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THE WELL-BEING OF FLEMISH PRIMARY SCHOOL PRINCIPALS

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ABSTRACT

Purpose: The goal of this inquiry is to indicate which individual, organisational and external environment factors contribute to a better understanding of the well-being of Flemish primary school principals.

Findings: The quantitative and qualitative outcomes suggest that well-being is a complex psychological phenomenon affected by a myriad of factors. The analyses indicate that general self-efficacy and achievement orientedness are significantly correlated with several aspects of positive (i. e. job satisfaction and job enthusiasm) and negative well-being (i.e. cynicism and personal accomplishment). With respect to school culture and structural characteristics, very weak almost negligible effects are noted. In addition, the analysis demonstrates the significant role school boards fulfill in explaining both positive and negative well-being. Finally, the role of central government in generally is found to affect well-being in a negative way.

Methodology: Data from a representative sample of primary schools in Flanders (N=46) were gathered through questionnaires (principals and teachers) and semi-structured interviews (principals).

Implications: The findings of this paper provide important information for policy makers concerned with the improvement of the well-being of primary school principals.

Originality/value of paper: Although prior research investigated the influence of different antecedents on well-being, several limitations in method and conceptual framework yielded information of which the usefulness must be considered tentative (Ross, 1999). In this inquiry an attempt is made to overcome these limitations and contribute to the literature in a double way: (1) This study adopts a concurrent mixed method approach of data collection; (2) Well-being is examined from a positive psychology (job enthusiasm and job satisfaction) and negative psychology approach (burnout), whereas prior research almost exclusively looked at the negative pole of well-being.

Key words: primary school principals, well-being, mixed method approach.

Category paper: research paper.

INTRODUCTION

Considerable research continues to demonstrate the pivotal position of principalship in school management (Devos *et al.*, 1998; Griffith, 1999; Hallinger, 2003; Leithwood *et al.*, 1996; Leithwood and Jantzi, 2000). Through their influence on school climate and teachers functioning, principals have an indirect effect on pupils and teachers well-being (Hallinger, 2003; Hallinger and Heck, 1996). Because the crucial position they hold, it is of absolute necessity that principals function effectively. Johnson and Holdaway (1991), for example, found that the effectiveness of principals and schools is associated with higher levels of job satisfaction.

Over the past decade, the changing nature of the Flemish education landscape made the principal's role increasingly complex (Vandenberghe *et al.*, 2003). According to Vandenberghe (1992), school principals operate in a continuous changing and turbulent policy environment being shaped by three potentially conflicting sources. First, there is a decreasing set of regulations coming from the central government. Second, co-ordinating bodies are assuming an important role through their development of 'explanatory' drafts of these regulations that incorporate their own expectations. Third, the school board continues to hold the principal responsible for the implementation of regulations and expectations generated at the local school level. Thornton (1996) stated that such increased complexity and responsibilities for principals may lead to stress-related illness. Accordingly, the study on principals' well-being is of utmost importance, as the effective functioning of the educational system partially depends on it. Recent signals, however, report feelings of dissatisfaction, overload and workload among elementary school principals (Devos and Vanderheyden, 2002; Vandenberghe *et al.*, 2003). Therefore this study investigates the antecedents of positive and negative well-being among a representative sample of Flemish elementary school principals.

TRENDS IN PREVIOUS RESEARCH, DEFINITIONS AND CONCEPTUAL FRAMEWORK

1. Dominant focus of prior research on the negative versus positive perspective of well-being

So far, research about principals' well-being has exclusively focused on the negative pole (Carr, 1994; Gmelch and Torelli, 1994; Green *et al.*, 2001; Lim, 1995; Thornton, 1996; Tichatonga, 1999).

Instead of this limited emphasis, researchers in the broader area of well-being have recently extended their interest to the positive pole of workers' well-being. Little attention has been paid to this positive side of well-being among principals (Schaufeli *et al.*, 2002). The emerging interest for this positive side reflects a trend toward a "positive psychology", which focuses on human strengths and optimal functioning rather than on weaknesses and malfunctioning (Seligman and Csikzentmihalyi, 2000). The central emphasis of this approach is feelings of engagement, dedication, and satisfaction related to the job. Because of the current lack of this type of positive well-being research among school principals, this inquiry simultaneously considers the positive and negative pole of well-being. In adopting both perspectives we hope to identify those factors that have a positive and negative influence on well-being, so that recommendations could be formulated to improve the future well-being of school principals.

1.1 Burnout as an important facet of the negative pole of well-being

Because of the ever increasing demands placed on principals often resulting in higher stress levels, and the fact that several researchers have found high stress to be an important predictor of burnout (Friesen and Sarros, 1989), burnout is considered as a major indicator of negative well-being.

Although the term burnout conjures up different meanings for different individuals, it is a stress-induced problem common among members of helping professions such as teaching, social work, human resources, nursing and law enforcement.

It is a condition that occurs over time, in other words a condition that is not anchored to a specific point in time (Buelens *et al.*, 2006). In browsing the literature several definitions of burnout emerge (Carroll and White, 1982; Dworkin, 1987; Maslach and Jackson, 1986). In this inquiry the Maslach conceptualization is used because of the strong alignment that exists between the conceptual definition of burnout and the items designed to measure the construct (Maslach and Jackson, 1986).

Burnout is comprised of three dimensions: (1) emotional exhaustion, (2) cynicism/depersonalization, and (3) personal accomplishment. The first key aspect of the burnout syndrome is increased feelings of emotional exhaustion. As their emotional resources are depleted, workers feel they are no longer able to give themselves at the psychological level. The second aspect is the development of negative, cynical attitudes and feelings about one's clients. This may lead to dehumanization: the perception of clients as deserving of their troubles/problems (Ryan, 1971). Depersonalized principals may treat students and teachers like objects or label them rather than using their names when referring to others. The third aspect personal accomplishment describes feelings of competence and successful achievement in one's work with people. Principals with a low sense of personal accomplishment evaluate themselves negatively and become dissatisfied with their accomplishments on the job.

1.2 The positive side of well-being: job satisfaction and job enthusiasm

In his comprehensive work on well-being, Warr (1987) distinguishes three types of affective well-being: (1) stress/burnout, (2) job satisfaction and (3) job enthusiasm. The first type is considered as a component of negative well-being, whereas the latter two concern positive well-being.

Since Hoppock's (1935) pioneering work, the study of job satisfaction, or an individual's affective reaction to a job or its many facets, has been of great interest to educational researchers (Thompson *et al.*, 1997). Prior studies of job satisfaction have been premised on a wide range of theoretical models (Johnson and Holdaway, 1991). In this inquiry job satisfaction is based on the 'Facet Satisfaction Theory' (Lawler, 1973) and 'Locke's Comprehensive Value Theory' (1976) and refers to an individual's positive emotional reactions to a particular job.

It is an affective reaction to a job that results from a person's comparison of actual outcomes with those that are desired, anticipated or deserved (Wanous and Lawler, 1972). Furthermore, satisfaction is conceived in terms of different facets of an individual's job (Lawler, 1973). Therefore overall job satisfaction is a compilation of feelings of satisfaction on an array of facets. Examples of facets include work load, job security, working conditions, compensation, status and prestige of job, supervisor-subordinate relations, and etc.

The second component of positive well-being in this inquiry 'job enthusiasm' is assumed to be the positive antipode of burnout. Or as Maslach and Leiter (1997) put it: 'Energy, involvement and efficacy – these are direct opposites of the three dimensions of burnout.' We define job enthusiasm as a positive fulfilling, work-related state of mind that is characterized by (1) vigor, (2) dedication and (3) absorption (see also Schaufeli *et al.*, 2002). Vigor is characterized by high levels of energy and mental resilience while working, the willingness to invest effort in one's work, and persistence also in the face of difficulties. Dedication is characterized by a sense of significance, inspiration, pride, and challenge. Absorption is characterized by being fully concentrated and happily engrossed in one's work, whereby time passes quickly and one has difficulties with detaching oneself from work. In this inquiry job enthusiasm is measured as one single global construct rather than three separate components, since the development of a measurement instrument that distinguishes these dimensions is still in its preliminary stages and therefore requires some further validation.

2. Dominant focus of prior research on simple self-report and quantitative quick measure approaches

A review of past research on stress among principals reveals information of which the usefulness must be considered tentative (Ross, 1999). According to Carr (1994) the significant flaws in the methodologies of previous research have created an ambiguous picture of the stressfulness of a school principal's job. Most studies concentrated on simple self-report and quantitative/quick measure approaches and therefore are likely suspect to common method variance.

Common method variance occurs when data representing the dependent variables and independent variables come from the same respondent using similar methodologies, and forms a serious threat to the validity of findings (Podsakoff and Organ, 1986). Furthermore, as McGrath (1982) stated that although it is almost impossible to do an unflawed study, it is essential to obtain corroborating evidence from using a mixed-method approach (Creswell, 2003; Scandura and Williams, 2000). In adopting a mixed-method approach the strengths of quantitative and qualitative strategies are combined, resulting into more reliable and valid findings. Therefore, our inquiry collected data from three sources, so that the chance of common method variance was significantly reduced. The three data sources included were: (1) questionnaires administered from 46 elementary school principals; (2) interviews administered from the same group of principals; and (3) questionnaires administered from teachers working in those 46 schools.

3. Conceptual framework

A myriad of theoretical models are at the researcher's disposal to examine well-being among school administrators (Gmelch and Gates, 1998; Gmelch and Torelli, 1994; Hackman and Oldham, 1976; Ivancevich and Matteson, 2002; Karasek and Theorell, 1990; Koch *et al.*, 1982; McGrath, 1976). All these models have two important components in common: (1) individual factors of well-being and (2) environmental factors of well-being.

Based upon a pilot study conducted among 10 school principals and an extensive literature review of those variables most likely to influence the principal's well-being, we only included those variables based upon following criteria: (1) well-validated measures of the variable exist; (2) construct validity evidence for the variable is demonstrated; (3) and there appears to be an empirical or theoretical relationship between the construct and well-being. Accordingly we distinguished three large categories or sources of well-being: (1) individual factors, (2) organisational factors and (3) external environment factors. In Figure I our conceptual framework is depicted. With respect to the first category we included several personality traits (i.e. self-efficacy, Type A personality, locus of control).

