



Referentialized Assessment on the Performance of Educational Institutions

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Abstract

This work is the result of an institutional evaluation of a training institution affiliated with higher education. This evaluation aims to empower collaborators to improve the performance of those trained. To achieve this empowerment, we proceeded by knowing the current situation through a Referencing based on modeling of the training establishment. This modeling mainly characterizes training spaces and social service spaces. This characterization defines the level of equipment of these spaces and their suitability in relation to the functions with which they have been associated. To know the state of play of these spaces, in the logic of integrated educational leadership, we gathered the opinions of the main players in this leadership, in this case, the administration and teachers.

Disciplinary: Organization Management.

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1 Introduction

Before proposing any plan to improve the performance of a training establishment, at all levels, it is necessary to diagnose the current state of this performance. In our case, we are working on a regional center for education and training trades as a higher education institution. The peculiarity of this training center is that it is composed of a head office, annexes, and branches spread over geographically dispersed locations. To give meaning to this diagnosis, it must be based

on a Referencing (Figari & Tourmen, 2006; Figari & Remaud, 2014; Mayen, 2014). This Referencing is also framed by a normative institutional assessment (Cytermann, 2013). This assessment is based, in the form of grids, on criteria that we aim to achieve and indicators that express the current situation. But before all this, this evaluation must be placed in the context of its modeling based on satellite educational leadership (El wafiq et al., 2021a). To simplify the relationship between the concept of this educational leadership and the concept of educational administration, we propose the following two equations,

$$EM = AM + PM + FM + MM \quad (1),$$

$$EL = EM + TCPC \quad (2),$$

where EM: Educational Management; AM: Administrative Management; PM: Pedagogical Management; FM: Financial Management; MM: Material Management, EL: Educational Leadership; and TCPC: Triggering Continuous Positive Change.

To bring about positive, rational and continuous change, it is necessary to rely on a methodology. This methodology uses a logic of Referencing, which perceives the reality of the material situation of the center, to propose a future improvement according to the priorities of the governing management system. This governance can be improved by using the results of data collection on the current level of performance so that it is exploited by a system of dashboards. And it is the nature of the use of the information from these dashboards - for each user - and the resulting decision-making (Matheus et al., 2020), which makes the educational leadership shared by teachers and administration. The human contribution, in the circumstances of the integration of information and communication technologies - in general, and particularly in education - at the decision-making level, is crucial (Vila et al., 2018). These dashboards should recall the past, display the present and simulate the future (Verbert et al., 2020).

2 Methodology

This methodology is based on a diagnosis of the current reality of the center in order to be able to improve the level of its performance. This diagnosis must be based on modeling. This modeling can be based on functions, on actors, or on spaces. Function-based modeling concerns the administrative function, the teaching function, the material function, and the financial function; actor-based modeling concerns management, teachers, students, and partners; space-based modeling concerns administration spaces, training spaces, and social service spaces. We have chosen space-based modeling as the physical architecture of the center (El wafiq et al., 2021b).

We will approach the diagnosis of the current material situation of the center at the head office and its branches and annexes from the point of view of the administration, at first. Then, we will present the average point of view of the teachers as an integral part of the shared educational leadership of the center, in a second step. This is done through an institutional evaluation grid which expresses what should be (the criterion) and what is (the indicators). This will allow us, in

the next step, according to the priorities, to propose solutions adapted to the desired situation, to face the effects of the current state of the indicators to be developed.

3 Results

3.1 Diagnosis of the Current Material Situation of the Center According to the Administration

The summary of the current material situation of the center in relation to the headquarters (Casablanca Siege), its annexes (Casablanca Hay Essalam and Casablanca Mers Sultan), and its branches (El Jadida, Ben Slimane, and Settat), will allow us to identify the priorities that must be taken into account in any future development plan. Starting with zero indicators (0 = black), followed by weak indicators (1 = red). As for the acceptable indicators (2 = orange), they can be maintained and postponed for future development processes. Good indicators (3 = green) remain an asset to capitalize on and consider as good practice. As for the average equipment rates and the average organization rates, they are zero when they are at 0. They are low when they are greater than 0 and less than or equal to 1. They are acceptable when they are greater than 1 and less than or equal to 2. And they are good when they are greater than 2 and less than or equal to 3.

3.2 Diagnosis of the Current Material Situation of the Center According to the Teachers

After having approached the diagnosis of the current material situation of the center at the head office and its branches and annexes from the point of view of the administration, at first. In what follows, we present the average point of view of the teachers as an integral part of the educational leadership of the center, in a second step. This is done through an institutional evaluation grid which expresses what should be (the criteria) and what is (the indicators). This will allow us, in the next step, according to the priorities, to propose solutions adapted to the desired situation, to face the implications of the current state of the indicators to be developed.

While the number of teacher's members is 236 at the region level, the number of those who completed the form was 83 members, representing 35.17%. This is an acceptable margin of error of 9% for a confidence level of 95%. Since the performance indicator is zero when it is equal to 0, or low when it is equal to 1, or acceptable when it is equal to 2 or good when it is equal to 3 for each responding member, which are natural numbers, we will adopt the real numbers which express the average level of performance, for each indicator, and the standard deviation. Thus, the rate, for all respondents, is as shown in the results below.

