Scientific articles

La formación permanente del profesorado de educación media superior

The permanent training of higher secondary education teachers

Formação permanente de professores do ensino secundário

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Resumen

La formación permanente del profesorado es fundamental para mejorar la calidad educativa, de ahí que sea crucial identificar áreas de mejora y diseñar planes de capacitación adecuados. Por ende, el objetivo de esta investigación fue analizar las necesidades de formación continua de los profesores de educación media superior en el Estado de México con el fin de mejorar su desempeño docente. El estudio, de naturaleza descriptiva y transversal con un enfoque cualitativo, se llevó a cabo con la participación de 48 docentes de tres instituciones públicas de dicho nivel educativo. La selección de los participantes se realizó de manera intencional a través de un muestreo no probabilístico, y su participación fue voluntaria. Los resultados revelaron que más del 50 % de los profesores de estas instituciones necesitan cursos de formación continua, dado que su formación inicial no está directamente relacionada con la

enseñanza, lo cual afecta su capacidad para liderar el proceso educativo. Además, expresaron preferencia por cursos en modalidad mixta, impartidos por facilitadores externos a sus instituciones. Las áreas donde los docentes manifestaron mayores necesidades de capacitación fueron ofimática básica, educación socioemocional y estrategias didácticas. Ante la creciente presencia de tecnologías digitales en el ámbito educativo, se recomienda adoptar enfoques flexibles e innovadores para la capacitación.

Palabras clave: docentes, educación media superior, formación permanente.

Abstract

The permanent training of teachers constitutes a complement to their training process to positively impact the quality of education. For this reason, it is important to diagnose those areas susceptible to improvement in order to design suitable training plans. The objective of the research was to determine the permanent training needs of high school teachers in the State of Mexico to improve their teaching performance. The study is descriptive and cross-sectional and with a qualitative approach; the sample consisted of 48 teachers from three institutions of this educational level, intentionally selected through a non-probabilistic sample. The results obtained show that the teachers confirm the relevance of participating in continuous training courses due to the pedagogical and didactic deficiencies of their initial training outside of teaching; they prefer that they be taught in the mixed modality and that the facilitator be an external teacher their institutions. The areas where teachers expressed greatest training needs were: basic office automation, socio-emotional education and teaching strategies. It is recommended to adopt flexible and innovative ways to carry out training given the growing presence of digital technologies in the educational process.

Key words: permanent training, teachers, upper secondary education.

Resumo

A formação contínua de professores é essencial para melhorar a qualidade educativa, razão pela qual é crucial identificar áreas de melhoria e conceber planos de formação adequados. Portanto, o objetivo desta pesquisa foi analisar as necessidades de formação contínua dos professores do ensino médio no Estado do México, a fim de melhorar seu desempenho docente. O estudo, de natureza descritiva e transversal com abordagem qualitativa, foi realizado com a participação de 48 professores de três instituições públicas do referido nível de ensino. A seleção dos participantes foi realizada de forma intencional, por meio de amostragem não probabilística, e sua participação foi voluntária. Os resultados revelaram que mais de 50% dos professores dessas instituições necessitam de cursos de formação continuada, visto que sua formação inicial não está diretamente relacionada à docência, o que afeta sua capacidade de liderar o processo educativo. Além disso, manifestaram preferência por cursos de modalidade mista, ministrados por facilitadores externos às suas instituições. As áreas onde os professores manifestaram maiores necessidades de formação foram a automação básica de escritório, a educação socioemocional e as estratégias de ensino. Dada a presença crescente das tecnologias digitais no domínio educativo, recomenda-se a adoção de abordagens flexíveis e inovadoras à formação.

Palavras-chave: professores, ensino secundário, formação permanente.

Introduction

The teacher training process is a priority in most educational systems worldwide, which is why countries such as Finland, Denmark and Norway allocate a significant part of their gross domestic product (GDP) to education (Datamacro , 2 January 2022). This is because training is a continuous process that shapes the individual in all their activities, which transcends the academic field to encompass broader aspects of life. For this reason, Gadamer (1993) maintains that training, rooted in the hermeneutic tradition, implies the integral development of the human being, influenced by the social context and the conditions that surround its growth.

This training process unfolds in a dynamic exteriority-interiority-exteriority that transforms not only individuals, but also the community to which they belong and the culture they co-construct. (Honoré, 1980). Furthermore, a person cannot be formed by the convictions of another, since "mediations" such as the need and motivation to train are

required in order to find ways to carry it out (Ferry, 1991). According to Ducoing (2013), " representing training and teaching as *praxis* implies giving a place to "Who am I?" and not just "what am I?" (p. 11).