At the organisational level we distinguished the role of the school board, school culture variables, the well-being of teachers and structural characteristics. Finally, the external environment factors involve the role of government. In the following paragraph an overview is presented of the relationships of these variables with well-being.

Insert Figure I About Here

3.1 The key role of individual level factors in principal's well-being

Some people experience a higher level of well-being than others. They can adapt their behaviour in such a way so they are better able to cope with stressful conditions or situations. Personality traits or personal resources are found to affect the appraisal of stressors. Traits such as (1) self-efficacy, (2) locus of control and (3) Type A-behaviour are considered as the most important personality factors that influence well-being (Ivancevich and Matteson, 2002).

3.1.1 Self-efficacy.

Self-regulatory systems lie at the hart of human behaviour and functioning (Bandura, 1991). One of the most important self-regulatory mechanisms is self-efficacy. Self-efficacy is conceptualized as beliefs in one's capabilities to mobilize the motivation, cognitive resources, and courses of action needed to meet given situational demands (Wood and Bandura, 1989). Individuals with high levels of self-efficacy feel confident in their abilities in their job performance. Furthermore they are more likely to perceive potential stressors as challenges and opportunities, rather than threats and problems. Those with low levels of self-efficacy, on the other hand, are less confident in their abilities and more likely to assume they will fail. According to Judge and Bauer (1997) generalized self-efficacy should affect job satisfaction through its association with practical success on the job.

Because individuals with high self-efficacy deal more effectively with difficulties and persist in the face of failure (Gist and Mitchell, 1992), they are more likely to attain valued outcomes and thus derive satisfaction from their jobs. The existence of a positive relationship between self-efficacy and job satisfaction has also been confirmed in a meta-analysis (Judge and Bono, 2001). Furthermore, an international study carried out in Australia, England, New Zealand and the USA, concluded that school executives recorded great satisfaction from professional efficacy (Scott and Dinham, 2003).

In sum, school principals with higher levels of self-efficacy are more likely to experience higher well-being compared to their counterparts with a lower degree of self-efficacy.

3.1.2 Locus of control.

Individuals vary in terms of how much personal responsibility they take for their behaviour and its consequences (Spector, 1988). It concerns people's generalised expectancies that they can or cannot control reinforcement in their lives. People who hold expectancies that they control reinforcements are considered to be internals, and people who hold expectancies that outside forces or luck controls reinforcements are considered to be externals. In the general research field on well-being substantial attention has been devoted to the effect of locus of control. It has been noted that internal control beliefs are an important component of emotional adjustment and ability to handle stress in general life (e.g. Kobasa *et al.*, 1982) and at work (Spector, 1982; 1988; Spector and O'Connell, 1994). In short, research supports the notion that internality is associated with positive well-being (Spector *et al.*, 2002), and that principals with a higher level of internal locus of control are more likely to experience higher job satisfaction and less stress (Lim, 1995).

3.1.3 Type A behaviour.

Friedman and Rosenman (1974) describe Type A behaviour as an action complex that can be observed in any person who is aggressively involved in chronic incessant struggle to achieve more and more in less and less time, and if required to do so, against the opposing efforts of other things and other persons. Some of the overt symptoms of type A behaviour are induced explosiveness, accelerated speech, high achievement ambitions, heightened pace of living, a tendency to compete with others, impatience with slowness, free floating hostility, and the general appearance of tension (Booth-Kewley and Friedman, 1987; Ganster, 1986).

Type A personality has received considerable attention in stress literature (Jamal and Baba, 2003; Spector and O'Connell, 1994). Empirical findings indicate that Type A behaviour is correlated with job stressors (Ganster, 1986; Spector and O'Connell, 1994) and strains (Jamal and Baba, 2003; Newton and Keenan, 1990).

Although the majority of existing research with the Type A construct has treated it as a unidimensional construct, substantial research evidence suggests that Type A is a multidimensional construct (Edwards *et al.*, 1990; Evers *et al.*, 2000; Jamal and Baba, 2003). In this inquiry Type A behaviour is treated as a multidimensional construct that falls into three factors: (1) degree of impatience-irritability; (2) degree of achievement orientation; and (3) degree of competitiveness. Several studies have demonstrated the different, often opposite effects of these components on well-being measures (Gmelch and Gates, 1998; Spector and O'Connell, 1994; Jamal and Baba, 2003). In the Gmelch and Gates (1998) study, conducted among 656 school principals, opposite relationships were found for competitiveness and achievement orientedness. A slight but negative relationship was found with physical health, whereas achievement orientedness was positively correlated with health. Furthermore, a positive relation was observed between competitiveness and emotional exhaustion, a negative relation between achievement orientedness and emotional exhaustion, and finally a positive correlation between achievement orientedness and personal accomplishment. In sum, it is expected that school principals who get easily impatient or are very competitive focused will experience more negative well-being, whereas those who are achievement oriented will experience higher positive well-being.

3.2 The key role of organisation and environment factors in principal's well-being

“No man is an entire island to itself; every man is a part of the whole”. In other words, principals are a part of a larger interpersonal system. Their people oriented job characterized by the art of working with teachers, gaining public approval, coping with rules and regulations imposed by governments, are situational and environmental conditions that affect their status of well-being. In McGrath's model (1976) two subsystems are distinguished, which help to explain the emergence of occupational well-being due to situational conditions.

One of these subsystems involves the physical environment which provides the context within which the worker carries out his or her duties. This system can produce several sources of negative and positive well-being such as level of autonomy, skill variety, work load, task difficulty and task ambiguity. The second subsystem, social-interpersonal subsystem, defines the social framework within which the focal person interacts with superiors, subordinates and peers, and is characterized by role ambiguity, role conflict, role overload and support as potential antecedents of well-being.

In addition to being part of these systems, principals are submerged in a complex, continuously changing, and turbulent policy environment (Vandenberghe, 1992). Therefore research on well-being of principals should not be limited to an analysis of the school principal detached from the context/environment in which he/she operates. In this inquiry environmental or situational characteristics are classified into two groupings of variables: (1) a set of factors that are associated with the internal school organisation, and (2) external factors that affect internal school organisation and define the boundaries of the internal policy framework adopted by schools. The first set of factors involves school culture, structural characteristics of the organisation, the well-being of teachers, and the role of the school board. The second set of factors refers to the role of government. In the next paragraphs we will discuss how these factors (structural characteristics, school culture, well-being of teachers, and the role of school board and government) relate to the school principal's well-being.

3.2.1 Organisational culture and the well-being of teachers.

In management literature organisational culture is conceptualized as the cognitive lens (i.e. schema) through which people interpret and attach meaning to organisational relevant stimuli (James and James, 1989; James *et al.*, 1990). These meanings and perceptions, in turn, influence the attitudes and expectancies of what is rewarded and punished in an organisation, thus indirectly affecting attitudes and behaviour in the organisation. Several educational researchers translated this concept into ‘school culture’, taking into account the specifics of the school setting (Hargreaves, 1995; Maslowski, 2001; Schein, 1992). In this study, school culture is defined as “the basic assumptions, norms and values, and cultural artifacts that are shared by school members, which influence their functioning at school” (Maslowski, 2001; pp. 8-9). In other words, school culture can be considered as learned assumptions shared by group members (Schein, 1992), assumed ways of doing things among communities of teachers who have had to deal with similar demands and constraints over many years (Hargreaves, 1995). A direct consequence of this rich research tradition is the emergence of school culture as a multifaceted concept composed of different dimensions (Devos *et al.*, 2004; Hoy and Tarter, 1997; Maslowski, 2001; Staessens, 1990; Valentine *et al.*, 2006). In this inquiry school culture is comprised of five facets:

- (a) *Goal orientedness* reflects to what extent the school vision is clearly formulated and shared by the school members.
- (b) *Participative decision-making* reflects to what extent teachers participate in the decision-making process at school, and are responsible for their actions.
- (c) *Innovativeness* reflects to what extent school members adapt themselves to change, and have an open attitude towards educational innovations.
- (d) *Leadership* reflects to what extent the principal engages in supportive and/or instructional behaviour
- (e) *Cooperation between teachers* reflects the level of formal and informal relationships

In short, school culture permeates everything within a school: “the way people act, how they dress, what they talk about or avoid talking about, whether they seek out colleagues for help or don’t, and how teachers feel about their work and their students, and etc. (Deal and Peterson, 1999). Several studies confirm the significance school culture plays in enhancing school effectiveness (Heck and Marcoulides, 1996; Levine and Lezotte, 1990; Sammons et al., 1995). Sergiovanni (2006) suggests that healthy school cultures and the well-being of teachers can lead to enhanced commitment and performance that are beyond expectations. Furthermore, in the more general management literature it is shown that strong, healthy cultures that emphasize fraternal relationships, respect for individual members, foster flexibility and spontaneity are more conducive to create a climate of well-being (i.e. degree of satisfaction about job and school), compared to cultures that emphasize order, control, and aggressiveness (Lund, 2003; Nystrom, 1993; Schellenbarger, 2000). In other words, it is expected that school cultures characterized by strong participation in decision making, innovativeness, supportive leadership, strong cooperation between teachers, goal orientedness, as well as the well-being of teachers (i.e. degree of satisfaction of teachers about their job and school) contribute to a higher level of principal well-being.

3.2.2 Structural characteristics.

Besides the central role of school culture, we assume that several structural characteristics of the organisation (i.e. school size, number of school settlements and characteristics of student population) also contribute to a better understanding of the principal’s well-being. In the Flemish education setting funding of schools strongly depends on school size (i.e. the number of students school counts). Larger schools receive substantially more financial means to operate effectively than smaller schools. In consequence, principals of smaller schools have less financial breathing space than their colleagues of larger schools. This situation (i.e. lack of financial funds due to school size) according to a survey study conducted among 2,262 principals in the United States is considered as one of the most stressful aspects associated with the job of school administrator (Glass *et al.*, 2000). Also an immediate outcome of school size is the degree of administrative support, which is in general more strongly developed in larger schools.

