School principal's training programs, challenges, and improvement opportunities: rapid review

Judicaël Alladatin*[1], Lionel Roche[2], Insaf Al-chikh[3]

[1]Consortium SFR-D; Institut Universitaire de Formation des Cadres etBdS Siabanni, Benin

[2]University of Quebec in Montreal, Canada

[3]University of Geneva, Switzerland

*Corresponding Author: judicael.alladatin@jefar.ulaval.ca

ABSTRACT

Effective school leaders, with relevant training programs, high-quality management, and in-service pedagogical training, are recognized for their ability to positively influence student performance (Sanfo, 2020). In this study, we focus on analyzing training programs for school principals, assessing aspects such as their strengths, shortcomings, opportunities, as well as potential challenges. The aim was to identify the most effective models for training and preparing school principals in order to optimize their impact on educational success. To this end, we conducted a rapid review of 27 articles from scientific and gray literature. The results of this rapid review will be discussed with a view to an in-depth reflection on the strengths, challenges and opportunities inherent in the various training methods. The analysis shows that school principals' training is vital in the sense that it prepares trainees for their demanding and increasingly complex future roles. However, these programs sometimes suffer from shortcomings related to the selection process, the consistency between what is taught and what is experienced in the field, and the incoherence of the content of the training curriculum. The analysis also highlighted some opportunities that could improve these programs if integrated, as well as factors that could be barriers to the correct implementation of these valuable training programs.

INTRODUCTION

School principals have an essential influence on improving student performance. They organize the school community, foster the motivation and skills of teachers, and influence the working environment (Pont et al., 2008; Branch et al., 2013; Day et al., 2016; Author et al., 2021). Karakose et al. (2022) show in their research that leaders play a critical role in facilitating the successful implementation of organizational sustainability by creating adaptive systems in response to the complex demands of their wider environment. According to Pont (2008), effective school leadership is essential to improving the effectiveness and equity of education. During the COVID-19 epidemic, their role was essential in promoting learning by setting the example, keeping lines of communication open, and maintaining progress and evaluation. Therefore, the job of a school principal is difficult and has become increasingly complex due to increased pressure, responsibility, and supervision (Ford et al., 2020). In addition to having to make prompt decisions in intricate

situations with potentially complex ethical ramifications, school principals also need to weigh what's best for their schools or school systems against their own long-term strategic objectives.

Paradoxically, research shows that some principals have never received formal training, while others have been confronted with professional and personal issues as part of professional development programs. Moreover, in some parts of the world, the introduction of formal preparation and the development of principals is a more recent phenomenon (Bush et Oduro., 2006; Brown, 2017; Klein & Schwanenberg, 2020; Nasreen et al., 2020). In South Africa, for example, there is no formal preparation for school principals aspiring to or exercising leadership and management functions, and very few on-the-job professional development programs are available (Mestry, 2017).

For this reason, it is necessary to prepare future school principals with convenient training that will allow them to participate in such a complicated job (Robey et al., 2019) with a meticulously conceived program.

On the other hand, in order to guarantee that school principals can enhance the school, the Organization for Economic Cooperation and Development (OECD) elaborated in 2008 on a study about school leadership that examined the different procedures in 22 educational systems and investigated changes that have occurred since then. Their perspective was to provide policy alternatives that could help encourage the professionalization of school leadership (Pont, 2014). One of the conclusions of the study was that in several of the OECD's member nations, school principals may lack the necessary education and experience to carry out their duties (Beatriz et al., 2008). In addition, frequently, the working circumstances of school principals do not seem to be in line with the importance of the position (Beatriz et al., 2008). In fact, these issues can be explained by the fact that, in most countries, school principals begin their careers as teachers before progressing through several leadership and management positions to reach the post of school principal (Wallace Foundation, 2013). This leads to the widespread view that teaching qualifications and experience are the only requirements for leading a school (Bush, 2018).

