, which is one of the lessons I love now." (T.5) in classroom management;

"Now we have the literacy thing, the teacher has a problem, the teacher is coming that the teacher does not know how to teach how to read and write. When I came to the central school on this subject, it was enough for experienced teachers to say a couple of sentences. (T.11) in teaching literacy;

"For example, then we would make our unit plan and daily plan ourselves, then how do I do this. There are dozens of behaviors. What will I do with them" (T.14) in preparation of the plan (daily / yearly).

As can be seen, intergenerational solidarity among teachers of different generations is experienced most in the professional context.

Intergenerational solidarity experiences among teachers in primary schools are shown in Figure 1.

Figure1.
Teachers' Intergenerational Solidarity Experience
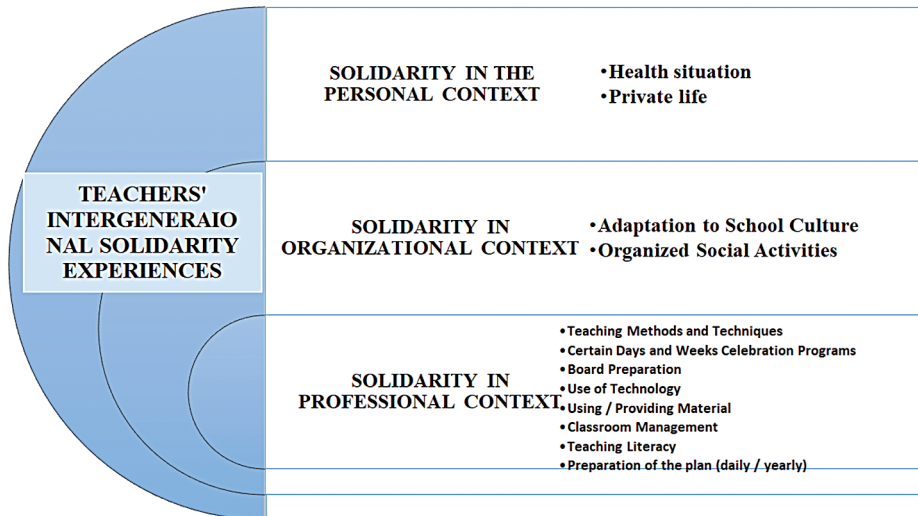
Source: own work

RESULTS AND DISCUSSION

In order to reveal intergenerational solidarity experiences among primary school teachers, it was tried to present intergenerational solidarity experiences in educational organizations through semi-structured interviews with 31 classroom teachers. According to the results of the analysis of the data obtained, the experienced intergenerational solidarity experience consists of three themes: personal context, organizational context and professional context in educational organizations.

The first theme of the intergenerational solidarity experience concerns the personal context. In this theme, it is possible to say that there is intergenerational solidarity regarding the health and private life of the teacher. Teachers sometimes stated that they were with each other on their bitter and sweet days, and sometimes they expressed support for their colleagues who had health problems. The theme of intergenerational solidarity among teachers is experienced in an organizational

context. Under this theme, it is possible to say that intergenerational solidarity has occurred in educational organizations at the point of adaptation to organizational culture and social activities. Peterson (1995, p. 101–102) stated in his study that solidarity among teachers can be experienced not only about teaching but also about the social aspect of the profession.

Another theme in which intergenerational solidarity is experienced most in educational organizations is in the theme of professional context. Teachers talked about their intergenerational solidarity experience in teaching method techniques, celebration programs of certain days and weeks, preparing board, using technology, gaining experience, using materials/supplies, classroom management, teaching literacy and preparing plans (daily/yearly). Under this theme, teachers mostly experience intergenerational solidarity in terms of teaching methods and techniques and use of technology. Other studies on solidarity among teachers in educational organizations have produced similar results. For example; Geeraerts, Vanhoof and Bossche (2018, p. 266) investigated the advice points needed by Flemish secondary education teachers, and at the end of their study, they identified four themes: field knowledge, classroom management, new teaching techniques and computer technologies. They concluded that every generation needs advice about computer technologies, and older teachers are asked for advice on field knowledge, classroom management and teaching techniques Patrício and Osório (2012, p. 292), on the other hand, stated that as a result of the training on information and communication technology usage among different generations, intergenerational learning has been provided, intergenerational solidarity has increased, and knowledge and experience have been shared between generations.

Experiencing intergenerational solidarity in educational organizations has great contributions to the organization as well as the teacher. It enables the teacher to develop in a personal and professional context, to complete the deficiencies and gain different experiences. Its contribution to the organization is that it helps to create a positive organizational climate, to meet the requirements of the age as a learning organization and to ensure the transfer of its culture. A school principal who knows these contributions can create situations that allow intergenerational solidarity. At this point, it is important to know in which situations intergenerational solidarity among teachers is experienced. This study presents intergenerational solidarity experiences among teachers and is therefore important. In this way, the school administrator can play an active role in the creation of these experiences, knowing their intergenerational solidarity experiences, and can present studies that encourage teachers at this point.

In this study, the experiences of 31 classroom teachers who have experienced intergenerational solidarity are tried to be reflected. Therefore, experiences in a limited

framework have been conveyed. This research, which has limited generalizability, can be carried out as larger participants in quantitative or mixed methods. It can be held in educational institutions at different levels, in private educational institutions or in different regions. Similar work can be done from the perspective of school administrators.

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Intergenerational collaboration between teachers. Actions that improve teaching in initial training programmes for experimental science teachers

Miguel Ángel Negrín Medina, Juan José Marrero Galván
Universidad de La Laguna, Spain

Abstract

The continuity of retired teachers in educational centres is affected by the legal constraints that do not allow their participation. Recently, the Spanish non-university educational authorities have promoted the cooperation between intergenerational teachers through collaboration proposals that involve beginning, experienced, and retired teachers. Furthermore, in Spanish universities, this collaboration has been favoured by the professor emeritus figure.

In this essay, it is analysed how the voluntary collaboration of teachers was introduced in Spain, particularly in the Canary Islands; moreover, it is determined which actions are necessary for the cooperation between teachers who are in different administrative situations, with the aim to promote positive synergies. Finally, the application of this collaboration in specific courses of the master's in 'initial training of teachers for secondary education' is presented as an example.

Keywords: teachers' improvement, intergenerational collaboration, retired teachers, initial teachers' training, experimental sciences.

INTRODUCTION

One of the realities that have had the most significant impact in educational centres in Spain (from nursery to university) is, on the one hand, the accelerated aging of the staff and on the lack of generational replacement due to the restrictions imposed by Spanish budgetary laws since 2011. And on the other hand, the incentive of educational laws that in our country, facilitate the retirement of non-university teachers at the age of 60 (Martínez, 2010). The depletion of job listings for the different teaching specialties that the system needs, has been driven by the entry of young, inexperienced teachers to the non-university educational system, and by the, almost perverse, use of different teaching figures in university, like the associated teacher position, which has allowed universities to maintain the educational service they offer. This situation has favoured the current coexistence of teachers from different generations in educational centres, creating multigenerational teaching spaces with varied experience (Green, Eigel, James, Hartmann & McLean, 2012; Abrams & von Frank, 2014) which could be affecting the formation in young teachers' working centres. All this has caused a series of situations in educational centres that would not have been possible with a standard generational replacement of the staff. We highlight some of these situations.

- A higher number of retirements due to their incentive causes a loss of valuable knowledge which is not transferred and which is considered essential in the evolution of any company or institution (Sobrino-De Toro, Labrador-Fernández & De Nicolás, 2019). However, this can also be positive when the knowledge and skills that are not transmitted are mistaken or out-dated.
- The competitive potential, creativity, new digital competencies, and staff performance follow an inverse tendency with age, deepening in the phenomenon of ageism (Earl, Taylor & Cannizzo, 2017; van Dalen & Henkens, 2019).
- The high number of retirements, along with the aging of the teachers and their limited replacement, has also caused a reduction in the number of men who choose teaching as a career, provoking a feminization of teaching caused by a gender imbalance, which is visible in kindergarten and primary education. This seems to be due to the lack of interest from men in the career, caused because of the limited professional development and the low salaries it offers compared to other professions which require a similar coalification. Moreover, this is affected by gender stereotypes (considering women to be

more prepared for teaching) and which is a common symptom in all developed countries and having its start in the teenage years.

- The disinterested collaboration of teachers who, once reach the age of retirement and independently of their institution of provenance, wish to keep being involved in the profession by actions which allow them to continue providing the educational system and the remainder teachers with their acquired knowledge and developed skills, by using alternative mechanisms of continuity that grant the recognition of their professional identity (Breheny & Griffiths, 2017). From here emerges, in Spain, the retired collaborator teacher figure, which makes the administration aware that intergenerational collaborations might improve teaching by collaborative proposals between beginning, experienced, and retired teachers.

All these circumstances bring up the necessity of enunciating processes that allow the interaction between teachers from different generations, including collaborating retired teachers, boosting synergies that handle these resources (overcoming ageism and gender discrimination) (Lodge, Carnell & Coleman, 2016) and which form learning communities that facilitate the training for novices, allowing them to develop new perspectives for professional progress and teaching innovation.

Inside this frame, the objectives of this essay are three: (i) analyse the access to the position of Professor Emeritus in the Spanish University education, as well as analyse the way the collaborating retired teacher figure has been introduced in Spain and particularly in the Canary Islands. (ii) Study the actions which, inside the current Spanish policy framework, allow the voluntary collaboration of retired teachers and the most experienced educators in the transmission of their experience to the future university teachers and to new teachers or those with few years of experience, with the objective of their professional development. And (iii) present possible implications in the initial teaching training field, specifically in experimental sciences didactic, for the university education.

With the aim of achieving these objectives, we have analysed the fundamental aspects which configure the Intergenerational teaching collaboration as teachers advance in their professional career, starting with the regulation which allows the voluntary cooperation of retired, university and non-university, teachers with educational institutions. Lastly, it is presented some formative initiatives which, for university teaching, have been carried out by the area of Experimental Sciences Didactic from the Specific Didactics Department of Universidad de La Laguna, with experienced teachers who are still active and retired, for future alumni who will be high school teachers.

PHASES IN TEACHER PROFESSIONAL DEVELOPMENT

There is an extensive bibliography that emphasises the fact that the training and the professional development of teachers is a long process, which has high complexity and is not static through the career (Novoa, 2009; Kaechele & Del Valle, 2010; Vezub & Alliaud, 2012; Abrams & von Frank, 2014). For example, there is a clear generational distinction between the traditional profile of close to being retired scholars and the new university teachers in the university teaching level. They must have a wide range of competencies and capacities, which take a long time to develop, to confront the academic work's evaluation systems for quality. Therefore, attending to the accumulated teaching experience, we could enclose this professional development process in different temporal phases:

- **Teaching phase in initial training (practicum):** those who are eligible to practice teaching and who have received a primary education for it, which has been received, or not, during their higher education, generally obtained in university. Moreover, the only contact with teaching would be in: (i) in the university itself (e.g., through the awarding of *Venia docendi* to graduates who work at the university as pre-doctoral or post-doctoral investigation members with a scholarship or an investigation contract, or to professionals not linked to university), and/or (ii) in formative teaching placements, corresponding to teacher training studies, in non-university teaching centres.
- **Beginning teacher phase:** those teachers who come from the previous stage and they start their career in teaching through the legal mechanisms established in Spain, like the selective procedures to access public teaching positions in the different university and non-university institutions (competitions), the recruitments for universities that are carried out through public competitions for teachers and investigators or the formation of employment lists which arise from as a consequence of these selective processes or the extension of these due to their depletion. Although the TALIS report (Ministerio de Educación y Formación Profesional, 2020) refers to beginning teachers as those whose experience is of five years or less, for Gatbonton (2008) or Rodríguez & McKay (2010), this phase is formed by teachers who have up to two years of experience. Either way, these inexperienced teachers establish a group which, according to Vezub & Alliaud (2012), goes through difficulties as:

    - The challenges and own problems of being a beginning teacher.

- The insecurities and fears due to the inconveniences and doubts that result from the lack of experience.
- The stressing responsibility that teachers assume for having to take care of a group of students to whom they need to provide with the necessary knowledge, procedures, and attitudes, as well as contribute to their acquisition of essential and professional competencies.
- The imbalance produced from the difference between the theory, which they are taught in university or which is part of beginning teachers' cognitive scheme, and the reality of teaching that presents an increasing complexity in learning institutions.

