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*Artículos científicos*

**El contexto de la promoción a director en escuelas primarias:  
reformas educativas 2013 y 2019 en México**

***The context of promotion to principal in primary schools: Educational  
reforms 2013 and 2019 in Mexico***

***O contexto da promoção a diretor nas escolas primárias: reformas  
educacionais de 2013 e 2019 no México***

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## **Resumen**

El objetivo de este trabajo fue identificar las condiciones requeridas para la promoción a funciones de dirección en educación primaria, por lo que se planteó la siguiente pregunta: ¿cuáles son las diferencias o similitudes en las reformas educativas 2013 y 2019 en México para lograr la promoción a director en escuelas primarias? Para hallar respuestas a esta interrogante se revisaron documentos que regulan el servicio profesional docente en la educación básica, es decir, la Ley General del Servicio Profesional Docente (2013) y la Ley General del Sistema para la carrera de las Maestras y Maestros (2019), de las cuales se derivan las convocatorias para la promoción a la función directiva analizadas en la metodología de trabajo.

En concreto, en la reforma 2013 se identificó un esquema similar descrito en 16 bases para acceder a la función directiva, mientras que en la reforma 2019 se anexaron los elementos denominados *multifactoriales*, es decir, antigüedad, trabajo en zonas marginadas y estudios

de posgrado. La formalización de la función directiva en 2013 iniciaba con un nombramiento provisional y un periodo de inducción de dos años para acceder al nombramiento definitivo; en cambio, en la reforma 2019 se asigna un nombramiento definitivo al cumplir con los multifactoriales y 6 meses y un día en la función; además, no existe un proceso de capacitación sistemática o acompañamiento a la función, hasta la convocatoria 2022-2023, cuando se considera como requisito un curso en línea de habilidades directivas.

**Palabras clave:** promoción, director escolar, educación primaria, reformas educativas.

### **Abstract**

With the objective of identifying the conditions for promotion to management functions in primary education and answering the question: What are the differences or similarities in the 2013 and 2019 educational reforms in Mexico to achieve promotion to principal in primary schools? ? The review of documents that regulate the professional teaching service in basic education began: the General Law of the Professional Teaching Service (2013) and the General Law of the System for the Career of Teachers and Teachers (2019) from which the calls are derived for promotion to the management function analyzed in the work methodology.

A similar scheme was identified in the 2013 reform described in 16 bases to access the management function and in the 2019 reform the so-called multifactorial elements were annexed, such as seniority, work in marginalized areas and postgraduate studies. The formalization of the managerial function in 2013 began with a provisional appointment and an induction period of two years to access the final appointment, a period in which the new managers received induction and assessment by their immediate authority for the assignment of a final appointment; In contrast, the 2019 reform, assigns a definitive appointment upon compliance with the multifactorial and 6 months and one day in the function, here it is identified that there is no systematic training process or accompaniment to the function, until the 2022-2023 call Consider an online management skills course as a requirement.

**Keywords:** Promotion, school director, primary education, educational reforms.

## Resumo

O objetivo deste trabalho foi identificar as condições exigidas para a promoção a cargos de gestão na educação primária, para o qual se levantou a seguinte questão: quais são as diferenças ou semelhanças nas reformas educacionais de 2013 e 2019 no México para conseguir a promoção? Escola Primária? Para encontrar respostas a esta questão, foram revistos os documentos que regulam o serviço profissional docente no ensino básico, ou seja, a Lei Geral do Serviço Profissional Docente (2013) e a Lei Geral do Sistema da carreira de Professores e Professores (2019). , de onde derivam os editais de promoção à função gerencial analisados na metodologia de trabalho. Concretamente, na reforma de 2013 identificou-se um esquema semelhante descrito em 16 bases para aceder à função de gestão, enquanto na reforma de 2019 foram anexados os chamados elementos multifatoriais, ou seja, antiguidade, trabalho em áreas marginalizadas e pós-graduação. A formalização da função de gestão em 2013 começou com uma nomeação provisória e um período de indução de dois anos para aceder à nomeação definitiva; Por outro lado, na reforma de 2019, a nomeação definitiva é atribuída mediante o cumprimento dos requisitos multifatoriais e 6 meses e um dia na função; Além disso, não existe um processo sistemático de formação ou acompanhamento para a função, até à convocatória 2022-2023, altura em que se considera requisito um curso online de competências de gestão.

**Palavras-chave:** promoção, diretor de escola, educação primária, reformas educacionais.

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## Introduction

In basic education institutions, the school director plays a determining role in relation to the organization and operation of public schools. This actor assumes the responsibilities of educational centers before society and its authority schemes in order for the institutions to work in coordination with the teachers that make up their human resources structure.

In the case of Mexico, as a result of the 2013 educational reform—from which the General Law of the Professional Teaching Service (LGSPD) (2013) as of the 2014-2015 school year—the basic education school director is assigned by corresponding authorities and organizations of the level through competitive examinations, which seek to guarantee "the suitability of the knowledge and abilities" of the applicants (LGSPD, art. 26). This procedure consists of an examination of knowledge and a list of multifactorial elements perceived in indicators that are required of the participants with the intention of achieving a

greater weighting, among which are "the length of service, experience and working time in marginalized areas and recognition of good performance by the educational community" (General Law of the System for the Career of Teachers [LGSCMM], 2019, art. 42), as well as postgraduate studies and an appreciation system of knowledge and skills.

The calls for the selection processes are issued from the 2014-2015 school year by each of the educational authorities of the different entities. Thus, the opportunity is offered to teachers to access a management function once they comply with the procedures established in the calls.

However, it should be noted that to access managerial action, training paths that ensure effectiveness in the function are not considered, which is perceived until the 2022-2023 call, where only access to a course is indicated as a participation requirement. virtual managerial skills. In this study, therefore, the similarities and differences to access a managerial function in basic education established in the 2013 and 2019 educational reforms are explained.

## **Background and general context**

In the last 10 years, the educational policy of Mexico has shown a series of modifications supported by governing documents of the National Educational System (SEN). One of the first reorientations to these policies is the 2013 educational reform, understood as a set of legal provisions and complementary laws emanating from the reform, among which are the General Law of the Professional Teaching Service (LGSPD) (2013) and the Law National Institute for Educational Evaluation (INEE) (2013). According to López (2013), "this reform includes quality in education, mandatory evaluation, competitive examinations for income, promotions, recognition and permanence" (p. 63).

