Educators' perceptions of school climate and health in selected primary schools

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The aims in this research were to determine the perceptions of school climate held by educators of primary schools in the southern Cape. Six primary schools with a staff complement of 178 educators participated in the investigation. Two instruments were used: the Organisational Climate Description Questionnaire Rutgers Elementary (OCDQ-RE) and Dimensions of Organisational Health Inventory of Elementary Schools (OHI-E). The results indicated that primary school educators in the southern Cape perceived their relations with their principals as closed, while educator-educator relations were perceived as more open. An engaged school climate was taken as the typical prototype for the relevant primary schools. Average health profiles were drawn for the overall organisational health of primary schools. A significant relationship was found between primary schools' perceptions of organisational climate and organisational health. A significant difference was found between perceptions held by educators from different primary schools regarding the various dimensions of organisational climate and health. These findings have significant implications for the implementation of change in schools, educators' job satisfaction, motivation, productivity, well-being, and learner achievement.

Introduction

Our broad research aim was to determine the perceptions of southern Cape primary school educators of their schools' climate and health. An investigation of educators' perceptions of school climate and organisational health is important because it can reveal aspects which impact negatively on school improvement interventions, as well as educators' job satisfaction, productivity, motivation, and general well-being.

School climate refers to the heart and soul of a school, psychological and institutional attributes that give a school its personality, a relatively enduring quality of the entire school experienced by members, which describes their collective perceptions of routine behaviour, and affects their attitudes and behaviour in the school (Hoy & Miskel, 1987:226). *Organisational climate* can be defined for the school context as a relatively enduring, pervasive quality of the internal environment of a school experienced by educators and/or learners that influences their behaviour and proceeds from their collective perceptions. It can be described in terms of the values of a particular set of characteristics (or attributes) of an organisation (Hoy & Forsyth, 1986:147). *Organisational health*, as described by Miles (1969:378; *cf.* Hoy, Tarter & Kottkamp,

1991:65), refers to an organisation that "not only survives in its environment, but continues to cope adequately over the long haul, and continuously develops and extends its surviving and coping abilities." Van der Westhuizen (2002:152; *cf.* Hoy & Miskel, 1987:241) stated that a school with a healthy organisational structure is not subject to undue pressure from the community, has a principal who gives dynamic guidance, a teaching staff who are dedicated and learners who are motivated, and who have goals that are attainable, as well as sufficient resources.

In the current South African context, changes and innovations in knowledge, and the knowledge economy, pose a number of challenges to the people who work in schools. According to Sergiovanni and Starratt (2002:331) the development and nurturing of the right school climate and culture is a prerequisite for change management. School climate can help or hinder educators as they attempt to satisfy their needs at work.

Theoretical background
For the purposes of this study two perspectives were used to assess educators' perceptions of school climate, namely, *organisational climate*, with the focus on principal-teacher behaviour, and *organisational health*.

Organisational climate
The Organisational Climate Description Questionnaire Rutgers Elementary (OCDQ-RE) was developed to measure organisational climate. The two behavioural dimensions (principal and teacher) can be used to develop a typology of school climate. As indicated in Figure 1, four contrasting types of school climate are possible (Hoy *et al.*, 1991:157). First, both factors can be open, producing congruence between the principal's and teachers' behaviour. Second, both factors can be closed, producing a congruence of closeness. Moreover, there are two incongruent patterns. The principal's behaviour can be open with the faculty, but teachers may be closed with each other; or the principal may be closed with teachers while the teachers may be open with each other. Climate typology is explained Figure 1.

Three types each of principal and teacher behaviour can be distinguished (Hoy *et al.*, 1991:30).

• Characteristics of principal behaviour
Supportive principal behaviour reflects a basic concern for teachers. The principal listens and is open to teachers' suggestions. Praise is given genuinely and frequently, and criticism is handled constructively. Supportive principals respect the professional competence of their staff and exhibit both a professional and a personal interest in each teacher. *Directive principal behaviour* is rigid monitoring of teacher behaviour. Principals maintain close and constant control over all activities of teachers and the school, down to the smallest detail. *Restrictive principal behaviour* hinders, rather than facilitates, teachers' work. The principal burdens teachers with paper work, committee require-

ments and other demands that interfere with their teaching responsibilities (Hoy & Forsyth, 1986:150).

According to Hoy *et al.* (1991:155) openness in principal behaviour is evident from openness and concern for teachers' ideas (highly supportive); freedom and encouragement for teachers to experiment and act independently (low directiveness); and structuring the routine aspects of the job so that they do not interfere with teaching (low restrictiveness).

An *engaged climate* is marked by ineffectual attempts made by the principal to exercise and maintain control. The principal is rigid and autocratic (high directiveness) and respects neither the professional competence nor the personal needs of faculty (low supportiveness). Moreover, the principal constantly keeps the teachers occupied with burdensome activities and busywork (high restrictiveness).

A *disengaged climate* stands in stark contrast to the engaged climate. The principal's behaviour is open, concerned and supportive. The principal listens and is open to teachers (high supportiveness), gives faculty freedom to act on their professional knowledge (low directiveness), and relieves teachers of most of the burdens of paper work and committee assignments (low restrictiveness).

