Leadership style and organizational learning: the mediate effect of school vision

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Abstract
Purpose – Fundamentally, the success of schools depends on first-rate school leadership, on leaders reinforcing the teachers’ willingness to adhere to the school’s vision, creating a sense of purpose, binding them together and encouraging them to engage in continuous learning. Leadership, vision and organizational learning are considered to be the key to school improvement. However, systematic empirical evidence of a direct relationship between leadership, vision and organizational learning is limited. The present study aims to explore the influence of principals’ leadership style on school organizational learning, using school vision as a mediator.

Design/methodology/approach – The data were collected from 1,474 teachers at 104 elementary schools in northern Israel, and aggregated to the school level.

Findings – Mediating regression analysis demonstrated that the school vision was a significant predictor of school organizational learning and functioned as a partial mediator only between principals’ transformational leadership style and school organizational learning. Moreover, the principals’ transformational leadership style predicted school organizational vision and school organizational learning processes. In other words, school vision, as shaped by the principal and the staff, is a powerful motivator of the process of organizational learning in school.

Research implications/limitations – The research results have implications for the guidance of leadership practice, training, appraisal and professional development.

Originality/value – The paper explores the centrality of school vision and its effects on the achievement of the school’s aims by means of organizational learning processes.

Keywords Learning organizations, Leadership, Schools, Israel

Paper type Research paper

Introduction
The success of schools fundamentally depends on school leaders. School leaders are being held accountable for how well teachers teach and how much students learn (Fullan, 2002; Sergiovanni, 2001; Dinham, 2005), and are essential for high-quality education (Leithwood and Riehl, 2003; Harris, 2005; Hallinger, 2003; Stewart, 2006). School leadership effects appear to be mostly indirect. That is, leaders influence student learning by helping to promote vision that guide and ensure organizational learning processes in which teachers routinely share their learning with others and improve their ability to
Vision is considered to be the essence of leadership, which create a sense of purpose that binds teacher together and propels them to fulfill their deepest aspirations and to reach for ambitious goals (Leithwood and Riehl, 2003; Ylimaki, 2006). Leadership in a learning organization starts with the principle of creative tension (Senge, 1990). Creative tension comes from seeing clearly where we want to be, our "vision," and telling the truth about where we are, our "current reality." The gap between the two generates a natural tension. Without vision there is no creative tension. The natural energy for changing reality comes from holding a picture of what might be that is more important to people than what is. With creative tension, the energy for change comes from the vision, from what we want to create, juxtaposed with current reality. With creative tension, the motivation is intrinsic. This distinction mirrors the distinction between adaptive and generative learning.

Despite vision being central and vital construct in leadership theories, and essential drive organizational learning processes, to date, prior research has not systematically examined how vision used by school leadership reinforces and promotes organizational learning processes in school.

The purpose of this study was to examine the relationship between principals’ leadership style (transformational, transactional, and laissez-faire) and school organizational learning, using school vision as a mediator in this relationship. The conceptual framework for this study is rooted in the current organizational learning literature (Pedler, 1996; Lipshtiz et al., 2006; Ortenblad, 2002; Argyris and Schon, 1978; Senge, 1990), on the theory of transformational leadership (Bass, 1985; Burns, 1978) that considers vision as a key element of transformational leadership (Bass, 1999), and on recent examinations of organizational vision attributes (Ruvio, 2001; Baum et al., 1998; Larwood et al., 1995; Berson et al., 2001).

Transformational leadership appears to take vision as a given in terms of being a component of leadership that motivates people to higher levels of effort and performance in organizations generally (Bass, 1985, 1999; Baum et al., 1998; Bennis and Nanus, 1985; House, 1977; Larwood et al., 1995; Sashkin, 1988; Ylimaki, 2006) and in schools in particular (Leithwood and Riehl, 2003; Harris, 2005; Hallinger, 2003; Stewart, 2006). Vision implies that the leader knows what the core values and core tasks of the organization are, and what the organization should achieve. Vision can inspire teachers (as subordinates) to perform exceptionally well (Frese et al., 2003). A collective vision is a crucial element of organizational learning (Johnson, 2002; Bass, 2000; Senge, 1990). Transformational leadership, vision and organizational learning processes are the key to school improvement (Bass, 2000; Fullan, 1995, 1997; Lam, 2001; Leithwood et al., 1998; Leithwood, 2004). The study reported here follows this line of theoretical reasoning and proposes a model, which examines the relationship between principals’ leadership style (transformational, transactional, and laissez-faire leadership), school vision and school organizational learning, and the influence of principals’ leadership style on organizational learning, using school vision as a mediator (see Figure 1).

Conceptual background and hypotheses

School organizational learning

The concept of school as a learning organization has evolved in response to difficulties, experienced in bringing about school reform. For school reform to succeed, it is
important that teachers recognize the value of learning as a continuous collective process (Schechter et al., 2004). Productive organizational learning is important for both the organizations and for the quality of working life.

Evidence from a study of Australian secondary schools (Silins et al., 2002) indicates that higher performing schools are functioning as learning organizations. Schools that engage in organizational learning enable staff at all levels to learn collaboratively and continuously and put this learning to use in response to social needs and the demands of their environment (Silins et al., 2002, p. 639). According to Voulalas and Sharpe (2005, p. 196):

A learning organization is one which, as a corporate entity, constantly learns from its past and present experiences and its contemplation of the future, and consciously uses these learnings to continuously change and adapt in such a way as to maximize its outcomes in terms of its purpose in its constantly changing environment.