3.3 Crossroads from the Point of View of the Administration and that of the Teachers

The crossing of the point of view of the administration with that of the teachers, on the diagnosis of the current material situation of the center, will allow us to identify the most urgent and consensual priorities, so that they are included in the future programs of development and facilitate their approval by the council of the center and its standing committees. This advice

constitutes the logical part of the architecture of satellite educational leadership (El wafiq et al., 2021a). Since the administrative spaces - in terms of equipment and their convenience - concern the administration, we are content to present the results by training spaces; and by social services areas. Two criteria characterize the performance of these spaces: the current state of the equipment and the degree of suitability of this equipment.

3.4 Referencing According to Training Spaces

This referencing shows, in Figures 1 to 7, the degree of equipment and convenience for each locality. And this, for the training spaces: Amphitheater, classrooms, earth science and life laboratories, physics and chemistry laboratories, workshops, multimedia rooms, and library. The rows represent the current performance of each site and the columns represent the nature of the equipment and the degree of its suitability.

		Amphitheater												
Locality	Educational leadership actors	Equipment						Equipment average	Convenience					
		Motorized projection screen available	Sufficient, solid and comfortable seats	Recording cameras available	Functional video projector	high throughput internet	Appropriately painted amphitheater		Illuminated amphitheater	Airy amphitheater	Sufficient seats	Valid for various activities	Convenience average	
El Jadjida	Teachers	1,00	1,63	0,35	2,11	0,50	1,12	2,53	2,53	2,74	1,94	2,05	2,36	
	Mangement	3,00	3,00	0,00	3,00	1,00	2,00	3,00	3,00	3,00	3,00	3,00	3,00	
Casablanca Siege	Teachers	1,91	1,91	1,09	1,91	1,00	1,57	2,35	2,43	2,48	1,91	2,04	2,24	
	Mangement	3,00	2,00	3,00	3,00	3,00	2,80	3,00	3,00	3,00	2,00	2,00	2,60	
Casablanca Hay Essalam	Teachers	1,60	2,20	0,20	1,90	0,40	1,26	1,80	2,00	2,11	2,00	1,90	1,96	
	Mangement	1,00	3,00	0,00	3,00	0,00	1,40	3,00	3,00	3,00	3,00	3,00	3,00	
Casablanca Mers Sultan	Teachers	0,86	1,71	0,86	2,00	0,00	1,09	1,86	2,00	2,43	2,29	2,00	2,11	
	Mangement	0,00	1,00	0,00	0,00	0,00	0,20	0,00	2,00	2,00	2,00	1,00	1,40	
Ben Slimane	Teachers	0,00	0,33	0,17	0,50	0,50	0,30	0,00	0,00	0,00	0,00	0,00	0,00	
	Mangement	0,00	2,00	0,00	0,00	2,00	0,80	0,00	0,00	0,00	0,00	0,00	0,00	
Settat	Teachers	1,00	1,36	1,50	1,83	2,17	1,57	0,36	0,45	0,45	0,45	0,27	0,40	
	Mangement	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	

Figure 1: Referencing according to training spaces – Amphitheater

With the exception of some non-existent and weak indicators for some headquarters, it seems that the rate of suitability and preparation of the stands of the Ben Slimane branch and the Settat branch recommend them to benefit from any programming to prepare future budgets.

		Classrooms												
Locality	Educational leadership actors	Equipment						Equipment average	Convenience					
		Whiteboard suitable for learning activities	Sufficient, solid and comfortable tables	Teacher's desk available	Functional video projector	high throughput internet	Appropriately painted classroom		Illuminated classroom	Airy classroom	Sufficient chairs	Valid for various activities	Convenience average	
El Jadjida	Teachers	1,35	1,65	1,85	1,60	0,21	1,33	1,10	1,65	1,65	1,65	1,70	1,55	
	Mangement	1,00	3,00	3,00	2,00	0,00	1,80	2,00	3,00	3,00	3,00	1,00	2,40	
Casablanca Siege	Teachers	1,92	1,80	2,00	1,73	1,04	1,70	2,00	1,88	2,23	1,88	2,12	2,02	
	Mangement	2,00	2,00	2,00	2,00	2,00	2,00	2,00	3,00	3,00	2,00	3,00	2,60	
Casablanca Hay Essalam	Teachers	1,80	2,00	2,20	1,90	0,80	1,74	1,90	2,10	2,20	1,90	2,10	2,04	
	Mangement	3,00	3,00	3,00	1,00	0,00	2,00	3,00	3,00	3,00	3,00	3,00	3,00	
Casablanca Mers Sultan	Teachers	2,14	2,00	1,57	2,00	0,00	1,54	2,00	2,43	2,57	2,43	2,43	2,37	
	Mangement	3,00	3,00	1,00	3,00	0,00	2,00	1,00	3,00	3,00	3,00	3,00	2,60	
Ben Slimane	Teachers	1,17	1,50	0,83	1,50	1,83	1,37	1,67	1,67	1,83	1,17	1,17	1,50	
	Mangement	1,00	2,00	2,00	1,00	1,00	1,40	3,00	1,00	3,00	2,00	2,00	2,20	
Settat	Teachers	2,14	2,00	1,86	2,00	2,00	2,00	2,29	2,29	2,50	2,36	2,14	2,31	
	Mangement	1,00	3,00	3,00	2,00	3,00	2,40	1,00	3,00	3,00	3,00	3,00	2,60	

Figure 2: Referencing according to training spaces – Classrooms

In general, the adequacy of classrooms is good at all campuses. The acceptable processing rate calls for more development efforts. Especially with regard to providing a high-throughput connection to the Internet at all headquarters.