The *closed climate* is virtually the antithesis of the open climate. The principal simply appears to go through the motions, stressing routine trivia and unnecessary busywork (high restrictiveness). The principal's ineffective leadership is seen as controlling and rigid (high directiveness) as well as unsympathetic, unconcerned, and unresponsive (low supportiveness). Closed climates have principals who are non-supportive, inflexible, interfering and controlling.

• Characteristics of teacher behaviour
Collegial teacher behaviour supports open and professional interaction between teachers, who are proud of their school, enjoy working with their colleagues, and are enthusiastic, accepting and respectful of the professional competence of their colleagues. *Intimate teacher behaviour* reflects a cohesive and strong network of social support among the staff. Teachers know each other well, are close personal friends, socialise together regularly, and support each other staunchly. *Disengaged teacher behaviour* refers to a lack of meaning and focus in professional activities. Teachers are simply putting in time and group efforts and team building are unproductive; they have no common goals. They often display negative and critical behaviour towards their colleagues and the organisation (Hoy & Forsyth, 1986:150).

The three dimensions define *openness* in teacher behaviour, that consists in meaningful and tolerant interaction between teachers (low disengagement); in generally friendly, close, and supportive behaviour (high intimacy); and behaviour that is also enthusiastic, accepting, and mutually respectful (high collegial relations).

In an *engaged climate* teachers' performance is highly professional. They ignore the principal's ineffectual behaviour and carry on with professional

competence. They respect and support each other, are proud of their colleagues, and enjoy their work (highly collegial). Moreover, the teachers not only respect each other's competence, but they like each other as people (high intimacy), and they co-operate with each other as they engage in the task at hand (high engagement). In short, the teachers are productive professionals in spite of the principal's weak leadership; the faculty is cohesive, committed, supportive and open.

In a *disengaged climate*, faculty tends to be indifferent or even intolerant towards the principal, seeking at worst to actively immobilise and sabotage the principal's attempts at leadership. At best the principal can expect to be ignored in this climate because the teachers dislike him/her. Moreover, they neither like nor respect each other professionally (low collegial relations) or personally (low intimacy). Faculty is simply disengaged from the task. In sum, the principal may be supportive, concerned, flexible, facilitating and non-controlling (i.e. open), but all this is countermanded by the fact that faculty is divisive, intolerant and uncommitted (i.e. closed).

In a *closed climate* the teachers simply appear to go through the motions, responding minimally and exhibiting little commitment (high disengagement). The principal's misguided tactics are met not only with frustration and apathy, but also with a general suspicion and lack of respect among teachers for each other as either friends or professionals (low intimacy and non-collegial relations). Closed climates have a faculty that is divisive, intolerant, apathetic and uncommitted (Hoy & Miskel, 1987:232-233).

• Research on organisational climate
Hoy and Forsyth (1986:155) refer to research on school climate and implicate the relatedness between a school's *openness* and its *emotional tone*. Compared to closed schools, open schools tend to have relatively strong, confident, self-assured, cheerful, sociable, and resourceful principals. Further to their credit, they also tend to have more loyal, trusting, and satisfied educators. Similarly, educators in open schools generally express greater confidence in their own and the school's effectiveness. Mullins (in Hoy & Forsyth, 1986:155) concludes that by facilitating the process of supervision open organisational relations have positive consequences in schools.

It is evident that principals' behaviour strongly promotes a positive and open school climate. Harris (2000:36) described these behaviours: treat teachers professionally; involve them in decision-making; demonstrate emotional and moral support; respect teachers' disciplinary decisions, maintain visibility during the school day, articulate clear expectations, and have an open-door policy.

Educators' perceptions and experience of their principal's trust and confidence in their capabilities are important for job satisfaction, and thus have a definite impact on school climate. Zack and Horowitz (in Freiberg, 1999:149) refer to educator autonomy and its importance in the overall expression of school climate. In schools where educators felt stressed by the burden of their

work, the relationships between educators were found to be unsatisfactory and their sense of autonomy weak. Educators experienced greater job satisfaction in schools with more educator autonomy and better interpersonal relations.

Rosenholtz (1989:80) provides convincing evidence that school climate makes a difference in improving educators' learning opportunities, job satisfaction and performance. She found that the quality of work relationships (a degree of openness, trust, communication and support) shared by educators, had a lot to do with the school's ability to improve. Research done by Bulach and Malone (1994:6) supports the premise that change occurs more effectively in a good school climate. All staff members must be involved to make reforms effective, and such involvement is most likely where there is a climate of openness and trust that allows people to work together in a collegial manner. Full co-operative involvement is particularly important in our schools today in view of exceptional challenges facing education.

Micholas (1990:619) states that research has proved that good interpersonal relations are the best way of ensuring a sense of well-being, quality of life, happiness and satisfaction with life as a whole.

Organisational health

Hoy *et al.* (1991:195) developed the Dimensions of Organisational Health of Elementary Schools (OHI-E). Five dimensions of organisational health are captured in this questionnaire, namely, institutional integrity, collegial leadership, resource influence, teacher affiliation and academic emphasis.

- Dimensions of organisational health

Institutional integrity describes a school that has integrity in its educational programme. The school is not vulnerable to narrow, vested interests of community groups; indeed, teachers are protected from unreasonable community and parental demands.

