

Continous training under the perpesctive of professional collaboration among teachers: a bibliographic review^{1 2}

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ABSTRACT

This article presents study data whose objective was to review the state of the question regarding continuing education in the perspective of professional collaboration between teachers. The interest in the theme stems from the specialized literature pointing out that the continuing education offered through courses, lectures and seminars has been insufficient to meet the needs of teachers in the face of the current challenges of the profession, showing the convenience of knowing more effective alternatives. Recent empirical in-service training was searched using the descriptor of recent empirical research produced in the last five years and published in the database of the Brazilian Digital Library of Theses and Dissertations, BDTD, Capes Periodical Portal and in the scientific data portal WorldWideScience.org. The results found show that continuing education processes, carried out in a collaborative way between teachers, promote changes in pedagogical practice and contribute to the professional development of teachers.

KEYWORDS: Continuing teacher education. Professional collaboration. Teacher Professional Development.

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A formação continuada na perspectiva da colaboração profissional entre professores: uma revisão bibliográfica

RESUMO

Este artigo apresenta dados de estudo que revisou o estado da questão a respeito da formação continuada na perspectiva da colaboração profissional entre professores. O interesse pelo tema decorre de a literatura especializada apontar que a formação continuada realizada por meio de cursos, palestras e seminários tem sido insuficiente para suprir as necessidades dos professores frente aos atuais desafios da profissão, evidenciando a conveniência de se conhecer alternativas mais eficazes. Foram buscadas, a partir do descritor “formação continuada colaborativa em serviço”, pesquisas empíricas recentes produzidas nos últimos cinco anos e publicadas na base de dados da Biblioteca Digital Brasileira de Teses e Dissertações (BDTD), no Portal de Periódicos da Capes e no portal de dados científicos WorldWideScience.org. Os resultados encontrados apontam que processos de formação continuada, realizados de modo colaborativo entre os professores, promovem mudanças na prática pedagógica e contribuem para o desenvolvimento profissional docente.

PALAVRAS-CHAVE: Formação continuada de professores. Colaboração profissional. Desenvolvimento profissional docente.

Formación continua desde la perspectiva de colaboración profesional entre profesores

RESUMEN

Este artículo presenta datos de un estudio cuyo objetivo fue revisar el estado de la cuestión de la educación continua en la perspectiva de la colaboración profesional entre docentes. El interés por el tema surge de la literatura especializada que señala que la formación continua ofrecida a través de cursos, conferencias y seminarios ha sido insuficiente para atender las necesidades de los docentes ante los retos actuales de la profesión, mostrando la conveniencia de conocer de forma más eficaz alternativas. La formación en servicio empírica reciente se buscó utilizando el descriptor de investigación empírica reciente producida en los

últimos cinco años y publicada en la base de datos de la Biblioteca Digital Brasileña de Tesis y Disertaciones, BDTD, Capes Periodical Portal y en el portal de datos científicos WorldWideScience.org. Los resultados encontrados señalan que los procesos de formación continua, realizados de forma colaborativa entre docentes, promueven cambios en la práctica pedagógica y contribuyen al desarrollo profesional de los docentes.

PALABRAS CLAVE: Formación continua del profesorado. Colaboración profesional. Desarrollo profesional docente.

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Study characterization

This study seeks to understand how continuing education, conducted from the perspective of professional collaboration among teachers, is discussed in the specialized literature, as well as the possibilities and limits of this formative modality. The study is characterized by the state of the issue, described by Nóbrega-Therrien and Therrien (2004) as a non-systematic review of the literature that consists of taking the researcher to register, from a bibliographic survey, how the topic or object of your investigation stands within the reach in the current state of the science. The authors clarify that the state of the issue is opposed to studies called "state of the art" or "state of knowledge" because its scope is limited to the construction of the object of investigation intended by the researcher, restricting itself to studies and parameters close to the specificities of interest and requiring consultation of substantial documents. On the other hand, the "state of the art" or "state of knowledge" aims to map and discuss certain academic production in a certain field of knowledge, constituting a methodology of an inventory and descriptive character on the topic it seeks to investigate. According to the authors, state-of-the-issue studies result in clarification and delimitation of the original contribution of the study in the scientific field.