The 2013 educational reform, promoted in the government of Enrique Peña Nieto, opened the guidelines to access the management function through competitive examinations, which ends in "the qualification obtained in standardized exams (on the knowledge and teaching skills of the applicants). "(Cuevas, 2021, p. 477) and that take as reference profiles and evaluation instruments systematically defined by the National Institute for Educational Evaluation.

At first, the reform sought a legal alignment in all aspects to make possible the educational project that marked the administration of the aforementioned president. For this, educational quality began with the reform of the third constitutional article and the General

Education Law (LGE) (2013) as normative documents of the national education system. In this way, it ensured that the provisions immersed in the nascent reform had no obstacles to becoming a reality, and provided a legal framework for action at a systemic level in basic education.

Among the additions to the LGE (2013), the fourth section of the eighth article mentioned that education would be of quality and was related to the dimensions of efficacy, efficiency, belonging and equity to seek congruence between the objectives and processes of the educational system towards achieving results. The third fraction of the tenth article was also added, which gave personality to the professional teaching service (SPD) (2013) in order to regulate the educational service in basic and upper secondary education through educational evaluation. Likewise, the eleventh article of the LGE (2013), in its fifth section, granted autonomy and constitutional foundation to the National Institute for the Evaluation of Education (INEE) (2013) as the body in charge of designing and coordinating national actions in the field of educational results, the evaluation of quality and teaching performance at the basic and upper secondary level. To this end, this body was empowered to design guidelines to evaluate the performance of those who exercised teaching, managerial or supervisory functions.

In the same direction, on February 26, 2013, the decree reforming the third article in its third section was published in the Official Gazette of the Federation (DOF) (2013), which referred to the entry processes and promotion of public service. Its context alluded to the lines of admission to teaching and promotion to a supervisory or management function, which were oriented through competitive examinations in order to ensure the knowledge and skills required to perform said functions.

Then, on September 11, 2013, the LGSPD (2013) was published in the DOF (2013) based on article 10 of the LGE (2013). In turn, Article 15 of the LGSPD (2013) described the conditions for entry and permanence in the educational service, as well as the recognition and promotion of those who exercised managerial and supervisory functions in the educational system within the basic and upper secondary levels.

This same law—in its fourth chapter, article 26, regarding the processes related to the promotion to functions of management and supervision of the basic and upper secondary levels of the public educational service—required a minimum of two years of teaching service to be applicants. to occupy said positions; In addition, they had to register for an opposition contest with the intention of identifying the knowledge and skills required by the function. Likewise, the aforementioned law stated the use of profiles, parameters, indicators

and evaluation instruments designed by the INEE (2013) and the SPD (2013) for the purposes of promotion to management and supervision positions.

These profiles and indicators were determined as the references to promote the improvement of learning. In addition, the knowledge that a manager should have to assume the role was mentioned, among them the internalization of the content of the plans and programs, teaching processes and management activities to support the performance of basic education students. They also served as a context in the design of instruments that allowed evaluating the promotion of teachers to the management function. "The profile of school directors of Basic Education expresses the characteristics, qualities and aptitudes for the efficient performance of this function" (Secretary of Public Education [SEP], 2017, p. 13). These profiles were organized into five dimensions that described the functions of the manager, and each one of them, in turn, described specific parameters and indicators of performance in the function.

In accordance with the above, article 27 of the LGSPD (2013) referenced the dynamics to access an appointment to the management position in basic education; The function was formalized with two years of service after having obtained a suitable score in the opposition exam. The aforementioned article also indicated that during this time in service the new directors should be subject to an induction and training program for the development of management and leadership skills that their local educational authority imposed on them.

In reference to the induction time mentioned in article 27, it was up to the local educational authorities to offer the appropriate help and guidance that will help new managers to strengthen their management and leadership skills for the benefit of the educational service. Once the induction time is over, the local educational instance would design the strategy to assess the manager's performance with the intention of identifying compliance with the requirements required in the position. If the manager complied with these requirements, the function was formalized with a definitive appointment; Otherwise, the new director would return to the teaching functions that he previously performed. However, it should be noted that there are few studies that describe the induction strategy of local educational authorities; In addition, there is no evidence that a manager who accessed said function through the competition has returned to the teaching profession.

However, in the margin of the managerial function, the LGSPD (2013), in its fourth article, eighth section, identifies a series of attributes that the person in charge of this function had to fulfill, among which were the creation of school scenarios conducive to learning, the



direction of processes of progress and achievement of learning in the school under a dynamic of motivation and clear communication with agents of educational participation (teachers and parents or guardians). In addition, administrative activities such as planning, programming, coordination and evaluation of educational actions that make the educational center work, all immersed in the legal framework of the current national educational system.

With this, quality in the educational service was sought, both in the initial processes of institutional planning and in the results of school actions in the various educational settings. This could become a reality with personnel that complied with evaluation indicators upon admission and permanence in the service.

On the other hand, in the provisions of the 2013 reform, evaluation was considered as the guiding axis that led to a quality education, from which the evaluation processes in the search for a management position are rescued. In this scenario, the evaluation was reduced to a knowledge test; however, as Hernández (2015) points out, "without a doubt, evaluations are required to give us an idea of where we are... But a true evaluation will not focus on a single component of the problem, but on the whole and will propose comprehensive solutions" (p. 20), which points to the visualization of other elements that complement the assessment of the management function.

In 2019, with the change of administration and political party in the government of the Mexican Republic, another reform to the third article was started again, in which the term quality was replaced by educational excellence. The latter focused on a constant comprehensive improvement for the promotion of the maximum learning achievement of the students and the development of critical thinking in conjunction with the strengthening of the ties between the educational centers and the community. Thus, the new educational reform (DOF, 2019), the disappearance of the INEE (2013) and the replacement of the LGSPD (2013) by the LGSCMM (2019) were published in the Official Gazette of the Federation.