Therefore, teachers must become aware of their training needs and the role they play in the teaching-learning process as a fundamental part of their identity, which determines the continuity of their instruction, since with greater self-knowledge they will be able to make decisions that influence their autonomous development.

However, this recognition, according to Foucault (2013), must be accompanied by another demand: "Take care of oneself" (p. 33). Thus, the teacher establishes a relationship with himself to worry about his self-education so that this results in the enrichment of the context in which he interacts. However, it has been observed that initial training does not provide novice teachers with the knowledge, teaching skills, and pedagogical and psychological principles necessary to lead their students' learning (Imbernón, 2020).

According to Camargo *et al* . (2004), ongoing teacher training is understood as a process of improvement and updating to develop their professional work in a meaningful and relevant way, so that it is integrated with pedagogical practice and responds to the needs of the institution.

Díaz (2014) maintains that ongoing training is a "moral obligation" (p. 54) for teachers in a profession committed to knowledge; It is the "option for survival" (p. 54) in a society of constant changes that requires adaptation and updating to understand the "other."

Permanent training is a horizontal process where a dialogic relationship is established between the teacher and the trainer, responsible for the training, so that the former can reflect on their daily practice as part of their training (Cipagauta , 2020; Díaz, 2014; Gómez, 2011; Rodríguez *et al* ., 2020). At the core of this process are educational research, collaborative work, the development of joint projects and respect for diversity (Imbernón, 2020). Taking the lead in ongoing training implies being the active, reflective and critical subject of the process.

In this regard, we agree with Imbernón (2020) when he states that the quality of education cannot be improved without guaranteeing solid initial training and constant updating of teachers. Therefore, it is essential to diagnose the state of initial training to adapt learning to the real needs of teachers, so that teaching courses to only meet administrative requirements is avoided (Rivera *et al* ., 2021).

Likewise, lifelong learning requires innovative approaches, such as the online modality, which encourages collaboration between participants, connection with the professional environment and effective feedback (Borup and Evmenova , 2019; Rasmussen and Byrd, 2016; Rivera *et al.* ., 2021).

Now, although in the Mexican context the majority of upper secondary education teachers have obtained a degree in their discipline at universities (public or private) with diverse approaches and study plans, many of them were trained with the aim of entering a labor market that was not related to teaching (García *et al* ., 2020). Consequently, when they assume the responsibility of guiding the teaching-learning process, the diversity in their educational background is evident, and although they have a mastery of the contents of their disciplines, they lack didactic-pedagogical training, hence the importance of providing this preparation through permanent training plans.

Indeed, researchers such as Zorrilla (2012), Castillo *et al* . (2014) and Aguilar (2015) highlight the importance of training plans emerging from the institutional level that impact the professional career of teachers, through innovative approaches in training management, in order to contribute to the comprehensive development of skills. in the students.

To address some of these limitations, in the 2008-2009 school year the Comprehensive Reform of Higher Secondary Education (RIEMS) was introduced, which included the implementation of the Teacher Training Program (PROFORDEMS). Despite the expectations, the participation of teachers was limited (it reached 56% of the total) and the progress achieved was insufficient in terms of impact and social relevance (Lozano, 2015; Zorrilla, 2015). In addition to this, high rates of school dropout (12.9%), failure (13.9%) and low terminal efficiency (64.2%) have remained, as well as a lack of comprehensiveness in the training process (Secretariat of Public Education [SEP], 2019).

In this context, in 2021 the plan to improve the continuous training and professional development of teachers 2021-2026 was launched, which highlights the importance of revaluing the teaching profession and its continuous professional development. This document points out the limited opportunities that teachers have had to access continuing training programs, as well as the disarticulation in training plans (National Commission for the Continuous Improvement of Education [Mejoredu], 2021). Therefore, deficiencies are evident in the continuous training of teachers as a complement to their training process, which negatively affects teaching performance and educational quality.

From the scenario described , the following questions arise: what are the real needs for permanent training of these teachers? And what areas should a program of this type cover? The objective was to determine the ongoing training needs of upper secondary education teachers in the State of Mexico.

Materials and methods

This research was based on a descriptive and transversal approach (Hernández *et al* ., 2010), with a qualitative design. Qualitative methodology is characterized by its understanding of phenomena and the exploration of the meanings of human actions from the perspective of the individuals involved. It is distinguished by its holistic approach, by studying reality in a contextualized manner, and ideographic, by focusing on the peculiarities of the subjects.