To achieve the proposed objective, recent empirical research was sought, carried out in the last five years, using the descriptor "continuous collaborative training in service", in the database of the Biblioteca Digital de Teses e Dissertações (BDTD - Biblioteca Digital de Teses e Dissertações (BDTD)), on the Periodicals Portal *Capes* and on the WorldWideScience.org scientific data portal.

The survey, carried out in the second half of 2019, identified 241 papers. Of these, 71 were in the *BDTD*, six of which complied with what was proposed by the study. In the Periodicals Portal *Capes*, 125 papers were located, of which two were selected. On the WorldWideScience.org portal, of the 45 studies, only two met the stipulated criteria.

The ten selected works were read in their entirety aiming to highlight the relevance of the investigations carried out in the field of collaborative continuing education among teachers, especially regarding the contributions of professional collaboration to teaching, changes in pedagogical practice and the professional development of educators, as well as the possibilities and limitations of this training modality.

The investigation is justified as the specialized literature in the field of teacher education indicates that continuing education carried out through courses, lectures and seminars has been shown to be insufficient to meet the needs of teachers facing the current challenges of the profession, showing the convenience of knowing more effective alternatives for its realization.

Delimiting concepts

According to Saviani and Duarte (2010), training is an educational process, formal or informal, conducted in close relationship with the sociocultural world. Based on this process, according to the authors, men modify themselves, others and learn to act on reality and transform it.

Alvorado-Prada, Freitas and Freitas (2010) state that training is a process of human development. For the authors, the professional dimension makes up this process, as teachers develop "mainly in the contexts of their work in the school institution where they create relationships based on complex structures that support them and allow their change" (ALVORADO-PRADA; FREITAS; FREITAS, 2010, p. 370 - our translation).

As it is an educational process and thus lasts a lifetime, continuing education is often associated with the concept of professional development. The latter, according to André (2010), has been used by some authors in the field to replace initial and continuing education "because it more clearly marks the concept of teaching professional and because the term development suggests evolution and continuity, breaking with the traditional juxtaposition between initial and continuing education" (ANDRÉ, 2010, p. 175 – our translation).

Professional development, according to Garcia (2009, p. 10), is "a process that can be individual or collective, but which must be contextualized in the teacher's workplace" (our translation). For the author, the experiences that involve professional development have an intentional character and aim to promote change to achieve student learning and the social quality of the school.

The literature shows that the classic models of continuing education for teachers, based on repetitive and mechanical practices, do not favor a dialogical, reflective, and collaborative process in identifying problems and joint resolutions in schools. Therefore, rethinking this training modality requires, as a fundamental basis, that the school be the privileged *locus* and that this process has a reference the teaching knowledge, respecting the different stages of professional development of each teacher involved. (CANDAU, 1996, 1997; IMBERNÓN, 2010, 2011, 2017; ALVORADO-PRADA, 2010; NÓVOA, 2013, SILVA JUNIOR, 2015).

For Imbernón (2011), the continuing education that takes place inside the school can promote a greater role for teachers by involving

strategies that are employed jointly by trainers and teachers to direct the programs to meet the school's improvement needs. From this perspective, continuing education is not conceived as a set of “techniques and procedures”, but carries an “ideological load, values, attitudes, beliefs” (IMBERNÓN, 2011, p. 85 - our translation). This type of training presupposes the development of a “collaborative paradigm” based on assumptions as a process of reflection-in-action; reconstruction of school culture; bet on new values; collaboration as a work philosophy; participation, involvement, ownership and belonging; respect for the power and capacity of teachers; redefinition and expansion of school management (IMBERNÓN, 2011). Consequently, continuing education developed with such characteristics can become “a process of self-determination based on dialogue”, since a kind of “understanding shared by the participants about professional tasks and means to improve them is installed, and not a set of roles and functions that are improved through technical rules” (IMBERNÓN, 2011, p. 91- our translation).

It is within in this scenario that continuing education carried out from the perspective of professional collaboration between teachers appears as a possible strategy, because as stated by Richit, Ponte and Tomkelski (2020), professional collaboration contributes to the improvement of teaching work, the professional development of educators and changes in pedagogical practice. Oliveira, Carvalho and Carrasqueira (2020) complement by pointing out that collaboration between teachers has a positive impact on student proficiency and is directly associated with the teacher's working conditions, more specifically regarding the number of schools in which they work, and the leadership exercised by the director.

