
education policy analysis archives

A peer-reviewed, independent,
open access, multilingual journal



epaa | aape

Arizona State University

Volume 25 Number 105

October 9, 2017

ISSN 1068-2341

Making Sense While Steering Through the Fog: Principals' Metaphors within a National Reform Implementation

Sherry Ganon-Shilon



Chen Schechter

Bar-Ilan University
Israel

Citation: Ganon-Shilon, S., & Schechter, C. (2017). Making sense while steering through the fog: Principals' metaphors within a national reform implementation. *Education Policy Analysis Archives*, 25(105). <http://dx.doi.org/10.14507/epaa.25.2942>

Abstract: Principals' implementation of national reforms in the educational arena resembles a wild ride on a roller coaster as they face with contradicting demands, ongoing confusion and ambiguity. As critical change agents, principals interpret and translate reform demands into local practices through a process of sense-making. This current qualitative research explored 60 high school principals' sense-making processing of their leadership within a national reform through their use of metaphors. Data analysis yielded four themes: (a) reframing the principal's role and pedagogical autonomy; (b) reframing the principal's work; (c) reframing the school culture; and (d) reframing the principal's relationships with teachers. This study expands the currently limited knowledge about principals' experience with and responses to reforms, and suggests implications and further research on metaphors principals use within reform implementation.

Keywords: Education reforms; metaphors; sense-making; principals

Haciendo conciencia mientras atravesamos la niebla: Las metáforas de los directores dentro de una implementación de la reforma nacional

Resumen: La implementación de las reformas nacionales en el ámbito educativo por parte de los directores se asemeja a un paseo salvaje en una montaña rusa al enfrentarse con exigencias contradictorias, que van desde la confusión hasta la ambigüedad. Como agentes de cambio críticos, los directores interpretan y traducen las exigencias de la reforma en prácticas locales a través de un proceso de “generar conciencia”. Esta investigación en términos cualitativos exploró 60 procesos de “generación de conciencia” de los Directores de escuelas secundarias, referente a su liderazgo dentro de una reforma nacional a través del uso de metáforas. El análisis de los datos obtenidos arroja cuatro temas: (a) replantear el papel del director y la autonomía pedagógica; (b) replantear el trabajo del director; (c) replantear la cultura escolar; y (d) replantear las relaciones del director con los maestros. Este estudio amplía el conocimiento actualmente limitado sobre la experiencia de los directores y las respuestas a las reformas, y sugiere implicaciones e incrementar la investigación sobre las metáforas que los Directores usan en la implementación de la reforma.

Palabras-clave: Reformas educativas; metáforas; generando conciencia; directores

Fazendo consciência à medida que passamos pelo nevoeiro: As metáforas dos diretores dentro de uma implementação da reforma nacional

Resumo: A implementação de reformas nacionais no campo educacional pelos diretores é semelhante a um passeio selvagem em uma montanha-russa diante de demandas contraditórias, que vão desde a confusão até a ambigüidade. Como agentes de mudança crítica, os diretores interpretam e traduzem as demandas de reforma nas práticas locais através de um processo de “gerar consciência.” Esta pesquisa, em termos qualitativos, explorou 60 processos de “geração de conscientização” dos diretores das escolas secundárias, referentes à sua liderança dentro de uma reforma nacional através do uso de metáforas. A análise dos dados obtidos revela quatro temas: (a) repensar o papel do diretor e a autonomia pedagógica; (b) repensar o trabalho do diretor; (c) repensar a cultura escolar; e (d) repensar as relações do diretor com professores. Este estudo expande o conhecimento atualmente limitado sobre a experiência dos diretores e as respostas às reformas e sugere implicações e aumenta a pesquisa sobre as metáforas que os diretores usam na implementação da reforma.

Palavras-chave: reformas educacionais; metáforas; gerando consciência; diretores

Introduction

Enhancement of students' achievements is the utmost objective of educational reform agendas in most countries (Addonizio & Kearney, 2012; Coburn, Hill, & Spillane, 2016; Kalenze, 2014). Behind this global effort towards higher levels of student performance at the school level, there are diverse state and local agencies such as policy makers, district authorities, local councils, teachers, parents, and students, all promoting overlapping and often contradictory interests. In this contradictory context, research indicates that school principals play a crucial role as system players who negotiate nationwide reforms and school initiatives (Spillane & Kenney, 2012). Facing an ever growing pressure to transform school systems into dynamic learning environments, principals find their role increasingly more complex (Fullan, 2014; Organisation for Economic Co-operation and Development [OECD], 2016; Pont, 2014; Schleicher, 2012; Sumera, Pazey, & Lashley, 2014).

School principals' work during an education reform usually involves large-scale changes, requiring both reorganization and rearrangement. Principals are required to support the

development of teachers and other staff members, set clear goals, and, above all, ensure that their schools provide a high quality education (Gawlik, 2015). Performing within multiple contexts— state, school district and parent associations, school principals' role is generally characterized by ambiguity, uncertainty, confusion, and misunderstanding, and all the more so, during periods of education reform. Embracing the dynamic tension between internal school goals and external reform demands is a central concern for principals, as it questions common practices and challenges the existing state of affairs (Kaniuka, 2012; Knapp & Feldman, 2012).

Challenging existing practices requires of school principals to make sense of their leadership, as they respond to the dynamic interactions between internal and external demands (Saltrick, 2010; Weick, 2009). In the process of sense-making, school principals derive meaning from a confusing array of inputs and options (Louis & Robinson, 2012). Specifically, while experiencing and enacting reform demands, principals go through a sense-making process in which they draw upon prior knowledge and beliefs to construct meaning out of the new experiences and information they face (Coburn, 2016; Spillane & Anderson, 2014). Implementing school reform necessarily entails the translation of new ideas into new educational practices, which requires complex sense-making processes in those involved. This leadership-challenge positions principals at the very center of education reforms (Gawlik, 2015; Volante, 2012), which in fact calls for a much needed analysis of principals' internal processes when adapting reform demands to local conditions (Brezicha, Bergmark, & Mitra, 2015; Koyama, 2014). However, while a few studies have addressed the role of principals as influencing teachers' sense-making (e.g., Coburn, 2016), only limited research has focused on the sense-making of the principals themselves within the context of reform implementation (Jennings, 2010; Rigby, 2015; Thomson & Hall, 2011).

This current research explores school principals' sense-making of their leadership within a national reform through their use of metaphoric language, highlighting principals' use of language to define what the leadership role is and how its practices unfold within reform contexts. The research question guiding the study is what metaphors school principals use while making sense of their role complexity through the implementation of a national education reform. Metaphors, in this regard, can serve as a reflection of principals' efforts to make sense of a national reform. Such research may contribute to both the theory and the practice of leadership in times of education reforms (Derrington & Campbell, 2015; Hallinger & Lee, 2013), and point to conceptual and practical implications as well as future research avenues.

This study focuses on Israeli high school principals. According to the Gini coefficient for measuring a nation's distributive inequality, Israel is among the four countries with the broadest gap between rich and poor, alongside the United States, the United Kingdom, and Mexico (OECD, 2016). Mindful of the great diversity among school populations, recent educational policy in Israel has been directed toward achieving high levels of equality in educational outcomes across the board (BenDavid-Hadar, 2016). This evolving educational context—with national Ministry policies focusing on narrowing students' achievement gap through standardization and accountability— provides a unique opportunity to explore our research question.

Theoretical Framework

Principals' Role in Reform Implementation

Education reforms have expanded the role school principals play (Pont, 2014; Sumbera et al., 2014), a role which has become vastly more complex and demanding (OECD, 2016). Over the past two decades, there has been an ongoing need for school improvement, focusing especially on teaching and learning processes, and, ultimately, on learner achievements (Fullan, 2014). Hence,

principals are expected to build teams, establish vision, cultivate leadership skills in teachers, use data to inform instruction and ensure that their schools provide a high quality education, while constantly observing and implementing reform guidelines (Gawlik, 2015; Mendels & Mitgang, 2013). In this context of global quest for education reforms, school principals need to integrate effectively both managerial and instructional responsibilities (Walker & Hallinger, 2015).

Implementing an education reform is a complex continuous endeavor (McDonnell & Weatherford, 2016; Young & Lewis, 2015). A large body of literature has shown that a central determinant for the effectiveness of school reform is the way in which the reform is implemented (Ramberg, 2014). Implementation research demonstrates that policies are rarely implemented neither as written nor necessarily as intended by their initiators (Porter, Fusarelli, & Fusarelli, 2015; Rigby, Woulfin, & Marz, 2016). Managing the implementation of a new policy, principals are encumbered by the complexity of how to negotiate between internal school goals (e.g., maintaining autonomy, responsibility to school staff, allocating time and resources, as well as providing professional development support), and external demands (e.g., meeting regulations for accountability and standardization for outcomes). In other words, implementing education reforms involves contradictory pressures arising between the central government and the school self-government. In other words, implementing education reforms involves contradictory pressures arising between the central government and the school self-government (Werts & Brewer, 2015). These tensions may lead to a superficial implementation, which replaces what should be a deep change in pedagogy (Hopfenbeck, Flórez-Petour, & Tolo, 2015).

Policy implementation, then, is an extended process, in which principals mobilize the school staff towards the reform (Flessa, 2012; Werts & Brewer, 2015). Hence, effective results of an education reform whose aim is transforming schools into more beneficial institutions depend not only on its conceptual foundations or its proper design, but also on its successful realization by principals who lead the reform in their schools (McDonald, 2014; Young & Lewis, 2015). Therefore, school principals may be the linchpin of effective implementation of any school-level reform (New Leaders, 2013).

Attempting to reconcile contrasting pressures, school principals serve as local actors, while shaping the implementation of an external policy. In this context, reform implementation varies because school principals draw on prior knowledge and practices to interpret the reform, which leads them to construct policy messages in ways that either reinforce preexisting practices or focus on surface-level forms of the reform (Coburn et al., 2016). Thus, principals mediate between external authorities and the school, adapting and incorporating particular policy elements and practices, creating new norms that alter the original reform plan over time (Diamond, 2012). Hence, different schools may carry out the same policy in ways that differ in content, focus, and intensity (Koyama, 2014).

Researchers highlight the importance of school principals' power to make strategic choices as well as to interpret, mediate, alter and even disrupt the reform implementation processes so as to position themselves and their organizations in a favorable place (Coburn, 2016; Fullan, 2014). Implementation can be measured by the extent to which school principals accept, reject or adapt external reform demands. In other words, principals' choices and actions while maximizing their own local interests influence the institutionalization of education reforms. Namely, making the policy a permanent fixture depends on its adaption to local contexts. Redefining external policy to suit their particular situations, principals never operate in a vacuum as they implement reform demands (McDonnell & Weatherford, 2016; Patashnik & Zelizer, 2013). The facilitation of a successful reform implementation is affected by the culture with which principals interact. In

particular, reform implementation depends on a collaborative school culture that fosters mutual trust, constructs shared goals, and is focused on learning (Reed, 2013; Tschannen-Moran, 2014).