Earth Sciences and Life Laboratories													
Locality	Educational leadership actors	Equipment						Convenience					
		Tools available	Experimental materials available	Fire extinguisher available	Functional video projector	high throughput internet	Equipment average	Laboratory preparer available	Hazardous materials safely stored	First aid materials available	Sufficient laboratory for the number of students	Suitable for learning activities	Convenience average
El jadida	Teachers	1,33	0,56	0,50	1,61	0,34	0,87	1,10	1,65	1,65	1,65	1,70	1,55
	Mangement	2,00	1,00	0,00	2,00	0,00	1,00	0,00	2,00	0,00	2,00	2,00	1,20
Casablanca Siege	Teachers	1,66	0,34	2,50	3,00	1,30	1,76	3,00	1,77	0,00	1,56	1,00	1,47
	Mangement	2,00	0,00	3,00	3,00	0,00	1,60	3,00	2,00	0,00	0,00	0,00	1,00
Casablanca Hay Essalam	Teachers	1,45	0,00	3,00	3,00	0,00	1,49	0,00	0,00	0,00	3,00	0,00	0,60
	Mangement	2,00	0,00	3,00	3,00	0,00	1,60	0,00	0,00	0,00	3,00	0,00	0,60
Casablanca Mers Sultan	Teachers	2,76	1,45	1,30	2,56	0,00	1,61	3,00	3,00	0,40	3,00	3,00	2,48
	Mangement	3,00	2,00	1,00	3,00	0,00	1,80	3,00	3,00	1,00	3,00	3,00	2,60
Ben Slimane	Teachers	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
	Mangement	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Settat	Teachers	1,23	1,31	0,00	3,00	3,00	1,71	0,00	1,23	1,56	3,00	1,89	1,54
	Mangement	1,00	1,00	0,00	3,00	3,00	1,60	0,00	1,00	2,00	3,00	2,00	1,60

Figure 3: Referencing according to training spaces – Earth Sciences Life Laboratories

Except for the headquarters of Mers Sultan, work must be done to raise the rate of the suitability of life and earth science laboratories at all headquarters, especially the headquarters of Ben Slimane, where this type of laboratory is absent. The same goes for the rate of the equipment, which must be improved at all headquarters.

Physiks Chemistry Laboratories													
Locality	Educational leadership actors	Equipment						Convenience					
		Tools available	Experimental materials available	Fire extinguisher available	Functional video projector	high throughput internet	Equipment average	Laboratory preparer available	Hazardous materials safely stored	First aid materials available	Sufficient laboratory for the number of students	Suitable for learning activities	Convenience average
El jadida	Teachers	1,67	1,87	0,00	3,00	0,00	1,31	0,00	0,00	0,55	0,89	0,78	0,44
	Mangement	2,00	2,00	0,00	3,00	0,00	1,40	0,00	0,00	1,00	1,00	1,00	0,60
Casablanca Siege	Teachers	1,88	1,98	1,20	1,76	0,66	1,50	0,00	0,87	1,76	3,00	1,98	1,52
	Mangement	2,00	2,00	1,00	2,00	1,00	1,60	0,00	1,00	2,00	3,00	2,00	1,60
Casablanca Hay Essalam	Teachers	1,89	0,00	3,00	3,00	0,00	1,58	0,00	0,00	0,00	3,00	0,00	0,60
	Mangement	2,00	0,00	3,00	3,00	0,00	1,60	0,00	0,00	0,00	3,00	0,00	0,60
Casablanca Mers Sultan	Teachers	2,75	1,89	1,32	3,00	0,00	1,79	3,00	3,00	1,20	3,00	3,00	2,64
	Mangement	3,00	2,00	1,00	3,00	0,00	1,80	3,00	3,00	1,00	3,00	3,00	2,60
Ben Slimane	Teachers	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
	Mangement	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Settat	Teachers	0,87	0,98	0,00	3,00	3,00	1,57	0,00	0,65	1,88	3,00	1,87	1,48
	Mangement	1,00	1,00	0,00	3,00	3,00	1,60	0,00	1,00	2,00	3,00	2,00	1,60

Figure 4: Referencing according to training spaces – Physics Chemistry Laboratories

The same goes for physics and chemistry laboratories. Except for the headquarters of Mers Sultan, work must be done to raise the rate of suitability in all headquarters, especially the headquarters of Ben Slimane, which does not have this type of laboratory. The same goes for the rate of the equipment, which must be improved at all headquarters.

