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Teachers' skill flexibility

Examining the impact of principals' skills and teachers' participation in decision making during educational reform

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Abstract

Purpose – The purpose of this paper is to examine a model linking school principals' strategic, interpersonal skills and teachers' participation in decision making (PDM) to predict teachers' skill flexibility (SF) during the implementation of educational reform.

Design/methodology/approach – From 113 randomly selected elementary schools in Israel that had undergone a reform called "New Horizon," 1,482 teachers participated in the study. Data were analyzed through the multilevel structural equation modeling.

Findings – Results showed that only principals' strategic skills lead to teachers' PDM, which in turn predicts teachers' SF. Furthermore, based on the upper echelon theory (Hambrick and Mason, 1984), principals' strategic skills promoted teachers' SF through teachers' PDM.

Research limitations/implications – This research enables expanding the theoretical upper echelon model, both in the context of leaders' skills and in their relation to change outcomes.

Practical implications – Using of strategic skills will help principals influence teachers to participate in decision making, adapt to the reform and promote their ability to use skills according to changing needs.

Originality/value – The results of this research emphasize the strategic role of school principals as the leaders of organizational change and promoters of its outcomes.

Keywords Educational reform, Participation in decision making, Interpersonal skills, Principals' strategic skills, Skill flexibility

Paper type Research paper

Introduction

The role of leaders in facilitating conditions that nurture organizational processes during times of change has received increasing attention among management scholars in the last decade (e.g. Green, 2016; Hallinger and Lee, 2013; Shaked and Schechter, 2017; Soini *et al.*, 2016). Previous studies have been conducted with the aim of identifying the characteristics and conditions that are associated with successful organizational change (e.g. Green, 2016; Shaked and Schechter, 2017). This study falls within this line of work yet focuses on aspects seldom linked with teacher's skill flexibility (SF). Namely, I consider the role of principals' skills in explaining teachers' participation in decision making (PDM) and SF, during educational reform.

Based on the upper echelon theory (Hambrick and Mason, 1984), the current study investigates the implications of principals' skills in the context of organizational change and its outcome (i.e. teachers' SF). This perspective emphasizes leaders' characteristics, with a focus on "executives who have overall responsibility for an organization, their characteristics, what they do, how they do it, and particularly, how they affect organizational outcomes" (Finkelstein *et al.*, 2009, p. 4), particularly in the process by which leaders promote outcomes (the black box; Hambrick, 2007).

Researchers have argued that the quality of leadership depends on the leaders' skills and competencies that enable them to thrive in this uncertain and complex environment (Da'as, 2017). Leaders' skills are considered critical in leading organizational change (e.g. Da'as, 2017; Mumford *et al.*, 2007), and help leaders who are coping with complex environments (e.g. Yukl, 2002). Little is known about principals' skills in the context of school reform (e.g. Da'as, 2017;

Soini *et al.*, 2016), and more specifically, how principals influence followers and translate strategies into educational practices and organizational processes and structures to promote outcomes during organizational reform. Strategic and interpersonal skills emphasize skills, such as solving problems or social perceptiveness that are not expressed in behavior styles, and are not well represented in transformational or instructional leadership (Da'as, 2017).

Finally, the importance of teachers' adaptation and ability to cope during school change has been widely discussed in the literature (e.g. Baard *et al.*, 2014). Little attention, however, has been given to teacher's SF – the ability to use skills according to changing needs, and on the mechanism by which principals promote SF during organizational change (e.g. Brezicha *et al.*, 2015). The purpose of this study was to fill this gap by exploring the connection between principals' skills and teachers' SF. Researchers have argued that teachers need to develop various skills to cope with changes in the school environment and their work lives (e.g. Baard *et al.*, 2014). Skill is one of the core job characteristics leading to increased teacher motivation, as well as other positive work outcomes such as increased productivity and decreased turnover and absenteeism (e.g. Rosenblatt, 2004).

Strategic leadership skills

Strategic skills define leaders' ability to plan and act toward the achievement of organizational goals (Da'as, 2017). These skills enable analyzing and understanding different perspectives within the organizational system. They include planning, environmental scanning, identifying problems and evaluating solutions as well as objectives (Mumford *et al.*, 2007).

