

# MANAGEMENT AND LEADERSHIP FACTORS IN SOUTH AFRICAN SCHOOLS

Kiveshni Naidoo, Christoff J Botha, Christo A Bisschoff & Andries du Plessis

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## ABSTRACT

This article reports on important management and leadership factors in public schools in KwaZulu-Natal, South Africa. Four districts of Kwa Zulu-Natal, South Africa were targeted and a stratified random sample of 1500 educators was used to collect 358 completed questionnaires. Data analysis employed exploratory factor analysis and identified seven factors: management and leadership styles, financial security, management and leadership fairness, stressors, empowerment, job security and a sense of control over work environment; and explains a cumulative variance of 78.60%. Strong positive correlations between the factors were identified and the influence of factors as independent variables to management and leadership performance have also been determined by means of multiple regression coefficients.

**Keywords:** Leadership, management, principal, school culture, educators, factor analysis, Kwa Zulu-Natal, education environment.

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## INTRODUCTION

Education in South Africa is a priority. Demand exceeds supply and the growing population, changing political environment, economic conditions and shifts in country demographics (to name but a few) require sound management and leadership of education on all levels to meet the objective of educating the nation.

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In support of this education demand, the national budget is rising to the challenge. The budget allocated to education is huge when compared to most other countries where the norm is around 20% of total government expenditure. South Africa's Finance Minister Pravin Gordhan recently announced that the total amount of spending on education equates to R190bn in 2012/13 (21%) to R215bn in 2013/14 (an estimated 24%) (Afribrains 2012). The key amounts to be spent include R9.5 billion for the expansion of further education and training colleges and skills development, as well as R8,3bn on schools' infrastructure. A further R24.3bn will be added to education and skills expenditure for the next three years (Afribrains 2012).

Regarding the performance of the post-apartheid education system, it seems that although public schools are outperformed by their private counterparts (the 2011 matric class scored a 98.15% pass rate, a slight decline from their 2010 counterparts who recorded a 98.38% pass rate) (Oberholtzer 2012), the public schools' matric results are steadily increasing. South African students in public schools who wrote the national matric exams in 2010 managed to score a 67.8% pass rate. This is a 7.2% improvement on the previous year's result (60.6%) (BrandSouthAfrica 2011). Regarding the year 2011, the Minister of Education, Angie Motsheka, announced that the results further improved by another 3%, resulting in a national matric pass rate of 70.2% (Motsheka 2012). In addition, 24.3% of those who wrote exams qualified for degree studies. Motsheka (2012) also announced that the Department of Basic Education has an improvement strategy in place which is vigorously implemented in 2012 to improve the pass rate and quality of Mathematics and Physical Science. The focus is on:

- Improving the participation and performance of girl learners;
- Helping schools to improve learners' subject choices;
- Ensuring correct placement of teachers; and
- Focusing teacher development efforts on subject and pedagogical content knowledge.

In accordance to the strong focus on education in South Africa, an array of challenges present itself to school management, and it has become essential for school principals to properly manage and lead their schools to address the literacy levels of the country as per the relevant governing acts. These changes in education and resulting challenges were already evident as early as 1996 when the authors, Wohlstetter and Mohrman (1996) presented their research "School-Based Management: Changing Roles for Principals" in association with the Office of Educational Research and Improvement at the United States Department of Education. This study analysed the time spent by principals, and found that effective principals spend considerable amounts of time helping to empower, train, inform and reward their staff. As a consequence Wohlstetter and Mohrman (1996) found evidence of emerging new roles for principals:

- **Designer/champion of involvement structures.** Principals helped to develop decision-making teams that involved various stakeholders to provide them with opportunities for conversations around school-specific issues. Principals invested the teams with real authority by carving out discrete areas of jurisdiction.
- **Motivator/coach to create a supportive environment.** Principals worked to communicate trust, encourage risk-taking, communicate information and facilitate participation in the management of the school.
- **Facilitator/manager of change.** Principals encouraged staff development as an ongoing, school-wide activity. Principals provided tangible resources (money, equipment and materials) and intangible resources (time, opportunities) to staff to assist in the school improvement process.

- **Liaison to the outside world.** Principals brought into the school new ideas and research for thinking about teaching and learning. Principals solicited donations of funds and materials, and encouraged grant writing among staff to boost school resources. Principals also ran interference for teachers by filtering out unnecessary distractions which freed up teachers to focus on teaching and learning.