Lab													
Locality	Educational leadership actors	Equipment						Convenience					
		Tools available	Experimental materials available	Fire extinguisher available	Functional video projector	high throughput internet	Equipment average	Storekeeper available	Hazardous materials safely stored	First aid materials available	Sufficient lab for the number of students	Suitable for learning activities	Convenience average
Settat	Teachers	1,23	0,98	0,00	3,00	3,00	1,64	0,00	1,56	1,78	3,00	2,34	1,74
	Mangement	1,00	1,00	0,00	3,00	3,00	1,60	0,00	1,00	2,00	3,00	2,00	1,60

Figure 5: Referencing according to training spaces – Lab

As for the laboratories, the matter is limited only to the Settat headquarters. It seems that work must be done to raise the acceptable level of performance and suitability of these laboratories to reach a good level. Especially since it is related to specializations - in electrical engineering and mechanical engineering for the bridge wire - that distinguish the center nationally over the rest of the other centers and require development in line with the ambition, capabilities and competitiveness of students.

		Multimedia rooms												
Locality	Educational leadership actors	Equipment						Convenience						
		Whiteboard suitable for learning activities	Sufficient, solid and comfortable tables	Recording of learning activities	Functional video projector	high throughput internet	Equipment average	Appropriately painted classroom	Illuminated classroom	Airy classroom	Sufficient chairs	Valid for various activities	Convenience average	
El Jadida	Teachers	1,29	1,18	0,29	1,39	0,44	0,92	1,24	1,65	1,59	1,50	1,47	1,49	
	Mangement	2,00	3,00	0,00	1,00	1,00	1,40	2,00	3,00	3,00	3,00	3,00	2,80	
Casablanca Siege	Teachers	1,95	1,95	1,30	1,95	1,55	1,74	2,25	2,25	2,25	2,10	1,85	2,14	
	Mangement	2,00	2,00	2,00	2,00	2,00	2,00	2,00	3,00	3,00	2,00	2,00	2,40	
Casablanca Hay Essalam	Teachers	2,00	1,88	0,63	2,13	0,50	1,43	2,00	2,00	2,13	2,13	1,88	2,03	
	Mangement	0,00	3,00	3,00	0,00	3,00	1,80	3,00	3,00	3,00	3,00	3,00	3,00	
Casablanca Mers Sultan	Teachers	1,67	1,67	0,86	1,67	0,00	1,17	1,67	1,83	2,17	2,00	2,00	1,93	
	Mangement	3,00	3,00	3,00	3,00	0,00	2,40	1,00	3,00	3,00	3,00	3,00	2,60	
Ben Slimane	Teachers	0,60	0,60	0,20	0,80	0,80	0,60	0,80	0,80	0,60	0,60	0,60	0,68	
	Mangement	2,00	2,00	0,00	2,00	2,00	1,60	3,00	1,00	3,00	3,00	3,00	2,60	
Settat	Teachers	1,82	2,00	1,00	1,73	2,09	1,73	1,82	2,09	2,00	1,91	1,91	1,95	
	Mangement	3,00	3,00	3,00	3,00	3,00	3,00	3,00	3,00	3,00	2,00	3,00	2,80	

Figure 6: Referencing according to training spaces – Multimedia rooms

The rate of equipping multimedia halls tends to be acceptable in all headquarters except for the headquarters of El Jadida and Ben Slimane, where it is still weak. The rate of suitability tends to be good. This calls for working to improve the equipment of these halls to help in an appropriate integration of information and communication technology in education and administration and to create the appropriate conditions to improve the performance of the administration, the teachers, and the trainees.

		Mediatheque												
Locality	Educational leadership actors	Equipment						Convenience						
		Documentary resources available	Digitized documentary resources	Documentary resources preserved	Sufficient shelves	Sufficient tables and chairs	Equipment average	Sufficient documentary resources	Various documentary resources	Documentary resources organized by discipline	Accessible documentary resources	Organization of reading activities	Convenience average	
El Jadida	Teachers	1,29	0,76	1,24	1,00	0,53	0,96	1,18	1,19	1,31	1,12	0,24	1,01	
	Mangement	3,00	3,00	3,00	1,00	3,00	2,60	3,00	3,00	3,00	3,00	3,00	3,00	
Casablanca Siege	Teachers	1,95	1,79	1,90	1,95	2,35	1,99	1,86	1,95	2,20	2,10	1,67	1,95	
	Mangement	2,00	3,00	3,00	3,00	3,00	2,80	2,00	3,00	3,00	1,00	0,00	1,80	
Casablanca Hay Essalam	Teachers	1,11	0,56	1,00	1,22	0,78	0,93	1,11	1,22	1,78	1,78	0,67	1,31	
	Mangement	1,00	0,00	0,00	0,00	0,00	0,20	0,00	2,00	3,00	2,00	0,00	1,40	
Casablanca Mers Sultan	Teachers	2,00	0,57	1,29	1,71	1,71	1,46	2,00	2,00	2,43	1,86	1,29	1,91	
	Mangement	2,00	0,00	2,00	1,00	3,00	1,60	2,00	2,00	2,00	2,00	3,00	2,20	
Ben Slimane	Teachers	0,60	0,00	0,40	0,60	0,20	0,36	0,60	0,60	0,60	0,80	0,20	0,64	
	Mangement	0,00	0,00	1,00	2,00	2,00	1,00	1,00	1,00	2,00	2,00	0,00	1,20	
Settat	Teachers	1,83	1,17	1,45	1,67	1,58	1,54	1,55	1,55	2,00	2,17	1,36	1,72	
	Mangement	3,00	0,00	0,00	0,00	3,00	1,20	2,00	2,00	3,00	3,00	0,00	2,00	

Figure 7: Referencing according to training spaces – Library

While most of the headquarters libraries are described as having an acceptable or poor rate of availability and suitability, some black indicators must be immediately taken into account in the next development programme. Among these indicators is the digitization of the documentary balance at all headquarters and the organization of reading activities that will revive the library and readers.