This last law takes up the context of the 2013 reform on the processes for promotion to the managerial function in its articles 42 and 43, since it states that these procedures would be carried out under annualized candidate election processes; However, the dynamics of formalizing the managerial function draw attention, since now a definitive appointment would be assigned after completing a period of six months and one day, without an unfavorable grade in the position held. This obviates the period of induction and accompaniment to the function proposed in the 2013 reform.

In addition, with the advent of the 2019 educational reform, the General Law of the Teacher Career System (LGSCMM, 2019) was created, which focuses on the function of the

school director with elements of an administrative nature, by highlighting the process of planning, programming, coordination, execution and evaluation of school actions aimed at achieving objectives in line with the applicable legal norm in educational matters. This law takes up the context of the 2013 reform, that is, the definition of management personnel and suppresses important elements of the management function such as motivation, the atmosphere among the actors, among other necessary activities in the management of educational institutions, although later are reinforced in the framework for excellence in teaching and school management in basic education (2020).

Subsequently, in December 2020, the System Unit for the Teachers' Career (USICAMM, 2020) (recognized in the third title of the LGSCMM, 2019) published the framework for excellence in teaching and school management in basic education, where professional profiles, criteria and indicators are described for teaching staff, teaching technicians, pedagogical technical advisory staff, managers and school supervision as a reference in the construction of an education of excellence. To do this, it encompasses the professional profile in a set of particularities, demands, characters or talents that the candidate should have to hold a position as director in basic education schools.

Said framework defines the managerial profile as an expert who leads the educational establishment towards a determined advance, that is, an expert who promotes the incorporation of nascent skills and knowledge that pay attention to the requirements and interests of the educational community. This educational actor is also recognized as a person close to the students and school agents: a manager attentive to the concerns of the school community, willing to attend, understand and offer solutions to concerns; In short, a professional with an appropriate and operable vision of the future.

This 2019 reform, therefore, can be understood as a movement to dignify teaching work and a counter-reform of 2013. In this sense, Villalaz et al. (2020) identify contexts of imposition and dialogue in which these reforms were defined, respectively. Regarding the imposition, an evaluation process is highlighted in the access, permanence and promotions of teachers in the 2013 reform, and which were modified through dialogue in 2019 to eliminate the condition of permanence in the evaluation process and continue with procedures for access and promotion.

However, the elimination of the evaluation "prevented the benefits of having a diagnosis (prepared with support from the results of the evaluations) from being perceived that would allow the design of strategies to strengthen the preparation and improve the performance of all the participants in the situations educational" (Villalaz et al., 2020, p. 22).



In this regard, these authors point out that neither of the two reforms has had weight in the nation's educational project. In the same sense, Gómez (2020) explains that "one of the great losses in the National Educational System is the disappearance of the Professional Teaching Service, which had the objective of establishing an organic system that promoted training, selection, updating, and evaluation of teachers" (p. 14), which represents a criticism of the 2019 reform.

In another scenario, at the Benemérita Universidad Autónoma de Puebla (BUAP) (2021), to obtain a master's degree in Administration and Management of Educational Institutions, Jacinto (2021) developed a qualitative research in the state, which takes into account the teachers' voices, since they are the ones who perceive the direct function of the school authority. In this work, the perceptions of the managerial function of five teachers from different schools were identified. The data shows the limited pedagogical support of the director to the teaching work, possibly due to the director's ignorance of the programmatic requirements of the grade and curricular area. In other words, it is explained that teachers do not feel accompanied by the direction in their teaching task. This reinforces the idea of Gómez (2020) on the recommendation of a training and updating program to train teachers, managers and other educational stakeholders, which opens a line of work for the contribution to educational research.

Indeed, in the context of the professionalization of the manager, García et al. (2011) have highlighted the importance of the school director in the development of his functions; For this reason, they mention that in several countries, especially German ones, the creation of programs that prepare applicants for the function has been promoted.

Likewise, in England and Scotland, candidates to occupy a direction must access the National Professional Qualification for Headship -or National Professional Qualification for Headship (NPQH)-, which has been applied by the Department of Education in England since 2014 and which accredits different providers or consortia to offer the program to aspiring school directors with the aim of developing the skills, knowledge and behaviors required to be a high-performance director in a period of 18 months. In this program, skills are promoted in the following six content areas, identified by the Department of Education of England (2020): strategy and improvement, teaching and curricular excellence, leading with impact, working in partnership, resource and risk management, and capacity increase. Participants also have the opportunity to optimize up to seven leadership behaviors: commitment, collaboration, personal unity, resilience, conscientiousness, integrity and respect. For its part, the Scottish Department of Education implements a similar program at the national level —

Scottish Qualification for Headship (SQH)—, which grants validity to university communities and local jurisdictions for its delivery.

These concerns have reached the United States as well. According to Garcia et al. (2011), the training of principals is carried out by incorporating the participants into an educational program for a master's degree in educational administration that focuses mainly on topics of school management and leadership.

In the case of Mexico, the training of teaching and management personnel was proposed in the 2013 educational reform with the decree of the LGSPD (2013), that its fourth article fifth section referred to training as the set of actions aimed at achieving aptitudes, knowledge, skills or complementary skills for the performance of the service. Likewise, in the ninth section, a performance evaluation process was highlighted to measure the quality and results of the managerial, supervisory or any other function of an academic nature. Finally, the eighth chapter also referred to an evaluation of management functions. In fact, when insufficiency in the level of performance was identified, the personnel was incorporated into regularization programs.

However, with the 2019 educational reform, in the regulatory documents the training processes vanish, which are only reduced, voluntarily, to academic mobility programs, extracurricular courses outside their locality, postgraduate studies or incentives for students. promotion processes provided for by law. In fact, until the 2022-2023 school year, within the requirements for participation in management functions, only the accreditation of a course focused on the development of management skills is established.

## Methodology

The study consisted of a documentary-type analysis of the calls for competitive examinations for promotion to categories with management functions in basic education derived from the documents that regulate the professional teaching service at this educational level. The categories are supported by article 26 of the LGSPD (2013) —which refers to competitive examinations— and by article 42 of the LGSCMM (2019) —on annual selection processes with specific indicators in calls issued by each one. of the federal entities for the access of teachers to management functions in basic education.