In addition, principals also face challenges such as:

- A complex new policy education environment;
- A lack of legitimacy of the education system and as a whole is characterised due to poor management and leadership (Calitz, Fuglestad & Lillejord 2007, p. 114);
- The challenges of transforming schools to comply with the rapidly changing policies as well as ensuring that the full potential of every learner is unlocked to meet the needs of a changing society (Naidu, Joubert, Mestry, Mosoge & Ngcobo 2008, p. 2).
- Management and leadership in educational settings is a crowded and busy terrain both in terms of policy text that seek to redefine roles and tasks in schools as leadership and the growing amount of literature concerned with effective transformational leadership functions and behaviours (Lapierre, 2007, p. 272); and
- Schools are continuously challenged, in the name of restructuring, to change governance structures, to open themselves up to community influence, become more accountable, clarify standards for content and performance and to introduce related changes in their approaches to teaching and learning (Naidu et al., 2008, p. 12).

However, the ultimate challenge for education in South Africa is to have capable managers and leaders heading their schools (Mathibe 2007, p. 523). Are these traditionally trained educators able to adapt and accept the role as professional managers in the changing education environment where the core purpose of principalship is to provide management and leadership in all areas of the school (Busch, Joubert, Kiggundu & Van Rooyen 2009, p. 1)?

## **PROBLEM STATEMENT**

According to research by Mathibe (2007, p. 530), educators accepted the challenge and principals engaged in a variety of management and leadership training. In support of general management theory, Mathibe (2007, p. 523-524) also found that there is a strong link between management and leadership and school effectiveness, and that poor performance could be attributed to a lack of professional development of the school principal as a manager and leader. Kyeyune (2008, p. 134) adds that factors that contribute to the effectiveness of schools include: professional leadership, shared vision and goals, a conducive learning environment, concentrating on teaching and learning, high expectations, monitoring of progress and purposeful teaching, and notes that a number of these factors are management, rather than education-orientated factors. However, most principals are well-educated educators, and not trained managers. Formal management education and leadership skills are required to manage and lead modern schools as it poses a wide variety of business, organisational and human skills. Mathibe (2007, pp. 526-528), suggests in his research that a wide array of educational opportunities exist for the principals as school managers and leaders, ranging from short one-day workshops up to advanced management degrees such as a Master of Business Administration (MBA).

Principals as managers and leaders have taken on new roles as they continue to deal with the ever-changing face of education. These principals use their knowledge and skills to work both internally and externally to the school organisation to map new directions, to secure and mobilise old and new resources, and respond to present and perceived future managerial challenges. However, in addition to attaining managerial and leadership skills, principals as the managers and leaders of schools also need guidance as to what specific factors need to be managed at their schools. This means that they need to know specifically what factors to focus their scarce managerial and leadership time and energy on.

## **OBJECTIVES**

The primary objective of this article is to determine the important management and leadership factors educational managers should focus on to meet the challenges they face in their schools.

To achieve the primary objective, the following secondary objectives are formulated, namely to:

- Identify the important managers and leadership factors for schools;
- Test the reliability of these factors;
- Determine the correlations between the factors;
- Determine the influence each of the factors has on management performance; and to
- Discuss the results at the hand of other studies' results.

## **CONCEPTUALISATION OF MANAGEMENT AND LEADERSHIP**

According to the Oxford Dictionary (2008), a general definition of leadership can be defined as: "to provide guidance by going in front". Another definition of leadership is "a social influence process that involves determining a group's objectives motivating behaviour in aid of these objectives and influencing group maintenance and culture" (Smith, 2007, p. 116). The process of leadership includes the use of non-coercive influence to direct and co-ordinated activities of the members of an organised group toward the accomplishment of the organisations goals (O'Shea, Foti, Hauenstein & Bycio 2009, p. 237). In every day speech, the terms leader and manager are often incorrectly used interchangeably because the process of leading is also one of the four fundamental management functions (Nel, Van Dyk, Haasbroek, Schultz, Sono, & Werner et al., 2006, p. 143). However, leadership has many definitions and practitioners and academics alike have no real consensus on how to define leadership. Essentially, leadership encompasses a relationship through which one person influences the behaviour or actions of other people towards achieving a goal. Although, leadership may have different meanings to authors, Johnson and Scholes (2006, p. 549) generally describe leadership as a process of influencing people to achieve organisational goals.

## **LEADERSHIP IN EDUCATION**

The principal is by appointment the manager of the school where he/she also acts as the leader of the school. In this role the principal acts as the facilitator and co-ordinates the educators' efforts to realise the goals of the school within the educational environment.