3.5 Referencing According to Social Service Areas

This referencing shows, in Figures 8-13, the degree of equipment and convenience for each locality. And this, for spaces of social services: Sports spaces, public spaces, teachers' rooms, toilets, prayer rooms, and cafeterias. The rows represent the current performance of each site and the columns represent the nature of the equipment and the degree of its suitability.

		Sports areas												
Locality	Educational leadership actors	Equipment							Convenience					
		Sports grounds equipped by discipline	Changing rooms with hot water	Changing rooms with lockers	Adequate sports equipment	First aid tools available	Equipment average	Sufficient sports grounds	Fields away from training areas	Sports equipment store available	Changing rooms available	Showers available by gender	Convenience average	
El jadida	Teachers	0,81	1,00	0,64	0,64	0,43	0,71	1,25	1,44	1,40	1,13	1,13	1,27	
	Mangement	1,00	0,00	0,00	1,00	0,00	0,40	2,00	2,00	0,00	0,00	3,00	1,40	
Casablanca Siege	Teachers	2,05	1,67	1,60	2,24	1,72	1,85	1,67	2,00	2,24	1,50	1,18	1,72	
	Mangement	2,00	3,00	3,00	3,00	3,00	2,80	3,00	1,00	3,00	3,00	2,00	2,40	
Casablanca Hay Essalam	Teachers	0,88	0,25	0,25	0,88	0,63	0,58	1,25	1,63	1,00	0,57	1,57	1,20	
	Mangement	0,00	0,00	0,00	3,00	0,00	0,60	3,00	2,00	3,00	0,00	0,00	1,60	
Casablanca Mers Sultan	Teachers	0,00	0,00	0,00	0,00	0,00	0,00	0,20	0,40	0,20	0,25	0,60	0,33	
	Mangement	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	
Ben Slimane	Teachers	0,17	0,00	0,00	0,17	0,17	0,10	0,33	0,00	0,00	0,00	0,17	0,10	
	Mangement	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	
Settat	Teachers	0,58	0,67	0,33	0,08	0,08	0,35	0,64	0,64	0,55	0,45	0,45	0,55	
	Mangement	1,00	0,00	0,00	0,00	0,00	0,20	1,00	3,00	0,00	0,00	0,00	0,80	

Figure 8: Referencing according to social service areas – Sports areas

With the exception of Casablanca - the headquarters that includes the Sports Division, the presence of a large number of black and red indicators in the network for evaluating the performance of sports spaces in terms of equipment and suitability, in all the headquarters of the center, gives a negative image of the position of sports in the center. This indicates a fundamental defect in the perception of training and rehabilitation in general without sport that contributes to building a personality that balances the physical and emotional. Therefore, this misconception must be corrected and translated into the rehabilitation of sports spaces for all the headquarters of the center. By the way, the new designation of the Ministry in charge of National Education in Morocco endorses this proposal.

		Public spaces												
Locality	Educational leadership actors	Equipment							Convenience					
		Green spaces available	Places and aisles available	Benches available	Parking available	Night lighting available	Equipment average	Green spaces compatible with the surface of the center	Groundwater irrigation	Optimization of water and electricity consumption	Sufficient spaces for cars	Sufficient aisles for passengers	Convenience average	
El jadida	Teachers	2,32	2,26	0,42	2,11	1,78	1,78	2,26	1,73	1,94	2,17	2,17	2,05	
	Mangement	3,00	3,00	0,00	3,00	2,00	2,20	3,00	3,00	2,00	3,00	3,00	2,80	
Casablanca Siege	Teachers	2,73	2,81	2,32	2,52	2,39	2,55	2,80	2,50	2,52	2,56	2,38	2,55	
	Mangement	3,00	1,00	2,00	2,00	3,00	2,20	2,00	3,00	2,00	2,00	1,00	2,00	
Casablanca Hay Essalam	Teachers	2,80	2,70	1,20	1,60	1,63	1,99	2,30	2,22	2,44	2,60	2,60	2,43	
	Mangement	3,00	3,00	0,00	3,00	0,00	1,80	3,00	3,00	3,00	3,00	3,00	3,00	
Casablanca Mers Sultan	Teachers	2,71	2,71	0,71	2,57	2,00	2,14	2,71	2,20	2,40	2,60	2,67	2,52	
	Mangement	2,00	2,00	0,00	2,00	1,00	1,40	2,00	2,00	2,00	2,00	2,00	2,00	
Ben Slimane	Teachers	1,33	1,17	0,50	0,17	1,00	0,83	1,17	1,00	1,80	0,67	0,67	1,06	
	Mangement	2,00	1,00	1,00	0,00	2,00	1,20	2,00	3,00	2,00	1,00	1,00	1,80	
Settat	Teachers	2,62	2,64	1,57	2,21	2,23	2,25	2,43	2,73	2,50	2,29	2,21	2,43	
	Mangement	3,00	2,00	1,00	1,00	3,00	2,00	3,00	3,00	1,00	3,00	1,00	2,20	

Figure 9: Referencing according to social service areas – Public spaces

Except for the provision of lounge chairs, adequate night lighting, and a car park in some headquarters, the indicators of other public spaces range from acceptable, which must be improved, and good, which must be maintained.

