

The Influence of Management Practices on Authentic Collaboration with Educators

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ABSTRACT The advent of democracy in South Africa in 1994 paved the way for educational transformation. The main feature of this transformation involves a shift from managing via a bureaucratic model to a collaborative model. This has resulted in a proliferation of education legislation and policies underpinned by bureaucratic management practices such as accountability, rules and regulations, policies and procedures, hierarchical authority structures, division of labour and job specification. The South African Schools Act encourages principals and governing bodies to form collaborative partnerships with various educational institutions, academics, teachers and learners. However, in order to achieve authentic collaboration among teachers, management practices will need to place a greater emphasis in managing the school in less bureaucratic ways as this usually results in teachers collaborating in a contrived way. Contrived collaboration arises through administrative control, imposed on teachers regardless of their desires in order to secure the implementation of national or provincial legislation/policies or even school policies. Using a structured questionnaire, this research examines the perceptions of teachers on the association between management practices and authentic collaboration to predict which aspects of management practices foster such collaboration. A multiple regression analysis on management practices that enhance authentic collaboration shows that effective collaboration is promoted by management practices that promote harmonious interpersonal relationships among staff in a reciprocal relationship with authentic collaborative management practices. Authentic collaboration is impeded by espousing expected collaborative teaching practices, by management practices that emphasize task effectiveness as well as by the principals' perceived management style.

INTRODUCTION

Educational institutions on the international front are being bombarded by a proliferation of in-vogue terminology such as participative management, collaboration, shared vision and decentralization that are associated with the collegial management model. There is a plethora of literature (see Sergiovanni 1990; Bush 2003; Fullan and Hargreaves 1991; Calitz et al. 2002; McLennan and Thurlow 2003; Duke 2004) advocating collaboration as the cutting edge of change theory and school effectiveness. Collegial and collaborative models assume that organizations determine policy and make decisions through a process of discussion leading to consensus. Power is shared amongst some or all members of the organization who are thought to have a shared understanding about the aims of the organization (Bush 2003).

However, an in-depth critical analysis of international educational systems reveals that these new-age concepts associated with colle-

giality and collaboration are more theoretical in nature and seldom translated into practice in schools (Sergiovanni and Starratt 1988; Grobler et al. 2007). There are still deep-seated bureaucratic principles embedded in the management fibre of schools and this gives rise to a false type of working together, namely "contrived collegiality", in an effort to comply with the existing demands perpetuated by legislature and policy.

The advent of democracy in South Africa in 1994 paved the way for educational transformation. A main feature of this transformation involved a paradigm shift from the bureaucratic to the collegial model. However, the decentralization of education has brought with it a proliferation of educational legislature which is underpinned by bureaucratic values such as accountability, rules and regulations, policies and procedures, hierarchical authority structures, division of labour and job specialization (Cartwright 2007). The principles of the collegial model are often viewed in stark contrast to that

of the bureaucratic model. Thus, in order to achieve a collaborative culture in schools, educators often regress to “contrived collaboration”. Members of the school management team (SMT) are also perceived to implement many of the management practices that are supposed to improve teaching practice simply to show educators that they are doing that which is advocated by educational authorities; not because what they are doing has any real importance or effectiveness (Bisschoff and Mathye 2007). Thus, collaboration is perceived as something that is desirable and educators are expected and feel obligated to follow that which is espoused by the SMT. Collaboration which is advocated in this manner is sometimes referred to as contrived collaboration, as opposed to authentic collaboration. It arises through administrative control, and is imposed on the teachers regardless of their desires (Hargreaves 1994; Jarzabkowski 1999). Hargreaves argues that collaboration is being espoused or “contrived” by official groups in order to secure the implementation of national or school policy.

Hargreaves and Dawe (1990) as cited by Smyth (1993) proffer that collaborative forms of teacher development may in many instances not be empowering teachers towards greater professional independence at all, but incorporating them and their loyalties within processes and structures bureaucratically determined elsewhere. They may be fostering training, education, instructional closure rather than intellectual openness, dispositional adjustment rather than thoughtful critique. Brundrett (1998) points out that in an era of national curriculum, centralized testing and increasing bureaucratization of education, it is interesting to note that collaboration is the preferred style of school-based management. He argues further that in this sense collaboration is not a genuine exercise in collaboration but is, rather, a further method of ensuring centralized control and increased legitimacy for what is, in fact, a highly bureaucratic system. Furthermore (Naidoo 2005; Gertler 2007; Robinson 2008) argue that the continuation of the existing bureaucratic systems of management in our schools is counterproductive to the needs of teachers and that a more inclusive and collaborative approach to school management and leadership is needed.

In view of the preceding information, the research problem is: *What management prac-*

tices are the best predictors of authentic collaboration and what are the possible implications that this will have on the management of schools?

Having elucidated the research problem, the aims of the study and methods used in researching the problem of the association between management practices in a bureaucratic hierarchically organized educational system and authentic collaboration by educators will be discussed below.