The regulatory environment contains several policies which attempt to provide guidelines between principals and educators. As stated by Pandor (2009, p. 60), “leadership is critical at provincial and school level to make the best out of the complexity of evaluation and school development efforts”. Reference is also being made to the Policy Handbook for Educators which was commissioned by the Education Labour Relations Council (2003) contains various acts which define the foundation for the management style to be adopted at South African schools. The major policy documents are the:

- Further Education and Training Act no. 98 of 1998 (Republic of South Africa 1998),
- South African Council of Educators Act no. 31 of 2000 (Republic of South Africa 1996d);
- Constitution of the Education Labour Relations Council (Education Labour Relations Council 2003);
- South African Schools Act no. 84 of 1996 (Republic of South Africa 1996a);
- The Bill of Rights of the final Constitution of the Republic of South Africa (1996b);
- South African Schools Act no. 27 of 1996 (Republic of South Africa 1996c);
- Employment of Educators Act no 76 of 1998 (Republic of South Africa 1996e); and the
- Constitution of the Republic of South Africa (Act no. 108 of 1996). (Republic of South Africa 1996f).

Although the management and leadership style per se is not prescribed by the abovementioned policy documents, the policies are clear in their indication that democratic, consultative, participatory, interactive and transformational management and leadership styles are suitable for use by school principals.

The changing education environment in democratic South Africa has brought to the fore the need for education management and leadership development in directing a complex new policy environment and realising transformational goals, and despite the complexity and difficult circumstances, many school principals are beginning to achieve transformation in their schools (Naidu et al., 2008, p. 3).

## **THE NEW ROLE OF THE PRINCIPAL**

Effective principals in today’s school system assume that change is inevitable, necessary and indeed strive to embrace managerial change (Naidoo, 2011, p 143), and that these changes requires the incorporation of interventions on how to alleviate stress and to focus on improving work performance amongst educators. Some of the important traits and values that modern principals must possess in order to lead, principals should:

- Act as agents of change;
- Act as managers; and
- Ensure that there is inclusive education for a diverse school community.

Other factors that also need to be considered should be to:

- **Helping staff develop and maintain a collaborative, professional school culture**  
This means that educators often talk, observe, critique and plan together. Norms of collective responsibility and continuous improvement encourage them to teach each other how to teach better. Transformational leaders involve staff in the collaborative goal-setting, reduce educator isolation, use bureaucratic mechanisms to support cultural changes, share leadership with others by delegating power, and actively

communicate the school's norms and beliefs. This could be a very effective way of fostering staff development and encouraging them to be a team. It will ultimately allow for a sense of security as well as motivate them to perform better.

- **Fostering educator development**

This factor suggests that the educators' motivation for development is enhanced when they internalise goals for professional growth. This process is generally committed to the school's mission. When leaders give educators a role in solving non-routine school improvement problems they should make sure goals are explicit and ambitious but not unrealistic.

- **Helping educators solve problems more effectively**

Leithwood, Janti and Steinbech (2006, p.155) argue that leadership is valued because it stimulates educators to engage in new activities and put forth that "extra effort". Leadership uses practises primarily to help staff members work smarter, not harder. These leaders share a genuine belief that educators as a group could develop better solutions than the principal could alone.

The above mentioned interventions focus on helping educators develop and maintain a collaborative professional culture. The principal as a manager and leader should involve educators in collaborative goal-setting, reduce educator isolation, utilise bureaucratic mechanisms to support change and share leadership with others by delegating power, and actively communicate the school's norms and beliefs.

The principal, as suggested by Leithwood et al. (2006:156) should foster educator development. This will result in internalising goals for professional growth. The process involves the helping of staff to develop and maintain a collaborative, professional school culture. Finally, the principal should be available to assist and help educators to solve their problems more effectively. The link between management and leadership and school improvement is seen to be a collaborative school culture, where a common understanding is shared which ultimately results in improvement of work.

Principals in schools need to balance a variety of roles. The principal role is evolving from direct instructional leadership to a broader role of orchestrating decision making, often through teams of teachers, and interacting with a wider range of individuals, including community members and other stakeholders.

## RESEARCH METHODOLOGY

### Research instrument

The structured questionnaire is known as the ASSET (which refers to An Organisational Stress Screening Tool). It was developed by Cartwright and Cooper (2002) as an initial screening tool to help organisations assess the risk of occupational stress in their workforce. The questionnaire is scored on a five-point Likert scale that ranged from: *1 = strongly agree* to *5 = strongly disagree*. The ASSET has an established set of norms from a database of responses from 9,188 workers in the public and private sector (non-higher education institutions) organisations in the United Kingdom. In South Africa, Jackson (2004) successfully applied the ASSET as measuring instrument in the North West province of South Africa. In addition, Jackson found that the reliability of the instrument was satisfactory

for the South African environment. It is important to take note of the fact that the ASSET is not restricted to stress related factors only, but includes management and managerial styles (Naidoo, 2011, p. 142). This article specifically reports on the analysis of the managerial factors as identified by this relevant section of ASSET.