- **Experienced teacher phase:** teachers, who following the natural generational evolution, have enough formation and experience to face, beforehand, a group of students, and have the capacities to accompany and oversee beginning teachers. Their capacity is endorsed by their ability to conduct good practices respecting how to motivate the teachers, how to keep their attention, and how they exert their leadership in the effective management of the classroom. Furthermore, these teachers are able to look for alternatives and solutions to unexpected situations during the teaching-learning process in the search for quality and educational excellence for its improvement, and for the mobilization and improvement of learning for the student body (Rodríguez & McKay, 2010). Regarding the age at which a teacher can be considered experienced, the bibliography is not clear according to Rodríguez & Mckay (2010), who state that it can vary between two or three years and nine or more, although some studies affirm that an experienced teacher is that one who has an experience of five years or more (Tsui, 2005; Ministerio de Educación Formación Profesional, 2020). In Spain, the average age of teachers who provide services in non-university education is forty-three to forty-four years old and has an experience of at least fifteen or sixteen years (Ministerio de Educación y Formación Profesional, 2019). Anyway, Rodríguez & McKay (2010) remark that this group, independently of the years dedicated to teaching, is not homogeneous since not all members have an adequate profile for formative and tutoring functions with beginning teachers.
- **Retired teacher phase:** teachers, who over the base of their teaching, investigation, and educational innovation merits, keep contributing an added value to teaching through their voluntary collaboration with educational institutions and close the temporal cycle (fig. 1) that transforms these centres into multigenerational training, and variable experience spaces that interact between each other, as Abrams & von Frank (2014) defend. In the university context, in

Figure 1.
Generational interaction cycle between teachers in the different phases of the evolution of their professional careers. The arrows indicate the issuers and the receptors of the teaching experience accumulated in each phase
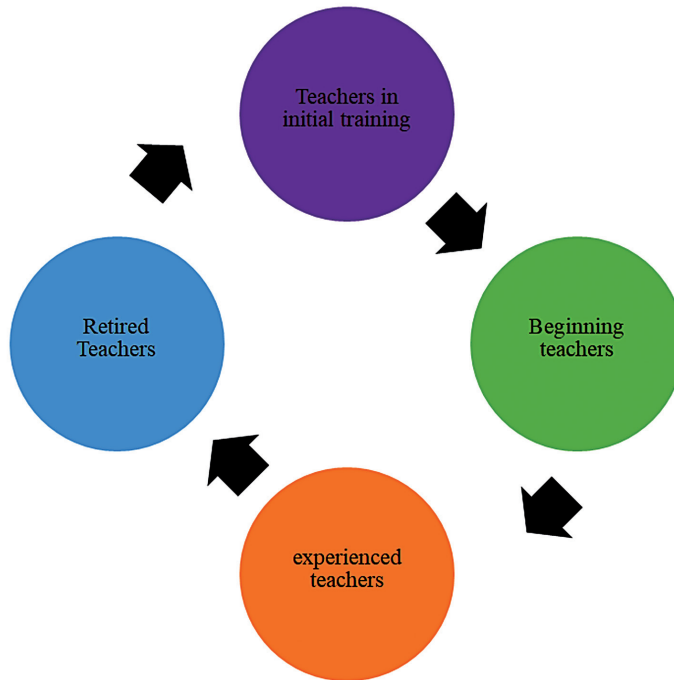
Source: own work

which there is a great tradition, this teaching figure is the professor emeritus, who once retired, is designated by the university in which they have developed their teaching and their investigation and who possess outstanding merits due to their academic record and highlighted services, being able to provide their scientific production and experience to the training of new teachers and investigators with the aim of giving continuity to projects and investigation teams. However, in the case of non-university teachers, the creation of this figure is recent, through normative for voluntary collaboration of retired teachers, due to the presences of retired teachers have been long rejected in non-university centres by union Centrals; this was visible in the digital press of some autonomic communities such as Canarias and Andalucía, which reflected the union indignation before the collaboration of these teachers, considering it a manoeuvre of the education administration for not hiring teachers.

PROFESSOR EMERITUS AT UNIVERSITY

The condition of professor emeritus is the last step in the academic career of a teacher who has dedicated their life to university and which access varies depending on the country and the institution (Dance, 2018). For example, in the United Kingdom, France, Italy, and the USA, this condition is only achieved if the candidate has outstanding merits (De Santo, Altucci, Heidland, Stein, Cameron & Rutkowski, 2018) and the academic title of Doctor or any other position in a university, it is not enough to obtain this recognition. However, these are part of the merits the teacher should have (Chambers, 2020). For Chambers (2020), in some cases, the university as much as the professor emeritus has a commensal relationship in which both parties are benefited: the university gains the prestige of the professor, and the professor earns the benefits the university offers. Nevertheless, not all universities present this figure, like in Germany, where although retired teachers possess academic rights as teaching (*venia legendi*) and participating in exams and investigations (De Santo et al., 2014), the emeritus title was eliminated in 1976. Therefore, professors who wish to acquire the professor emeritus status, need to be aware that their designation depends on the country they have developed their career since objectives and educational and investigation priorities vary (De Santo et al., 2014).

In the case of Spain, the figure of professor emeritus emerged after the enactment of the Law 30/1984, the 2nd of August, for measures to reform the Public Function (BOE no. 183 at 3rd of August), which moved forward the age of retirement of university teachers from seventy to sixty-five, and which was considered as a negative measure by Spanish universities. This was later modified through the Law 27/1994, the 29th of September, of modification of the retiring age for university teaching staff (BOE no. 234 on the 30th of September), which finally established seventy as the compulsory retirement age again. The condition of emeritus was defined in the decree 898/1985, at 30th of April, over the university faculty regime (BOE no. 149, the 19th of June), establishing that universities could name as emeritus, those professors who are more than sixty-five years old (seventy from 1994), have provided remarkable services to the university for at least ten years, have an honorific character, have a temporal contract, according to the established statutes of the respective university, not surpassing the 3% of the staff and assigning them a remuneration that is compatible with their retirement pension. These professors emeritus can perform all kinds of collaborations with the university that names them. In contrast, the different university departments can assign them teaching obligations like the delivery of seminars, monographic and specialization courses, and conferences. Moreover, this rule allows retired people with a cultural or scientific prestige to be

emeritus. It is necessary to remark on the Organic Law 6/2001, 21st of December, of Universities (BOE no. 307, 24th of December) (LOU), which consolidated the professor emeritus figure in Spanish universities.

The las report about Data and Figures in the Spanish University System (Academic year 2018/2019) (Ministerio de Ciencia, Innovación y Universidades, 2019) indicates that in the academic year 2016/2017 there were a total of 694 professors emeritus in Spanish universities; the same report informs that the 51.1% of the university staff was above the age of fifty (57790 teachers) and a 16.4% that were above the age of sixty (17985 teachers. With the analysis of this data, it is possible to foresee an increase in the number of professors who would be candidates for the emeritus position; this being the main reason to why many universities have modified and hardened the conditions to access this status, as well as introduced other figures as the honorary professor, which has a limited relationship with the university, does not receive any remuneration and has a bigger limitation of functions.

ACCESS AND FUNCTIONS

For the access to the condition of emeritus, parallelly to the years served to the institution (generally a minimum of ten years), most Spanish universities enclose the candidate's merits in three assessable blocks:

1. **Related with their investigation and teaching career path:**
    a. Positive assessment of the conducted research work (six-year cycles).
    b. Awards for research work (internationals, nationals, or regionals).
    c. Positive assessment of the teaching labour that took place in a university.
2. **Related to the attraction and obtaining resources for research:**
    a. Research projects (internationals, nationals, or regionals) and visits to prestigious, scientific, and academic institutions.
    b. International, national, or regional research projects as the coordinator, the head researcher, or research team member.
    c. Responsible for research and transference contracts (Juan de la Cierva, Agustín de Bethencourt, phd management with external funding and international mention, etc.)
    d. Transfer of economic value (exploited patents, other patents, or creation of Spin-off enterprises that are linked to university, etc.) and/or with a social value (reports, protocols, etc.)

3. **Related with administrative management exerted in university and research:**
   a. Appointment as chancellor or vice-chancellor. Some universities grant emeritus to professors who have been in this position for at least three years.
   b. Appointments as dean, head of departments and university research institutions, in own research structures, etc.
   c. Participation in commissions and tribunals.

Finally, each university's statutes establish which merits are included in each block and the value they have.

Regarding the possible functions which professors emeritus, or other alternative retired figures, could exert, Villardón-Gallego, Moro and Atxurra (2017), in a project carried out in Universidad de Deusto (Basque Country) and which analyses the conditions, emotions, and feelings associated to the retirement moment and the university staff, proposed to the researchers the university's necessity of actions that channel professor's intellectual potential after retirement, through complementary alternatives as:

- **Institutional representation:** institutional conferences, the opening of the academic year, master lessons, etc.
- **Helping with research:** postdoctoral training, mentoring, incorporation to research lines or helping to establish new ones, etc.
- **Helping with teaching:** backing future university teachers and other kinds of teachers, etc.
- **Assisting with funding sources:** captivating funds for research projects, etc.

For De Santos et al. (2014), retired teachers could also transfer their knowledge and experience to the younger generations inside investigation teams to improve international communication and cooperation. This way, the possibility of this output being used by non-university teachers is of interest, focused on the areas of specific didactics; technological, linguistic, and socio-cultural projects for innovation in education; baking for beginning teachers; teacher training; etc.

VOLUNTARY COLLABORATION OF RETIRED TEACHERS

In Spain, the active collaboration of non-university retired teachers has been long and tortuous, opposite to the figure of the professor emeritus at universities, which has been well established and which, being each university, the one to develop the requirements to reach said position. According to the study carried out by

Mendioroz and Fiz (2016), the quality of teaching is given by various factors which include the necessity to awaken the interest of the students, the vocation for teaching, the empathy and respect towards the student, the transmission of enthusiasm and functionality of the studies. This, precisely, is an added value to the teaching body, which, in the case of the Faculties of Education, could also help transmit these values to the future teachers or to those who are developing their teaching career in non-university centres.

On the other hand, the union opposition delayed the establishment of this figure, being Extremadura the first region which regulated it by decree in the year 2012, and followed by Catalunya and Murcia by resolution and order, respectively in the year 2014. Subsequently, other communities like Aragón, Asturias, Baleares, Castilla y Leon, and the Canaries, have established the figure in the last years; while in Andalucía this collaboration is foreseen, it is yet to be approved due to the union opposition and the change of government, which stopped the process in 2018.

As the legal bases that regulate this collaboration are very similar in the different regions, we will focus on the Canary Islands. The regulation of this participation was included in the Plan of Social and Professional Teaching Recognition by the Department of Education and Universities (2017), dictating the order which regulates it on the 22nd of November of 2017, being published in the 'Boletín Oficial de Canarias' (BOC), the 30th of November.

RATIONALE

In this order, *"the faculty constitutes one of the basic pillars over which has been built the canary educational system"*, but in the last decade, the amount of teacher retirements has increased, either of compulsory character or voluntary, which meant losing the transference of accumulated knowledge due to the extended experience, in the educational centres as well as in the administration. Therefore, there are created the juridical and administrative conditions that value the talent of experienced teachers, not losing this human capital due to retirements, attending to quality standards, and improving the canary educational system.

Moreover, the LOE indicated, in the article 104, the educative administration's obligation to ensure that the treatment, respect, and consideration of teachers correspond the importance their task have to society and that one of the main aims regarding this fundamental pillar of education is the social recognition of its function. Likewise, the Law 6/2014, at 25th of July, Canary of Non-University Education established the educative administration's authority to regulate the possibility of

incorporating non-active teachers who are willing to collaborate in public schools, for the developing of projects that could contribute to the improvement of educational processes, which centres offer to the student body, and work with the management team in the organisation of centres. All this has the premise that the job vacancies will not be filled with these retired teachers; furthermore, the eleventh additional disposition of the mentioned Canary law, regulates the purposes of the educational, voluntary work in the Canary Islands, indicating that *'in any case, the organized voluntary activity could replace the activities that are developed by paid work or serve as a way for public administrations not to grant citizens the services and benefits that are recognised as rights'*.