Some authors differentiate the terms “cooperation” and “collaboration”, as is the case of Boavida and Ponte (2002, p. 4), who, when analyzing the etymological origin of these words, concluded that, despite both having the Latin root *co*, whose meaning is joint action, the

word “cooperation” comes from *operare* (to operate), and “collaboration” from *laborare* (to work). In this way, they have different meanings. Operate refers to the idea of executing something, performing a simple and defined operation; since working is related to the development of an activity to achieve a certain objective and is also “thinking, preparing, reflecting” (BOAVIDA; PONTE, 2002). Despite their conceptual differences, the terms “cooperation” and “collaboration” refer to group activities that have a common goal and “derive from two main postulates: on one hand, that of rejection of authoritarianism, of pedagogical conduct with hierarchical motivation, unilateral” and, “on the other hand, it is about achieving a socialization not only through learning, but mainly in learning” (TORRES; ALCÂNTARA; IRALA, 2004, p. 6 – our translation).

An important contribution to the understanding of professional collaboration is also found in the psychology proposed by Vygotsky (1987), for whom the importance of the other for human development makes it clear that “peer collaboration during learning can help develop general problem-solving strategies and skills through internalization of the cognitive process implicit in interaction and communication” (VYGOTSKY, 1987, p. 17). Thus, the perspective of professional collaboration can be seen as a powerful way of developing inter-psychological processes since these occur through the relationship with other subjects.

The process of learning in collaboration with the other is explained by Vygotsky (2007) from a dialectical perspective through the concept of mediation, in which the possibility of knowledge acquisition is emphasized by what the author calls the zone of proximal development, namely:

[...] the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers (VYGOTSKY, 1978, p. 86).

Although the author refers to children, his studies are focused at understanding human development; therefore, we can extend the concept of mediation and professional development zone also to the relationships that adults establish with other subjects, as mediation is an element that enables and constitutes the relationship between people. From this perspective, professional collaboration can favor mutual learning between teachers when placed in a learning situation, as explained by Cericato (2010), based on Vygotskian precepts.

Fullan and Hargreaves (2001) and Thurler (2001) highlight that there is a predominance of a culture of teacher isolation in schools that prevents them from working together, learning from each other, and improving their skills as a community. This fact is due, for example, to factors such as the architecture of schools, the structure of their timetables, the workload, and the history of the teaching profession. However, proposing a collaborative work does not mean denying the importance of individual activity, autonomy, and independence of teachers, as these can enhance the teaching work when added to group activities (FULLAN; HARGREAVES, 2001).

In schools where there is a culture of collaboration, attitudes, and behaviors such as help, support, trust and openness are widespread in the relationships among teachers. In addition, there is an implicit appreciation of individuals as persons and of the groups of which they are a part. According to Fullan and Hargreaves (2001), the benefits of this type of culture can affect the school, the work environment, students, and the ability of teachers to exercise criticism about any changes, no longer having complete dependence on external decisions imposed vertically. In individualist cultures, the authors say, “uncertainty, isolation and individualism constitute almost by definition a potent combination:” to support “they sustain educational conservatism, since the opportunity and pressure arising from new ideas are inaccessible.” (FULLAN; HARGREAVES, 1991, p. 39). Isolation, which at first may be a defense of

teachers to external judgments, ends up preventing a possible resolution of problems together with co-workers (THURLER, 2001).

It is not an easy task to lead teachers to abandon their isolation and collectively construct a sense of change. The lack of cooperation and dialogue can be related to a series of fears on the part of teachers, such as the fact that they are not comfortable with the presence of another teacher in their classroom, because they associate memories of the beginning of career, when they were exposed to criticism from trainers or superiors, verifying and evaluating their work (THURLER, 2001).

For Imbernón (2010), the continuing collaborative formation among teachers can help to break with the teaching isolation, however, its realization presupposes attitudes of dialogue, debate and “non-imposed consensus, conflict confrontation, inquiry in a collaborative way for the development of the organization, individuals and the community that surrounds them”, seeking to maintain “a climate and a training methodology that place teachers in situations of identification, participation, acceptance of criticism and discrepancy, raising creativity and capacity regulation” (IMBERNÓN, 2010, p. 64 - our translation).