Reform implementation at the school level suggests that principals continuously strive to balance pressures that exist inside and outside the school. Thus, principals' perception of their role is significant in determining how and to what extent a reform is implemented in a specific school (Urlick & Bowers, 2014). While adjusting reform demands to suit their particular needs, school principals respond to the dynamic interactions between internal goals and external demands through a sense-making process (Saltrick, 2010), which re-centers school principals' role as local actors (Spillane & Kenney, 2012) and as mediating agents who develop adaptive strategies (Bridwell-Mitchell, 2015; Pesonen et al., 2015).

Principals' Sense-Making within Reform Implementation

Sense-making is an ongoing process through which individuals and groups work to understand issues or events that create ambiguities in one's routine and are inconsistent with their prior beliefs (Maitlis & Christianson, 2014). School principals' sense-making is their process of giving a meaning to new information, working habits and arrangements, as they face ambiguity, confusion and misunderstandings. This dynamic process of constructing meaning out of present stimuli is mediated by prior knowledge, experiences, beliefs and values embedded in the social context within which people work (McDonnell & Weatherford, 2013). Encountering uncertainty, school principals frame their environment through an interpretive mental model in order to "make sense" of what has occurred. In today's high-stakes accountability era, sense-making offers a useful theoretical construct as it goes beyond interpretation; principals play an active role in constructing the events they attempt to comprehend, which in turn orients their actions (O'Laughlin & Lindle, 2015).

Analyzing empirical examples of how educators employ sense-making yielded that school principals create their own interpretations of policy messages through an interaction with what they know and new demands. An ethnographic study, which focuses on three New York City high schools, clearly demonstrates how leaders make sense of accountability and choice policies. Although the district did not allow school leaders to select students based on their performance, principals retained higher achieving students (Jennings, 2010). These principals' sense-making processes were based on experience and on social networks with other school principals. Another qualitative case study (Koyama, 2014) examines how principals in New York City (NYC) negotiate and mediate the districts responses to comply with NCLB's high stakes standardized testing and data-monitoring accountability policy demands. The findings reveal that principals utilize other methods to generate and analyze data, thus maintaining commitment to their teaching staff, students, students' parents, and their own values. A different case describes an active negotiation process of the AYP requirement (Adequate Yearly Program) to promote student achievement (Black & Shircliffe, 2013). Principals questioned how test scores were used to evaluate school effectiveness. Contradictions between policy and local goals have resulted in creative strategies that balanced policy and local goals, by ignoring some accountability demands that were too excessive and facilitating others that were beneficial to school practices.

Sense-making aims to create a holistic picture of the given ambiguous event through three interrelated processes: creation, interpretation, and enactment (Weick, 2009). First, individuals explore the broader system by collecting various data sources in order to map the unfamiliar situation. Sense-making provides the mapping technique, that is, a useful tool for people faced with a bewildering lack of information. Maps explain, illustrate, and invite people to discuss and contribute ideas, all leading to a clearer understanding of the situation, allowing for more effective

actions (Ancona, 2012). Obviously, there is no single “accurate” map, as sense-making is about creating a holistic picture rather than about finding the “right answer”. The creation process suggests bracketing, noticing, and extracting cues from the actual experience of the ambiguous event. Second, through multiple interpretations of the ambiguous event, individuals develop the initial sense they have created into a more organized perception. Then comes the third and final enactment process, which invites individuals to translate their knowledge into actions. This process consists of incorporating new information and, eventually, taking action based on the interpretation created previously.

Sense-making refers to how we structure the unknown so as to be able to act in response to it. We actively construct meaning by relating new information to preexisting cognitive frameworks, labeled by scholars as working knowledge, cognitive frames, enactments, or cognitive maps (Coburn, 2006). By retrospectively turning our lived experiences into cognitive frames, we create and enact a new sense of how to engage in a complex situation. This action-oriented thought process suggests cognition and action as integral parts of sense-making (Weick, 2009). In other words, making sense of things involves constructing a reality by creating meaning out of prior knowledge, experiences, professional norms, values, and beliefs (Spillane & Anderson, 2014). Therefore, sense-making is a process which explains “how people select information from the environment, make meaning of the information, and then act on those interpretations to develop culture and routines over time” (Gawlik, 2015, p. 91).

Understanding school principals' role from a sense-making perspective must take into account both the increasingly compound world principals face and the complexity of the sense-making process itself. Principals struggle through the interplay of action and interpretation (Beabout, 2012). Seeking to address this complexity, they make sense as well as provide others with a different sense as a social daily practice. In particular, through a sense-making framework, school principals shape others' meaning-making process in an effort to mobilize them into action. Thus, principals' sense-making of education reforms is a social practice which focuses on the relationships between persons, actions, contexts, environments and cultures, and on activities that have become routine, ritual and systematic. Similarly, Spillane et al. (2002) argue that school principals' sense-making process is nested in the school culture as well as integrated with its values, norms, beliefs and traditions.

The sense-making perspective is valuable for understanding principals' complex role in reform implementation, since “problems do not present themselves to the practitioner as givens. They must be constructed from the materials of problematic situations which are puzzling, troubling, and uncertain” (Weick, 2009, p. 9). Sense-making in an educational leadership context suggests that school principals make and enact their meanings of reform demands on the base of preexisting understandings and overlapping social contexts inside and outside of school (e.g., policy makers, district authorities, local council, teachers, parents, and students). This sense-making process through which leaders respond to reform is nested in multiple and often conflicting school contexts (Coburn, 2005). For this reason, Beabout (2012) recommends that sense-making be a central element for understanding principals' role complexity, especially in times of education reform.

Integrating their own backgrounds, experiences, and specific contexts with reform demands, school principals construct a new meaning of their role (Saltrick, 2010). Interacting knowledge, beliefs, context, and experience, principals interpret and translate reform demands into school practices (Braun, Maguire, & Ball, 2010). In essence, within the context of a reform characterized by ambiguity and conflicting demands, principals make new meanings of and for their leadership role. That is to say, school principals make sense of and for their role as they look for new ways to enact, negotiate, and mediate the reform to suit their particular situations (Spillane & Kenney, 2012).

According to Ball, Maguire, and Braun (2012), policy enactment conveys “the creative processes of interpretation of the abstractions of policy ideas into contextualized practices” (p. 586). This highlights principals' active role in creatively interpreting a particular policy into a specific set of actions.

Metaphors within the Sense-Making Framework

Metaphors are a dominant component not only of language but also of other cognitive processes through which humans encounter their environment, perceive their reality, and envision change (Witherspoon & Crawford, 2014). They are mental constructs that reflect how human beings experience and shape their reasoning (Gunbayi, 2011). Contemporary researchers define metaphor as an image in which two elements or characteristics have become identical through the transfer from one semantic field to another, creating a new linguistic combination that carries a surprising meaning. The juxtaposition of different semantic fields has two consequences: the resulting new image serves a clarifying function by helping individuals understand better new situations, and the interaction of the two semantic fields creates a new idea not inherent in either field alone. Murray and Rosamund (2006) define metaphor as a fundamental mechanism of cognition, that is, they see the essence of the metaphoric process as lying in thinking about a certain issue in different terms than those of its original field.

Lakoff and Johnson (1999) claim that metaphors correspond to neural mapping in the brain and reflect a way of organizing human experience by creating images in the mind. Accordingly, the abstract metaphorical approach to learning allows learners to grasp complex concepts in the context of their existing practical repertoire by using metaphors. Through metaphors, learners reinterpret their practical repertoire, which influences the way they act (Boxenbaum & Rouleau, 2011). Metaphors lead one to see familiar processes in a new light that reflects on the underlying values of organizational culture and suggests suitable intervention avenues (Gunbayi, 2011).

Limited data are available about the metaphors principals use while making sense of their role within reform implementation. Lumby and English (2010) have identified seven metaphors for educational leadership: machinery, accounting, war, sports, theater, religion, and lunacy. According to them, each of the seven metaphors has been used in the policy discourse to frame different dimensions of leadership, and, they contend, instrumental metaphors are reflected in the U.S. standards approach (ISLLC standards) and have been integrated into the landscape of leadership (Ehrich & English, 2013). Reitzug, West, and Angel (2008) described how metaphors have changed over time in response to the high accountability currently required of the education system. In coincidence with this currently high focus on accountability, leaders have shifted to a more bureaucratic, scientific management approach, perceiving themselves more as “inspectors” than as “facilitators of teacher growth.”

School principals make sense of their role within broader symbolic systems through which their everyday experience is constructed, interpreted, and maintained. In particular, metaphors principals use can help the researcher understand the principals' expectations of themselves and of the role that they play within a reform context (McCandless, 2012). As metaphors connect between key understanding of policy mandates, educational context, and school culture, they can reflect multiple frames for how principals make sense of expectations, meanings, and personal role identities regarding a national reform (Witherspoon & Crawford, 2014). Metaphors can explain principals' understanding of what the leadership role is and how its practices unfold within the context of a reform. In other words, metaphors, as mental linguistic structures, can represent school principals' new understanding of policy messages, namely, how they make sense of complex, ambiguous work environments. As such, using metaphors can be considered as a reflection of

principals' sense-making, especially in the process of implementing policies. Thus, metaphors can reveal how principals make sense of their leadership role as they navigate through the stormy sea of multiple and conflicting demands of reform implementation.

Research Context

According to the Gini coefficient for measuring a nation's distributive inequality, the wide gap between rich and poor in Israel places it among countries such as the United States and Mexico (OECD, 2016). The national school system in Israel serves some 1.6 million students, with approximately 73% in the Jewish sector and 27% in the Arab sector. The Jewish sector consists of state schools (58%), state-religious schools (19%), and separate, independent ultra-orthodox religious schools (23%). The Arab sector's school system consists of Arab schools (71%), Bedouin schools (22%) and Druze schools (7%). About 1% of the total student population is in special-education settings (Israel Central Bureau of Statistics, 2013). Israeli students' academic achievements remain among the lowest of the industrialized countries, and students' educational gaps (achievement distributions) remain among the widest (BenDavid-Hadar, 2016). Mindful of the great diversity of school populations, recent educational policy in Israel is geared toward achieving higher levels of equality in educational outcomes across the board.

Aiming to narrow the achievement gap upward through growing performance pressure (standardization), the Ministry of Education recently initiated a new reform, *Courage to Change*, in Israel's high schools. This reform aims to raise student achievement levels, improve school climate, and provide equal opportunities for all students. This evolving educational context—with national Ministry policies focusing on narrowing students' achievement gap through standardization and accountability, and investing in school staff development—provides a unique opportunity to explore our research question.

The *Courage to Change* national reform was launched in the 2011-2012 school year and has been implemented in high schools, encompassing many aspects of school life. This systemic reform offers an opportunity to bring about a meaningful change in Israeli high schools regarding pedagogical and managerial aspects and teachers' employment conditions. More specifically, the *Courage to Change* reform aims not only at maximizing schools' measurable performance (students' entitlement to a matriculation certificate, dropout prevention), but also at empowering teachers and raising their social status.