In the same way, the Law 45/2015, 14th of October, of Volunteering (BOE no.247, 15/05/2015) establishes in the article 6 that one of the fields of action of the volunteering would be in the educational one, to improve the possibilities of realization of extracurricular and complementary activities which contribute, particularly, to compensate the inequalities that might be present in the student body due to social, personal, or economic differences; using learning service programmes for this. All this is consistent with the article number 6 of the Law 4/1998, 15th of May, of Volunteering in Canaries (BOC no. 63, 25/05/1999), in section e), points out that one of the areas of social interest to exert volunteering is the educational one, understanding a volunteer as a physical person who carries out a non-compulsory activity, in a non-remunerative, responsible, pacific, and solidary way, through projects and programmes of any entities that offer volunteering work. However, as the voluntary collaboration order indicates: *"this collaboration, which must not be confused with the volunteering regulated by the Law 4/1998, 15th of May, of Canaries' Volunteering, has important similitudes with it, which makes advisable to contemplate in this order some stipulations of similar wording in the mentioned law. In such a way, the consideration of the retired teacher collaboration as a voluntary and free activity, the establishment of a bill of rights and compromises of the collaborating retired teacher, or the expedition of accreditations for the position of collaborator as retired teacher and certificates of this collaboration".* With all this, the union's opposition was overcome, and the voluntary participation of retired teachers came into existence.

REQUIREMENTS AND ACTIVITIES

For this order, a teacher is considered as a retired collaborating teacher if he meets the following criteria:

1. Have given services as a functionary in any educational, non-university centre established in the Seventh Additional Disposition of the LOE.
2. Have not been separated from the service due to a firm disciplinary sanction.
3. Have not been convicted by the commission of crimes against freedom and sexual integrity, including human trafficking. For this, the retired teachers who want to be candidates must substantiate this by presenting a certificate by the Central Register of Sexual Offenders.

According to the article 4.1, *"retired teachers who possess the consideration of collaborators, can participate in the projects for the improvement of the education, developed by the centre where they are collaborating, as well as help the administration with the organization of said centre"*. It is the retired teacher with the support of the educational centre, who can determine the improvement necessities and reflect them in a project. From our perspective, they could be:

1. The collaboration in complementary and extracurricular activities which are planned by the centre (workshops, talks, parent's schools, conferences, competitions, literally or scientific forums, celebrations or commemorations, sports activities, visits, master laboratory practices, co-habitation activities, stimulus on foreign languages, preparation of magazines or scholar publications, etc.)
2. The collaboration in educational programmes implemented by the educative administration, such as reading plans, revitalizing libraries and school gardens, conflict mediation, etc.
3. The advising and collaboration in the creation, maintenance, and use of school museums.
4. The collaboration in formative actions of beginning or experienced teachers in the development of academic materials and other research, training, and educational innovation activities, as well as advising the centre in relationships with companies and institutions influential in their areas.
5. Supporting new teachers during the placement phase.
6. The collaboration in the maintenance of the centre's archives with the purpose of their exploitation in research with historic character, and with pedagogical and didactic purposes.
7. Advising university students in their placements.

Therefore, under the legal protection that gives this order, there is a full possibility of collaboration which would open the door to observe, from the educational research, if the generational differences between these teachers (including

the professor emeritus) and the teachers who start the development of their professional career, facilitate or slow down the intergenerational learning and how is its incidence in the endeavour of beginning and experienced teachers.

EXPERIENCED TEACHERS' IMPLICATION

Regardless of the teaching experience accumulated, some studies suggest that the tutoring, coaching, and observation that these teachers could do with the beginning teachers, could positively impact on their professional development (Rodriguez & McKay, 2010), due to their abilities, knowledge, and confidence in the development of their teaching (Levin & Rock, 2003; Richards & Farrell, 2005). However, not every teacher who enters the experienced teacher phase have the adequate profile for backing teachers on training and beginning teachers, either because their professional development has not been adequate (has experience but has not developed enough the professional, intrinsic competencies of teaching), or either because they do not show empathy towards the training between equals (Tsui, 2005; Rodríguez & McKay, 2010). This is not an obstacle, in the cooperative work frame which characterizes teamwork, for the transference of knowledge, abilities, attitudes, beliefs, etc. between these teachers, generationally more advanced, and the new teachers, still in training (Joshi, Dencker, Franz & Martocchio, 2010; Geeraerts, Tynjälä & Heikkinen, 2018) and even retired teachers, from whom it is possible to obtain information to deepen in those competencies that in their professional development, could present deficiencies.

IMPLICATIONS FOR UNIVERSITY TEACHING IN THE FIELD OF INITIAL TRAINING IN THE AREA OF EXPERIMENTAL SCIENCES. SOME EXPERIENCES IN THE UNIVERSITY OF LA LAGUNA

The master's in Teaching Training constitutes an exciting platform for the development of professional competencies of future teachers, through the collaboration of retired and experienced, university and non-university teachers. One of the specific skills of the master is the one that involves identifying the relative problems of teaching and learning of specialization courses and propose alternatives and solutions. In this field, these professionals can contribute, as an added value, with their accumulated experience, during their professional development, regarding areas, courses, subjects, or modules imparted.

Since the academic year 2014-2015, the courses of Teaching and Learning of Physics and Chemistry (TL P&C) and Biology and Geology (B&G) have included, inside their planning, the participation of retired (R.T.) and experienced (E.T.) teachers with at least fifteen years of experience; tackling experimental science teaching problems, training of future teachers, lack of scientific vocation, low social perception of science, sex inequalities, etc. Down below, some of these collaborations are highlighted:

- **E.T.:** Seminar. *Didactic programming and assessment by competencies.* T.L. P&C – B&G (2014–2015).
- **R.T.:** Workshop. *Museums as didactic resources: scientific instruments "Hall Blas Cabrera".* T.L. P&C (2014–2015/2015–2016).
- **E.T.:** Workshop. *New approaches to the use of TIC.* T.L. P&C (2014–2015).
- **E.T.** Workshop. *The conflict, ways of confronting and mediation.* T.L. P&C (2015–2016).
- **E.T. & University:** Seminar. *Selective process for the admission in the Secondary teaching body.* T.L. P&C – B&G (2015–2016 / 2016–2017 / 2017–2018 / 2018–2019 / 2019–2020).
- **E.T. & University:** Seminar. *Pedagogic update teachers: teaching–learning strategies for inside and outside of the classroom.* T.L. B&G (2015–2016 / 2016–2017 / 2017–2018 / 2018–2019 / 2019–2020) (Negrín, Domínguez, Morales y Marrero, 2018).
- **R.T. & University:** Seminar. *Complements for teaching training in experimental sciences.* T.L. P&C – B&G (2016–2017).
- **E.T.:** Workshop. *Practical knowledge and classroom's climate management.* T.L. B&G (2016–2017).
- **E.T.:** Conference. *Transit form primary to secondary education.* T.L. B&G (2016–2017 / 2017–2018 / 2018–2019 / 2019–2020).
- **E.T.:** Seminar. *Teaching of experimental science and the teaching profession.* T.L. P&C – B&G (2019–2020).
- **R.T.:** Conference. *History of Geology in experimental sciences learning.* T.L. B&G (2019–2020).

All these collaborations were assessed by the participating students (data not shown), who had positive responsiveness to the experienced and retired teachers and their contribution, emphasizing the potential of intergenerational cooperation in formative and improvement processes.

CONCLUSION

It is evident that the participation in the formative and backing processes that are given due to the intergenerational collaboration in educational centres and university, can help the improvement of the professional development of teachers in training, beginning teachers, or even experienced teachers; being the voluntary participation of retired teachers or professors emeritus, in the case of the university, a well of accumulated, profitable wisdom.

This essay has valued some approaches to channel this intergenerational cooperation, allowing the creation of models for the teaching professional development, which favour formative and good practice necessities in the different generational phases that constitute a teaching career.

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Teacher collaboration as professional development

José Miguel Nieto Cano, M. Begoña Alfageme González
University of Murcia, Spain

Abstract

Professional development is conceived as a means to an end, a type of process (activities and contexts) that can take very heterogeneous forms which, in general, pursue and / or provoke professional learning, that is, change and improvement of teaching skills, highlighting those that concern the teaching activity. Professional interactions within schools can serve multiple purposes; frequently they will be related to the participation and coordination of the internal activity of the organization, but our interest is focused on those experiences that serve as professional development and that are produced through teacher collaboration. In this sense, a framework is presented here for its analysis and understanding of teacher collaboration as professional development, focusing attention on the basic dimensions that define it and that explain its potential relevance in terms of its impact on teacher learning and improvement of teaching.

INTRODUCTION

Professional collaboration in educational centers represents a singular type of interaction which can meet different purposes. It will be frequently linked to the organizational participation of the teaching staff, that is, with the decision-making processes and coordination of the internal activity inherent to the educational

organizations where these carry out their work. However, teacher collaboration can as well be oriented towards professional development.

This chapter focuses its interest in the latter version of teacher collaboration, understood/ conceived as a process which can adopt rather heterogeneous forms (of activities throughout time and their respective contexts) and which, on the whole, serves as a means to an end. This end is none other than accomplishing or fostering professional learning, the change and enhancement of teaching skills, emphasizing those which are focused on the teaching activity *per se*. In this chapter we are addressing the basic dimensions which define teacher collaboration, and which explain their potential impact on professional learning, teaching enhancement and, in its case, students' learning. These dimensions, on the other hand, should be taken into consideration for the analysis and understanding of experiences of professional development focused on teacher collaboration.

Assuming that the relationships between formative dimensions are rather complex, we build upon the hypothesis that the results of professional learning are mainly determined by the interdependence and joint influence of:

- The collaboration context and circumstances, considering on the one hand the working conditions within the organization and, on the other, the conditions of interaction between the teaching staff, as well as the influence of possible changes which could take place in those. The complementarity or harmony between those of a more informal nature and those rather formal is a quality of significant importance.
- The characteristics (both personal and professional) of those teachers collaborating, the role played by them and the perspective adopted. The generational diversity between senior teachers, retired teachers, and beginners would have a particularly relevant influence.
- The focus and nature of the collaboration, in relation to the reasons which originate it and the goals (desired results) which guide it, including the action and interaction dynamics displayed by the participants over time. It becomes especially relevant in this regard the bidirectional and mutual action of teachers and the synergies between collaboration, investigation, and reflection.

THE CONTEXT

Collaboration is not detached from the institutional and organizational conditions where it occurs. On the contrary, it is determined by those. This supports our

considering the singular nature of the educational centers, for it implies introducing ambiguity and complexity in their functioning and, ultimately, in teachers' performance. Academic organizations are on the whole a type of institutions which have been defined as bureaucratic and scholastic organizations. This entails the coexistence (not always harmonious and optimal) of different and, to a certain extent, opposing realities. We are referring, on the one hand, to its bureaucratic organization nature which follows principles of formal structuring; on the other, to its scholastic organization character, which complies with principles of professional collegiality (Portela, 2003; Shedd & Bacharach, 1991). Additionally, they have been defined as *institutionalized organizations* (Cohen, March & Olsen, 1972), as *organized anarchies* (Meyer & Rowan, 1977) and as *loosely coupled systems* (Weick, 1976). All this leads to a pattern with the following features:

- Loosely coupled systems, where the authority is loose and changing and its elements retain certain autonomy and their own identity; that is, there is scarce or non-existent interdependence between people and/or units.
- Ambiguity of goals which do not guide on how to act and which are subject to potentially problematic or mutually contradictory interpretations, leading to uncertainty and unpredictability.
- Problematic/Flawed technology, related to the lack of certain and optimal decision-making procedures and actions, while subject to the diversity and variability of people.
- Loose decision-making, referred to an information processing technology aimed at problem solving and decision-making which turns out unclear, and even chaotic and subject to micropolitical interests.
- Smooth participation, defined by a time investment and intensity of effort in the organizational affairs which vary according to the activity, person, and the moment.
- Environmental vulnerability of the system, subject to external influences of all character (social, cultural, political, economic) and level (immediate, mediate, distant), and amplified by its institutional nature.
- Symbolism of a formal structure which works as a ceremonial façade (decoupled from its internal technical activity) in relation to meeting the expectations of society and obtaining its legitimacy and support, ensuring this way its survival.