Planning skills include system perception and visioning (Mumford *et al.*, 2007). System perception is the principal's ability to correctly evaluate major changes in the organizational system. Visioning involves formulating a vision and implementing it, and motivating followers to behave in a way that supports it (Zaccaro and Banks, 2004). Visioning skills constitute an important managerial competency in leading change (Zaccaro and Banks, 2004).

Environmental scanning skills enable identifying causes and results related to the environmental factors affecting the organization's actions (Yukl, 2002). Problem identification and solution appraisal reflect the principal's ability to determine the nature of a problem and choose suitable coping strategies (Mumford *et al.*, 2007).

Finally, objective evaluation involves examining a solution and its consequences to draw conclusions or change organizational responses, thereby improving problem-coping ability (Mumford *et al.*, 2000).

Interpersonal leadership skills

Interpersonal skills are social skills, and they are related to the manager's ability to relate to and influence others for achieving organizational goals efficiently (Mumford *et al.*, 2000; Yukl, 2002). These skills include four categories: social perceptiveness, coordination, negotiation and persuasion.

Social perceptiveness skills refer to the leader's awareness of others' reactions and understanding of the motives behind their reactions (Da'as, 2017). These skills include the manager's knowledge of human behavior and group processes, his/her ability to understand others' feelings, attitudes and motivation, and his/her empathy and social sensitivity (Yukl, 2002). Social perceptiveness has a positive effect on the establishment of cooperative relationships between employees, and between employees and people outside the organization (Yukl, 2002). Leaders with this ability are better able to respond to changing demands in different contexts, and to successfully cope with resistance to change and the challenges involved in implementing organizational change (Groves, 2003).

Coordination skills reflect the leader's ability to adjust him or her to the behaviors of others (Da'as, 2017; Yukl, 2002). Negotiation skills assist the principal in bridging disparities from the employees' point of view and forming a mutually satisfactory relationship (Mumford *et al.*, 2007).

Finally, persuasion skills are involved in the manner in which managers influence others to achieve organizational goals more effectively (Yukl, 2002). These skills may be a major step in adopting a vision or plan for a solution presented to subordinates (Yukl, 2002). Because changing situations require the ability to rapidly change attitudes and behavior (Rafferty *et al.*, 2013), persuasion skills are especially important in times of change.

Participation in decision making
Wagner (1994) suggested that "Participatory management practices thus balance the involvement of managers and their subordinates in information-processing, decision-making, or problem-solving endeavors" (p. 312).

PDM is considered an important and necessary process in times of educational change (e.g. İnandi, 2016). This is because it is considered a collective process that involves the school staff and focuses on the dynamics developing among groups during organizational change (Whelan-Berry *et al.*, 2003); it is necessary for promoting the change effort, as teachers' involvement, opinions and influence as related to different issues in their work in times of change are highly important (Farndale *et al.*, 2011). In addition, teachers' participation in the change process will reduce their resistance to that change and will produce a high level of psychological commitment and a sense of control among them as they work to incorporate the suggested changes (Fugate, 2012). Recent research found a significant relationship between primary school teachers' level of PDM, school culture and their level of readiness for change (İnandi, 2016).

Skill flexibility
SF is defined as an "educator's ability to acquire and use skills that are relevant to changing pedagogical and administrative demands, generated by technological developments and the implementation of social reforms" (Rosenblatt, 2004, p. 2).

Researchers have emphasized the importance of SF when educational organizations are being pressured to change their structural and functional characteristics to adapt to the environment (Yılmaz and Kılıçoğlu, 2013). Adaptability is seen in an individual who changes in response to a new environment and deals with gradual or sudden changes (Baard *et al.*, 2014). Any adjustment to change involves flexibility (Tucker *et al.*, 2009). Specifically, schools need to be flexible and able to propose organizational strategies while facing change (Rosenblatt, 2004); teachers often take on new roles and need to constantly acquire and utilize new skills, in short, to be skill-flexible (Rosenblatt, 2004).

The relationship between principals' strategic skills and PDM
I suggest that principals' strategic skills include generating relevant information and evaluating major changes in the school (i.e. system perception), creating a better understanding of the importance of the environment (i.e. environmental scanning), leading planning processes, uniting teachers and motivating them to implement the vision (i.e. visioning) and developing strategies to solve and evaluate problems, these skills might allow teachers to participate in decisions.