This work follows an inductive logic, since it seeks to understand the meanings that individuals give to the facts investigated in their natural environment. That is, the researcher adopts an interactive style with the phenomenon of study in a non-intrusive way, which allows mutual influence (Rojas, 1976).

It is also characterized as descriptive, since the information is collected without intervening in the environment, that is, without manipulation. Furthermore, it is transversal, since it is applied to observe the traits that characterize individuals or groups at a specific time.

The field work was carried out in three public higher secondary education institutions (EMS) in the State of Mexico: the Official Preparatory School (EPO) number 204 in the municipality of Hueypoxtla, the EPO number 83 in Teoloyucan and the Gabriel V. Alcocer Technological Baccalaureate Center (CBT) in Tepetlaoxtoc. Data collection took place during the 2021-2022 school year.

The sample was intentional, since subjects who met the characteristics required for the research were chosen through non-probabilistic sampling, and their participation was voluntary (Buendía *et al* ., 1998). Specifically, it was made up of 48 teachers, including three with management responsibilities. Likewise, the participation of teachers of both sexes and different age groups was sought.

Table 1 presents the behavior of the variables (gender, average age, average length of service in teaching and professional training) in each institution, as well as in the total sample.

Table 1. Sample characteristics

Variables	EPO #204	EPO #83	CBT "Gabriel V. Alcocer"	Total
Gender:				
Male	5	7	eleven	23
Female	5	8	12	25
Average age	32	33	35.3	33.4
Average age in teaching	9	12.2	10.1	10.43
Vocational training:				
Degree	5	6	10	twenty-one
master's degree	4	8	13	25
Doctorate	1	1	0	2

Source: self made

The dimensions and indicators for carrying out the diagnosis were determined through the study of the theoretical framework, the analysis of previous research and an intentional survey of EMS specialists. The dimensions were the following:

1. Integral formation.
2. Relationships.
3. Educative technology.

Comprehensive training constitutes a continuous and systematic process of a holistic nature aimed at the acquisition of diverse knowledge that leads to the transformation of the dimensions of the human being in his relationship with himself, with others and with the context. It therefore supposes scientific, psycho-pedagogical and cultural updating (Chaviano , 2021; Imbernón, 1994, 2020).

In this dimension, the following indicators were established:

- Teaching strategies.
- Creativity in teaching.
- Critical and reflective thinking.

Interpersonal relationships are defined as the mutual interaction between two or more individuals, where social and emotional skills related to effective communication, conflict resolution, and authentic self-expression come into play. These relationships are closely linked to the development of interpersonal intelligence, which implies the ability to understand others and interact effectively with them (Goleman, 2012; Vásquez *et al* ., 2020; Viña and Benegas, 2020).

According to Tafur *et al* . (2020) and Cornejo and Tapia (2011), interpersonal relationships play a crucial role in the educational process and in all activities related to it,

exerting a direct influence on student learning by addressing affective and motivational aspects. This dimension has the following indicators:

- Socio-emotional education.
- Oral and written communication.
- Collaborative work.

Educational technology includes the planning and application of media, materials, web portals and technological platforms in the teaching-learning process (Serrano *et al* ., 2016). In this area, there are instructional and training resources designed to meet the needs of users (Area , 2009; Sancho *et al* ., 2015). Digital technologies play a fundamental role in the acquisition of new knowledge (Ricard *et al* ., 2020), learning planning (De Pablos, 2018) and the transformation of pedagogical practices (Cubeles and Riu , 2018). The indicators of this dimension were the following:

- Basic office automation.
- Educational platforms.
- Educational virtual applications.

To carry out the research, both theoretical and empirical methods were used. The first (such as analytical-synthetic, inductive-deductive and historical-logical) were used to decompose and analyze the texts in order to interpret them more precisely. From the empirical approach, various techniques were applied, including document analysis, semi-structured interviews and surveys (Álvarez- Gayou , 2003). These techniques helped identify the ongoing training needs of the teachers in the sample.

Likewise, the analysis of documents provided valuable information about the context of the reality investigated. Specifically, official documents that addressed the guidelines for ongoing training and teacher activities were examined, such as the Education Sector Program 2020-2024, among others.

On the other hand, the semi-structured interview, supported by a specific script, made it possible to collect teachers' perceptions on various aspects related to their training, including the training courses in which they have participated and their real needs for ongoing training. This technique facilitated the exploration of opinions and experiences, and offered flexibility to address emerging topics (Álvarez- Gayou , 2003).

