

Competencies of Secondary School Principals in Cameroon

Mfochivé Badiane Arroun Arafat¹ & Yamina Bouchamma¹

¹ Faculty of Education Sciences, Canada University of Laval, Quebec, Canada

Correspondence: Yamina Bouchamma, Faculté des sciences de l'éducation, Département des fondements et pratiques de l'éducation, Pavillon des sciences de l'éducation. Local 412, 2320, rue des Bibliothèques, Québec (Québec), G1V 0A6, Canada.

Received: October 9, 2023

Accepted: January 15, 2024

Online Published: May 27, 2024

doi:10.5539/ies.v17n3p21

URL: <https://doi.org/10.5539/ies.v17n3p21>

Abstract

We investigated the professional competencies, encompassing both knowledge and management practices, employed by secondary school leaders in Cameroon. A total of 73 principals from both public and private francophone-sector establishments participated in this study, providing responses to a comprehensive 38-item questionnaire. Employing exploratory factor analysis, we identified five distinct factors (competencies) associated with these principals. The findings reveal that, beyond the conventional competencies linked to their pedagogical responsibilities and the management of material and financial resources, school principals have also acquired and refined skills pertinent to the effective management of school communities and the promotion of diversity within their respective educational institutions.

Keywords: school management, competencies, principals, leadership

1. Introduction

In the face of rising performance expectations, dynamic sociodemographic shifts, and the sweeping technological and institutional transformations occurring in today's educational landscape, the role of school leaders has never been more demanding. The imperative for school leaders to embody elevated professional standards and skills has become increasingly pronounced. Effective school management now necessitates that principals not only adapt and cultivate their professional acumen through continuous development and reflection but also shoulder new and diversified roles and responsibilities (Charton, 2017; Grissom & Condon, 2021; Tchimou, 2016). Like its African counterparts, Cameroon has undergone significant changes in its education system over the past decade. Indeed, the impact of challenging economic conditions, structural adjustment programs, government disengagement, and overarching policy shifts has reverberated significantly within the educational framework of this nation (Martin, 2003; Mimche & Alawadi, 2013). Following the Dakar Forum in 2000, Cameroon proposed new reforms in education to improve the governance of its schools (Mimche & Alawadi, 2013; UNESCO, 2000). Unfortunately, 20 years later, no tangible changes have been implemented to regulate objective professional criteria to adequately define the recruitment standards of secondary school principals in this country (Wirba, 2015). There is only the mention of seniority in the teaching profession in the public sector and no evidence of relevant requirements for the private sector. Furthermore, over time, these principals have come to act more as "financial managers" (Tonnang Madio, 2015) than as stakeholders who actively participate in every aspect of their school's life. Decentralization and shifts in education typically entail new responsibilities for school principals (Fullan, 2007; Fullan & Quinn, 2017). Specifically, in Cameroon, the decentralization process, marked by the establishment of the Ministry of Decentralization in 2019, has not only led to reforms in education policy but has also presented a formidable challenge to school leaders. This challenge manifests in the imposition of several new roles and responsibilities. Consequently, we conducted an in-depth examination of the professional practices of secondary school principals in Cameroon's francophone sector. Our goal was twofold: (1) to identify the competencies required for effective school management and (2) to analyze these competencies with respect to specific socioprofessional factors such as private/public sector affiliation and sociodemographic characteristics, including gender.

2. Literature Review

Effective and sustainable school management relies on highly skilled leaders, whose professional expertise may vary depending on the context. The competencies of school principals are shaped by their unique circumstances

(Wittorski, 2018). Examining their practices, actions, and socio-professional environment not only helps determine the necessary skills but also establishes clearer professional standards for the profession.

Caliskan (2021) and Klein and Ninio, (2019) concluded that the principals' experience in the field shaped their competencies and that exercising their duties and roles could be a learning opportunity to acquire new knowledge and skills. It appears that school principals have experienced key experiences that have altered their practices in the issues related to the role and responsibilities of a school principal. Furthermore, personal strategies for change and innovation have been enhanced, as well as the perception that school principals have of their role and functioning, particularly their managerial functioning within a school (Klein & Ninio, 2019). Thus, identifying and analyzing the challenges of the profession and engaging in problem-solving actions (Carmeli & Sheaffer, 2008; Rodriguez-Gomez et al., 2020; Veelen et al., 2017) are highly beneficial to improve practices. For this purpose, Grissom & Condon (2021) highlighted three key competencies, particularly in crisis situations (whether slow, progressive, or sudden): (1) analysis and judgement to give meaning to one's actions; (2) communication skills; and (3) emotional intelligence skills. On the other hand, Githiari (2017) stated that while school principals do acquire certain necessary competencies in the field, some skills could be better capitalized during initial teacher training, and most certainly through continuing education activities to contribute to their professional growth. All in all, each professional situation experienced by school leaders represents an opportunity to identify and adopt new skills and practices and put them to use for the benefit of their teachers and students.

Analyzing how school principals work is indeed viewed as fundamental to understanding how the required competencies or "active knowledge" to effectively exercise this profession are acquired. In their study of school principals in the province of Québec, Canada, (Lambert & Bouchamma, 2019) showed that the practices of these school leaders diverged only slightly from the province's standards of competency for this profession. Indeed, skills such as emotional intelligence, teaching experience, and the management of stress/unforeseen situations appeared to be essential skills in this context, even if they were not among what were considered officially required competencies. According to Holcombe et al. (2021), two skills that are likely to not only improve school management but also produce effective and sustainable results are strategic competencies associated with pedagogy and human resources management (selection/recruitment, professional development, and teacher improvement).