We are immersed, thus, in an institutional and organizational setting prone to operating from parameters of a limited, imperfect, complex, and difficult to comprehend and predict rationale. This will have an impact on the conditions of

teachers' professionalization, in particular, those affecting its autonomy and professional knowledge, and in turn, the interaction with colleagues in the workplace (Portela, 2003). It is also worth highlighting the preeminence of a graded and cellular teaching model which schools rely upon, promoting an "isolation culture" (with attributes of privatism, conservatism, presentism, individualism). All of which fails to promote collegiate professionality or short-term collaboration initiatives (De Jong, Meinrik & Admiraal, 2019, Hargreaves, 2010, 2019; Ticheror & Tichenor, 2019).

Additionally, the concept of teachers' working conditions has expanded following the warnings made by renowned authors about the need of a policy, on the one hand, more integral and relational and, on the other, more concerned about personalized support and collective and responsible commitment than about sanctioning control. They demand support for teaching and learning, pedagogical leadership and opportunities for the collaborative professional development in educational centers (Berry, Daughtrey & Wieder, 2010; Hargreaves, 2019; Leithwood & Mcadie, 2010). This perspective is aligned with the premise which states that "*the teaching working conditions need to be understood and recognized as conditions for students' learning*" (Escudero, 2011, p. 110). This implies catering not only for occupational conditions but also for those conditions which affect the development of teaching skills and how teachers experience their own profession.

INTERACTION

"*Collaboration and collegiality are determined and mediated by the organizational context, that is, the structural and cultural working conditions in schools*" (Vangrieken, Dochy, Raes & Kyndt, 2015, p. 19). But collegiality and collaboration are not the same thing; they are not equivalent or equatable, even though there is a connection between both. Collaboration can be grounded on collegiality, which is substantial to the former (positive relationships between colleagues with a sense of mutual commitment based on sympathy, support, and equality) and, in turn the latter tends to involve collaboration (Little, 1990; Portela, 2003). Besides, collaboration has strong bonds with interdependence (or the mutual dependence between parts), since the latter makes possible and even fosters collaboration. Also, with *coordination*, which promotes collaboration, while in turn this one can also contribute to the existence of the former, referring to the coherence or articulation between different participants based on the orchestration of tasks and responsibilities (Barott & Raybould, 1998; Little, 1990; Vangrieken et al., 2015).

In line with these coordinates, collaborating means working in conjunction or carrying out a *task in certain conditions* so that these contribute its joint realization. Said conditions (Nieto & Portela, 2001; Portela, 2003) are referred to:

- Individuals who interact socially, mainly by means of communication;
- Who pursue common goals which guide their actions;
- Who tend to share ideas, beliefs, principles, inclinations or values;
- Who share the capacity of decision (power) and resources (knowledge, skills, time, effort, …);
- Who share the responsibility of their actions conducive to specific results and benefits.

In the type of interaction that collaboration entails (Fraser, Kennedy, Reid & Mckinney, 2007; Friend & Cook, 2013; Mattatall & Power, 2014) some characteristics, closely interconnected, like the following tend to coexist:

- Willfulness. Collaboration must be voluntary, not an administrative order. Coordination can be demanded but devoting oneself to the endeavor of working together with others, contribute with resources and valuing the contributions of others requires a personal and free decision, not a forced one.
- Parity. Collaboration is based on parity and joint decision making. Everyone needs to understand that each of the parts has the same amount of power and influence and acknowledge that the individual contributions will be valued the same. Even though the quantity and nature of the individual contributions may vary, what they offer is perceived as an integral part of the collaborative endeavor.
- Purpose. Collaboration only exists when a purpose is shared, so that participants work for its attainment. Specific objectives (desired results) may not exist initially, but it will be necessary to clarify and agree on a vision, values or desired state which serves as a goal and guides the activity. It is about preventing involuntary collaboration, aimlessly directed, which usually involves lack of communication and, in turn, frustration.
- Shared resources. The resources (in a broader sense) provided by all the participants are brought together to the group and combined for the attainment of the common goal. Each one contributes with any type of resource, which leads to the reinforcement of the commitment and the sense of parity.
- Shared responsibility. The participants agree that, if they share the key decisions, they also share the results. Be these good or bad, it is crucial to pay

attention to them and accept, as egalitarian partners, that everyone is accountable for those, which also reinforces the sense of parity and mutual confidence between them.

- Mutual trust. The participants trust the collaborative process since thy believe that thanks to their collective work, they will obtain results that otherwise would be unattainable had they worked individually. Besides, mutual trust and respect become relevant as lifesaver, for the sustainability of the collaborative relationships. They tend to grow with time as teachers acquire a wider collaborative experience.

In the context of educational centers, teacher collaboration may vary widely in objectives and contents (Ticheror & Tichenor, 2019), but we are interested here in the collaborative interactions which, linked or not with those related to organizational participation, serve as a support for teachers and/or are geared towards fostering their professional learning.

THE GOAL

Understanding teacher collaboration as a deliberate endeavor of professional development, the initiatives will be of two types of professional learning: by *transmission* and by *transformation*. We agree with the idea that learnings are bound to be determined both by the type of interaction as by the real substance of the content appraised by the teachers involved, which is not circumscribed to the teaching skills, displaying multiple and different facets (Fraser et al., 2007; Kennedy, 2011, 2014):

- Personal: teacher's beliefs, values, and attitudes along with motivations to be met. These especially contribute to the construction (and change) of the personal identity and, hence, to the teacher's self-confidence and their sense of self-efficacy.
- Social: nurturing relationships between individuals and groups in a context which encourages not denying, but rather verbalizing and the assumption of risks. These contribute to the access to new resources, to obtaining personal support and the reconstruction of the professional identity, by means of new beliefs, meanings and expectations which are shared.
- Occupational: creating strong bonds between theory and practice, along with the intellectual stimulation and professional relevance. The workplace itself

(center, classroom) is the most nurturing environment to stimulate learning inasmuch as it raises awareness about one's own actions and the consequences of these.

Well then, transmissive learning tends to be linked to formal experiences, normally designed to tackle occupational aspects of learning, which are usually subject to professional standards. The goal of transmission is related to the assimilation and accommodation of a formative content with stabilizing potential in the case, for instance, of classroom management skills or disciplinary and pedagogical knowledge; that is, it is focused on the cognitive-instrumental component of learning processes. These are initiatives aimed at tutorship, modelling and/or teachers' scaffolding, which pursue the transfer of professional knowledge or standardized competences. In these cases, motivation tends to be externally imposed upon participants and an outlook of an instrumental competence-based learning focused on technical knowledge and skills associated with a given occupation or professional duty prevails (Enkhtur & Yamamoto, 2017; Kennedy, 2014).

On the other hand, transformative learning is frequently associated with experiences of an informal and incidental nature, where control and initiative are handled by the participant teachers themselves. These endeavors are usually more sensitive to the personal and social components of learning with no disregard to occupational ones (Evans, 2019; Fraser et al., 2007; Schugurensky, 2000). The goal of transformation would be linked to the expansion of an existing formative content upon a new one with innovative potential, intending to emphasize meaningful learnings or the emotional component of those (Evans, 2019; Fraser et al., 2007; Schugurensky, 2000). This is the case, for instance, of echoing and questioning the current theories which explain the teacher's practical experiences; of displaying new perspectives and inclinations which change the way of thinking and acting in this profession; of knowing and experiencing a passion for learning (Brücknerová & Novotný, 2017;). In these cases, motivation will be directed inwards by the participants, and a perspective of social constructivist learning, focused on the acknowledgement and articulation of values and beliefs which inform, support or inhibit the acquisition and application of knowledge and skills will prevail (Enkhtur & Yamamoto, 2017; Henderson & Noble, 2015; Kennedy, 2014).

A common and singular component of transformative learning will be experimentation. It has been usual to link it to a learning strategy of trial and error, which adds uncertainty in professional development, at least as far as goals and initial aspirations are concerned, although it tends to be perceived as a consciously expected risk in a learning endeavor, which is "active" by definition and whose result

is usually unknown beforehand (Desimone, 2009). Experimentation is also linked with Inquiry-based and critically reflective-action learning which seeks to become aware of the non-discussed and non-examined ideas.

This is a scenario of "constructive ambiguity", accepted by participants and subject to personal, epistemological, and practical uncertainty (Larrive, 2010). Therefore, not always the presence or absence of previous clear goals will be useful to assess the degree of success or failure of collaboration, particularly when this is conceived and implemented to carry out transformative practices (Durksen, Klassen & Daniels, 2017; Kennedy, 2014). There is also evidence which suggests that the more the purpose of collaboration moves from transmissive learning to transformative learning, the greater the effect on the capacity of professional autonomy understood as *agency* (Biesta, Priestley & Robinson, 2015; Kennedy, 2014), aspect which will be dealt with at the end of this chapter.

THE PROCESS

In the teacher collaboration process converge, on the one hand, the type and context of the interaction and, on the other, the dynamics of activities or tasks over time. Brücknerova & Novotny (2017) distinguish between multiple types of interaction when they tackle intergenerational learning among teachers: transmission, experience, participation, and perception. And they categorize "participation" (p. 407) in the following terms:

- The participants collaborate on a task on whose content and result they share a responsibility.
- The usual interaction stimulus is the task, whether it is assigned by the center's management board or as a personal initiative of the participants themselves (the second case would be representative of the "collaboration", as described before).
- The typical source of incentive in interaction is the responsibility of accomplishing the task and the satisfaction derived from the collaboration.
- The usual context of relationship implies the free choice between colleagues to collaborate with each other, along with personal closeness and professional respect.

In any case, whether we are talking about "participation", "collaboration" or "collective participation" (Desimone, 2009), the interaction they entail will usually

conform to a *structure*, that is, an order. This aspect is relevant for its connection with the origin and the formal or informal context of the collaborative experiences, which we mentioned before (Kennedy, 2014; Nieto & Portela, 2001).

However, formal structures emerge deliberately and contribute to the creation of channels of communication and bonds between the teaching staff, which are predictable and explicit, normally planned in due time and form (Fraser et al., 2007). The interaction established between the participants will be gradually more complex as the interdependence of the actions is greater and there is a clear coexistence of common interests.

A formal structure can even become hierarchical since teachers can be linked by bonds of formal and imposed authority which, in turn, can be the result of a previous voluntary agreement or any type of general consensus. Networks, associations, regulating frameworks of incentives or contracts, organizational units, policies, programs, and projects… are all model examples of explicit structures with different degrees of formality and hierarchization (Nieto & Portela, 2001).

On the other hand, informal structures arise spontaneously as a result of the everyday interaction in the same environment and tend to be triggered by teaching concerns related to teaching and the students. The participants are linked to each other by means of interpersonal contact and information exchange of a basic, smooth, and circumstantial, incidental and unplanned nature (Kennedy, 2014). Apart from the reciprocal interaction over a prolonged period of time, professional affiliation and shared values and interests are other factors which influence the development of informal collaboration structures; within these, *incidental* learning becomes especially relevant. This is the type of learning which, while conscious, is unintentional and linked with random and socialization experiences (or tacit/implicit learning), which entail the interiorization of values, attitudes, behaviors,… that take place in everyday life (Evans, 2019; Marcelo & Vaillan, 2018; Schugurensky, 2000). In such contexts, the participants can develop feelings of belonging, adherence or adscription which contribute to create between them strong and solid associative bonds of an affective nature and based on personal attributes, as well as agreements or consensus based on mutual trust. Clans, coalitions, support groups, colleagues, professional communities… are model examples of informal structures which, notwithstanding their nature, can eventually institutionalize and evolve into formal structures (Nieto & Portela, 2001).

Both the formal/planned and the informal/incidental contexts can foster professional learning, at least in the sense of increasing the probability of its occurrence. It is reasonable to believe that formal experiences, deliberately designed according to well-founded principles of quality will have great potential efficacy, but this does not necessarily imply that informal experiences cannot have it as well. What is

more, the available evidence supports the idea that the impact will be greater when both dimensions are taken care of and complemented Fraser et al., 2007; Kennedy, 2014; Marcelo & Vaillant, 2018).

In the methodological or strategic scope, the formative variants are multiple and diverse (Borko, Jacobs & Koellener, 2010; Kennedy, 2014; Nieto & Alfageme, 2017, Tichenor & Tichenor, 2019). Some already have a long-established tradition, others are more recent; some have an original character, others are essentially local variations or previous or alien references. It is worth mentioning, for instance: modalities of mentoring; teaching tutor; coaching; clinic supervision; clinic observation; assessment observation; peer review, peer observation; critical friends; case study, inquiry, action research, collaborative action research; co-teaching, collaborative teaching; teacher networks, professional learning communities, communities of practice; smart teams, study groups, collaborative planning; lesson study; learning circles; instructional rounds; learning walks, classroom walkthroughs,…

All this universe of options evolves continuously and within it, while still scarce, the growing interest for maximizing the potential which both the informal interaction and generational diversity that naturally occur in educational centers possess (Joshi, Dencker & Franz, 2011).