In addition, an online survey was designed to be applied to teachers with the purpose of identifying their ongoing training needs. The questions were developed from a bibliographic review of previous research and were validated by EMS experts, including two

specialists from the Directorate of Higher Secondary Education of the State of Mexico and two academic deputy directors.

The survey consisted of 18 closed questions and was structured in three parts: general data (to collect information about the individual characteristics of the teachers), general questions (about the need for training, the modality of the courses and the origin of the facilitator), and specific questions to determine training needs in the three established areas: comprehensive training, interpersonal relationships and educational technology.

Finally, triangulation was used to analyze data from various sources in order to compare them and verify whether the information provided by one source was confirmed by another.

Results

The results of the application of the instruments (survey and interviews) are presented below. Table 2 shows the most relevant statistical data of the teachers' responses to the survey questions about the need for continuing training, the modality to carry it out and the origin of the course facilitator.

Table 2. Results of the general questions of the survey applied to teachers

Variables	EPO #204 %	EPO #83 %	CBT %	Average %
-Need to participate in courses permanent training -Modality:	fifty	53.3	65.2	56.1
In-person	twenty	33.3	21.7	25.0
Virtual	30	6.6	17.3	17.9
Mixed	fifty	60	60.8	56.9
  -Course facilitator:				
Of the institution	10	6.6	4.3	6.9
SEP official	twenty	33.3	34.7	29.3
Professor external to the institution	70	60	60.8	63.6

Source : self made

It is observed that more than half of the teachers at the three educational institutions expressed the need to receive continuing training courses, preferably in a mixed modality and taught by a teacher external to the institution.

The results of the interviews carried out with teachers on the dimension of comprehensive training are detailed below:

80% of teachers mentioned being familiar with the National Development Plan 2019-2024, which highlights the importance of teacher training and updating processes to improve educational quality (Official Gazette of the Federation, National Development Plan [PND], 2019).

Only 25% of those interviewed indicated that they were aware of the Mejoredu document (2021), which establishes priority objectives, strategies and specific actions for the permanent training of upper secondary education teachers (National Commission for the Continuous Improvement of Education [Mejoredu], 2021).

80% of the teachers interviewed highlighted that the Teacher Training Program for Higher Secondary Education (PROFORDEMS) was established as the main training program for EMS teachers. Its main objective was to develop didactic-pedagogical skills in teachers. However, they pointed out that the program focused more on addressing theoretical concepts about teaching and learning than on the implementation of innovative strategies in pedagogical practice to promote the development of competencies in students. Therefore, in general, it did not contribute significantly to transforming teaching performance.

In relation to creativity in teaching, 56.2% of those interviewed mentioned that the EMS competencies include the application of creative strategies and solutions in the educational process, as well as the promotion of reflective thinking based on the contents of each subject, although they considered that these aspects need to be deepened through training courses. They highlighted the importance of these elements to find alternatives in the post-pandemic stage , which requires flexibility to adapt to changes and circumstances. In addition, they expressed that the administrative burden for teaching and management staff affects didactic work in classrooms and discourages creativity and innovation.

Table 3 presents the results of the survey on the specific areas in which teachers require training in comprehensive training.

Table 3. Survey results in the comprehensive training dimension

Areas	EPO #204 %	EPO #83 %	CBT %	Average %	
Teaching strategies	30	53.3	52.1	45.1	
Creativity in teaching	40	33.3	39.1	37.4	
Collaborative work	30	6.6	8.6	15.0	

Source : self made

Below are the results of the triangulation of the instruments (survey and interview) in relation to the dimension of interpersonal relations:

80% of those interviewed expressed knowledge about the importance of interpersonal relationships in the EMS, where socio-emotional education stands out as a fundamental element of the educational process, since learning to live together constitutes one of the basic learnings in the current era. In addition, teachers must promote relationships based on respect and tolerance in order to facilitate communication with students, parents and colleagues.

91.5% of those interviewed confirmed that work with interpersonal relationships was implemented by the Ministry of Public Education (SEP) since 2014 through the Construye T program with the aim of strengthening the socio-emotional skills of students, a program that has received the support of organizations such as the United Nations Children's Fund (UNICEF). The document "Manual for the development of socio-emotional skills at the upper secondary level" (Secretaría de Educación Pública [SEP], 2014) summarizes the main guidelines for its implementation.