Objectives of the Study

The general objective of this study was to investigate which management practices are the best predictors of authentic collaboration and the possible implications that this will have on the management of the school. In order to achieve this, the following specific objectives were to:

- investigate the concepts associated with the management of collaboration in schools; and
- determine the association between management practices and authentic collaboration by probing the perceptions of teachers in this regard.

RESEARCH METHODOLOGY

A quantitative research design was undertaken to gauge structured responses from a variety of post level one teachers and school managers (heads of department, deputy principals and principals). The reason for selecting quantitative research in this study is that the researchers primarily used post-positivist claims for developing knowledge, employing strategies of inquiry such as surveys, and collecting data on predetermined instruments that yield statistical data. In an attempt to probe teachers' views with regard to the association between management practices and the effective management of collaboration, a structured questionnaire consisting of closed ended questions was compiled using information gleaned from the literature survey. The questionnaire consisted of three sections. Section A obtained the biographical data of the respondents and consisted of 11 questions. Section B and Section C of the questionnaire investigated the perceptions of educators regard-

ding their agreement or disagreement with management practices and their influence on collaboration among educators in schools. The opinions of the respondents were recorded on a Likert-type five point scale, 1 representing “strongly agree”, 5 representing “strongly disagree”, and the middle intervals indicating inclinations of equal measurement towards both the lowest and highest values.

Schools were selected for the research using random sampling. Random sampling ensures that each member of the population as a whole, or as subgroups of the population, has the same chance of being selected as other members in the same group (McMillan and Schumacher 1997). Three public schools were randomly selected from each of the twelve districts and an average of twelve respondents was randomly selected from each of these schools. Thus, a sample size of 430 respondents was selected for this study. In order to ensure that the sample was representative of level one teachers’ and school managers, schools were requested to have nine of the twelve questionnaires completed by post level one teachers and three by members of the SMT. Three hundred and two (302) questionnaires were returned that were useable (77.2%).

Data was collected and submitted to STATKON (statistical consultants for the University) where a range of statistical analysis such as multiple regressions was performed on the data using the PASW 18.0 programme (Norusis 2009). Multiple regressions were used to forecast which management practices served as the best predictors of authentic collaboration. The results obtained from the analysis were then interpreted in view of existing theory.

COLLABORATION AND COLLEGIALLY: IMPORTANT FEATURES FOR COOPERATION AMONG TEACHERS

Max Weber developed the structured bureaucratic model in 1947. He believed that this model was the most efficient means by which organizations could achieve their ends (Weber 1947; King and Bouchard 2011). Jones (2004) asserts that a bureaucracy is a form of organisational structure in which people can be held accountable for their actions because they are required to act in accordance with well specified and agreed-upon rules and standard operating

procedures. Jones further states that Weber’s bureaucratic organising principles offer clear prescriptions for how to create and differentiate organizational structure so that task responsibility and decision-making authority are distributed in a way that maximizes organizational effectiveness.

This view is supported by Robbins (1998) and Brauckmann and Pashiardis (2010) who assert that bureaucracy relies on standardized work processes for coordination and control. It is characterized by highly routine operating tasks achieved through specialization, highly formalized rules and regulations, tasks that are grouped into functional departments, centralized authority, narrow spans of control, and decision-making that follows the chain of command. Bureaucratic management provides a blueprint of how the entire organization should operate. It prescribes seven characteristics: a formal system of rules, impersonality, and division of labour, hierarchical structure, a detailed authority structure, lifelong career commitment, and rationality. Together these characteristics represent a formal, somewhat rigid method of managing (Morgan 1997; Hellriegel et al. 2001; Murphy and Meyers 2008). In this sense the management practices in schools will probably to a large extent be bureaucratic.

Although the expected benefits of bureaucratic management are efficiency and consistency, Robbins (1998) highlights two weaknesses of bureaucracy. Firstly, specialization creates sub-unit conflicts. Functional unit goals can override the overall goals of the organization. Secondly, there is obsessive concern with following rules. When cases arise that do not precisely fit the rules, there is no room for modification. Another common problem with bureaucracy is excessive layering – too many rungs on the ladder (Shafritz and Ott 2001). They further argue that information passes through too many people, decisions through too many levels, and managers and subordinates are too close together in experience and ability, which smothers effective leadership, cramps accountability and promotes “buck passing”. Motala and Pampallis (2001) and Hellriegel et al. (2001) are of the opinion that there are unanticipated drawbacks of bureaucratic management. A system with rigid rules and red tape leaves little room for individual freedom and creativity. This rigidity may foster low motivation, high turnover among the best employees

and inferior work. Managers in a bureaucratic organization may ignore issues of employee productivity while protecting and expanding their own authority. Furthermore the organization is prone to slow decision-making, is incompatible with changing technology and has incompatible professional values (Murphy and Meyers 2008).

According to Morgan (1997) and King and Bouchard (2011) schools as organizations often attempt to reduce uncertainties through processes of routinization. In this sense Hofstede (1991) indicates that societies differ in their ways of handling uncertainty as extreme uncertainty creates intolerable anxiety in people. Mandates, rules, regulations and policies are all attempts to remove uncertainty and they are attempts to routinize the administrative procedures involved in teaching.

