Teachers' informal learning and organizational learning in Spain

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Abstract

Purpose – The purpose of this study is to focus on the informal learning (IL) processes of teachers in primary and secondary schools in Spain. Its objective is to study the strategies currently used by teachers to generate IL, identifying the factors that condition such learning and the changes that must be introduced to enhance it.

Design/methodology/approach – The methodology is qualitative, with information from interviews with school principals ($n = 21$) and teachers ($n = 60$) from 22 primary and secondary schools in Spain and from 3 discussion groups with experts ($n = 17$). The topics used refer to strategies to generate and promote IL and its conditioning factors.

Findings – The findings suggest that, regardless of the stage (primary/secondary) and ownership of the centre (state/private), the teaching staff use IL strategies that, beyond individual actions, involve meeting, sharing and reflecting with other teachers. The challenge is that IL facilitates both professional development and the development and improvement of the organizations. School principals play a central role in achieving this relationship and promoting the institutionalization of changes and educational administration in facilitating the right conditions for their development and recognition.

Research limitations/implications – Given that the participation of schools in the research was voluntary, as was that of the teachers who agreed to be interviewed, some bias may exist. To refine the analyses it would also have been interesting to contrast with the people interviewed some of the assessments which appeared in the focus groups. Finally, future work might focus on analysing in greater detail the effect of different management styles on IL.

Practical implications – The results presented point to the need for decisive support from school leadership teams for collaborative work processes and joint reflection, which are one of the basic conditions for facilitating IL and, at the same time, for encouraging organizational learning. Furthermore, in the Spanish context, there is the challenge of combining the participation of teachers in formal training actions with the recognition of IL generated in the development of daily professional activity.

Originality/value – The data provided complements and reaffirms the findings of research carried out in other types of organizations, at the same time highlighting the importance of horizontal relationships among education professionals and the difficulty of creating a solid foundation for organizational

changes. Improvements are, on the other hand, highly conditioned by the role adopted by school principals.

Keywords Informal learning, Schools, Organizational development, Teaching staff, Organizational conditions

Paper type Research paper

Introduction

In a context of constant change and reforms, lifelong teacher training is considered a priority and one of the main challenges faced by education systems to improve teaching skills and achieve better learning outcomes for students (Sonmark *et al.*, 2017; Trust *et al.*, 2016).

Traditionally, face-to-face and formal training (courses, workshops, conferences, etc.) have received a good deal of attention and appreciation from teachers and educational authorities (Kyndt *et al.*, 2016; Macià and García, 2016). However, more and more voices advocate promoting and recognizing activities which, individually or through interchange and reflection with others, favour learning in the workplace (Ministry of Education, Sports, and Culture, 2015; European Commission, 2013). However, literature attempting to link informal learning (IL) and workplace learning of teacher with their professional development is practically non-existent (Hodkinson and Hodkinson, 2005).

Following Levin's intervention model, where he consider that population can grow at individual, group or organization level, we focus on the organization as a structure within which to implement actions that promote and support the generation of IL among teachers (Ellinger, 2005; Schürmann and Beausaert, 2016), if we consider learning as a key element for ensuring the quality and sustainability of organizations (Ellinger, 2005).

This study focuses on primary and secondary schools in Spain and attempts to answer three questions:

RQ1. What strategies do teachers use to learn and generate IL?

RQ2. What organizational factors condition IL processes in schools?

RQ3. What organizational changes should be introduced in schools to promote IL?

Theoretical framework
Informal learning as a teacher training strategy
IL can be related to other concepts such as implicit learning, non-formal learning, situated learning, self-directed learning or tacit learning (Drotner, 2008) and represents between 70% and 80% of the learning undertaken by employees (Cross, 2006). In the context of this paper, we adopt the classic definition of IL as a predominantly unstructured, experiential and non-institutionalized learning process that takes place in the course of daily activities in the workplace (Marsick and Watkins, 1990), or in any other sphere of the life (Cunningham and Hillier, 2013),

Although there are several studies which focus on the IL processes of teachers, as reflected, among others, in the meta-analysis of Kyndt, *et al.* (2016) and the works of Jurasaite-Harbison (2009), Grosemans *et al.* (2015) or Thacker (2017). In the Spanish context, IL continues to be an incipient field of study that requires attention, especially considering that any school context has a unique learning culture (Yanow, 2000).