Aside from these two aspects, however, in a Slovakian study (Bitterová et al., 2014), school principals were shown to make strong use of motivational strategies based on values that were shared by the entire school team: competencies that facilitated the creation and development of a learning environment for the students as well as shared leadership with clear objectives. From another angle, Bouchamma & April (2021) broached the question of principals' required competencies in an ethnocultural context and urged principals to acquire and use skills that would enable them to more effectively establish a synergy between all of the stakeholders in the equation, namely, the school, the parents, the students, and the community, with the goal of greater efficiency and positive outcomes in accordance with the school's prerogatives.

Because examining the professional activity of school principals helps to structure, develop, and identify key competencies to exercise this profession, we deemed it of relevance to apply these research findings to the context in Cameroon. While studies on principals' professional practices in francophone and anglophone secondary education are rare in this country (Besong Besong, 2013, 2014; Lyonga, 2019; Wirba, 2015), they do touch upon their professional activities and standards under different angles.

Besong Besong (2013), Lyonga (2019) and Wirba (2015) studied school management competencies from another perspective, in the southwest region of Cameroon. Besong Besong (2013), who examined the level of effectiveness of both private and public-school principals in Cameroon (more specifically in the city of Maroua), found that the principals' practices in these two sectors differed significantly regarding shared leadership, staff motivation, administrative management, and financial resources management. In Besong Besong (2014), school leaders were shown to develop competence in the areas of finance, interpersonal relationships, and staff motivation but were less competent in the areas of human and material resources. In addition, the administration practices used by the female principals in the study appeared to be less effective than were those of their male counterparts. Lyonga, (2019) concluded that transformational leadership (empowerment) was a necessary component that was likely to have a significant impact on teacher satisfaction and their professional commitment. In a study on the types of leadership most used by the Cameroon's principals, namely, transformational, transactional, and laissez-faire leadership, the findings of Wirba (2015) concurred with those of Lyonga (2019) in that transformational leadership appeared to best characterize the anglophone-sector school leaders according to the latter, their staff, and their teachers.

3. Conceptual Framework

3.1 Competence

The notion of competence is known to be polysemous and abstract, and its often controversial definitions continue to fuel debate in the realm of education (Jonnaert, 2017; Legendre, 2008; Morrissette & Legendre, 2012). While it is akin to the idea of knowledge, the concept of competence is perceived by some as representing “active knowledge” or “professional action” that enables one to reflect on the practice and engage in actions to meet the demands of a particular professional milieu (Bernatchez, 2011; Le Boterf, 2015, 2018; Tardif, 2006). In this view, competence refers to the deployment of a number of actions by a person in a problem-solving effort in a given context (Roussel, 2011). Here, the “transfer” of knowledge is the building block of competence.

According to other authors, competence is understood as conveying a dynamic, unstable, and sometimes evolutive dimension within a dialectic movement (Dweck, 2010; Jonnaert, 2017; Jonnaert et al., 2015). In this interpretation, the subject actualizes and hones their competencies depending on the circumstances they are in, with achievement as the goal. The concept of competence is therefore contested, constructed, and even adapted (Jonnaert, 2009, 2017) and is influenced by the challenges or problem situations which the subject faces. (Ayotte-Beaudet, 2013) identified six dimensions to define competence: subjects; a given situation; the subjects’ experience; an established series of actions; a mobilization of appropriate resources, and an assessment of the results of the actions undertaken.

In this manner, competence is the result of an integrated and functional network capable of becoming actions to deal with a group of given situations (Allal, 2002). In light of all these seemingly complementary definitions, competence in the present research was understood and examined within the logic of *active knowledge* used by the principal to effectively address and manage their professional situations.

3.2 Social Constructivism

The social constructivist paradigm, issued from theories analyzing knowledge through social and cultural exchange, delves into the processes or interactions at play in the construction of knowledge. In this perspective, we search to decipher which factors determine the acquisition and production of knowledge, as well as its individual and collective representations (Legendre, 2008). Knowledge is thus represented in its social aspect within a dynamic that emphasizes the process of negotiation/modeling.

Jonnaert (2009) argued that *interactive social constructivism* is rooted in reflective and dialectic activity, which enables a person to change not only their already acquired knowledge, representations, and previous ideas, depending on the object (problem to be solved), but also the social dimension wherein lies the object, toward the production of socially negotiated knowledge. As for Désautels & Larochelle (2004), these authors put forth that in a professional context, the social constructivist approach takes into account the abilities and socially shaped knowledge of a professional order to resolve situations that are related to their environments. We retained the social constructivist approach because it enabled us to identify and understand how our study’s participants used *active knowledge* in specific circumstances to effectively address the challenges they faced in their professional activities.

4. Methodology

4.1 Participants

Among the seventy-three (N=73) participating principals from francophone secondary schools, 75.3% (55) were men and 24.7% (18) were women. As for the schools, 38.4% (28) were public and 61.6% (45) were private (secular and denominational), all within Cameroon’s education system.

4.2 Data Collection

To accurately discern the practices of these school leaders, we devised a questionnaire rooted in the secondary school principals’ professional competencies literature, along with official documents regulating the school principal profession within the Francophone education sector of Cameroon. Our questionnaire comprised 38 items presented on a Likert-type scale spanning from 1 to 5 (1 = strongly disagree; 5 = strongly agree).

5. Results

SPSS (*Statistical Package for Social Science*) Version 21 software was used to analyze the data.