The school as an organization is managed no differently than corporate organisations. Bureaucracies in schools stress the importance of the hierarchical authority structure with formal chains of command between different positions in the hierarchy (Sergiovanni and Starratt 1988; Bush 2003; Fitzgerald et al. 2003). Teachers are accountable to their heads of departments, the heads of departments are accountable to the deputy principal or principal, and the principal in turn is accountable to the Department of Education. The school organization has developed a clearly defined and rigid hierarchy of authority. The typical organizational chart is intended specifically to clarify lines of authority and channels of communication (Mulibana 2005).

Despite this plethora of bureaucracy, the maintenance of collaborative cultures in schools is still viewed as the panacea that will lead to the creation of a learning organization. The formal models, collegial models and cultural models (Bush 2003) form a theoretical framework to underpin this study. Formal models assume that organizations are hierarchical systems in which managers use rational means to pursue agreed goals. School management teams (SMTs) possess authority legitimized by their formal positions within the organization and are accountable to sponsoring bodies for the activities of their institution. Collegial models assume that organisations determine policy and make decisions through a process of discussion leading to consensus. Power is shared among some members or all members of the organization

who are thought to have a shared understanding about the aims of the institution (Karlsson 2002; Bush 2003). Cultural models assume that beliefs, values and ideology are at the heart of organizations. Individuals hold certain ideas and value-preferences which influence how they behave and how they view the behaviour of other members. These norms become shared traditions which are communicated within the group and are reinforced by symbols and rituals.

A defining feature of collaboration is the existence of collegial relationships among staff members. Fielding (1999) correctly reasons that there is much confusion between collegiality and collaboration. Collaboration is often associated with working together with one or more persons in order to achieve something. It is thus possible that collaboration can be associated with positive as well as negative aspects of that which is to be achieved. Moreover, collegiality is often partnered with collaboration and the two terms are more often than not used interchangeably and both are seen as highly important. Furthermore there is a great deal written about the virtues of both concepts but they are not often realized in practice. This is the same as espousing the ideal but not achieving that in practice - "not doing what you say you are doing".

Collaboration is also associated with school improvement goals (Teddlie and Reynolds 2000; Hopkins 2001). However, these goals are often encapsulated in mandates and advocated in a top-down way according to bureaucratic procedures. Hargreaves (1991) believes that this can result in a "significant super tube of policies that attempt to restructure schools from without and reform them from within". In South Africa education policies mostly result from political mandates and depend on the power and status of the various Departments of Education to be implemented. Furthermore these mandates call for collaborative efforts geared towards the improvement of academic achievements of learners. Implementation occurs via "mandated collaborative efforts" using bureaucratic procedures. Thus although team work is advocated it is the individual that is rewarded. Collaboration and collegiality seems to be elusive goals among educators in South African schools.

Little (1982) writes of four kinds of interaction that could be collegial in character. These interactions among teachers involve frequent, continuous and increasingly concrete talk about

teaching practice; frequent observation of classroom practice by a colleague; planning, designing and evaluating teaching materials together and teaching each other the practice of teaching.

Little (1990) and Jarzabkowski (1999) also refer to collegiality as “joint work”. However, these interactions do not clarify what is the distinction between collaboration and collegiality except that collegiality may involve high levels of collaboration among and between teachers. Fielding (1999) writes that such collaboration remains a form of individualism because it is, or could be, rooted in self-interest. He sees collaboration as a plural form of individualism. For example the most critical part of self-preservation is to perform your duties with distinction or to be “great at what you do” which leads to the advancement of your career.

Hargreaves (1991) indicates that there is no such thing as “real” or “true” collaboration but rather contrived collaboration. He views contrived collaboration as a set of formal, specific procedures that will increase the attention given to joint teacher planning and consultation. It can be seen in initiatives such as peer coaching, mentor teaching, joint planning in specially provided rooms, formally scheduled meetings, and clear job descriptions and training programmes for those in consultative roles (Sergiovanni 2005). Collaboration is also meant to assist the successful implementation of new approaches and techniques from the external environment into a more responsive and supportive school culture. In some of the most questionable forms of contrived collaboration, collegiality and partnership are administratively imposed, creating a degree of inflexibility that violates those principles of discretionary judgment which make up the core of teacher professionalism (Smyth 1993; Parding and Abrahamsson 2010).