Teachers' rooms														
Locality	Educational leadership actors	Equipment						Convenience						
		Comfortable armchairs available	Comfortable chairs available	Water dispenser available	Beverage dispenser available	TV available	Equipment average	Sufficient room for teachers	Clean room	Room open permanently	Internet-connected room	Contains a space for communication and information	Convenience average	
El jadida	Teachers	1,44	2,26	1,28	0,21	0,05	1,05	1,84	2,63	2,42	0,44	0,22	1,51	
	Mangement	0,00	3,00	3,00	0,00	0,00	1,20	3,00	3,00	3,00	3,00	0,00	2,40	
Casablanca Siege	Teachers	1,52	1,95	1,59	1,14	1,19	1,48	1,86	2,05	1,23	1,37	0,86	1,47	
	Mangement	0,00	1,00	0,00	0,00	0,00	0,20	0,00	2,00	2,00	2,00	1,00	1,40	
Casablanca Hay Essalam	Teachers	1,44	2,10	1,60	1,70	0,30	1,20	2,11	2,40	2,60	0,70	0,50	1,66	
Mangement	2,00	3,00	0,00	0,00	0,00	1,00	3,00	3,00	3,00	0,00	0,00	1,80		
Casablanca Mers Sultan	Teachers	0,40	0,60	0,00	1,25	0,00	0,45	0,83	1,17	1,25	0,00	0,17	0,68	
Mangement	0,00	0,00	3,00	3,00	0,00	1,20	3,00	3,00	3,00	0,00	0,00	1,80		
Ben Slimane	Teachers	0,83	0,83	0,00	0,83	0,00	0,50	1,83	1,83	1,83	1,00	0,17	1,33	
	Mangement	2,00	2,00	0,00	0,00	0,00	0,80	2,00	2,00	3,00	2,00	2,00	2,20	
Settat	Teachers	2,09	2,00	2,33	1,42	2,08	1,98	1,85	2,69	2,77	2,54	1,36	2,24	
	Mangement	3,00	3,00	3,00	0,00	3,00	2,40	3,00	3,00	3,00	3,00	0,00	2,40	

Figure 10: Referencing according to social service areas – Teachers' rooms

The variation in the rates of the levels of equipment and suitability of the professors' hall in all the headquarters of the center, and the lack of other indicators in some of the headquarters, shows the weakness of that equipment and suitability. Therefore, it is necessary to provide the missing indicators and work to improve the weak indicators. The thing that will contribute to improving the reception conditions for the trained professors during their breaks.

Toilets														
Locality	Educational leadership actors	Equipment						Convenience						
		Hot water available	Lighting available	Liquid soap dispenser available	Mirror available	Coat rack available	Equipment average	Water available	Permanently clean toilets	Each toilet has a bucket	Sufficient ventilation	Toilets reserved by gender	Convenience average	
El jadida	Teachers	0,94	2,06	1,50	1,78	1,00	1,46	1,39	2,17	1,61	2,11	2,56	1,97	
	Mangement	3,00	3,00	3,00	3,00	0,00	2,40	0,00	1,00	3,00	3,00	3,00	2,00	
Casablanca Siege	Teachers	1,04	2,50	1,60	2,12	1,48	1,75	1,67	2,00	1,58	2,08	2,67	2,00	
	Mangement	0,00	1,00	1,00	0,00	0,00	0,40	1,00	2,00	2,00	2,00	3,00	2,00	
Casablanca Hay Essalam	Teachers	0,60	2,70	2,60	2,40	1,67	1,99	2,40	2,60	2,50	2,40	2,60	2,50	
Mangement	0,00	3,00	3,00	3,00	3,00	3,00	2,40	3,00	3,00	3,00	3,00	3,00	3,00	
Casablanca Mers Sultan	Teachers	0,00	2,33	1,33	1,33	1,17	1,23	1,33	1,17	0,83	1,33	1,33	1,20	
Mangement	0,00	3,00	1,00	2,00	0,00	1,20	2,00	2,00	0,00	3,00	0,00	1,40		
Ben Slimane	Teachers	0,17	2,00	1,67	1,17	0,00	1,00	1,17	1,50	1,00	0,67	1,50	1,17	
	Mangement	0,00	2,00	2,00	2,00	0,00	1,20	2,00	2,00	2,00	2,00	2,00	2,00	
Settat	Teachers	2,00	2,64	1,71	2,50	1,71	2,11	1,79	2,50	2,29	2,46	2,79	2,36	
	Mangement	3,00	3,00	3,00	3,00	0,00	2,40	3,00	3,00	3,00	3,00	3,00	3,00	

Figure 11: Referencing according to social service areas – Toilet

In light of the current health conditions that the world knows, it is not possible to accept a poor or acceptable level of performance for health facilities. Therefore, work must be done to provide a good level of performance in terms of equipment and suitability for all headquarters of the center without exception.