For example, a principal discussing a change at a teachers' meeting presents a clear picture of that change, its importance and its implications for the school; this includes the identification and presentation of specific problems to teachers, the evaluation of alternative

solutions to organizational problems and objective assessments. These are presented to the staff, thereby stimulating a discussion with the teachers, encouraging them to contribute to the change effort, and improving communication and information-sharing among the teaching staff, which enables them to share their ideas. Thus, principals increase teachers' involvement and participation in the organizational decision-making processes by allowing them to participate and make joint decisions.

Further, the ability to formulate and implement a vision (Zaccaro and Banks, 2004) enables uniting people to work together for the purpose of change and its contents, motivates teachers to achieve high levels of performance, contributes to the group's ability to formulate a shared vision (Berson *et al.*, 2015) and influences the making of important shared decisions that are related to implementing a reform (Bono and Judge, 2003). The vision influences shared decisions, as reflected by teachers sharing their voice. Thus, principals' ability to create a vision and motivate teachers to behave in a way that supports it (Zaccaro and Banks, 2004) allows teachers to contribute and share their voice by participating in decision making. Further, it was found that principals' ability to design a vision, implement it and motivate followers to support it (i.e. visioning) promotes school collective processes that motivate the school staff toward collective learning (Da'as and Berson, 2007).

Accordingly:

H1. Principals' strategic skills will be positively related to teachers' PDM during the implementation of educational reform.

The relationship between principals' interpersonal skills and PDM

Researchers have argued that in the new reform, teachers must adapt their work patterns to the new ways of building up the school and to the new definition of their role (e.g. Cohen and Caspary, 2011). The reconstruction of teachers' role (such as teaching small groups, teamwork, personal tutoring and professional development) calls for principals to allow for participation in the process and decision making within the school organization. Therefore, the interpersonal skills of social perceptiveness, coordination, persuasion and negotiation are particularly relevant and necessary to increase teachers' PDM, especially in the context of the change process. For example, the ability to persuade can push attitudinal changes in desired directions (Yukl, 2002); the principal has the ability to convince teachers that they are a part of the school change process, and via dialogue, to increase their involvement in the decision making. Further, negotiation skills, for example, enable principals to recognize teachers' status and position. Principals who can compromise on different points understand behaviors and resolve conflicts that arise from teachers' opposition to change or change-related issues, and form a mutually satisfactory relationship, enable teacher involvement; this influence on others toward achieving organizational goals efficiently is expressed in the school staff's PDM. It has been found that employees who have good relations with managers feel more committed to supporting organizational change (Parish *et al.*, 2008). It has been further found that investing in organizational citizenship behavior is not overly detrimental to employees' wellbeing as long as they receive support (e.g. empathic understanding and listening) and appreciation from their supervisor, or when they work in a context that enables them to be actively involved in the decision-making process (Somech and Drach-Zahavy, 2013). Thus, principals' interpersonal skills, strong relationship system and good relationships give the teacher the feeling that he or she is a part of the school and its decision-making processes.

Accordingly:

H2. Principals' interpersonal skills will be positively related to teachers' PDM during the implementation of educational reform.

The relationship between PDM and teachers' SF
Research has argued that PDM is a tool to introduce positive changes into the teachers' work processes at schools (e.g. Somech, 2010), in particular promoting teachers' organizational citizenship behavior in Israeli schools (Bogler and Somech, 2005). Teachers' PDM is thought to promote their commitment to the decisions that are made and to increase their motivation to implement them, their satisfaction, their loyalty, their decision acceptance and their collaboration on issues of curriculum and instruction (e.g. Honingh and Hooge, 2014). Workers who feel that they have a part in the decision-making process develop a sense of psychological ownership, which makes them feel that the organization is theirs (Somech, 2010).

Accordingly, I suggest that teachers who are involved in the school and participate in decision making during organizational change will invest more effort in contributing to the change's contents and success. According to this, teachers will make efforts to use new approaches and methods that they did not use before to enhance their personal ability. Thus, I argue that:

H3. Teachers' PDM during the implementation of educational reform will be positively related to teachers' SF.