This national reform encompasses the following main complementary changes in the teachers' work. The teachers' workweek is to be restructured, changing gradually from a 24-hour workweek of classroom teaching into a 40-hour workweek. The teachers' educational, pedagogical work is to be reorganized so as to add to their 24 hours of classroom teaching 6 hours of individual teaching as well as 10 hours of non-teaching attendance. The individual hours, added as part of the *Courage to Change* reform, are to be devoted mainly for working with groups of up to five students, thus enabling personal tutoring which should promote learning achievements and build adult-student connections. The specific content of this time is determined by the school, according to the Ministry of Education guidelines. Attendance hours provide both time and space for the educational staff to carry out various school activities, such as teaching and learning planning, activities among different staff teams, professional development and communication with colleagues and stakeholders, such as parents or experts. The attendance hours are part of the reform as well, and part of their focus is carrying out the annual plans for the school. To ensure teachers' compliance, the teachers' lounge now features a computerized time clock, and teachers must either swipe a personal card or enter a PIN (Personal Identification Number) on entering and leaving school.

Notably, this reform enhances the principals' pedagogical role as facilitators of the professional development of the school staff as well as evaluators of teachers' performance in teaching (Israel Ministry of Education, 2011).

Research Design

Given the theoretical framework described above, this study has explored the metaphors school principals have formulated to describe their role while facing the complexity that characterizes a national reform. We have chosen a qualitative methodology to allow for the collection of rich textual descriptions. In particular, this study is a narrative inquiry into meaning, highly attentive to what principals are experiencing at a certain point in time (Patton, 2002).

Participants

Seeking to maximize the depth and richness of our data, we used maximal differentiation sampling (Creswell, 2014), also known as heterogeneous sampling. This is a purposive sampling technique used to capture a wide range of perspectives, gaining greater insights into a phenomenon by contemplating it from various angles. The maximal differentiation sampling was applied to this study regarding principals' gender, years of teaching experience, years of experience as principal in general, years of experience as principal in the current school, a state (Jewish and Arab sectors) and religious-state background, and geographical districts. We did not begin the study with a rigid number of participants. In fact, we defined the study sample on an ongoing basis as the study progressed. In practice, we approached 81 school principals, until we reached a number of 60 principals who could represent a diverse sampling. Thus, the 60 participating high school principals (38 women, 22 men) who implemented the national reform were from all school districts. Participants worked in the state educational system ($n = 30$), in the religious state system ($n = 18$), and in the Arab educational system ($n = 12$). On average, participants had 23 years of teaching experience (range = 4-43), and 9 years of experience as principals (range = 1-30). Principals had 2 years of experience in implementing this national education reform.

Data Collection

Data were collected in the second semester of the 2012/2013 academic year, by means of semi-structured interviews designed to explore participants' personal perspectives (Marshall & Rossman, 2011). Individual interviews with principals, which generally lasted an hour, took place in locations chosen by interviewees: their schools, coffee shops, and other locations. All interviews were audio-recorded and transcribed verbatim. Transcripts were translated from Hebrew to English by a specialist in both languages. All participants were fully informed of the aims of the study and were promised complete confidentiality as well as full retreat options. Pseudo names were assigned to all interviewees. During the interviews, principals were asked identical questions intended to reach an understanding of their metaphors concerning their leadership role. Specific questions were asked in order to achieve full clarity regarding principals' use of metaphorical language. The interview focused on three major questions: (1) Looking at the national reform, what kind of metaphor would you use to describe your leadership role? (2) Can you provide examples and explain? (3) Can you come up with additional metaphors to describe your role?

Data Analysis

Data collection and analysis were conducted simultaneously in an ongoing process throughout the inquiry, with analysis being a three-stage process – condensing, coding, and categorizing. Once data were collected, we found that not all the material collected could serve the

purpose of the study, and that the material required sorting (Miles, Huberman, & Saldaña, 2014). Thus, in the first stage of analysis (condensing), we looked for the portions of data that related to the principal's role, which was the topic of this study. In the second stage (coding), each segment of relevant data (utterance) was coded according to the aspect of the principal's role it expressed (Gibbs, 2007). In contrast to the previous stage, this stage was data-driven and not theory-driven; hence, we did not use a priori codes but rather inductive ones, developed by direct examination of the perspectives articulated by participants (Rossman & Rallis, 2012). After capturing the essence of the utterances in the second stage, in the third stage (categorizing), we clustered similar utterances to generalize their meanings and establish categories. At this point, we reworked the categories to reconcile disconfirming data with the emerging analysis (Richards & Morse, 2013). Thus, the categories' dimensions were explored, identifying relationships between categories and testing categories against the full range of data.

A confounding property of category construction in qualitative research is that data within categories cannot always be precisely and discretely bound together; still, we grouped and regrouped utterances when their codes had common elements, until satisfactory categories emerged. Then we consolidated the categories we had established in various ways, until we realized how different components were interconnected and how they influenced each other as parts of a single conceptual construct. Charmaz (2006) explained this figuratively: “coding generates the bones of your analysis; theoretical integration will assemble these bones into a working skeleton” (p. 45). Our analysis process as described so far may seem to be an orderly and efficient process; however, in fact, it was quite complex and messy. We went forward and backward, and the various stages mingled with each other.

Several measures were taken at different stages of the study to ensure trustworthiness. First, the diversity of study participants was maintained, in terms of gender, seniority in post, and geographical districts (all school districts). Second, two researchers conducted the analytic process described above, each analyzing the data independently. In the next stage, we met to discuss and reflect on the emerging themes, as well as to search for data that would either confirm or disconfirm these themes. Third, to evaluate properly the soundness of the data, we conducted a member check (Schwartz-Shea, 2006) with all participants. We sent transcripts back to participants, along with a request to evaluate their responses and make any necessary additions or refine their responses if needed. Using this strategy allowed for an examination of the descriptive data versus the participants' reactions, so as to endorse and solidify participants' metaphors regarding their leadership role. Fifteen of the interviewees changed their answers, clarifying their remarks and adding information they had previously omitted. Fourth, as reflective journals have been recognized to be an important aspect of qualitative research (Ortlipp, 2008), we wrote and shared our reflective journals throughout the study to ensure critical thinking.

Findings

Principals were asked to propose their own metaphors and explain their meanings and connections to their leadership role within the context of the national reform. The content analysis revealed that school principals' metaphors, as a representation of their sense-making during a national reform, included four major internal and external fields in a process of being reframed: (a) reframing the principal's role and pedagogical autonomy; (b) reframing the principal's work; (c) reframing the school culture; and (d) reframing the principal's relationships with the teachers. Although these themes are distinct, they are closely interrelated in the context of the leadership role during reform implementation.

Reframing the Principal's Role and Pedagogical Autonomy

Principals' metaphors illuminated their need to provide a new meaning to their role as school leaders. Twenty-four of the study participants reported that the changes required by the national reform led them to formulate new perceptions of their leadership role. Adam, a principal with 16 years of experience, chose a new art movement, as his metaphor:

Art is in my veins. I am a pioneer creating a new style of art. Art, like education reforms, is fast-paced and my teachers are encouraged to reflect, discover and invent their unique form of expression. This fast-paced exchange of information and instruction calls for a new art movement, which focuses on the individual perspective. Yet, meeting reform demands in a way that represents one's personality and profession is complex. I told my teachers that being the first mover has a great advantage. Struggling to understand these external standards, each one of us can use his own painting brush. No one will put us in jail because we attempted to develop our own implementation style.

Adam views reform demands as creating a style of art, an outlook that emphasizes the appreciation of a unique perspective. Adam's metaphor suggests a complex representation of his new role that calls for a risky strategic choice. Similarly, Mark, a principal who has three years of experience, sees himself as a pioneer, claiming that he has always been one step ahead of the implementation process. Having been a commander in the army, he chose "a new military line of action" as his key metaphor:

I am a commander faced with a difficult mission and a great responsibility. Implementing reform demands is like leading my teachers into a "new military front". Two years ago, when I just started here, I constructed the main road I had to go by, and suddenly, today, reform guidelines would have me change my route. Moving from your comfort zone into the unknown, after having worked out the details of your plan, is a challenge. Real-time decision-making is crucial, so I believe you should always be one step ahead, both in the military and in the educational arena. Though my teachers have second thoughts as to entering the reform, I tell them: "it will not be easy but we are on the right path".

Mark made sense of his leadership role by drawing upon his military experience. He believes that implementing external reform demands and making decisions in the military arena represent a new step on the right path, thus moving toward incremental change rather than reinforcing pre-existing practices. Liam, a school principal with 24 years in office, presented the image of a pioneering solar power plant to talk about his new opportunity to innovate:

Having seen this new technology put into use here in the Negev [a southern desert region] a few weeks ago, I would like to use it as my metaphor. This solar power plant is simply amazing, as it provides us with energy all day and night, and that is how I feel about the reform dictates. Thanks to attendance hours, I have a great potential for innovation. Last week, the history teacher and I worked on a new plan – new software for students confronted with challenges in the classroom. These hours demand more time planning but give me more energy, and I pass this energy on to my teachers and my students. My new role has become more difficult, but this energy keeps me going.

Other school principals felt that their new role created a new way of seeing. Zoe, a principal with 19 years of experience, used the microscope as a metaphor by which to express her sharper vision:

The Courage to Change requires of me to develop a more detailed view. I am a microscope with an advanced zoom lens and a sharper vision. The reform, just like the microscope, has enabled me to look at things closely. Now I can see the individual student at the school level. Providing my students with individual hours has opened up a complex assignment. Using a different zoom to recognize the individuality of each child is extremely important.

In a similar fashion, through the metaphor of a Matryoshka doll (a Russian nesting doll), Mila, a principal who has been in office for 13 years now, described her new “individual school”:

The reform has created another school, “an individual school”. I am a Matryoshka doll, because I have a new school within an existing school. There is the conventional school [frontal teaching hours, teachers’ room, lessons, and breaks] carrying another school [individual hours] inside. I am dealing with the complexity of an additional school, which requires a different way of seeing, hands-on management and a proactive presence with students, teachers, grade-level and subject coordinators.

Demonstrating the complexity of her new role through a Russian nesting doll, Mila understood and enacted individual hours by relying on her personal background. According to Mila's interpretation, managing individual hours requires of her to develop her own skills in order to attain an individualistic way of seeing.

Some school leaders perceived their key role as fitting reform demands to their particular school reality. According to their belief, although the reform principles were generally good, sometimes one had to make significant deviations from its original format. Thus, principals were clearly aware of their wish to maintain pedagogical autonomy and flexibility within their schools. Allowing his teachers not to swipe their time cards, in violation of the Ministry's regulations, Joshua, a school principal with 15 years of experience, sees himself as a circus acrobat:

I love going to the circus, and this reform has taken me on a similar journey. I see myself as a circus acrobat. This reform is a dream come true! I am going on an educational journey so that my students and teachers can reach their maximum potential. However, this is also my nightmare – in order to translate my dream into school reality I have to be an acrobat. Instead of having them punch the time clock, I sign for my teachers manually. If a teacher has to leave school early, will he leave his class without asking for my permission? Cutting edges is like performing fire devil sticks. Making reform work is either a daring adventure or nothing at all.