According to Bush and Oduro (2006), in Africa, there was no official requirement for principals to get managerial training. They are frequently appointed based on their track record of success as teachers, with the underlying premise that this serves as a good foundation for school administration. The case is the same in many other countries, such as Cyprus, Denmark, Finland, Hungary, Iceland, the Netherlands, and Portugal (Bush, 2018). After a quick review of school principals' training policies, we noticed that countries reveal a significant heterogeneity in the approaches (Ummanel et al., 2016; Jiang et al., 2018; Valiente Sandó et al., 2018; Muñoz et al., 2019; Norberg, 2019; Gurmu, 2020). Generally, the heterogeneity is most exemplified by:

The content of the training curriculum: since different national standards put an emphasis on a variety of leadership knowledge, skills, and dispositions, such as strategic leadership, educational leadership, professional and organizational culture, management, and community involvement (Ni et al., 2022).

The entrance requirements: The most popular techniques for choosing principals include various types of appointment (technical, political, or others), referral, election (which includes or excludes community participation), examination ranking, public exam (for public schools), national tests, interview, resume submission, certification, or a combination of these (Vogel & Weiler, 2014; Pereda et al., 2019).

The qualification requirements at the end of the training include using a variety of assessment methods, including portfolios, journal mapping, simulations, and formal multi-rater assessment instruments (Ni et al., 2022).
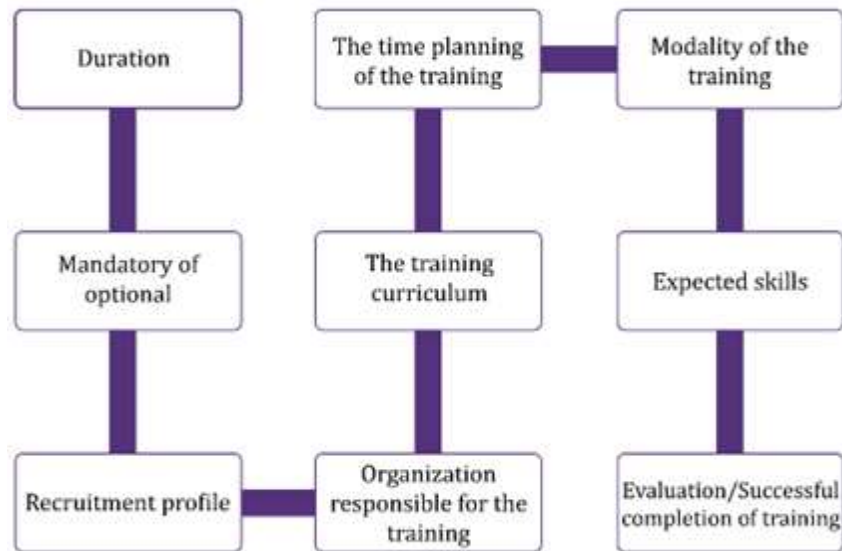
Figure 1. Overview of the different criteria for training programs

Considering all these findings, there is an emergent need to analyze the importance of an effective training program, the different deficiencies and challenges, and the possible opportunities to improve them, with the aim of enhancing the effectiveness of future training programs and, consequently, better preparing school principals for their role.

METHODS

It's important to note that there is still a study gap regarding the analysis of various training modalities. For this purpose, we propose to analyze, in a quick review, the various studies on school principals' training programs. We opted for a quick review because they are useful for decision-making in specific contexts, such as the development of guidelines on particular topics (Hartling et al., 2017). Our methodology consists of three successive steps:

(1) The collection of scientific publications from electronic search engines,
(2) The analysis of these publications; the selection of scientific publications according to the inclusion and exclusion criteria,
(3) The analysis of the findings,

The collection of scientific publications from electronic search engines

Without regard to location, a collection of studies from the past 10 years (from 2012 to the present) was assembled. This time frame was selected due to the wide temporal range of information in this field but given the growing political focus on school leadership and management in recent years (Mulford, 2003), .