The evidence accumulating suggests that schools functioning as learning organizations improve their effectiveness (Fullan, 2002; Leithwood et al., 1998; Larsson et al., 2001; Chapman and Harris, 2004). Lipshitz et al. (2006), who investigate military and public organizations, emphasize the importance and need for structures, enabling the organization’s members to jointly collect, analyze, disseminate and apply information and knowledge. They call these structures “organizational learning mechanisms” (Lipshitz et al., 2006, p. 16). According to Lipshitz et al. (2006):

Organizational learning mechanisms are the fundamental building blocks of organizational learning, they explain how organizations learn.

At school working and learning merge, teachers engage in both task performance and in learning about their performance, while learning occurs in very close proximity to performance. Kurland and Hertz-Lazarowitz (2006) identified four organizational learning mechanisms in elementary schools:

(1) Staff involvement.
(2) Evaluation.
(3) In-school professional development.
(4) Information management.

Staff involvement mechanisms enable staff at all levels to establish mutual goals and take part in decision-making about the issues that are important to deal with (Lam, 2004). People learn while feeling truly responsible for their actions, having the ability to make decisions and to influence circumstances (Newmann et al., 2000; Voulalas and Sharpe, 2005).

Figure 1.
Study model
Evaluation mechanisms enable organization members to improve constantly on the basis of data analysis, lessons learned, and conclusions drawn. They promote ongoing improvement, ensuring progress towards pre-determined goals. In this process the team decides on the aspects to be improved and the criteria for success, examines the processes and outcomes in the light of these criteria, and draws the relevant conclusions (Davis et al., 2003). This type of process becomes the basis for the next step to be taken (Yeo, 2003; Voulalas and Sharpe, 2005). Systematic use of assessment mechanisms is a necessary condition for organizational learning in school and its improvement (e.g. Silins et al., 2002; Torres and Preskill, 2001).

In-school professional development mechanisms allow teachers to construct their professional knowledge and tie it to their experiences through a joint examination of data regarding students’ achievements, investing these achievements with meaning, developing an action plan based on the data, implementing it, and following up this implementation (Connelly and Clandinin, 1985). Thus the teachers’ professional development is based on shared experiences and their examination, while focusing on the critical actions of teaching and learning (Fullan, 2001; Newmann et al., 2000; Voulalas and Sharpe, 2005). Shared learning of this type creates a synergy, leading the organization towards growth and continuous development (Foster et al., 2004).

Information management mechanisms allow the transference of practical knowledge, developed by teachers in their classes, to other teachers in the school (Kurland and Hertz-Lazarowitz, 2006). Receiving and passing on of information and knowledge is critical for the improvement of performance of the school as an organization (Fullan, 2002). The contribution to the effectiveness of the school as an educational organization is higher in schools that make use of documentation of practical examples of good teaching practice, based on assessment, and of recommendations for improvement, than in schools where all this does not take place (Hayes et al., 2004; Wagner, 2001).

It is important for a learning organization to have as a central tenet, a commitment to help people “embrace change” (e.g. Senge et al., 1994). It does not happen automatically, but requires a commitment to building the necessary skills throughout the organization. Promoting productive learning is part of the managers’ leadership functions, since it requires persuading subordinates that learning and the implementation of lessons learned is essential for their own performance and well-being, as well as the performance and well-being of the organization. Evidence from a study of the Australian public education system (Voulalas and Sharpe, 2005) indicates that leadership plays a crucial role in the process of transforming schools into learning organizations. Transformational approaches to leadership have long been advocated as productive under conditions fundamentally the same as those faced by schools targeted for reform. Considerable evidence suggests that transformational leadership contributes to the development of schools as learning organizations (Leithwood et al., 1998; Silins et al., 2002).

Leadership style
Leadership refers to people’s ability, using minimum coercion, to influence and motivate others to perform at a high level of commitment (Bass, 1985, 1999). Burns (1978) and Bass (1985) developed the transformational leadership theory, based on the recognition that people are motivated by instrumental motivation, but also by such
factors as the need for self-realization and belonging. The theory describes two leadership patterns: transformational and transactional leadership. The former focuses on instilling belief in one's ability and on generating positive emotions. The latter grants followers rewards that satisfy immediate personal interests (Bass, 1999). In the context of the school milieu, early empirical work (Leithwood et al., 1998) found transformational leadership as a major factor influencing organizational learning at school.

Bass and Avolio (1990) developed the Multifactor Leadership Questionnaire (MLQ) to measure the full range of leadership. It covers three leadership styles: transactional, transformational, and laissez-faire leadership. The full-range leadership model permits observation across the entire spectrum of behaviors that can be expected from leaders (Bass and Avolio, 1990, 1994).

The transformational leadership style comprises the following five first-order factors:

1. Intellectual stimulation, referring to leaders' actions, challenging their followers’ thinking to be more creative and to find solutions to difficult problems, with the leader acting as a mental stimulator.
2. Individualized consideration, namely leaders' behavior that contributes to their followers’ satisfaction by giving advice, support, and attention to each individual's needs.
3. Inspirational motivation, referring to leaders’ motivating their followers by viewing the future with optimism, projecting an idealized and achievable vision, and stressing ambitious goals.
4. Idealized influence (attributed charisma), which refers to leaders’ charismatic actions centered on values, beliefs, and a sense of mission.
5. Idealized influence (behavioral charisma), which likewise refers to leaders’ charismatic actions anchored in values, beliefs, and a sense of mission (Antonakis et al., 2003).

Together, these behaviors can have an important impact on the organizational learning process. They can contribute to the team members’ commitment and sense of ownership of the outcomes of the learning processes.