Collegial leadership refers to behaviour by the principal that is friendly, supportive, open and guided by norms of equality. At the same time, however, the principals set the tone for high performance by letting people know what is expected of them.

Resource influence describes principal's ability to affect the action of superiors to the benefit of the teachers. Teachers are given adequate classroom supplies, and extra instructional materials and supplies are easily obtained.

Teacher affiliation refers to a sense of friendliness and strong affiliation with the school. Teachers feel good about each other and, at the same time, gain a sense of accomplishment from their jobs. They are committed to both their students and their colleagues. They find ways to adapt to the routine, accomplishing their jobs with enthusiasm.

Academic emphasis refers to the school's expressed desire or aspiration to excel. The expectation of high achievement is met by students who work hard, are co-operative, seek extra work, and respect other students who get good grades.

Hoy and Tarter (1992:76) summarise the characteristics of a *healthy school* as follows: A *healthy* elementary school is a pleasant place. It is protected from unwarranted intrusion (high institutional integrity). Teachers like the school, the students, and each other (high teacher affiliation). They see the students as diligent in their learning (high academic emphasis). They see the principal as their ally in the improvement of instruction; the principal is approachable, supportive and considerate, yet establishes high standards of teacher performance (high collegial leadership). Teachers rely upon the principal to foster a structure in which learning can take place and, at the same time, to be a leader who is sensitive to the social and emotional needs of the group. The principal has influence with organisational superiors and is seen by the teachers as someone who delivers the teaching resources they need (high resource influence). A healthy school has no need for forced co-operation; because committed professionals cooperate naturally and are in basic agreement about the task at hand.

According to Hoy and Miskel (1987:193) an *unhealthy school*, by way of contrast, is a sad place. The school is an arena for various pressure groups to work out their own agendas (low institutional integrity). The principal is inactive and ineffective in moving the school towards its goals or in building a sense of community among the teachers (low collegial leadership). The principal has no influence with superiors, and teachers see themselves on the short end of supplies (low resource influence). They feel they do not have what they need to teach. The teachers do not like one another, or the school, or the students (low teacher affiliation). They see the students as academically un-worthy; in their view they are reluctant, do not work hard, neglect homework, are unco-operative in the class, and are not serious about learning (low academic emphasis).

The unhealthy school cannot adapt to the environment because there is no central leadership. The school is turned into a political arena as it loses institutional integrity. The principal effectively abdicates, and goals are compromised. The teachers lose a sense of integration with the school and its mission and see the students as unwilling learners.

- Research on organisational health

In a study done by Hoy, Tarter and Bliss (1990:260) the theory-driven Organisational Health Inventory (OHI) was found to be a better predictor of goal achievement, innovativeness, loyalty and cohesiveness — variables directly linked to the functional necessities.

Hoy and Forsyth (1986:162) report research findings gained by using the Organisational Health Inventory (OHI): The healthier the organisational dynamics, the greater the degree of faculty trust in the principal, trust in colleagues, and trust in the organisation itself. A strong correlation was found between the openness and health of schools; healthy schools have high trust, high *esprit*, and low disengagement. Open schools are healthy schools, and

healthy schools are open. Böhmer and Mentz (1994:101) supported these findings.

It was also found that healthy schools have more dedicated and loyal principals and satisfied educators who are confident, secure and highly motivated (Hoy & Forsyth, 1986:163). Hoy *et al.* (1990:265) found that in healthy schools, relationships are more open, educators are more productive, administrators are more reflective, and students achieve at higher levels.

It can be concluded that the organisational climate of schools, with particular reference to educator and principal behaviours, has been frequently investigated from a variety of perspectives. Climate and health profiles of schools have proved that good interpersonal relations contribute to the general well-being, quality of life, happiness and satisfaction of educators. Open and/or healthy schools house loyal, trusting, motivated, satisfied, confident and effective educators. Research has also proved a strong positive correlation between the healthiness of schools and their openness and between the unhealthiness of schools and the extent to which they are closed.

The growing interest in creating healthy and effective learning environments, not only for learners but also for educators, makes it worthwhile to focus on a school's climate and/or health, in order to address factors that are conducive to closed and/or unhealthy profiles. In this investigation we will therefore focus on the following research problem.

Research questions
The following specific research questions will be investigated:
• What are the perceptions of primary school educators in the southern Cape on organisational climate?
• What are the perceptions of primary school educators in the southern Cape on organisational health?
The following method was adopted to investigate these research questions.

Research methodology
Sampling
It was decided that the research questions would be best addressed by means of a perception survey as part of a quantitative research design. The chosen design relied on purposive sampling (non-probabilistic sampling method) as we selected particular subjects from the population who would be representative and informative on the topic of school climate and health in the region of interest to us (*cf*. De Vos, Strydom, Fouché & Delport, 2005:202).

Data for this investigation were collected at six primary schools in the southern Cape. These schools are typical of the primary schools in the region, representing rural and urban schools, as well as schools from the ex-regional departments. The sample consisted of all the educators in the six schools, including principals, members of school management teams, and educators. The sample size was 178 subjects. These sampling practices would therefore restrict generalisation of results to schools in the southern Cape, which was the area of concern identified by the researchers.