“Clearing away” the local district dictate to fully implement the reform, Victoria, a school principal for eight years now, described her role as debugging a computer program:

Three weeks before the beginning of the school year, I got a very nice letter from the local authority saying that all high schools in the city would enter a pilot program, which meant that they would have to fully implement the reform. I held an urgent meeting with the educational staff about this decision. A month after the school year started, a huge bug was threatening my school! In the past, teachers would volunteer, but today my teachers are settling accounts by specifying the number of hours delivered. For example, we are having a PTA meeting in two days, so I asked a homeroom teacher whether she had called the parents to make sure they were updated. Her answer was “I work until 16:00 PM”. Solving this kind of

issues is like fixing computer errors! It took me a whole semester, but I finally got a special approval to implement the reform gradually.

While Victoria preferred to maintain her autonomy by debugging her system, thus adjusting the reform implementation process to her school reality, Grace, a school principal who has had 12 years of experience, imagined an amusement park as a key metaphor by which to express her view of catering for her school's actual needs regarding individual hours' implementation:

Following up on the individual hours while allowing flexibility is similar to managing an amusement park. A school principal is an amusement park – surrounded by a fence and packed with dozens of rides and creative attractions. I monitor individual hours' reports but allow for pedagogical flexibility. Being flexible means not using individual hours for personal tutoring but rather enriching and empowering students through creative arts, athletics, and musical activities. The key to success in implementing the reform is being flexible and not sticking to the black and white vision of the law. Becoming familiar with my students' interests is more important than adhering to reform dictates.

Jacob, a school principal for 23 years now, presented the image of a tailor while explaining his decision to allocate individual hours as extra hours of teaching:

Individual hours are a very special gown I received as a gift. Unfortunately, I do not wear impractical clothes. I need to re-tailor this item to match my 'school measurements'. We are measured by the number of students entitled to a matriculation certificate, so, you understand, I do not intend to shoot myself in the leg. I greatly respect reform regulations and demands, yet, focusing on students' pedagogical needs is no less important than the reform's formal definitions. The gown will have to be remade to fit my measures and not the other way around.

Due to the shortage of work hours allocated to in her school, Bella, a principal with 11 years of experience, described her role as that of an angler at sea with no fishing rod:

Can you fish without a rod? How do the people of the Ministry expect teachers to perform their individual and attendance hours without an appropriate workspace? There is an enormous gap between policy makers' expectations and the school's current conditions. A flexible solution is a MUST! Allowing my teachers to work from home is the best 'realistic' rod I could come up with.

Working from home is against the Ministry's regulations. However, Bella considered her decision to do that realistic in light of existing conditions. Accordingly, national reform demands have elicited different responses from school principals. More specifically, while maintaining their autonomy, these school principals created new norms that altered original reform mandates.

Not all school principals actively expressed their wish to maintain their autonomy. Iris, a school principal with three years in office, said she 'was thrown into deep waters':

No one has answers! Neither the Ministry, nor the local authority, nor the Teachers' Union. I was thrown into deep waters without proper gear. Workspace is the first and most basic need to survive in this complex situation. If you cannot provide what your clients need, then, at least, you should find the closest alternative; but no one provided me with even that!

In a similar fashion, Danny, a school principal with nine years of experience, sees himself as “chained”:

Each year, my school is assessed by the number of students entitled to a matriculation certificate, but I am doomed to fail now. How can we make English marathons preparing for the matriculation exam? Who will pay for that? Courage to Change has put me in chains, and my students pay the price!

Similarly, Monica, a school principal with 17 years of experience, described her passive role as that of someone “controlled by a puppet master”:

I am not pulling the strings, I have a puppet master who makes decisions, and I have to perform. I had always been able to make my own decisions, and now someone else takes control of things that should have been my responsibility.

From a sense-making perspective, principals’ metaphors reflected different leadership role perceptions. Some principals perceived themselves as potent pioneers clearing new paths by implementing the reform. Some saw themselves as active actors who shape reform demands according to their unique school reality, while still others used metaphors of passivity to express the lack of decision-making autonomy. In this regard, school principals’ sense-making processes vary because they draw on prior knowledge and practices, thus leading to different approaches to their leadership role perceptions.

Reframing the Principal’s Work

Relating to the carrying out of their new leadership role, school principals used metaphors that manifested their need to maneuver between different reform demands. Eighteen of the study participants shared this approach. Eric, a school principal with 11 years of experience, described his administrative and pedagogical work tasks using the image of a bookkeeper:

The Courage to Change has made me a bookkeeper. Managing daily an accounting work, I calculate how many individual hours each teacher should perform every day. My work has become even more complex because I am responsible for the pedagogical management of this new resource. Deciding who will deliver the individual hours and who will get them has given me a severe headache.

Required to integrate both managerial and instructional tasks, Eric was imposed with various work demands. Comparing her work to putting together a jigsaw puzzle, Ella, a school principal with 20 years of experience, said:

My multi-tasking work is a jigsaw puzzle of a million pieces comprised of multiple areas with similar designs and colors. I cannot maneuver work demands by using the picture on the box as a guide, because it does not exist! Approaching this puzzle requires sorting out the pieces by color and working on one piece at a time. Integrating attendance and individual hours into both teachers’ and students’ busy schedules, while matching each teacher-tutor to his new clients is one piece of art. Scheduling professional development courses for the educational staff, while making sure teachers are punching their time clocks, involves identifying smaller and larger cut patterns as well as the exact shapes of pieces required for the implementation of this reform.

Managing daily mechanisms such as redesigning teachers' and students' schedules with attendance and individual hours, scheduling professional development courses as well as monitoring time clock reports emphasizes Ella's direct responsibility for different issues. Leading a small school, Sophia, a school principal with three years of experience, sees herself as a repairperson:

In my school there is no pedagogical coordinator, this function does not exist. The Ministry decided to pass this role on to the assistant principals, but I am not entitled to have an assistant principal at all, so what can a small school do? Coping with both interior and exterior demands, I feel like a repairperson who has to fix and solve one emergency after the other.

Some school principals related to balancing the demands of multiple stakeholders. Noah, a school principal for 11 years, chose the diplomacy of foreign affairs as his background metaphor:

Along with my traditional role, now I am also responsible for diplomatic duties: I have become the most well travelled school member. I am constantly on the go between the Ministry, the local municipality, the educational network, and the teachers' union....It's CRAZY! Coordinating between various factors with contradicting demands, while balancing the heavy pressures to reconcile each side's interests, is more work than I can handle. The Ministry requires of me to meet the reform demands, the local municipality insists upon the teachers' swiping their time cards, the educational network pulls in its direction, and the teachers' union pressures me to make it easier for teachers by not submitting the time clock reports. Can you work like that?

Managing competing demands that require more immediate attention, Noah's current work environment is both challenging and complex. Emma, a school principal with 28 years of experience, presented the image of a juggler:

Navigating between multiple stakeholders, I am a circus acrobat doing juggling with fireballs. My work is dynamic, every day my fireballs are changing – parents, teachers and students have different interests, which I need to maneuver to please them all. The Ministry has not provided me with clear guidelines so my work is in a continuous process of struggling to find my balance. Preventing the fireballs from falling, it is a 24/7 acrobatic exercise!

Similarly, Jonathan, who has been serving as a school principal for 11 years, compared his work to the hardship of sailing through stormy waters:

Since entering the Courage to Change, I have been sailing through stormy waters. My work has become unbalanced and overwhelming. I have three bosses: the educational network requires that I attend to different empowerment programs, the local authority wants me to participate in a weekly municipal forum, and due to reform's resources [individual hours] parents expect me to be at their disposal. This stormy work pattern continues and it keeps me away from the harbor.

Catering to different interests of external stakeholders (e.g., educational network, local authority and parents) was considered as a key challenge for Jonathan.

Implementing multiple work demands, school principals complained of overburdening administrative workload. Charlotte, a school principal with 25 years of experience, presented the image of an overworked Human Resources department: "So many digests, a million little exhausting

details, spending more than twice as much time on paperwork makes me feel like I am an overworked Human Resources department”. Having an around the clock work schedule, Alicia, a school principal with four years of experience, compared her work overload to a manufacturing production factory manager who operates around the clock:

Having multiple shifts to cover, I am a factory manager with various product orders to produce and deliver here and NOW! The reform added many work hours, management hours, more school hours, different types of hours [e.g., individual and attendance hours], and each hour type demands my full attention. I can NEVER be off work. My work schedule is 24/7, as I am responsible for my teachers' complicated work schedule. The people of the Ministry probably thought that school principals work for many hours in any case, so they will never punch their time card. By the way, they can check mine, there are enough work hours there for three full time teachers.

Similarly, Lewis, a school principal with 10 years in office, added that work for him was like carrying a heavy burden: “I was assigned with a huge load in terms of work hours, investing so much time in reform's implementation process, forums and reunions I have to attend. I am a porter carrying a huge burden on my shoulders”. Both Alicia and Lewis repeated the word “hours” to express their work burden. They have experienced their overtime, around the clock workload as a physical burden. These principals; metaphors have been impacted by the high-stakes accountability context. Approaching their work in a more managerial way in light of the national reform, has resulted in a more top-down, bureaucratic perception of their new leadership role.

Integrating different types of teachers under one roof, an additional work responsibility, school principals found themselves under an emotional overload. Ariel, a principal of 26 years in office, talked about an overloaded social network server:

I feel like a social network with millions of users, which has gone out of order after having been overloaded with New Year greetings and posts. I am over and beyond my capacity and unable to function under this enormous emotional stress.

Other principals felt overloaded by the responsibility to develop new pedagogical practices. Thomas, a school principal with 12 years of experience, compared his work to that of both an x-ray technician and a radiologist:

My work has become twice as hard, as I am both an x-ray technician and a radiologist. Visualizing as well as diagnosing my school “inside needs” requires a whole new pedagogical array: arranging appropriate individual work space, integrating individual hours into teachers' schedules, identifying relevant students, following up the individual hours, deciding on the pedagogical content and teachers' professional development, and instructing teachers how to work during individual hours. It is a constant, never ending work in progress!

Meeting multiple reform demands, principals described their complex role in maintaining harmony within their schools. Stella, a school principal with seven years of experience, said that her work was like the work of an artisan producing rocking chairs:

Creating harmony between reform demands and my teachers' abilities resembles building a rocking chair. I am a good artisan who is very sensitive to the overall balance of the chair, of individual hours and teachers' needs. If the chair's weight is too far forward on the runners, it can easily toss you out of the seat when rocked. If

the weight balance shifts too far back on the runners, the rocking motion will stop. Neither one of these situations is acceptable. There is a lot of thought that goes into building and designing the best rocking chair, which balances the needs of teachers and students.

Lucy, a principal with 29 years of experience, offered the orchestra and conductor metaphor: If the conductor is the one who directs the orchestra performers from above, than I am his counterpart from below– the orchestra manager. Courage to Change is our musical performance but no one gave us the rhythm or the hues of the notes. Reform given guidelines remain unclear. Balancing between the educational and the pedagogical, connecting between the individual and the collective is often very hard to achieve.