Likewise, those interviewed considered that the Construye T program is well designed and structured in three dimensions:

- "Know T": Aimed at the recognition, assessment and regulation of internal processes as a starting point for the development of socio-emotional skills.
- "Relaciona T": Aimed at establishing empathetic relationships between students and promoting assertiveness to find creative solutions to problems.
- "Choose T": Focused on integrating the above elements for decision-making in life projects.

All those interviewed stated that in these post-pandemic times , emotional and work stability is required to promote a favorable climate in institutions, as well as the development of resilience. They highlighted that this educational level was a pioneer in the work of socio-emotional competencies, but that they have not yet received sufficient training in these

aspects. They even highlighted the need to identify emotions to then address them and achieve self-regulation, starting from self-knowledge to achieve self-regulation.

However, although they have adopted the Construye T program, current conditions—such as large groups, content-heavy academic programs, and administrative bureaucracy—make it difficult to properly implement. Furthermore, they recognized that the development of these skills in teachers will allow them to undertake teaching practice with greater security and confidence.

In relation to oral and written communication, 62.5% of those interviewed highlighted its crucial role in the educational process, since the development of its informative and affective functions must be part of continuous training. The first is associated with the ability to express information clearly using non-verbal resources appropriately, while the affective function refers to the development of the ability to establish empathic relationships and understand the interlocutor intellectually and emotionally. The teachers mentioned that their profile emphasizes the promotion of reading and oral and written expression, and that the use of writing essays, reports and reviews is common in the EMS evaluation system. Therefore, it is necessary that they have a command of the levels of the language, the characteristics of the writing and the spelling and grammatical rules.

Table 4 presents the results of the survey on the specific areas in which teachers require training in interpersonal relationships, which confirms the importance given by teachers to socio-emotional education in the training of students.

Table 4. Survey results in the interpersonal relations dimension

Areas	EPO #204 %	EPO #83 %	CBT %	Average %
Socio-emotional education	60	53.3	60.8	58.0
Oral and written communication	35	33.3	34.7	34.3
Critical and reflective thinking	5	13.3	4.3	7.5

Source : self made

Below are the results of the interviews on the educational technology dimension:

80% of those interviewed mentioned that the 2020-2024 Education Sector Program establishes strategies for the use of digital information, knowledge and learning technologies (ICTCAD) to strengthen the EMS, and addresses the importance of the development of these skills and their application as a tool in the educational process.

On the other hand, all the managers interviewed agreed that the use of technological resources is a priority in the EMS, although they emphasized that their mere introduction does not guarantee their use from a didactic and pedagogical approach. Therefore, the need for technological training of teachers to integrate ICTCAD into their teaching practices is highlighted. In addition, they pointed out that in their institutions the computer rooms have been renovated to facilitate the use of educational technologies, although they lack a maintenance program.

A significant percentage (60.4%) of the teachers interviewed recognized the importance of including technologies in teaching. They indicated that these tools optimize information and stimulate creativity in students, but expressed concern about the lack of institutional training that addresses the use of technology in the teaching-learning process. They also mentioned that the time available is not enough to design technology-based teaching strategies due to their multiple academic and administrative responsibilities.

Likewise, a considerable percentage of teachers interviewed (39.5%) are still not aware of the incorporation of ICTCAD in their educational practice or of its advantages for taking advantage of student learning. Table 5 presents the results of the survey on the areas in which teachers require training in educational technology, which shows the needs identified by teachers in relation to the effective use of technology in the educational context.

Table 5. Survey results in the educational technology dimension

Areas	EPO #204 %	EPO #83 %	CBT %	Average %
Basic office automation	70	73.3	65.2	69.5
Educational platforms	twenty	twenty	26	22
Educational mobile applications	10	6.6	8.6	8.4

Source: self made

Discussion

The objective of this study was to determine the ongoing training needs of EMS teachers in the State of Mexico to improve their teaching performance. The findings reveal that more than half of the teachers at the three institutions expressed the need for continuing training courses, since the majority have not been trained specifically for teaching, since they originally looked for opportunities in other disciplinary fields (García *et al* . , 2020).

Furthermore, they prefer the mixed modality for their training courses, which shows, according to Mortis *et al* . (2015) and Area *et al* . (2020), the necessary adaptability in a time of constant change, where flexible forms of training with solid technological support are required. This allows you to encourage autonomous work with the support of a mentor.

On the other hand, a large percentage of participants expressed that course facilitators should come from external institutions in order to promote interaction between colleagues and exposure to different perspectives and experiences in pedagogy, as well as continuous support.