Data collection

The survey design data were collected by means of two existing standardised questionnaires, namely, the Organisational Climate Description Questionnaire Rutgers Elementary (OCDQ-RE) and the Dimensions of Organisational Health of Elementary Schools (OHI-E) questionnaire.

The OCDQ-RE distinguishes between three dimensions of principal behaviour (supportive, directive and restrictive) and three dimensions of teacher behaviour (collegial, intimate and disengaged). Four contrasting types of school climate are possible (climate typology), namely, open, closed, engaged and disengaged. The OHI-E distinguishes between five dimensions of organisational health, namely, institutional integrity, collegial leadership, resource influence, teacher affiliation and academic emphasis.

The OCDQ-RE is a 42-item, fixed-option response questionnaire with a four-point Likert rating scale. A true Likert scale is one in which the stem includes a value or direction and the respondent indicates agreement or disagreement with the statement. Subjects check the value perception on the rating scale that best reflects their beliefs or opinions about a statement. The rating scale is defined by the categories 'rarely occurs', 'sometimes occurs', 'often occurs' and 'very frequently occurs'. Examples of questionnaire items included in the questionnaire are:

• Routine duties interfere with the job of teaching.
• Teachers are proud of their school.

The OHI-E is a 37-item, fixed-option response questionnaire in which educators are asked to describe their own behaviour. The questionnaire distinguishes between five organisational health dimensions. The responses also vary along a four-point Likert rating scale defined by the categories 'rarely occurs', 'sometimes occurs', 'often occurs' and 'very frequently occurs'. Examples of questionnaire items included in the questionnaire are:

• Extra material is available if requested.
• Students neglect homework.

Measures to ensure validity and reliability

The OCDQ-RE and the OHI-E, respectively, have been developed to measure organisational climate and organisational health. Both have gained wide acceptance as climate assessment tools (Lindahl, 2006:5) and have been standardised by Hoy *et al.* (1991:197). Consequently a New Jersey School Standard has been established as a baseline against which schools can be compared. The Standard was based on a very large and representative New Jersey data sample as indicated by Hoy *et al.* (1991:197). Anderson (1982: 374) refers to the OCDQ as one of the major school climate instruments that has been widely recognised by climate researchers and reviewers. He notes the 'tremendous heuristic value' of the instrument, which has promoted a broad-based interest in elementary and secondary school climate.

According to Hoy and Forsyth (1986:162) the original OHI proved to be a useful tool owing to its reliability in measuring key dimensions of the orga-

nisational health of schools. It also has a strong and functional conceptual framework.

Apart from the above references to the relevance and validity of the measuring instruments, their reliability can be evaluated further against the internal consistency reliability criteria. In this sense reliability refers to 'the consistency, stability or repeatability of measurement — the extent to which the results are similar over different forms of the same instrument or occasions of data collecting' (McMillan & Schumacher, 1997:239). In this research the internal consistency reliability of the two instruments was tested against South African conditions in the southern Cape by performing scale reliability testing on both scales. Cronbach alpha coefficients, measuring scale reliability, were calculated on the data and varied between 0.60 and 0.90 (with the exception of one dimension). The coefficients are reported in Table 1. Given the exploratory nature of the study and the limited sample size, the alpha coefficients were regarded as sound indicators of the internal consistency reliability.

Administering the questionnaire

Application to conduct the research in schools in the southern Cape/Karoo region was made once sampling practice, research design and measuring instruments had been decided upon, and permission was duly granted by the Western Cape Department of Education. An invitation to participate in the research project was sent to each of the identified schools. Details of the project were included and prospective participants were requested to indicate their willingness to participate on a separate form which was sent back to the researcher.

Appointments were made with each of the schools at times that suited all the educators of the school. Although participation was voluntary, educators were motivated by their principals to give their co-operation. The assessment session consisted of an introductory PowerPoint presentation on the topic 'Educators' Perceptions of School Climate and Health'; discussion of the instructions on questionnaire completion; assurances of confidentiality; and finally administration of the two questionnaires. The Powerpoint presentation entailed basic definitions of school climate, organisational climate and organisational health; background information on issues which motivated the research, and on the purpose of the study; data collection techniques employed; and an overview of the characteristics of a healthy school.

Each individual educator completed both questionnaires. The researcher captured educator responses electronically to Excel files. In the case of the OCDQ-RE the selected response option (numbered 1, 2, 3 or 4) was captured for each item and teacher. The responses for questionnaire items 6, 31 and 37 were reversed. In the case of the OHI-E the appropriate response option (numbered 1, 2, 3 or 4) was used to score each item for each teacher. The responses to questionnaire items 6, 8, 14, 19, 25, 29, 30 and 37 were reversed (*cf.* Hoy *et al.*, 1991:164-199). The captured raw data files were sub-

mitted to the Unisa-ICT Department for statistical analysis by means of the software package Statistical Analysis System (SAS), version 9.1.

Statistical analysis

The dimension scoring of the OCDQ-RE and OHI-E questionnaires was done as explained by Hoy *et al.* (1991:164-199). The various organisational climate and health dimensions — along with the questionnaire items comprising each subscale — are encapsulated in Table 1. Mean item scores were calculated for the responses to each questionnaire item. The six climate and five health dimension scores were calculated as the mean item scores for questionnaire items that represent a particular dimension. Dimension scores (standardised against the New Jersey Standard) were obtained by subtracting the relevant New Jersey Standard dimension mean from the relevant dimension score and then dividing the result by the New Jersey Standard deviation for each particular climate or health dimension. These scores were calculated for all the respondents of each participating school. The dimension scores are listed in Tables 2 and 3.