We conducted an extensive electronic search to locate and retrieve relevant academic literature (Goodman et al., 2014) in a variety of popular databases, but most of our articles were retrieved from **ERIC, LearnTechLib**, **Proquest**, and gray literature[1] (Schöpfel, 2012), namely the Google Scholar (GS) database (see table 1 in appendices). In addition to articles, books, and book chapters, and thesis dissertations are also included, as the literature on principals' training and preparation includes several works commissioned by

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[1] Grey literature refers to any type of material produced by government, administration, education and research, commerce, and industry, in print or digital format, protected by intellectual property rights, of sufficient quality to be collected and preserved by a library or institutional archive, and not controlled by commercial publishing. J. SCHÖPFEL. « Vers une nouvelle définition de la littérature grise ». Cahiers de la Documentation/Bladen voor Dokumentatie, 2012, n° 3, p.14-24

governmental and non-governmental organizations and published through books or discussed in thesis dissertations. It's worth noting that we initially used other search engines, but eventually limited ourselves to these three, as we found more relevant articles there.

The main keywords we used for this research were "training", "preparation" and "school principal" or "headteacher" because of variations in British and American English, we will use both terms indistinctly throughout the article. Thus, the search was conducted on search engines with the terms "training of school principal" OR "preparation of school principal" OR "training of headteacher" OR "preparation of headteachers" in the subject line (title, keywords, and abstract). Then a review process was conducted: first, the revised abstract allowed for an initial selection; then, the full paper review allowed for the ultimate selection. A total of 27 documents were finally obtained after eliminating duplicates and excluded documents.

The analysis of these publications

The following inclusion criteria (IC) were used to select the articles: articles, publications of full content, books, book chapters, and thesis (see Table 2 in appendices) that are related to the training of school principals, whether it is initial training or professional development, and/or publications on training policies in each country. Regarding the geographical context, we didn't limit the search to a specific geographical region, given that the aim was to obtain a panoramic view of all the different training programs. (see Table 3 in appendices). In contrast, the exclusion criteria (EC) were publications prior to January 2000, abstracts, graduation projects, and conference or congress proceedings..

RESULTS AND DISCUSSION

How does school principal affect student learning??

The first recurring point that is consistently highlighted in most of the papers reviewed is that school principals training programs have direct and indirect positive effects on student outcomes (David et al., 2000; DiPaola, 2003; Townsend, 2007; Day et al., 2016). Weinstein et al. (2018) found that elementary and middle schools led by trained principals demonstrated more accelerated growth in English and mathematics among students compared to schools led by other novice principals.

However, several studies have endeavored to capture this impact. As an illustrative example, the rigorous quantitative research conducted by Branch et al. (2013) has shown that a typical student's achievement is enhanced by highly effective principals during the second and seventh months of learning in a single school year. They noticed the opposite effect with ineffective principals.

In fact, Leithwood et al. (2020) ranked school leadership as the most influential school factor on student achievement and growth, after classroom instruction and teacher quality. Moreover, even classroom instruction and teacher quality are influenced by the performance of school principals (Hallinger & Heck, 1998). This equation partly explains why principals' impact on student achievement is difficult to measure; principals' efforts are indeed reflected by other factors.

In their research, Pont et al. (2008) have shown that quality training and preparation can support principals in strengthening their competence to a) develop teacher quality, b) manage strategic school resources, and c) collaborate with external partners. All of which ultimately led to improved school performance. Similarly, previous research findings emphasized that the quality of leadership provided by school principals depends largely on the quality of their training experience. (Lynch, 2012; Miller, 2013; Pannell et al., 2016).

Drake (2022) reported that effective integration of interns into schools and leadership teams during their clinical experience has a positive effect on their knowledge, skills, dispositions, post-graduation career intentions, and students' performance in schools led by these graduates.

Chapman et al. (2005) concluded that internships, due to their duration, are the most effective strategy for developing leadership ability in future principals. In line with this, the findings of Pannell & Sergi-McBrayer's (2020) study revealed that practical courses and full-time internships are effective in preparing principals to improve student academic achievements. Additionally, Viloria et al. (2021) stated that an excellent program and field-based activities assist interns in building new knowledge, promoting opportunities for in-depth reflection, and connecting theory to practice by way of concrete real-world experiences in the context of the classroom and community.

