



# Satellite-based Educational Leadership Architecture: A Vector for Improving the Performance of Grouped Training Centers

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## Abstract

This research was initiated following two motivations: the first corresponds to the mutant context in which the administrative staff and teachers of a Regional Center for the Professions of Education and Training collaborate to initiate and achieve positive change. This change mainly aims to improve the performance of all the actors of the organization, and in particular, that of the students. This context has seen a grouping of several provincial establishments into a single regional establishment. The second motivation is guided by the evolution of emerging practices, in terms of educational leadership, which tend towards an integrated style considering the natural emotional aspect of employees. In terms of our work, we offer satellite-based educational leadership characterized by logical structure and physical structure. This architecture offers the supervision of the proper functioning of the establishment by a council bringing together the main actors of educational leadership at the regional level, namely the administration and teachers. This council is seen as the logical part of this architecture. The physical part of this architecture proposes the development of local leadership for each local establishment.

**Disciplinary:** Organization Management.

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## 1 Introduction

From the literature concerning the evolution of concepts and paradigms of educational leadership, on the one hand, and practices referring to an institutional framework, on the other

hand, we have tried to characterize the practices of educational leadership in a prototype representing Regional Center for the Professions of Education and Training in Morocco, called CRMEF (Centre Regional des Metiers de l'Education et de la Formation). We have provided an overview of the concentrated, distributed, systemic, integrated, and situated models of educational leadership; knowing that we are part of a mapping of educational leadership practiced in emerging regions of Asia, Africa, and Latin America (Hallinger & Bryant, 2013; Hallinger, 2014, 2018c, 2019; Hallinger & Chen, 2015; Walker & Hallinger, 2015; Castillo & Hallinger, 2018). Depending on the new managerial configuration of these centers based on extensive regionalization, it was necessary to compose their old modes of leadership practiced with their expectations and challenges (Dutercq et al., 2015). Indeed, these centers have undergone significant changes since their creation in 2011 until today. In 2015, several Centers were grouped, following the new policy of regionalization of all sectors, into a single regional center. This center brings together several geographically distant centers represented by a single council of the institution. This council must guarantee the supervision of the proper functioning of the center at the regional level.

Taking into consideration the reconstruction of professional practices on new bases of cooperation and responsibility (Pelletier, 2017), we have identified existing local leaderships that reflect a given level of collaboration between the administration and some teachers. These local leaderships must evolve within the educational leadership orbit of the center at the regional level. Leadership that aims to improve the performance of all stakeholders, and in particular that of students, and that transforms values into actions (James & Barry, 2019). Several researchers have also underlined this improvement (Hallinger & Heck, 1996; Witziers, Bosker & Kruger, 2003; Leithwood & Mascal, 2008; Dumay, 2009; Bruggencate et al., 2012). On the way to this improvement, the triggering of changes must take into account (Northouse, 2019) the reactions of the different actors who can be "in-group" or "out-group". While other actors may keep neutral.

## 2 Framework

Our work is framed by two references: the first considers the conceptual framework that deals with definitions and trends in terms of educational leadership, the second situates the research in the environment of its study. This research characterizes the new style of educational leadership practiced within the Regional Center for the Professions of Education and Training in Morocco and propose an adaptable model to training institutions with a similar structure.

### 2.1 Theoretical Frame

#### 2.1.1 Educational Leadership

In lessons drawn from the review of the Anglo-Saxon literature, Piot & Kelchtermans (2014) pointed out that educational leadership is an umbrella concept that encompasses management and administration and refers to a process of social influence adopted by a or several members of the organization. Thus, it concerns all activities aimed at achieving the objectives of the organization and includes at least the construction of a vision and objectives of that organization; the efforts to

unite these members of this organization around this vision; the management or maintenance of existing organizational arrangements to achieve these objectives; and finally, initiate changes to achieve these goals.

Dutercq et al. (2015) have underlined that educational leadership is seen as a process of influence during which actors build a “common action” that aims to transform teaching practices even in the classroom. This transformation, which can only be done by initiating positive changes aimed at improving the performance of the institution on all levels, must take into account the social and cultural context in which this institution is located. While remaining open to the external environment of the establishment when initiating these changes (Hallinger, 2011, 2011b), we are aware that it is all about fostering leadership that creates a climate in which people work together to turn opportunities into successes (James & Barry 2019).