Indirect effects: principals' skills, PDM and SF
I suggest that the effects of principals with strategic and interpersonal skills on teachers' PDM facilitate teachers' SF. This argument is in line with previous researchers who focused on leaders' indirect effects on organizational outcomes (e.g. Nir and Hameiri, 2014). These under-researched effects are often referred to as "black box" processes (e.g. Berson *et al.*, 2015), which would suggest mediating linkages involving PDM between principals' skills and SF. For example, Berson *et al.* (2015) found, in a sample of 69 schools in Israel, that charismatic leaders affect the learning climate by creating trust within the team. In the context of organizational change, Carter and Greer (2013) found that the quality of the relationships between leaders and employees mediates the influence of transformational leadership on employee task performance and organizational citizenship behavior in a sample of 251 employees and their 78 managers from two companies in China, during continuous incremental organizational changes at the lower hierarchical levels.

Accordingly, when the school principal is perceived by the school's teachers as strategic and possessing interpersonal skills, he/she can use these characteristics to motivate teachers' PDM, toward achieving the goals of change. Such skilled principals, who promote PDM, encourage teachers to discover new opportunities and challenges and to learn by acquiring, sharing and integrating knowledge, increase the staff members' ability and motivate teachers' learning (Somech, 2010). Teachers' involvement and participation will thus increase their SF to implement the change goals. Therefore:

H4. Teachers' PDM will mediate the relationship between principals' strategic skills and teachers' SF during the implementation of educational reform.

H5. Teachers' PDM will mediate the relationship between principals' interpersonal skills and teachers' SF during the implementation of educational reform.

Methods
Context of the study
I followed the New Horizon reform in Israeli schools. This reform involves changes in principals' discretion and accountability (toward greater autonomy), and changes in

teachers' roles, work hours and salaries, with an emphasis on teaching small groups and non-teaching hours for the preparation and marking of papers, as long as teachers perform these activities on the school grounds and clock in.

Participants and procedure
Participants were 1,482 teachers from 113 randomly selected state elementary schools from all over Israel that had undergone the New Horizon reform. To minimize common-source bias, 729 teachers reported on SF and leadership skills, and 753 rated PDM. The mean age of the teachers was 39 years (SD = 9.38). Mean tenure at the school was 12 years (SD = 4.89), and mean years with the current principal was 5 (SD = 4.87); 73 percent of the teachers had BA degrees, and 19 percent had MA degrees.

School principals provided demographics and school background information: school size, and tenure as principals. Teachers were provided with information about the purpose of the data collection, by asked to fill out survey forms. Approximately 60 percent of the teachers sampled from each school participated in this study. All participants were assured that their responses would remain anonymous.

Measures
Principals' skills. The principals' strategic and interpersonal skills were measured using 11 items from Mumford's questionnaire (Mumford *et al.*, 2007), which is based on the Occupational Information Network (O∗NET) scales (Peterson *et al.*, 2001). The wording of the questions was adapted to the school context. The items were ranked on a five-point Likert scale describing the frequency with which the school principal performed the depicted behavior, ranging from 1 "very little" to 5 "very much." Each item in the questionnaire describes a behavior style that reflects a sub-skill of a certain category of principal skills.

Principals' strategic skills. The principals' strategic skills included: visioning, system perception, system evaluation, identification of downstream consequences, identification of key causes, and problem identification and solution appraisal. A sample item for visioning was "developing an idea or plan concerning the way in which the school should act under ideal conditions." I conducted the confirmatory factor analysis (CFA) to verify the structure of the measure. All items loaded significantly on their respective dimension ($\chi^2(18) = 76.72$, $p < 0.001$), and fit indices were reasonable (comparative fit index (CFI) = 0.978, root mean square error of approximation (RMSEA) = 0.06; Hoyle, 1995).

Principals' interpersonal skills. Interpersonal skills included: persuasion, negotiation, coordination and social perceptiveness. A sample item for negotiation was "Bringing teachers together to reconcile differences." CFA showed that all items loaded significantly on their respective dimension ($\chi^2(3) = 13.065$, $p < 0.01$), and fit indices were reasonable ((CFI) = 0.982 (RMSEA) = 0.068).