Table 1. Participants' professional profile

Descriptive Statistics	N	Minimum	Maximum	Mean	SD
Age	73	31	65	48.77	8.814
Teaching experience	73	0	40	18.47	10.311
Experience as principal	73	1	24	8.15	6.315
Hours of teaching/week	73	0	18	4.00	3.972
Valid N (listwise)	73				

The participants were aged between 31 and 65 years (an approximate average of 49 years). The number of years of teaching experience ranged between 1 and 40 years (average: close to 19 years), while the number of the years as principal ranged between 1 and 24 years (average: 8 years). Our respondents also taught an average of four hours per week in addition to their duties as principal.

Table 2. Teacher/student ratio

Descriptive Statistics	N	Minimum	Maximum	Mean	SD
Licensed teachers	73	0	241	43.51	50.152
Unlicensed teachers	73	0	87	24.41	20.344
Students	73	24	6400	1118.92	1319.224
Assistant principals	73	0	20	3.49	4.197
Supervisors	73	1	19	3.88	3.764
Valid N (listwise)	73				

Each participating school had an average of 1118 regularly enrolled students, an average of 43.51 licensed teachers and 24.41 unlicensed teachers (having no official teaching permit). According to the respondents, some schools had no licensed teachers. Administrative personnel consisted of assistant principals (or persons acting in this capacity) and general supervisors (or persons acting in this capacity), averaging 3.88 et 3.94, respectively.

Almost all of the principals in our study declared being “in total agreement” or “in agreement” with the 38 variables associated with their daily management practices. The compared absolute means of the answers of the participants (public and private schools) revealed no significant difference. The responses thus tended more toward the positive end of the scale, as the participants affirmed being “in total agreement” or “in agreement” with the 38 items. However, a flat sorting of the 38 variables under study provided no clearly represented interpretation. For this reason, an iterative, multi-step preliminary analysis was performed.

Indeed, based on the hypothesis that no correlation existed between the different factors during the preliminary analysis, we proceeded with an orthogonal (varimax) rotation (Yong & Pearce, 2013), and as the data were unevenly distributed, we chose principal axis factoring as our method of extraction (Fabrigar et al., 1999).

We began with a transversal analysis of the correlation matrix (provided by the SPSS) which enabled us to ascertain that the 38 variables were minimally correlated. We also made sure that the correlation threshold remained under 0.90 to avoid multicollinearity. Therefore, correlation thresholds of less than 0.20 and more than 0.90 (Ferguson & Cox, 1993; Field, 2018) were excluded from this study.

We then determined the variance proportion among the observed variables using the KMO sampling adequacy test and Bartlett's test of sphericity. The KMO index of the 38 variables was 0.733 and was therefore greater than the required threshold of 0.50. Although the KMO index was considered unsatisfactory (Dziuban & Shirkey, 1974; Ferguson & Cox, 1993; Field, 2018), we estimated that these variables were acceptable for factor analysis. The Bartlett's test data were significant: 0.00 ($p < 0.05$), which is why we rejected the null hypothesis (H_0 , in which the correlation matrix is equal to the unit matrix), and we determined that the variables under study correlated sufficiently to undergo factor analysis. In our third analysis, we closely examined the anti-image correlation matrix. Consequently, all items with a (diagonal) anti-image correlation coefficient lower than 0.5 were eliminated from the analysis (Caumont & Ivanaj, 2017; Ferguson & Cox, 1993; Field, 2018; Yong & Pearce, 2013).

Finally, an analysis of the extracted commonalities enabled us to eliminate all items under 0.40. Ultimately, at the end of these preliminary analyses, 28 variables were retained for exploratory factor analysis.

5.1 Correlation Matrix

Our examination of the correlation matrix of the 28 retained variables revealed no anomalies.

Table 3. Kaiser-Meyer-Olkin measure of sampling adequacy and Bartlett's specificity

	KMO Test	.815
	Approx. Chi-Square	1387.368
Bartlett's Test	df	378
	Sig.	.000

The KMO index of our variables was 0.815 and was thus considered "acceptable" (Kaiser & Rice, 1974) to undergo factor analysis. As for the Bartlett's sphericity results, these were significant at 0.00 ($p < 0.05$).

5.2 Factor Extraction and Rotation

Kaiser normalization was used to extract the factors (principal axis factoring). Factoring made it possible to solve the issue of normal data distribution. Moreover, orthogonal varimax rotation was used because a comparison using an oblique rotation (Oblimin) revealed that some factors were uncorrelated and was closer to 0; therefore, six factors were extracted from the 28 retained variables.

Table 4. Total explained variance using 6 factors

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Var.	Cumul. %	Total	% of Var.	Cumul. %	Total	% of Var.	Cumul. %
1	10.390	37.108	37.108	10.020	35.787	35.787	3.274	11.692	11.692
2	2.519	8.995	46.103	2.177	7.774	43.560	3.133	11.189	22.881
3	1.844	6.586	52.689	1.505	5.377	48.937	3.040	10.856	33.737
4	1.742	6.220	58.909	1.394	4.980	53.917	2.794	9.980	43.718
5	1.379	4.926	63.835	1.037	3.703	57.620	2.575	9.196	52.914
6	1.219	4.355	68.189	.838	2.992	60.613	2.156	7.699	60.613
7	1.117	3.989	72.178						
8	1.028	3.670	75.848						
9	.860	3.073	78.921						
10	.825	2.948	81.869						
11	.731	2.611	84.480						
12	.575	2.054	86.534						
13	.518	1.850	88.384						
14	.459	1.638	90.022						

5.3 Extraction Method: Principal Axis Factoring

Table 4 (total explained variance) shows that the first factor explained 35.7% (before rotation) of the total variance of the 28 variables used in this study. Five of the six retained factors had an eigenvalue greater than 1, and all six factors explained 60.61% of the total variance. Moreover, in examining the eigenvalues, we noticed the presence of an inflection point (*Cattell curve*) at the level of Factor 5. Finally, the rotated factorial matrix was considered to determine the final number of factors to be retained.