The goal is understanding and making the most, where appropriate, the intergenerational wealth which the interaction between senior or retired teachers and novel or beginner teachers, or between practicing teachers and teachers to be implies. And this not only from the usual perspective of a unilateral contribution from the specialist/providing agent to the initiated/receiving agent, but also considering the bilateral or reciprocal contribution which can take place between each other (Marcelo & Vaillant, 2018, Murphy, 2012).

Frequently, something as all-encompassing as collaboration and inquiry-based process centered on reflection around relevant issues for the professional practice have been identified among the critical elements of quality professional development experiences (Desimone, 2009; Hauge & Wan, 2019; Lieberman & Miller, 2014; Loughran, 2010). The future of research and the enhancement of the teaching activity entail the relevant nature of the synergies which can occur between collaborative interaction, the generational diversity of teachers and the reflective inquiry (Kolleck, 2019; Vangrieken et al., 2015). In the pursuit of strategies to enhance the teaching conduct on the whole and subsequently, the students' learning results, collaboration emerges as general process in which the teachers involved pose questions, search and share knowledge and experiences, review and refine the effect of their actions in the classrooms and their students (Hauge & Wan, 2019). In this otherwise strange and highly demanding environment, teachers create the

opportunity of using in their own benefit the unique and specialized knowledge and skills of their colleagues, encouraging creativity and innovation (Mattatall & Power, 2014; Tichenor & Tichernor, 2019).

PROFESSIONALITY

Collaboration and autonomy are usually set against each other, or more precisely, collaboration is often perceived as a threat for autonomy. Little (1990) already put forward a continuum which ranged from independence to interdependence in order to classify the types of interaction between the teachers. According to certain empirical evidence, (a) both collaboration and autonomy impact positively teaching motivation, and (b) motivation and collaboration are both relevant on their own and exert a positive influence on each other (Kolleck, 2019). There is also a factor of interpretation which affects how autonomy and collegiality (collaboration as well) fit together, depending on the adopted perspective. According to one, autonomy hinders, limits collaboration; according to the other, collaboration is fostered, motivated by autonomy. In this sense, we agree that a "collective autonomy" (Little, 1990) or "collaborative autonomy" (Hargreaves, 2019; Kolleck, 2019) can exist, in line with that idea of considering both collaboration and learning inseparable imperatives for a group of professionals who work in organizations devoted to learning where the service which is provided- teaching- requires the participation of the *customer* (Hargreaves, 2019, Hargreaves & Fullan, 2012).

Furthermore, the obstacles or barriers found in teachers' motivation will be generally of an incidental character, while the free choice nature of the collaboration in (one's and the others') development favors motivation and reinforces professional identity (Hauge & Wan, 2019). When the teacher acknowledges the benefits of collaboration, they tend to display strategies to sort out potentially limiting factors or conditions (Kolleck, 2019).

The effects of social participation that collaboration involves play a relevant role here. A good portion of them depend on their capacity to generate social capital and be used as an appropriate means to internalize and share both the values and beliefs as well as the goals and needs of the other; in words of Hargreaves, a professional capital (2019; Hargreaves & Fullan, 2012).

The interaction and resources which teacher collaboration displays are linked to motivational, cognitive, behavioral, and emotional effects, which correlate positively with the sense of efficacy, the openness to new outlooks on education and the commitment of teachers with the organization and the students (Johnson, Lustick &

Kim, 2011; Parlar, Polatcan & Cansoy, 2020). In sum, in order to build up an organizational culture based on motivational beliefs which sustain a social network as well as times and spaces where the participants, individually and collectively, find inspiration, (technical and emotional) support and satisfaction (De Brabander & Martens, 2014).

In fact, there is also solid evidence that suggests that educational centers which provide quality education are characterized by possessing a strong "learning culture", widespread among students and teachers, which in the case of the latter, implies their professional development (Preston, Goldring, Guthrie, Ramsey y Huff, 2017). Kardos and Johnson (2007) have as well referred to this as an "integral professional culture", characterized by the professional exchange between teachers of greater and lesser experience, by mutual support and widespread professional development among all of them. And, in this respect, not only the technical quality of the processes by which teachers are trained, and the available resources in this regard, play a fundamental role, but also the quality of the relationships between them (Hauge & Wan, 2019).

Moreover, all this would inevitably promote *teacher agency,* that it, the capacity of "contributing actively to the configuration of their work and its conditions" (Biesta, Priestley & Robinson, 2015, p. 624). Agency is not only going to place the education initiative and control closer to the teacher, but also encourage them to proactively seek new learning opportunities which result in benefitting that very capacity and the environment where it is applied, all of which, in turn, cannot but promote professional autonomy (Biesta, Priestley & Robinson, 2015; Calvert, 2016; Hadar & Benish-Weisman, 2019). And this will be an invaluable factor of professionalism, and a relevant one, since it counterbalances certain educational policies that result in the de-professionalization of the teaching activity.

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Generational diversity: relevance for professional collaboration in organizational and educational contexts

Antonio Portela Pruaño, Ana Torres Soto, Juan Antonio Salmerón Aroca,
Silvia Margarita Martínez de Miguel López
University of Murcia, Spain

Abstract

Professional collaboration depends upon the conditions under which it emerges and unfold. Among those more relevant are the generational differences of colleagues. This paper aims at presenting a tentative conceptual framework to analyze generational diversity and its influence on professional collaborative relationships. First, the relevance of generational diversity is discussed and argued. An introduction to some basic concepts needed to understand such differences follows. Special attention will be drawn to ageism as a consequence of age diversity in workplaces and a hindering factor of collaborative processes among professionals. Next, the concept of generation is analyzed and some perspectives on it are introduced. Its relevance to understanding collaboration among professionals from different generations is discussed and argued. The paper concludes by offering some implications for professional relationships in university contexts and societal relations.

Keywords: generations, ageism, professional collaboration, professional development

INTRODUCTION

The demographic fundamentals have brought to light an irrefutable and statistically significant fact, the contingency of a majority of the current population may exceed the average life expectancy we were bestowed upon just a generation ago. For instance, the latest data collected in Spain reveal an average life expectancy at birth of 85.9 years in women and 80.5 in men (Pérez, Abellán, Aceituno & Ramiro, 2020). This is a fact which, notwithstanding numerical differences, has taken place in Europe and the rest of the continents, albeit at a different pace and intensity. As a consequence of this, in the last one hundred years, societies have experienced a greater advancement concerning global population size, surpassing the seven billion people figure in the world (UN, 2019).

This greater quantitative capability for life, which in theory should be deemed an asset, is not devoid of its drawbacks. The consequences of this population growth are bound to have repercussions in different geographical, political, social and economic areas, which demand the search of solutions to tackle the challenges posed in the 21st Century. According to Bauman (2017a) and Minc (2019), these challenges can be narrowed down to six broad categories: identity crisis; the recently overstated/exacerbated global fears; the voracious logic of globalization and its consequential and dehumanizing inequality; the ferocious consumerism and its sway on human conduct in the latest era of savage neoliberalism; the vicious contemporary individualism and the need of a community for the survival of everyone; the redefinition of progress, crisis and hope. Arguably and in order to have a broader perspective of all of the former, we should add, from our own viewpoint, the problems derived from climate change and the impact of pandemic outbreaks.

This state of affairs forces the scientific community to seek the equilibrium of material, human and economic resources so as not to exhaust the lifestyles that welfare state has brought about. But it also leads to a more integral approach, as Zarebski (1999) points out; she suggests considering individuals under a paradigm which centers on regulating resources having to do with history, culture, and the generation one belongs to, but that also includes non-regulating factors, that have to do with each individual's biography, their continuity and the change throughout their lives. Zarebski herself (2011) states that while it is necessary to be centered on oneself, we also must be open to what the others say. Under the same paradigm, Martínez de Miguel (2003) hints at the necessity of including intergenerational bonds, intergenerational relationships in the analysis of factors contributing to good quality life, both at an individual and community level. It is referred to the coexistence within the same period of time of generational cohorts with different sensitivities,

but all converging from a culture of cooperation and collaboration under a socio-educational perspective.

In the text here presented, we try to narrow down the research on intergenerational issues to the scope of organizations (Blauth & Silveira, 2014). It cannot be ignored that work in today's society also stems from a necessity of belonging and creating identities, both individual and group, which lead to contributing to society (Alves & Alves, 2011). It is precisely in this exchange of knowledge between different professionals in institutions during their coexistence, along with the generational replacement which is bound to occur in the next decades in some jobs, where we can observe the need for parameterizing the inherent characteristics of the collaborations taking place inside them. This justifies, from our own point of view, the need for a review of intergenerational relationships, their function and structure, in which the concept of generativity (Erikson, 1950) acquires an inestimable value.

This implies understanding that one, as an individual, as a person, is a link in a generational chain, and that the sum of legacies of our ancestors is worth spreading and passing on current generations and the generations to come. However, the options for those of advanced age in the working environment to expand are hindered by a series of obstacles which should (and can be) surmounted. Hurtado (1982) compiles some of them and summarizes those as follows: the necessity of a shift in the rather rigid concept of retirement; a change in the perception of an alleged incapacity of learning in older people; the economic reductionism which regards older people as unproductive individuals; the belief about older people's worse performance in the working environment. Underlying this analysis, as highlighted by Fernández Ballesteros, Bustillos, Huici & Ribera Casado (2016), a discrimination which cannot be evident at first sight, but rather subtle does exist.

It is precisely within the scope of organizations, where we obviously include educational institutions, where our contribution is centered. The concrete case of schools and universities is not too dissimilar to this situation. The gradual ageing of teachers, which will be even more noticeable in the next decade, is commanding attention. Their legacy of knowledge and wisdom which should not be wasted. For this reason, studies on their perceptions of the way of acting and interacting between younger and older professionals are becoming more and more relevant; these are supported, among others, by a reassessment of the relationship between modernization and the discriminatory attitudes towards older people (De Tavernier, Naegele & Hess, 2019). In this view, it is necessary to reflect on the stereotypes which perpetuate clichéd ideas about the differences resulting from the institutionalization of age discrimination. A discrimination on the grounds of age that echoes what occurs at a social level (Teixeira, Souza & Maia, 2018). In this context,

the analysis of reality described by Bauman (2017b) – which he refers to as liquid modernity- is really helpful.

In the present time in history, solid principles for our grandparents (e.g. work and marriage for life) have vanished and have given way to a much more precarious, provisional world, eager for new stimuli and often exhausting. In this context of a shift in the socio-economic paradigm, younger workers can feel like they have been dispossessed from their work niche and may even develop negative attitudes towards senior professionals (Siqueira, França & Valentini, 2016). Likewise, the exclusion on the grounds of age in the context of organizations can lead to the discrimination by means of the management board, which can entail harmful decisions for the older professionals, which range from not employing them to their redundancy (França, Siqueira, Valentini, Vasques & Vaz, 2017). To say nothing of the suffering they may go through: fears, insecurities and an array of different pressures, resulting from the new technologies they are unacquainted with or with being forced into early retirement (Alcover, 2012). We could add to this the loss of social roles, bonds and personal worth, which could be a consequence of the decline in their work situation and which may also include feelings of usefulness, loneliness and a loss of self-esteem (Alves & Helal, 2019). This is the reason why our research line reveals a desire to delving into the relationships of collaboration, individual behaviors and social dynamics which take place at institutions between education professionals.

AGE AS A DIMENSION RELEVANT TO DIVERSITY IN ORGANIZATIONS

The phenomenon of diversity in organizations

The way in which organizational diversity has been understood is not homogeneous, but significantly diverse, albeit certain predictable patterns can be identified (Qin, Muenjohn & Chhetri, 2014). More specifically, this notion is habitually used to refer, at least ultimately, to the differences between the people that make up an organization, differences which tend to be related to (shared) identifiable attributes in them. The focus put on this phenomenon (that is, differences regarding certain personal attributes) is a rather recent one, to the extent that it has been common to notice the large number of attributes and, hence, the differences which may be considered relevant in the scope of an organization.

Occasionally, the information available on personal traits has been used to infer collective properties or characteristics, attributed to the organization as a whole.