The transactional leadership style is an exchange process based on the fulfillment of contractual obligations. Transactional leadership comprises these three first-order factors:

1. Contingent reward leadership, which refers to leaders’ behaviors focused on clarifying role and task requirements and providing followers with material or psychological rewards.
2. Management-by-exception (active), referring to the active vigilance of a leader whose goal is to ensure that standards are met.
3. Management-by-exception (passive), where leaders intervene only after noncompliance or mistakes by followers (Bass and Avolio, 1994; Antonakis et al., 2003).
The *laissez-faire* leadership style “represents the absence of transaction of sorts with respect to leadership in which the leader avoids making decisions, abdicates responsibility, and does not use his/her authority” (Antonakis et al., 2003, p. 265). *Laissez-faire* leadership is virtually an avoidance of leadership behaviors, avoidance of taking any action (Stewart, 2006; Bass, 1999). This is also defined as non-leadership or the most passive leadership.

A number of studies confirmed the MLQ questionnaire’s factorial structure (e.g. Avolio et al., 1999; Antonakis et al., 2003). According to this structure, leadership styles correlate with work effectiveness in the following way: transformational factors are more positively correlated with work effectiveness than transactional factors, and *laissez-faire* leadership style correlates negatively with effectiveness. Dvir et al. (2002) report on correlations between transformational leadership and performance. Ben-Horin Naot et al. (2004) found correlations between high-level organizational learning and supportive leadership. Amitay et al. (2005), studied the relationship between leadership style and organizational learning in 44 community health clinics. They found that transformational leadership, which broadens and elevates the interests and aspirations of employees, was associated with more intensive organizational learning activity and with stronger learning facilitative culture than transactional leadership.

The transformational leadership model emerged in education literature around the 1980s in response to the demands on the school system to raise standards and improve students’ academic performance, and the recognition that there is a link between leadership and school effectiveness (Stewart, 2006). The transformational leadership model emerged also in the wake of a greater dissatisfaction with the instructional leadership models, which focused too exclusively on the principal as the expert and powerful authority (Hallinger, 2003). The transformational leadership model is more consistent with trends in educational reform such as teacher empowerment, distributed leadership and organizational learning. This model recognizes the organization’s capacity to select its purposes by developing a shared vision, a shared commitment to school change and to supporting the development of changes in teaching and learning, rather than focusing on direct coordination, control, and supervision of the curriculum and instruction (Hallinger, 2003, p. 330). The transformational leadership style has been recognized as one of the main conditions, affecting and enhancing successful school organizational learning processes (e.g. Leithwood et al., 1998; Silins, 1994; Heck and Hallinger, 1999). A study of Australian secondary schools (Silins et al., 2002) found that “the conditions for organizational learning are very much the conditions that are associated with the establishment of the three school leadership variables: principals’ transformational leadership, actively involved administrative teams and distributed leadership” (p. 638). These findings lead to the following hypotheses:

\[H1.\] Principals’ transformational leadership style will be more positively related to school organizational learning than transactional leadership; in contrast, *laissez-faire* leadership will be negatively related to school organizational learning.

*Vision*

Vision is considered the starting point of transformation processes (e.g. Collins and Porras, 1994; Hunt, 1991; Kotter, 1990; Strange and Mumford, 2002, 2005; Dinham,
2005), and a crucial basis for action for leaders of learning organizations (e.g. Johnson, 2002; Senge et al., 1994; Leithwood and Riehl, 2003; Hallinger, 2003). What then is the relationship between school principals’ leadership style, vision and organizational learning processes at school, taking the specific nature of the vision into account?

Vision is considered to be the essence of leadership, fulfilling the role of motivating followers’ actions towards a desirable outcome (e.g. Conger and Kanungo, 1998; Conger, 1992; Reeves and Boreham, 2006; Kantabutra, 2007). Vision has been defined and described in a variety of ways. Some researchers emphasize vision as an image of the future of the organization, indicating the direction to be taken: for example Bennis and Nanus (1985, p. 89) explained vision as “a mental image of a possible and desirable future state of the organization”. Daft (1999, p. 126) defined vision as “an attractive, ideal future that is credible yet not readily attainable”. Another definition perceives vision as representing the goals or targets to be aimed at. Conger and Kanungo (1987, p. 640) explained vision as “a set of clear ideal objectives, well-defined, which the leader would like the organization to achieve in the future”. Kirkpatrik and Locke (1996, p. 37), define vision as “a general transcendent ideal that represents shared values; it is ideological in nature and has moral overtones”. Thus definitions of visions include the image of the future, provide direction, articulate a sense of purpose and also clarify a set of ideals (Berson et al., 2001). Strange and Munford (2005, p. 122) argue that “vision involves a set of beliefs about how people act, and interact, to make manifest some idealized future state”.

Vision works in a number of important ways. An effective vision provides a link between today and tomorrow, serves to energize and motivate employees toward the future, provides meaning for people’s work, and sets a standard of excellence in the organization (e.g. Nanus, 1992; Daft and Lengel, 1998). Bennis (1984) and Senge et al. (1994) stressed the importance of the leader involving others in developing a shared vision and in communicating that vision to others. Having a vision and goals for attaining it generates meaning, challenges, motivation and a common purpose for everyone in the organization (Bass and Avolio, 1994; Burns, 1978). A vision not only describes an organization’s goal, but also the means to achieving it. Seeley (1992) describes vision as a goal-oriented mental construct that guides people’s behavior. However, vision is more than an image of the future. It has the power to inspire, motivate, and engage people. Vision rallies people for a joint effort, motivates them to become involved and committed, promoting quality performance, causing them to exert additional efforts and devote time to devote to organizational learning processes, aimed at improving school outcomes.