From the necessity of training to the challenge of implementation

We proceed to the evaluation of the challenges and constraints to be considered.. : The first one is about the reduction of the number of people who apply for the school principal position because of the low attractiveness of the job (Pont et al., 2008), in addition to the meager or even no reward at all, given the high level of responsibility that comes with running a school (OECD, 2018). As a result of a misguided selection program, there is a significant risk of losing the experience, expertise, and knowledge of people who are well suited to the job but who are not selected. This can jeopardize the performance of the school and eventually the achievement of students.

School principal development and training programs are often publicly funded. These programs have multiplied and differed from one region to another. While the impact of these training courses is not sufficiently demonstrated, there is a great risk of losing both funding and time trying to experiment with several programs. For this reason, many stockholders argue that training for this profession must evolve into a systematic, integrated, and interdependent approach to career planning (Chapman et al., 2005).

Another significant challenge is designing training programs that do not consider the different roles and responsibilities of principals, the size of the school, the resources available, and the gender and location of the population served by the school, may misrepresent the true training needs of principals, develop poorly targeted and contextualized training... and thereby put the system in danger of losing the expertise and knowledge of those who really know the job (Chapman et al., 2005; Mitgang, 2012). Recognizing this risk, states have shown a desire to develop consistent, cost-effective, and scalable training programs, often resulting in customized training and training programs designed to fill existing gaps in specific skill areas (Dejaeghere et al., 2009).

According to critics of principal preparation, the programs for future principals to become instructional leaders and have an impact on student progress fall short in several areas (Donmoyer et al., 2012; Horner & Jordan, 2020). Pre-service admissions during the selection process are usually the first indication of one of the pre-service training's shortcomings.. Grissom et al. (2019) showed that the outcomes associated with preparation programs are a function of two dimensions: the types of participants that the programs serve and the quality of the preparation they receive. However, many programs have failed to design an effective program of selection, resulting in the admission of almost all applicants.

Given that one of the few prerequisites for becoming a school principal in many countries was to have taught for at least a certain number of years without any additional training or assistance beyond what was necessary for teaching (Pont, 2014), Rely on the least selective admission methods, such as the minimum institutional academic requirements, which are frequently motivated by enrollment demands. Clear commitment and intent, academic expectations, professional objectives, and prior experiences that imply candidates have leadership potential ought to be part of more stringent selection criteria (Pont, 2014; Ni et al., 2022). In addition, the selection process usually fails to screen out applicants whose primary motivation is not to manage a school but to get higher salaries or the promotion that comes with a higher degree. (Reed & Kensler, 2010; Ummanel et al., 2016; Weinstein et al., 2018).

These programs often screen applicants based primarily on written evidence of their educational background. This method of selection overlooks other crucial abilities, like the candidate's ability to work well

with teachers or in a challenging school environment. It reveals limited insight about the necessary qualities for a successful principal, such as the candidate's resilience, integrity, and conviction in the ability of children to learn (Mitgang, 2012).

In line with the quality of the preparation, another concern raised is the lack of coherence between theory and practice. On the one hand, curricula do not consider the ongoing development of the work of school principals. Vogel et al. (2014) argued that more than just a license is needed for leadership in learning; it requires a policy framework that establishes logical connections between the requirements, objectives, and policy aims that specify the function of licensing and the activities it permits. According to research conducted by Nasreen & Odhiambo (2018) in Pakistan, high school principals reported that their training curriculum typically ignores significant aspects such as information and communication technology, classroom management, assessment methods, and research work, which are all crucial elements for effective school leadership. As a result, graduates of programs for principal preparation may not be adequately prepared for their position as instructional leaders.

On the other hand, internships are poorly designed and insufficiently linked to the rest of the curriculum. Pannell et al. (2016) note that the gap between principal training and today's realities is prompting institutions and school districts across the country to rethink their leadership preparation programs. For its part, Webster-Wright (2009) adds a potential concern based on his studies conducted in Latin America and North America, where he found that those programs lack monitoring and follow-up systems for their graduates.