Brundrett (1998) argues that what is actually happening in many institutions where collaboration is espoused is not a genuinely collaborative environment but rather an adept use of micro-political manipulation. He further elaborates that in effect individuals and groups seek to realize their values and goals at the expense of others but seek to legitimate their power through Authentic Collaboration assuming the cloak of the moral legitimacy lent to them by the apparent use of democratic procedures. The researchers are of the opinion that in South African public

schools, a glaring example of administratively imposed collaboration is the Integrated Quality Management Systems (IQMS). This system mandated by the Department of Education, forces colleagues to appraise one another thus eroding collegial bonds between teachers. In this sense bureaucratic systems have placed teacher-appraisers in a contradictory relationship with their colleagues (Fitzgerald et al. 2003; Jansen 2004; Cowie et al. 2007; Bisschoff and Mathye 2009). Teacher-appraisers further argue that on the one hand, as teachers they have to continue to work in a collaborative and supportive way with their professional colleagues yet on the other hand, as appraisers, they are required to adopt a hierarchical stance to ensure that an objective and performance-driven management system is implemented.

Hargreaves (1991) and Diefenbach (2007) and Hoyle and Wallace (2005) all purport that contrived collaboration is an agent for managerialism where managerialism is seen as excessive control by central government. School principals and School Management Teams in South Africa are regulated via legislation and hence most of their management tasks fall within the parameters of legislative mandates. Some of the methods that are used to drive legislative demands by organisations are the use of formal authority, structure, rules, regulations, mandates, procedures, control of decision processes, control of knowledge and information, control of boundaries, ability to cope with uncertainty, control of counter organisations and self-protection (Morgan 1997). These actions and devices share an underlying semiotic relationship – they signify the assumption that power drives collaboration. These researchers argue that this is a paradoxical notion as bureaucratic “force” to “enforce” collaboration and then to use the same force to make individuals “excel” is an abuse of power and leads to contrived collaboration as individuals attempt to make sense of these contradictions. It seems evident that managerialism produces resistance and cause collaborative efforts to be contrived in nature (Kirkpatrick and Ackroyd 2000).

STATISTICAL ANALYSIS OF THE DATA

Factor Analytic Procedure

Field (2009) explains the essence of factor analysis lucidly when he indicates that if one asks a respondent to answer several questions

about an aspect of some phenomenon the correlation between each pair of questions or variables can be arranged in what is known as an R-matrix. An R-matrix is just a correlation matrix or a table of correlation coefficients between variables. The diagonal elements of an R-matrix are all one (1) because each variable will correlate perfectly with itself. The off-diagonal elements are the correlation coefficients between variables or questions. The existence of clusters of large correlation coefficients between subsets of variables suggests that those variables could be measuring aspects of the same underlying dimension. These underlying dimensions are known as factors (or latent variables).

The 25 items of Section B of the questionnaire concerned with the influence of management practices on effective collaboration among teachers were subjected to a factor analytic procedure using PASW 18.0 (Norusis 2009). Prior to performing the factor analytic procedures, the suitability of the data for factor analysis was assessed. Inspection of the correlation matrix revealed that most coefficients had values >0.3 . Furthermore the measure of sampling adequacy (MSA) as reflected by the Kaiser-Meyer-Olkin value was 0.957, exceeding the recommended value of 0.6 and the Bartlett's Test of Sphericity (Field 2009) was significant ($p < 0.05$). Both these tests thus supported the factorability of the correlation matrix. The high correlation coefficients (>0.60) indicated that direct oblimin rotation and a pattern matrix should be used (Field 2009). The factor analytic procedure of the items in Section B identified three factors explaining 70.05% of the variance present. These factors are briefly discussed.

The first factor was named "management practices promoting harmonious interpersonal relationships (FB1)", had a Cronbach Alpha Reliability coefficient of 0.961 and contained 14 items. The factor mean score was ($X_{FB1} = 2.98$) indicating a tendency towards uncertain perceptions by respondents towards the items contained in this factor. Hence the teachers were uncertain whether the SMT in their schools used management practices that promoted harmonious interpersonal relationships. The items in Table 1 are all aimed at creating a climate where work can be synchronized and the expectation (the ideal) was that teachers should have agreed more strongly with this factor. In reality there was an uncertainty whether management

practices by the SMT promote harmonious relationships and this could be the result of a dysfunction between that which was intended and that which actually occurred. The items, their loadings and mean scores obtained are indicated in Table 1.

Table 1: Items in the factor (FB1.1) "management practices enhancing harmonious interpersonal relationships"

Item	Description: In my opinion the SMT at my school:	Loading	Mean
b17	Is in favour of educators using school time to engage in joint tasks or planning.	.951	3.50
b16	Encourages open discussion regarding professional teaching matters.	.904	3.05
b21	Frequently meets with educators to address grievances.	.886	3.24
b12	Encourages the educators to openly voice their opinions.	.853	3.09
b15	Is in favour of leadership responsibilities being shared among educators.	.847	2.79
b5	Encourages shared decision-making.	.817	2.89
b23	Encourages the use of innovative ways of managing change.	.761	3.04
b11	Attempts to improve job satisfaction among educators.	.716	2.93
b24	Supports collaboration among all stakeholders.	.698	2.90
b25	Encourages all stakeholders to work towards a shared vision.	.698	2.89
b6	Supports cooperative planning between educators.	.479	2.60
b19	Support educators who experiment with new ways of teaching.	.472	2.51
b7	Supports equal distribution of available resources amongst educators.	.454	2.64
b22	Develops competencies of educators.	.429	2.64
Average			2.91

Table 2: Items in the factor (FB1.2) "management practices enhancing task effectiveness"

Item	Description: In my opinion the SMT at my school:	Loading	Mean
b13	Emphasizes that assigned tasks should be completed.	.940	2.10
b14	Encourages improved academic performance.	.805	2.09
b8	Encourages educators to use innovative ideas in their teaching.	.362	2.52
Average			2.24

The second factor was named “management practices enhancing task effectiveness (FB1.2)”. It had a Cronbach Alpha Reliability coefficient of 0.73 and contained 3 items which are provided in Table 2.