In a search for vision attributes, researchers mostly examined statements written down in response to open-ended questions, describing people’s vision for the organization they work for. Larwood et al. (1993) examined the attributes characterizing vision statements by asking deans of AACSB business schools to rate their own vision statements on 26 items, representative of vision definitions and their description in the literature. Cluster analysis of the responses yielded three distinct groups for the 26-item vision instrument: proactive visionaries, reactive loners, and reactive communicators. In another study conducted among corporate chief executives, using the same method, seven independent factors emerged, including vision formulation, items indicating a strategic emphasis; implementation, indicating successful communication of a vision; innovative realism, showing tactical
responsiveness; general items difficult to describe in detail; risk taking; and profit orientation, also bottom-line oriented (Larwood et al., 1995, p. 750). Baum et al. (1998) identified seven effective attributes in vision statements by entrepreneurs in a woodwork industry company, influencing organizational performance, including: clarity, challenge, reduction, abstractness, future orientation, stability, and desirability, brevity, and ability to inspire. Berson et al. (2001) examined vision statements of community leaders, participating in a comprehensive leadership workshop. The following four factors emerged: optimism and confidence; values, intrinsic rewards and soliciting follower participation; challenges and opportunities associated with the vision; and focus on specificity and direction (p. 61). A factor analysis of entrepreneurs’ vision statements of post-secondary educational institutions in Israel yielded six factors: clear and concrete vision; challenge; sense of leadership; flexibility and adjustments; wide acceptance (Ruvio, 2001). Kantabutra and Avery (2007) used seven variables of vision attributes (brevity, clarity, challenge, stability, abstractness, future orientation, and desirability or ability to inspire) to examine the relationships between vision attributes and content relating to customer and staff satisfaction imageries in Australian retail stores. Kurland (2006) identified three factors of teacher vision statement in Israel elementary schools: task attributes such as process description and direction; presentation that is realistic, focused, bottom-line oriented, motivating for action; inspirational attributes, generating enthusiasm, multidimensional, long-term, reflecting values; and communicative attributes such as easy to explain, widely accepted, declarative, and detailed.

Berson et al. (2001) found that the characteristics of vision statements of transformational leaders are more optimistic, emphasize security and provide a specific goal and direction. In the same way, a negative connection was found between passive leadership and an inspirational or “strong” vision. Visions with these attributes are considered as bringing about more desirable performance outcomes than those lacking them. Visions characterized by these attributes have been found empirically to have a significant, direct relationship with organizational performance via staff satisfaction (Kantabutra and Avery, 2007) and venture growth (Baum et al., 1998).

For educational leaders who implement change in their school, vision is “a hunger to see improvement” (Pejza, 1985). School leaders have to involve teachers in developing a vision of what the future should be like, including goals to reach the vision (Zimmerman, 2006, p. 244). A shared and a clear vision is a key element in the forging of a learning organization (Greenberg and Baron, 2000; Senge et al., 1994). The driving force for change and learning stems from “creative tension”. Creative tension marks the difference between the shared vision and the current reality (Senge, 1990) and will drive the organization towards its goals. Joiner’s (1987) discussion of these leaders of change included the skill to “access the reality of the present and determine the gaps that exist” (pp. 3-4). In this case the central role of the leader in learning organizations is to lead a process of defining a clear common vision (Hayes et al., 2004; Johnson, 2002; Wick and Leon, 1995). Organizational learning, which is an ongoing expansion of the organization’s ability to influence its future (Senge, 1990), may assist in the vision implementation process. The present study claims that a school vision may contribute to the school organizational learning process.
Empirical evidence linking directly leadership, vision and organizational learning is very limited (Densten, 2002). The literature and the studies we presented here lead to the following hypotheses:

H2. Principals’ transformational leadership style will be more positively related to school vision than will transactional leadership; in contrast, laissez-faire leadership will be negatively related to school vision.

H3. School vision will mediate the relationship between principals’ transformational leadership style and school organizational learning.

Method
Sample and data collection
The sample consisted of 1,474 teachers at 104 primary public schools in Israel. School size (number of enrolled students) ranged from 200 to 600 (M = 350, SD = 32.35). The number of teachers in each school ranged from six to 30 (M = 18, SD = 8.25). The majority of the teachers (96.2 percent) were women, ranging in age from 20 to 62 (M = 42.2, SD = 8.05). Years of seniority in the current school ranged from three to 40 (M = 17.68, SD = 8.42). As for the teachers’ education, 55.4 percent had a BA/BEd degree, 14.3 percent had an MA degree, and the rest had graduated from a teachers’ college. Most of the school principals (79.8 percent) were women. The principals’ mean age was 48.9, and their mean tenure was 9.4 years (ranging from three to 30 years). These data are congruent with data provided by the Central Bureau of Statistics in Israel (Central Bureau of Statistics, 2007). The criterion for school selection was the duration of principals’ and teachers’ tenure – over three years. The assumption was that a period of three years was necessary for the development of a leadership style affecting organizational learning processes and to ensure that the teachers and their principal were sufficiently well acquainted. Moreover, we decided that the sample of key classroom teachers should be more than 60 percent, since they are those responsible for the class and generally participate in school organizational processes.

Measures
The teachers evaluated their schools and their principals using a 77-item questionnaire on principals’ leadership style, school vision, and school organizational learning. All items were rated on a five-point Likert scale. Personal background information was also obtained.