### **Data collection**

A cross-sectional survey design was used to reach the objectives of this study. In this design, the focus is on relationships between and among variables in a single group. Data were collected by means of a tried and tested structured questionnaire named *An Organisational Stress Screening Tool*. This questionnaire was distributed to all educators in the public schools of each of the selected districts in the sample pertaining to KwaZulu-Natal. The Director-General of the KwaZulu-Natal Education Department approved the study as an official research project of the Department of Education, and as a result, the data collection was assisted and overseen by the respective district offices. Since the data results from a study limited to KwaZulu-Natal, the results cannot be generalised across South Africa.

### **Study population and sampling**

A total of 84,977 educators were employed (at the time of the study) by the KwaZulu-Natal provincial Department of Education (EMIS 2009). This represents 22.3% of the national total with the largest number of educators in ordinary schools (EMIS 2009). There were 12 districts in the province from which a total of four districts were selected in terms of accessibility. These four districts were: Ilembe, Pinetown, Port Shepstone and Empangeni. A total of 2,123 educators were employed within these four districts, and from them, a random sample of 1,500 participants were selected to participate in the study. The sample, therefore, represents 70.6% of the selected population. A total of 358 educators in KwaZulu-Natal had completed the questionnaire by the cut-off date (representing 23.3% of the sample). Eight of these questionnaires were discarded due to either partial or non-completion.

### **Statistical analysis**

An exploratory factor analysis was conducted to analyse the data. From the analysis, seven factors were identified. The principal component matrix was rotated by means of an orthogonal Varimax rotation. In determining the factors (constructs), Eigen values greater than 1, the percentage of variance explained and the individual factor loading was considered. The software programme SPSS 17.0 for Windows (SPSS Inc., 2009) was used for this purpose of statistical analysis. Cronbach alpha coefficients were calculated to assess the reliability of the identified factors (Field, 2007, pp. 666-668). Descriptive statistics and correlation coefficients were also used for calculations. The suitability of subjecting the data to a factor analysis was confirmed by the Kaiser, Meyer and Olkin measure for sampling adequacy and the Bartlett's test of sphericity. Finally, the respective variance explained by each factor was applied to determine the relative importance of each of the identified factors.

## **RESULTS**

The KMO test of sample adequacy and Bartlett's test of sphericity were used to ensure that the sample and the data were suitable for multivariate statistical analysis. The results of these tests appear in the table 1 below.

**Table 1: KMO Measure of Sampling Adequacy and Bartlett's Test of Sphericity**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy	.948
Bartlett's Test of Sphericity: Approx. Chi-Square	12633.150
df	.903
Sig.	.000

In Table 1, a very high KMO measure is 0.948. This means that the sample used is adequate and that the data can be used in further analysis. From the table, it is also evident that the Bartlett's test of sphericity is satisfactory. This test returned a value of .000 which is less than the minimum required value of .005. This means that the data is suitable to be subjected to further analysis by means of multivariate statistical methods such as exploratory factor analysis (EFA). The factors and their factor loadings appear in the Table 2. The Varimax rotated factor matrix shows that a total of seven factors could be identified from the analysis.

**Table 2: Rotated Factor Matrix**

Items	F <sub>1</sub>	F <sub>2</sub>	F <sub>3</sub>	F <sub>4</sub>	F <sub>5</sub>	F <sub>6</sub>	F <sub>7</sub>
Management creates opportunities for staff and school environment	.925						
Management develops good relationships between all role-players in the school	.907						
Management fosters education development	.922						
Management encourages employees to be "team players"	.907						
Management empowers its employees	.873						
Management encourages staff to take responsibility for things they are in charge of, such as academic issues, cultural or extra-curricular activities	.876						
This institution is considered to be progressive in the years to come	.808						
The management team puts school matters first	.778						
The management team ensures that there is a strong link between transformational leadership and school effectiveness	.771						
The management team is seen as innovative	.773						
Effective leadership is seen as a stepping stone in the progression of the institution	.767						
Meetings are carried out in a democratic way	.797						
Good financial management is seen as priority for the school	.874						
Management is inspirational	.715						
Dissemination of departmental information, policies and procedures are forthcoming	.851						
Management fosters collaboration among group members	.741						
Transformational leadership is seen as a priority in the institution	.811						
I have contact with my colleagues as part of my work	.607						
I am able to interact informally with colleagues during work hours	.660						
Management comes across as having a laissez-faire approach	.613						
I am paid adequately for the work I do		-.914					
I am able to live comfortably on my salary		-.874					
My job offers me the possibility to progress financially		-.800					
The education department pays good salaries		-.843					
The management team is seen as being visionary			.847				