### **2.1.2 Can We Speak of Transformational and Transactional Educational Leadership?**

Some studies have shown the impact of transformational leadership on increasing satisfaction, commitment, and efficiency in certain organizations in which we can observe (Garant et al., 2010) an ability to rally through the vision, to transmit this vision, and to build a shared interpretation around this vision.

It should also be noted that several studies, for example, those of Hooper & Bernhardt (2016) have established links between transformational leadership and the feeling of effectiveness and satisfaction of teachers. For this type of leadership, the development of learning communities is facilitated by modeling and strengthening norms that create trust, respect, collegiality, and ethics, in a climate of safety and benevolence.

According to James Burns (1978), who was the first to characterize transactional leadership, transactional leaders motivate their subordinates by offering them rewards that directly serve their interests, in return for the work done. For him, this type of leadership relies on a legitimate power given to the leader within a bureaucratic structure of the organization and involves a negotiated exchange of interests between leaders and subordinates.

Unlike the transformational leader, the transactional leader announces the pre-established objectives of the organization and deploys all the means of a transaction so that the subordinates adhere to them. Even if this type of management is based on the exchange of interests, the employees know very well what to do and what is expected of them in a pseudo-logic of rights and obligations.

### **2.1.3 Educational Leadership: a Concentrated, Distributed, or Collegial Process?**

The concentrated or distributed aspect of educational leadership is pervasive, whether transactional or transformational. Indeed, for a long time, taking into account the plural aspect of educational leadership has gained in space and time. For example, Yukl (2006) asserts that the leadership actions of any individual leader are less important than the collective leadership provided by members of the administration because the power and influence of an organization are distributed over several people and several processes (Gronn & Hamilton, 2004). At the same time,

Harris (2004) challenges us to the fact that distributed forms of leadership can contribute to school improvement. Finally, Vuori (2019) asserts that distributed leadership is mainly practiced in higher education institutions while recalling that it is also found in other contexts.

In the context of the regrouping of distant training establishments, through a leadership shared between the management and the teachers, we evoke the position of Hargreaves & Fullan (2012) which indicates that taking into account the leaders of the leadership dimension can be a driving force for professionalization.

It should also be noted that during a trend towards a focus on distributed leadership, one must take into consideration, according to some authors such as Zulkifly (2020), its differentiation from collegial leadership. Indeed, they characterize collegial leadership as a process of consensual decision-making and power shared with collaborators.

#### **2.1.4 Towards a Situated Conceptual Framework of Educational Leadership**

Given that we cannot evoke educational leadership, in a systemic approach, without primarily targeting its positive impact on student performance, Hallinger & Heck (2010) confirm that distributed leadership can, on the one hand, exert a direct influence on the evolution and improvement of practices within educational institutions and, on the other hand, has an indirect influence on the level of learning of students. This can be supported by the words of Young, Winn & Reedy (2017) who highlight the important role that school leadership plays in supporting outcomes for students, teachers, and the entire school community.

In the same systemic logic, Hallinger (2011) underlined the need to adapt leadership practices to the local characteristics of the educational institution and underline the significant presence of the process of mutual influence between the administration and some teachers. Full knowledge of the local specificities of a given institution, which is an integral part of its culture, must also take into account its economic and social context. In this sense, Clarke & O'Donoghue (2017) have shown how sensitive the institution is to its context. This context to be brought out, according to Hallinger (2018a), from the shadow of leadership.

In its hybrid approach, or concentrated and distributed according to the circumstances, leadership can be located. Gronn (2008), who once championed the distributed approach of leadership, pointed out that it would be better to limit the distributed concept to actions carried out jointly by the administration and some teachers.

## **2.2 Physical and Logical Structures of a Regional Center for Education and Training**

### **2.2.1 Physical Structure**

From a physical point of view, the Center is made up - like the other regional centers of Morocco - of institutions physically distributed in geographically distant places, in different cities, and grouped according to the principle of extended regionalization. This regionalization expects to rationalize the resources of the region for the benefit of the promotion of its sustainable

development. In each establishment, be it an annex or a provincial branch, the two main actors, the administration and the teachers, work together to build educational leadership. The Council of the Center constitutes the logical structure bringing together the administration and teachers.