When conducted in the *locus* of the school, according to Imbernón (2017), continuing collaborative training should be based on the assumption that the teacher is a producer of knowledge, and not just a task performer applying new guidance from outside the school. In order to achieve this, it is necessary that the training environment overcome the obsolete concept that associates training with scientific, didactic, and psycho-pedagogical updating, since such concept hardly gives rise to experiences of innovation in the school and in the collective practice of teachers. For the author, the training processes centered on the school and on teaching needs should contribute to discovering the theory, ordering it, supporting it, revising it, and building it.

It is necessary to observe, however, what was highlighted by Candau (1996, p. 152), for whom the latest trends for continuing teacher education

bring great contributions, but also present some shortcomings. According to the author, a renewal in training practices within schools will not be enough if it does not “dialectically articulate the different dimensions of the teaching profession: psycho-pedagogical, technical, scientific, political-social, ideological, ethical and cultural aspects.”

Literature on continuing education from the perspective of professional collaboration among teachers

Among the empirical research found, the one conducted by Gabre (2016) investigated how a proposal for collaborative work in a training context between early childhood education teachers and museum professionals could enable the transformation of practice and the professional development of those involved in the research. The study, with a methodological approach to research-intervention, consisted of a continuing collaborative education and was based on the narratives constructed by the participants. He revealed that, because of the collaborative formative process, those involved demonstrated changes in their conceptions of children, children's culture, and art; teamwork enabled the expansion of knowledge and professional protagonism, as well as helping to promote productive proximity between museum and school professionals (GABRE, 2016).

Bacco (2016) analyzed the potential of a training process constituted from a collaborative group of teachers from the initial years of Elementary School for the use of media at school through the collaborative research methodology. According to the researcher, collaborative continuing education contributed to overcoming difficulties in the use of new technologies, making teachers autonomous and able to use them as a pedagogical tool. In addition, she proved the support attained when teachers listen to experiences lived by co-workers and reflect on them. The author highlights that collaborative continuing

education by itself does not guarantee “the achievement of mobilizations in the school context, just as a connected school does not guarantee collaborative relationships due to the simple presence of technology” (BACCO, 2016, p. 198 - our translation). For the author, this will only be possible if schools offer conditions to support the change from teacher isolation to a collaborative culture and if we problematize the current education system, which does not guarantee enough time for this type of training due to the teachers' workload. The collaborative way in which the training was conceived in the study generated motivation, interest, and commitment from the teachers, who “recovered the desire for active participation in the educational processes” (BACCO, 2016, p. 119). Among the limiting aspects of the training experience, the author points out “the difficulties to mediate conflicts and ensure that relationships are truly horizontal, guaranteeing words and space for everyone” (BACCO, 2016, p. 200). In addition, she claims that the school is a favorable setting for collaborative continuing education, because, as she already has her group of professionals, she can group them according to the theme of interest of each one and, thus, make better use of the available time for collective work (BACCO, 2016).

From the constitution of a collaborative group, Souza (2016) investigated how collaboration helped in the professional development of a group of Chemistry teachers. Meetings were held during collective pedagogical work schedules, organized according to the teachers' interest and time availability (SOUZA, 2016). During the meetings, teachers reflected on the teaching process, exposed their points of view, shared their experiences, and discussed possible solutions to the problems posed in everyday school life. The results of the study demonstrate that the collaborative group is an effective way of promoting professional development by enabling teachers to break with teacher isolation, share experiences, reflect on everyday problems in the classroom and together build solutions based on the modification of their

educational concepts (SOUZA, 2016). The author points out that, when the teachers worked in collaboration, "their professional interests and needs were reconciled in order to meet the demand of the whole group" (our translation), and this joint decision led everyone to reflect as much on issues they believed to be important as on those that perhaps they did not consider it relevant in the context of teaching. (SOUZA, 2016, p. 217). The author states that the teachers' open exposition about their difficulties, the sharing of successful experiences and the quality of mediation in the group contributed to their professional development. However, he highlights that

Equipped only with their practical knowledge and specific content, teachers may not perceive the "essence" or origin of problems reported by colleagues, or uncritically accept any proposals that have "worked out" with another teacher. Seeing problems and their causes, crossing the limits of common sense [...] is a capacity that is built in professional practice, but mainly through access to knowledge produced in the field of pedagogy and specific didactics. In this sense, reflection on practice is compromised when the group of teachers does not have a training that enables them to ascend to more elaborate levels of reflection. (SOUZA, 2016, p. 232 - our translation)