Items	F <sub>1</sub>	F <sub>2</sub>	F <sub>3</sub>	F <sub>4</sub>	F <sub>5</sub>	F <sub>6</sub>	F <sub>7</sub>
The management develops and maintains transparency, accessibility and representativity in terms of democracy			.844				
Management develops and supplies strategies to manage contingencies			.819				
Management ensures that tasks are done properly and does not use its authority to obtain results			.808				
Lead by “doing” rather than simply by telling			.759				
Management leads by example			.753				
Management delegates duties equitably			.743				
The principal acts as an arbitrator, negotiator and conflict resolution officer			.725				
The teaching and learning process is becoming stressful				.917			
The behaviour and attitudes of the learners are making my job stressful				.917			
My job is considered very stressful				.873			
The conditions at work are a contributing factor to my stressors				.776			
I am able to discuss work-related problems with my direct supervisor					.875		
I participate in decisions about the nature of my work					.864		
I am clear on whom I should address within the education department for specific problems					.847		
I need to be re-assured that I will still be employed in one year’s time						-.963	
I need to be more secure that next year I will retain the same function level as currently						-.942	
My job gives me the opportunity to be promoted							-.668
I have direct influence on the school’s decision.							-.618

The items loaded excellently, and as a result, none of the items in Table 2 were discarded due to low factor loadings (below 0.40), nor did any one of the items produced dual loadings and loaded onto two factors. The factors are identified, discussed and labelled as follows:

### Factor 1 – Management and leadership styles

A total of 20 items loaded onto Factor 1, signifying that this factor is by far the most important factor. All of the items that loaded onto Factor 1 relate to management and leadership in one or more ways. A total of 17 of the 20 items loaded very heavily with factor loadings exceeding 0.70, while the majority ranges between 0.80 and 0.93. The factor is clear in its interpretation as management and leadership styles are prevalent in all the items, and the factor is thus labelled as *Managerial and leadership styles*. The variance explained by the factor is 47.04%. This high variance clearly shows that the respondents in the study regard management and leadership styles to be the core of the solution to improve the efficiency at schools in KwaZulu-Natal.

### Factor 2 – Financial security

A total of four items loaded onto Factor 2, all with high factor loadings that exceed 0.80. All these items focus strongly on financial security of the educator. Closer inspection of these items shows that they are all directly related to the remuneration of educators, meaning that the factor identifies financial aspects to be a part of the educators’ stress profile. Worrisome

is the fact that all these items portray negative factor loadings, which means that the respondents feel *that they do not receive adequate salaries, they do not live comfortably on their salaries, they do not progress financially in their jobs and they do not think the DOE pays good salaries*. As such, the factor is a negative one, and thus a contributor to stress in educators. The factor is labelled Financial security (albeit the lack thereof) and explains a variance of 8.93%.

### **Factor 3 – Management and leadership fairness**

A total of eight items loaded onto Factor 3. All of the items have factor loadings that are higher than 0.70, while half of these exceeds 0.80. High factor loadings are thus recorded on this factor. The items relate to aspects such as *vision, contingencies, leading by action rather than words* and *example*, shows competence and fairness as concepts. However, the items related to *democracy, arbitration, transparency*, swings the label in favour of its current label, namely Management and leadership fairness. A variance of 6.84 % is explained by this factor.

### **Factor 4 – Stressors**

There are four items loaded onto this factor. Two items exceed the high factor loadings of 0.90. These items deal with *stressful teaching and learning processes* and the *attitudes of learners* that contribute to the overall job being stressful. The other two items also have high factor loadings (exceeding 0.70 and 0.80 respectively) and deal with *overall job stress being regarded as very high* and *stressful working conditions*. All of these stressors have been rated very high by the respondents and this re-affirms the findings of previous studies by Jackson and Rothman (2006) and Jackson (2004). The factor is labelled *Stressors* and explains a variance of 5.89%.

### **Factor 5 – Empowerment**

The three scenarios that loaded onto Factor 5 all revolve around the issues of educators being able to make decisions about the nature of their work, and to be able to discuss it with supervisors if needed. The respondents are also empowered by knowing who to address when higher authority is required. This inevitably results in accountability on the part of educators. The items loaded heavily onto the factor with factor loadings between 0.84 and 0.90. The factor is labelled as *Empowerment* and explains a variance of 3.89%.