This factor had a mean score of 2.24 indicating that respondents tended towards agreement with these items. This indicates that the SMT’S in the schools sampled probably emphasize the effectiveness of task completion which is in line with the bureaucratic expectations of the educational system in public schools in South Africa (Jansen 1994).

The third factor was named “management practices that encourage expected collaborative teaching practices (FB1.3)” had a Cronbach Alpha Reliability coefficient of 0.929 and contained 8 items. However, all the items in this factor had negative loadings and were reversed because the factor was negatively correlated with the other factors. After reversing the items the factor mean score was ($X_{FB1} = 3.45$) indicating perceptions of uncertainty. The SMT are mainly comprised of educators belonging to school management and educators seem to have perceptions of uncertainty regarding the ability of the SMT in encouraging them to accept expected or desirable collaborative teaching practices (Table 3). This

Table 3: Items in the factor (FB1.3) “management practices encouraging expected collaborative teaching practices”

Item	Description: In my opinion the SMT at my school:	Loading	Mean
b2	Develops the classroom management skills of the educators.	.903	3.48
b4	Encourages educators to engage in team teaching.	.900	3.35
b1	Encourages professional development among teachers.	.785	3.40
b3	Ensures that educators are informed about opportunities for professional development.	.720	3.32
b10	Encourages educators to improve their teaching practice.	.532	3.51
b9	Encourages educators to share new ideas with other educators.	.476	3.52
b18	Encourages educators to share their expertise.	.361	3.51
b20	Is in favour of responsibility being shared among all staff members.	.357	3.49
N.B.	The original negative loading indicated the reverse of the items was true (1 = S.D and 5 = S.A). All the original items were inverted to accommodate the original scale.		
	Average		3.45

seems to indicate a lack of trust in the SMT which in turn points to the hierarchical structure of power, influence, and position, as “hierarchy by nature builds distrust” (Stimson and Appelbaum 1988).

Section C of the questionnaire contained 26 items and also probed the perceptions of educators regarding the influence of management practices on collaboration among teachers. The data obtained from these items were also subjected to factor analytic procedures using PASW 18.0 (Norusis 2009). Prior to performing the factor analytic procedures, the suitability of the data for factor analysis was assessed. Inspection of the correlation matrix revealed that some variables had low correlation coefficients (<0.3) as well as low communalities. These items (c7, 9, 11, 15, 16, 21, 22, 24, 26) were removed. The remaining 17 items had a Kaiser-Meyer-Olkin value of 0.84, exceeding the recommended value of 0.6 and the Bartlett’s Test of Sphericity (Field 2009) was significant ($p < 0.05$). Both these tests thus supported the factorability of the correlation matrix using varimax rotation. These factors and their respective items are provided in Tables 4 to 6 and are briefly discussed.

The first factor formed from analyzing the data in Section C of the questionnaire was named “management practices that enhance authentic collaboration among educators (FC1.1)”. It had a Cronbach Alpha Reliability coefficient of 0.89 and contained 7 items as shown in Table 4.

Table 4: Items in the factor (FC1.1) “management practices enhancing authentic collaboration”

Item	Description	Loading	Mean
c13	It common practice for educators to collaborate with management on school management related activities.	.883	2.92
c14	It common practice for educators to collaborate to contest a decision taken by management.	.881	3.19
c8	It common practice that meetings are convened to ascertain educators opinions.	.867	2.88
c12	It common practice for educators to negotiate their job descriptions.	.861	3.13
c10	It common practice that important duties are delegated to level 1 educator’s.	.765	2.63
c17	There are the minimum of management levels.	.691	3.17
c6	It common practice for educators to participate in decision-making that falls outside the confines of prescribed policy.	.537	2.89
	Average		2.97

The items in this factor seem more in line with what Fielding (1999) and Little (1982) and Jarzabkowski (1999) name collegiality and could lead to authentic collaboration among educators as it is characterized by trust, openness and support (Hargreaves 1991). The researchers named this factor as ‘management practices enhancing authentic collaboration’. The mean score of ($X_{FC1.1} = 2.97$) indicates perceptions of uncertainty among respondents. These items represent management practices that are likely to enhance a type of inclusive collegiality among educators (Fielding 1999) and in this sense they are similar to those found in management practices that enhance harmonious interpersonal relationships among teachers (FB1.1). The ideal would be for educators to agree that their SMTs use the items in Table 4 as common management practices to encourage collaboration. However, the mean score obtained suggests uncertainty as to whether the SMTs in their schools are all encouraging authentic collaboration.