Oliveira's work (2017), characterized as collaborative research, sought to identify the possibilities and limits of collaborative work as a training strategy to articulate Early Childhood Education with Elementary Education. The investigation focused on the Special Action Project, continuing in-service training that takes place during collective working hours in municipal schools for Early Childhood Education. The investigated group "went on building itself in a collaborative form based on a training proposal that aimed to understand internal problems," triggering an "openness to dialogue and listening to the other with recognition of their knowledge" (OLIVEIRA, 2017, p. 114 - our translation). Among the main results pointed out in the study, there is a

greater appreciation of the work of the colleague in different stages; facilitation of curriculum implementation; constitution of a learning community based on collaborative work; development of an investigative posture in relation to the challenges of practice; exchange of experiences between veteran and freshman teachers contributing to a higher quality of training and its relationship with the profession (OLIVEIRA, 2017). Study participants reported that group learning enabled changes in the way of teaching activities, integrating the look of researchers to their practices, which allowed advances in the way they proposed activities to children and in the way they recorded their work (OLIVEIRA, 2017).

The study showed the listening, facilitated by the pedagogical coordinator responsible for the continuing education in the school, as a crucial factor for the development of collaborative groups, as it made the participants feel welcome personally and professionally, thus contributing to their professional development. The author emphasizes that this collaborative path of training was only possible through the engagement of the subjects involved, who mobilized in search of a common goal (OLIVEIRA, 2017).

Speakes' research (2017) visited the history of a collaborative continuing education program developed by and with teachers at a municipal elementary school. The author states that this training modality promotes collaboration and autonomy and can strengthen the group of teachers in "a way that determines the performance of the school, it seeks strategies and practices to maintain these principles and maintain itself, including as a form of resistance to defend their social and political condition" (SPEAKES, 2017, p. 18). The experiences shared by the participants revealed an appreciation of the collective study based on reflection on the school's needs and benefits such as the development of projects involving teachers from different disciplines and greater proximity between professionals, families, and the community (SPEAKES, 2017).

Among the main conclusions of the study regarding the potential of collaborative work in continuing in-service training is the fact that,

[...] if the teacher can elaborate and produce knowledge, he can also act politically within the school and in society. And when he does it collaboratively, the school can be a place of transformation and take firm steps on the path to emancipation. (SPEAKES, 2017, p. 141 – our translation)

Bueno (2019) developed a collaborative training program among teachers based on the reflective process of teaching to work in an inclusive context. According to Bueno (2019, p. 117), the participants signaled the need for “a more frequent contact and a common work schedule, also indicating the collective pedagogical work schedule as a privileged space for this moment of exchange to take place (our translation)”, which, according to the author, would directly reflect on professional practices related to the target audience of Special Education in Youth and Adult Education and on their permanence in school (BUENO, 2019). The study revealed that collaborative training helps teachers to meet their work demands through a collective space where they can share “questions and experienced practices” (BUENO, 2019, p. 118). The author points out as limits of this experience the way the school is organized and the times of collective meetings, in addition to the working conditions of teachers regarding the workload and the inconstancy of the teaching staff.

Miranda and Pino (2018) investigated how the socialization of experiences in a continuing education process contributed to the implementation of an inclusive education proposal in the context of Integrated High School. Through the analysis of teachers' speeches, the authors reveal that many professors complain about the lack of support in the institution, which, in addition to generating a feeling of helplessness, which also led to lonely work, causing teachers to seek outside help from experts to carry out the educational practice

(MIRANDA; PINO, 2018). According to the authors, "the management of a heterogeneous class requires constant reflections and a dialogic posture from educators, which can be provided by training built from teacher perceptions and that imply 'doing together'" (MIRANDA; PINO, 2018, p. 306 – our translation). They claim that collaborative continuing education based on the school context can increase teachers' autonomy and reduce dependence on external experts when considering and sharing individual perceptions and experiences, even those that have not been successful, supporting "the search for new paths for institution, which prioritizes plural education, which recognizes and contemplates the differences in their daily practices" (MIRANDA; PINO, 2018, p. 313 - our translation).