According to Chun *et al.* (2009, p. 689), "leadership is by nature a multiple-level phenomenon." However, like other researchers (e.g. Berkovich and Eyal, 2016), I consider school principals' skills to be a unified input affecting all members of a leader's unit. Thus, the individual scores of principals' strategic and interpersonal skills were aggregated at the group level. Aggregation was tested using the rWG statistic (James *et al.*, 1984) and by calculating the intra-class coefficients (ICC(1) and ICC(2); Bliese, 2000). ANOVA measures (ICC) revealed significant *F*-statistics for strategic skills ($F = 3.13$; $p < 0.001$). The average rWG was found to be 0.94 for principals' strategic skills. ICC(1) was 0.13, and ICC(2) was 0.68. Further, ANOVA measures (ICC) for interpersonal skills revealed significant *F*-statistics for this scale ($F = 2.21$; $p < 0.001$). The average rWG was found to be 0.84, ICC(1)

was 0.12, and ICC(2) was 0.55. Overall, these results provided sufficient statistical justification for aggregating principals' skills at the group level (Bliese, 2000).

Participation in decision making
PDM was measured using three items from a questionnaire developed by Campion *et al.* (1993). This measure emphasizes a work group's effectiveness, as reflected in the degree to which all members participate in decisions. The items were ranked on a five-point Likert scale describing the degree of agreement (5 – agree to big level, 1 – disagree). A sample item is: "Most teachers on my staff get a chance to participate in decision making."

CFA showed adequate validity of the data $(\chi^2(1) = 5.80 \quad p < 0.001)$, (CFI = 0.99, RMSEA = 0.07). The average rWG coefficient was 0.78, ICC(1) was 0.16 and ICC(2) was 0.63 $(F = 2.69; \ p < 0.001)$. Thus, ratings across respondents were aggregated to form a single measure of PDM for each respective school.

Skill flexibility
Responses were received for three statements representing SF from Rosenblatt (2004), which captured the ways in which this change affected the things that teachers do and how they go about doing them. A sample item is: "I use different teaching methods, approaches and resources than before." The items were ranked on a five-point Likert scale describing the frequency with which the teachers perform the depicted behavior (following the implementation of the reform "to how much you are [...]), ranging from 1 "very little," to 5 "very much." CFA measures showed adequate validity $((\chi^2(1) = 0.47, \ p < 0.05)$, CFI = 0.99, RMSEA = 0.04).

Control variables
I controlled for the effects of teachers' tenure in school, principals' tenure in their jobs and school size (the number of teachers in each school). The variable "employee tenure" has been shown to be potentially relevant for an effect on organizational change processes (e.g. Oreg, 2006). In addition, in leadership research, tenure and school size have been shown to be potentially relevant for their effects on organizational processes and outcomes (Berson *et al.*, 2015).

Analytic strategy
Data collection followed a hierarchical structure in which individual responses were nested within organizational units (schools). This analysis sought to determine whether processes at the school level affect individual-level outcomes. This kind of model (Figure 1) is described as a 2–2–1 multilevel mediation model (Preacher *et al.*, 2010), with the PDM data (Level 2) mediating the linkage between principals' interpersonal and strategic skills (Level 2) and teachers' outcomes (Level 1). The multilevel structural equation modeling (ML–SEM) was used to test the proposed multilevel model, with Mplus program (Muthen and Muthen, 1998–2011), which combines path analysis with hierarchical data to accurately estimate the variable parameters and errors (Berkovich and Eyal, 2016). ML–SEM enables simultaneous estimation of the mediation model's indirect effects and multiple paths ((2–2) and (2–1) linkages) (the multilevel equation also included the control variables, dependent upon their level; for more details, see Preacher *et al.*, 2010 or http://quantpsy.org/medn.htm).

Results
Means, standard deviations and correlations for the study variables (two levels) are reported in Table I.

Variables	α	M	Individual level (SD)	Group level (SD)	1	2	3	4	5	6
Group level										
1. School principals' strategic skills (aggregate)	0.92	4.06		0.50	–					
2. School principals' interpersonal skills (aggregate)	0.72	3.55		0.42	0.75**					
3. Teachers' PDM (aggregate)	0.85	3.25		0.57	0.39***	0.21*	–			
4. School size		31		11.30	−0.08	−0.22	−0.10	–		
5. Principals tenure in job		8.24		7.62	−0.19	0.02	−0.07	0.10	–	
Individual level										
6. Teachers' SF	0.82	3.46	0.85							
7. Teachers' tenure in school		11	5.72							0.001

Notes: $n = 113$ for group level; $n = 729$ for individual level. *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$

Table I.
Cronbach's α reliability, means, standard deviations and bivariate correlations between studied variables

At the group level, school principals' strategic skills and interpersonal skills were positively related to the teachers' PDM ($r = 0.39$, $p < 0.001$) ($r = 0.21$, $p < 0.05$), respectively.