The second factor formed from the data analysis of Section C was named “management practices enhancing specialization (FC1.2)” had a Cronbach Alpha Reliability coefficient of 0.73, contained 5 items and are indicated in Table 5. The factor mean score was 1.94 indicating agreement with this factor.

Table 5: Items in the factor (FC1.2) “management practices enhancing specialization”

<i>Item</i>	<i>Description</i>	<i>Loading</i>	<i>Mean</i>
c3	The SMT encourages educators to work together within their own learning areas/departments.	.814	1.81
c4	The SMT encourages educators to attend meetings that focus on the learning areas that they teach.	.775	1.79
c2	The SMT supports the notion of specialized subject training.	.758	1.94
c1	The SMT supports a strict division of tasks amongst educators.	.657	2.07
c5	The SMT is in favour of learners with specific problems being referred to specific educators.	.636	2.09
Average			1.94

The items in Table 5 all refer to inducing greater conformity among teachers as they are likely to improve the effectiveness of bureaucratic institutions such as public schools. The

factor could also represent what Fielding (1999) refers to as a form of plural individualism as they are aimed at the completion of tasks within a specific time limit.

The third factor formed from the data analysis of Section C of the questionnaire was named “management practices that enhance routine procedures among teachers (FC1.3). It had a Cronbach Alpha Reliability coefficient of 0.73 and contained 5 items and is shown in Table 6.

Table 6: Items in the factor (FC1.3) “management practices that enhance routine procedures”

<i>Item</i>	<i>Description</i>	<i>Loading</i>	<i>Mean</i>
c19	It is policy for all educators to attend staff meetings.	.768	1.72
c18	It is policy that curriculum meetings should be scheduled in the term/year plan.	.728	1.87
c20	It is policy that educators should follow a predetermined set of learning outcomes in each learning area.	.704	1.92
c23	It is policy that educators should follow a fixed timetable.	.606	1.50
c25	It is policy that educators attend “cluster meetings”.	.604	1.73
Average			1.75

The factor had a mean score of 1.75 indicating that respondents agreed with the items in this factor. The items seem to represent policies to develop standards which would assure some uniformity in the performance of tasks. The items contained in this factor appear to be more in line with the coordination and control that are needed for school effectiveness. Coordination may be achieved through policy, rules, standard operating procedures and authority (Theron 2002). This would be in line with the school as a formal and bureaucratic organization and the low mean score obtained by the respondents suggests agreement that the School Management Teams largely use policies as a measure to obtain quality and performance (Bolman and Deal 1991; Jacobsen 2011).

These researchers were investigating the association between management practices and authentic collaboration and hence it was of interest to them as to which of the latent factors were predictors of authentic collaboration. In the light of confusion between collaboration and collegiality these researchers named the one

factor involved with collaboration as management practices promoting harmonious interpersonal relationships (FB1.1) and the other collaborative factor authentic collaboration (FC1.1). It is also likely that these two factors are dependent on one another in a reciprocal relationship and form a nonrecursive relationship with one another (Arbuckle 2009). Besides the factors formed from the factor analysis of the items in Section B and C of the questionnaire there is also the influence of numerous independent variables that need to be investigated. Hence, the procedure of multivariate regression was used to investigate the influence of management practices on authentic collaboration (FC1.1).

Multiple Regression Analysis

In this process of multivariate regression one is attempting to determine which of the independent variables (predictors) are the best predictors of the dependent variable. The general equation can be presented in the form of:

$$Y_i = (b_0 + b_1X_1 + b_2X_2 + \dots + b_nX_n) + \epsilon_i$$

where Y is the outcome or dependent variable (authentic collaboration), b_1 is the coefficient of the first predictor (X_1), b_2 is the coefficient of the second predictor (X_2), b_n is the coefficient of the n^{th} predictor (X_n) and ϵ_1 is the difference between the predicted and observed value of Y for the i^{th} participant (Field 2009: 210).

Regression on Management Practices that Enhance Authentic Collaboration (FC1.1)

When discussing authentic collaboration it should be remembered that it refers to high degrees of collaboration among teachers and principals and is characterized by mutual respect, shared work values, cooperation and specific conversations about teaching and learning (Sergiovanni and Starratt 1993).