### 2.2.2 Logical Structure

According to its institutional framework, the Council of the Center - which constitutes the logical structure of the center - must be composed of ex officio members, namely the Director of the Center, as President of the Council of the Center, and the Deputy Directors; Department heads; and members elected to represent teachers, administrative and technical staff, in addition to a trainee student from each training cycle.

The Council of the Center must exercise its functions according to the laws and regulations in Morocco. This article stipulates that this Council examines all questions relating to the missions and the proper functioning of the establishment. On this point, it proposes projects for the creation of training and research channels; It establishes the regulations for evaluations of the training provided; It ensures the distribution of resources between the different structures; it establishes its own rules of procedure; It creates its own committees, comprising a scientific committee and a budget monitoring committee and, where applicable, ad hoc committees. The number, composition, and operating procedures of the standing committees are defined in the internal regulations of the institution's board.

This presentation of the nature and composition of the council of the center shows a distribution of roles and powers allowing, in a logical structure, to exert multiple and mutual influences on the part of all actors and mainly teachers.

## 3 Methodology

To approach the characterization of the style of leadership practiced within the Regional Center for the Professions of Education and Training, we have chosen the Regional Center of Casablanca-Settat, which is considered the biggest training institution in Morocco, as an example. The other centers in Morocco operate according to the same logic. We have targeted the administration and teachers in particular, as the main players in any educational leadership, through an online questionnaire for a sufficiently representative population (37.83% of trainers). Data was collected on the representativeness of both administrative staff and teachers on the center's board. This council constitutes the logical decision-making structure concerning the functioning of the Center. Simultaneously, we would like to know about leadership exercised in terms of building the center's commitments on a vision and values. Taking advantage of proximity, to complete and consolidate our information from the data received, we have recourse to the actual data recorded on the database of the information system of the Center.

## 4 Results

### 4.1 Representativeness of Management and Teachers in the Physical and Logical Structure of the Center

Considering the small number of directors and deputy directors and the importance of any director in the local or regional leadership process, it was necessary to contact all directors at regional and local levels. These Directors have a balanced academic and professional profile. Five out of seven have a doctorate and all have professional training in teaching. As for the managerial profile, the positions of directors of regional centers, deans of faculties, directors of engineering schools, or even Moroccan university presidents do not require prior specialized training in management. The same logic applies to assistant directors. The number of years of teaching experience of these directors at CRMEF ranges from 7-25 years, with an average approaching 15 years. To exercise the profession of a director or deputy director, no prior experience is required. Only the job interview determines their selection. This gives more chances and dynamism to the renewal of positions based on-field skills.

We have collected 87 of 230 responses (37.83%) from teachers with a confidence level of 90% and an error margin of 7%. These respondents were distributed evenly between headquarters, annexes, and provincial branches. Some teachers have a Ph.D., some have a MA, others with a BA/BSc. In the same way as for Directors, the academic and professional diplomas of the teachers testify to a dual competence in specialty and educational sciences. The fluctuations in the teaching experience of teachers are, on average, 23.85 years, with an SD of 9.03. This shows considerable seniority that must be valued, capitalized, or updated. Teachers' seniority in teaching at the CRMEF tends towards an average of 10.63 years, with a standard deviation of 8.69. This is mainly due to the wave of the newly assigned new teachers on probation in the two or three last years.

Since principals are ex-officio members of the board, commonly known as the Center Board, it is important to see the response rate of teachers who are members of that board compared to other teachers who are not members. Thus, 20.69% of the teachers who responded were identified as members of the Council of the Center. Returning to the Center's database, we found that these responding teachers constitute 58% of the teachers on the Board. This should have an impact on the proximity of responses concerning the missions and the current functioning of the said Council. Nothing prevents other teachers who are not members of the Council of the Center from being sidelined, especially those who were previously very active representatives, so their responses are very useful. Controversially, we can find teachers who are members of the Center's Council and who are not sufficiently involved in its missions and commissions.

### 4.2 Construction of the Center's Commitments on Vision and Values

If we assume that educational leadership encompasses the management and initiation of changes aimed at the continuous improvement of the organization according to its objectives and its vision, which reflects its values, we will particularly focus on the question. the sharing of a

common vision between the main actors of educational leadership, namely the administration and teachers. Then, we will try to recognize the essential values that can be shared between them.