The activity began with the investigation, concentration and analysis of the calls issued from the 2015-2016 school year, until the 2022-2023 cycle. The reference point of the documentary review focused on the systematic analysis of the calls issued by Villar (2015,

2016), Fernández (2018, 2019 and 2020) and Monroy, (2021, 2022) in the State of Mexico between 2015 and 2022 to identify their similarities and differences in the process of promotion to the management role.

### **Data collection instrument**

The structure of the first call issued in Villar (2015) for the 2015-2016 school year in the State of Mexico was taken as a reference, which was organized into 16 bases that determined the conditions that teachers aspiring to the role had to meet, and which are mentioned below.

- I. *Participants*. The figures that could participate in the contest were described: teachers in service, coordinators of activities, assistant directors and directors with or without the category.
- II. General requirements. The list of general requirements was stated (Table 1).
- III. Specific requirements. The list of specific requirements was stated (Table 1).
- IV. Categories to contest. List of vacancies at the preschool, primary and secondary levels in the state and federal systems.
- V. Preregistration. Indications and pre-registration page for the contest.
- VI. Registration offices. List of venues to deliver the documentation.
- VII. Application venues for the national exam. Page to consult the place of application.
- VIII. Stages, aspects, methods and instruments of the national examination. Two stages of the exam described in Table 1.
- IX. Sessions for the application of the examination instruments. The dates of application of the instruments were specified.
- X. Study guides and support bibliography. Link to download guides.
- XI. Qualification procedure. Trials and viable forms determined by the INEE.
- XII. Tie-breaking criteria. Based on the provisions determined by the INEE.
- XIII. Publication of results. Publication date.
- XIV. Criteria for the allocation of places. Only applicants whose results in the contest had been suitable in order of priority were considered; the supporters, according to the vacancies available, could choose their secondment, in strict order of priority.

- XV. Observers. Participation of external personnel, representatives of non-governmental organizations, civil society and parents.
- XVI. General considerations. If the suitable result is achieved in the opposition contest, it may be subject to the allocation of the position with category for the performance of management functions (director or deputy director).

In the review it was identified that in the 2015-2016 call the bases, stages and allocation criteria were established; In addition, it was taken as a reference for the issuance of the other calls for the competition for opposition to management functions in the coming school cycles, based on articles 3 and 73 (on admission processes), LGSP (2013) and the INEE (2013) as legal supports issued in the DOF (2013) in Mexico. In subsequent school cycles, the same scheme was resumed, although only the elements described in Table 3 were added or replaced.

**Table 1.** Bases, stages and criteria for assignment of the competitive examination, period  
2015-2016

General requirements	BASES Specific requirements	STAGES	ASSIGNMENT CRITERIA
<p>1. Minimum studies of a bachelor's degree or similar.</p> <p>2. Participation in the promotion with the category of director will be at the same educational level, modality or support (state, federal or incorporated into the federation) in which the teaching work is carried out.</p> <p>3. Have a definitive appointment in your place or equivalent hours in the case of secondary (19 hours).</p> <p>4. During the contest period, be in active service at the educational level to be contested.</p> <p>5. Have computer skills to work in word processors.</p>	<p>1. Mexican citizenship.</p> <p>2. Minimum experience in educational service: 2 years.</p> <p>3. Willingness to work in any educational center of the entity or nation.</p> <p>4. Assistance to the registration office with the following documentation:</p> <p>4.1 Current official identification: voter card, professional license or passport. CURP).</p> <p>4.2 Unique population registry key.</p> <p>4.3 Birth certificate, naturalization letter or work permit for foreigners with legal residence.</p> <p>4.4 Proof of address with a date of issue not exceeding three months.</p> <p>4.5 Professional title, professional certificate or professional examination record.</p> <p>4.6 Definitive appointment in the position(s) it occupies.</p> <p>4.7 Proof of pre-registration obtained through the SNRSPD.</p> <p>4.8 Four recent child-size photographs, front view.</p> <p>4.9 Letter of acceptance of the bases of this call (provided at the time of registration).</p> <p>4.10 Proof of services issued by the competent educational authority.</p> <p>4.11 Letter under protest to tell the truth, that the documentation presented has been issued by the competent educational authority (provided at the time of registration).</p>	<p>1</p> <p>Test of knowledge and skills for professional practice.</p> <p>2</p> <p>Development of the test of intellectual abilities and ethical-professional responsibilities.</p>	<p>Each of the available places was assigned according to a strict order of scores obtained in the exam: from August 16, 2015 to May 31, 2016 in consideration of the needs of the educational service.</p> <p>A satisfactory result granted a provisional appointment, until completing 2 years of induction and a new examination to grant a definitive appointment.</p>

Source: Own elaboration based on the call for management functions 2015-2016 of Villar  
(2015) in the State of Mexico



From the 2015-2016 call and from the 16 previous bases, a guide matrix was established that allowed the identification of the similarities and marked differences in the following calls that were issued in subsequent school cycles, as seen in Table 2, where The codes SM (without modification of the requirement), SS (deleted), SA (added), CNC (change the number of categories), CS (change venues), CF (change dates), SC (without call) were used, and NA (not applicable). The SS and SA codes are identified in tables 3, 4 and 5.

**Table 2.** Guide matrix of similarities and differences in the 2015 to 2022 calls

Call 2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
Participants.	SM	SC	SA	SS	SS	SM	SS
General requirements.	SS	SC	SM	SM	SA	SS	SA
Specific requirements	SA	SC	SA	SS	SA	SA	SA
Categories to contest	CNC	SC	CNC	CNC	CNC	CNC	SA
Preregistration.	CF	SC	CF	CF	CF	CF	CF
Registration offices	CS y CF	SC	CS y CF	CS y CF	CS y CF	CS y CF	CS y CF
Application venues for the national exam	CF	SC	CF	CF	CS y CF	CS y CF	CF
Stages, aspects, methods and instruments of the national examination	SM	SC	SM	SA	SA	SM	SA
Sessions for the application of the examination instruments	CF	SC	CF	CF	CS y CF	SA	SM
Study guides and supporting bibliography	SM	SC	SM	SM	SA	SM	SM
qualification procedure	SM	SC	SM	SM	SA	SM	SM
tie-breaking criteria	SM	SC	SM	SM	NA	NA	NA
Publication of results	SM	SC	SM	SM	SM	SM	SM
Criteria for the allocation of places.	SM	SC	SM	SA	SA	SM	SA
Observers	SM	SC	SM	SM	SA	SM	NA
General considerations	SM	SC	SM	SM	SM	SM	SA

Source: Own elaboration based on the structure of the calls for management functions of Villar (2015, 2016), Fernández (2018, 2019 and 2020) and Monroy (2021, 2022) in the State of Mexico.