Miranda and Pino (2018) point out that, although teachers highlight the importance of collective reflection, many times "distinct, sometimes conflicting, individual interests, incited even by the need for personal growth in the academic environment", as well as "different backgrounds and objectives of the subject-teachers", end up preventing cooperation between peers (MIRANDA; PINO, 2018, p. 303 – our translation). In addition, other limiting aspects of the implementation of collaborative continuing education in schools refer to the difficulty of dialogue between teachers from different, or even equivalent areas, and the lack of time for training activities due to work overload (MIRANDA; PINO, 2018).

Raposo and Freitas (2019) analyze the contributions of a continued teacher education process based on a proposal of experiential and collaborative learning. The investigation used the methodology of participatory action research and included teachers from different areas of knowledge and educational levels. The training process revealed a willingness to listen, and autonomy and interest in conducting interdisciplinary work. In the collaborative continuing education proposed by the researchers, teachers were able to play "the leading role of the education process, dodging the status of object (our translation) ", through the construction of knowledge and "mutual learning" (RAPOSO;

FREITAS, 2019, p .348). The study demonstrates that, by sharing knowledge, experiences, practices and actions, teachers both learn and teach each other, transforming the work environment into a pleasant and mutually respectful place (RAPOSO; FREITAS, 2019).

Research carried out on an international level also discusses the potential and limitations of collaborative continuing education.

Trillo et al. (2017) point to collaboration between teachers as one of the most promising activities studied in a survey on the different dimensions of continuing teacher education in the Spanish context. According to the authors, the results found, obtained with groups of teachers from various autonomous communities, demonstrate that "the collaboration of teachers in the workplace had flashes worthy of appreciation, but they do not seem to go beyond isolated experiences and activities (our translation)". There is still a traditional model of continuing education, which is the one that most achieves the participation of teachers and is the most valued by them among other modalities (TRILLO et al., 2017, p. 21).

The collective work, anchored in practical needs, decisions and tasks taken by the group, realizing that individualism must give rise to collegiate and institutional projects, appears, among other aspects, in the voice of teachers and trainers, because they show clarity of the purposes and contributions of collaboration: improve student learning and help establish positive relationships and personal and social bonds in schools. But, for researchers, it is necessary that professional collaboration between teachers go beyond and prioritizes analysis and investigation on the improvement of teaching practices (TRILLO et al., 2017).

Lavonen, Korhonen and Villalba-Condori (2018) examined the challenges of national curriculum renewal posed for Finnish education in the context of competence-based learning in the 21st century, as well as the strategies planned to overcome these challenges in a pre-service and in-service teacher education program. Although Finnish students

did well in the PISA, International Student Assessment Program 2012 and 2015, the indexes showed declining student proficiency. Therefore, Finnish educational policy makers argued that the education system was not promoting the 21st century skills that refer to learning critical and creative thinking, problem solving, and action to better integrate the use of digital tools and environments into teaching (LAVONEN; KORHONEN; VILLALBA-CONDORI, 2018).