The results indicated a good fit between the model in Figure 1 and the data ($\chi^2(16) = 36.48$, CFI = 0.99, RMSEA = 0.02). As none of the relationships between the control variables and teachers' SF, or between principals' tenure in their job and principals' skills, were significant, these paths were omitted from the diagram (Figure 1).

Figure 1 shows that the results of the multilevel model partially support the research hypotheses. School principals' strategic skills were found to be positively related to the teachers' PDM ($\gamma = 0.40$; $p < 0.001$), confirming *H1*. However, principals' interpersonal skills were not related to PDM ($\gamma = 0.10$; $p = $ ns), and therefore *H2* was not confirmed. Results also
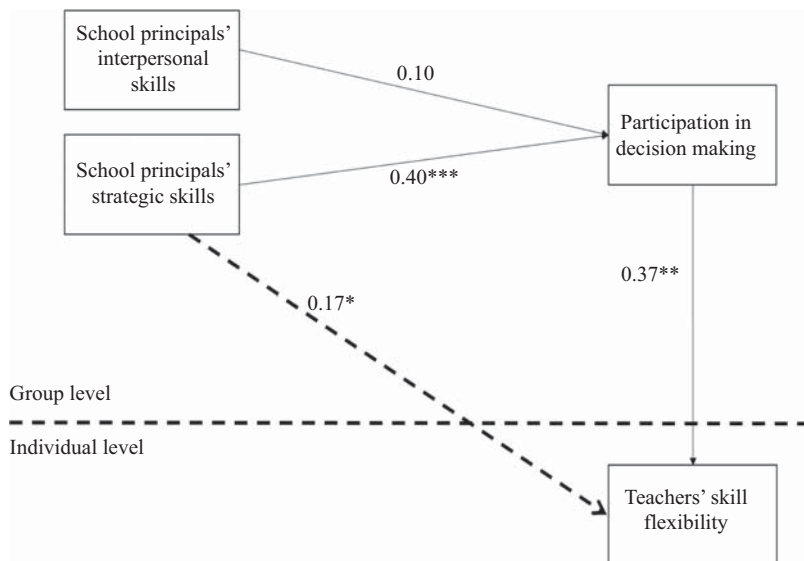
Figure 1.
Results of the hypothetical model

Notes: Standardized estimates of path coefficients. *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$

supported *H3*, as the teachers' PDM was found to be positively related to teachers' SF during organizational change ($\gamma = 0.37$; $p < 0.01$).

As seen in Figure 1, following the procedure by Baron and Kenny (1986), mediation was examined only between principals' strategic skills and teachers' SF by PDM. Thus, *H5*, which posited that teachers' PDM mediates the relationship between principals' interpersonal skills and teachers' SF, was not confirmed. Results indicated a positive indirect relationship between principals' strategic skills and teachers' SF through teacher's PDM (indirect effect $= 0.065$; $p < 0.05$, 95% bias-corrected bootstrap CI (0.005, 0.350)). Since the confidence interval did not include a 0 value (Shrout, and Bolger, 2002), it was concluded that the relationship between principals' strategic skills and teachers' SF is mediated by the perceptions of PDM at school. Thus, *H4* was confirmed.

Further, a significant relation was found between principals' strategic skills and teachers' SF ($\gamma = 0.17$, $p < 0.05$). I therefore concluded that according to Baron and Kenny's (1986) criteria for mediation, the observed indirect effect indicates partial mediation of the effect of principals' strategic skills on teachers' SF.

Discussion and implications

In this study, I examined theoretical paths through which strategic and interpersonal leadership skills can eventually directly influence organizational change processes (i.e. PDM) and indirectly influence outcomes (i.e. SF). Findings revealed that only principals' strategic skills were found to be related to teachers' PDM, in the context of organizational change. Further, teachers' PDM was found to be positively related to teachers' SF, and to partially mediate the effect of principals' strategic skills on teachers' SF. In the following, I further elucidate these paths to clarify contributions and implications for theory.