**Table 3.** Elements that are replaced and added in the 2016 to 2022 calls

School cycle	SS (replaced)	SA (added)
2016-2017	<i>General requirements.</i> Number 5. Have the ability to work in a computer word processor.	<i>Specific requirements.</i> Number 5. Acceptance or not to make the results public.
2018-2019		<i>Participants:</i> Number 4. Pedagogical technical adviser.  Numeral 6 and 7. Clarifications on the personnel with non-suitable or insufficient results in previous evaluations to be regularized until obtaining a result that is at least sufficient.  Numeral 9 and 10. The opening is given to promoters of physical education and artistic education to compete in charge of supervision, since there is no directing category in their area and to English staff to participate in the directing category in secondary.  <i>Specific requirements:</i> Consent is requested to make the results of the evaluation public or not.
2019-2020	<i>Participants.</i> The figure of pedagogical technical adviser.  <i>Specific requirements.</i> Section 4.11 Letter under oath to tell the truth, that the documentation presented has been issued by the competent educational authority (provided at the time of registration)	<i>Stages, methods is instruments.</i> A time limit is attached to respond to the instruments in 4 hours.  <i>Criteria for the allocation of places.</i> Promotion to management positions in Basic Education depended entirely on the vacancies generated during the 2019-2020 school year.

Source: Own elaboration based on the structure of the calls for management functions of Villar (2016) and Fernández (2018, 2019 and 2020) in the State of Mexico.

**Table 4.** Continuation. Elements that are replaced and added in the 2016 to 2022 calls

School cycle	SS (replaced)	SA (added)
2020-2021	<i>Participants.</i> English teachers	<p><i>Participation requirements.</i> Numeral 7. A minimum of four years in the teaching role.</p> <p><i>Documentary requirements.</i> Number 7. Certificate issued by the educational authority certifying the category and position with which you wish to participate in the process, work center, function and seniority.</p> <p>Number 14. Evidence of years of service in basic education issued by the educational authority.</p> <p>Number 15. Evidence certifying if you are assigned to a highly marginalized work area.</p> <p><i>Multifactorial elements:</i> Described in factors (academic degree, seniority and work experiences in highly marginalized areas) and elements of appreciation (component 1, knowledge and skills. Component 2, recognition of good performance. Component 3, management skills.</p> <p><i>Study guides.</i> New query page.</p> <p><i>Integration of results.</i> According to the weighting of the appraisal system.</p> <p><i>Criteria for the allocation of places.</i> A list is made in descending order according to the assessment of the multifactorial elements.</p> <p><i>Citizen participation and observation.</i> Mothers and fathers of families, local anti-corruption system and community representatives.</p> <p><i>Documentary requirements.</i> Number 16. Record of the work center(s) where you have worked in the last ten years.</p> <p><i>Base eighth. Modalities of application of the valuation instrument.</i> On-site or remote</p> <p><i>Documentary requirements.</i> Number 16. Record of the work center(s) where you have worked in the last ten years.</p> <p><i>Base octava. Modalidades de aplicación del instrumento de valoración.</i> Presencial o a distancia</p>
2021-2022		

Source: Own elaboration based on the structure of the calls for management functions of Fernández (2020) and Monroy (2021, 2022) in the State of Mexico.

**Table 5.** Continuation. Elements that are replaced and added in the 2016 to 2022 calls

School cycle	SS (replaced)	SA (added)
2022-2023	<p><i>Participants.</i> Pedagogical technical adviser and promoters of physical education and artistic education.</p> <p><i>Fourth base. Multifactorial elements.</i> The factors and elements of appreciation are combined in multifactorial elements.</p>	<p><i>First base. Participation requirements.</i> Carry out the function that corresponds to its category.</p> <p>Accredit, before the application of the assessment of knowledge and aptitudes, the skills course for managerial or supervisory functions.</p> <p><i>Second baseman Places available.</i> A link is attached to consult available vacancies.</p> <p><i>Third baseman Professional profile to be covered by the participating teachers.</i> A link is attached to consult the profiles.</p> <p><i>Fourth base. Multifactorial elements and their assessment.</i> Postgraduate studies, with a maximum weighting of 15 out of a 100-point scheme.</p> <p>Seniority, with a maximum weighting of 30 on a scheme of 100 points.</p> <p>Experience and time working in areas of marginalization, poverty and social breakdown, with a maximum weighting of 15 out of a scheme of 100 points. Recognition of good performance, with a maximum weighting of 10 out of a scheme of 100 points. <i>Apreciación de conocimientos y aptitudes, con una ponderación máxima de 30 sobre un esquema de 100 puntos.</i></p> <p><i>Criteria for the allocation of places.</i> According to the vacancies registered in the Open and Transparent System of Assignment of Places.</p> <p><i>Ninth base. Media.</i> The email and phone number provided from the time of registration.</p> <p><i>Assumptions to nullify participation in the process.</i> Information or apocryphal documentation. Failure to comply with the provisions. Present behaviors contrary to those indicated by the unit.</p>

Source: Own elaboration based on the structure of calls for Monroy management functions (2021, 2022) in the State of Mexico.

## Results

From the systematic analysis of the calls for promotion to categories with management functions in basic education, it is identified that the initial structure of the 2015 to 2020 school cycles was organized into 16 bases, with some modifications in the different cycles. For example, the acceptance or not to make the results of the evaluation public in 2016, the opening to the technical-pedagogical advisers, promoters of physical education, arts and English teachers to the promotion process to supervisory categories in 2018, given that There was no management category in the function and the time limit to answer the instruments, as well as the assignment criteria according to the vacancies generated during the school year in 2019.

As of the 2020-2021 school year, the participation of English teachers is eliminated and in the 2022-2023 cycle, the participation of the technical-pedagogical advisor, the promoters of physical education and artistic education vanishes, which reduced the opportunity only to teachers in front of a group and commissioned directors with or without a definitive appointment.