Such substantial support can significantly reduce the work load experienced by principals due to red tape. In other words, the more students in attendance at the school, the greater the opportunities for improving local working conditions, and enhancing quality of working life. To conclude, a final structural characteristic involves the composition of the student population. Empirical findings suggest that principals of urban schools - in general schools characterized by a stronger representation of ethnic groups in the total student population compared to rural schools - experience higher levels of stress (Tichatonga, 1999). More specifically, typical returning complaints by the school administrators of such schools were: (1) students not committed to their work; (2) dealing with disruptive students; and (3) dealing with students of poor behaviour.

3.2.3 The role of government and school board.

Since, the nineties the Flemish government has introduced several laws to promote decentralization and deregulation, with a clear tendency to de-emphasize the role of central administration (Vandenberghe, 1992). Similar reforms (i.e. emphasis on decentralization and deregulation) in the educational landscape have been documented internationally over the last decade involving devolution of responsibilities (i.e. financial, staffing and planning processes) from the Education Department to individual self-managing schools (Cranston, 1994; Caldwell, 1992). Such changes have modified the traditional role of the principal to great extent. In the past, school administrators were often considered to be managers who focused on the daily logistical tasks involved in running a school. Today's school leader is expected to be a visionary, empowering and motivating teachers, to provide outstanding instruction, which eventually results in student success (Conrad and Rosser, 2006). In other words, the principal is confronted with an increasing set of demands (Whitaker, 1995).

Although the evolution toward self-managing schools is an important phase that contributes to increasing the autonomy of school principals and their schools, the opposite side of the medal is that these increased responsibilities can lead to severe workload. The overload that ensues from this changed situation is twofold. First, qualitative overload occurs when principals feel they lack the ability needed to complete their jobs or that performance standards have been set too high. Quantitative overload, on

the other hand, results from having too many things to do or insufficient time to complete the job (Ivancevich and Matteson, 2002). In the light of this, several studies have demonstrated that feelings such as too heavy a workload and lack of time to complete the tasks demanded during a normal working day, are major sources of principal's stress (Bergin and Solman, 1988; Gmelch and Swent, 1981; Gmelch and Torelli, 1994).

Another consequence of this educational landscape reform is the key position school boards have gained in setting and implementing the school's direction and policy making. According to Devos *et al.* (1999) school boards determine the power, control, autonomy and responsibilities of school leaders. Prominent theories have linked perceptions of control in various forms to well-being. For example, in their Job Characteristics Model, Hackman and Oldham (1976) considered autonomy to be a major cause of job satisfaction and positive adjustment to work. In Karasek's Job Demands Control Stress Model, the hypothesis is that control at work buffers the impact of job stressors on well-being (Karasek and Theorell, 1990). In their review of work place control literature, Ganster and Fusilier (1989) concluded that control was a vital element of well-being. In addition, management approaches that empower employees by giving them more control have been advocated as both effective and humane (Lawler *et al.*, 1995). Although the importance of autonomy in explaining the principal's well-being cannot be denied, an important reflection should be made when the level of experienced autonomy becomes very high. This remark is premised on Warr's Vitamin Model (1990), in which the vitamin metaphor is used to explain that certain factors contributing to more positive well-being lose their beneficial effect and sometimes have even harmful effects after certain levels. Warr (1990) argues, for example, that it is possible to have too much control such that beyond certain levels it becomes harmful. In the light of this discussion we expect government and school board to play an important role in explaining the school principal's well-being.

To conclude, the purpose of this study is to examine how all the factors of our conceptual framework (see Figure I) are related to well-being of Flemish primary school principals.

METHOD

1. Sample

A sample of fifty-six primary school principals were contacted and asked to participate in the second part of a follow-up study regarding the evolution of well-being in the Flemish school setting (Engels *et al.*, 2002). This sample is a stratified random sample drawn from the ‘primary school database’, which is managed by the Flemish Department of Education. This database contains all 2310 primary schools in Flanders. Of the initial 56 principals that were contacted, a total of 46 principals (response rate = 82%) agreed to participate, yielding a good reflection of the current situation of primary school principals in Flanders.

Table I describes the representativeness of our sample with respect to five variables: (1) school system; (2) province; (3) school type; (4) gender principal; and (5) age principal.

Insert Table I About Here

2. Mixed method approach

A mixed-method design is used as a mean to offset the weaknesses inherent within one method with the strengths of the other method (Scandura and Williams, 2000). More specifically, a concurrent mixed method model is employed (Tashakkori and Teddlie, 1998). Concurrent designs can be identified by their use of one data collection phase, during which both quantitative and qualitative data are collected simultaneously. Such a model may be used to serve a variety of purposes. Morse (1991), for example, noted that how qualitative data could be used to describe an aspect of a study that cannot be quantified and vice versa. In other words, some variables are better suited to be collected by means of quantitative measures, whereas others lend perfectly for qualitative measurement. This is also the case for this inquiry, which consists of a quantitative and qualitative data collection part.

The same sample of 46 principals participated in both the qualitative and quantitative phase of the study. First, all principals were sent a questionnaire using scales to measure well-being and several personality traits. Second, after the survey was administered, all principals were interviewed regarding the role of school boards and government with respect to their well-being. Besides these two sources of data collection, data pertaining school culture were collected by means of a survey administered among the teachers of these 46 schools. Two principals, however, refused the participation of their teams. The response of teachers was very good, yielding a 75 percent response rate (700/934).

For the qualitative part semi-structured interviews were used. Semi-structured interviews are focused interviews, meaning that there is an interview scheme to guide the researcher through the interview. An advantage of semi-structured interviews is that they allow more focus but also probing and additional questions when an interesting issue is brought forward by the interviewee, which is not listed in the interview topics. An interview protocol encouraged informants to talk openly about what they perceived to be significant to the school leadership. The interviews lasted approximately 90 minutes.

To summarize, the quantitative data collection part of this study consists of two questionnaires: one administered among 46 principals and one administered among 44 teacher teams (i.e. responses of 700 school teachers). The qualitative part exists out of a semi-structured interview conducted with the same 46 principals.

3. Quantitative and qualitative data analytic procedures

3.1 Quantitative data analysis

Quantitative data gathered by means of questionnaires are analyzed by performing bivariate correlation analysis. Correlations of personality characteristics, school culture dimensions, well-being of teachers and school size with positive (i.e. job satisfaction and job enthusiasm) and negative well-being (emotional exhaustion, cynicism/depersonalization and personal accomplishment) are calculated using SPSS X.

An important remark concerning the correlations of the school culture dimensions and the well-being of teachers with the principal's well-being is that school culture and well-being of teachers for each school separately is based on the aggregated scores of responses of the teachers within the 44 participating schools. In other words, we consider these dimensions as shared constructs (Hofmann, 2002; Klein and Kozlowski, 2000) measured at individual level but aggregated to organisation level. The direct consensus model is adopted as theoretical aggregation model (Chan, 1998). This implies that the meaning of the higher level construct (i.e. school culture) only exists in the consensus among the lower level units (i.e. teachers). An excellent measure for the assessment of within-group agreement is Lindell's r_{wg} (Lindell and Brandt, 1999; Lindell *et al.*, 1999). This index compares the variability of a given variable within a specific unit to an expected variance.

Common practice is to conclude that aggregation of individual level measures to a higher order level is appropriate if the mean equals or exceeds .7 (Klein and Kozlowski, 2000). Accordingly, the aggregation for all school culture dimensions and the well-being of teachers is justified in this inquiry (see Table II)

Insert Table II About Here

The choice for univariate statistics was made instead of multivariate data analytic techniques, as our sample size of principals is moderate. Applying techniques such as multiple regression analysis is not possible due this small sample size. A general rule in applying this multivariate technique is that the ratio of sample size to independent variables never should fall below 5 to 1. As the ratio falls below 5 to 1, the researcher encounters the risk of overfitting the variate to the sample, making the results too specific to the sample and thus lacking generalisability (Hair *et al.*, 1998).

A drawback, however, in conducting several univariate significance tests on the same data set, is that the probability of getting Type I errors is increased. For example, if we repeat 20 times the testing of randomly drawn samples under circumstances when H_0 is true, one can expect to reach 5% significance on one of these tests just by chance.

This is because that is just what the original significance estimate is based on – the critical value we have to reach if the null hypothesis is true. If you do a lot of tests on the same data set, each time assuming a null hypothesis and an alpha level of .05, one can be accused of ‘fishing’ for results or capitalizing on chance. To avoid this we used a more conservative alpha and decided to set it at .01 (Coolican, 2004). A drawback of increasing the alpha level, however, is that we decreased the power of this study to detect small effect sizes. Although we admit this limitation, this inquiry has a high power level (.88) to detect large effect sizes. Moreover, the sensitivity to only detect large effect sizes rather than small effect sizes is justified, because the goal of this inquiry is to discover those factors that really matter in explaining the principal’s well-being.

3.2 Qualitative data analytic procedures

Qualitative research is an investigative process where the researcher gradually makes sense of a social phenomenon (i.e. school principal’s well-being) by contrasting comparing, replicating, cataloguing and classifying the object of study (Miles and Huberman, 1984). The semi-structured interviews conducted with the 46 principals were audio taped and transcribed. As recommended in literature (Miles and Huberman, 1984) we first developed a coding list based upon the conceptual framework covering themes such as the role governments and school boards play in the principal’s general functioning and well-being. For the content analysis of these interviews we followed the steps provided by Tesch (1990). First, we started by reading all transcriptions carefully to get a sense of the whole. In a second step we picked out one interview from the pile. We went through it, not thinking about the ‘substance’ of the information but its underlying meaning and wrote down our thoughts in the margin. When completed this task for several interviews, we made a list of all topics and clustered them into categories of major and unique topics. In the fourth step of the process we used this list to go back to our data and wrote the codes next to the appropriate segments of the text. In trying out this preliminary organisation scheme we were able to see if new categories and codes were necessary. In the following step we overlooked this new list of topics and tried to reduce it to a more parsimonious list by merging and grouping those topics that semantically overlapped.

This resulted in a total of 76 qualitative codes. In the sixth step a final decision was made about the abbreviation for each topic and entered as a code in Atlas.ti. This whole process of building a coding list was followed to warrant the reliability and trustworthiness of the qualitative data analysis. Next, five interviews were randomly chosen and coded separately by two coders using the coding list entered in Atlas.ti. An intercoder reliability of 0.85 was achieved. In step 8 possible controversies were discussed and the meaning of codes was carefully adjusted. This procedure entailed a significant increase in the reliability measure (0.90). Finally, in the last step of the coding process both coders coded 21 or 20 interviews.