Prayer room														
Locality	Educational leadership actors	Equipment						Convenience						
		Shoe shelves available	Suitable rugs	Qurans available	Stone for tayammum available	Qibla indicated	Equipment average	Clean carpets	Sufficient ventilation	Area reserved for women	Space reserved for men	Room sufficient for at least ten people	Convenience average	
El jadida	Teachers	0,76	1,18	0,88	1,31	1,75	1,18	1,44	1,13	1,75	1,81	2,29	1,68	
	Mangement	0,00	1,00	3,00	3,00	3,00	2,00	2,00	3,00	3,00	3,00	3,00	2,80	
Casablanca Siege	Teachers	1,41	1,73	1,77	1,70	2,48	1,82	1,81	1,77	2,14	2,19	2,18	2,02	
	Mangement	3,00	3,00	3,00	3,00	3,00	3,00	2,00	3,00	3,00	3,00	3,00	2,80	
Casablanca Hay Essalam	Teachers	1,63	1,56	1,67	1,56	1,89	1,66	1,78	2,00	2,00	2,22	2,11	2,02	
Mangement	0,00	2,00	0,00	3,00	3,00	1,60	0,00	3,00	1,00	3,00	3,00	2,00	2,00	
Casablanca Mers Sultan	Teachers	0,83	1,17	1,33	1,40	1,80	1,31	1,33	1,20	0,80	1,20	2,00	1,31	
Mangement	2,00	2,00	1,00	0,00	3,00	1,60	1,00	0,00	3,00	3,00	1,00	1,00	1,60	
Ben Slimane	Teachers	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	
	Mangement	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	
Settat	Teachers	0,85	1,54	1,54	1,92	1,54	1,48	1,75	1,42	0,55	1,92	2,00	1,53	
	Mangement	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	

Figure 12: Referencing according to social service areas – Prayer room.

Except for the administration of the Settata Headquarters, the professors and the administration of the Ben Slimane Headquarters, which states that there is no prayer room, the level of equipment and suitability of these halls ranges between acceptable and good. Therefore, its performance must be improved to suit it and dispel all the black indicators.

Cafeteria														
Locality	Educational leadership actors	Equipment						Convenience						
		Sufficient tables	Chaises suffisantes	Sufficient chairs	Large TV available	Internet connection	Equipment average	List of prices stopped and displayed	Decent meals	Good service	Permanent cleanliness	Specifications available	Convenience average	
El jadida	Teachers	1,00	1,00	1,42	0,95	0,32	0,94	0,73	1,19	1,06	1,00	0,85	0,97	
	Management	1,00	3,00	3,00	3,00	0,00	2,00	3,00	2,00	2,00	2,00	0,00	1,80	
Casablanca Siega	Teachers	2,00	2,04	1,92	1,81	1,17	1,79	1,67	1,71	1,75	1,56	1,60	1,66	
	Management	3,00	3,00	3,00	3,00	3,00	3,00	3,00	3,00	3,00	3,00	3,00	3,00	
Casablanca Hay Essalam	Teachers	2,40	2,40	2,40	1,20	0,40	1,76	2,22	2,10	2,30	2,00	2,00	2,12	
	Management	3,00	3,00	3,00	3,00	0,00	2,40	3,00	3,00	3,00	3,00	3,00	3,00	
Casablanca Mers Sultan	Teachers	0,33	1,00	1,00	0,50	0,00	0,57	0,00	0,40	0,40	0,60	0,00	0,28	
	Management	1,00	1,00	1,00	0,00	0,00	0,60	0,00	0,00	3,00	3,00	3,00	1,80	
Ben Slimane	Teachers	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	
	Management	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	
Settata	Teachers	1,82	1,91	2,36	1,18	2,27	1,91	0,64	1,36	1,36	1,91	1,27	1,31	
	Management	3,00	3,00	3,00	0,00	3,00	2,40	3,00	3,00	3,00	3,00	3,00	3,00	

Figure 13: Referencing according to social service areas – Cafeteria

Except for the professors and management of the Ben Slimane headquarters, which states that there is no cafeteria in it, the rates of equipment and suitability for the other headquarters indicate a discrepancy, from weak to acceptable to good, in the level of those rates. Therefore, in the first step, the focus should be on providing the missing equipment and improving the performance of the weak ones. With regard to its suitability, a clear record of obligations would preserve the rights and duties of all parties involved in exploiting that facility.

4 Discussion

As indicated in the summary of the current material situation (training spaces and social service spaces) of the center in its headquarters, its annexes, and its branches, according to the opinion of the administration, the summary of the current material situation from the point of view of the main actor of educational leadership, i.e. teachers, allows us to identify the priorities that must be taken into consideration in any future development plan of this material situation.