Leadership style. Principals’ leadership style was measured by a shortened version by Bass and Avolio’s Multifactor Leadership Questionnaire 5X (MLQ) (Avolio et al., 1999). The questionnaire was translated into Hebrew and adapted to the Israeli milieu, to managers by Kark et al. (2003) and for Israeli school principals by Eyal (2000). It was a 28-item question with a five-point scale ranging from (1) “not at all” to (5) “frequently, if not always”, which included items of the three following behavioral components: transformational (individualized consideration, intellectual stimulation, inspirational motivation, and idealized influence scales), transactional (management-by-exception, active scale) and laissez-faire. The reliability for the transformational scale was \( \alpha = 0.88 \); for transactional (management-by-exception, active) scale was \( \alpha = 0.68 \), and for laissez-faire scale was \( \alpha = 0.82 \) similar reliability reported in Eyal (2000). Examples of items: transformational (intellectual stimulation) – “seeks differing perspectives when solving problems”; transactional (management-by-exception) – “focuses
attention on irregularities, mistakes, exceptions, and deviations from standards”; laissez-faire – “is absent when needed”.

**School vision.** School vision was measured by 22 attributes, based on Larwood *et al.* (1993, 1995) and Ruvio (2001). Teachers were asked to write a vision statement, representing the ideal future at its best for their schools. Subsequently teachers were asked to rate their written vision on 22 attributes (Kurland, 2006). Examples of items: easy to explain, detailed, practical, action-oriented, inspirational, and bottom-line oriented. Each item was rated on a five-point Likert scale ranging from (1) “not at all” to (5) “very much”. Overall questionnaire reliability level was $\alpha = 0.94$.

**School organizational learning.** It was measured via a questionnaire that contained 27 items of the four school organizational components: staff involvement, evaluation, in-school professional development and information management (Kurland and Hertz-Lazarowitz, 2006). The participants were asked to say to what degree each item exists in their school. Each item was rated on a five-point Likert scale ranging from (1) “completely absent in school”, representing a low level of activities/behaviors of organizational learning, to (5) “largely present in school”, representing a high level of activities/behaviors of organizational learning. The reliability of the staff involvement scale was $\alpha = 0.89$; of the evaluation scale was $\alpha = 0.93$, of the in-school professional scale was $\alpha = 0.91$, and of the information scale was $\alpha = 0.90$. The overall reliability level was $\alpha = 0.91$. Examples of items:

- Ongoing feedback is carried out to check problems and reasons for lack of success.
- School staff is involved in decision making regarding areas needing improvement.
- There are simple ways of accessing relevant information in school.
- Learning is also based on examination of the teachers’ experiences.

**Evidence of construct validity**

To further examine the validity of our measures, we conducted confirmatory factor analyses for the leadership style scales, using the AMOS program. The results confirmed the hypothesized five-factor model (charismatic/inspirational, intellectual stimulation, individualized consideration, contingent reward scale, and laissez-faire). The fit indexes were satisfactory (NFI, GFI > 0.9, RMSEA = 0.05). All the dimensions were consistent with Bass and Avolio’s (1994) conceptions of the phenomenon.

Since our hypotheses were based on transformational leadership as a comprehensive concept, we used an aggregate measure of transformational leadership, including all three factors (charismatic/inspirational, intellectual stimulation, and individualized consideration). Support for the use of a higher order construct to measure transformational leadership can be found in several studies (e.g. Avolio *et al.*, 1999; Berson and Avolio, 2004). Our CFA analysis using transformational leadership as a higher order construct hardly changed the fit statistics. All fit indices met the recommended criteria (NFI and GFI above 0.9, RMSEA = 0.05).

In addition, we conducted confirmatory factor analyses of the school organization learning scales. Correlations between the four scales of the organizational learning variable were examined. The correlation coefficient of all four scales was high ($r = 0.76 - 0.89, p < 0.001$), so the scales were combined into one construct – school organizational learning. After combining the scales into one construct, all fit indices were satisfactory (NFI, GFI > 0.9, RMSEA = 0.05).
Analysis strategy
We used the standards of the mediation model described by Kenny et al. (1998) to test the hypotheses. According to Kenny et al. (1998), four criteria must be met to support mediated relationships:

1. The independent variable (i.e. leadership style) must be related to the mediator (i.e. vision).
2. The independent variable must be related to the dependent variable, i.e. leadership style must be related to organizational learning.
3. The mediator must be related to the dependent variables, with the independent variable included in the model.
4. The relationship between the independent variable and the criterion variable must disappear when controlling for the mediator variable.

Reduction in the relationship between the independent and the dependent variables in the presence of the mediator, while remaining significant, is evidence of partial mediation. To reduce the common source bias, we randomly split the data into three groups, thus creating three independent sources of groups of teachers.

Results
Aggregation analyses
Before testing the hypotheses, we need to justify our aggregation of individual perceptions to the group level of analysis (schools). ICC2[1] was 0.57, 0.46, and 0.58 for transformational, transactional, and laissez-faire styles, respectively. ICC for vision and organization learning was 0.56 and 0.59 respectively. Analyses of variance indicated that individual perceptions clustered significantly by group ($F = 2.37, 1.86, 2.40, 2.28, 2.46, p < 0.001$ for principals' transformational style, transactional style, laissez-faire style, vision, and organizational learning, respectively). These results indicated that there was a group effect, not only an individual effect, on teachers' perceptions.

Hypotheses testing
The means, standard deviations and correlations for the variables are presented in Table I.