Table 5. Rotated factor matrix

Items	Factor					
	1	2	3	4	5	6
I establish measures to collect pedagogical data.	.845					
I ensure teacher supervision with the help of my administrative staff.	.731					
I ensure teacher supervision with the help of pedagogical advisors.	.700					
I use the collected pedagogical data to better supervise my teachers.	.559					
I develop methods to help me share good teaching practices.	.460					
I establish an inclusive school.		.761				
I develop ethical policies to promote ethnic diversity.		.598				.401
I oversee the security of school property.		.582				
I develop ethical policies to promote religious diversity.		.549				
I develop ethical policies to promote cultural diversity.		.529				
I ensure the security of my staff.		.508	.425			
I establish measures to ensure communication with the parents of my students.		.505			.441	
I submit regular reports of my school's activities to my superiors.						
I establish a system to counter deviant practices in school.			.810			
I follow up on activities developed to eradicate deviant practices in school.			.715			
I invest in my own professional development (training, seminars, etc.)			.598			
I schedule time that allows for the sharing of pedagogical/didactic experiences.			.416			
I invest in the professional development of new teachers.			.410			
I establish measures to better manage my non-tenured teachers.						
I do an inventory of our school's buildings and property.				.828		
I do an inventory of the school's moveable assets.				.819		
I implement the school council's resolutions.				.439		
I am the liaison between Ministry policies and those of my school.						
I am responsible for the accountability of my school.					.842	
I ensure collaboration between the school and the community.					.547	
I evaluate the school council's resolutions.				.465	.533	
I acknowledge my teachers' group practices.						.739
I celebrate my teachers' group practices.						.726

Following our analysis of Table 5 (rotated factor matrix), only those factors having a correlation coefficient greater than or equal to 0.40 were retained. Parallel to this, the factors having less than three variables were eliminated. We observed that at least three variables saturated at the level of factors 1 through 5, respectively, which is why only five factors were retained for this study. The rotated factor matrix therefore enabled us to attest that the 28 variables retained for factor analysis produced five factors.

5.4 Cronbach's Alpha

In order to ensure internal consistency of the devised construct, we proceeded with Cronbach's alpha test for each factor, followed by the sum of all five factors (Cronbach, 1951).

Table 6. Reliability test (Cronbach's Alpha)

No. of Items	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items
23	.913	.923

The five retained factors (23 items) recorded a significant Cronbach's alpha (α) of 0.913 (which was greater than the threshold of 0.70) (Kline, 1999), thereby confirming good internal consistency.

5.5 Factor Identification

Table 7. The five factors of competencies developed by school principals and their traits

Factors	Dimension Summary
Pedagogical Management	Implementing strategies to gather pedagogical data, overseeing teachers with assistance from administrative staff and pedagogical advisors, utilizing collected data for enhanced teacher supervision, and devising techniques to facilitate the dissemination of effective teaching methodologies.
Management in a context of diversity	Creating an inclusive environment where all students, regardless of their background, feel valued, respected, and supported in their learning journey.
Safe School Management	Establishing an inclusive school environment and developing ethical policies to promote diversity across ethnic, religious, and cultural dimensions. Overseeing the security of school property and staff and implementing measures to ensure effective communication with students' parents.
Material Resources Management	Conducting inventories of the school's buildings, property, and movable assets. Implementing resolutions set forth by the school council.
School Community Management	Ensuring accountability within the school, fostering collaboration between the school and the community, and evaluating resolutions set by the school council.

Factor 1, Pedagogical Management, was composed of all items referring to the subject of pedagogy: student data; teacher supervision in collaboration with the administrative staff or pedagogical advisors; use of the collected pedagogical data to enhance teacher supervision; and lastly, the sharing of pedagogical practices with the teachers.

Factor 2, School Management in a Context of Diversity, housed the actions deployed by our respondents to manage their school in a context of diversity (ethnic, cultural, and religious; inclusive schools, etc.).

Factor 3, Safe School Management, grouped five items concerning the practices used to ensure the security of both the students and the teachers and the measures taken to ensure quality education.

Factor 4, Material Resources Management, consisted of three items regarding the management of the school's resources (inventory of property, assets, enforcement of accountability).

Finally, factor 5, School Community Management, contained three items covering aspects related to the communication between the school and surrounding community (liaison, school council, evaluation of accountability).

To compare the two sub-groups, namely the public/private sector participants and their gender, we conducted a T-test.

Table 8. Independent samples T-Test on gender

Factor	Levene's Test for Equality of Variances		Student T-test for Equality of Means							
	F	Sig.	t	df	Sig. (2-tailed)	Mean Diff.	Std. Error Diff.	95% Confidence Interval of the Difference LowerUpper		
1	Equal variances assumed	2.72	.10	-1.00	71	.31	-.27	.27	-.81	.26
	Not assumed			-1.41	61.71	.16	-.27	.19	-.66	.11
2	Equal variances assumed	1.67	.19	1.08	71	.28	.29	.27	-.24	.83
	Not assumed			1.26	38.99	.21	.29	.23	-.17	.76
3	Equal variances assumed	1.85	.17	-1.62	71	.10	-.43	.26	-.970	.09
	Not assumed			-1.93	40.89	.06	-.43	.22	-.89	.01

4	Equal variances assumed	1.84	.17	.08	71	.93	.02	.27	-.52	.56
	Not assumed			.092	36.51	.92	.02	.24	-.46	.51
5	Equal variances assumed	.85	.35	-.96	71	.33	-.26	.27	-.80	.27
	Not assumed			-1.05	33.67	.30	-.26	.25	-.77	.24

As can be seen in Table 8, the Levene and Student tests indicate $p > 0.05$ (a threshold of 5%) for the five factors retained during the factor analysis. We therefore determined that the variances related to gender were the same for the female and male principals and thus retained the null hypothesis (H_0). The school management practices of the principals were identical, regardless of gender.