Broadly, teachers learn through four different types of activity (Lohman, 2006 and Smaller, 2005):

(1) experimentation;
(2) reflecting on one's own practice;
(3) learning from what others are doing; and
(4) in the course of carrying out daily activities.

The organization must be tolerant of errors and failures that may arise during experimentation (Schürmann and Beausaert, 2016), facilitate reflection on one's own professional practice through peer feedback (Hoekstra *et al.*, 2009). On the other hand of school principals (Eraut, 2004), facilitating positive interpersonal relationships among members of the organization (Cuyvers *et al.*, 2016) or promoting new activities whose development represents a challenge for employees (Nilsson and Rubenson, 2014).

IL is related to organizational learning (Za *et al.*, 2014), and we should therefore also consider the organizational factors that influence it and that Jeong *et al.* (2018) synthesize in four aspects:

(1) organizational characteristics;
(2) organizational interventions;
(3) tools and resources; and
(4) organizational culture and environment.

In relation to this last aspect, Watkins and O'Neil (2013) consider that the culture which favours organizational learning is those that favours initiative, research habits and experimental thinking.

School organization as a context: organizational development and organizational learning

Organizational development is:

> [...] a response to change, a complex educational strategy which aims to change beliefs, attitudes, values and organizational structures, so that they can better adapt to new technologies, markets, new challenges and the rapid pace of change (Bennis, 1973, p. 2).

This classic definition of organizational development is still valid, as evidenced by Rodríguez-Gómez (2020, p. 39), when establishing that "the learning and professional development of the members of any organization are essential for its development". Therefore, any organization which wishes to change must favour the development of its members, promoting learning and planning actions which allow improvement (Rodríguez-Gómez, 2015). As shown by Chitra-Rekha *et al.* (2020), the way in which an organization manages its human resources influences organizational learning: if training and skill-building programmes are promoted for employees and performance-based compensation systems established, organizational learning increases, improving the productivity of the organization.

Before one can speak of a "learning" organization, learning must be present at the level of the person, the group and the organization itself. The learning-driven organization model proposed by Garad and Gold (2019) entails the three levels, and they consider that leaders should redesign organizations to promote learning at each level, structure and institutionalize

it and considering the importance of the technology without neglecting the balance between person and machine.

Organizational culture is one of the key elements for facilitating or hindering organizational learning (Gairín, 2000). Rodríguez-Gómez (2020) affirms that for it to occur, in addition to ensuring that an organizational culture is collaborative, pedagogical support structures must be implemented and cooperative processes established. For his part, Martin (2000) establishes the relationship between the work environment and organizational learning, with 6 characteristics of the environment that facilitate this learning: the participation of individuals and groups in the decision-making processes of the organization; cross-curricular communication within the organization; the establishment of trust between members; direct evaluation of the achievements of each person; reduction of uncertainty by making clear, shared normative approaches and appreciation of error as an inherent part of the learning process in innovation processes.

The culture and climate of schools are two of the factors that are revealed, in recent research, as the most important for organizational learning to take place. The qualification of school leaders through simulation promotes an improved culture of organizational learning (Shapira-Lishchinsky, 2020), observing a positive relationship between the culture of organizational learning and the climate of innovation, which favours the intention of teachers to remain at the schools (Da'as *et al.*, 2020). Furthermore, there is a positive correlation between an organizational learning culture and good student learning outcomes (Serpa *et al.*, 2020).

Lagrosen and Lagrosen (2020) identify a series of categories that characterize organizational learning, and which are in line with the four characteristics detected by Johnston and Caldwell (2001): an inclusive structure geared towards collaboration; effective communication channels; attention to the professional development of the people in the organization and learning-centred leadership.

Methodology
The research follows the interpretive paradigm, adopting an eminently qualitative approach, as we intend the description and in-depth understanding of the object of study (Lochmiller and Lester, 2015).

Sample
The data was collected at a sample of 22 schools, combining the variables of stage (primary and secondary) and ownership (state and private) to represent the four types of the Spanish educational system reality: state primary schools (27.27%, $n = 6$), private primary schools (27.27%, $n = 6$), state secondary schools (22.73%, $n = 5$) and private secondary schools (22.73%, $n = 5$). The schools were selected following a non-probabilistic convenience sampling. At each school, we interview a member of the school leadership team and three teachers who volunteered to take part in the study.

Twenty-one school principals (average age of 46), of which 57.1% were women with average experience in the position of 8 years and 60 teachers (average age of 43), of which 56.8% were women, with average teaching experience of 18 years (Table 1).