As indicated in Table 1, three standardised climate dimension scores (supportive, directive and restrictive) were used to calculate a summative Principal Openness dimension score (PO). The other three climate dimension scores (collegial, intimate and disengaged) were used to calculate a Teacher Openness dimension score (TO). The classification of these two scores as 'open' or 'closed' (according to the decision rules listed in Table 2) jointly determine the climate type of a particular school or the general climate type of primary schools in the southern Cape. To determine the climate typology the open-closed combination of each school was compared against Hoy's climate typology listing (four prototypes are presented) in Figure 1 to determine the climate type of particular schools and the perceived school climate type of the southern Cape in general.

Principal openness			
		+ (open)	– (closed)
Teacher	**+**	**OPEN CLIMATE (+,+)** Open principal behaviour Open teacher behaviour	**ENGAGED CLIMATE (–,+)** Closed principal behaviour Open teacher behaviour
openness	**–**	**DISENGAGED CLIMATE (–,+)** Open principal behaviour Closed teacher behaviour	**CLOSED CLIMATE (–,–)** Closed principal behaviour Closed teacher behaviour

Figure 1 Typology of school climates to profile six southern Cape schools (Hoy & Forsyth, 1986:154)

In Table 1, Climate and Health dimension scores were standardised against the New Jersey Standard (means and standard deviations) as suggested by Hoy *et al.* (1991:164-199). The New Jersey means and standard deviations are listed in columns 5 and 6 of the table. Column 7 lists the alpha coefficients of the internal consistency reliability testing. Calculation procedures for the Principal and Teacher Openness scores and Health Index scores are listed below the table.

Table 1 OCDQ-RE and OHI-E organisational climate and health dimensions and questionnaire items comprising each subscale

Climate/ health	Openness		Dimension	Questionnaire items included	New Jersey mean	New Jersey SD	Cronbach alpha
Climate	Principal Open-ness	1.	Supportive	4, 9, 15, 16, 22, 23, 28, 29, 42	23.34	4.85	0.90
		2.	Directive	5, 10, 17, 24, 30, 34, 35, 39, 41	19.34	3.20	0.62
		3.	Restrictive	11, 18, 25, 31, 36	12.98	1.55	0.67
	Teacher Open-ness	4.	Collegial	1, 6, 12, 19, 26, 32, 37, 40	23.11	2.69	0.72
		5.	Intimate	2, 7, 13, 20, 27, 33, 38	17.23	2.14	0.65
		6.	Disengaged	3, 8, 14, 21	6.98	1.26	0.47
Health		1.	Institutional integrity	8, 14, 19, 25, 29, 30	16.06	2.77	0.60
		2.	Collegial leadership	1, 3, 4, 10, 11, 15 17, 21, 26, 34	24.43	3.81	0.87
		3.	Resource influence	2, 5, 9, 12, 16, 20, 22	20.18	2.48	0.75
		4.	Teacher affiliation	13, 23, 27, 28, 32, 33, 35, 36, 37	26.32	2.98	0.85
		5.	Academic emphasis	6, 7, 18, 24, 31	14.66	1.59	0.69

Calculation procedures:
Principal Openness = ((SdS for S)+(1000 – SdS for D)+(1000 – SdS for R))/3
Teacher Openness = ((SdS for C)+(SdS for Int)+(1000 – SdS for Dis))/3
Health Index:
Health = ((SdS for II)+(SdS for CL)+(SdS for RI)+(SdS for TA)+(SdS for AE))/5
SdS refers to the standardised scores for the various climate and health dimensions.
Calculation of dimension scores was done on a per school basis and on an overall basis.

Likewise the five standardised health dimension scores were used to cal-
culate an Organisational Health Index score per school and a General Health
Index score for the southern Cape region. Decision rules on health profiling,
indicated in Tables 2 and 3, classify the schools as organisationally healthy
or unhealthy.

Table 2 Standardised Organisational Climate and Health Dimension scores for six research
schools and sampled schools combined

Six Climate Dimensions

School	Principal Openness dimensions scores			Teacher Openness dimensions scores		
	Supportive	Directive	Restrictive	Collegial	Intimate	Disengaged
A	510	577	606	546	543	490
B	556	503	488	540	546	466
C	396	586	557	440	377	588
D	519	590	552	656	575	450
E	495	568	519	476	436	609
F	487	600	428	455	465	611
All schools	498	571	521	524	493	536

Five Health Dimensions

	Institutional integrity	Collegial leadership	Resource influence	Teacher affiliation	Academic emphasis
A	582	583	502	588	249
B	573	624	551	587	298
C	636	432	321	488	204
D	551	624	529	678	428
E	521	552	502	496	235
F	519	575	405	531	398
All schools	557	571	477	564	310

Climate dimension scores > 500 indicate perceptions of openness to the extent indica-
ted below, while climate dimensions < 500 indicate perceptions of closed behaviour to
the extent indicated below. **Health dimension scores > 500** indicate perceptions of
healthy schools to the extent indicated below, while health dimensions scores < 500
indicate perceptions of unhealthy schools to the extent indicated below.
Decision rule according to Hoy *et al*. (1991:164-199):

Above 600	Very high
551 – 600	High
525 – 550	Above average
511 – 524	Slightly above average
490 – 510	Average
476 - 489	Slightly below average
450 – 475	Below average
400 – 449	Low
Below 400	Very low

Table 3 Organisational School Climate and Health profiling for six research schools and sampled schools combined

School climate types derived from the combination of 'open/ or closed' Principal Openness (PO) and Teacher Openness (TO) classification. A school climate type for each school is identified from the Typology of School Climates listed in Figure 1.