From this perspective, the organization it is not a diverse entity per se, but it is diverse so long as its members differ between each other to a greater or lesser extent in relation to one or more features (Harrison & Klein, 2007). More specifically, it is not uncommon to equate diversity to the distribution that all members of an organization display in relation to said features; therefore, an organization will be deemed more or less diverse (thus, heterogeneous or homogeneous) according to a greater or lesser disparity regarding the personal attributes considered relevant, respectively (Qin, Muenjohn & Chhetri, 2014). This way, organizational diversity has been, for instance, defined by Harrison & Klein (2007) as the distribution of differences among the members of a unit with respect to a common attribute X, such as gender, race, nationality, the type of contractual relationship with the organization, the position held in it, or role performed.

Organizational diversity related to age

Among the examples of those attributes conditioning diversity mentioned before, the first three are included within the group of those usually categorized as *demographics*. Age is precisely another demographic which gets gradually more attention when defining significant diversity in an organization. This way, it has been considered a specific unit of diversity relevant for the organization (Boehm & Kunze, 2015).

Differences regarding age are not important on their own, but in relation to other differences that are directly relevant for the organization, to which those are linked. Among these, the following have been highlighted (for instance, Hertel & Zacher, 2015):

- The widespread idea that those of an older age have lesser levels of health in the workplace has only been partially supported by research. Particularly, the aging process is also related to physiological and physical deterioration, although there is a notable individual variability. These changes can, indeed, have an impact on health and welfare in the workplace. However, there is plenty of evidence about certain individual behaviors and actions carried out by organizations which can reduce the effect of said changes in professional performance.
- Cognitive skills have been largely in the spotlight, since it is considered that age is associated with some which predict success when carrying out numerous tasks. According to Muñoz Tortosa (2002), during the aging phase (understood as a natural, gradual process, with changes and transformations occurring at a biological, psychological, and social level, as a consequence of the passing of time) both decline and development can coexist; go hand in

hand. However, while there is some evidence of certain cognitive decline as age increases (especially, among the very elderly), there is also evidence of the rather insignificant impact of this deterioration in professional performance and that, in any case, said impairments are lesser than those identified in the previous decades, a trend which is predicted to remain stable in the future. These results cast doubt on the idea of a general cognitive decline with age. And the fact is that the traditional and stereotyped conception of aging as a process of decline which was accepted until rather recently, has gradually shifted to a more modern perspective which regards aging from the stand-point of a greater cultural level, quality of life and scientific progress, as a het-erogeneous, variable and inter-individual process (also Salmerón, Martínez de Miguel & Escarbajal, 2014). On the other hand, some research suggests that jobs of a simpler and more rudimentary nature are less advantageous for older people, as they do not compensate the potential deterioration with acquired knowledge, contributing this way to a more optimal performance. Those jobs of a more complex character, based on the use of knowledge are precisely then ones which offer greater opportunities, not only to maintain the quality of professional performance in the elderly, but even to enhance their potential and cognitive performance.

- Broadly speaking, research does not really support the idea that motivation and involvement at work diminishes over the years. The evidence available rather reveals that motivation and involvement at work correlates positively with age. However, this fact coexists with other which suggest that the nature of that motivation and the conditions it is associated with changes with age. This way, motivation is tinged with an emotional character rather than instrumental. Furthermore, autonomy acquires a greater value in professional performance.

- It is also widespread the belief that achievement and performance at work is lower among those of a more advanced age, even though the available studies consistently show that the correlation between age and said variables ranges from weak to insignificant. This does not mean, however, that other relevant factors related to age (for instance, health or cognitive skills) do not have any effect on performance at work. But these variables do not necessarily have a negative impact and it is advisable to remind that, on the contrary, they can have a compensating effect in professional performance. According to Hertel & Zacher (2015), the greater risks for professional achievement for those of a more advanced age are derived from them having to perform tasks which require the quick processing of information, with no chances of compensat-ing it with the accumulated knowledge and experience in the job.

- Contrary to popular belief, the results of some studies reveal that older professionals tend to experience a greater well-being at work than their middle-age counterparts. Likewise, the former (along with the youngest professionals) tend to show a higher satisfaction when compared with the latter. This is the result of not only objective facts (such as a higher status and salary) but also subjective ones (like a greater degree of emotional regulation and a shift in one's aspirations).

Notwithstanding all this (and other) evidence, aging and, especially, becoming old are usually endowed with a negative bias (Hertel & Zacher, 2015). This way, for instance, the potential disadvantages are given more prominence than the clear advantages which this process may imply. This phenomenon has been linked to negative attitudes related to age, which the elderly are usually the receivers (though not exclusively). These attitudes will be the subject of attention in the next section. However, it is advisable to previously stress the fact that while diversity tends to be regarded as intrinsically valuable and it is even fostered in numerous organizations and social environments, it also has some negative consequences which are not always specified and tackled (Tasheva & Hillman, 2019).

A relevant consequence of age-related diversity: ageism

The attitudes, practices and policies implemented in relation to ageing determine and guide how this process is developed and the effect it will have in the quality of life of these people. According to the World Health Organization (WHO, 2015), one of the principal aspects to be addressed in the aging process is the implementation of appropriate social policy measures which tackle the eradication of prejudices and negative associated with the elderly, and thus, related to age discrimination.

In the field of research, since the 90s, the approach from which ageing is tackled has emphasized the nominalization of the positive aspects linked with it, leading to more positive outlooks. These new outlooks reflect the need to consider this stage as a life process of personal fulfillment and social participation and contribution, instead of it had been traditionally regarded in most scientific disciplines, focusing on the deficiencies, normally associated with chronological or physiological features, such as functional, physical, psychological, or social deficiencies (Martínez de Miguel & Escarbajal, 2009). However, scientific development and the implementation of social policies in this line, does not go in hand with a noticeable change in the perceptions and actions in society on the whole and the organizations in particular.

In fact, age diversity and more specifically, ageing and ageing people are usually the subject of negative attitudes and stereotypes which make this the life stage which features a greater discrimination. And this reflects what can occur in organizations when "ageism" takes place and there is a suboptimal approach to intergenerational processes. The core problem of this stereotyped and homogenous image associated to ageing is not just that it is deeply embedded in the different social scopes, but that it infects the elders' own self-perception. These can accept those perceptions as their own, leading to their assumption (according to the studies of Salmerón, Martínez de Miguel & Escarbajal, 2014) that this stage is characterized by a loss of autonomy and independence, emphasizing the negative changes and consequences it may bring about in the different dimensions over its conception as an achievement, result of contemporary societies and the welfare state. Hence, it follows that the perception of this stage is a rather negative one, although this does not go in line with the personal vision the elderly usually have about themselves. Ultimately, the persistence of reductionist social roles and maintenance of stereotypes translates into a situation of cognitive dissonance.

On the basis of these conclusions, it could be said that ageing is grounded on two models which sustain the following conceptions:

- On the one hand, the stereotyped and homogeneous idea that some people have about the elderly has led to a negative view of the ageing process, being those usually regarded as a social group in need of all type of services, in a rather patronizing and assistance-oriented manner when it comes to catering for that group. It should not be ignored, also, that contrary to popular belief, the ageing process is a heterogeneous one, which each older person - depending on their own personal characteristics, lifelong trajectory, personality, life characteristics, experience, etc.- will tackle differently, depending on their individual personal and social evolution process, proving wrong the idea of a uniform, invariable way of becoming old (Martínez de Miguel & Escarbajal, 2009).
- On the other hand, a positive conception which regards the old person as a wise one, possessing experience and a certain social status, deserving of respect and a clear position of influence on the rest (Carbajo, 2009). Likewise, the aging process understood from a demographic and biological perspective represents a social achievement so long as it is regarded as a proof of progress and life quality in society. However, from a social outlook, the concept of ageing is a social construct full of stigmas, prejudices and even social rejection and discrimination (Alemán & Marín, 2014).

This latter conception was emphasized by Robert N. Butler, who introduced the term *ageism* to refer to such negative attitudes towards older people. This term, in its origins, included those negative attitudes held against the elderly, exclusively on the basis of their advanced chronological age (Butler, 1969). However, in a more comprehensive sense, the definition of ageism implies the "stereotype, prejudice or discrimination against a group as a result of their age" (Castellano & De Miguel, 2010, p. 260), which in theory could be harbored toward people of any age. Notwithstanding, the existing evidence suggests that the elders have a greater risk of being subjected to said prejudices (Ayalon et al., 2019). Age is a seemingly identifiable trait of human beings which, just as it happens with other dimensions such as race and sex, is also potentially subjected to social rejection. Thus, while it is agreed that ageism could affect groups of any age, the evidence shows that older people have a greater risk of suffering it (Ayalon et al., 2019).

According to Butler (1980), the underlying problems and obstacles found in the old age stem from attitudes, practices and policies implemented in this regard. He adds that these attitudes (and beliefs linked to them), the discriminatory practices (especially those related to employment) and policies and institutional regulations are not only interrelated but also feed on each other. Delving on each of these aspects allows to clearly delimit the dimension of this problem, even more so, when as it has been evidenced, age discrimination can affect society as a whole (Kelchner, 2000) probably having a negative impact on social cohesion and population health and well-being (Bratt Abrams, Swift, Vauclair & Marques, 2018).

Significant attitudes include those held toward people, but also towards a process or stage, aging and the old age in this case (Butler, 1980). Three major components have been identified in them: stereotypes as a cognitive component, prejudices as an affective/emotional component and discrimination as a behavioral component. The first ones refer to generalized beliefs (and commonly accepted) about the attributes that the people who make up a social group are usually associated with (Pinazo, 2013). These beliefs, which can be held among those belonging to the same group or other age groups, are often negatively biased. Secondly, prejudices refer to an affective dimension resulting from positive or negative feelings toward a person or group of people as a consequence of their belonging to a given age group. An example of this could be enjoying the company of these people (exclusively due to them being themselves) or, on the contrary, being disgusted by them. The third component is discrimination, understood as the conduct which encourages or promotes acting in a discriminatory manner with people of older age. This conduct can be perceived, for instance, when the interaction with this group of people is neglected or avoided altogether.

In line with these attitudes, there are often discriminatory practices towards the older people. These can be identified in the workplace, but are also common in other social environments (Butler, 1980). In addition, institutional regulations and policies are also deemed a problem or obstacle when they contribute, intentionally or not, to promote and perpetuate negative stereotypes and discriminatory practices toward older people.

Hence, ageism can directly and indirectly influence, for instance, professional collaboration in the organizations, usually hindering the organizational processes taking place in them. Moreover, these attitudes tend to increase the more diverse work centers and other contexts get. For this reason, according Bratt, Adams, Swift, Vauclair & Marques (2018, p. 167) ageism "poses important challenges in work organization". In fact, in line with the present work and the research of Gutiérrez & Mayordomo (2019), it is evidenced that there is a lack of sensitivity and training of teachers in relation to the ageing process, which carries over to the perceptions that younger teachers coexisting with older ones have, categorizing them into the old people group, thus, generating ageist attitudes. On the basis of these considerations, the studies of Lorente, Broton & Sitges (2020) suggest two types of interventions aimed at reducing ageist attitudes: focusing personal development on ageing and, on the other, promoting intergenerational experiences. This approach is aligned with research by Elliot & Rubio (2017), Gonçalves, Hatton-Yeo & Farcas (2016) or Martínez & Rodríguez (2018). The findings obtained by the latter reveal that it would be critical to include in initial teacher training specific training regarding ageing as well as the development of intergenerational education.

GENERATIONAL DIVERSITY AND INTERGENERATIONAL INTERVENTIONS

One of the main challenges to be tackled in the 21st century society would be related to the remarkable gap between different generations, potentially leading to the persistence of prejudices between different age groups, deterioration of social cohesion and underestimation of intergenerational relationships and their benefits. Schools need to tackle this major challenge. However, they may also benefit from strengthening intergenerational relationships among professionals, since the learning process which results from the interaction between teachers of different generations provides with opportunities for the promotion of professional development (Geeraerts, Tynjäläb & Heikkinen, 2018). In fact, there is evidence suggesting that intergenerational professional development matters and potential benefits

can be grasped from it. For instance, Kardos & Johnson (2007) have asserted that the development of an integral professional culture characterized by the professional exchange between more and less experienced teachers can lead to successful schools. Other studies are supportive of the contribution that veteran teachers can provide to those of a younger generation (Geeraerts, Vanhoof & van den Bossche, 2016; Lerham, 2008). Hence, generational differences between teachers might be influential in their professional development and success. Stressing and delineating the concept of generation is then relevant in order to identify and understand such generational singularities.