Additionally, 17 experts took part in a contrast phase: 1 education inspector, 4 members of school leadership teams, 4 teachers, 6 experts/researchers and 2 trainers.

Data collection tools and process
The data collection process took place in two stages:

(1) exploratory phase (semi-structured interviews); and

(2) contrast phase (three focus groups).

The semi-structured interviews were used with the goal of investigating the IL strategies used by the teaching staff and identifying the conditions that favour or hinder it. The questions were structured around three key themes:

(1) strategies used to learn and generate IL;

(2) determining factors for IL; and

(3) proposals to promote IL.

The same questions were asked both to the group of school principals and the group of teachers.

The focus groups made it possible to complete, deepen and contrast the opinions of school principals and teachers about the strategies, conditioning factors of IL, and the processes that may be adopted to favour it. The themes addressed were the same as in the interviews, and the questions formulated to the experts were based on the preliminary report obtained from the analysis of the interviews.

Prior to the interviews and focus group sessions, we asked our participants for their consent to participate in the interviews and record the session.

Data analysis

Oral records of interviews and focus groups were transcribed and analysed using MAXQDA 2018.1. The data was organized according to the research questions, to preserve the coherence of the material and without distinguishing the origin of the data (Cohen *et al.*, 2011).

We conduct a deductive-inductive coding process: we started with a book of codes agreed by the researchers but also some codes emerge from the data.

The content analysis followed the interactive model proposed by Miles *et al.* (2014), performing a process of data reduction, arrangement and transformation, and formulation and verification of conclusions. As a result, 439 units of meaning emerged, grouped into 33 codes, grouped in turn into 3 categories. Figure 1 shows the relationship and linkage of the categories and codes.

Results

The results are grouped according to the three questions asked and which have guided the research process.

Sociodemographic variables	School principals (25.9%, *n* = 21)	Teaching staff (74.1%, *n* = 60)	Total (*n* = 81)
Age (average)	M = 46.24 (SD = 7.75)	M = 42.22 (SD = 10.17)	M = 43.26 (SD = 9.71)
Gender			
Female	57.1% (*n* = 12)	56.7% (*n* = 34)	56.8% (*n* = 46)
Male	42.9% (*n* = 9)	43.3% (*n* = 26)	43.2% (*n* = 35)
Years of teaching experience (average)	M = 21.43 (SD = 8.74)	M = 17.37 (SD = 10.93)	M = 18.42 (SD = 10.51)
Years of experience in management (average)	M = 8	–	–

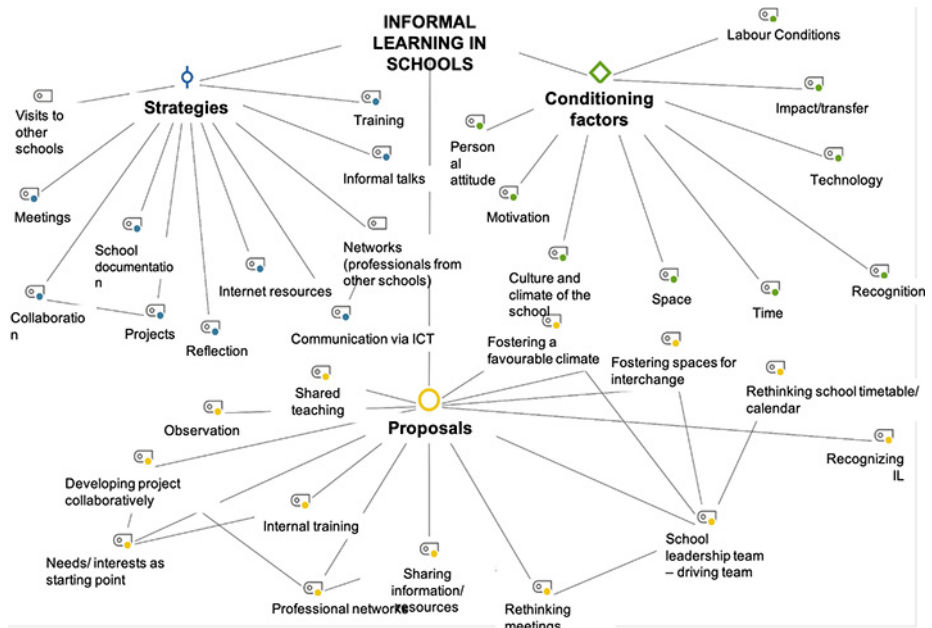Table 1.
Characteristics of the sample

Figure 1.
Analysis categories
and codes

RQ1: What strategies do teachers use to learn and generate IL?
The interviews made it possible to identify eleven different strategies (Figure 1) that the participants (teachers and experts) consider key to promoting IL and which are related to sharing day-to-day concerns with other colleagues and generating new learning. It is not a closed list and the teachers themselves remind us that:

> The interesting thing about IL is that there is no closed list of possible strategies (Teacher, State Secondary School: T-StSS).