In the same research, Webster-Wright (2009) highlighted a further area of weakness, which is the incommensurability of training programs. Reporting that the determination of the actual impact of such programs is difficult and measuring this "value-added" poses methodological challenges, he reinforced this statement by citing Orphanos and Orr's (2014) research, where they note the existence of a significant lag time between program completion, leader entry, and eventual school change, claiming that it is complicated to isolate the impact of school leader preparation programs from other schools' contextual factors or from a policy that may have led to changes in academic outcomes.

What are the improvement opportunities?

In a recent study, the authors (2021) point out that 360° video technology appears to be a potentially beneficial technology to utilize in the context of teacher training, notably to allow virtual internships during lockdown periods and to accompany interns during their real internship. In another study Kittel et al. (2023) showed that in work-integrated learning, 360° VR exposure lowers anxiety and boosts self-efficacy, enabling students to use their theoretical knowledge in practical situations. This could also be an excellent opportunity to develop virtual learning environments that enhance the authentic learning of the internship period during the initial training of school principals.

With the aim of strengthening the capacity of future school principals to adapt their knowledge to the realities of the professional world, programs must integrate and produce a clear coherence between academic and practical training, theoretical and practical. Darling-Hammond et al. (2007) suggest the use of adult learning theory, as it helps build a coherent curriculum that addresses effective instructional leadership and school improvement.

In his review, Ma (2018) supports the idea that peer learning in the context of pre-service teacher education promotes a collaborative environment in which teachers work together to address real-world challenges, thereby fostering self-efficacy in them. In the same way, for pre-service training among school leaders, peer learning can be utilized to diversify the candidate's source of experience, especially as other principals come from different contexts. This method places future leaders in educational leadership at the heart of their real activity (Alsaleh et al., 2017).

These findings suggest that, in general, there are two major opportunities that need to be emphasized: The first is to offer more real internships which could be prepared virtually using 360° technology, and to develop the relationship between the training institutes and the internship sites.

DISCUSSION AND CONCLUSION

The review conducted has shown that well-designed training programs for school principals are more crucial than ever to help them develop the leadership and other skills required for high performance at their job. Indeed, we showed that the great performances of the principals positively impacted the students' outcomes both directly and indirectly. Especially emphasizing what is considered the most effective part of principals training: the internships. They seem to be good periods for ongoing assessment and improvement of the trainees. The challenges uncovered by this research suggest that greater focus on building "prospective" programs could produce interesting findings that account more for better principal initial training. Candidates for training programs should go through a thorough selection process that considers their teaching experience, commitment to teaching improvement, and leadership potential (Darling-Hammond et al., 2009; Davis & Darling Hammond, 2012; Wallace Foundation, 2016). The program's content and approaches should align with the present tasks and responsibilities of school leaders, distinguishing the knowledge required at various phases of a leader's career and paying attention to the context of each school system.

Also, considering centralization would make it easier to respond to the needs of the local context. Furthermore, the combination of technological and pedagogical knowledge introduces an interesting perspective for the development of hybrid learning principal-based training.

Integration of peer learning into pre-service principal training seems to be another opportunity worth exploring (Peterson, 2002; Serrão Cunha et al., 2020). Overall, our analysis suggests establishing an alignment between these four important aspects: competence referential, theoretical training, internships, and real activity.

This research represents a first initiative to offer guidance to practitioners, researchers, and decision-makers on how to improve the development of principal training. It aims to reinforce existing strengths, address identified weaknesses, mitigate potential threats, and capitalize on available opportunities.

One of the limitations of this study is the relatively small sample of papers, which may limit the generalizability of the results. In addition, we collected data on the basis of a quick review, which does not allow us to report on the completeness of the training procedure.