School	Principal Openness Dimension (PO)		Teacher Openness Dimension (TO)		School climate type
A	442	Closed	533	Open	Engaged
B	522	Open	540	Open	Open
C	418	Closed	410	Closed	Closed
D	459	Closed	594	Open	Engaged
E	469	Closed	434	Closed	Closed
F	486	Closed	436	Closed	Closed
All schools	469	Closed	494	Average–Closed	Closed–engaged

Organisational school health profiles derived from climate index score
Decision rule listed below

	Health Index	Organisational Health Profile
A	501	Average
B	526	Above average to healthy
C	416	Unhealthy
D	562	Healthy
E	461	Below average to unhealthy
F	486	Below average towards unhealthy
All schools	496	Average, slightly below towards unhealthy

Decision rule:
PO and TO and Health Index evaluated against New Jersey Standard mean of 500:
High PO or TO dimensions scores (>500+) indicate towards openness, and low scores (<500) indicate towards closed perceptions.
High School Health Index scores (>500+) indicate towards healthy schools, and low scores (<500) indicate towards unhealthy schools.

Educators' perceptions with regard to organisational climate and organisational health are therefore presented in the Principal and Teacher Openness (and underlying) dimension scores which determine the climate profiles of the schools; and in the health indices which profile the organisational health of the schools. Hoy *et al.* (1991:168) recommend the use of all six dimensions of the OCDQ-RE to gain a highly resolved picture of school climate in conjunction with the decision guidelines summarised in Tables 1 – 3. Organisational health profiling should receive the same treatment. The graphic representa-
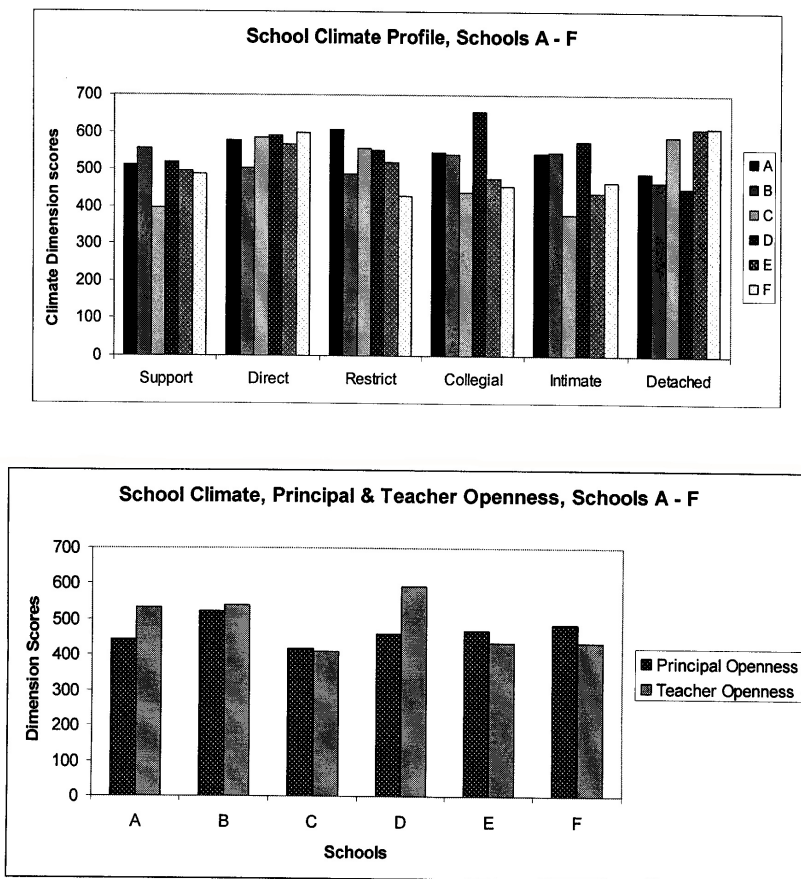
Figure 2   School climate profiling

tion of the individual school profiles illustrated in Figures 2 and 3 can be of assistance as well.

Examining the Principal (PO) and Teachers Openness (TO) dimensions in each bar graph cluster collected in Figure 2 for each school (along with the underlying climate dimensions) can lead to the conclusion, for instance, that the climate at School B was considered open while the climate at School C was considered closed — showing possible variations in school climate.