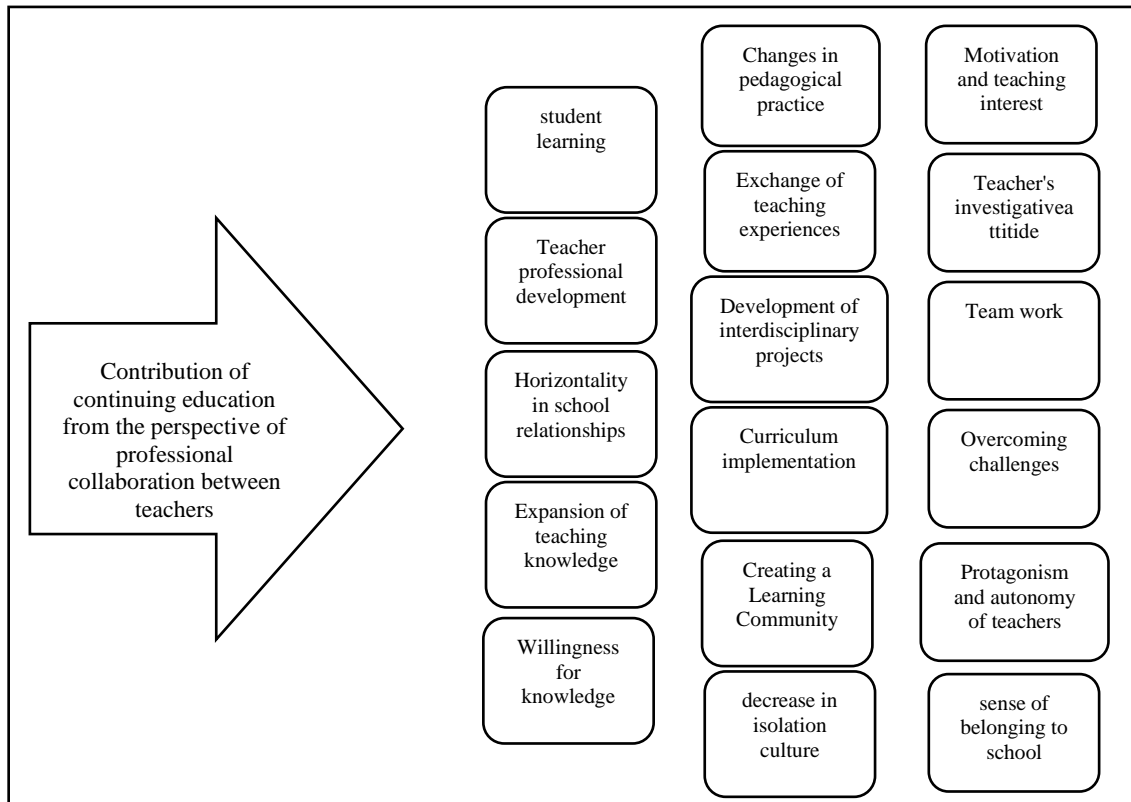
To recognize these challenges, the Finnish Teacher Training Forum was created by the Ministry of Education in 2016, with the aim of promoting the development of teachers regarding the teaching of digital technologies and tools as part of these competencies. Education experts were asked to conduct a survey on effective teacher training and, as a result, a teacher training program based on collaborative networks was built (LAVONEN; KORHONEN; VILLALBA-CONDORI, 2018).

Teachers' collaboration in the networks starts from the needs of the teachers and includes both the creation of educational innovations and their application in the classroom. Therefore, the networks serve the learning and development needs of the students in the classrooms. Further, such networking supports integrating inquiries, problem solving, and reflective practice as a part of professional development. (LAVONEN; KORHONEN; VILLALBA-CONDORI, 2018, p. 90, our translation)

The authors conclude by emphasizing the importance of collaboration in teacher education regarding pedagogical practices and teacher professional development.

As a summary, Chart 1 below presents the contributions of professional collaboration, as a training modality, to the teaching work.