After the coding process of 46 interviews, in a final phase we coupled the qualitative data to the quantitative data. In order to facilitate the integration between both sets of data we first transformed the scores of the subscales for burnout, job satisfaction and job enthusiasm into standardized z-scores so that high, average and low groups were created for each subscale of well-being. Principals scoring 1 standard deviation (SD) above the mean (0 for z-score) were classified as high scorers, whereas those scoring 1 SD below the mean were classified as low scorers. In the following phase of the integration process, these groupings were entered as 'families' in ATLAS.ti. The creation of families is a way to form clusters for easier handling of coded material (Atlas ti, 2004). Subsequently, these families were considered as criteria along which the qualitative data (e.g. support from school boards, role of government) were compared against for similarities and differences. This procedure gets the researcher more focused into the large amounts of data and also provides an additional structure for cross-case analysis.

4. Instruments

The preliminary versions of both questionnaires and the semi-structured interview were tested in a pilot study on a random sample of 10 primary schools. The results from this pilot study confirmed that the items in both questionnaires and the questions in the semi-structured interviews were relevant, although some minor alterations were needed.

For a complete synopsis of how all the variables were gauged we refer to Figure I. The scales that were used in both questionnaires were selected on grounds of demonstrated validity and reliability in previous research. The descriptive statistics and reliability measures for each scale are reported in Table III.

Insert Table III About Here

The questionnaire principals were sent, covered two large topics: (1) items measuring well-being: burnout, job satisfaction and job enthusiasm; and (2) items measuring three personality characteristics: Type A-behaviour, locus of control and general self-efficacy. In the teachers' questionnaire, teachers were asked to respond to items pertaining school culture and teachers' well-being. Apart from the quantitative data collection part, a semi structured interview with the 46 principals was conducted and involved following topics: (1) school context (e.g. questions regarding composition of student population, etc.); (2) job specification (e.g. description of a typical working day, questions regarding responsibilities, etc.); and (3) role of different official bodies (e.g. support from school boards, support from government, etc.).

RESULTS

Insert Table IV About Here

1. Positive well-being

1.1 Personality characteristics and positive well-being

Correlation analysis shows that the personality trait self-efficacy is significantly correlated with job satisfaction ($r = .38$; $p < .01$). The sign of the correlation coefficient indicates that principals who feel confident in their capabilities to mobilize the necessary motivation and courses of action needed to meet given situational demands, also experience higher job satisfaction in comparison to principals with lower levels of self-efficacy. Although a positive correlation is found between self-efficacy and job enthusiasm ($r = .32$; $p = .03$), the relationship is not statistically significant at .01 level.

A second important outcome with respect to personality traits involves the highly significant positive correlation between the subscale achievement orientation (Type A-behaviour) and job enthusiasm ($r = .55$; $p < .001$). In other words, principals with a clear determination to achieve success are also more likely to get more inspiration and pride out of their work, are more willing to invest in their work, and experience higher levels of energy and mental resilience. Also a positive correlation is observed between achievement orientation and job satisfaction. However, the correlation is not significant at .01 ($r = .31$; $p = .04$).

To conclude, our analysis yields no statistically significant results for locus of control, impatience-irritability (Type A-behaviour), and competitiveness (Type-A behaviour) with both components of positive well-being (job enthusiasm and job satisfaction).

1.2 Organisation level factors and positive well-being

1.2.1 School culture, well-being of teachers and structural characteristics.

For all proxies of school culture (i.e. goal orientedness, leadership style principal, participation in decision making, innovativeness and cooperation between teachers) no significant correlations with positive well-being are noted.

Two noteworthy correlations for the well-being of teachers with positive well-being of principals are observed. Although the magnitudes of these correlations are medium, they do not meet the .01 significance level. The general well-being of teachers within schools is positively correlated with both principal job satisfaction ($r = .35$; $p = .02$) and principal job enthusiasm ($r = .32$; $p = .04$). This implies that a satisfied team often goes hand in hand with a satisfied and/or enthusiastic principal. Caution however is recommended when making these inferences as both correlations can be the result of capitalising on chance.

Finally, with respect to school size no significant correlations with both facets of positive well-being are determined. As for the remaining structural variable (i.e. characteristics of student population), qualitative analysis did not suggest differences between principals of colored versus non-colored schools.

1.2.2 School board.

As mentioned earlier the school board is an official body that carries the final responsibility for the policymaking of a school, and determines the space and support the principal receives with respect to several policy making domains. Principals who are pleased about the autonomy and support they receive from their school board are also those who experience a high level of positive well-being (job satisfaction and job enthusiasm) and report a low level of negative well-being (emotional exhaustion, cynicism and personal accomplishment).

These principals also acknowledge that they get enough discretion to take decisions independently. This is nicely illustrated in the following citation:

“I have the luck of working together with an excellent school board. They have a strong belief in my capabilities as a principal, and therefore I’ve received carte blanche. In my previous school, in contrast, I had to cope with a narrow-minded school board that was constantly looking over my shoulders. To give you an example, I always had to inform and ask permission from the school board, even when it concerned trivial matters such as buying stamps from the post office. In my current school, I receive full support and autonomy. And, to be honest, a good school board is of great importance to your health, because otherwise you can feel stranded on deserted island. ... If you don’t get any support from your board, you’re a lame duck. ... My school board has given me opportunities and that’s very important to me.”

In summary, the qualitative analysis indicates that principals, who express their satisfaction about the support and autonomy provided by the school board, are in general those who experience a higher level of positive well-being (job satisfaction and job enthusiasm).

2. Negative well-being

2.1 Personality characteristics and negative well-being

Besides the significant correlations found between the personality characteristic self-efficacy and positive well-being (i.e. job satisfaction), correlation analysis indicates two highly significant correlations of self-efficacy with cynicism/depersonalization ($r = -.46$; $p < .001$) and personal accomplishment ($r = .45 < .01$). In other words, people who have a lower level of self-efficacy are also more likely to have cynical attitudes and feelings about their students and teachers, and treat them like objects. Furthermore, lack of self-efficacy is also strongly related to more dissatisfaction with accomplishments on the job (i.e. lower personal accomplishment). Also noteworthy to mention is the negative

correlation with emotional exhaustion ($r = -.36$; $p = .02$). In the light of these findings we conclude that people who lack the necessary self-efficacy are also more likely to be a victim of burnout.

As it concerns the level of achievement orientedness (Type A-behaviour) and personal accomplishment (burnout), we noted a highly positive significant correlation, indicating that principals who are less achievement oriented also report a lower level of personal accomplishment ($r = .49$; $p < .001$).

Finally, analogous to the non-significant relationships with positive well-being, no statistically significant correlations were found for locus of control, impatience-irritability (Type A-behaviour), and competitiveness (Type A-behaviour) with the three subscales of burnout (emotional exhaustion, cynicism/depersonalization, personal accomplishment).

2.2 Organisation level factors and negative well-being

2.2.1 School culture, well-being of teachers and structural characteristics.

Of all the school culture dimensions, only one variable 'goal orientedness' showed a positive relationship with personal accomplishment ($r = .37$; $p = .01$), indicating that schools where the vision is not strongly shared often have principals who report a lower level of personal accomplishment. None of the other school culture variables, structural characteristics or well-being of teachers were significantly correlated with negative well-being.

2.2.2 School board.

Conversely to the findings about the role of school board mentioned in the paragraph on positive well-being, we observed that those principals who have a high level of negative well-being (high emotional exhaustion, high cynicism and low personal accomplishment) and report low job satisfaction and job enthusiasm, are also those principals who indicate being hampered in their autonomy by the school board. Furthermore, they find that support from the board is substandard.

This is illustrated by the following citation:

“Well, most of the opposition I get comes from my own school board. I often experience short-sightedness among the members of the school board. It is expected that the school board bear the final responsibility, but in our case, they delegate everything to the principal. Although the board is my immediate boss, I get the impression I’m doing their job. This won’t do any more. On the other hand, they sometimes slow me down too much. And that really frustrates me.”

2.3 The role of government and negative well-being

Our qualitative analyses demonstrate the important role that government plays in explaining the principal’s negative well-being (burnout). Several typical government related characteristics contribute to this negative effect. The first and also biggest source of frustration for principals are the laws and regulations imposed by the government. In 80% of all the interviews, principals expressed their dissatisfaction with imposed regulations by the central government. First of all, some principals express their annoyance with the content of certain laws and regulations, and therefore question the energy and time that has to be invested in complying with these regulations. This is exemplified by one of the principals:

“Doing things I don’t see the meaning or significance of. For instance, I was recently informed that it is my duty as a principal to inform interns about the risks they run when they decide to work at my school. I have to make an inventory of all the possible risks they run, but I don’t get any financial support to handle those risks. So, I really don’t see the purpose of overloading principals with this kind of paperwork, when in the first place nothing is done about preventing those risks. It is the build-up of these little things that start to bother me.”

Others have more difficulties with the impervious legal jargon used in many of these law texts. As one principal stated:

“To even understand one letter of what is written in these texts you should have a masters degree in law. Sometimes I have to read the same paragraph 10 times to grasp the meaning of it, and then I start wondering if I am illiterate. That work is really frustrating. First of all, I am not taught to analyse legal texts, nor is it my priority to invest a lot of time in it, although I acknowledge the importance of understanding the content of these laws.”

Apart from the frustrations that ensue from complying with rules and regulations, strongly related to it involves paperwork and the role of the inspectorate. In total, 67% and respectively 65% of the principals cite that increased paperwork and the role of the inspectorate lead to more demands put on principalship and therefore also extend the possibility of work overload and increased negative well-being. The problems principals report about the role of the inspectorate involve: (1) the discontent of many principals about the patronizing way how the inspectorate treats them; (2) the fact that precious time and money needs to be invested in observing the rules put forth by different inspectorates specialized in the assessment of non-educational matters. The first point of frustration is illustrated in the following quote:

“Well, evaluation by inspection is indeed important to guarantee that schools deliver quality. It is even a necessity. On the other hand, I have some objection to how the inspectorate often treats us [principals]. This is especially the case when they tell you how to manage your school—in my case with 15 years of experience—more effectively. Sometimes they really overstate a situation. Even when your team is satisfied, and you have satisfied students and parents, they attempt to give some criticism on this or that. They always know what is best for the school and overweight the negative points in their evaluation report. That’s a pity and sometimes makes me wonder whether doing this job is really worth all of that.”