Theoretical implications

First, this research enables expanding the theoretical upper echelon model (Hambrick, 2007), both within the context of principals' characteristics and in their relation to change outcomes. The research results show that in order to successfully lead organizational change, principals do not necessarily need to display charismatic or exceptional behavior, but rather more "down-to-earth" managing strategic abilities that express, for example, vision and planning ability. These skills can be learned and developed, and therefore carry the potential to develop a more effective and better leadership (Mumford *et al.*, 2007). The results of this study are in line with previous researchers who emphasized the importance of leaders' strategies in schools during organizational change (Soini *et al.*, 2016). The knowledge of strategic leadership is essential as the role has become more critical and the demands have increased in complexity (e.g. Berson *et al.*, 2015; Carter and Greer, 2013).

Surprisingly, I did not obtain support for a link between principals' interpersonal skills and PDM. In general, change causes the reactions of cynicism, stress and resistance (Oreg, 2006). Therefore, I conclude from the research results that interacting with and influencing others, or convincing the members of an organization of the need for change, is not enough to bring about actual PDM. Teachers seem to need another milestone, such as vision or strategy, to direct them in the new reform.

Second, the current research sheds light on the "black box" between leadership and organizational outcomes (e.g. Berson *et al.*, 2015). PDM among teachers is considered a mechanism by which principals' skills lead to result that is relevant to change evaluation. Principals' strategic skills translated into actions that contribute to promoting PDM at the school when changes are implemented. This sharing of decision-making responsibility influences teachers' work flexibility during implementing the change, as well as their readiness to take on new roles, and it makes them feel like they are influencing school life.

These feelings can prompt them to invest additional effort into achieving the school's goals and improving on them (Bogler and Somech, 2005).

Somech (2010) argued that PDM is considered a motivational and cognitive resource for coping with the negative effects of pressure at work. In line with Somech (2010), teachers who believe that they have the opportunity to voice their opinions concerning suggested changes in their organization, and believe in their ability to influence decisions, contribute to changing actions into new methods that are appropriate for organizational change.

Finally, the research findings expand the literature on SF (e.g. Baard *et al.*, 2014; Rosenblatt, 2004) in the context of strategic leaders and PDM. Teachers need to be a part of the decision-making process, in order to be flexible, and to adjust their skills, work in order to adapt to school reform. As SF is in fact the ability to adjust to change, it follows that when teachers feel good about the change and perceive change as positively affecting various aspects of their work, they are also willing to adjust and gain new skills (Rosenblatt, 2004).

Limitations and future research

This study has several limitations. First, data were collected from schools in Israel, which are considered to have a similar organization with almost the same characteristics. Future research should expand to other types of organizations and cultural contexts. It has been argued that cultural values and practices are important factors influencing leadership ideals or expectations (Da'as, 2017).

Second, the variables were measured simultaneously, and the cross-sectional design therefore limits the ability to offer a causal model. I suggest adopting a longitudinal design in future studies to examine these issues, as this latter design is particularly suited to research examining the success of organizational changes over time (Hakanen *et al.*, 2008).

Another limitation is related to student's achievements as an outcome of change implementation, or how the constructs identified in this study relate to student outcomes (e.g. achievement, referrals for behavioral problems, etc.). Further research into outcomes other than SF on student achievement is warranted.

The research findings open the way to examining additional characteristics of school principals that can have direct or indirect effects on the success of change implementation, such as cognitive skills, or other personality characteristics that are relevant in times of change, such as "grit," defined as perseverance and passion for long-term goals (Duckworth *et al.*, 2007).

Moreover, it is recommended that future research examine other factors influencing the change process beyond principals' characteristics, such as teachers' characteristics, for example, personality characteristics such as control ability or lack of control, which are relevant in times of organizational change (Paulsen *et al.*, 2005).

Practical implications

The findings show that school principals can increase their awareness of the need to develop strategic skills to succeed in increasing teachers' SF during change implementation processes at schools. The use of strategic skills will help principals influence teachers to participate in decision making, adapt to the reform and develop positive attitudes during the change. Moreover, principals need to adopt the processes of PDM as a central and systemic school strategy and as a part of the school culture, so that teachers can achieve the school's targets in a complex environment and under conditions of ongoing change, contribute to the school's effectiveness and increase teachers' SF.

Finally, these findings are important for the policy makers at the Ministry of Education, and for the school superintendents, both of whom are responsible for training new principals or advancing courses for principals. These individuals need to take into consideration the development of strategic skills to allow principals to successfully promote changes in their schools.

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