### **Factor 6 – Job security**

Only two items loaded very high onto this factor, but negatively. Both items have factor loadings above an absolute value of 0.90. Both items feature aspects of job security and highlight the findings that educators need to feel secure in their jobs and require re-assurance with regard to employment and this is seen as a concern and a stressor for respondents. The items are non-financial (see Factor 2) and clearly separated from the previous factors. The negative factor loadings mean that the respondents indicated that they do not perceive themselves to have job security at present (inverted scores). A variance of 3.41% is explained in this factor which is labelled as *Job security*.

### **Factor 7 – Sense of control over the work environment**

The last factor in the analysis is identified by two items with factor absolute loadings of 0.61 and 0.68. Both these items relate to a sense of control over the work environment. Both these two statements have negative factor loadings (inverted scores). This means that the educators

perceive that they do have control over the work environment, and as such, this factor is not perceived by educators to be a concern. The factor is labelled as *Sense of control over work conditions*. A relative small variance of 2.57% is explained. These factor labels have been summarised and operationalised in Table 3.

**Table 3: Operationalisation of Factor Labels**

Factor	Factor label	Factor description means:
F <sub>1</sub>	Management and leadership styles	The styles of management and leadership and their ability to improve efficiency at schools
F <sub>2</sub>	Financial security	The ability to prosper and be financially cared for by the job
F <sub>3</sub>	Management and leadership fairness	Fairness and competent decisions in the work environment
F <sub>4</sub>	Stressors	Situations that create a stressful work environment
F <sub>5</sub>	Empowerment	Ability to make decisions and refer to authority
F <sub>6</sub>	Job security	Reassurance that employment is lasting and certain.
F <sub>7</sub>	Sense of control over the work environment	The variety in work, opportunities to learn and there is independence of work.

The cumulative variance explained for all seven factors is very favourable (78.6%). The individual variance of the factors, Eigenvalues as well as the descriptive statistics of factors is shown in Table 4.

**Table 4: Descriptive statistics, Reliability, Eigenvalues and Variance Explained by the Factors**

Factors	No. of responses	Mean	Standard Deviation	Cronbach Alpha	Eigen values	Variance explained
Management and leadership styles (F <sub>1</sub> )	344	3.05	1.14	.982	21.15	47.04
Financial security (F <sub>2</sub> )	341	3.84	1.02	.925	4.02	8.93
Management and leadership fairness (F <sub>3</sub> )	342	2.83	1.08	.949	3.08	6.84
Stressors (F <sub>4</sub> )	342	1.87	0.96	.903	2.65	5.89
Empowerment (F <sub>5</sub> )	340	2.62	1.08	.860	1.75	3.89
Job security (F <sub>6</sub> )	339	3.42	1.23	.910	1.53	3.41
Sense of control over the work environment (F <sub>7</sub> )	342	3.25	1.02	.525	1.16	2.57

Table 4 shows that all the Eigenvalues exceed 1. The Cronbach Alpha coefficients for the factors are shown. Factors 1, 2, 3, 4, 5 and 6 all have Alpha coefficients of well above the minimum required reliability level set for this study ( $\alpha \geq 0.70$ ). This means that these factors have an excellent level of reliability and internal consistency. These high reliability coefficients concur with the literature on the causes of stress of the educators (Jackson & Rothman 2006; Jackson 2004). The high Alpha coefficients are not unexpected since the questionnaire employed (ASSET) is a tried and tested data collection tool that has been developed specifically to measure stress in the workplace and verified by numerous studies by Jackson and Rothman (2006) and Jackson (2004).

However, Factor 7 (*Sense of control over the work environment*) requires closer scrutiny as it has an Alpha coefficient below 0.70 ( $\alpha = 0.53$ ). Another reliability level is presented by Kline (in Field, 2007:668), who states that that an Alpha coefficient of 0.58 is acceptable when dealing with psychological constructs because of its diverse nature. However, even this lower margin of reliability is not met by the factor, and as such this factor has a lower than

desired reliability coefficient. Field (2007, pp. 666-667) states a lower Alpha coefficient also does not disqualify a factor from the set of identified factors, but it means that if the study is repeated under similar conditions, the factors with lower reliability coefficients are less likely to reappear than those factors with a higher reliability coefficient. This means that Factor 7 is less likely to represent itself in repetitive studies of similar nature, and should be interpreted with this limitation in mind.

Table 5 shows the Inter-factor correlations between the different factors as calculated by the Pearson Correlation Coefficient. Evident from Table 5 is the fact that all factors (except factors 3 and 6) are significantly correlated with one another ( $p \leq 0.01$ ). A strong correlation in excess of 0.50 exists between Factors 1 and 3 (0.642). This means that the respondents feel that the management and leadership style (Factor 1) correlates positively to perceived fairness of management (Factor 3). The other correlations are interpreted in similar fashion. No other correlation exceeds the 0.50 coefficient between two factors. Pearson correlation coefficients of 0.30 and higher are accepted in this study (Field, 2007, p. 740).