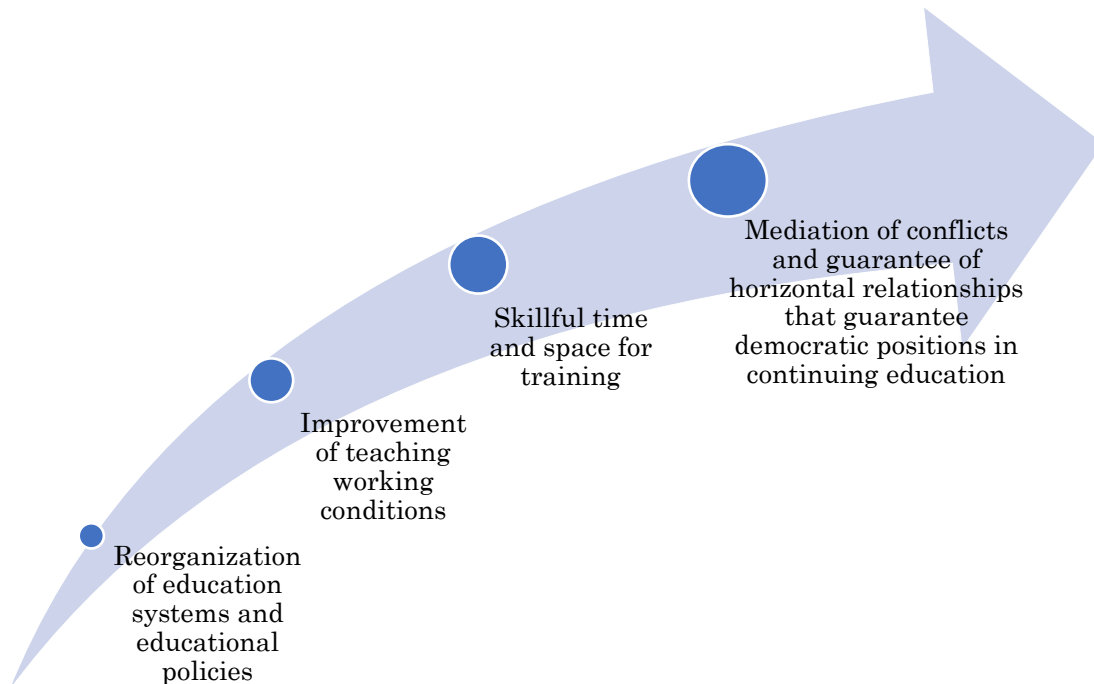
Chart 1



Source: Elaboration of the authors based on the research of Gabre (2016), Bacco (2016), Oliveira (2017), Souza (2016), Speakes (2017), Miranda; Pino (2018), Bueno (2019), Raposo; Freitas (2019), Lavonen; Korhonen; Trillo *et al.* (2017), Villalba-Condori (2018).

Chart 2 illustrates the factors that favor the development of continuing education from the perspective of professional collaboration between teachers.

Chart 2



Source: Elaboration of the authors based on the research of Gabre (2016), Bacco (2016), Oliveira (2017), Souza (2016), Speakes (2017), Miranda; Pino (2018), Bueno (2019), Raposo; Freitas (2019), Lavonen; Korhonen; Trillo *et al.* (2017), Villalba-Condori (2018).

Some discussions to conclude

To identify the existence of alternatives to the classic model of continuing teacher education, this study raised the state of the issue about modalities that develop it based on the perspective of professional collaboration. We sought to understand the contributions and limitations that this type of training presents to the work of teachers, elucidating the strategies used and the convenience of making them viable in schools.

In the localized studies, carried out in different contexts and levels of education, it was possible to identify positive and consensual points about collaborative continuing education among teachers. The results show that both schools and teachers recognize the importance of continued collaborative education in teaching work and its transformative potential in educational practice. However, its viability requires investment in improving working conditions regarding working hours and the instability

of the teaching staff; reorganization of the educational system and policies regarding space and time for dialogue and exchange among teachers; reorganization of the flows and objectives of continuing education, highlighting the importance of mediating conflicts and ensuring horizontal relationships that guarantee democratic positions.

Among the identified researches, only one presented the in-service collaborative continuing education as a procedure built from the school itself and by the teachers. This data reveals that this training modality is still an incipient reality, but that it can be constituted from the subjects themselves inserted in the work context.

The other studies presented collaborative continuing education because of an external intervention, in other words, one that is implemented by researchers as part of a scientific investigation, an aspect that makes it possible to question whether, after completion, such training continued and consolidated in schools. It is possible that, once practiced by external motivation, training carried out from the perspective of professional collaboration between teachers is not fully and lastingly sustained as a practice at school, as this depends on the motivation of teachers to engage in this training process.

Leontiev (1989) states that what psychologically stimulates the subject to perform a certain activity is the reason that corresponds to it. For this author, the reason “designates what the need becomes a goal in the conditions considered and for which the activity is oriented, which stimulates it” (LEONTIEV, 2004, p. 103). Thus, it is possible to say that the reason, when meeting a need, has the potential to guide the teacher to act in his reality.

Therefore, if we aim to build collaborative relationships between professors, it is necessary to find ways to motivate them for such action.

According to Candau (1997), to build a new perspective in the area of continuing teacher education, “it is important that this practice is a reflective practice, a practice capable of identifying problems, solving

them, [...] that be it a collective practice, a practice constructed jointly by groups of teachers or by the entire faculty of a given school institution” (CANDAUI, 1997, p. 57). However, any attempt to change or innovate educational practice within school institutions must adhere to what Garcia (1999) calls the “personal dimension of change”, which refers to the impacts that the proposal for innovation can have on beliefs and the values of teachers. This involves reflective processes about oneself in the professional context, implying personal and professional self-knowledge. Thus, if we want to promote a change in the teaching culture, this needs to be materialized first in the teacher.

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