Table 9. T-test public/private schools

Factor	Levene's Test for Equality of Variances				T-test for Equality of Means					
	F	Sig.	t	df	Sig. (2-tailed)	Mean Diff.	Std. Error Diff.	95% Confidence Interval of the Difference Lower Upper		
1	Equal variances assumed	15.17	.000	-1.95	71	.055	-.46	.23	-.93	.01
	Not assumed			-1.64	32.41	.11	-.46	.28	-1.03	.11
2	Equal variances assumed	.13	.710	-.95	71	.344	-.22	.24	-.70	.25
	Not assumed			-.951	57.29	.345	-.22	.24	-.71	.25
3	Equal variances assumed	2.44	.122	-1.77	71	.080	-.42	.23	-.89	.05
	Not assumed			-1.60	40.57	.116	-.42	.26	-.95	.10
4	Equal variances assumed	2.33	.131	1.18	71	.242	.28	.24	-.19	.76
	Not assumed			1.30	70.98	.195	.28	.21	-.14	.71
5	Equal variances assumed	3.23	.076	.824	71	.413	.19	.24	-.28	.67
	Not assumed			.90	70.51	.371	.19	.22	-.24	.63

The p value of the Levene test was shown to be lower ($p = 0.00$) than the threshold of significance of 5% for the competencies associated with *Pedagogical Management* in both the public and private schools. If we consider only this finding, we could assume that the variance of the respondents from public schools was not the same as that of their peers from the private sector and therefore reject the null hypothesis. However, in the Student T-test, we found $p > 0.05$ ($p = 0.11$), signifying that the null hypothesis could be retained, as it is estimated that the public sector principals used the same pedagogical practices as did their colleagues from private schools. As for the management skills related to *Security*, *Diversity*, *Community*, and *School Resources*, the p value in both the Levene test and Student test was found to be greater than 0.05. We thus observed no difference between the public and private schools in terms of the deployment of these four competencies.

Ultimately, an exploratory factor analysis was conducted on 38 ordinal variables gathered from 73 participants (all principals of francophone secondary schools). Following preliminary analyses, 28 variables were finally retained for this study. The correlation matrix was verified to ensure a minimum correlation of the variables and that they did not over-correlate; this operation enabled us to determine that these variables could be subjected to factor analysis. The KMO index (0.815), Bartlett test (0.00) data, and commonalities of each extracted item were also assessed. Following principal axis factoring and varimax rotation, we retained five factors and labeled them by comparing their eigenvalues, Scree plot data, and the rotated correlation matrix.

Five major factors emerged in this study about the principals' competencies: (1) pedagogical management; (2) school management in a context of diversity; (3) security management within the school; (4) resource

management; and (5) school community management. Considering our analyses, we found that these skills were used in both education sectors (public and private), regardless of the principals' gender.

6. Discussion

In this study, we sought to identify the main professional practices used by principals in Cameroon's francophone public and private schools. We observed that in the absence of initial training to adequately prepare these school leaders for their chosen career, and in the face of many sociodemographic and institutional reforms, the principals adopted other skills that sometimes differed from the country's standard practices and actions in the realm of school administration. Indeed, aside from the standard administrative, pedagogical, and resource management protocols, our participants appeared to have developed other competencies.

6.1 School Community Management

The competencies developed by the secondary school principals in the context of Cameroon enabled them to establish stronger ties with the education community. They learned ways to facilitate problem-solving in their school and address other challenges, such as financial difficulties, school dropout issues, poor enrollment, and disciplinary concerns, to name a few. In this context, school management is shared between the school, the teachers, the students' parents, the community, and even non-government instances, which may involve financial support and decisional practices (school council) pertaining to school life. This participative approach not only favors exchange and discussion between the school and the community but also enables the latter to contribute to school life.

This community-based management style has been studied by Pepin et al., (2013) Trépanier and Beauregard (2013), who concluded that due to increasing disengagement on the part of governments, school leaders must not only take on this charge by seeking out more effective practices better suited to their context but must also work on connecting the school with the surrounding community to instill participation that is more structured and balanced. This way, developing community management skills in their schools may prove to be beneficial, as long as this practice leads to greater accountability and participation by all stakeholders in a spirit of collaboration, cooperation, discussion, and sustained partnership (Violette & Hodder, 2005, p. 4) for a more inclusive school system.

6.2 The Context of Diversity

Characterized by its notable ethnic, linguistic, and religious diversity, Cameroon boasts of more than 300 languages and ethnicities, as well as a multitude of religious affiliations (Njiale, 2010). This diversity is present in the country's social sphere as well as in its education system and has brought school leaders to nurture a greater openness to and acceptance of the ethnic, cultural, and religious diversity of their students. These aspects undoubtedly call for a sound grasp of the cultural and social specificities involved (diversified management) in compliance with the school's objectives. Case in point, the principals in our study were more inclined to use multicultural and inclusive management practices. This model of "differentiated" management is in line with Potvin's (2014) model for inclusiveness. Indeed, in the context of our participating principals, an inclusive systemic approach enabled them to adapt to their specific reality: the basic right to education, the existing religious, ethnocultural, and linguistic diversity, and the differentiated needs of their students, with fairness for all (Magnan et al., 2018). Ngwokabuenui (2013) arrived at similar conclusions in their study of anglophone-sector school leaders in Northwest Cameroon, as the principals in this region were also shown to develop school management practices that favored inclusion, which made it possible for them to take stock of their students with difficulties and special needs in their decision-making processes.