One in seven directors and 17.44% of the responding teachers state that the center does not have a written document specifying the establishment's vision. At the same time, 50.00% of the responding teachers say they do not know whether the center has a written document specifying the Centre's vision or not. With this situation and after consulting the respondents, it turned out that the Center does not have a written vision distinguishing it from other Centers causing confusion between the establishment's vision and the vision-specific to the representations of the actors. After investigation, we noticed that none of the twelve centers has its own written vision.

Five out of seven Directors say that the Center's Board often, if not always, oversees the Center's missions, while the other two say they are sometimes supervised. A majority of teachers (70.13%) think that the Council of the Center supervises often, if not always, the Centre's missions and its proper functioning. This gives an image of participatory management, with nearly 27.27% saying "sometimes". This observation makes it possible to announce relatively a mode of leadership shared between administration and teachers within the same CRMEF.

The statements of the Director and the Deputy Directors show that the decisions concerning the management of the Center at the regional level are taken, in a situated manner, by the Director in coordination with the Deputy Directors; by the Director alone; or by the Deputy Director individually. Decisions concerning the management of the Center at the local level are often taken by the Regional Director.

## 5 Discussion

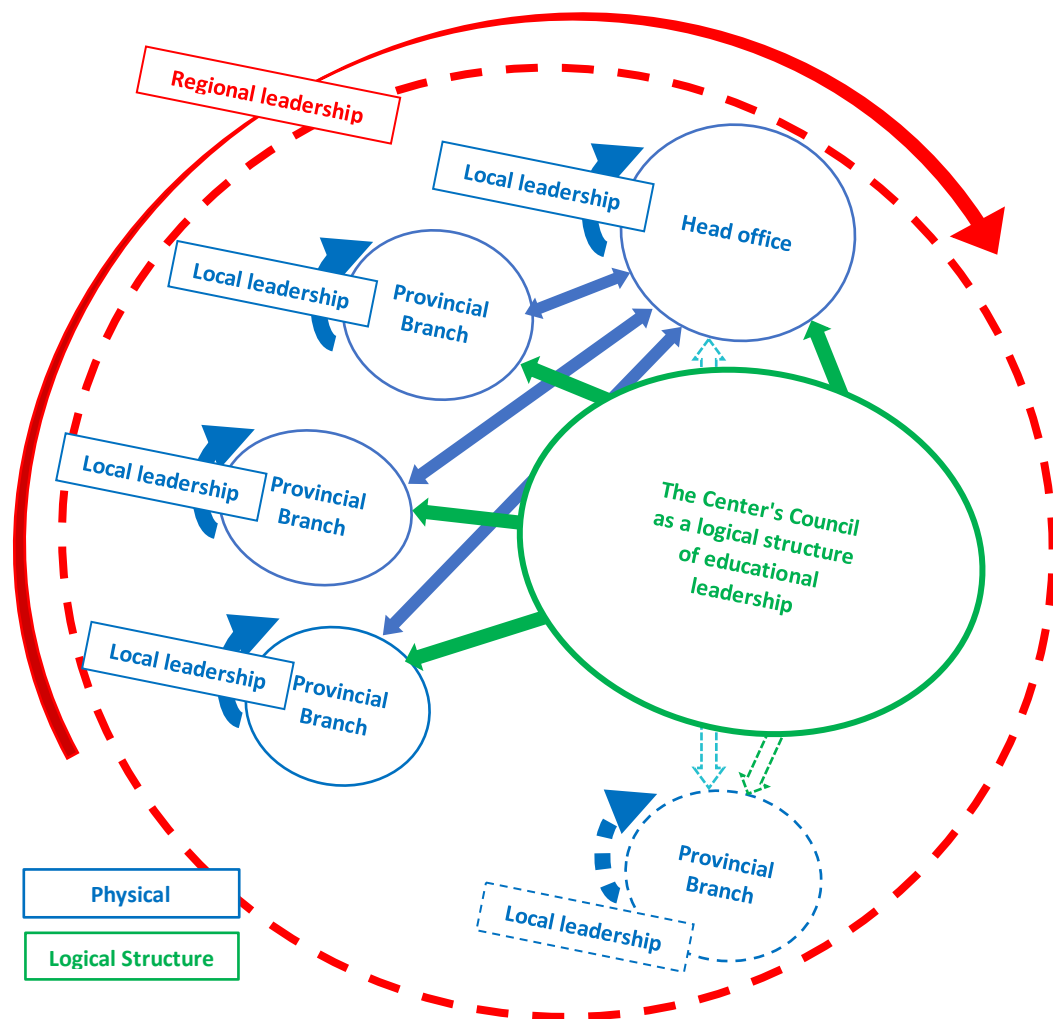
The number of teachers who are members of this council - respondents, and non-respondents - represents 76% of the total number of all representatives on the council. This is an opportunity for teachers to have a significant influence on decisions regarding the supervision of the functioning of the Center, in particular, and its educational leadership in general.