What do we mean by a "generation"? There is not a unanimous agreement among the different experts when it comes to defining this concept. For instance, Ojeda & López (2017) frame a generation in the following terms:

> *The term generation is associated with a group of people who share traits which identify them and at the same time differentiate them from other generations. This process depends on a number of aspects, among them, the influence of the historical moment and the life events experienced, the geographical-territorial scope and the cultural and educational period lived* (Ojeda & López, 2017, p.109).

Caballero & Baigorri (2013) define a generation as a group of people who share a wide array of experiences which identify them with shared historical events and which can locate them in a particular life stage. In addition, Donati (1999) identifies two lines of interpretation: on the one hand, the one which suggests a historical sense related to those groups which share the same significant experiences as a result of their proximity in age and, on the other hand, referred to the familial-parental progeny, given the complex interfamilial relationships inherent to contemporary relationships and how family relationships are affected by social influence.

Therefore, the concept of generation has been dealt with from several perspectives, leading to a great deal of conceptual diversity which requires further explanation. Two major approaches to the concept have been identified: kinship (with family relationship) and peer group. However, the latter perspective has drawn more attention. While the *birth cohort* has been used to define the group of people born during the same time period (Green et al., 2012), the *generational cohort* adds to that definition the fact of sharing a number of singular experiences and, thus, perspectives, ideas, values, attitudes or behavior. Hence, it would involve having experienced the life or social or historical event, which would impact, due to the social context, in a specific way on a particular group of people (Green et al., 2012). This could explain how the events which affect people of all ages have a different impact on

the different generations as said events may imply similar values, characteristics and beliefs in certain cohorts which differ from the members of other birth cohorts.

Especially in the context of organizations, the life stage people are currently going through (for instance, the stage of one's professional career) is also a basic method of identifying generations and generational differences "can exist due to the fact that individuals are going through a different life stage" (Kelan, 2014, p. 22). In the characterization of generational differences, literature has proven that social differences between generations carry over to the work environment as well (Lyons & Kuron, 2014). This way, it is typical to differentiate generations depending on the moment and the technological and digital advances which characterize them (distinguishing, for instance, between digital natives and digital immigrants or Generation X, Generation Y and Generation Z), assuming that the knowledge, beliefs, emotions, habits, etc. which they are attributed with, endow each generation with a different identity.

Generational diversity can, therefore, have important implications in the interactions in the workplace, having a positive or negative influence on the processes and results of the organization. Accordingly, identifying ways to manage and intervene in the intergenerational professional development on the basis of the generational differences becomes a challenge for organizations, albeit one which so far has been scarcely studied (Watts, 2014). Moreover, there is a lack of consensus with regard to such differences and popular generalizations often do not derive from any proven empirical evidence (Woodward, Vongswasdi & More, 2015). Nevertheless, a thorough review has revealed the existence of significant generational differences in relation to six areas: 1) communication and technology, 2) work motivation or work preferences; 3) job values; 4) work attitudes; 5) conduct in the workplace or career; 6) leadership behaviors or preferences (Woodward, Vongswasdi & More, 2015). Enquiring into other relevant generational differences and examining factors affecting it (the nature of the learning processes itself, for instance) would allow to design and implement collaborative forms of professional collaboration on the basis of intergenerational learning between teachers.

CONCLUSION

Organizations such as schools need to tackle two important and complex challenges (Joshi, Dencker, Franz & Martochio, 2010): 1) the loss of knowledge and skills in older generations, which are usually endowed with resources difficult to replace, at least in a limited space of time (Fibkins, 2012), and which can be considered highly valuable, especially regarding experience, to help those joining the

workplace develop professionally, no matter how qualified they are; 2) the need to enable the interaction among generationally diverse professionals, which entails focusing the attention in the generational differences and singularities which are relevant from a professional standpoint. Moreover, ageism is emerging as an obstacle to promoting such an interaction and, in turn, reducing the loss of knowledge and skills from organizations. All these circumstances are likely to have significant implications for collaborative professional development which is worth considering as an opportunity of enhancement for educational institutions. However, the specialized literature and the limited evidence on how to tackle these challenges highlight the need to set research lines which deepen into these aspects and provide empirical evidence on their impact.

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Veteran teachers and the challenges
of curriculum innovation

Ana Mouraz
Universidade Aberta, Portugal
Amélia Lopes, Ana Cristina Torres
Faculdade de Psicologia e de Ciências da Educação, Universidade do Porto, Portugal
José Carlos Morgado
Instituto de Educação, Universidade do Minho, Portugal

Abstract

The question that underlies this text is to think about the professional re-enchant-ment of veteran teachers in the context of a project that aimed to promote ICT as a vehicle for improving curriculum agency among these professionals, diminishing the intergenerational gap they face in their classrooms and in their schools. Rekindle+50 – Digital migrations and curricular innovation: giving new meaning to experience and rekindle teaching profession after 50, is a project that invested in an idea of training for professional development that aims to place teachers and their curricular decisions, assisted by ICT devices, at the heart of the training action. The chapter provides an overview concerning discourses about innovation, curriculum and technologies that challenge veteran teachers in Portugal, describes, briefly, the Rekindle+50 project in its attempt to study the conditions of professional re-enchantement of veteran teachers, and presents the preliminary results of the project.

Keywords: veteran teachers; curricular innovation; technology and digital devices

INTRODUCTION

Teaching is an aged profession in Portugal. According to the OECD 2019 report on teachers, Portugal is the 4th country with the highest average of teachers' age. This figure is higher than the average age of Portuguese citizens. Teachers' working time along their careers has increased by an average of 10 years in the past two decades. Contrary to what happened in other historical moments of consolidation and extension of compulsory schooling (after the 25th of April, 1974, or following the Basic Education Law, 1986) the most recent enlargement of schooling to 12 years (2009) didn't encompass a renewing of teaching staff. Demographic decrease and the increase of retirement age have caused less renew of the profession. Also the adverse times lived after the 2008 economic crisis along with the worsening of teachers' working conditions, the deterioration of their socio-economic status and the lack of career prospects, are the main issues that have threatened teachers (Flores, 2020). Furthermore, for them, the need to work for another 10 years was not foreseen by them until about 10 years ago, and this explains some increase of disenchantment recognized in the teachers' complaints. (Ramos, 2016; Matiz, 2013).

The consequences of this for the profession are associated with an increasing generational gap between students and teachers (Alves & Lopes, 2016).

Several studies conducted on such generational gap also related this phenomenon with the feeling of ineffectiveness of curricular work, as it is no longer motivating, (Day et al 2006; Cau-Bareille, 2014; Ramos, 2016) nor capable of providing training to deal with uncertainty. In Portugal this increase of generational gap was also related with educational reforms designed to face societal changes and requiring innovation (Ministério da Educação, 2017). The challenge this reform carries out to teachers and schools is the broad landscape that requires teachers' curriculum agency.

Priestley and his collaborators (2016) define the teachers' curriculum agency as their active contribution to shaping their work and conditions in favor of the general quality of education. The concept of curricular agency is particularly useful to us here as it mobilizes the capacity that the teacher has and exercises in recontextualizing policies, and translating them into his field of action. It is about exerting a double effort of interpretation of the purposes that the policies defined and of local action, which reconfigures and provokes the students' learning, opening meanings for what is different (cf. the cosmopolitan teacher argued by J. Morgado, 2016). However, when we problematize the possibilities that the veteran teacher has to be a curricular agent, we still need to study the specificity that the condition of veteran brings to the two tasks mentioned above of recontextualization and translation.

That is, it is about knowing how the previous experience serves as a facilitator or an obstacle in the effort to think the curriculum intergenerationally.

Meanwhile, school innovation has become a trend in discourses on educational improvement, coupled with the necessary change in practice to ensure such enhancement (European Commission, 2018; OECD, 2019). In this context, the desired new practices are seen as means to address the challenge of preparing students for an unpredictable future (Morgado, 2016). For some teachers, experience was no longer enough to give them resilience and know how to deal with new and sometimes bureaucratic requirements, causing inevitable complaints and confusion between the effects of aging and the effects of bureaucratization of profession (Alves & Lopes,2016).

The relationship between the concept of innovation and information technology is obvious and naturalized. It is not surprising, then, that veteran teachers (Cohen, 2009; Day & Gu, 2009; Orlando, 2014; Thorburn, 2014; Veldman et al., 2016) are immediately associated to a greater difficulty in accessing information technology, a situation which makes the achievement of the necessary innovation harder. This supports the question that drives Rekindle+50 project that present chapter is telling about: can ICT be a vehicle for the power of curriculum agency and professional re-enchantment for veteran teachers?

Rekindle+50 – Digital migrations and curricular innovation: giving new meaning to experience and rekindle teaching profession after 50, is a 31-month funded project, involving two universities in Portugal, with focus on supporting 50 years old or older teachers in developing strategies for curricular innovation through the use of mobile technologies.

Chapter is organized in three main parts:

In the first one provides an overview concerning discourses about innovation, curriculum and technologies that challenge veteran teachers in Portugal.

The second part describes, briefly, the Rekindle+50 project in its attempt to study the conditions of professional re-enchantement of veteran teachers.

Third part presents the preliminary results of the project..

OVERVIEW CONCERNING DISCOURSES ABOUT INNOVATION, CURRICULUM AND TECHNOLOGIES THAT CHALLENGE VETERAN TEACHERS IN PORTUGAL

In this chapter it is followed the definition of innovation stated by the report from OECD as "… a new idea or a further development of an existing product, process or method that is applied in a specific context with the intention to create a value

added." (Vieluf et al., 2012, p. 39). This definition brings innovation to a daily basis and small environments where changing something to be more effective concerning educational aims is possible. Therefore, anyone could be agent of innovation, as it seems to be close to those who are in the field and experience problems that must be solved.

In Portugal, discourses about innovation in Education have been mainly related, in the last years, with schools' autonomy concerning curriculum decision and development (Mouraz & Cosme, forthcoming) and with ICT inclusion within teaching and learning practices (European Commission, 2018; OECD, 2016). Both dimensions have been understood as the key axes to accomplish a more equitable education system as well to develop cross curricular skills needed to a citizenship for the 21st century (Ministério da Educação, 2017).

However, these aims, to be accomplished, need schools' and teachers' work and willingness, as core actors in educational processes (OECD,2019).

Three main issues arise from such statement. The first one relates the lowest levels of innovation, identified by Portuguese teachers in TALIS survey (OECD, 2019), relying more heavily on the prescribed curriculum. If, traditionally, the Portuguese educational system is centralized, it is difficult and takes time to convince teachers to use the autonomy they really have (Cosme, 2018), namely those who had long careers.

The second issue associated with innovation concerns school contexts that are open to innovation. On a very different result from the average across the OECD, where 78% of teachers report that "most [colleagues] in [their] school provide practical support to each other for the application of new ideas", only 60% of Portuguese teachers agree with this. Nevertheless, and in an opposite perspective from the average of OECD countries, novice teachers from Portugal, teachers age 40 or less are more likely to report that their colleagues are open to change (OECD,2019). This is probably related with curricular reform and "reinforces the idea that innovation also has an organizational component that reflects the perceptions of a group's innovativeness that are shared by the teachers of the school" (Anderson and West, 1998). To stress the idea, one can read in such results from TALIS that curriculum innovation is something difficult to Portuguese teachers, mainly due to the traditionally centralized character of education, but, youngest in profession recognize that their colleagues in school are open to change. The importance of professional experience as a factor that supports innovation was also reported by Matiz (2013) results when she conclude that the more experienced teachers, although they were experimenting with some technological resources for the first time, demonstrated a greater capacity to conduct activities with students compared to less experienced ones and played an important supporting role for less experienced teachers .

Teachers, that current schools in Portugal need, should make full use of their curricular agency, and challenge their role as teachers. They should develop from an attitude closely in line with a certain curricular orthodoxy to a more cosmopolitan standing (Morgado, 2016). This means a better alignment with the line of thought reform and the breaking capacity with established routines (id, ibidem). Regarding teacher education, issues such as the theory-practice relationship, reflexive work, research informed practices, and interdisciplinary practices, appear as key variables in the training of teachers' skills to become lifelong learners (Lopes, 2009). For this reason, the continuous training component of the project is based on perspectives that highlight the inescapable possibilities of transforming the educational practice (personal and institutional) and the reconfiguration of professional identity (Pereira, 2011). Such reconfiguration is based on a training practice that highlights the relationship theory-practice, as well as individual and collaborative reflection on the educational action and on professionalism itself. (Korthagen, 2010) Furthermore, this concept of teachers' training requires the production of knowledge and the design of new systems of action and curriculum development, both at the classroom level and at the school as a whole (Pereira, 2011).