6.3 Type of School and Gender

No difference was observed between the principals in public schools and those in private establishments with respect to the *active knowledge* deployed. Indeed, although there were nuances in their modes of operation and funding practices, the principals did appear to use the same competencies in managing their respective schools. These results corroborate those of Besong Besong (2013) who showed that despite significant observed differences in Cameroon's public and private schools, with regard to the financial and administrative practices employed, teacher supervision practices were the same in both sectors, regardless of the principal's gender. However, our findings appear to contradict those of Besong Besong (2014) and (Kongnyuy, 2014) who argued that male principals were better skilled at managing their schools than were female principals.

7. Conclusion

This study focused on broadening our understanding of the professional competencies used by francophone-sector secondary school principals in the country of Cameroon. Our results show that aside from

the standard pedagogical, administrative, and resource-related (material, financial, human) actions, the participating principals acquired other management practices, including skills associated with school community communication, consideration of diversity, and school safety awareness. Indeed, by considering their specific situation, they were able to mobilize new skills and adapt their management practices horizontally rather than vertically, for greater effectiveness. In this manner, their methods not only prioritized the school and the local community (funding, decisional processes related to the school through student/parent/teacher associations, NGOs, and local institutions) but also focused more directly on the students and their many facets (ethnolinguistic, cultural, religious) to create a more open and inclusive school.

While this study enabled us to analyze the initial training competencies acquired by secondary-sector principals in Cameroon's education system, as well as certain non-standard skills in this context, we were limited by the non-representative sampling of francophone schools. This research will hopefully generate directions for larger-scale research in the future.

References

- Allal, L. (2002). *Acquisition et évaluation des compétences en situation scolaire* [Competency acquisition and evaluation in the school: The enigma of competence in education]. De Boeck Supérieur. <https://doi.org/10.3917/dbu.dolz.2002.01.0075>
- Ayotte-Beaudet, J.-P. (2013). The concept of competence in the French-language education literature. *PROSPECTS*, 43(4), 419-427. <https://doi.org/10.1007/s11125-013-9284-8>
- Bernatchez, J. (2011). La formation des directions d'établissement scolaire au Québec: Apprendre à développer un savoir-agir complexe [Training school principals in Québec: Learning to develop complex active knowledge]. *Télescope*, 17(3), 158-175. Retrieved from http://www.telescope.enap.ca/telescope/docs/index/vol_17_no_3/telv17n3_bernatchez.pdf
- Besong Besong, J. (2013). A Comparative Study of the Administrative Efficiency of Principals in Public and Private Secondary Schools in Maroua, Far North Region, Cameroon. *International Journal of Business and Management*, 8(7), Article 7. <https://doi.org/10.5539/ijbm.v8n7p90>
- Besong Besong, J. (2014). Principals' Administrative Effectiveness and Staff Productivity in Selected Secondary School in South West Region, Cameroon. *International Journal of Academic Research in Management (IJARM)*, 3(2), 156-166. Retrieved from <https://elvedit.com/journals/IJARM/wp-content/uploads/2014/03/Joseph-Besong-Besong.pdf>
- Bitterová, M., Hašková, A., & PISOŇOVÁ, M. (2014). School Leader's Competencies in Management Area. *Procedia - Social and Behavioral Sciences*, 149, 114-118. <https://doi.org/10.1016/j.sbspro.2014.08.170>
- Bouchamma, Y., & April, D. (2021). School Principals' Competency Standards for the Effective Management of Ethnocultural Diversity. *International Studies in Educational Administration (Commonwealth Council for Educational Administration & Management (CCEAM))*, 49(2), 69-119. Retrieved from https://searchworks.stanford.edu/articles/aph_150440505
- Caliskan, O. (2021). Learning from failure or failing to learn: Perspectives of school principals. *Journal of Educational Administration*, 59(4), 422-436. <https://doi.org/10.1108/JEA-07-2020-0158>
- Carmeli, A., & Sheaffer, Z. (2008). How Learning Leadership and Organizational Learning from Failures Enhance Perceived Organizational Capacity to Adapt to the Task Environment. *The Journal of Applied Behavioral Science*, 44(4), 468-489. <https://doi.org/10.1177/0021886308323822>
- Caumont, D., & Ivanaj, S. (2017). *Analyse des données: Méthodes et outils statistiques, applications à la prise de décision, cas d'entreprise détaillés* [Data analysis: Statistical methods and tools, applications to decision making, detailed business cases]. Dunod. <https://doi.org/10.3917/dunod.caumo.2017.01>
- Charton, H. (2017). De l'art de bien gouverner l'école en Afrique: Domination gestionnaire et élimination des résistances [Effective school governance in Africa: Management dominance and resistance elimination]. *Éducation et sociétés*, 39(1), 101-117. <https://doi-org.acces.bibl.ulaval.ca/10.3917/es.039.0101>
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297-334. <https://doi.org/10.1007/BF02310555>
- Désautels, J., & Larochelle, M. (2004). Les programmes d'études à l'heure du constructivisme et du socioconstructivisme: Quelques réflexions [Reflections on modern study: Under the constructivist and social constructivist umbrella]. In P. Jonnaert, & A. M'Batika-Kiam (Eds.), *Les réformes curriculaires:*