In light of these limitations, future research could develop this study using a larger sample of articles to enhance the generalizability of the results. The use of systematic reviews, incorporating mixed-methods research with observational or qualitative data, could provide a more comprehensive understanding of the topic. Finally, exploring the potential of different training methods, pre-training, in service, and during professional development, will help provide guidance for the development of appropriate training that respects the context of each region.

Declaration of competing interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

REFERENCES

Alsaleh, A., Alabdulhadi, M., & Alrwaished, N. (2017). Impact of peer coaching strategy on pre-service teachers' professional development growth in Kuwait. *International Journal of Educational Research*, *86*, 36–49. https://doi.org/10.1016/j.ijer.2017.07.011

Beatriz, P., Deborah, N., & Hunter, M. (2008). Improving school leadership, volume 1 policy and practice: Policy and practice (Vol. 1). OECD publishing.

Branch, G. F., Hanushek, E. A., & Rivkin, S. G. (2013). School leaders' matter. Education Next, 13(1), 62–69.

Brown, S. L. (2017). A Case Study of Strategic Leadership and Research in Practice: Principal Preparation Programs that Work – An Educational Administration Perspective of Best Practices for Master's Degree Programs for Principal Preparation. 1226-1244. https://doi.org/10.4018/978-1-5225-1049-9.CH086

Bush, T., et Oduro, G. (2006). New principals in Africa: Preparation, induction and practice. Journal of Educational Administration, 44, 359-375. https://doi.org/10.1108/09578230610676587

Bush, T. (2018). Preparation and induction for school principals: Global perspectives. Management in Education, 32(2), 66–71. https://doi-org./10.1177/0892020618761805

Chapman, J. D., & International Institute for Educational Planning. (2005). *Recruitment, retention, and development of school principals*. Lenders: International Institute for Educational Planning.

Darling-Hammond, L., LaPointe, M., Meyerson, D., Orr, M. T., & Cohen, C. (2007). Preparing School Leaders for a Changing World: Lessons from Exemplary Leadership Development Programs. School Leadership Study. Final Report. *Stanford Educational Leadership Institute*.

Day, C., Gu, Q., & Sammons, P. (2016). The impact of leadership on student outcomes: How successful school leaders use transformational and instructional strategies to make a difference. *Educational Administration Quarterly*, *52*(2), 221–258.

David, R., Teddlie, C., & Reynolds, D. (2000). *The international handbook of school effectiveness research*. Psychology Press.

DeJaeghere, J. G., Williams, R., & Kyeyune, R. (2009). Ugandan secondary school headteachers' efficacy: What kind of training for whom? *International Journal of Educational Development*, *29*(3), 312–320.

DiPaola, M. F., & Walther-Thomas, C. (2003). *Principals and Special Education: The Critical Role of School Leaders*.

Donmoyer, R., Yennie-Donmoyer, J., & Galloway, F. (2012). The Search for Connections Across Principal Preparation, Principal Performance, and Student Achievement in an Exemplary Principal Preparation Program. Journal of Research on Leadership Education, 7(1), 5–43. https://doi.org/10.1177/1942775112440631

Drake, T. A. (2022). Learning by Doing: A Daily Life Study of Principal Interns' Leadership Activities during the School Year. Journal of Research on Leadership Education, 17(1), 24–54. https://doi.org/10.1177/1942775120941549

Ford, T. G., Lavigne, A. L., Fiegener, A. M., & Si, S. (2020). Understanding District Support for Leader Development and Success in the Accountability Era: A Review of the Literature Using Social-Cognitive Theories of Motivation. Review of Educational Research, 90, 264-307. https://doi.org/10.3102/0034654319899723

Grissom, J. A., Mitani, H., & Woo, D. S. (2017). Principal Preparation Programs and Principal Outcomes. In AERA Online Paper Repository. AERA Online Paper Repository. https://doi-org/10.1177/0013161X18785865

Hallinger, P., & Heck, R. H. (1998). Exploring the principal's contribution to school effectiveness: 1980-1995. *School Effectiveness and School Improvement*, *9*(2), 157–191.