Regarding the additions to the call for the 2020-2021 school year, a minimum of four years in the teaching function is attached, the documentary requirements related to seniority and affiliation to the workplace are increased, the multifactorial elements that describe the indicators are incorporated. that make up the assessment system, that is, academic degree, seniority and work experiences in highly marginalized areas; also, the following elements of appreciation: component 1, knowledge and skills; component 2: recognition of good performance; and component 3: management skills.

Likewise, the integration of results changes, now according to the weighting of the assessment system to form a list in descending order according to the assessment of the multifactorial elements.

During the 2022-2023 school year, more elements are added to the call, such as the first base referring to the accreditation before the application of the appreciation of knowledge and aptitudes, of a skills course for management or supervisory functions. The third base, on the professional profile described in the framework for management and excellence, and the fourth base related to the multifactorial elements and their assessment that combine the factors and elements of appreciation only in the multifactorial elements: postgraduate studies, with a maximum weighting of 15 on a scheme of 100 points. Seniority, with a maximum weighting of 30 on a scheme of 100 points. Experience and time working



in areas of marginalization, poverty and social breakdown, with a maximum weighting of 15 out of a scheme of 100 points. Recognition of good performance, with a maximum weighting of 10 out of a scheme of 100 points. And the appreciation of knowledge and skills, with a maximum weighting of 30 on a scheme of 100 points. In addition to the criteria for the allocation of places, in accordance with the vacancies registered in the Open and Transparent System for the Allocation of Places.

It is important to highlight that the most notorious elements in the analysis of the calls issued in the 2013 and 2019 reform are multifactorial, as seen in Table 6, and from the 2019 school year, the accumulated scores of each assessment assigned to the multifactorial ones and a priority list is prepared in descending order for the assignment to the management function according to the available vacancies.

**Table 6.** Contrast of the bases of the calls, reform 2013 and 2019

reform 2013	Reform 2019
I. Participants	- Participants
II. General requirements	- Participation requirements
III. Specific requirements	- Documentary requirements
IV. Categories to contest	- Categories subject to selection contest
V. Pre-registration	- Multifactorial elements for promotion (factors and appreciation system)
VI. Registration offices	- Preregistration
VII. Application venues for the national exam	- Registration and documentary verification
VIII. Stages, aspects, methods and instruments of the national examination	- Headquarters of application of the assessment instrument
IX. Sessions for the application of the examination instruments	- Application of the assessment instrument
X. Study guides and supporting bibliography	- Study guides and support bibliography
XI. Qualification procedure.	- Integration of results
XII. Tie-breaking criteria	- Publication of results
XIII. Disclosure of results	- Criteria for the allocation of places
XIV. Indicators for the allocation of places	- Citizen participation and observation
XV. Observers	- General considerations
XVI. General considerations	

Source: Own elaboration based on the calls for management functions of Villar (2015, 2016), Fernández (2018, 2019 and 2020) and Monroy (2021, 2022) between 2015 and 2022 in the State of Mexico.

## Discussion

Two educational reforms have arisen in Mexico in the last decade as a result of educational policies and administration changes that govern the country, and among the provisions of said regulations are broken down laws that govern the professional teaching service in basic education. The 2013 reform stems from the competitive examinations for access to management functions, taking as a reference an exam of management knowledge and skills, and the 2019 reform highlights a list of requirements called multifactorial elements that complement the knowledge exam.

As it has been identified in the development of the work, since 2015 the educational authority has supported the procedures for admission and promotion to management functions in basic education in normative documents arising from the 2013 and 2019 educational reforms, from which secondary laws emerge. such as the General Law of the Professional Teaching Service in 2013 and the General Law of the System for the Career of Teachers and Teachers in 2019, which in turn are in charge of issuing calls where the guidelines to which professionals must abide are specified. of education who wish to access the management function.

As a consequence of the review of the calls for the selection process for promotion to managerial functions, it was found that from the 2014-2015 school year and up to the present, in Mexico, as a result of the 2013 and 2019 educational reforms, the positions to a managerial position in primary schools are assigned according to the available vacancies and the position of the participant in the list that weighs the score of its multifactorial elements, once they have complied with the selection processes and indicators established in the calls issued by the authorities educational throughout the different school cycles of basic education.

Despite the fact that all the calls follow a similar scheme, there is a big difference in both reforms: the initial guidelines of the 2019 educational reform show a gap in the process of training and accompaniment to the management function, since the reference point is focuses on the fulfillment of a series of multifactorial elements, which leaves the effectiveness of the functions carried out by the new managers adrift.

It is until the 2022-2023 call that training is resumed as part of the requirements by requiring an online self-management course in management skills as an obligation. The description of the content covered by this course is part of the limitations of this study, since only teachers who have met the initial participation requirements can access it.

It was also identified that during the 2013 educational reform scenario, a process of accompaniment to the management function with a temporary two-year function was glimpsed. This guideline projected the detection of areas of opportunity in the management function during the trial period; for this reason, provisional appointments were granted while accessing induction courses by local authorities. This action represented the start of training by the immediate educational authority in order to strengthen management skills. Contrary to this reform, which marked an induction period and later an assessment for the assignment of the definitive appointment, as of the 2019 reform, the definitive appointment is granted to the school director after completing 6 months and one day in office.

Regarding professional preparation, it was found that in both reform scenarios the minimum requirement to compete for a managerial position is to have a bachelor's degree, although in the sum of the multifactorial ones proposed in the 2019 reform, higher scores are given to candidates. with graduate studies.

Returning to the ideas of Gómez (2020), the Professional Teaching Service promoted teacher training, selection, updating and evaluation, which opened the pattern towards the professionalization of the management function. This can be perceived as a setback in educational matters due to the training processes that disappear with the Law of the System for the career of Teachers and Teachers, from which the multiple elements that complement the knowledge exam and the course are rescued. management skills in the 2022-2023 call to support the new role.

However, the reforms require monitoring to visualize the improvement in educational processes and the efficiency of the management function. This reason invites reflection on the need for processes to support the function that strengthen its performance. For this reason, it is worth mentioning the results of the study carried out by Jacinto (2021) that are oriented towards the urgency of training teachers, principals and everyone involved in education to develop skills that allow principals to support their teachers in discourse and in the practice.