With respect to the second point of frustration another principal reports:

“I sometimes have some serious reservations about the labour inspection, and the health inspection, etc. To give you an example, recently, I had a visit from the health inspector for the purpose of controlling for the presence of Legionella pneumophila in the drinking water. Really, it is absurd, but the guy from the inspection stood there with the thermograph in his hand checking the temperature of the hot water that normally should approximate 55 degrees Celsius. The temperature on the thermograph was constantly swinging between 54.8 and 55.3 degrees Celsius. Suddenly, he murmured, “54.8 degrees Celsius is not enough. You will have to do something about that.” To be honest, at that moment my temper boiled, but I managed to stay polite. For goodness sake, how can I do something about that when I even lack the necessary financial means to buy materials for my students...” ... Moreover, these inspections create red tape and are an important source of work overload.”

Besides the paperwork that ensues from complying with the rules and procedures imposed by the inspectorate, paperwork in general and especially red tape has a negative effect on the principal's well-being:

“Way too much red tape. Although I have two secretaries, the biggest part of my working day involves handling paperwork at the expense of time that should be invested in contact with my team and my students. If something could decrease a principal's workload, it would certainly be cutting the red tape, which has magnified tremendously over the last couple of years.”

Finally, a latter point of discontent associated with the role of central government concerns the lack of recognition. Almost 37 per cent of the principals perceive a need for more extrinsic rewards. In other words, some of the principals desire a higher salary or other financial benefits. One of the principals expresses this frustration as follows:

“I am not at all pleased with what I am earning. If I count the hours that I am working for school and have a look at my wage, the conclusion is that I am poorly paid. Especially, when I compare it to similar positions in the profit sector. It is really unfair.”

In short, the qualitative findings show that only one out of the 46 principals was positive about the role of central government, whereas the others expressed negative feelings. Regulations imposed by the government are an important source of negative well-being (burnout). Besides, the negative effect of complying with these regulations, the inspectorate also evokes negative experiences often damaging the principal’s well-being. Most of the principals that were interviewed, expressed their discontent about the patronising behaviour of the inspectorates on educational and non-educational matters. Furthermore, to get a positive evaluation from the inspectorate, a lot of paperwork has to be done, and as such contributes to higher work load. Finally, principals express discontent with one’s earnings. They feel underpaid when they compare themselves to people with a similar job level in the private sector.

To conclude, it is clear from the results that the well-being of principals is a complex phenomenon, related to different individual factors (self-efficacy, achievement orientation, and household situation), organisational level factors (goal orientedness, school board), and strongly affected by the role of the central government.

DISCUSSION

This inquiry provides insight into those variables at an individual, organisational and environmental level that play an important role in the better understanding of the principal's positive and negative well-being.

1. The significant role of government and school board

After screening the findings evidence is found in support of Herzberg's (2003) distinction of motivators (= characteristics associated with positive well-being) and hygiene factors (= characteristics associated with negative well-being). According to this theory hygiene factors are characteristics surrounding the job such as the quality of supervision, policies and regulations, etc. When these factors are inadequate, people will experience more stress and burnout. Motivators on the contrary are job characteristics people find intrinsically rewarding. For instance, 'autonomy received from school boards' is a typical motivator. In consequence, principals should have some level of autonomy and control to run their school properly (Lim, 1995). When we have a closer look at our results, an important observation is the negative role government plays in the principal's well-being. The analysis indicates that this negative role is related to the administrative responsibility and paperwork ensuing from compliance with state, federal rules, and policies. That in combination with the massive paper work requirements from inspection weighs heavily on workload. In fact the excessive time spent on paperwork in order to comply with regulations and policies, often comes at the cost of time principals can invest in pedagogical related tasks (Weindling, 1998). In general, primary school principals choose the job because of the pedagogical side. Hence, the gap between what is highly valued by principals and the expectations from the department of education may lead to role conflict, an important driver of stress (Gmelch and Torelli, 1994). This negative effect of red tape is also confirmed in prior research (Early *et al.*, 2002; Gmelch and Swent, 1981; Revell, 1996). Another important outcome in this inquiry highlights the major role school boards play in explaining the principal's positive well-being. Especially the autonomy and perceived professional or emotional support received from school boards is very much appreciated by primary school principals.

2. School culture, well-being of teachers and structural characteristics

Although literature suggests that healthy school climates are assumed to contribute to employees' positive well-being (Lund, 2003; Nystrom, 1993; Schellenbarger, 2000), our findings do not support the assumption that principals working in healthy climates also experience a higher well-being. An explanation why no difference is found between principals working in different climates is provided by the Attraction-Selection-Attrition theory (Schneider, 1987) and the Value Congruence Hypothesis (Sagiv and Schwartz, 2000). According to the Attraction-Selection-Attrition theory people choose a work environment which they believe is most instrumental in obtaining their valued outcomes. In other words, they are more likely to be attracted by values in organisational climates that fit their own personal values. When there is no fit, people will only stay for a short time period in the organisation. In the case of principals it is plausible that principals with different value profiles are attracted by schools with different cultures. Furthermore, the Value Congruence Hypothesis assumes that congruity between people's values and their environment promotes well-being regardless of the values to which people ascribe importance. People are likely to experience a positive sense of well-being when they inhabit an environment that allows them to attain the goals to which their values are directed (Bouckennooghe *et al.*, 2005; Joiner, 2001; Sagiv and Schwartz, 2000; Taris and Fei, 2001).

Also important to note is that none of the structural characteristics (school size, number of school settlements and the characteristics of student population) and teachers' well-being seem to contribute to a better understanding of the principal's positive and negative well-being. Despite that smaller schools in Flanders receive less financial funding than larger schools it does not explain immediate differences in reported well-being. An important remark, however, involves the observation that principals of both small and large schools complain about a lack of financial funds and therefore can help to provide insight into why no significant differences were noted.

3. Personality: A key factor in the principal's well-being

Besides the role of central government and school boards, we should note the significance of the principal's personality in the explanation of well-being. Apart from the fact that prior research demonstrated the key role a principal plays in students' and teachers' well-being (Hallinger and Heck, 1996), our analyses also show that the principal himself has an important impact on his own well-being. The results indicate that principals who are achievement oriented (component Type A) and convinced of their own capacities to overcome problems successfully (general self-efficacy) also experience higher positive well-being (job satisfaction and job enthusiasm) and lower negative well-being (cynicism and personal accomplishment). Because principals with high self-efficacy cope more effectively with difficulties and are strongly motivated to achieve success, they are more likely to attain valued outcomes and thus experience more well-being in their job. These findings are also confirmed in the more general literature on well-being (Judge and Bono, 2001; Jamal and Baba, 2003).

4. Practical implications

Although we have to be careful with formulating general recommendations due to the small sample size of this study and the specific educational context in Flanders, we offer some suggestions to be considered based on our findings.

(a) *Limit the red tape.* Red tape here refers to rules, regulations and procedures that are in force and entail a compliance burden, but serve no legitimate function for the school. In particular, the central government and especially inspections specialized in controlling non-educational matters are responsible for the majority of red tape. Therefore in order to decrease the work load of principals, it could be very helpful to exempt them of all paperwork that does not involve educational matters. With an average size of 270 students Flemish primary schools are too small to provide a cost efficient allocation of support staff for administrative tasks in each school. Since 2003 primary schools are grouped in entities of at least 900 students.

These new school groups (so-called ‘school communities’) could take on more of the financial, administrative and regulatory tasks which now burdens the principals in the schools. This would permit the principals to focus more on their core tasks related to education and leadership.

(b) *Programs for better handling administrative activities.* Apart from building excellent support systems in the school groups in order to reduce workload, another way to cope with the lack of time due to increased workload is through preparing principals so they learn to plan their administrative activities more effectively. To be effective, principals should analyze the time they spent on each activity by keeping a time log for several weeks. Once this is done, they must classify their tasks as either high pay off (HIPO) or low pay off (LOPO) activities. The HIPO’s should be put at the bottom of the list and receive immediate attention, and LOPO’s should be relegated to the bottom of the list, delegated, or even forgotten. This gives principals a start on how to allocate their time (Gmelch and Swent, 1981).

(c) *Recognize the demanding role of the principal.* From this study it is evident that principals are confronted with an increasing set of demands. Accountability pressures and a substantial amount of paperwork that needs to be handled in order to comply with government regulations are important sources of burnout. Especially, the evolution toward self-managing schools has changed the traditional role of principals tremendously, leading to increased responsibilities and a higher workload. Furthermore in the decision making arena, as a result of the educational landscape reform, there is the necessity of obtaining input from different groups before decisions are made, adding time and complexity to the principal’s job. All of that and many other little things amount the time and effort principals devote to their work. Despite, the high efforts principals invest in their job, a lack of recognition is experienced. A recent Hay Group study (2001) compared salaries of education with other sectors. Results showed that salaries of teachers are average compared to the labour market, but that those of principals are well below the average. The salaries have not changed since this study. In view of the demanding role of the principal there is a need for more recognition by the central government in the form of extrinsic rewards. A substantial salary increase can limit the risk of a principal shortage in the future. In Flanders more and more teachers ask

themselves why they should take on such a large responsibility as a principal when this increase in responsibility and workload is not compensated in a substantial salary increase. The difference in salary between a teacher and a principal in Flanders is negligible.

(d) Finding the right balance between autonomy and support. The level of autonomy and support provided by the school board is an important source of positive and negative well-being. School boards should find the perfect harmony between both facets of well-being, because too much or too little autonomy and support can have harmful effects, supporting Warr's Vitamin Model (Warr, 1990). For instance, for operational tasks (e.g. buying office material, stamps, etc.) the principal should have complete autonomy. But for major decisions (e.g. large infrastructural investments, dismissal of permanently appointed teachers) principals need the support of their school board. Therefore, school boards need to invest in professional development. In Flanders many school board members are volunteers who have no professional training. Although the engagement of local community members in the school boards are an important element of the integration of the school in this local community, school boards should additionally be assisted by professionally trained governors. School boards should search for a balance between professional governmentship and local community integration.