To summarize, principals' metaphors revealed that during the reform's implementation, they gained new perspectives on their work. They perceived their complex leadership role as more multidimensional, centralized, and highly stressful. In addition, they believed that their main work was to regulate the growing pressure that their faculty members encountered.

Reframing the School Culture

Principals' metaphors illuminated their need to redesign a collaborative school culture while identifying opportunities for collective growth. They used new reform demands as tools for school improvement and for reinforcing a shared working culture. We traced this approach in the reports of eleven study participants. Paul, for example, who has had 30 years of experience as a school principal, described a collaboration mechanism regarding individual hours through the metaphor of a ship:

From the first day it was a collaborative process of making decisions. Since Courage to Change, collaboration has become our constant effort. We are a ship. The teachers and I row together in the same direction; school improvement is our shared goal. The Ministry supplied formal instructions regarding the framework of individual hours, but aside from that, I had no idea how to deal with the emotional aspect. When a teacher talks with his student during individual hours, to what extent can he invade the student's emotional space? This is a high wave, which I have to override through close teamwork with my staff.

Paul's metaphor suggests interpreting the requirements imposed by the reform as a set of useful tools for building strong relationships. Louis, a school principal with 11 years of experience, presented the image of a wind turbine, while turning reform objectives into an opportunity to leverage his school culture:

Although these winds of change were forced on us top-down, we chose to take the resistance to the reform to places such as "O.K., so what can we gain?" Other schools decided to build walls all around, but my teachers and I are building a wind turbine instead. We are generating large amounts of power. Implementing individual hours promotes our students' achievements while actively engaging both teachers and students. This is a significant means of generating power that we could not say no to.

Similarly, Frank, a principal with 23 years of experience, explained a shared pedagogical responsibility model through the pyramid metaphor:

Due to attendance hours, we discuss shared pedagogical responsibility and ways of improving all students' learning. We are building the pyramids of success by means of the school pedagogical projects. Each teacher takes on an additional responsibility and shares her unique insights in our monthly gathering.

According to Frank's building blocks image of the pyramid of success, one can see attendance hours as a positive aspect of reform demands that serves as a tool for shaping a school culture in which everybody shares pedagogical responsibility.

Due to a lack of professional tools and information, many school principals assigned different teams in order to reduce their uncertainty. Fostering a bottom-up model for collaborative teamwork, principals' and teachers' prior experiences shaped the meaning of reform demands for each other. Erica, a school principal with 17 years of experience, used a metaphor of a synchronized swimming team to express a coordinated school culture:

No one has provided us with clear answers. Even the Ministry of Education does not have all the answers. Reform requirements left many loose ends, and we all have to swim in the same direction to adjust the reform to our local context effectively. We are a group of qualified swimmers that is responsible for reform implementation. Despite the vagueness that we sense going down from the top, solving problems collaboratively and setting clear goals helps us in this social struggle.

Erica and her teachers shaped each other's meaning making while integrating reform demands with local goals. Like Erica, Marie, a principal of 20 years in office, talked about shared goals regarding individual hour work plan through the metaphor of ant teamwork:

We are like ants, walking in line and carrying this heavy load of the reform uncertainties. We are united by our common purpose—leaving nothing vague. This is why I say that we must set shared goals. Scheduling an individual hour work plan demands collaboration, deciding who will attend the session and with whom, what the content material would be, as well as whether the student participating has learning gaps. It is a lot of information gathering and we have to work it out together.

Allan, a school principal with 15 years of experience, presented the image of a successful booth at the fair to describe a new form of teachers-students interaction:

Courage to Change has created a new routine to deal with. Yet, staying at school for many hours has its advantages. My teachers and I had a great opportunity to strengthen interpersonal relationships and improve our communication with the students. We established a center for emotional and pedagogical support that operates throughout the week. This cutting-edge center is like a successful booth at a fair. Knowing how to cater to our clients' needs creates a positive school climate.

School principals' metaphors revealed how reform threats could be leveraged into school gains. More specifically, principals constructed different meanings of similar problems based on their beliefs and values in a specific professional culture. Utilizing individual and attendance hours, both principals and teachers worked together towards the common goal of better education for all. By

working collaboratively with the educational staff to determine shared goals, school principals modeled their perception of collective sense-making as well as empowered their teachers to share in the decision making process.

Reframing Relationships with Teachers

While leading the teachers toward new work expectations, principals used metaphors to make sense of their relationship with the teaching staff. The reform involved changing teachers' work habits and burdening them with a heavier workload. Eight of the study participants reported that they attached great importance to retaining a positive atmosphere in their schools. Therefore, they found it necessary to set a clear direction for the school in order to meet new reform demands, as well as balance their teachers' needs against the reform guidelines. The image of a shepherd, for example, appeared in the statement made by Ethan who has been a school principal for 18 years now:

I feel like a shepherd— trying to get my flock to go where they have never been before and do what they have never done before. If I just take the lead and show others the way, my educational staff will eagerly follow. I am a good shepherd who is leading the school toward meeting reform's demands, while providing them with appropriate individual workspace. Leading my flock from the front means listening to, caring for, and supporting my teachers. I need to protect my flock from contradicting demands 24 hours a day.

Still in the field of guiding, Martin, a principal with three years of experience, sees himself as a flashlight enlightening the way for his staff:

My educational staff is in the dark, so I give them enough light to walk safely and help them see where we are going. Focusing on implementing reform demands in accordance with school goals, I am a flashlight that leads and eases the teachers' mind in this uncertain situation.

This principal mentioned both guiding his staff toward a shared direction and at the same time reassuring and supporting them at moments of uncertainty. Paola, a school principal with five years of experience, used the human heart as a metaphor for setting direction, that is, for turning reform demands into school reality, while providing her teachers with energy and vitality:

As far as I see it, reconciling the Courage to Change demands with our school reality means keeping energy and vitality flowing smoothly. I am a human heart that pumps blood and delivers oxygen, depending on my teachers' needs. When my body of teachers is under stress and exhausted, I pump faster to increase the delivery of oxygen.

Operating as a human heart, Paula integrated teachers' needs with reform demands, providing them with the needed energy.

Some principals paid personal attention and were flexible with their educational staff in an effort to prevent unnecessary resistance. For example, Ryan, a school principal with 26 years in office, mentioned an octopus in connection to preventing teachers from resorting to resistance: Supporting teachers at different angles, I am an octopus that neutralizes resistance to reform regulations, paying attention to veteran teachers' emotions while allowing new teachers more freedom to act. Reaching to each teacher requires a different approach. My arms can cater to various teachers' needs simultaneously.

Luke, a school principal with 18 years of experience, described embracing his teachers in a different way while meeting Courage to Change demands. He presented as a metaphor an automatic car with an additional optional manual gear:

I have often been asked how I manage to lead the school and staff toward meeting reform's demands, while other principals are still struggling to do so. Using my gears efficiently can make all the difference. Veteran teachers are satisfied because they are paid for prayer time and PTA activities, while new teachers are relaxed because they can concentrate their energies on one place instead of working in multiple schools. I switch gears according to need.

Providing each of her teachers with individual attention, Sara, a principal with 15 years of experience, sees herself as a hospital manager:

Like a hospital manager, if my patients are upset or bothered, I listen attentively and resolve problems in a caring manner. I always say that for each teacher we have a rule and for each rule I have an exception. Helping teachers in ways that are not always in line with the reform's dictates, helps you maintain your humanity. For example, last week the English coordinator asked for my permission to leave early, because her sister had a baby shower for her newborn baby at one o'clock. The week before, she came on her day off to have a teaching marathon for the whole class. I believe in supporting my teachers, even if it means bending the rules a bit.

Bruno, a school principal who has 11 years of experience, preferred to present himself as a gardener. He supported his teachers and nurtured growth processes through suitable professional development courses:

I love my plants! Trying as hard as possible to be a successful gardener, inspiring my teachers to grow – professionally – is part of my role. Last year, my teachers and I were practically forced to take a professional development course about individual hours. However, this year, I stand on my guard! There is a course called How to make the most of your attendance hours. I talked to the instructor and made sure that the syllabus was well enough integrated, so that it left room for the topic of how to manage and adapt to change, as well as for suggested ways to control anger. It's easy to "over fertilize" the garden plants – your educational staff, so I found ways for making our reform reality easier.

Protecting his staff from external pressures, Bruno was flexible in adapting Courage to Change to teachers' needs. Nurturing her teachers while taking care of both their physical and emotional well-being, Estella, a school principal with nine years of experience, presented the image of a supportive parent as her guiding metaphor:

I have a dual role—both a nurturing and a supportive parent for my teachers. I stay nearby to reassure teachers and explain each reform demand to them (e.g., individual hours, attendance hours, time clock etc.) in order to help them adapt to this new work environment. Having fun with my staff in creative and enjoyable activities relieves the stress in the teachers' room. Last week, we watched a movie and ate popcorn together. The other part of my job is giving directions and setting limitations. If a teacher leaves early, he should perform individual hours during the following week. Providing structure is no less important than emotional support.

Meeting reform regulations while constantly striving to balance between external demands and local conditions, produced metaphors deriving from the worlds of health care, nature, and family life, which referred to leading in a shared direction as well as caring for the educational staff. *Framing policy demands in ways that would suit teachers' needs* emphasized the complex and demanding task of school principals to balance between new expectations and teachers' needs and capacities.

Discussion

Our qualitative analysis of school principals' metaphors indicated that principals' understanding of their leadership role related to the need to reframe four major internal and external aspects: (1) reframing the principal's role and pedagogical autonomy; (2) reframing the principal's work; (3) reframing the school culture; and (4) reframing relationships with teachers. The explanations accompanying the metaphors explicitly delineated what they perceived as required from each principal in the context of a national reform. Metaphors can make complicated issues understandable (Larson, Hostiuck, & Johnson, 2011), and thereby "capture subtle themes normal language can obscure" (Bolman & Deal, 2008, p. 268). Thus, metaphors can shed light on administrators' representation and reflection of their sense-making during a national reform.

Using metaphors to accommodate their understanding of their new role, principals enacted reform demands following their pedagogical vision. Providing a new meaning to their role, principals emphasized their wish to maintain independence within their schools. Principals expressed the opinion that they should not only comply with policy instructions, but also use their vision as leaders of unique educational settings. In this context, the metaphors school principals used while struggling to facilitate an accord with local conditions revealed their need to serve as performing actors, when implementing reform demands (Rigby, 2015; Werts & Brewer, 2015). Finding a way through the stormy sea of conflicting demands of reform implementation, school principals played active roles in negotiating between government regulations and local capacities.