- Regards croisés* (pp. 49-67). Presses de l'Université du Québec. <https://doi.org/10.2307/j.ctv18pgpkm.5>
- Dweck, C. S. (2010). Mind-Sets and Equitable Education. *Principal Leadership*, 10(5), 26-29.
- Dziuban, C. D., & Shirkey, E. C. (1974). On the Psychometric Assessment of Correlation Matrices. *American Educational Research Journal*, 11(2), 211-216. <https://doi.org/10.3102/00028312011002211>
- Fabrigar, L. R., Wegener, D. T., MacCallum, R. C., & Strahan, E. J. (1999). Evaluating the use of exploratory factor analysis in psychological research. *Psychological Methods*, 4(3), 272-299. <https://doi.org/10.1037/1082-989X.4.3.272>
- Ferguson, E., & Cox, T. (1993). Exploratory Factor Analysis: A Users' Guide. *International Journal of Selection and Assessment*, 1(2), 84-94. <https://doi.org/10.1111/j.1468-2389.1993.tb00092.x>
- Field, A. P. (2018). *Discovering statistics using IBM SPSS statistics* (5th ed., North American edition). Sage Publications Inc.
- Fullan, M. (2007). *The new meaning of educational change* (4th ed.). Teachers College Press.
- Fullan, M., & Quinn, J. (2017). *La cohérence: Mettre en action les moteurs efficaces du changement en éducation*. Presses de l'Université du Québec. <https://doi.org/10.1353/book72727>
- Githiari, F. W. (2017). Ways Through Which Principals Acquire the Leadership Competencies Required for Effective Management of Secondary Schools in Nairobi County, Kenya. *Journal of Education and Practice*, 8(9), 43-48.
- Grissom, J. A., & Condon, L. (2021). Leading Schools and Districts in Times of Crisis. *Educational Researcher*, 50(5), 315-324. <https://doi.org/10.3102/0013189X211023112>
- Holcombe, A., Peeples, S. B., & Johnson, T. (2021). Growing Principals into Strategic Talent Leaders. *Educational Leadership*, 78(7), 44-49. Retrieved from <https://acces.bibl.ulaval.ca/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=eue&AN=150174209&lang=fr&site=ehost-live>
- Jonnaert, P. (2009). *Compétences et socioconstructivisme: Un cadre théorique* [Competencies and social constructivism: A theoretical framework]. De Boeck. <https://doi.org/10.3917/dbu.jonna.2009.01>
- Jonnaert, P. (2017). La notion de compétence: Une réflexion toujours inachevée. [The notion of competence: A neverending reflection]. *Éthique publique. Revue internationale d'éthique sociétale et gouvernementale*, 19(1), Article 19, n° 1. <https://doi.org/10.4000/ethiquepublique.2932>
- Jonnaert, P., Ayotte-Beaudet, J.-P., Sambote Benazo, S. J., & Furtuna, C. D. (2015). *Vers une reproblématisation de la notion de compétence* [Toward a complexification of the notion of competence] (Cahier 35). Chaire UNESCO de développement curriculaire/UQAM.
- Kaiser, H. F., & Rice, J. (1974). Little Jiffy, Mark Iv. *Educational and Psychological Measurement*, 34(1), 111-117. <https://doi.org/10.1177/001316447403400115>
- Klein, J., & Ninio, R. (2019). School principals' key experiences and changing management patterns. *International Journal of Educational Management*, 33(5), 903-918. <https://doi.org/10.1108/IJEM-04-2018-0135>
- Kline, T. J. B. (1999). The team player inventory: Reliability and validity of a measure of predisposition toward organizational team-working environments. *The Journal for Specialists in Group Work*, 24(1), 102-112. <https://doi.org/10.1080/01933929908411422>
- Kongnyuy, P. (2014). Can Gender Affect Principalship? Lessons from Research in the North West Region of Cameroon. *British Journal of Education, Society & Behavioural Science*, 5(1), 82-89. <https://doi.org/10.9734/BJESBS/2015/13018>
- Lambert, M., & Bouchamma, Y. (2019). The development of competencies required for school principals in Quebec: Adequacy between competency standard and practice. *Education Policy Analysis Archives*, 27, 116. <https://doi.org/10.14507/epaa.27.4211>
- Le Boterf, G. (2015). *Construire les compétences individuelles et collectives: Agir et réussir avec compétence, les réponses à 100 questions* [Building individual and collective competencies: Acting and succeeding with competence, answers to 100 questions] (Septième édition). Eyrolles.
- Le Boterf, G. (2018). *Construire les compétences collectives: Coopérer efficacement dans les entreprises, les organisations et les réseaux de professionnels* [Building group competence: Cooperating effectively in businesses, organizations, and professional networks]. Eyrolles.