(e) Selecting the persons with the right traits. Because principals who are achievement oriented and have high levels of self-efficacy, are more likely to experience higher positive and lower negative well-being, an important HR-implication for schools involves the selection of people that score high on these traits. To our knowledge a validated selection tool to assess both traits, however, still needs to be developed. Also, it is important that school boards have the necessary skills to select and evaluate principals. Here again the need for a professional school board becomes manifest.

5. Conclusion

Like all empirical studies, this one has both strengths and weaknesses. The most important weakness of this study is the moderate sample size, making it difficult to rely on multivariate techniques of analysis. Despite the small sample size, we should note that our findings have good generalisability because a stratified random sample was used ensuring representativeness for different characteristics of Flemish elementary schools.

As for the strengths, this study is one of the very few in Flanders that investigates the relationship of personality characteristics, organisation level factors and environment level factors with well-being. Furthermore, this inquiry treats well-being as a multidimensional construct comprised of a negative (burnout) and positive pole (job enthusiasm and job satisfaction). Another strength of this study is the application of a relatively novel approach to selecting data - the concurrent mixed method design - which is an interesting tool to guard against the problem of common method variance. To conclude, this inquiry has important theoretical as well as practical implications on ways how we can optimize the principal's well-being.

REFERENCES

- Atlas ti. (2004), User's Guide and Reference, Version 5.0.
- Bandura, A. (1991), "Social cognitive theory of self-regulation", *Organizational Behavior and Human Decision Processes*, Vol. 50, pp. 248-87.
- Bergin, M. and Solman, R. (1988), "Perceptions of role-related stress in senior educational executives and its relationship to their health", *Journal of Educational Administration*, Vol. 26, pp. 159-83.
- Booth-Kewley, S. and Friedman, H.S. (1987), "Psychological predictors of heart disease: A quantitative review", *Psychological Bulletin*, Vol. 101, pp. 343-62.
- Bouckenooghe, D., Buelens, M., Fontaine, J. and Vanderheyden, K. (2005), "The prediction of stress by values and value conflict", *Journal of Psychology*, Vol. 139, pp. 369-82.
- Buelens, M., Van den Broeck, H., Vanderheyden, K., Kreitner, R. and Kinicki, A. (2006), *Organizational Behaviour*, McGraw-Hill, London.
- Caldwell, B. (1992), "The principal as leader of the self-managing school in Australia", *Journal of Educational Administration*, Vol. 30, pp. 6-19.
- Carr, A. (1994), "Anxiety and depression among school principals. Warning principalship can be hazardous to your health", *Journal of Educational Administration*, Vol. 32, pp. 18-34.
- Carroll, J.F. and White, W.L. (1989). "Theory building: Integrating individual and environmental factors within an ecological framework," in W.S. Paine (Ed.), *Job Stress and Burnout: Research, Theory, and Intervention Perspectives*, Sage, Beverly Hills CA, pp. 41-61.

Chan, D. (1998), "Functional relations among constructs in the same content domain at different levels of analysis: A typology of composition models, *Journal of Applied Psychology*, Vol. 83, 234-46.

Chen, G., Gully, S.M. and Eden, D. (2001), "Validation of a new general self-efficacy measure", *Organizational Research Methods*, Vol. 4, pp. 62-82.

Conrad, T.L. and Rosser, V.J. (2006), "Examining the satisfaction of educational leaders and the intent to pursue career advancement in public school administration", paper presented at the annual meeting of AERA, San Francisco.

Coolican, H. (2004), *Research Methods and Statistics in Psychology*, Hodder & Stoughton, London.

Cranston, N. (1994), "Strategic management in schools: A new role for the principal", *Asia Pacific Journal of Human Resources*, Vol. 32, pp. 100-9.

Creswell, J.W. (2003), *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*, Sage, Thousand Oaks, CA.

Deal, T.E. and Peterson, K.D. (1999), *Shaping School Culture: The Heart of Leadership*, Jossey-Bass, San Francisco CA.

Devos, G., Van den Broeck, H. and Vanderheyden, K. (1998), "The concept and practice of a school-based management contest, integration of leadership development and organizational learning", *Educational Administration Quarterly*, Vol. 34, pp. 700- 717.

Devos, G. and Vanderheyden, K. (2002). "Attracting, developing and retaining effective teachers. Background report for Flanders", available at: <http://www.oecd.org/pdf/M0003700/M00037100.pdf>.

Devos, G. Verhoeven, J.C., Beuselinck, I., Van den Broeck, H. and Vandenberghe, R. (1999), *De Rol van Schoolbesturen in het Schoolmanagement*, Garant, Leuven/Apeldoorn.

Devos, G., Verhoeven, J.C., Stassen, K. and Warmoes, V. (2004), *Personeelsbeleid in Vlaamse Scholen*, Wolters Plantyn, Mechelen.

Dewitte, H. and De Cuyper, N. (2003), "Towards a positive perspective on well-being: Investigating the positive engagement of the Flemish employee", in Herremans, W. (Ed.), *The Flemish Labour Market: Report Flemish Labour Market Day*, Leuven University Press, Leuven.

Dworkin, A.G. (1987), *Teacher Burnout in the Public Schools: Structural Causes and Consequences for Children*, Suny Press, Albany.

Early, P., Evans, J., Collarbone, P., Gold, A. and Halpin, D. (2002), *Establishing the Current State of Schoolleadership in England*, Institute of Education University of London, London.

Edwards, J.R., Baglioni, A.J. and Cooper, C.L. (1990), "Examining the relationships among self-report measures of the Type A behavior pattern: The effects of dimensionality, measurement error, and differences in underlying constructs", *Journal of Applied Psychology*, Vol. 75, pp. 440-54.

Evers, A., Frese, M. and Cooper, C.L. (2000), "Revisions and further developments of the Occupational Stress Indicator: LISREL results from four dutch studies", *Journal of Occupational and Organizational Psychology*, Vol. 73, pp. 221-40.

Friedman, M. and Rosenman, R. (1974), *Type A Behavior and your Heart*, Knopf, New York.

Friesen, D. and Sarros, J. (1989), "Sources of burnout among educators", *Journal of Organizational Behaviour*, Vol. 10, pp. 179-88.

Ganster, D.C. (1986), "Type A behavior and occupational stress", *Journal of Organizational Behavior Management*, Vol. 8, pp. 61-84.

Ganster D.C. and Fusilier, M.R. (1989), "Control in the work place. In C.L. Cooper and I.T. Robertson (Eds.), *International Review of Industrial and Organizational Psychology*, Wiley, Chichester, pp. 235-280.

Gist, M.E. and Mitchell, T.R. (1992), "Self-efficacy: A theoretical analysis of its determinants and malleability, *Academy of Management Review*, Vol. 17, pp. 183-211.

Glass, T.E., Bjork, L and Brunner, C.C. (2000), *The Study of the American School Superintendency 2000: A Look at the Superintendent of Education in the New Millenium*, American Association of School Administrators, Arlington VA.

Gmelch, W.H. and Gates, G. (1998), "The impact of personal, professional and organizational characteristics on administrator burnout", *Journal of Educational Administration*, Vol. 36, pp. 146-59.

Gmelch, W.H. and Swent, B. (1981), "Stress and the principalship: Strategies for self-improvement and growth", *NASSP Bulletin*, Vol. 65, pp. 16-9.

Gmelch, W.H. and Torelli, J.A. (1994), "The association of role conflict and ambiguity with administrator stress and burnout", *Journal of School Leadership*, Vol. 4, pp. 341-55.

Green R., Malcolm S., Greenwood, K., Small, M. and Murphy, G. (2001), "A survey of the health of Victorian primary school principals", *The International Journal of Educational Management*, Vol. 15, pp. 31-8.

Griffith, J. (1999), "The school leadership/school climate relation: Identification of school configurations associated with change in principals", *Educational Administration Quarterly*, Vol. 35, pp. 267-91.

Hackman, J.R. and Oldham, G.R. (1975), "The development of the Job Diagnostic Survey", *Journal of Applied Psychology*, Vol. 60, pp. 159-70.

Hair, J.F., Anderson, R.E., Tatham, R.L. and Black, W.C. (1998), *Multivariate Data Analysis*, Prentice-Hall, New Jersey.

Hallinger, P. (2003), "Leading educational change: Reflections on the practice of instructional and transformational leadership", *Cambridge Journal of Education*, Vol. 33, pp. 329-51.

Hallinger, P. and Heck, R.H. (1996), "Reassessing the principal's role in school effectiveness, A review of empirical research, 1980-1995", *Educational Administration Quarterly*, Vol. 32, pp. 5-44.

Hargreaves, D.H. (1995), "School culture, school effectiveness and school improvement", *School effectiveness and school improvement*, Vol. 6, 23-46.

Hay Group (2001) een nieuw integraal beloningsbeleid voor het onderwijspersoneel. Eerste fase: vergelijkende loonstudie en eerste aanbevelingen.

Heck, R.H. and Marcoulides, G.A. (1996), "School culture and performance: Testing the invariance of an organizational model", *School Effectiveness and School Improvement*, Vol. 7, pp. 76-95.

Herzberg, F. (2003), "One more time: How do you motivate employees?", *Harvard Business Review*, Vol. 81, pp. 87-96.

Hofmann, T.D.A. (2002), "Issues in multilevel research: Theory development, measurement, and analysis", In S.G. Rogelberg (Ed.), *Handbook of Research Methods in Industrial and Organizational Psychology*, Blackwell, Oxford, pp. 247-74.

Hoppock, R.H. (1935), *Job Satisfaction*, Harper & Brothers, New York.

Hoy, W.K. and Tarter, C.J. (1997), *The Road to Open and Healthy Schools: A Handbook for Change*, Corwin Press, California.

Ivancevich J.M. and Matteson, M. T. (2002), *Organizational Behavior and Management*, McGraw-Hill, New York.

Jamal, M. and Baba, V. (2003), "Type A behavior, components, and outcomes: A study of Canadian employees", *Journal of International Stress Management*, Vol. 10, pp. 39-50.