Hartling, L., Guise, J., Hempel, S., Featherstone, R., Mitchell, M., Motu'apuaka, M., Robinson, K., Schoelles, K., Totten, A., Whitlock, E., Wilt, T., Anderson, J., Berliner, E., Gozu, A., Kato, E., Paynter, R., & Umscheid, C. (2017). Fit for purpose: Perspectives on rapid reviews from end-user interviews. Systematic Reviews, 6. https://doi.org/10.1186/s13643-017-0425-7

Horner, M., & Jordan, D. D. (2020). The Partnership Imperative for Preparing Effective Principals in North Carolina Schools. Journal of Organizational and Educational Leadership, 5(2). https://eric.ed.gov/?id=EJ1261266

Karakose, T., Polat, H., & Papadakis, S. (2021). Examining teachers' perspectivos on school principals' digital leadership roles and technology capabilities during the COVID-19 pandemic. Sustainability, 13(23), 13448.

Karakose, T., Kocabas, I., Yirci, R., Papadakis, S., Ozdemir, T. Y., & Demirkol, M. (2022). The Development and Evolution of Digital Leadership: A Bibliometric Mapping Approach-Based Study. Sustainability, 14(23), Article 23. https://doi.org/10.3390/su142316171

Kittel, A., Spittle, M., Larkin, P., & Spittle, S. (2023). 360°VR: Application for exercise and sport science education. Frontiers in Sports and Active Living, 5

Kovačević, J., & Hallinger, P. (2019). Leading school change and improvement. Journal of Educational Administration. https://doi.org/10.1108/JEA-02-2019-0018.

Leithwood, K., Harris, A., & Hopkins, D. (2019). Seven strong claims about successful school leadership revisited. *School Leadership & Management*, *40*, 1–18. https://doi.org/10.1080/13632434.2019.1596077

Lynch, K., Grummell, B., & Devine, D. (2012). *New managerialism in education: Commercialization, carelessness and gender*. Springer.

Lynch, J. M. (2012). Responsibilities of Today's Principal: Implications for Principal Preparation Programs and Principal Certification Policies. Rural Special Education Quarterly, 31(2), 40–47. https://doi.org/10.1177/875687051203100205

Ma, N., Xin, S., & Du, J.-Y. (2018). A peer coaching-based professional development approach to improving the learning participation and learning design skills of in-service teachers. *Journal of Educational Technology & Society*, *21*(2), 291–304.

Mestry, R. (2017). EMPOWERING PRINCIPALS TO LEAD AND MANAGE PUBLIC SCHOOLS EFFECTIVELY IN THE 21ST CENTURY. Education and New Developments 2022 – Volume I. https://doi.org/10.15700/SAJE.V37N1A1334

Mitgang, L. (2012). The Making of the Principal: Five Lessons in Leadership Training. Perspective. *Wallace Foundation*.

Miller, W. (2013). Better principal training is key to school reform. *Phi Delta Kappan*, *94*(8), 80–80.

Muñoz, G., Amenábar, J., & Valdebenito, M. J. (2019). Formación de directivos escolares en Chile: situación actual, evolución y desafíos de su oferta. REICE. Revista Iberoamericana sobre Calidad, Eficacia y Cambio en Educación.. https://doi.org/10.15366/reice2019.17.2.003

Nasreen, A., & Odhiambo, G. (2018). The Continuous Professional Development of School Principals: Current Practices in Pakistan. Bulletin of Education and Research, 40(1), 245–266.

Norberg, K. (2019). The Swedish national principal training programme: A programme in constant change. *Journal of Educational Administration and History*, *51*(1), 5–14. https://doi.org/10.1080/00220620.2018.1513912

Orphanos, S., & Orr, M. T. (2014). Learning Leadership Matters: The Influence of Innovative School Leadership Preparation on Teachers' Experiences and Outcomes. Educational Management Administration & Leadership, 42(5), 680–700. https://doi.org/10.1177/1741143213502187