Perceiving their role as "organizational policy makers", principals experienced quite differently the requirement of the national reform for transparency through applying mapping reports, individual hour reports, time clock, etc. Integrating external demands with school specific circumstances, some principals represented a bottom-up response through the use of metaphors such as a circus acrobat or a tailor, while other principals represented a top-down approach by describing their role as "chained" and "controlled by a puppet master". This is in line with studies that have demonstrated how principals constructed different meanings out of similar problems, based on their beliefs and values in a specific professional culture as well as on their different social contexts (Coburn, 2016; Koyama, 2014; Patashnik & Zelizer, 2013).

Maneuvering between different reform tasks while balancing the demands of multiple stakeholders, school principals' metaphors represented their work as "brokers of contradictory interests" (Spillane & Anderson, 2014). Integrating both traditional school leadership duties with teaching and learning requirements, school principals faced unbridgeable dissonance while implementing national reform demands. They felt bombarded with demands while confronting a variety of influences imposed upon the school from outside sources. Understandably, principals used metaphors that described a stressful environment. Principals were overburdened by the reform's administrative workload (e.g., integrating individual and attendance hours into teachers' and students' schedules as well as time clock reports) and with the responsibility to develop new pedagogical practices (e.g., deciding on the pedagogical content, teachers' professional development,

and instructing teachers how to work during individual hours). The metaphors they used clearly expressed their hardships.

School principals expressed their conviction that the course state policy makers have taken was an opportunity for a thorough educational improvement. Focusing their metaphors on a shared working culture for the school improvement, principals used reform demands as opportunities for collective growth. Our findings show that school principals' sense-making of their role highlights a collaborative perception of leadership rather than a mere focus on the notion of the leader as a hero. Their use of metaphors such as a wind turbine, a pyramid, and ant teamwork expresses this perception. Working collaboratively toward a shared pedagogical responsibility, these principals deemphasized the notion of the leader as a heroic individual and replaced it with the perception of the school leader as a weaver of multiple people into the colorful cloth of the ongoing process of reform implementation (Hargreaves & Harris, 2011).

Examining school principals' metaphors of their leadership role during policy implementation is not to be regarded as a one-size-fits-all approach. Some principals' metaphors revealed their focus on managerial tasks (e.g., re-organizing teachers' work while integrating individual and attendance hours as well as monitoring time clock reports). This is in line with Reitzug et al. (2008), who described how school principals' metaphors have changed over time following a more management approach in response to higher levels of accountability. However, other principals' images focused on their need to develop a collaborative school culture (e.g., utilizing individual and attendance hours for a collaborative decision making process, building strong relationships, developing a shared pedagogical responsibility model, and improving teachers-students interaction). Constructing collective data for the purpose of improving education for all, this finding contradicts existing literature while indicating that a collaborative school approach assists principals to implement high-stakes accountability policies (Fullan, 2016). Functioning as facilitators of collective growth, these principals established a necessary bridge between higher levels of accountability and a successful implementation of this policy (Dolph, 2017).

Shifting their focus toward the interpersonal, principals' metaphors expressed their wish to meet reform demands while giving personal attention to each individual in their educational staff. Using metaphors such as that of a shepherd, a hospital manager, a gardener, and a supportive parent, school principals described how they protect their teachers from threatening conditions and provide them with essential support. Taking care of the teachers' emotional and physical well-being, equips them to deal better with anxieties and uncertainties during reform implementation (Alvesson & Spicer, 2011). Consequently, principals described their role as leading the staff towards meeting external-national demands while simultaneously caring for the staff and creating a positive motivational dynamic. Maitlis and Christianson (2014) have shown that positive motivational dynamics enable discussions which engage members in deeper sense-making and fuller agreement about an appropriate course of action, whereas motivational dynamics that are mixed or negative are associated with more superficial sense-making of policy demands and a failure to act collectively.

Implications, Limitations and Further Research

In the current study, we used metaphors to explore school principals' sense-making of their leadership within a national reform through their use of metaphoric language, highlighting principals' use of language to define what the leadership role is and how its practices unfold within reform contexts. Beyond representation, metaphors can serve as a persuasive mechanism for policymakers and make an effective tool for framing and understanding policy (McCandless, 2012). Metaphors provide ways of "seeing" and "understanding," which influence and suggest how sense is

made (Patriotta & Brown, 2011). More than rhetorical tropes, metaphors are mental linguistic structures that can assist policymakers in understanding educational phenomena. They provide insights into the thought processes of principals about change as well as their reflections on practice and school reforms (Derrington, 2013). Hence, metaphors can assist in understanding the current state of a national reform, thus alert state stakeholders (e.g., superintendents) to local stakeholders' perceptions regarding their experience with the reform.

National reform demands 'make-sense' within broader symbolic systems through which everyday school reality is constructed, interpreted, and maintained. Therefore, metaphors support sense-making by both helping to constitute new school realities and prescribing how such realities ought to be implemented (Patriotta & Brown, 2011). In this regard, to make sense of confusing and conflicting reform demands, principals can turn to symbolic processes, which allow them to reestablish their understanding, move away from the confusion engendered by the events, and ultimately maintain stability (Cornelissen, 2012). Thus, metaphors have a generative quality in facilitating the process of sense-making (Witherspoon & Crawford, 2014). Metaphorical analysis in times of reform implementation, then, may better facilitate principals' understanding of their role and of their ability to respond and function effectively within a specific educational culture (Glazer & Peurach, 2013).

Moreover, the results yielded from the analysis of metaphors illustrate the necessity of allowing school leaders more leeway to maneuver their sense-making processes. Leaving room for interpretation of policy intent, as well as sensing educators' perceptions regarding reform regulations, is crucial. This process should not just leave space for sense-making, but should also urge all stakeholders involved in the reform to work collaboratively while experimenting on how this is going to affect their school reality (Pietarinen, Pyhältö, & Soini, 2017; Priestley, Edwards, Priestley, & Miller, 2012). In this sense, principals need to weave the social sense-making network for discussions about what educational reform actually means as well as how it will influence the everyday life of teachers and students. In doing so, sense-making should become a more reciprocal, co-developmental process among policymakers, principals, and teachers. Thus, co-metaphorical construction, explanation, and evaluation may provide the learning framework necessary for communal negotiation of meanings at times of reform.

This study provides new data on the metaphors principals create while implementing a national reform in their particular school context. Yet, it is subject to several limitations. First, these metaphors were collected in a specific educational context. Inasmuch as metaphors may be culture-dependent, further research of principals' metaphors should be replicated elsewhere in various socio-cultural contexts. Second, the sense-making process in this study was limited to school principals' perceptions only. This structure does not explain the more expansive usage of sense-making as a network-focused framework (e.g., Weick & Sutcliffe, 2007). Thus, co-developmental metaphoric processes require exploring also metaphors used by superintendents, policymakers, and school middle-leaders. Third, the interviews with the principals were held at the second academic semester of the 2012–2013 school year. Longitudinal research is needed to examine whether and how principals' metaphors of their leadership role undergo changes from the point of entering the reform throughout the implementation stage. Fourth, this research focused on principals' verbal interpretations of their leadership role within a national reform. Further research should complement principals' verbally expressed perceptions with more objective measures such as direct observations to evaluate actual implementation of metaphors in diverse school settings. Thus, further study should be conducted to explore what principals say, and how "successful" or "effective" they are, exploring how they actually reconstruct their practice based on their sense-making of the situations they are faced with. Moreover, we could not explore to what extent

principals who share particular characteristics (e.g., gender, age, terms' of experience) employ similar metaphors and, in turn, similar sense-making processes. Finally, we used maximal differentiation sampling (Creswell, 2014) to capture a wide range of perspectives and gain greater insight into principals' sense-making. However, in this study we could not differentiate between each principal's metaphor and the school context from which it emanated. Therefore, it would be advisable to explore the interconnections between principals' metaphors in times of reform implementation and factors such as seniority, school size, and districts.

References

- Addonizio, M. F., & Kearney, C. P. (2012). *Education reform and the limits of policy: Lessons from Michigan*. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.
- Alvesson, M., & Spicer, A. (2011). *Metaphors we lead by: Understanding leadership in the real world*. London, UK: Routledge.
- Ancona, D. (2012). Sensemaking: Framing and acting in the unknown. In S. Snook, N. Nohria, & R. Khurana (Eds.), *The handbook for teaching leadership: Knowing, doing, and being* (pp. 3-19). Thousand Oaks, CA: Sage.
- Ball, S. J., Maguire, M., & Braun, A. (2012). *How schools do policy: Policy enactment in secondary schools*. London, UK: Routledge.
- Beabout, B. (2012). Turbulence, perturbation and educational change. *Complicity: An International Journal of Complexity and Education*, 9, 15-29. Retrieved from <https://ejournals.library.ualberta.ca/index.php/complicity/article/view/17984/14199>
- BenDavid-Hadar, I. (2016). School finance policy and social justice. *International Journal of Educational Development*, 46, 166-174. <http://dx.doi.org/10.1016/j.ijedudev.2015.10.003>
- Black, W. R., & Shircliffe, B. J. (2013). Negotiating the downward rush: An exploration of school leaders' strategic implementation of accountability policies. In B. Barnett, A. R. Shoho, & A. J. Bowers (Eds.), *School and district leadership in an era of accountability* (pp. 109-139). Charlotte, NC: Information Age Publishing.
- Bolman, L. G., & Deal, T. E. (2008). *Reframing organizations: Artistry, choice, and leadership* (4th ed.). San Francisco, CA: Jossey-Bass.
- Boxenbaum, E., & Rouleau, L. (2011). New knowledge products as bricolage: Metaphors and scripts in organizational theory. *Academy of Management Review*, 36, 272-296. <http://dx.doi.org/10.5465/amr.2009.0213>
- Braun, A., Maguire, M., & Ball, S. J. (2010). Policy enactments in the UK secondary school: Examining policy, practice, and school positioning. *Journal of Education Policy*, 25, 547-560. <http://dx.doi.org/10.1080/02680931003698544>
- Brezicha, K., Bergmark, U., & Mitra, D. L. (2015). One size does not fit all: Differentiating leadership to support teachers in school reform. *Educational Administration Quarterly*, 51, 96-132. <http://dx.doi.org/10.1177/0013161X14521632>
- Bridwell-Mitchell, E. N. (2015). Theorizing teacher agency and reform: How institutionalized instructional practices change and persist. *Sociology of Education*, 88, 140-159. <http://dx.doi.org/10.1177/0038040715575559>
- Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. Thousand Oaks, CA: Sage.
- Coburn, C. E. (2005). Shaping teacher sensemaking: School leaders and the enactment of reading policy. *Educational Policy*, 19, 476-509. <http://dx.doi.org/10.1177/0895904805276143>