James, L.A. and James, L.R. (1989), "Integrating work environment perceptions: Explorations into the measurement of meaning", *Journal of Applied Psychology*, Vol. 74, 739-751.

James, L.R., James L.A. and Ashe, D.K. (1990), "The meaning of organizations: The role of cognition and values." In B. Schneider (Ed.), *Organizational Climate and Culture*, Jossey-Bass, San Francisco CA, pp. 40-129.

Johnson, N. and Holdaway, E. (1991), "Perceptions of effectiveness and satisfaction of principals in elementary schools", *Journal of Educational Administration*, Vol. 29, pp. 51-70.

Joiner, T. (2001), "The influence of national culture and organizational culture alignment on job stress and performance. Evidence from Greece. *Journal of Managerial Psychology*, Vol. 16, pp. 229-42.

Judge, T.A. and Bauer, T.N. (1997), "Personality and work role affect", paper presented at the annual meeting of the Academy of Management, Boston MA.

Judge, T.A. and Bono, J.E. (2001), "Relationship of core self-evaluations traits – self-esteem, generalized self-efficacy, locus of control, and emotional stability – with job satisfaction and job performance: a meta-analysis", *Journal of Applied Psychology*, Vol. 86, pp. 80-92.

Karasek, R.A. and Theorell, T. (1990), *Healthy Work, Stress, Productivity, and the Reconstruction of Working Life*, Basic Books, New York.

Klein, K.J. and Kozlowski, S.W. (2000), "From micro to meso: Critical steps in conceptualizing and conducting multilevel research", *Organizational Research Methods*, Vol. 3, pp. 211-36.

Kobasa, S.C., Maddi, S.R. and Kahn, S. (1982), "Hardiness and health: A prospective study. *Journal of Personality and Social Psychology*, Vol. 42, pp. 168-77.

Lawler, E.E. (1973), *Motivation in Work Organizations*, Brooks/Cole, Monterey CA.

Lawler, E.E., Mohrman, S.A. and Ledford, G.E. (1995), *Creating High Performance Organizations: Practices and Results of Employee Involvement and Total Quality Management in Fortune 1000 Companies*, Jossey-Bass, San Francisco.

Leithwood, K., Chapman, J., Corson, D., Hallinger, P. and Hart, A. (1996), *International Handbook of Educational Leadership and Administration*, Kluwer Academic Publishers: Dordrecht.

Leithwood, K. and Jantzi, D. (2000), "The effects of different sources of leadership on student engagement in school", in K. Riley and K. Louis (Eds.), *Leadership for Change and School Reform*, Falmer Press.

Levine, D.U. and Lezotte, L.W. (1990), *Unusually Effective Schools: A Review and Analysis of Research and Practice*, National Center for Effective Schools Research and Development, Madison WI.

Lim, T.K. (1995), "Stress demands on school administrators in Singapore", *Work & Stress*, Vol. 9, pp. 491-501.

Lindell, M.K. and Brandt, C.J. (1997), "Measuring interrater agreement for ratings of a single target", *Applied Psychological Measurement*, Vol. 21, pp. 271-8.

Lindell, M.K., Brandt, C.J. and Withney, D.J. (1999), "A revised index of agreement for multi-item ratings of a single target", *Applied Psychological Measurement*, Vol. 23, pp. 127-35.

Locke, E.A. (1976), "The nature and causes of job satisfaction", *Handbook of Industrial and Organizational Psychology*, In Dunnette, M.D. (Ed.), Rand McNally, Chicago.

Lund, D.B. (2003), "Organizational culture and job satisfaction", *The Journal of Business and Industrial Marketing*, Vol. 18, pp. 219-236.

Maslowski R. (2001), *School Culture and School Performance: An Explorative Study into the Organizational Culture of Secondary Schools and Their Effects*. Twente University Press, Twente.

Maslach, C. and Jackson, S.E. (1986), *Maslach Burnout Inventory Manual*, Consulting Psychologists Press, Palo Alto CA.

Maslach, C. and Leiter, M.P. (1997), *The Truth about Burnout: How Organizations Cause Personal Stress and what to do about it*, Jossey-Bass, San Francisco.

McGrath, J. (1976), *Handbook of Industrial and Organizational Psychology*, Rand McNally Publishing Company, Chicago.

McGrath, J. (1982), "Dilemmatics: The study of research choices and dilemmas", in J.E. McGrath, J. Martin and R. A. Kulka (Eds.), *Judgement Calls in Research*, Sage, Newbury Park, CA, pp. 69-102.

Miles, M.B. and Huberman, A.M. (1994), *Qualitative Data Analysis: An Expanded Sourcebook*, Sage Publications, Beverly Hills.

Morse, J.M. (1991), Approaches to qualitative-quantitative methodological triangulation, *Nursing Research*, Vol. 40, pp. 120-3.

Newton, T.J. and Keenan, A. (1990), "The moderating effect of the Type A behavior pattern and locus of control upon the relationship between change in job demands and change in psychological strain, *Human Relations*, Vol. 43, pp. 1229-55.

Nystrom, P.C. (1993), "Organizational cultures, strategies and commitments in healthcare organizations", *Health Care Management Review*, Vol. 18, pp. 43-9.

Podsakoff, P. and Organ, D. (1986), "Self-reports in organizational research: Problems and prospects", *Journal of Management*, Vol. 12, pp. 531-45.

Revell, R. (1996), "Realities and feelings in the work of primary heads", *Cambridge Journal of Educational Research*, Vol. 29, pp. 335-46.

Ross, T.A. (1999), "The study of stress in principals: Towards an improved methodology", *Journal of School Leadership*, Vol. 9, pp. 375-99.

Ryan, W. (1971), *Blaming the Victim*, Pantheon Books, New York.

Sagiv, L. and Schwartz, S. (2000), "Value priorities and subjective well-being. Direct relations and congruity effects", *European Journal of Social Psychology*, Vol. 30, pp. 177-98.

Sammons, P., Hillman, J. and Mortimore, P. (1995), *Key Characteristics of Effective Schools: A Review of School Effectiveness Research*, Office for Standards in Education, London.

Scandura, T.A. and Williams, E. (2000), "Research methodology in management: current practices, trends, and implications for future research", *Academy of Management Journal*, Vol. 43, pp. 1248-64.

Schaufeli, W. B., Salanova, M., González-Romá, V. and Bakker, A. B. (2002), "The measurement of engagement and burnout: A two sample confirmatory factor analytic approach", *Journal of Happiness Studies*, Vol. 3, pp. 71-92.

Schaufeli, W. and van Dierendonck, D. (2000), *UBOS-Utrechtse BurnOut Schaal: Manual*, Swets & Zeitlinger, Lisse.

Schein, E.H. (1992), *Organizational Culture and Leadership*, Jossey-Bass, San Francisco CA.

Schellenbarger, S. (2000), "Companies are finding real payoffs in aiding employee satisfaction", *Wall Street Journal*, October 11, New York.

Schneider, B. (1987), "The people make the place", *Personnel Psychology*, Vol. 40, pp. 437-53.

Scott, C. and Dinham, S. (2003), "The development of scales to measure teacher and school executive occupational satisfaction", *Journal of Educational Administration*, Vol. 41, pp. 74-86.

Seligman, M.P. and Csikszentmihalyi, M. (2000), "Positive psychology", *American Psychologist*, Vol. 55, pp. 5-14.

Sergiovanni, T.J. (2006), *The Principalship: A Reflective Practice Perspective*, Pearson Education, New York.

Spector, P.E. (1982), "Behavior in organizations as a function of employee's locus of control", *Psychological Bulletin*, Vol. 91, pp. 482-97.

Spector, P.E. (1988), "Development of work locus of control scale", *Journal of Occupational Psychology*, Vol. 61, pp. 335-40.

Spector, P.E. and O'Connell, B.J. (1994), "The contribution of personality traits, negative affectivity, locus of control and Type A to the subsequent reports of job stressors and job strains", *Journal of Occupational and Organizational Psychology*, Vol. 67, pp. 1-11.

Spector, P.E., Cooper, C.L., Sanchez, J.I., O'Driscoll, M., Sparks, K. and Bernin, P. (2002), "Locus of control and well-being at work: How generalizable are western findings?", *Academy of Management Journal*, Vol. 45, pp. 453-66.

Staessens, K. (1990), "De professionele cultuur van basisscholen in vernieuwing. Een empirisch onderzoek in V.L.O.-scholen", unpublished PhD thesis, Leuven University, Leuven.

Taris, R. and Feij, J.A. (2001), "Longitudinal examination of relationship between supplies values fit and work outcomes", *Applied Psychology: An International Review*, Vol. 50, pp. 52-80.

Tashakkori, A. and Teddlie, C. (1998), *Mixed Methodology: Combining Qualitative and Quantitative Approaches*, Sage, Thousand Oaks CA.

Thompson, D.P., McNamara, J.F. and Hoyle, J.R. (1997), "Job satisfaction in educational organizations: A synthesis of research findings", *Educational Administration Quarterly*, Vol. 33, pp. 7-37.

Thornton, P.J. (1996), "The physiological, psychological and work stress of primary school principals", *The International Journal of Educational Management*, Vol. 10, pp. 42-55.

Tesch, R. (1990), *Qualitative Research: Analysis Types and Software Tools*, Falmer, New York.

Tichatonga, N.J. (1999), "Determinants and prevalence of occupational stress among Zimbabwean school administrators", *Journal of Educational Administration*, Vol. 37, pp. 256-72.

Vandenberghe, R. (1992), "The changing role of principals in primary and secondary schools in Belgium", *Journal of Educational Administration*, Vol. 30, pp. 20-34.

Vandenberghe, R., Daniëls, K., Dierynck, R. and Joris, C. (2003), *Starting principals in primary schools: An investigation on the professional development of school leaders*, Leuven University Press, Leuven.

Valentine, J., Cockrell, D., Herndon, B. and Solomon, B. (2006). "Project ASSIST: A comprehensive, systemic change initiative for middle level schools", Paper presented at annual meeting of AERA, San Francisco.

Wanous, J.P. and Lawler, E.E. (1972), "Measurement and meaning of job satisfaction", *Journal of Applied Psychology*, Vol. 56, pp. 95-105.