**Table 5: Inter-Factor Correlations**

		F1	F2	F3	F4	F5	F6	F7
<b>Factor 1</b>	Pearson Correlation	1	.252**	<b>.642**</b>	<b>-.333**</b>	<b>.384**</b>	<b>.300**</b>	<b>.405**</b>
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000
	$\underline{n}$	344	341	342	342	340	339	342
<b>Factor 2</b>	Pearson Correlation	.252**	1	.186**	-.240**	.291**	.284**	<b>.485**</b>
	Sig. (2-tailed)	.000		.001	.000	.000	.000	.000
	$\underline{n}$	341	341	341	341	340	339	341
<b>Factor 3</b>	Pearson Correlation	<b>.642**</b>	.186**	1	-.165**	<b>.401**</b>	.114*	<b>.300**</b>
	Sig. (2-tailed)	.000	.001		.002	.000	.036	.000
	$\underline{n}$	342	341	342	342	340	339	342
<b>Factor 4</b>	Pearson Correlation	<b>-.333**</b>	.240**	-.165**	1	-.121*	-.044	-.159**
	Sig. (2-tailed)	.000	.000	.002		.025	.421	.003
	$\underline{n}$	342	341	342	342	340	339	342
<b>Factor 5</b>	Pearson Correlation	<b>.384**</b>	.291**	<b>.401**</b>	-.121*	1	.148**	<b>.345**</b>
	Sig. (2-tailed)	.000	.000	.000	.025		.006	.000
	$\underline{n}$	340	340	340	340	340	338	340
<b>Factor 6</b>	Pearson Correlation	<b>.300**</b>	.284**	.114*	-.044	.148**	1	<b>.315**</b>
	Sig. (2-tailed)	.000	.000	.036	.421	.006		.000
	$\underline{n}$	339	339	339	339	338	339	339
<b>Factor 7</b>	Pearson Correlation	<b>.405**</b>	<b>.485**</b>	<b>.300**</b>	-.159**	<b>.345**</b>	<b>.315**</b>	1
	Sig. (2-tailed)	.000	.000	.000	.003	.000	.000	
	$\underline{n}$	342	341	342	342	340	339	342

\*\* Correlation is statistically significant ( $p \leq 0.01$ )

The final stage in the analysis is to determine the extent to which management and leadership styles and fairness (as identified in Factors 1 and 3) predict the scores of each of the remaining factors. Table 6 indicates that, in practice, a percentage of 20.1% and 30.1% of the variation in *Management and leadership style* (F1) and *Management and leadership fairness* (F2), respectively, are explained by the school management variables: *Financial security* (F2), *Stressors* (F4), *Empowerment* (F5), *Job security* (F6) and *Sense of control over the work environment* (F7).

**Table 6: Multiple Regression Results: R, R<sup>2</sup> and Standard error**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
F1	.449 <sup>a</sup>	.201	.189	.608
F3	.557 <sup>a</sup>	.310	.300	.613

a. Predictors: (Constant), F2, F5, F4, F6, F7

The multiple regression analysis (see Table 7 below), indicates that no significant positive relationships exist between the dependent variable *Management and leadership styles* and the independent variables: *Financial security (F2)*, *Stressors (F4)*, *Empowerment (F5)*, *Job security (F6)* and *Sense of control over the work environment (F7)*.

**Table 7: Multiple Regression Results: Management and Leadership Styles (F1)**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.524	.157		9.713	.000
F4	.110	.048	.130	2.287	.023
F5	.097	.047	.109	2.075	.039
F6	.025	.046	.032	.556	.578
F7	.298	.056	.325	5.325	.000
F2	-.072	.042	-.096	-1.743	.082

a. Dependent Variable: F1

Similarly, Table 8 shows that no significant positive relationships exist between the dependent variable *Management and leadership fairness* and the independent variables: *Financial security (F2)*, *Stressors (F4)*, *Empowerment (F5)*, *Job security (F6)* and *Sense of control over the work environment (F7)*.