The results showed that all possible inter-correlations within the leadership styles were statistically significant and in the right direction (meaning that transformational and transactional styles correlated positively with each other and both correlated

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Table I. Descriptive statistics and Pearson’s correlation coefficients among research scales

Notes: $n = 104; ^* p < 0.01$
negatively with the *laissez-faire* style); moreover, vision and organizational learning correlated positively.

Table II presents the results of the regression analyses following the steps suggested by Kenny *et al.* (1998) to test for mediated relationships. Step 2 in this table tested *H1*. The results indicated that the transformational leadership style positively affected organizational learning (*β* = 0.55**). Transactional and *laissez-faire* styles did not affect organizational learning. *R*² for the model was 0.27.

To test *H2* and *H3*, we began by establishing that the independent variables (leadership styles) were related to the mediator variable vision. The results (Table II, step 1) indicated that the transformational leadership style related positively to vision (*β* = 0.42**). The transactional and *laissez-faire* styles did not relate to vision (*R*² for the model was 0.24). Moreover, to support *H3*, the relationship between the leadership style and the organizational learning measures must disappear when the school vision variable is included in the equation. We entered vision and leadership style simultaneously into the equation.

The results (Table II, steps 3 and 4) indicated that the relationship between the transformational leadership style and organizational learning diminished in the presence of vision (*β* = 0.42**, *R*² = 0.35), meaning that vision partially mediated the relationship between transformational leadership style and organizational learning (as mentioned above, according to Kenny *et al.* (1998), reduction in the relationship between the independent and the dependent variables in the presence of the mediator, while remaining significant, is evidence of partial mediation. The relationship between vision and organizational learning was significant (*β* = 0.31**). These results partially support *H3*.

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<th>Independent variables</th>
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<td>Step 1:</td>
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<td></td>
</tr>
<tr>
<td>Transformational</td>
<td>0.42 *</td>
<td></td>
</tr>
<tr>
<td>Transactional</td>
<td>0.07</td>
<td></td>
</tr>
<tr>
<td><em>Laissez-faire</em></td>
<td>-0.05</td>
<td></td>
</tr>
<tr>
<td><em>R</em>²</td>
<td>0.24</td>
<td></td>
</tr>
<tr>
<td>Step 2:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transformational</td>
<td></td>
<td>0.55 *</td>
</tr>
<tr>
<td>Transactional</td>
<td></td>
<td>-0.17</td>
</tr>
<tr>
<td><em>Laissez-faire</em></td>
<td></td>
<td>-0.07</td>
</tr>
<tr>
<td><em>R</em>²</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 3 and 4:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transformational</td>
<td>0.42 *</td>
<td></td>
</tr>
<tr>
<td>Transactional</td>
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<td></td>
</tr>
<tr>
<td><em>Laissez-faire</em></td>
<td>-0.04</td>
<td></td>
</tr>
<tr>
<td>Vision</td>
<td></td>
<td>0.31 *</td>
</tr>
<tr>
<td><em>R</em>²</td>
<td></td>
<td>0.35</td>
</tr>
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</table>

Table II. Summary of the mediation regressions

**Note:** *p < 0.01
Discussion
The present study explored the issue of the relationship between leadership, vision and organizational learning in primary schools. Overall, the results demonstrate that school vision is significantly predicted by principals’ transformational leadership style and is also a significant predictor of school organizational learning. Moreover, vision was found to partially mediate the relationship between principals’ transformational leadership and school organizational learning, with principals’ transformational leadership predicting organizational learning. These empirical results confirm theoretical claims that vision is considered to be the impetus for school transformation processes and a crucial element of effective leadership of learning organizations (Goldring et al., 2007; Hallinger, 2003; Leithwood and Riehl, 2003; Senge, 1990).

The outcome of the study, showing a positive relationship between transformational leadership style and school vision, supports our hypothesis and confirms leadership theories that consider vision as a key element of transformational leadership (Bass, 1999; Yukl, 2006), and literature that considers vision as a given in terms of being a component of leadership, setting the direction and developing shared understanding about school activities and goals (Leithwood et al., 2004). This finding is also in line with Kotter’s claim that “leadership is about coping with change by setting directions; aligning people; motivating and inspiring towards a vision” (Kotter, 1999, p. 54).

It appears that by articulating a common school vision that is task-oriented (expressing direction and process, focused and bottom-line-oriented), inspiration-oriented (generates enthusiasm, inspires, expresses values), and communication-oriented (declarative, detailed, and easy to explain), school leaders provide meaning and a strong sense of purpose that motivates school staff to act. As Yukl (2006) defines it – a vision simple enough to be understood, appealing enough to evoke commitment and credible enough to be accepted as realistic and attainable. Burns (1978) suggests that followers need to have a strong sense of purpose if they are to be motivated to act. An inspiring vision, clear, challenging and stable will have power to generate emotional commitment, since it presents a view of a better future (Nanus, 1992). This was corroborated in the current study by the teachers’ perceptions of principals’ transformational leadership and school vision.

Yukl (2006) noted that the ability to articulate a vision is considered to be one of the basic characteristics of leaders, a way leaders connect with their followers and pass on to them their message and agenda. School vision implies that the leader knows what the core values and core tasks of the organization are and what the school has to achieve (Frese et al., 2003). Our findings demonstrate that school leaders that encourage, respect, support and involve teachers in decision-making, care about them and want them to succeed, generate enthusiasm and commitment – namely use the transformational leadership style – influence how teachers perceive the vision (Mulford and Silins, 2003). The vision becomes a “shared covenant that bonds together leader and follower in a moral commitment” (Sergiovanni, 1990, p. 24). Further research is needed to enable a much closer look at the reciprocal relationship created.