Pannell, S., Peltier-Glaze, B. M., Haynes, I., Davis, D., & Skelton, C. (2015). Evaluating the Effectiveness of Traditional and Alternative Principal Preparation Programs. Journal of Organizational and Educational Leadership, 1(2). https://eric.ed.gov/?id=EJ1131525

Pereda, P., Lucchesi, A., Mendes, K., & Bresolin, A. (2019). Evaluating the impact of the selection process of principal in Brazilian public schools. Nova Economia, 29, 591–621. https://doi.org/10.1590/0103-6351/4242

Peterson, K. (2002). The professional development of principals: Innovations and opportunities. *Educational Administration Quarterly*, *38*(2), 213–232. https://doi.org/10.1177/0013161X02382006

Pont, B., Moorman, H., & Nusche, D. (2008). Improving school leadership (Vol. 1, pp. 1-199). Paris: OECD.,

Pont, B. (2014). School leadership: From practice to policy. International Journal of Educational Leadership and Management, 2. https://doi.org/10.17583/ijelm.2014.932

Reed, C. J., & Kensler, L. A. W. (2010). Creating a New System for Principal Preparation: Reflections on Efforts to Transcend Tradition and Create New Cultures. Journal of Research on Leadership Education, 5, 568–582. https://doi-org /10.1177/194277511000501

Roche, L., Kittel, A., Cunningham, I., & Rolland, C. (2021). 360° Video Integration in Teacher Education: A SWOT Analysis. *Frontiers in Education*, *6*. https://doi.org/10.3389/feduc.2021.761176

Sanfo, J. (2020). A three-level hierarchical linear model analysis of the effect of school principals' factors on primary school students' learning achievements in Burkina Faso. International Journal of Educational Research, 100, 101531. https://doi.org/10.1016/j.ijer.2020.101531.

Serrão Cunha, R., Tintoré, M., Cabral, I., & Matias Alves, J. (2020). Portuguese Principals' Professional Development Needs and Preferred Learning Methods. Education Sciences, 10. https://eric.ed.gov/?id=EJ1272069

Townsend, T. (2007). 20 years of ICSEI: The impact of school effectiveness and school improvement on school reform. In *International handbook of school effectiveness and improvement* (pp. 3–26). Springer.

Ummanel, A., McNamara, G., & Stynes, M. (2016). The career paths of primary school principals in Ireland. *Irish Educational Studies*, *35*(1), 57–71. https://doi.org/10.1080/03323315.2016.1151373

Valiente Sandó, P., Prada, J. J. D. T., Sarduy, Y. P., & Ramírez, J. G. (2018). The training of school principals: A study in the Cuban context. *Educational Management Administration & Leadership*, *46*(2), 258–278. https://doi.org/10.1177/1741143217725321

Vogel, L., & Weiler, S. C. (2014). Aligning Preparation and Practice: An Assessment of Coherence in State Principal Preparation and Licensure. NASSP Bulletin, 98(4), 324–350. https://doi.org/10.1177/0192636514561024

Viloria, M. D. L., Volpe, T., Guajardo, R.-A., & Kyle, R. (2021). Novice school principals' advice to educational administration students. Journal of Latinos and Education, 20(2), 136–147. https://doi.org/10.1080/15348431.2019.1568251

Wallace Foundation (2013) Perspective: The School Principal as Leader: Guiding Schools to Better Teaching and Learning. New York: The Wallace Foundation. Available at: https://www.wallacefoundation.org/knowledge-center/Documents/The-School-Principal-as-Leader-Guiding-Schools-to-Better-Teaching-and-Learning-2nd-Ed.pdf

Weinstein, J., Azar, A., & Flessa, J. (2018). An ineffective preparation? The scarce effect in primary school principals' practices of school leadership preparation and training in seven countries in Latin America. *Educational Management Administration & Leadership*, *46*(2), 226–257. https://doi.org/10.1177/1741143217728083

Wright, C., Grey, C., & Marchioli, K. (2020). Principal Preparation Programs for Change-Based Leadership: Reimagining Principal Preparation Programs at Riverside University (Doctoral dissertation, State University of New York at Buffalo)