- Legendre, M.-F. (2008). Un regard socioconstructiviste sur la participation des savoirs à la construction du lien social [A social constructivist view of the participation of knowledge in the construction of social ties]. *Éducation et Francophonie*, 36(2), 63-79. <https://doi.org/10.7202/029480ar>
- Lyonga, N. A. N. (2019). Principals' transformational leadership skills and Teachers' job satisfaction in secondary schools in Meme Division in Cameroon. *European Journal of Education Studies*, 6(1), 326-343.
- Magnan, M.-O., Gosselin-Gagné, J., Charrette, J., & Larochelle-Audet, J. (2018). Gestionnaires et diversité ethnoculturelle en milieu scolaire: Une recherche-action/formation en contexte montréalais [School leaders and ethnocultural diversity: A research-action initiative in Montréal]. *Éducation et Francophonie*, 46(2), 125-145. <https://doi.org/10.7202/1055565ar>
- Martin, J.-Y. (2003). Les écoles spontanées en Afrique subsaharienne: Champ éducatif et contre-champ scolaire. *Cahiers d'études Africaines*, 43(169-170), 19-39. <https://doi.org/10.4000/etudesafricaines.188>
- Mimche, H., & Alawadi, Z. (2013). Faciliter la scolarisation universelle sans compromettre la qualité de l'éducation au Cameroun: L'éducation en jeu. In *Réponses africaines aux défis de l'éducation: Recueil en hommage au professeur Pai Obanya* (pp. 213-236). His lineage publishing house.
- Morrisette, J., & Legendre, M.-F. (2012). L'évaluation des compétences en contexte scolaire: Des pratiques négociées [Evaluating school management competencies]. *Education Sciences & Society*, 2(2), 120-132.
- Ngwokabuenui, P. Y. (2013). Principals' attitudes toward the inclusion of students with disabilities in the general education setting-The case of public, secondary and high schools in the North West region of Cameroon. *The International Journal's Research Journal of Social Science and Management*, 2(10), 7-23.
- Njiale, P.-M. (2010). Éduquer pour la compréhension et le dialogue interculturel Les savoirs enseignés à l'école primaire dans un pays multiethnique et multiculturel: Le Cameroun [Educate in understanding intercultural dialogue: What is being taught in primary schools in Cameroon]. *Politiques de La Diversité Culturelle En Éducation*, 4, 107-118.
- Pepin, M., Levesque, R., Lang, M., & Deveau, K. (2013). Débat autour de l'école communautaire entrepreneuriale consciente [A debate on the community school and conscious entrepreneurship]. *Revue Du Nouvel-Ontario*, 38, 109-150. <https://doi.org/10.7202/1023660ar>
- Rodriguez-Gomez, D., Ion, G., Mercader, C., & López-Crespo, S. (2020). Factors promoting informal and formal learning strategies among school leaders. *Studies in Continuing Education*, 42(2), 240-255. <https://doi.org/10.3917/ta.008.0011>
- Roussel, J.-F. (2011). Le transfert des apprentissages en milieu organisationnel: Réflexions, perspectives et nouvelle taxonomie [Transferring organizational learning: reflections, perspectives, and new taxonomy]. *Travail et Apprentissages*, N° 8(2), 11-29. <https://doi.org/DOI10.3917/ta.008.0011>
- Tardif, J. (2006). *L'évaluation des compétences: Documenter le parcours de développement* [Evaluating competence: Documenting the development process]. Chenelière-éducation.
- Tchimou, M. (2016). Le développement professionnel des chefs et aspirants chefs d'établissement scolaire à l'université: Ce qu'en pensent les intéressés [The Professional Development of School leaders and Aspiring School Leaders at the University: what the interested parties think]. *La Recherche En Education*, 2015(14), 61-75.
- Tonnang Madio, M. S. (2015). *La fonction de chef d'établissement scolaire au Cameroun* [The role of principal in Cameroon]. L'Harmattan.
- Trépanier, N., & Beaugard, F. (2013). *Plaidoyer pour une école communautaire/Making a case for community schools*. Éditions Nouvelles.
- UNESCO. (2000). *Forum mondial sur l'éducation de Dakar. Cadre d'action de Dakar. L'Éducation pour tous: Tenir nos engagements collectifs*. UNESCO, Paris. Retrieved from https://unesdoc.unesco.org/ark:/48223/pf0000121147_fre
- Veelen, R. van, Slegers, P. J. C., & Endedijk, M. D. (2017). Professional Learning Among School Leaders in Secondary Education: The Impact of Personal and Work Context Factors. *Educational Administration Quarterly*, 53(3), 365-408. <https://doi.org/10.1177/0013161X16689126>
- Violette, M., & Hodder. (2005). *L'école communautaire: Un carrefour pour la réussite des jeunes et le développement de la communauté* [Community schools: A hub for successful learning and community development]. Ministère de l'éducation, du loisir et du sport.

- Wirba, A. V. (2015). Leadership Style: School Perspective in Cameroon. *Education Research International*, 2015, 1-9. <https://doi.org/10.1155/2015/439345>
- Wittorski, R. (Ed.). (2018). Professionnalisation et apprentissage en formation. In *La professionnalisation en formation: Textes fondamentaux* (pp. 13-14). Presses universitaires de Rouen et du Havre. Retrieved from <http://books.openedition.org/purh/1505>
- Yong, A. G., & Pearce, S. (2013). A beginner's guide to factor analysis: Focusing on exploratory factor analysis. *Tutorials in Quantitative Methods for Psychology*, 9(2), 79-94. <https://doi.org/10.20982/tqmp.09.2.p079>

Authors contributions

As the first author of this article, Mfochivé Badiane Arroun Arafat primarily contributed to the formulation and development of the research questions and objectives, as well as the questionnaire guide. The suggestions and feedback from Yamina Bouchamma, helped to improve the questionnaire. Mfochivé Badiane Arroun Arafat conducted the quantitative data collection. The proofreading of this article, along with remarks and suggestions from start to finish, was carried out by Yamina Bouchamma.

Funding

This work received no external funding from start to finish. It was entirely funded by the authors' own resources.

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.

Informed consent

Obtained.

Ethics approval

The Publication Ethics Committee of the Canadian Center of Science and Education.

The journal's policies adhere to the Core Practices established by the Committee on Publication Ethics (COPE).

Provenance and peer review

Not commissioned; externally double-blind peer reviewed.

Data availability statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

Data sharing statement

No additional data are available.

Open access

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.