- Coburn, C. E. (2006). Framing the problem of reading instruction: Using frame analysis to uncover the microprocesses of policy information. *American Educational Research Journal*, 43, 343-372. <http://dx.doi.org/10.3102/00028312043003343>
- Coburn, C. E. (2016). What's policy got to do with it? How the structure-agency debate can illuminate policy implementation. *American Journal of Education*, 122, 465-475. <http://dx.doi.org/10.1086/685847>
- Coburn, C. E., Hill, H. C., & Spillane, J. P. (2016). Alignment and accountability in policy design and Implementation: The common core state standards and implementation research. *Educational Researcher*, 45, 243-251. <http://dx.doi.org/10.3102/0013189X16651080>
- Cornelissen, J. (2012). Sense-making under pressure: The influence of professional roles and social accountability on the creation of sense. *Organization Science*, 23, 118-137. <http://dx.doi.org/10.1287/orsc.1100.0640>
- Creswell, J. W. (2014). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Harlow, Essex: Pearson.
- Derrington, M. L. (2013). Metaphors and meaning: Principals' perception of teacher evaluation implementation. *Education Leadership Review*, 14(3), 22-29.
- Derrington, M. L., & Campbell, J. W. (2015). Implementing new teacher evaluation systems: Principals' concerns and supervisor support. *Journal of Educational Change*, 16, 305-326. <http://dx.doi.org/10.1007/s10833-015-9244-6>
- Diamond, J. B. (2012). Accountability policy, school organization, and classroom practice: Partial recoupling and educational opportunity. *Education & Urban Society*, 44, 151-182. <http://dx.doi.org/10.1177/0013124511431569>
- Dolph, D. (2017). Challenges and opportunities for school improvement: Recommendations for urban school principals. *Education and Urban Society*, 49, 363-387. <http://dx.doi.org/10.1177/0013124516659110>
- Ehrich, L. C., & English, F. (2013). Towards connoisseurship in educational leadership: Following the data in a three-stage line of inquiry. In S. Eacott & R. Niesche (Eds.), *Empirical leadership research: Letting the data speak for themselves* (pp. 165-198). New York, NY: Untested Ideas Research Center.
- Flessa, J. J. (2012). Principals as middle managers: School leadership during the implementation of primary class size reduction policy in Ontario. *Leadership and Policy in Schools*, 11, 325-343. <http://dx.doi.org/10.1080/15700763.2012.692429>
- Fullan, M. (2014). *The principal: Three keys to maximizing impact*. San Francisco, CA: Jossey-Bass.
- Fullan, M. (2016). *The new meaning of educational change*. New York, NY: Teachers College Press.
- Gawlik, M. A. (2015). Shared sensemaking: How charter school leaders ascribe meaning to accountability. *Journal of Educational Administration*, 53, 393-415. <http://dx.doi.org/10.1108/JEA-08-2013-0092>
- Gibbs, G. R. (2007). *Analyzing qualitative data*. London, UK: Sage.
- Glazer, J. L., & Peurach, D. P. (2013). School improvement networks as a strategy for large-scale education reform: The role of environments. *Educational Policy*, 27, 676-710. <http://dx.doi.org/10.1177/0895904811429283>
- Gunbayi, I. (2011). Principals' perceptions on school management: A case study with metaphorical analysis. *International Online Journal of Educational Sciences*, 3, 541-561. Retrieved from http://www.iojes.net//userfiles/Article/IOJES_441.pdf
- Hallinger, P., & Lee, M. (2013). Exploring principal capacity to lead reform of teaching and learning quality in Thailand. *International Journal of Educational Development*, 33, 305-315. <http://dx.doi.org/10.1016/j.ijedudev.2012.03.002>

- Hargreaves, A., & Harris, A. (2011). *Performance beyond expectations*. Nottingham, UK: National College for School Leadership.
- Hopfenbeck, T., Flórez-Petour, M. T., & Tolo, A. (2015). Balancing tensions in educational policy reforms: Large-scale implementation of assessment for learning in Norway. *Assessment in Education: Principles, Policy & Practice*, 2, 44-60.
<http://dx.doi.org/10.1080/0969594X.2014.996524>
- Israel Central Bureau of Statistics. (2013). *Statistical abstract of Israel 2013 No. 64*. Jerusalem, Israel: Author. Retrieved from
http://www.cbs.gov.il/reader/shnaton/shnatone_new.htm?CYear=2013&Vol=64&CSubject=30
- Israel Ministry of Education. (2011, August). *A general collective agreement to implement "Courage to Change" reform in high schools*. Retrieved from
<http://cms.education.gov.il/NR/rdonlyres/AE536B84-6A48-4992-9FDB-B43515C703ED/133024/oz.pdf>
- Jennings, J. L. (2010). School choice or schools' choice? Managing in an era of accountability. *Sociology of Education*, 83, 227-247. <http://dx.doi.org/10.1177/0038040710375688>
- Kalenze, E. (2014). *Education is upside-down: Reframing reform to focus on the right problems*. London, UK: Rowman & Littlefield.
- Kaniuka, T. (2012). Toward an understanding of how teachers change during school reform: Considerations for educational leadership and school improvement. *Journal of Educational Change*, 13, 327-346. <http://dx.doi.org/10.1007/s10833-012-9184-3>
- Knapp, M. S., & Feldman, S. (2012). Managing the intersection of internal and external accountability: Challenge for urban school leadership in the United States. *Journal of Educational Administration*, 50, 666-694. <http://dx.doi.org/10.1108/09578231211249862>
- Koyama, J. (2014). Principals as bricoleurs: Making sense and making do in an era of accountability. *Educational Administration Quarterly*, 50, 279-304.
<http://dx.doi.org/10.1177/0013161X13492796>
- Lakoff, G., & Johnson, M. L. (1999). *Philosophy in the flesh: The embodied mind and its challenge to Western thought*. New York, NY: Basic Books.
- Larson, W., Hostiuck, K., & Johnson, J. (2011). Using physiological metaphors to understand and lead organizations. *International Journal of Educational Leadership Preparation*, 6(4). Retrieved from <http://cnx.org/content/m41732/1.2/>
- Louis, K. S., & Robinson, V. M. (2012). External mandates and instructional leadership: School leaders as mediating agents. *Journal of Educational Administration*, 50, 629-665.
<http://dx.doi.org/10.1108/09578231211249853>
- Lumby, J., & English, F. (2010). *Leadership as lunacy and other metaphors for educational leadership*. Thousand Oaks, CA: Corwin.
- Maitlis, S., & Christianson, M. (2014). Sensemaking in organizations: Taking stock and moving forward. *The Academy of Management Annals*, 8, 57-125.
<http://dx.doi.org/10.1080/19416520.2014.873177>
- Marshall, C., & Rossman, G. B. (2011). *Designing qualitative research* (5th ed.). Thousand Oaks, CA: Sage.
- McCandless, B. (2012). The use and misuse of metaphor in education and education reform. *Education*, 132, 538-547. Retrieved from
http://www.maraserrano.com/MS/articulos/m_e_73342101.pdf
- McDonald, J. P. (2014). *American school reform: What works, what fails, and why*. Chicago, IL: University of Chicago Press.

- McDonnell, L. M., & Weatherford, M. S. (2013). Evidence use and the common core state standards movement: From problem definition to policy adaption. *American Journal of Education, 120*, 1-25.
- McDonnell, L. M., & Weatherford, M. S. (2016). Recognizing the political in implementation research. *Educational Researcher, 45*, 233-242. <http://dx.doi.org/10.3102/0013189X16649945>
- Mendels, P., & Mitgang, L. D. (2013). Creating strong principals. *Educational Leadership, 70*(7), 22-29.
- Miles, M. B., Huberman, M. A., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook* (3rd ed.). Thousand Oaks, CA: Sage.
- Murray, K., & Rosamund, M. (2006). *Introducing metaphor*. London, UK: Routledge.
- New Leaders. (2013). *Change agents: How states can develop effective school leaders—Executive summary*. New York, NY: Author. Retrieved from <http://newleaders.org/wp-content/uploads/2016/09/Change-Agents-ExecutiveSummary.pdf>
- O'Laughlin, L., & Lindle, J. C. (2015). Principals as political agents in the implementation of IDEA's least restrictive environment mandate. *Educational Policy, 29*, 140-161. <http://dx.doi.org/10.1177/0895904814563207>
- Organisation for Economic Co-operation and Development [OECD]. (2016). *Education at a glance 2016: OECD indicators*. Paris: Author. Retrieved from <http://www.oecd.org/edu/education-at-a-glance-19991487.htm>
- Ortlipp, M. (2008). Keeping and using reflective journals in the qualitative research process. *The Qualitative Report, 13*, 695-705. Retrieved from <http://nsuworks.nova.edu/tqr/vol13/iss4/8>
- Patashnik, E. M., & Zelizer, J. E. (2013). The struggle to remake politics: Liberal reform and the limits of policy feedback in the contemporary American state. *Perspectives on Politics, 11*, 1071-1087. <http://dx.doi.org/10.1017/S1537592713002831>
- Patriotta, G., & Brown, A. D. (2011). Sensemaking, metaphors, and performance evaluation. *Scandinavian Journal of Management, 27*, 34-43. <http://dx.doi.org/10.1016/j.scaman.2010.12.002>
- Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage.
- Pesonen, H., Itakonen, T., Jahnukainen, M., Kontu, E., Kokko, T., Ojala, T., & Pirttimaa, R. (2015). The implementation of new special education legislation in Finland. *Educational Policy, 29*, 162-178. <http://dx.doi.org/10.1177/0895904814556754>
- Pietarinen, J., Pyhältö, K., & Soini, T. (2017). Large-scale curriculum reform in Finland: Exploring the interrelation between implementation strategy, the function of the reform, and curriculum coherence. *The Curriculum Journal, 28*, 22-40. <http://dx.doi.org/10.1080/09585176.2016.1179205>
- Pont, B. (2014). School leadership: From practice to policy. *Journal of Educational Leadership and Management, 2*, 4-28. <http://dx.doi.org/10.447/ijelm.2014.07>
- Porter, R., Fusarelli, L. D., & Fusarelli, B. C. (2015). Implementing the Common Core: How educators interpret curriculum reform. *Educational Policy, 29*, 111-139. <http://dx.doi.org/10.1177/0895904814559248>
- Priestley, M., Edwards, R., Priestley, A., & Miller, K. (2012). Teacher agency in curriculum making: Agents of change and spaces for manoeuvre. *Curriculum Inquiry, 42*, 191-214. <http://dx.doi.org/10.1111/j.1467-873X.2012.00588.x>
- Ramberg, M. R. (2014). What makes reform work? School-based conditions as predictors of teachers' changing practice after a national curriculum reform. *International Education Studies, 7*, 46-65. <http://dx.doi.org/10.5539/ies.v7n6p46>
- Reed, P. (2013). Leadership skills for implementing the Common Core. *Principal Leadership, 13*(6), 64-66.