Inspection of the Health Index dimension in each school bar graph cluster (the last bar in each cluster), along with the underlying health dimensions in Figure 3, can lead to the conclusion, for instance, that School D was perceived to be organisationally healthy while School C was perceived to be organisa-

tionally unhealthy — showing a possible range of variations in the organisational health of schools.
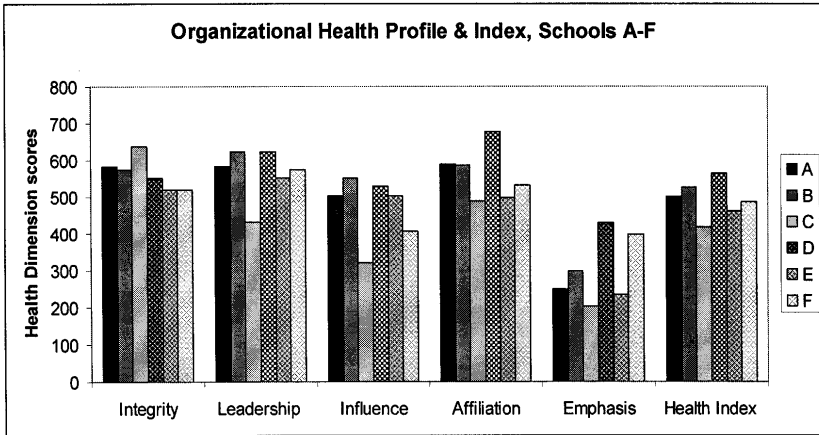

Figure 3   Organisational school health profiling

The climate and health dimensions were analysed for variance to establish whether statistical significance can be attached to the apparent climate and health profile differences between schools as recorded in the preceding tables and graphic displays. The results (which proved to be significant) of variance analysis done in the Principal and Teacher Openness dimensions score, and on the Health Index, are presented in Table 4. The probable statistically significant effect of school and tutoring phase on educator perceptions are formally evaluated. Each row represents a separate analysis. The dimension score analysed, degrees of freedom (df), general and specific F probability associated with the analysis and specific effects are listed.

Table 4   Summary analyses of variance results on educators' perceptions on school climate and health in primary schools in the southern Cape.

Climate and Health Dimensions	df	General F probability	Sources of variation and associated F probabilities	
			School	Tutoring level/phase
Principal Openness	169	0.0107**	0.0017**	0.4251
Teacher Openness	169	<0.0001***	<0.0001***	0.0015**
Health Index	169	<0.0001***	<0.0001***	0.0003**

***: Prob(F) < 0.001; **: Prob(F) < 0.01; *: Prob(F) < 0.05

The results proved to be statistically highly significant, and once the significance of the perceived differences in climate and health profiles between schools had been formalised, Bonferroni multiple comparisons of means tests were conducted on the climate and health dimension means in order to establish the nature of the differences between schools. The profile differences regarding the three dimensions are presented in Table 5. In the table, the test conducted on the listed climate and health dimension mean scores was calculated according to school and tutoring phase categories. Adjustment of the 0.05 significance level to accommodate multiple comparisons is incorporated in the test.

Table 5   Bonferroni Multiple Comparisons of Means Test

Climate and health dimensions	School	Mean score	Phase Category	Phase Mean score
Principal Openness	B	521.7 [a]		
	F	486.1 [ab]	foundation:	475.5 [a]
	E	469.3 [b]	senior:	467.1 [a]
	D	459.0 [bc]	intermediate:	464.5 [a]
	A	442.3 [bc]	n.a.:	459.5 [a]
	C	417.5 [c]		
Teacher Openness	D	593.6 [a]		
	B	539.7 [ab]	foundation:	529.2 [a]
	A	532.6 [b]	intermediate:	478.7 [ab]
	F	436.3 [c]	senior:	465.9 [ab]
	E	434.4 [c]	n.a.:	420.0 [b]
	C	409.6 [c]		
Health Index	D	561.7 [a]		
	B	526.3 [ab]	foundation:	525.3 [a]
	A	501.1 [bc]	senior:	490.8 [a]
	F	485.5 [bc]	intermediate:	477.9 [ab]
	E	461.2 [dc]	n.a.:	430.5 [b]
	C	415.9 [d]		

Bonferroni multiple comparisons of means: means within the same cell of the table, with different letters, differ significantly from one another.

The nature of (statistically) significant differences between school profiles can be described in various ways by the dimension mean values. For example, the Health Index dimension means illustrate that the health profile of School A (healthy) is, in conjunction with School B (above average to healthy — which can now be regarded as healthy), significantly different from School C (unhealthy), in conjunction with School E (below average towards unhealthy — which can now be classified as unhealthy).

The implications of the analyses results and deductions are discussed in the next section.

Results and discussion

In this study we found that primary school educators in the southern Cape perceived their relations with their principals as relatively closed for 5 out of 6 schools (Tables 2, 3 and 5 and Figure 2: PO general mean score = 468.82, which is below average, therefore classified as 'closed'), while educator-educator relations were perceived as relatively average (Tables 3 and 5 and Figure 2: TO general means score = 493.47, which is average).

Figure 2 illustrates that educators in 5 out of 6 primary schools in the southern Cape perceived the openness of their principals' behaviour as below average. Accordingly, these perceptions are taken as indicative that principals merit an average rating with respect to their openness and concern about educators (supportiveness was average to high except at 2 out of 6 schools); the extent to which educators are encouraged and enabled to experiment and act independently (directiveness was rated average to high by all schools); and the monitoring and control exercised over educators and school activities (restrictiveness was rated above average for 4 out of 6 schools, which indicates fairly closed monitoring and tight control).