In this research one is attempting to find the best predictors for the factor management practices that enhance authentic collaboration among teachers (FC1.1) as outcome or dependent variable. The independent variables (predictors) decided upon, because of relatively high correlation coefficients, were FB1.1 (management practices promoting harmonious interpersonal relationships), FB2 (management practices enhancing task effectiveness), FB3 (Management practices that encourage expected collaborative teaching practices). Further independent variables chosen by these researchers were A3 (post level), A5 (highest educational qualification) and A11 (principal’s management style). The multivariate model could thus be extended to read:

$$FC1.1 = b_0 + b_1FB1.1 + b_2FB1.2 + b_3FB1.3 + b_4FC1.2 + b_5FC1.3 + b_6A3 + b_7A5 + b_8A11$$

Multiple regression with FC1.1 as dependent variable using FB1.1, FB1.2, FB1.3, FC1.2, FC1.3,

Table 7: PASW output for FC1.1 as dependent variable using FB1.1, FB1.2, FB1.3, FC1.2, FC1.3, A3, A5 and A11 as predictors

Model		Unstandardized coefficients		Standardized coefficients	t	Sig.
		B	Std. error	Beta ($\hat{\alpha}$)		
2	(Constant)	1.687	.223		7.569	.000**
	Section B : Factor FB1.1	1.148	.055	1.129	21.003	.000**
	Section B : Factor FB1.2	-.164	.063	-.153	-2.615	.009**
	Section B : Factor FB1.3	-.520	.065	-.415	-7.954	.000**
	Factor FC1.2	.117	.062	.067	1.881	.061
	Factor FC1.3	-.202	.068	-.110	-2.991	.003**
	A3NEW Your present post level?	-.136	.059	-.077	-2.288	.023*
	A5.NEW Your highest educational qualification?	-.061	.064	-.031	-.961	.338
	A11.Democratic vs. Laissez-fairre	.253	.126	.081	2.018	.044*
	A11.Democratis vs. Autocratic	-.100	.081	-.053	-1.241	.215

a. Dependent Variable: Factor FC1.1

Model 2 $R^2 = 0.69$; $\Delta F(4,317) = 4.19$; $p = 0.000$; Durbin – Watson = 1.76

Model 2 F(9,317) = 78.45; $p = 0.000^{**}$

** = Statistically significant at the 1% level ($p \leq .0005$)

* = Statistically significant at the 5% level ($p \geq .01$ but $p \leq .05$)

A3, A5 and A11 as predictors using PASW 18.0 produced the data in Table 7.

Omitting those predictors with non-significant p-values in Table 7 ($p > 0.05$) the equation becomes:

$$FC1.1 = \text{Constant} + 1.15.FB1.1 - 0.16.FB1.2 - 0.52.FB1.3 - 0.20.FC1.3 - 0.14.A3 - A11 \text{ (Democratic vs. Laissez-faire).}$$

From the data in Table 7 the outcome factor (FC1.1) is significantly influenced by the predictors FB1.1, FB1.2, FB1.3, FC1.3, A3 and A11. If one considers the standardized regression coefficients ($\hat{\alpha}$) then the best predictor of the outcome "Management practices enhancing authentic collaboration among teachers (FC1.1) is "management practices enhancing harmonious interpersonal relationships (FB1.1; $\hat{\alpha} = 1.13$). This corroborates the view that there is a nonrecursive relationship present between these two factors as they are both concerned with collaborative management practices. The positive slope also indicates that harmonious relationships augment authentic collaboration. Other significant predictors of FC1.1 are FB1.2 ($\hat{\alpha} = -0.15$), FB1.3 ($\hat{\alpha} = -0.42$), FC1.3 ($\hat{\alpha} = -0.11$), A3 ($\hat{\alpha} = -0.08$) and A11 ($\hat{\alpha} = -0.05$).

Thus authentic collaboration (FC1.1) is promoted by management practices that improve harmonious relationships (FB1.1) which indicates that as harmonious interpersonal relationships increases by one standard deviation (0.84) authentic collaboration increases by 1.13 standard deviations. The beta value for FB1.2 indicates that as management practices enhancing task effectiveness increase by one standard deviation (0.49) authentic collaboration decreases by 0.15 standard deviations. Management practices that espouse expected collaborative teaching practices (FB1.3) had a negative beta value ($\hat{\alpha} = -.42$) indicating that as advocating of expected collaborative teaching practices increased by one standard deviation (0.69) authentic collaboration decreased by 0.42 units. The beta value for FC1.3 indicates that as management practices enhancing routine procedures increase by one standard deviation (0.47) authentic collaboration decreases by 0.11 standard deviations. The present post levels:

($\bar{X}_E = 3.15$; $\bar{X}_M = 2.70$; $t(327) = 4.77$; $p = 0.000$; $r = 0.26$) had a negative beta value ($\hat{\alpha} = -.80$) indicating that respondents in management positions agreed to a significantly smaller amount with authentic collaboration than did educators or as one moves

from educators to management, perceptions of authentic collaboration decrease. This agrees with one of the features of a bureaucratic structure namely that the organization of post levels follows the principle of hierarchy (Etzioni 1964; Cowie et al. 2007) and persons in lower posts (educators) are under the control and supervision of a higher one (School Management Team). The data in Table 7 also indicate that as principals move from a democratic management style (D0) to one characterized as laissez-faire (D2) authentic collaboration increases ($\hat{\alpha} = +0.08$). A laissez-faire management style leaves most of the decision-making with the teachers and this is likely to enhance perceptions of collaboration as something that is not imposed on teachers from outside. Perceptions of authentic collaboration is thus promoted by establishing harmonious interpersonal relationships and a laissez-faire management style and retarded by task effectiveness, espoused or expected collaborative teaching practices, routine procedures and being part of school management.