**Table 8: Multiple Regression Results: Management and Leadership Fairness (F3)**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.949	.158		6.007	.000
F4	.350	.048	.382	7.226	.000
F5	.040	.047	.041	.842	.400
F6	.060	.046	.069	1.303	.193
F7	.247	.056	.249	4.384	.000
F2	-.113	.042	-.138	-2.697	.007

a. Dependent Variable: F3

## CONCLUSIONS AND RECOMMENDATIONS

From this research it can be concluded that:

1. The use of the theory to substantiate the use of a specific measuring instrument is invaluable as research by Jackson (2004) and others found that the ASSET (an already approved and validated international questionnaire) could be applied in the South African application setting. Resultantly, the results obtained in this research showed

exceptionally high reliability coefficients ( $\alpha \geq 0.90$ ). This means that the data collected by the ASSET questionnaire were reliable and that the questionnaire is suitable to use in the South African education application setting. It is concluded that the use of theory is imperative to substantiate the use of international measuring instruments for research in South Africa.

2. From the statistical analysis it is concluded that:
  - The sampling was adequate because large KMO values resulted.
  - The data were suitable for exploratory statistical analysis because the Bartlett's test of concluded that the strength of the relationship among variables is strong.
  - In examining the Cronbach Alpha coefficients a high degree of reliability and internal consistency are prevalent for Factors 1-6. Factor 7 has unsatisfactory reliability coefficients.
  - Although a number of correlations between factors exist, only one strong correlation exists between Factors 1 and 3 (0.642). Limited statistical and practical correlations exist ( $p \leq 0.01$ ).
3. Regarding the results, the following conclusions can be made:
  - All seven of these identified factors are important in understanding management and leadership of educators;
  - The multiple regression analysis showed that no significant positive relationships exist between the dependent variables *Management and leadership styles* and *Management and leadership fairness* and the independent variables: *Financial security*, *Stressors*, *Empowerment*, *Job security and Sense of control over the work environment*.

## DISCUSSION

The aim of this study was to investigate the important factors for school management and leadership. A total of seven factors were identified in this study, explaining 78.6% of the variance. The first factor, *Management and leadership styles*, explain 47% of the variance, signifying that this factor is by far the most important one. This factor also have excellent reliability ( $\alpha = 0.982$ ). Other factors are: *Financial security*, *Management and leadership fairness*, *Stressors*, *Empowerment*, *Job security* and *Sense of control over the work environment*.

Similar research by Stankosky (2005) reports that effective school management is strongly management orientated, and that managerial fairness (see Factor 3), *Trust* and *Leading by example* are also important factors, while an enabling environment such as *Organisational culture* and *Organisational structure* are rated very highly in school management in the United Kingdom. In this regard, Ahmad (2011) found that in Hong Kong schools are also subjected to change, and that principals resist conforming to the new policies. Ahmad points out that the concept of "experience sharing" as managerial tool is yielding results in the process of change because principals gain knowledge of the uncertainties, and becomes less resistant. Experience sharing also provides an informal source of information, debate and problem-solving technique as principals now have counterparts to share with and assistance from them to resolve change management issues.

In South Africa, Bush et al. (2009, p. 162) states that management and leadership are the core functions of principalship, and that improved education can only result with in a conducive

environment where high quality teaching and learning are possible (as stated in the *South African Standard for Principalship*). These authors, therefore, place emphasis on the infrastructure and facilities of schools, stating that these should be a priority management focus of the principal. Important factors to manage in schools, according to Bush et al. (2009, p.165), also includes some operational managerial functions such as procurement and maintenance, while they also indicate more higher order managerial activities such as quality assurance (controlling), internal and external communication and time management (planning). Unfortunately, too many South African principals still spend a too much of their managerial time by controlling (visiting classes, checking scripts, reading academic progress reports, to name but a few) rather than to divert their time equally, as suggested by Hellriegel, Jackson and Slocum (2002, pp. 8-10), to cover all four the managerial functions, namely: planning, organising, leading and control. However, Ahmad (2011) adds to these four traditional management functions also the function of *Staffing* to the principal's list of responsibilities. Luyten, Scheerens, Visscher, Mslowski and Steen (2005) also states that the responsibility of personnel management (staffing) should lie with the principal, although it is successfully centralised on the next managerial level by a number of countries such as Belgium, Canada, Japan, New Zealand and the United Kingdom. Ahmad (2011) concludes by stating that principals of schools should play a significant role in managing and leading by following the principles of being professional, be capacitated to manage democratic processes in school, be skilled in change management, create structures for service delivery, optimal utilization of potential, effective teaching and learning, and to encourage team work.

## LIMITATIONS

Empirical studies are limited due to their design. This study collected data from the KwaZulu-Natal region amongst educators by means of a stratified random sample. The sample cannot be considered to be representative of all educators in South Africa Resultantly, the results of this study cannot be generalised to the other eight provinces of South Africa, or to a different application setting.

## SUMMARY

The results indicated that principals require proper guidance on management and leadership because they play a pivotal role in the schooling system. These principals not only need management and leadership training, they also require insight as to what specifically to apply their minds to in the educational managerial realm

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