> All strategies can be useful if they are aimed at acquiring new knowledge (Teacher, Private Primary School: T-PrPS).

In the first place, they put work meetings, which go beyond the mere transfer of information and allow people to reflect on their daily professional practice and the joint search for strategies to improve it:

> Every week there are times for interchange through the meetings of the teaching team, either with teachers from the same subject area or which all the teachers take part in (T-StSS).

Secondly, training activities (lectures, workshops, seminars, etc.) inside and outside the school are linked to IL. The participants emphasize that the training activities are an excuse to share space and time with other teachers and discuss topics of common interest:

> Face-to-face courses where you can talk to the trainer and with colleagues [. . .]. I am very much in favour of conversations about day-to-day issues and of sharing goals immediately (T-StSS).

This is followed by informal chats with colleagues inside and/or outside the school to allow for the exchange of information, documentation, best practices, etc. and reflection on topics of professional interest:

> The most utilized [strategy] is the informal chat with people who we think can help us, either by affinity (dealing with the same students, similar subjects, etc.), or by believing that they can provide us with a solution (greater experience, similar previous cases, etc.) (T-StSS).

Another strategy cited is the creation of professional networks. These basically allow interchange via email and WhatsApp but also promote informal face-to-face or virtual meetings (via Twitter, forums, etc.). As one teacher states:

> The concern that primary-school teacher always has leads us to send each other information, with teachers from the same school or other schools, and with friends from university. There is a lot of information transfer, even though WhatsApp (T-PrPS).

Although, to a lesser extent, participants remarked, other strategies which promote IL: participation in projects, consultation of documents generated at the school level, reflection on one's own practice, and visits to other schools to get to know other realities and projects. There can be many, very varied strategies, as pointed out by one school principal:

> Collaboration with other schools and other professionals, re-editing the school's internal documentation, networking [. . .], taking part in seminars and innovation projects with others. All of these helps and serve for learning because they encourage sharing (School Principals, State Primary School: P-StPS).

The strategies identified by the participants involve establishing some type of relationship and link with others, although strategies of a more individual nature, such as Internet searches, are also considered within IL. One teacher is of the opinion that:

> Internet search is widely used. It allows access to a wide range of resources and information. Visiting the websites of other schools, blogs by colleagues, official centres, etc. allows me to resolve many doubts or, at the very least, to verify that my doubts have not been satisfactorily resolved by my colleagues either (T-StSS).

The technology is considered an ally for IL: it supports and facilitates the process of communication, exchange, and storage of information:

> [Technology] is used for sharing documents, creating documents jointly and facilitating access to relevant information by groups with common interests (School Principal Private Secondary School: P-PrSS).

Finally, teachers and experts consider that IL has been promoted in recent years because the budget cuts have led to a reduction in the supply of training, both in public and private schools:

> Schools favour IL because there is less and less traditional training. Exchanging experiences, informal talks, etc. are encouraged (Teacher, State Primary School: T-StPS).

In this regard, experts consider those an opportunity, since allow teachers to discuss and confront the real needs of the school. One expert defends the opportunity that offers internal training:

> Internal training is an easy way to share and reflect: 1) You do not need to go outside the school; 2) It is easier to put into practice the next day (Expert).

RQ2: What factors condition IL processes in schools?
School principals, teachers and experts agree determining factors for the development of IL in the school context, distinguishing between personal, relational and organizational factors, and others linked to the educational system.

At a personal level, they identify the following factors as determinants of IL: a professional attitude towards learning, collaboration and teamwork and motivation, predisposition and interest in learning. Several participants express the opinion that the personal factor is decisive:

> The primary factor stems from the idiosyncrasy of each person. Somebody with no interest in teamwork will never share their doubts as willingly as another more open person (T-StPS).

> Personal motivation, predisposition to learn and a "sponge" attitude are much more important than financial compensation or professional recognition, which are much more closely related to formal learning (T-StSS).