Figure 2 and Table 3 indicate further that educators in 3 out of 6 participating schools in the southern Cape rated their own openness as above average to high. This implies that educators rated the tolerance and meaningfulness of their interactions with colleagues and work as above average (4 out of 6 schools indicated average to high mean scores for the disengaged dimension); their friendliness, closeness and supportiveness as above average to high (3 out of 6 schools rated above average to high on the intimacy dimension); and the enthusiasm, acceptance and mutual respect expressed in collegial relations as average (3 out of 6 schools rated above average to high on this dimension).

Educators' level of disengagement is an area of concern because it bears on their job satisfaction, motivation and experience of quality of work life (Table 2 and Figure 2: Disengaged mean dimension score = 536.37, which is above average. The mean dimension scores for 4 out of 6 schools were average to high). Disengaged behaviour is indicative of educators who experience a lack of meaning and focus in professional activities: they are simply putting in time; are not positively engaged in productive group efforts; may not always share common goals; and are often negative and critical about their colleagues and the school.

With regard to the four climate prototypes postulated by Hoy and Forsyth (1986:154) it can be concluded from this study that 5 out of 6 primary school educators perceived their school climate as hovering between closed and engaged. This conclusion derives from principals' ineffective attempts to control, and the relatively high degree of professionalism displayed teachers' performance.

Figure 3 (and Table 3: General OH index = 495.76, classified as average)

indicates that health profiles reflecting the overall organisational health of primary schools in the southern Cape rated average (4 out of 6 schools rated more or less average, one rated healthy, and one unhealthy). Institutional integrity (all schools rated above average to high), collegial leadership (5 out of 6 schools), as well as teacher affiliation (4 out of 6 schools) was categorised 'healthy' (Figure 3 and Table 2: general institutional integrity mean dimension score = 556.65, classified as high; general collegial leadership mean dimension score = 570.99, classified as high; and teacher affiliation = 564.11, classified as high), while resource influence and academic emphasis were classified as 'unhealthy' (Figure 3 and Table 2: general resource influence mean score = 477.34, which is below average, attributed to very low rating of 2 schools (4 out of 6 schools rated average to above average. The general academic emphasis mean score = 309.74, which was very low for all 6 schools).

Resource influence indicates the adequacy or inadequacy of the principal's ability to influence supervisors' actions to the benefit of educators, and to provide requisite classroom supplies and instructional material. Academic emphasis indicates educators' perceptions of learners as academically competent or incompetent (incompetence exemplified by low work commitment, neglect of homework, unco-operative behaviour in class, and clear lack of motivation to learn). Schools reflected an average to low, rather than an average to high health profile. This is illustrated in Figure 3, substantiated by the analysis of variance results and significant mean differences given in Table 5.

On the whole the above findings and inferences confirmed the perceived differences between climate and health profiles of primary schools in the southern Cape, thus showing that the stated research questions were addressed directly and effectively.

Conclusion

Educators' high level of disengagement as revealed by this research (at 3 out of 6 schools), is cause for serious concern and besides detracting significantly from educators' job satisfaction, motivation and experience of quality of work life, may also erode the quality of teaching and learning in the classroom.

Furthermore, educators' perceptions of academic emphasis, as indicated by this study, should be noted. If educators perceive their learners as mainly unworthy (not committed to work, neglect homework, unco-operative in class, and not serious about learning) it can only mean that education is in trouble. The educator's expectations of the learner are communicated every day, verbally and non-verbally, thus exerting a significant influence on learner motivation and achievement.

With a view to developing open school climates, with specific focus on principal openness and educator disengagement, it is recommended that principals and school management teams be made aware of educators' perceptions of principals' behaviour and the effect of such behaviour on educator well-being, quality of life and motivation; that leadership training be provided for principals and school management teams; and that school development

programmes be developed in which staff development/team building is a priority.

For the development of healthy schools, with specific focus on resource influence, it is recommended that strategies be put in place to improve communication/open relationships and trust between principals (schools) and the Educational Management and Development Centre (EMDC); that a Human Resource development strategy be developed for the southern Cape/Karoo EMDC to oversee educator wellness; and that adequate classroom supplies be provided, as well as adequate access to instructional materials and supplies.

Finally, for the development of healthy schools, with specific focus on academic emphasis, it is recommended that learners' lack of motivation be investigated; that school projects be introduced for the improvement of learner achievement (mastery); that motivation be stimulated, and that educator training on the impact of educator expectations on learner achievement be developed.

It follows from these conclusions that perceptions of school climate are important because they may have a positive or negative impact on the implementation of change in schools, and on educators' job satisfaction, motivation, productivity and well-being in general, as well on learners' motivation and ability to achieve.

Further research could focus on the effect of leadership training (or lack thereof) on principals' and school management team members' behaviour, and the impact of such behaviour on principal-educator relations. The study was limited due to the fact that both the OCDQ-RE and OHI-E are old instruments and they are not standardised for the South African context. Despite these limitations, the two instruments proved to be valuable tools for determining educators' perceptions of school climate in primary schools.

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