At first glance, it appears that most of the average suitability and equipment rates from an administrative point of view exceed the suitability and equipment rates from the teachers' point of view. This is due to the administrative assessment of the facility's equipment for future maintenance, equipment, and investment work; and that this evaluation is characterized by a permanent concern to rationalize material resources. As for the teachers' point of view, each of them is characterized by a specific position on the current situation and the change necessary to activate an integrated educational leadership and joint with the administration. The main objective of this educational leadership is to improve the performance level of all actors (Young et al., 2017) to create the appropriate conditions to improve the performance level of trainees. Zero-level indicators remain the first trigger of any establishment development plan. Then come the indicators with the low level.

The advantage of this detection of the performance levels of all indicators is that it is automatic. Indeed, we used the automatic conditional formatting of a spreadsheet. This automatically changes the colors (black, red, orange, green) of the state of each indicator. This automatic change facilitates the exploitation of results that we consider to be key performance indicators (KPIs) (Fernandez, 2013) allowing informed decisions to be made. Using these results in this way provides a solid foundation for the design and deployment of a performance management dashboard system. Given the same operating logic, this dashboard system can be generalized to all Regional Center for the Professions of Education and Training in Morocco. Of course, this can be applied to any other similar higher education institution.

5 Conclusion

Identification of the current material situation of a training center - depending on the training spaces, such as classrooms, lecture halls, laboratories, multimedia rooms and media libraries; and depending on the social service spaces, such as sports spaces, public spaces, teachers' rooms, sanitary spaces, prayer rooms and cafeterias - is an essential element in helping to improve conditions of work and employee empowerment. This improvement promotes the progress of learning and develops the performance of trainees (Hallinger, 2010). Indeed, understanding the material situation of the center makes it possible to see where to start in order to advance the material situation of the center - in a logic compatible with that of the Deming wheel - from its current level of performance to a better performance level. This is done by using a benchmark assessment based on criteria representing the expected situation, on the one hand, and indicators reflecting the perceived reality, on the other hand. Improvement priorities are then given to non-existent indicators (black color) and then too weak indicators (red color). When it is necessary, as far as possible, to think about improving the situation of the acceptable indicators (orange color), it is necessary to maintain the performance of the good indicators (green color).

6 Data Availability Statement

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

7 References

- Cytermann, J. (2013). Les réformes de l'évaluation en France dans l'enseignement supérieur et la recherche : grandes tendances, premiers effets. *Dans : Marc Romainville éd., Évaluation et enseignement supérieur* (pp. 233-248). Louvain-la-Neuve, Belgique: De Boeck Supérieur. DOI: 10.3917/dbu.romai.2013.01.0233
- El wafiq, M., Tridane, M., & Belaouad, S. (2021). Educational Leadership: Characterization of Emerging Practices. *Open Journal of Leadership, 10*, 1-26. DOI: 10.4236/ojl.2021.101001
- El wafiq, M., Tridane, M., Belaouad, S. (2021). Satellite-based Educational Leadership Architecture: A Vector for Improving the Performance of Grouped Training Centers. *International Transaction Journal of Engineering, Management, & Applied Sciences & Technologies, 12*(6), 12A6I, 1-11. <http://TUENGR.COM/V12/12A6I.pdf> DOI: 10.14456/ITJEMAST.2021.114
- Fernandez, A. (2013). *Les Nouveaux Tableaux de Bord des Managers : Le Projet Business Intelligence Clés en Main*. Eyrolles: Paris, France.

- Figari, G., & Tourmen, C. (2006). La référentialisation : une façon de modéliser l'évaluation de programme, entre théorie et pratique. Vers une comparaison des approches au Québec et en France. *Mesure et évaluation en éducation*, 29(3), 5-25.
- Figari, G., & Remaud, D. (2014). *Méthodologie d'évaluation en éducation et formation ou l'enquête évaluative*. De Boeck.
- Hallinger, P., & Heck, R. H. (2010). Leadership for learning: does collaborative leadership make a difference in school improvement? *Educational management administration and leadership*, 38, 654-678.
- Mayen, P. (2014). La méthode de la référentialisation : Principes pour une conduite démocratique de l'enquête évaluative. In *Méthodologie d'évaluation en éducation et formation ou l'enquête évaluative* (p. 3). De Boeck.
- Matheus, R., Janssen, M., & Maheshwari, D. (2020). Data science empowering the public: Data-driven dashboards for transparent and accountable decision-making in smart cities. *Government Information Quarterly*, 37(3), 101284.
- Verbert, K., Ochoa, X., De Croon, R., Dourado, R. A., & De Laet, T. (2020, March). Learning analytics dashboards: the past, the present and the future. In *Proceedings of the tenth international conference on learning analytics & knowledge* (pp. 35-40).
- Vila, R. A., Estevez, E., & Fillottrani, P. R. (2018, April). The design and use of dashboards for driving decision-making in the public sector. In *Proceedings of the 11th International Conference on Theory and Practice of Electronic Governance* (pp. 382-388).
- Young, M. D., Winn, K. M., & Reedy, M. A. (2017). The Every Student Succeeds Act: Strengthening the Focus on Educational Leadership. *Educational Administration Quarterly*, 53, 705-726. DOI: 10.1177/0013161X17735871
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