Warr, P.B. (1987), *Work, Unemployment, and Mental Health*, Clarendon Press, Oxford.

Warr, P.B. (1990), "Decision latitude, job demands, and employee well-being", *Work & Stress*, Vol. 4, pp. 285-94.

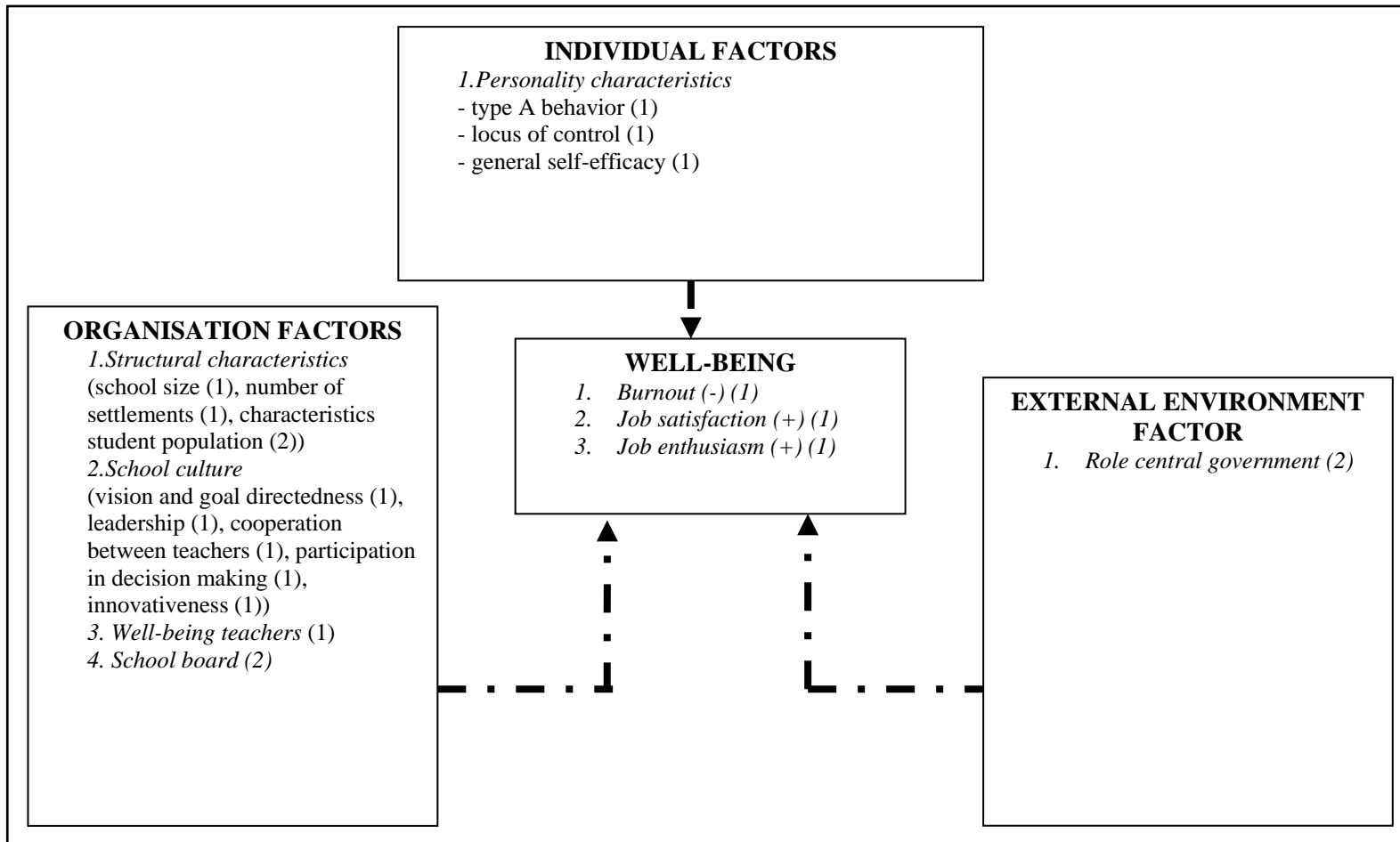
Weindling, D. (1998), "Reform, restructuring, role and other 'R' words: The effects on headteachers in England and Wales", *International Journal of Educational Research*, Vol. 29, pp. 299-310.

Whitaker, K.S. (1995), "Principal burnout: Implications for professional development", *Journal of Personnel Evaluation in Education*, Vol. 9, pp. 287-96.

Wood, R. and Bandura, A. (1989), "Social cognitive theory of organizational management", *The Academy of Management Review*, Vol. 14, 361-384.

FIGURE I

Conceptual framework



1 = quantitative data; 2 = qualitative data

TABLE I**School characteristics**

	STUDY SAMPLE (N = 46)	POPULATION (N = 2310)
SCHOOL SYSTEM		
1. State schools	20%	15%
2. Official subsidized schools	26%	22%
3. Freely subsidized schools	54%	63%
PROVINCE		
1. Antwerpen	26%	26%
2. Brussels Hoofdstedelijk Gewest	4%	5%
3. Limburg	15%	13%
4. Oost-Vlaanderen	24%	22%
5. Vlaams-Brabant	11%	15%
6. West-Vlaanderen	20%	19%
SCHOOL TYPE		
1. Nursery schools (NS)	7%	7%
2. Primary schools (PS)	7%	8%
3. NS + PS	86%	85%
GENDER PRINCIPAL		
1. Male	61%	57%
2. Female	39%	43%
AGE PRINCIPAL		
< 35 years	2%	3%
35 – 49 years	46%	42%
>= 50 years	52%	55%

TABLE II

Within-group agreement index school culture dimensions and well-being of teachers

DIMENSIONS	r_{wg}
1. Goal orientedness	.81
2. Supportive principal behaviour	.82
3. Initiating structure behaviour	.83
4. Formal relationships	.81
5. Informal relationships	.72
6. Innovativeness	.88
7. Participative decision making	.77
8. Well-being teachers	.83

TABLE III

Descriptive statistics and reliability measures scales

Scales	M	SD	α	Response format
<i>A. Questionnaire principals</i>				
1. Burnout (Schaufeli & van Dierendonck, 2000)				
1.1 Emotional exhaustion (5 items)	2.11	1.02	.94	(1) never – (5) every day
1.2 Cynism/ depersonalisation (5 items)	1.83	.59	.75	(1) never – (5) every day
1.3 Personal accomplishment (6 items)	3.62	.52	.79	(1) never – (5) every day
2. Job satisfaction (Evers et al., 2000) (6 items)	3.53	.58	.77	(1) not at all satisfied – (5) very satisfied
3. Job enthusiasm (Dewitte & Decuyper, 2003) (7 items)	3.94	.60	.87	(1) strongly disagree – (5) strongly agree
4. Type A behaviour (Evers et al., 2000)				
4.1 Achievement orientation (7 items)	4.52	.38	.82	(1) strongly disagree – (5) strongly agree
4.2 Irritation (7 items)	2.42	.63	.75	(1) strongly disagree – (5) strongly agree
4.3 Competitiveness (6 items)	2.95	.75	.71	(1) strongly disagree – (5) strongly agree
5. Locus of control (Spector, 1988) (7 items)	2.74	.61	.79	(1) strongly disagree – (5) strongly agree
6. General self-efficacy (Chen, Gully & Eden, 2001) (8 items)	3.76	.48	.85	(1) strongly disagree – (5) strongly agree
<i>Questionnaire teachers</i>				
1. School culture				
1.1 Goal orientedness (Staessens, 1990) (6 items)	3.66	.67	.80	(1) strongly disagree – (5) strongly agree
1.2 Leadership (Hoy & Tarter, 1997)				
1.2.1 Supportive principal behaviour (7 items)	4	.69	.89	(1) strongly disagree – (5) strongly agree
1.2.2. Initiating structure behaviour (4 items)	3.91	.63	.77	(1) strongly disagree – (5) strongly agree
1.3 Participative decision making (Devos et al., 2002) (3 items)	3.74	.75	.74	(1) strongly disagree – (5) strongly agree
1.4 Innovativeness (Maslowski, 2001) (6 items)	3.91	.54	.80	(1) strongly disagree – (5) strongly agree
1.5 Cooperation between teachers				(1) strongly disagree – (5) strongly agree
1.5.1 Formal relationships (Staessens, 1990), (7 items)	3.81	.66	.84	(1) strongly disagree – (5) strongly agree
1.5.2 Intimate behaviour (Hoy & Tarter, 1997)	3.38	.81	.72	(1) strongly disagree – (5) strongly agree
2. Well-being team (Aeltermann et al., 2002) (9 items)	4.26	.54	.81	(1) strongly disagree – (5) strongly agree

TABLE IV

Correlates of positive and negative well-being

	Job satisfaction	Job enthusiasm	Emotional exhaustion	Cynism	Personal accomplishment
	r	r	r	r	r
<i>1. Personality characteristics</i>					
Self-efficacy	.38**	.32*	-.36*	-.46***	.45**
Locus of control	.02	.18	-.02	-.11	-.04
Achievement orientation (Type A)	.31*	.55***	-.15	-.28	.49***
Impatience –irritability (Type A)	-.29	-.19	.10	.27	-.16
Competitiveness (Type A)	.02	-.07	.12	.24	.16
<i>2. School culture^a</i>					
Goal orientedness	.27	.20	-.03	-.13	.37*
Supportive principal behaviour (leadership)	.20	.15	-.05	-.07	.21
Initiating structure (leadership)	.05	.15	-.04	.00	.14
Participative decision making	.20	.14	-.07	-.01	.22
Innovativeness	.15	.17	.02	-.09	.16
Formal relationships (cooperation between teachers)	.09	.06	.11	.09	.19
Intimate behaviour (cooperation between teachers)	.08	.11	.12	.13	.13
<i>3. Well-being team</i>					
	.35*	.32*	-.03	-.16	.18
<i>4. Structural characteristics</i>					
Number of students (school size)	.09	.23	.08	-.05	-.03
Number of teachers (school size)	.14	.07	.04	.01	-.24

^a Unit of analysis are principals not individual teachers

* p<.05; **p<.01; ***p<.001