## Conclusion

With the future of the 2013 and 2019 educational reforms, the panorama was opened to basic education teachers to participate in the calls for the selection process for promotion to managerial functions under a similar scheme that was based on a standardized exam aligned on profiles. previously established by the applicable legal norm: General Law of the

Teaching Professional Service and General Law for the Teachers' Career System, respectively.

Both reforms consider a similar scheme in the issuance of their calls, and as the educational cycles progressed, some elements were annexed or replaced, such is the case of the opening to promoters of physical education, arts and English teachers in 2018 , as well as the exclusive participation of teachers in front of a group and directors without appointment as of the 2022-2023 school year. In addition, the multifactorial ones that complement the knowledge exam are incorporated, among them seniority, postgraduate studies, work in highly marginalized areas and recognition of good performance.

On the other hand, the differences that are highlighted in both reforms is that in 2013 a process of accompaniment to the management function was envisioned for two years, a situation that was omitted with the promulgation of the 2019 reform. In fact, it was until the 2022 call -2023 when training is resumed as part of the requirements, by requiring an online management skills course. However, it is called into question whether said course effectively supports the managerial function, which is a task that corresponds to the educational authorities in a follow-up strategy for new managers.

### **Future lines of research**

In subsequent research, it is suggested to deploy qualitative studies that capture the experiences of managers who accessed the service under opposition competitions and visualize the support processes to which they have been subjected, which will allow describing the existence or not of strategies promoted by the educational authorities. to support the function of directors who agreed under the guidelines of the 2013 and 2019 reforms. In this sense, it is proposed to develop studies that account for the strategies to support the management function, as this can specify the training needs in the following dimensions and indicators to design a training path that considers these needs.

- Institutional planning: Identify the planning process of managers embodied in the areas of the Continuous Improvement School Program, as a document that formalizes the planning of basic education schools.
- Management: Detect obstacles and support scenarios in various types of management: institutional, pedagogical and administrative.
- Leadership: Describe the circumstances that foster leadership (transformational, transactional, etc.).

Likewise, it is suggested to carry out a quantitative study that takes as a sample the managers who accessed the function in 2023 with the intention of determining the relationship of the management skills course with the panorama that is experienced daily in primary schools. For this, the effectiveness of the managerial function and the managerial skills course can be taken as variables, which will show the relevance or not of the course to access the function.

## References

- Cuevas, Y. (2021). Sistema de carrera docente 2019 en México para maestros de educación primaria. Cambios, continuidades y desafíos. *Revista Mexicana de Investigación Educativa*, 26(89), 475-502. <https://www.scielo.org.mx/pdf/rmie/v26n89/1405-6666-rmie-26-89-475.pdf>
- Decreto 26/02/2013 [DOF]. Por el que se reforman los artículos 3.º en sus fracciones III, VII y VIII; y 73, fracción XXV, y se adiciona un párrafo tercero, un inciso d) al párrafo segundo de la fracción II y una fracción IX al artículo 3.º de la Constitución Política de los Estados Unidos Mexicanos. 26/02/2013. [http://www.sep.gob.mx/work/models/sep1/pdf/promulgacion\\_dof\\_26\\_02\\_13.pdf](http://www.sep.gob.mx/work/models/sep1/pdf/promulgacion_dof_26_02_13.pdf)
- Decreto 11/09/2013 [DOF]. Por el que se reforman, adicionan y derogan diversas disposiciones de la Ley General de Educación. 11/09/2013. [https://www.dof.gob.mx/nota\\_detalle.php?codigo=5313841&fecha=11/09/2013#gsc.tab=0](https://www.dof.gob.mx/nota_detalle.php?codigo=5313841&fecha=11/09/2013#gsc.tab=0)
- Departamento de Educación de Inglaterra (2020). *Cualificación Profesional Nacional para la Jefatura (NPQH)*. <https://www.gov.uk/guidance/national-professional-qualification-for-headship-npqh>
- Fernández, A. (2018). *Concurso de oposición para la promoción a categorías con funciones de dirección en educación básica, ciclo escolar 2018-2019*. COPFD-EB. <https://cespd.edomex.gob.mx/sites/cespd.edomex.gob.mx/files/files/direccion.pdf>
- Fernández, A. (2019). *Convocatoria para la promoción a categorías con funciones de dirección en educación básica, ciclo escolar 2019-2020*. COP-DIR-EB-19. [http://public-file-system.usicamm.gob.mx/2019-2020/sistema\\_logos/aprobadas/nivel\\_2/enlace\\_15/convocatoria\\_59/convocatoria\\_COP-DIR-EB-](http://public-file-system.usicamm.gob.mx/2019-2020/sistema_logos/aprobadas/nivel_2/enlace_15/convocatoria_59/convocatoria_COP-DIR-EB-)