Linked to relational factors, the establishment of relationships based on trust and mutual help are also considered essential for IL. Creating spaces for meetings, ensuring a favourable climate at the school and communication and links with other professionals is important for teachers, as:

> A good working environment with colleagues makes it easier for IL to occur. It is important that a strong relationship system is promoted among professionals (Teacher, Private Secondary School: T-PrSS).

In contrast, a bad work climate where individuality is fostered does not facilitate IL:

> Rivalry between teachers make IL difficult. It seems strange that rivalry should exist between adults in a formal job setting, and yet it does (T-PrPS).

For that reason, the school leadership team plays a central role in the generation of an atmosphere oriented to sharing and mutual help. Teachers and experts consider that without the support and involvement of the school leadership team, it is very difficult for IL to be promoted in schools and that it ends up generating organizational learning:

> A key element for me is creating this trust between the school leadership team and the teachers (TStPS).

Focusing on more organizational factors, the existence or otherwise of physical spaces for meeting each other (for example, the staff room), as well as whether there are gaps of time within the school timetable for the informal exchange of experiences and knowledge are important conditioning factors. As one teacher puts it:

> Times and spaces are needed for sharing experiences. The organization of time beyond teaching hours should consider time for sharing experiences. Sharing doubts only in the time between classes is not enough to develop IL (T-StSS).

And some add that this is even more difficult when it comes to sharing, reflecting upon, and generating knowledge with teachers from other schools, however aware they may be of the benefit that this would bring:

> It is sometimes difficult to access the knowledge possessed by teachers from other schools. We know that we can learn a lot from others, but there is no time available for meeting them, for seeing different ways of working and learning from them by sharing experiences and resources (P-StPS).

Technology is an ally in this context, as one teacher puts it:

Technology makes it easier for you to have relationships with other colleagues on a professional and personal level (T-PrSS).

As explanatory factors for the lack of time, some point out the excessive bureaucratic work, the high workload, and the lack of recognition by the authorities and/or the school leadership team:

The timetable limits how much we can exchange experiences or the way we do things. The fact is that there is not so much time available in our schedules. We try to make space, but what with meetings, bureaucracy, and so on, we have very little time for sharing (T-StPS).

For the experts, citing lack of time as a limiting factor is just an excuse. They maintain that teachers who are interested and willing find the time they need for learning and exchanging knowledge. One expert wonder:

Is the working day really a constraint? Can the schools not find an hour within the school day to bring teachers together and hold an informal seminar, even if it is within the same school? (Expert).

Finally, the recognition and impact of IL are cited as important systemic factors. Both teachers and experts maintain that participation in IL actions is not recognized (certificate of attendance, salary supplements, reduction of working hours, etc.). Principals add, that, on occasions, there is no possibility of transferring informally generated learning, due to lack of interest or time, as we have previously indicated.

RQ3: What changes should be introduced in schools to favour IL?
The professionals taking part in the study acknowledge that they have a lot of work ahead of them to get IL promoted in schools. They point out that the key factor is personal – the desire of each professional to learn and share – around which pivot other types of factor which *can* be influenced:

The essential factor, in my opinion, is endogenous to each person, and is therefore the decisive one. Now, if we consider this variable fixed (equal interest on the part of all), we can improve the IL (dependent variable) with changes (independent variable) (T-StSS).

In this sense, there are many, very varied proposals. Teachers and experts focus mainly on the organizational sphere and the educational system and are aimed at counteracting the factors that hinder IL – such as the lack of times and spaces for interchange – and to encourage strategies that they consider favour the generation of IL – internal training, observation, etc.
To deal with the factors that hinder IL, school principals and teachers propose increasing physical and virtual spaces for interchange, rethinking the school timetable and calendar, creating a favourable climate, and recognizing IL activities. To illustrate these measures, the following are the proposals of some of the participants:

Spaces and times which encourage sharing with others should be favoured. It is not only a question of providing space and time, but also to generate an atmosphere that favours the emergence of interchange situations (T-StPS).

Facilitate contact between the members of the teaching staff with a suitable physical space, for example, a large staff room, other rooms, or offices for more than one person, etc. [. . .]. Also, facilitate virtual contact between the members of the teaching staff, taking advantage of the communication facilities offered by technology (T-PrPS).

More emphasis should be placed on the organization of activities outside normal school hours. We work more than our 20 hours of teaching, nor we have two months of vacation in summer. These hours could be used to organize IL activities (T-StSS).