The data obtained regarding comprehensive training reflects the importance that teachers give to continuing education and their concern to be better prepared. Almost half of the teachers (45.1%) indicated the need for courses on teaching strategies, while 34.7% mentioned creativity in teaching. These figures support the observations of researchers such as Macías-Esparza and Valdés-Dávila (2014), Aguilar (2015) and Zorrilla (2015), who have pointed out limitations in the implementation of the PROFORDEMS program, in the participation of teachers (56% of the total) and in the lack of systematic studies on the effective integration of acquired competencies in educational practice.

Likewise, the results of the interpersonal relations dimension show the need to develop socio-emotional skills in the training of students at this educational level. As Bisquerra (2003) points out, these skills contribute to the well-being of the individual and their integral development. That is, emotional education is considered a continuous and permanent educational process, which must permeate the entire academic curriculum and ongoing training throughout life (Bisquerra, 2003).

Furthermore, education in the present century demands additional skills from teachers, such as empathy, dialogue, critical thinking, among others. Therefore, to address these needs, the development of knowledge and skills about emotions is proposed with the aim of enabling the individual to more effectively face the challenges of daily life.

It is also noteworthy that a high percentage of teachers (69.5%) expressed the need to receive training in educational technology, which supports Tedesco 's (2014) statements about the importance of technological resources in the co-construction of learning, and positions the teachers as a central figure in these transformations. The integration of these resources in education implies an act of innovation that requires deep reflection on teaching practice, rethinking the role of the teacher in a different relationship with knowledge (Cobo, 2017).

On the other hand, the 2020-2024 Education Sector Program highlights as lines of action training programs for the use of ICTCAD in educational processes, with a critical perspective of the materials available on virtual platforms (Official Gazette of the Federation . Education Sector Program [PSE], 2020).

In summary, these results corroborate the urgent need for teachers to qualify in the techno-pedagogical field as a didactic resource for mastering new professional skills, since the global pandemic has led teachers to generally assume the use of technologies. in teaching in an emergent way, hence it is crucial to deepen its domain.

Likewise, it is recommended to promote awareness processes about the adoption of technological tools as mediators of the teaching-learning process (Soca and Chaviano, 2023), and optimize the time that teachers must dedicate to administrative and bureaucratic tasks.

Conclusions

The economic, political and social conditions of the world have led to transformations in national educational systems. Consequently, EMS institutions in Mexico must adapt to these changes to address current educational challenges, since only through a teaching-learning process led by competent teachers can the objective of training graduates capable of driving changes be achieved. for the benefit of society. In fact, the Teacher Training Program for Higher Secondary Education (PROFORDEMS) was implemented for several years at this educational level. However, in general, it did not achieve the impact or relevance necessary to complement the various training processes of teachers. Therefore, after its closure, a coherent, articulated and organic training proposal for EMS teachers is still expected.

On the other hand, the instruments applied to a sample of 48 teachers from three institutions in the State of Mexico revealed their ongoing training needs through the analysis of three dimensions: comprehensive training, interpersonal relationships and educational technology. Likewise, the results obtained from data triangulation reveal that both managers and teachers recognize the importance of participating in ongoing training plans as a means to complement their training processes and improve educational quality. In fact, they recognize the pedagogical and didactic limitations of their initial training, which is not specifically oriented towards teaching, and they prefer to participate in mixed modality training courses or workshops, with facilitators external to their institutions.

The areas where teachers expressed the greatest training needs were in basic office skills (69.5%), social-emotional education (58%), and teaching strategies (45.1%). In

addition, two other areas of interest for continuing teacher training were creativity in teaching (37.4%) and improvement of oral and written communication (34.3%).

In conclusion, it is recommended to design training plans that address the real needs of teachers and integrate pedagogical-didactic topics with aspects related to comprehensive training. Furthermore, it is essential to adopt flexible and innovative approaches to conduct training, especially given the growing presence of digital information, communication and learning technologies (ICTCAD) in education and the current conditions post-global pandemic.

In short, the lack of institutional training that promotes the development and strengthening of teaching skills, and that complements the training of teaching bodies at this educational level, is highlighted.

Future lines of research

As future research, it is suggested to carry out studies focused on the areas of ongoing training and updating of upper secondary education teachers to identify the specific themes of the courses that could be proposed. These studies could serve as a basis for the creation of a training program designed especially for this educational level. Furthermore, it would be relevant to conduct research that analyzes the impact of the implementation in educational practice of the knowledge acquired and/or updated by teachers in continuing training courses.

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