The third issue concerns the core of innovative practices put in place by teachers, namely those which are ICT informed.

As previous stated, a set of studies worldwide published in the second decade of the 21 century, reported a resistance from older teachers regarding the use of digital technologies in classroom. (Orlando, 2014; Thorburn, 2014; Veldman et al., 2016). The generational difference between teachers and their students, increases when associated with the digital familiarity that characterize current students and the opposite interests, languages and reasoning from teachers and students. While young people naturally experience technology, these older teachers seem to be afraid of it (Orlando, 2014). Teachers, pressured to make use of their digital literacy skills in the curriculum are reluctant for their lack of pedagogical experience and training with ICT. Mainly, one can state that resistances are closely related with familiarity with ICT, and a lack of a pedagogical sense in using these devices.

In addition, access and proficient use of mobile learning in education are no longer limited to the use of some technologies in substitution of traditional resources without changing the essentials of what is a class (Monteiro, Moreira & Lencastre, 2015). We see in Europe the rethinking of new learning spaces (Byers & Imms, 2016) with initiatives such as Future Classroom Lab, which make school more appealing. UNESCO (2014) emphasizes the need to train teachers to advance learning through mobile technologies and to provide support and training to teachers through mobile technologies. The training of teachers in digital literacy skills

promotes curricular innovation and the change of teaching practices, new ways of learning and of students' interaction with knowledge (id). What is expected is that teachers have the ability to structure and manage learning environments in non-tra-ditional ways, to merge technology with pedagogical assumptions and knowledge to develop socially active classrooms, and spaces of knowledge building and shar-ing (Monteiro, Moreira & Lencastre, 2015). However, as states Almeida " digital technologies play an instrumental role and serve teaching and the teacher's work, rather than learning and the student, and that those do not bring a reconfiguration of the educational process, where, despite the new technologies, traditional methods prevail" (2018, p. 19). The study presents the contradictions and complexities of the ways in which the use of technologies is understood and implemented by teachers. The results indicate that teachers believe in the potential of using technologies to improve students' learning processes, however, such beliefs do not always material-ize in the practices of these teachers. Therefore, innovative practices recurring to ICT need a large reflection on the changing nature they give to pedagogical ap-proaches and its sustainability. Also, this effort is a necessary path to improve cur-riculum agency among teachers. Again, this effort needs time and training to be worth able and effective.

THE REKINDLE+50 PROJECT

Rekindle+50 project, fully entitled "Digital migrations and curricular innovation: giving new meaning to experience and rekindle teaching profession after 50" is an attempt to study the conditions of professional re-enchantement of veteran teachers.

The project focuses on teachers over 50 years' old and on renewing their commit-ment to teaching and curricular innovation, mediated through the use of mobile technologies. Putting the project aims in other words, it intended to promote ICT as a vehicle for improving curriculum agency among veteran teachers, diminishing the intergenerational gap they face in their classrooms and in their schools, and contributing to professional re-enchantment for veteran teachers.

ReKINDLE+50 aimed at this development on the teachers' role in curriculum decision-making to sustain the above mentioned curricular innovation. At the same time, since the school year of 2017/18, a curricular reform is running, entitled "Cur-ricular Autonomy and Flexibility Project", which was proposed to schools that wanted it in the first phase, in order for them to make by their own the curricular decisions that they considered relevant to ensure the educational success of their students (Cosme, 2018). This means that is required in such project to deal with an

innovative perspective about curriculum. The three axes upon which the project's dynamic, research and intervention, was built are.

Rekindle+50 aimed to reduce some of the negative effects of teacher aging by reversing the identified vicious circle and turn aging into a potential for curricular innovation. Its purpose was to foster the relationship between the essential aspects of curricular agency assumed by teachers and the practices of educational action mediated by mobile technologies. Within this intervention and research features, the project aimed to:

(A1) – Characterize:
- … professional motivation factors of teachers over 50 years' old.
- … digital literacy skills of teachers over 50 years' old.
- … efficient communication strategies developed by teachers with and without digital literacy skills.
- … curricular innovation scenarios fostered by new learning environments.

(A2) – Design and implement
- … a teacher training programme to promote their ability to proficiently use mobile technologies in the educational relationship in curricular innovation scenarios.
- … curricular innovation scenarios with the use of mobile technologies.

(A3) – Develop the participant teachers' abilities to the pedagogical and communicational use of mobile technologies.

(A4) – Evaluate:
- … the effectiveness of curricular action in schools with scenarios of curricular innovation.
- … curricular innovation scenarios fostered by new learning spaces.
- … the relationship between the effectiveness of curricular action in schools and factors of teachers' professional motivation.
- … the relationship between the effectiveness of curricular action in schools and effective communication strategies developed by teachers with and without digital literacy skills.

Methodologically, this was a project that associated research, intervention and training of primary and secondary school teachers. It convened two Teachers' Training Centres that have been actively involved in the "Future Classrooms" project.

Therefore, ReKINDLE+50 has three core dimensions: training, intervention and research.

The research design involved the implementation of a training program with teachers aged +50 from Portuguese basic and secondary schools and a larger research

about aging and digital migration opportunities to improve teacher curriculum in-novative practices. The research aspect has been accomplished through following the teachers that participate in the training program and their changes on teaching practices and curriculum innovations induced by training. It also included a further discussion on teachers' digital literacies and on how to sustain the teachers' training program to re-enchant their relation with profession.

The teachers' training program was developed by research team members and delivered by some of them, jointly with the Teachers´ Training Centres. The pro-gram presented and promoted opportunities to develop curriculum in new learning spaces with collaborative support.

The teachers, participants of training and intervention programme (N = 38+34= 72), were invited and selected among those that worked in two different regions of Portugal (North and Centre regions of country). They were all aged fifty or more and teach different levels (from kindergarten to K12) and different subject matters.

Team collected a large amount of data, namely concerning its nature and vari-ety. Data collected were: testimonials from teachers +50 (videos, audios, videocon-ferences); Training products (texts; lessons plans; lessons descriptions); Interviews with headmasters of teachers involved in the project; Teachers' psychological data collected before and after training; data coming from teachers' monitoring pro-cess, collected during and after training: questionnaires; individual interviews; focus group; job shadowing; class observation reports.

Collected data have been analysed, mainly, in a qualitative way. Quantitative analysis was performed regarding psychological data and questionnaires. Neverthe-less, the preliminary results presented in this chapter rely in qualitative analysis and sum up other texts already produced by the team. Its main purpose was to identify episodes, experiences on the relationship between professional (re) enchantment, curricular innovation and the use of ICT in the classroom or in learning situations. Preliminary results have been presented and discussed, periodically in local meet-ings, with the teachers involved in the training program.

PRELIMINARY RESULTS OF THE PROJECT

Having in mind the purpose of present chapter, is time to shed light and summa-rize the preliminary results obtained by Rekindle+50, as it has been working with veteran teachers on promoting ICT as a vehicle for improving curriculum agency among them and diminishing the intergenerational gap they face in their class-rooms and in their schools.

Preliminary results of the project could be organized in two main axes: to identify changes in teachers' conceptions regarding fears and myths related to the use of ICT, and to map strategies and factors that could explain professional re-enchantment and resilience, mainly in the context of a curricular reform, like the one is on-going in Portugal.

Project did start by facing a set of discourses on change and improvement in education that have contributed to overestimating the role of Information Technologies and naturalized the relationship between technologies and innovation (European Commission, 2018).

Other starting recurrent discourse associated the generational difference between students and teachers, to a generalized feeling that there was a widespread technological inefficiency among veteran teachers, when compared with their younger colleagues, with impact on the level of their practices (Monteiro et al, forthcoming; Orlando, 2014). Another common idea was the conservative perspectives regarding pedagogical practices of veteran teachers.

Concerning these changes, we invalidated the idea that veteran teachers are more disenchanted than their younger colleagues. Also it was possible to contradict the thesis that veteran teachers are more info-excluded than their young students (Monteiro et al, forthcoming). In fact, it was possible to check, during the class observations and from the lessons description, that students had a rather close connection and familiarity with some procedures, like these concerning surfing on web, installation apps and using games. However, students seemed not think about the innovative curricular use that such devices could carry out for their learning. The teachers involved in project were very critical regarding the ICT devices and apps, as they were always discussing the pedagogical uses of such technologies (Freires et al., 2020).

The second dimension of results concerns mapping of professional re-enchantment and resilience factors, mainly in the context of a curricular reform, like it is on-going within Portuguese educational system.

Concerning these issues, it was possible to validate the importance of collaborative work among peers who rediscover themselves and one to each other as a factor of resilience, perhaps re-enchantment. On the opposite of an established idea that teaching is a solitary profession (Correia & Matos, 2000), veteran teachers with whom we worked, seemed to be very much aware of teamwork relevance and did found curricular innovations, carried by ICT, a good opportunity to nurture close relations with peers. In fact, received recognition, by students and peers, of the quality of the pedagogical work developed, seemed to be a key factor of professional re-enchantement.

Also, it was possible to validate the importance of support coming from school leaders, as well pedagogical and technical support delivery by Training Centers, to

the introduction of innovations in professional practices of veteran teachers. These were also highlighted as two factors of increasing commitment to the profession. From school leaders, namely headmasters, veteran teachers appreciated recognizing words concerning innovative effort, as well small rewarding things, like better schedules… From trainers, veteran teachers appraised the availability to answer small doubts, as well the opportunity to present and discuss some practices they were planning or putting in place.

We found that veteran teachers who mastered the most proficient technologies, took more risks in the use of other technologies / devices that they did not know. Putting this in other words, as much as teachers felt themselves comfortable using technologies in classroom, as much they were available to test other devices and confessed their mistakes. Also, they assumed this lack of knowledge with students and let students experience these (or other) technologies. As said by some of these veteran teachers, such practice was simultaneously well appreciated by students and was a factor of diminishing the intergerational gap as much as increasing authority of teacher within class. Some of them also report a reduction of students' indiscipline behaviors in class.

This assumption seems to be correlated with agency power of these veteran teachers that were, also, those who were more aware of what were the educational aims of curricular reform, or had a deep understanding of the importance of their subject matters to transversal competences to be achieved by students.

Finally, we found a strong relationship between professional enchantment and teachers' participation in national and international projects. Not surprisingly, those veteran teachers that were still enchanted with profession did developed their careers by investing in crossed dimensions related with education, such as participating in research and intervention projects, exchanging and mobility international programs. Such opportunities to contact with other people interested in educational issues (at various levels and countries), did enlarge teachers' knowledge and perspectives and promoted new meanings and evidenced new feasible challenges for them to face. Those teachers were also the ones that seemed to have more resilience to face daily professional problems, namely those related with intergerational gap.

CONCLUDING REMARKS

The question that underlies this text is to think about the professional re-enchantment of veteran teachers in the context of a project that aimed to promote ICT as a vehicle for improving curriculum agency among these professionals, diminishing the intergenerational gap they face in their classrooms and in their schools. In other

words, it is important to know whether veteran teachers are available and able to use ICT to take over the curricular agency that current reform requires.

The preliminary results obtained allowed us to conclude that school leadership, collaborative work and mobile technologies are essential elements in changing and innovating practices, deepening resilience and reenchanting the teaching profession itself. Also we found out that veteran teachers that were more effective in using ICT in the classroom are also the same that took more risks concerning innovative practices and those able to diminish the intergenerational gap, between them and their students. It is possible to say that those teachers did understood and put in practice the agency power that they reach effectively.

The REKINDLE + 50 project has invested in an idea of training for professional development that aims to place teachers and their curricular decisions, assisted by ICT devices, at the heart of the training action. It has also intended to identify dimensions and factors that contribute to the assumed exercise of the curricular agency of these professionals.

The bet on a collaborative training that uses the integration of technologies and innovative educational environments as a vehicle for reconfiguring the agency exercise is just one way (the one chosen by the REKINDLE + 50 project) to explore the becoming of whoever has chosen make teaching her/his professional identity.

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