19.pdf?fbclid=IwAR0SCPhdhRAnCJSK3kPWak6WqX4Ecc22\_ZjE18k4vUACJAC  
SR-Wq2guL4Fk

- Fernández, A. (2020). *Convocatoria al proceso de selección para la promoción vertical a categorías con funciones de dirección y supervisión en educación básica en el subsistema educativo estatal, ciclo escolar 2020-2021*. COP-EB-20. [http://public-file-system.usicamm.gob.mx/2020-2021/convocatorias/aprobadas/convocatoria\\_5/convocatoria\\_entidad\\_56/BAEstatl.pdf](http://public-file-system.usicamm.gob.mx/2020-2021/convocatorias/aprobadas/convocatoria_5/convocatoria_entidad_56/BAEstatl.pdf)
- García, J., López-Gorosave, G. y Slater, Ch. (2011). El director novel escolar: estado de la investigación y enfoques teóricos. *REICE. Revista Iberoamericana sobre Calidad, Eficacia y Cambio en Educación*, 9(3), 30-50. <https://www.redalyc.org/articulo.oa?id=55119880003>
- Gómez, M. (2020). Las reformas educativas 2013 y 2019 en México. ¿Avance o retroceso educativo? *Revista de Cultura de Paz*, 4, 89-104. <https://www.revistadeculturadepaz.com/index.php/culturapaz/article/view/99/66>
- Hernández, G. (2015). El concurso de oposición a puestos de supervisión escolar del 2015 en México. *Revista Avances en Supervisión Educativa*, 24, 1-25. [Ase\\_24\\_16\\_hernandez-lopez \(educacion.gob.es\)](https://www.ase.gob.es/Ase_24_16_hernandez-lopez)
- Instituto Nacional de Evaluación Educativa [INEE] (2013). *Ley del Instituto Nacional para la Evaluación de la Educación*. [https://www.inee.edu.mx/wp-content/uploads/2019/01/LeyINEEweb\\_ok.pdf](https://www.inee.edu.mx/wp-content/uploads/2019/01/LeyINEEweb_ok.pdf)
- Jacinto, L. A. (2021). *Dirección efectiva en primarias públicas. Recomendaciones desde voces docentes* (tesis de maestría). Benemérita Universidad Autónoma de Puebla. <https://repositorioinstitucional.buap.mx/handle/20.500.12371/15792>
- López, M. (2013). Una reforma "educativa" contra los maestros y el derecho a la educación. *El Cotidiano*, (179), 55-76. <https://www.redalyc.org/pdf/325/32527012005.pdf>
- Monroy, G. (2021). *Convocatoria al proceso de selección para la promoción vertical a categorías con funciones de dirección y supervisión en educación básica, ciclo escolar 2021-2022*. [http://public-file-system.usicamm.gob.mx/2021-2022/convocatorias/2021-2022/sistema\\_32/aprobadas/convocatoria\\_12/convocatoria\\_entidad\\_341/COP-EB-21.pdf](http://public-file-system.usicamm.gob.mx/2021-2022/convocatorias/2021-2022/sistema_32/aprobadas/convocatoria_12/convocatoria_entidad_341/COP-EB-21.pdf)
- Monroy, G. (2022). *Convocatoria del proceso de promoción a funciones directivas o de supervisión en educación básica, ciclo escolar 2022-2023*.

- [https://cespd.edomex.gob.mx/sites/cespd.edomex.gob.mx/files/files/VERSION\\_FIN\\_AL\\_VERTICAL\\_BASICA\\_22\\_23\\_170122.pdf](https://cespd.edomex.gob.mx/sites/cespd.edomex.gob.mx/files/files/VERSION_FIN_AL_VERTICAL_BASICA_22_23_170122.pdf)
- Nueva Ley 2013. Ley General del Servicio Profesional Docente. 11-09-2013. DOF 11-09-2013.
- [https://www.uco.mx/content/cms/13/file/federal/LEY\\_GRAL\\_DEL\\_SERV\\_PROF\\_DOCENTE.pdf](https://www.uco.mx/content/cms/13/file/federal/LEY_GRAL_DEL_SERV_PROF_DOCENTE.pdf)
- Nueva Ley 2019. Ley General del Sistema para la Carrera de las Maestras y los Maestros. 30-09-2019, DOF 30-09-2019.
- [https://www.diputados.gob.mx/LeyesBiblio/pdf/LGSCMM\\_300919.pdf](https://www.diputados.gob.mx/LeyesBiblio/pdf/LGSCMM_300919.pdf)
- Secretaría de Educación Pública [SEP] (2017). *Perfil, parámetros e indicadores para personal con funciones de dirección y de supervisión en educación básica*. [https://www.gob.mx/cms/uploads/attachment/file/264260/Perfil\\_para\\_metros\\_e\\_indicadores\\_para\\_personal\\_con\\_funciones\\_de\\_direccion\\_y\\_de\\_supervision\\_EB\\_.pdf](https://www.gob.mx/cms/uploads/attachment/file/264260/Perfil_para_metros_e_indicadores_para_personal_con_funciones_de_direccion_y_de_supervision_EB_.pdf)
- Unidad del Sistema para la Carrera de las Maestras y los Maestros (USICAMM) (2020). *Marco para la excelencia en la enseñanza y la gestión escolar en la Educación Básica. Perfiles profesionales, criterios e indicadores para el personal docente, técnico docente, de asesoría técnica pedagógica, directivo y de supervisión escolar*. [http://creson.edu.mx/docs/Perfiles\\_profesionales\\_Criterios\\_e\\_Indicadores\\_para\\_Docentes\\_Ciclo\\_Escolar\\_2021-2022.pdf](http://creson.edu.mx/docs/Perfiles_profesionales_Criterios_e_Indicadores_para_Docentes_Ciclo_Escolar_2021-2022.pdf)
- Unidad del Sistema para la Carrera de las Maestras y los Maestros (USICAMM) (2019). *Marco para la excelencia en la enseñanza y la gestión escolar en la Educación Básica*. <http://public-file-system.usicamm.gob.mx/2020-2021/compilacion/Perfiles,%20Criterios%20e%20Indicadores%20EB%202020-2021.pdf>
- Villalaz, A., Moreno Bayardo, M. G. y Ramírez Díaz, J. A. (2020). Concreción de políticas educativas: las reformas educativas 2013 y 2019 en México. *Horizontes Pedagógicos*, 22(2), 13-24. <https://horizontespedagogicos.ibero.edu.co/article/view/hop.22201/1626>
- Villar, S. (2015). *Concurso de oposición para la promoción a categorías con funciones de dirección (directores y subdirectores), ciclo escolar 2015-2016*. [http://public-file-system.usicamm.gob.mx/Convoca/2015-2016/promocion/ba/convocatorias/ord/dir/Convocatoria\\_15.pdf](http://public-file-system.usicamm.gob.mx/Convoca/2015-2016/promocion/ba/convocatorias/ord/dir/Convocatoria_15.pdf)

Villar, S. (2016). *Concurso de oposición para la promoción a categorías con funciones de dirección en educación básica, ciclo escolar 2016-2017*. COPFD-EB. [http://public-file-system.usicamm.gob.mx/Convoca/2016-2017/promocion/ba/convocatorias/ord/dir/Convocatoria\\_Mex\\_Dir.pdf](http://public-file-system.usicamm.gob.mx/Convoca/2016-2017/promocion/ba/convocatorias/ord/dir/Convocatoria_Mex_Dir.pdf)

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