DISCUSSION: IMPLICATIONS FOR MANAGING AUTHENTIC COLLABORATION IN SCHOOLS

Sergiovanni and Starratt (1993) indicate that change does not occur easily and this is especially true if the change is mandated from the outside. Fullan and Hargreaves (1991) agree with this view as they indicate that mandates cannot force people to change. For example mandates, such as the "Batho Pele Principles" (people first) (SA 1997) have intended purposes of improving service delivery by public schools and as such they espouse certain values and norms intended to direct the actions of School Management Teams and teachers. At the school level the implementation of legislative mandates such as Batho Pele which advocates that collaborative practices among public servants is the responsibility of the principal and his/her SMT.

The source of the authority used by principals and their SMT'S in the form of mandates is bureaucratic and teachers are expected to comply or face possible consequences (Sergiovanni and Starratt 1993; Brauckmann and Pashiardis 2010). Mandates designed to improve collaborative efforts are also likely to produce tensions between the various hierarchical levels present

in public schools. There is also the threat that managerialism in the form of excessive control by the central government can result from management procedures which have positive intentions of improving collaborative efforts among teachers but have dysfunctional consequences. Bureaucratic authority can thus result in an abuse of power which leads to contrived collaboration.

The primary aim of this research was to investigate the association between management practices and the effective management of collaboration by probing the perceptions of teachers. The findings indicate that the best predictor of management practices that enhance authentic collaboration among teachers was management practices that improve harmonious interpersonal relationships between teachers. Harmony among teachers is likely to improve the morale in the school and give rise to greater cohesiveness among teachers. Management practices that espouse expected collaborative teaching and teaching practices that enhance task effectiveness both serve to decrease authentic collaboration. One could reason that the encouragement of expected collaborative teaching practices should increase authentic collaboration but it depends on how it is encouraged. Encouraging efforts towards collaborative teaching in a bureaucratic hierarchy could lead to teachers feeling obligated towards collaborative practices instead of a spontaneous collaborative effort originating within the teacher and hence be detrimental to authentic collaboration and serves to enhance contrived collaboration among educators. An over emphasis on the completion of teaching tasks is also damaging to management practices that serve to augment authentic collaboration among teachers.

Management practices that enhance routine procedures seem to be inherent in bureaucratic procedures where teachers are subordinate to the system. However, when teachers are encouraged to develop themselves as part of the professional work of teaching without feeling obligated to do so, then such procedures could augment a reflective practice where teachers strive for self-improvement and to share their knowledge with other teachers (Sergiovanni and Starratt 1988; Sergiovanni and Starratt 1993; Brauckmann and Pashiardis 2010). Routine procedures that use collaborative procedures where the SMT and teachers are both equally

involved are more likely to be accepted and complied with (Jarzabkowski 1999). A laissez-faire management style also influences authentic collaboration in a positive way as it probably leads to teachers becoming more involved in decision-making within the school.

CONCLUSION

It would appear that it is always easier to advocate some collaborative management practice than to implement it especially if one was not involved in its original design. Bureaucratic management procedures could benefit the orderliness and efficiency in a school provided they are implemented in such a way that the unanticipated consequences are carefully considered. This research clearly shows that the fostering of harmonious interpersonal relationships among educators and management has a positive influence on authentic collaboration. Promoting harmonious interpersonal relationships serves in a reciprocal relationship with authentic collaboration in a non-recursive relationship. A laissez-faire management style may have disadvantages for school effectiveness but it seems to have a positive influence on the perceptions of educators regarding authentic collaboration. Task effectiveness is often over-emphasized at the cost of interaction effectiveness because of the pressure placed on schools to achieve academic excellence. This has a negative influence on authentic collaboration. Advocating expected collaborative teaching practices places the obligation of acceptance on educators and creates a perception that school management are espousing something simply to satisfy bureaucratic expectations. As such it detracts from authentic collaboration.

RECOMMENDATIONS

In order to obtain authentic collaboration or to get educators to work together in an honest an open way school management needs to take cognizance of the implications of trying to regulate collaboration using bureaucratic and hierarchical procedures. Open and honest communication by school management teams where dialogue and reflection are encouraged must be the norm as this allows the subject of common interest to be analysed from the many points of view provided by those who participate.

Mandates have the disadvantage of implying that there is only one way of implementing such legislation and that is to follow it via management's interpretation thereof. After all the school management are accountable to the education authorities to ensure that the mandated legislation is implemented in an effective way. The free flow of conflicting ideas is critical for creative thinking and for discovering alternative solutions and a democratic management style allows for differing opinions. As such school management must be vigilant when advocating expected collaborative teaching practices in a hierarchical way as this could create a perception that school management are espousing something simply to satisfy bureaucratic expectations of improved teaching performance. Dialogue allows for all involved to discover the common ground among all participants and is essential when it comes to establishing authentic collaborative practices.

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