Second, the results of the study demonstrate that the principals’ transformational leadership style positively affects school organizational learning. These results are consistent with previous finding, showing that the role of transformational leadership is crucial in cultivating organizational learning at school. (Leithwood et al., 1998; Silins et al., 2002; Johnson, 2002). Teachers appreciate principals who give them personal
attention, encourage them to look at problems and issues in a new way and share responsibility with the team (Marzano et al., 2005), in playing a key role in shaping routine school activities. The creation of organizational learning systems and structures enables teachers to carry on a professional dialogue, enhancing the quality of their teaching by refining their repertoires of pedagogic skills (Little, 1982; Newmann, 1997). It appears that teachers’ perceptions of such transformational leadership behavior as having important consequences for their involvement in organizational learning processes in turn stimulate them to think reflectively and critically about their own practices and enables them to develop shared goals and participate in decision-making about aspects to be improved. These school processes enable the transfer of practical knowledge developed by teachers in their own classes to other teachers in the school. The spotlight here is on transformational leadership and on organizational processes, employing effective methods to increase the team’s efficiency and productivity (Leithwood and Jantzi, 2005; Marzano et al., 2005).

Principals of effective schools actively promote the creation of a learning organization, the development of staff cohesion and support, and the growth of communities of professional practice (Little, 1982; Newmann, 1997; Dinham, 2005). They can play a key role in providing the conditions under which teachers can operate effectively and students can learn (Dinham, 2005, p. 335). These leaders are particularly attentive to ensuring that there is a variety of mechanisms for teachers to communicate and work together (Murphy et al., 2007). Teachers that engage in organizational learning processes learn collaboratively and continuously through routinely evaluating their teaching and their students’ achievements, put their learning to use. In doing so, they improve their professional competence, their students’ achievements and the school’s effectiveness, thus responding to the social needs demands of their environment (Leithwood and Levin, 2005).

Third, the results indicate that principals’ transactional and laissez-faire leadership style has no effect on school vision and school organizational learning. One possible explanation is that principals’ transactional leadership style, which is basically grounded in controlling or coordinating others (Hallinger, 2003) and is an exchange process based on the fulfillment of contractual obligations (Antonakis et al., 2003; Bass and Avolio, 1994), using conventional rewards and penalties to gain compliance from the followers, does not foster emotional commitment by teachers to engage in organizational learning processes. A similar outcome is typical of principals’ laissez-faire leadership style, characterized by the avoidance of making decisions, abdication of responsibility and renunciation of their authority (Antonakis et al., 2003; Bass, 1999; Stewart, 2006). Burns (1978) describes managers as transactors and leaders as transformers. Managers concern themselves with procurement, coordination and distribution of human and material resources needed by an organization (Ubben and Hughes, 1987). Leaders facilitate the identification of organizational goals. They initiate the development of a vision of what their organization is about:

Management controls, arranges, does things right; leadership unleashes energy, sets the vision so we do the right thing (Bennis and Nanus, 1985, p. 21).

Another explanation might be that reward or punishment, contingent on performance through transactional leadership, is insufficient to motivate teachers to engage in school organizational learning processes demanding a high level of commitment and
additional effort. Teachers need to have a strong sense of purpose and caring in order to participate in complex organizational learning processes. They have to believe that their efforts will lead to desirable outcomes and a better future.

Finally, the findings of this study demonstrate that school vision functions as a partial mediator only between transformational principals’ leadership style and school organizational learning. This empirical result supports the assertion that the ability to create a vision of the future shared with other members of the organization appears to be crucial for leaders of learning organizations (Johnson, 2002; Kotter, 1999; Senge, 1990). Researchers maintain that leaders ensure organizational learning processes in which teachers routinely share their learning with others and improve their ability to teach well by helping to formulate and promote a vision, guiding these processes (Leithwood and Riehl, 2003; Hallinger, 2003; Bell et al., 2003; Senge, 1990). This means that outstanding transformational principals have the ability to create a collective vision by which they exert their influence on teachers’ motivation and enable them to understand how they might integrate their efforts and engage in school organizational learning processes for making the school vision a reality. This study’s findings imply that by articulating a shared vision and exposing the gap between the vision of the ideal school and the current situation, principals create a tension generating energy for changing reality, motivating teachers to work together to reduce the gap through organizational learning processes. This finding might indicate the way principals inspire and motivate teachers to perform exceptionally well through engaging in school organizational processes. Future research needs to pay much more attention to expose these relationships.

The study’s results suggest that teachers will be more willing to participate in complex organizational learning processes, such as staff involvement, evaluation, in-school professional development and information management mechanisms, when principals establish a clear direction, provide meaning and a shared focus, intellectual stimulation and individualized attention, involving attending to each teacher’s needs, modeling the role of mentor or coach and listening to their concerns and needs. In this case vision serves as both an inspiration and a sense of what needs to be done to realize it (Mintzberg et al., 1998, p. 124).

**Limitations and further research**

First, the data were largely gathered by means of self-reported questionnaires and were subject to biases. In this respect, the study does not differ from previous research (Lovelace et al., 2001). However, recent research suggests that self-reported data are not as limited as was previously believed, and people often perceive their social environment accurately (Alper et al., 1998). Regarding leadership style, Yukl (1994) suggested that in contrast to most research, centering on leaders’ perceptions of their own behaviors, the study of subordinates’ perceptions of the leaders’ behavior might be most useful in examining linkages between organizational variables and leadership styles. Second, in this study we examine new issues – the relationship between vision and school organizational learning. However, since only primary schools were involved, more research is needed to examine the appropriateness of the measures to junior high schools and high schools.