The construction of the Centre's commitments on a vision and values must translate the mission of the Center in terms of present commitments, based on values, making it possible to realize this future vision. Principals and teachers, as main actors in the educational leadership process, believe in the importance of having a vision for the Center. However, it is necessary to differentiate the individual vision of each director or each teacher - which can refer to individual representations - and a common vision written and developed in close collaboration. It is this last vision that would distinguish each Center from the other Regional Centers.

Current practices in terms of educational leadership, at the local and regional level of the Regional Centers for Trades in Education and Training, testify to the coexistence (El Wafiq et al., 2021) of local educational leadership with regional educational leadership. So that there is no overflow of the two types of leadership, the Regional Center Council - which brings together regional representatives of the administration and teachers from across the region - is the appropriate logical structure to coordinate the efforts of the annexes. and provincial branches. Each

of these physical structures must evolve within the orbit of the regional logical structure which encompasses, frames, and guides the satellite educational leadership of the Center at the regional level. Article 34 of Law 01.00 on the organization of Moroccan higher education, specifies the role of the Center's administration as manager and guarantor of its proper functioning, but also indicates, in Article 35 of the same law, that the council supervises the missions of the center and its proper functioning. This guarantees a complementarity of the roles of the Direction and the council and a normal continuity of the functioning of the center in the event of failure of its council. It is a composition of management and teacher roles in a logical configuration.

The statements of the director and the deputy directors confirm the decisive role of the director in situations where his sole responsibility is requested and the informal delegation to the deputy directors to unblock regional situations locally. This gives rise to a reflection on the role of deputy directors at the level of local management of their annexes or provincial branches. The normal situation presupposes an effective and permanent involvement of the deputy directors in the management of local affairs.



**Figure 1:** Physical and logical architecture of satellite-based educational leadership.

Finally, and as an investigation, we note that this configuration of this type of educational leadership can be considered (see Figure 1) as a portable model. Indeed, given that all higher



education institutions in Morocco, whether or not belonging to the university, which is grouped, are subject, about the functioning of the Councils of their institutions, to the same framework law, in this case, law 01.00, the main rules of power games between the administration (or Dean of Faculties) and teachers are similar. Consequently, the regrouped institutions can each develop their local educational leadership and participate in the development of a global satellite leadership which frames and regulates the evolution of "common action".

## 6 Conclusion

By analogy to a computer system composed of hardware and software structure, knowing that the hard structure is made up of all the related physical elements of this system and that the logical structure is made up of software making it possible to properly operate this physical structure. A training center, such as a Regional Center for the Professions of Education and Training, made up of provincial branches geographically distant and grouped according to a logic of regionalization, embodies an example of architecture where this set of branches constitutes the hard part and its council constitutes the soft one. Given that before the regionalization of these branches - which were also training centers that used to operate autonomously from other centers - enjoyed a certain educational leadership bringing together managers and teachers, it was necessary to design and develop a new regional educational leadership model considering this change and capitalizing on existing local experiences. In this sense, while being aware of the desire to detect educational leadership practices that initiate changes aimed at improving the performance of the center and especially that of the trainees, we insist on representing the managers and teachers of each branch in the center council. In this council, the regional orientations to be deployed at the regional level are presented and negotiated. Each branch must develop its own local leadership and participate in the development of regional leadership. The center council is therefore the software instrument that coordinates local leaderships to evolve within the regional leadership orbit. The system, as a whole, must have a positive impact on the performance of the center in general and in particular that of the trainees.

## 7 Data Availability Statement

The data for this study can be available upon a request made to the corresponding author.

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