Regarding strategies, it is a matter, on the one hand, of rethinking existing spaces for interchange (such as meetings), and, on the other, of promoting actions which are already being carried out in some settings, starting always with the interests and needs of those involved. In this regard, experts advocate increasing the dissemination of information and resources, the development of shared projects, internal training actions, observation among professionals or professional networks. It is a question of promoting diverse "strategies to help teachers be heard and strengthen their experience" (T-PrPS) and the school leadership team is key for this.

How can school principals promote IL in schools? One internal strategy would be to identify a shared interest [. . .] and one external one would consist of linking the personal with the professional [. . .]. It is necessary to encourage personal interest to be related to the immediate practical solution of the needs of the school, but also to the personal interests of the teachers (Expert).

Discussion and conclusions

In relation to *RQ1*, the results focus on the set of strategies and practices used by the sample of Spanish teachers to learn and generate IL. Although this is not an exhaustive list, the ones most used by them are highlighted. The teachers interviewed are especially interested in strategies that promote peer learning, either with work colleagues from school projects or working meetings and joint reflection, or with external people through professional networks, which is related to the multifaceted networks of people, communities and tools highlighted by the results of Trust *et al.* (2016). Furthermore, according to Macià and García (2016), teachers refer to the potential of ICT to facilitate this contact with colleagues and professionals from other schools to work together and learn from the exchange of information.

The fact that teachers learn mostly from collaboration with others Bolívar (2001) leads us to the intuitive conclusion that organizational learning is generated in the schools that formed part of the sample.

In relation to *RQ2*, the factors that condition IL processes in schools are multiple and highly diverse. Considering Levin's intervention spaces, the conditions that have to do with the individual (attitude, motivation, interest, etc.), the group (trust, communication, collaboration, etc.) and the organization (climate, culture, spaces, etc.) are evidenced by the conducted research.

In addition, there are elements that the interviewees link to the Spanish education system, such as recognition of knowledge acquired through informal processes, appreciation of the impact on society of the IL generated in the schools, as well as the lack of material resources and time to implement the new knowledge acquired, which are related to the actions that should be done at organizational level to promote IL (Ellinger, 2005; Schürmann and Beausaert, 2016). In the Spanish context, the time devoted to teaching, the resources available in schools and the recognition of learning at the salary level or in job promotions are regulated at the supra-organizational or system level, which is why teachers and school principals identify these factors as external to the organization itself.

In relation to *RQ3*, the results provide some ideas about what could be done at the organization level to promote IL. Above all, it is the role of school principals, as highlighted by Garad and Gold (2019), which stands out as drivers of these types of learning through actions aimed at generating a climate of trust, related the importance of giving support and tolerate the error highlighted by Schürmann and Beausaert (2016) and the importance to

facilitate a good work environment established by Martin (2000). As well as such things as creating spaces to allow interchange, rethinking the approach of meetings or the actual school timetable to favour more time for interchange and joint reflection, aspects also highlighted by Eraut (2004) and Hoekstra, et al. (2009).

If we consider IL, developed to a great extent from self-training processes, thematic conversations, informal spaces, valuable advice, social networks or communities of practice (Gairín et al., 2018) is closely related to self-regulation processes for professional development and organized evaluation processes (Rodríguez-Gómez et al., 2020), we can state that group and organization variables related to IL are always influenced by the individual component.

Professional and organizational development can be aided by a certain formalization of IL and informalization of formal learning (Latorre, 2020). It is a question of developing the competency of learning how to learn together and accepting that by sharing, more is learned and the organization can turn more effective to achieve its objectives and results.

Limitations and recommendations for future work

A limited, but representative, number of Spanish schools participated in the study. Given that the participation of schools in the research was voluntary, as was that of the teachers who agreed to be interviewed, some bias may exist. Future work might focus on increase the school sample and analysing in greater detail the effect of different management styles, as the results inform that school leadership plays a central role on IL.

Implications for practice

The results presented point to the need for decisive support from school leadership teams for collaborative work processes and joint reflection, which are one of the basic conditions for facilitating IL and, at the same time, for encouraging organizational learning. This role should be considered in future principals training programs.

Furthermore, in the Spanish context, the government has the challenge of considering the participation of teachers in formal training actions with the recognition of IL generated in the development of daily professional activity in terms of job promotion. It is a question of combining personal concerns with those of the organization and the educational system, making the existence and development of learning organizations real (Chitra-Rekha et al., 2020; Marsick and Watkins, 1999; Senge, 1992).

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Further reading

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