Third, regarding the generalizability of the outcomes, we are aware that since the sample was limited to northern Israel, any attempt to generalize the study’s findings,
conclusions, and implications to the whole population of teachers in the entire country must be approached with caution.

The present results provide an impetus for further research regarding the centrality of school vision and its significance for the achievement of the school’s purpose via school organizational learning processes. Further research is needed to clarify the concept of school vision, these relationships and their impacts on school outcomes. Moreover, the results of this study require further analysis of the influence of other school variables, in an attempt to extend our understanding of how schools can encourage teachers to engage in school organizational learning to promote their school’s effectiveness.

Summary and conclusions

The present study, examining linkages between school organizational variables and leadership styles, makes several contributions to educational leadership literature. The study’s empirical findings regarding visionary and transformational leadership theory confirm the assumption that vision is indeed a key aspect of leadership (e.g. Conger and Kanungo, 1987; Harris, 2005; Stewart, 2006; Bass, 2000) and in particular in the case of principals’ transformational leadership, promoting school organizational learning processes to enhance the quality of teaching and student performance. The results of this study have meaningful application in view of the challenge facing schools today to improve student achievement, ultimately depending on improving teaching practice (Goldring et al., 2007; Voulalas and Sharpe, 2005). Vision is an important device helping schools to reorganize in ways that ensure their continued viability, legitimacy, and value as core institutions in our society. Without organizational learning mechanisms, namely evaluation (assessment and analysis), staff involvement, information management, and in-school professional development, the vision may remain, a glossy façade rather than becoming a vital, living presence in the life of the school (Fritz, 1996). Therefore the more transformational the leadership, as perceived by the teachers, the more task oriented, inspirational and communication oriented the vision, the more likely they are to engage in school organizational learning processes. As Mulford and Silins (2003) suggested, when there is confidence in what the school is doing and why, the teachers are encouraged to make the school vision a reality by means of organizational learning processes.

From the methodological point-of-view, one of the strengths of this study lies in the strict application of the rules regarding mediation. Moreover, to reduce a common source of bias, two different sources were used in each regression equation. These two improvements in methodological techniques reinforce the results of the study.

The present model and findings also offer a rich agenda for practice. The educational system as a loosely linked organization faces difficulties in creating coherent activities related to school performers. Therefore a study model, indicating a relationship between school leadership, vision and school organizational learning, provides coherence and co-ordination, enabling the necessary interaction between the staff member (Reeves and Boreham, 2006), in order to achieve the school purposes and destination. These relationships enhance webs of professional interactions around issues related to teacher educational practice (e.g. specific principles of practice, teaching and learning strategies, assessment of students, educational/professional debate and communication skills), which lead to improved teaching and learning. The concept “teacher as learner” is the key to school improvement and effectiveness.
Specifically, the present results offer a description of school leadership dynamics that can be used in the training and professional development of principals. School leaders who understand the function of school vision and the added value of organizational learning processes and are able to make use of them, are likely to have the ability to develop a widely shared vision, encompassing the potential for achieving a vision that stimulates a sense of meaningfulness and motivates teachers towards continuous improvement and to use organizational learning as a strategy to implement this vision. In practice we suggest developing specific training programs to help principals articulate a shared school vision that is task-oriented, inspiration-oriented and communication-oriented, helping principals to establish certain mechanisms of organizational learning, encouraging the staff to act in ways that seem helpful in making the vision operational within the classrooms. It is particularly important to train principals to nurture ongoing learning that creates coherence and meaning instead of constant overload and fragmentation, created by attempts to implement the latest fads (Fullan, 1995); in short to develop the ability to transform the school into a more effective organization, fostering teaching and learning beneficial to all students (Davis et al., 2005).

It is necessary to guide principals in ways of providing intellectual stimulation and to make certain that teachers have a high-quality sequence of job-embedded opportunities to expand, enhance, and refine their repertoires of instructional skills (Leithwood et al., 2004; Newmann, 1997); to demonstrate personal interest in the staff and make themselves available to them (Marzano et al., 2005); to give feedback about performance that is essential to the learning process, on a consistent basis and in a timely manner. Moreover, in order to foster teachers’ engagement in organizational learning processes, principals should support teachers in transcending their self-interest for the common good (Bass, 2000; Silins and Mulford, 2004), to encourage them in developing to their fullest potential (Murphy et al., 2007), and providing them with individualized support. Educational leaders need to view teachers as equal partners in this process, acknowledge their professionalism and capitalize on their knowledge and skills (Darling-Hammond, 1988). Principals have to encourage initiative and a proactive attitude, long-term and sustained learning in the quest for better education. Developing organizational learning processes, driven by a school vision that guides the daily work of the teachers appears to hold considerable promise for building sustainable improvement.

Note
1. Extent to which members of a single group/unit provide proportional (i.e. correlated) ratings (i.e. extent to which ratings are consistent) high reliability indicates ratings consistently differ across units – i.e. variance is smaller within units than between units (Hox, 2002). ICC2 = [MSB – MSW]/MSB ICC2 indicates whether unit means can be used to reliably differentiate between units Where MSB is mean square between groups, MSW is mean square within groups. MSB and MSW were obtained by one-way analyses of variance in which the focal variables (e.g. leadership styles measured by the teachers) were the dependent variables and group ID was the independent variable. If the ratio is above 0.25, the variables can be aggregated into the group-level.
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Further reading


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