- Reitzug, U., West, D., & Angel, R. (2008). Conceptualizing educational leadership: The voices of principals. *Education and Urban Society, 40*, 694-714. <http://dx.doi.org/10.1177/0013124508319583>
- Richards, L., & Morse, J. M. (2013). *Readme first for a user's guide to qualitative methods* (3rd ed.). Thousand Oaks, CA: Sage.
- Rigby, J. G. (2015). Principals' sensemaking and enactment of teacher evaluation. *Journal of Educational Administration, 53*, 374-392. <http://dx.doi.org/10.1108/JEA-04-2014-0051>
- Rigby, J. G., Woulfin, S. L., & Marz, V. (Eds.). (2016). Understanding how structure and agency influence education policy implementation and organizational change [special issue]. *American Journal of Education, 122*.
- Rossman, G. B., & Rallis, S. F. (2012). *Learning in the field: An introduction to qualitative research* (3rd ed.). Thousand Oaks, CA: Sage.
- Saltrick, S. (2010). Making sense of accountability: A qualitative exploration of how eight New York City high school principals negotiate the complexity of today's accountability landscape. *Dissertation Abstracts International: Section A. Humanities and Social Sciences, 72*(05).
- Schleicher, A. (2012). *Preparing teachers and developing school leaders for the 21st century: Lessons from around the world*. Paris: OECD.
- Schwartz-Shea, P. (2006). Judging quality: Evaluative criteria and epistemic communities. In D. Yanow & P. Schwartz-Shea (Eds.), *Interpretation and method: Empirical research methods and the interpretive turn* (pp. 89-113). Armonk, NY: M. E. Sharpe.
- Spillane, J. P., & Anderson, L. (2014). The architecture of anticipation and novices' emerging understandings of the principal position: Occupational sense making at the intersection of individual, organization, and institution. *Teachers College Record, 116*(7), 1-42.
- Spillane, J. P., Diamond, J. B., Burch, P., Hallett, T., Jita, L., & Zoltners, J. (2002). Managing in the middle: School leaders and the enactment of accountability policy. *Educational Policy, 16*, 731-763. <http://dx.doi.org/10.1177/089590402237311>
- Spillane, J. P., & Kenney, A. W. (2012). School administration in a changing education sector: The US experience. *Journal of Educational Administration, 50*, 541-561. <http://dx.doi.org/10.1108/09578231211249817>
- Sumbera, M. J., Pazey, B. L., & Lashley, C. (2014). How building principals made sense of free and appropriate public education in the least restrictive environment. *Leadership and Policy in Schools, 13*, 297-333. <http://dx.doi.org/10.1080/15700763.2014.922995>
- Thomson, P., & Hall, C. (2011). Sense-making as a lens on everyday change leadership practice: The case of Holly Tree Primary. *International Journal of Leadership in Education, 14*, 385-403. <http://dx.doi.org/10.1080/13603124.2011.585665>
- Tschannen-Moran, M. (2014). *Trust matters: Leadership for successful schools*. San Francisco, CA: Jossey-Bass.
- Urick, A., & Bowers, A. J. (2014). What are the different types of principals across the United States? A latent class analysis of principal perception of leadership. *Educational Administration Quarterly, 50*, 96-134. <http://dx.doi.org/10.1177/0013161X13489019>
- Volante, L. (2012). Educational reform, standards, and school leadership. In L. Volante (Ed.), *School leadership in the context of standards-based reform: International perspectives* (pp. 3-20). Dordrecht, Netherlands: Springer.
- Walker, A., & Hallinger, P. (2015). Synthesis of reviews of research on principal leadership in East Asia. *Journal of Educational Administration, 53*, 467-491. <http://dx.doi.org/10.1108/JEA-05-2015-0038>

- Weick, K. E. (2009). *Making sense of organization: Vol. 2. The impermanent organization*. Chichester, UK: Wiley.
- Weick, K. E., & Sutcliffe, K. M. (2007). *Managing the unexpected: Resilient performance in an age of uncertainty* (2nd ed.). San Francisco, CA: Jossey-Bass.
- Werts, A. B., & Brewer, C. A. (2015). Reframing the study of policy implementation: Lived experience as politics. *Educational Policy*, 29, 206-229.
<http://dx.doi.org/10.1177/0895904814559247>
- Witherspoon, N. A., & Crawford, E. R. (2014). Metaphors of leadership and spatialized practice. *International Journal of Leadership in Education*, 17, 257-285.
<http://dx.doi.org/10.1080/13603124.2013.835449>
- Young, T., & Lewis, W. D. (2015). Educational policy implementation revisited. *Educational Policy*, 29, 3-17. <http://dx.doi.org/10.1177/0895904815568936>

About the Authors

Sherry Ganon-Shilon

Bar-Ilan University

sherryshilon@gmail.com

<http://orcid.org/0000-0002-2920-9153>

Sherry Ganon-Shilon is a Ph.D. candidate of Educational Leadership and Policy studies at Bar-Ilan University.

Chen Schechter

Bar-Ilan University

chen.schechter@biu.ac.il

<http://orcid.org/0000-0002-1174-4633>

Chen Schechter is an associate professor of Educational Leadership and Policy studies at Bar-Ilan University. His research areas include educational reform, organizational learning, educational leadership, system thinking, and qualitative research methods.

education policy analysis archives

Volume 25 Number 105

October 9, 2017

ISSN 1068-2341



Readers are free to copy, display, and distribute this article, as long as the work is attributed to the author(s) and **Education Policy Analysis Archives**, it is distributed for non-commercial purposes only, and no alteration or transformation is made in the work. More details of this Creative Commons license are available at <http://creativecommons.org/licenses/by-nc-sa/3.0/>. All other uses must be approved by the author(s) or **EPAA**. **EPAA** is published by the Mary Lou Fulton Institute and Graduate School of Education at Arizona State University. Articles are indexed in CIRC (Clasificación Integrada de Revistas Científicas, Spain), DIALNET (Spain), [Directory of Open Access Journals](#), EBSCO Education Research Complete, ERIC, Education Full Text (H.W. Wilson), QUALIS A1 (Brazil), SCImago Journal Rank, SCOPUS, Socolar (China).

Please send errata notes to Audrey Amrein-Beardsley at audrey.beardsley@asu.edu

Join **EPAA's Facebook community** at <https://www.facebook.com/EPAAAPE> and **Twitter feed** @epaa_aape.

education policy analysis archives
editorial board

Lead Editor: **Audrey Amrein-Beardsley** (Arizona State University)

Editor Consultor: **Gustavo E. Fischman** (Arizona State University)

Associate Editors: **David Carlson, Lauren Harris, Margarita Jimenez-Silva, Eugene Judson, Mirka Koro-Ljungberg, Scott Marley, Jeanne M. Powers, Iveta Silova, Maria Teresa Tatto** (Arizona State University)

Cristina Alfaro San Diego State University

Gary Anderson New York University

Michael W. Apple University of Wisconsin, Madison

Jeff Bale OISE, University of Toronto, Canada

Aaron Bevanot SUNY Albany

David C. Berliner Arizona State University

Henry Braun Boston College

Casey Cobb University of Connecticut

Arnold Danzig San Jose State University

Linda Darling-Hammond Stanford University

Elizabeth H. DeBray University of Georgia

Chad d'Entremont Rennie Center for Education Research & Policy

John Diamond University of Wisconsin, Madison

Matthew Di Carlo Albert Shanker Institute

Sherman Dorn Arizona State University

Michael J. Dumas University of California, Berkeley

Kathy Escamilla University of Colorado, Boulder

Melissa Lynn Freeman Adams State College

Rachael Gabriel University of Connecticut

Amy Garrett Dickers University of North Carolina, Wilmington

Gene V Glass Arizona State University

Ronald Glass University of California, Santa Cruz

Jacob P. K. Gross University of Louisville

Eric M. Haas WestEd

Julian Vasquez Heilig California State University, Sacramento

Kimberly Kappler Hewitt University of North Carolina Greensboro

Aimee Howley Ohio University

Steve Klees University of Maryland

Jaekyung Lee SUNY Buffalo

Jessica Nina Lester Indiana University

Amanda E. Lewis University of Illinois, Chicago

Chad R. Lochmiller Indiana University

Christopher Lubienski Indiana University

Sarah Lubienski Indiana University

William J. Mathis University of Colorado, Boulder

Michele S. Moses University of Colorado, Boulder

Julianne Moss Deakin University, Australia

Sharon Nichols University of Texas, San Antonio

Eric Parsons University of Missouri-Columbia

Susan L. Robertson Bristol University, UK

Gloria M. Rodriguez University of California, Davis

R. Anthony Rolle University of Houston

A. G. Rud Washington State University

Patricia Sánchez University of University of Texas, San Antonio

Janelle Scott University of California, Berkeley

Jack Schneider College of the Holy Cross

Noah Sobe Loyola University

Nelly P. Stromquist University of Maryland

Benjamin Superfine University of Illinois, Chicago

Adai Tefera Virginia Commonwealth University

Tina Trujillo University of California, Berkeley

Federico R. Waitoller University of Illinois, Chicago

Larisa Warhol University of Connecticut

John Weathers University of Colorado, Colorado Springs

Kevin Welner University of Colorado, Boulder

Terrence G. Wiley Center for Applied Linguistics

John Willinsky Stanford University

Jennifer R. Wolgemuth University of South Florida

Kyo Yamashiro Claremont Graduate University

archivos analíticos de políticas educativas
consejo editorial

Editor Consultor: **Gustavo E. Fischman** (Arizona State University)

Editores Asociados: **Armando Alcántara Santuario** (Universidad Nacional Autónoma de México), **Jason Beech** (Universidad de San Andrés), **Ezequiel Gomez Caride** (Pontificia Universidad Católica Argentina), **Antonio Luzon** (Universidad de Granada), **José Luis Ramírez Romero** (Universidad Autónoma de Sonora, México)

Claudio Almonacid

Universidad Metropolitana de
Ciencias de la Educación, Chile

Miguel Ángel Arias Ortega

Universidad Autónoma de la
Ciudad de México

Xavier Besalú Costa

Universitat de Girona, España

Xavier Bonal Sarro Universidad
Autónoma de Barcelona, España

Antonio Bolívar Boitia

Universidad de Granada, España

José Joaquín Brunner Universidad
Diego Portales, Chile

Damián Canales Sánchez

Instituto Nacional para la
Evaluación de la Educación,
México

Gabriela de la Cruz Flores

Universidad Nacional Autónoma de
México

Marco Antonio Delgado Fuentes

Universidad Iberoamericana,
México

Inés Dussel, DIE-CINVESTAV,
México

Pedro Flores Crespo Universidad
Iberoamericana, México

Ana María García de Fanelli

Centro de Estudios de Estado y
Sociedad (CEDES) CONICET,
Argentina

Juan Carlos González Faraco

Universidad de Huelva, España

María Clemente Linuesa

Universidad de Salamanca, España

Jaume Martínez Bonafé

Universitat de València, España

Alejandro Márquez Jiménez

Instituto de Investigaciones sobre la
Universidad y la Educación,
UNAM, México

María Guadalupe Olivier Tellez,

Universidad Pedagógica Nacional,
México

Miguel Pereyra Universidad de

Granada, España

Mónica Pini Universidad Nacional
de San Martín, Argentina

Omar Orlando Pulido Chaves

Instituto para la Investigación
Educativa y el Desarrollo
Pedagógico (IDEP)

Paula Razquin Universidad de San
Andrés, Argentina

José Ignacio Rivas Flores

Universidad de Málaga, España

Miriam Rodríguez Vargas

Universidad Autónoma de
Tamaulipas, México

José Gregorio Rodríguez

Universidad Nacional de Colombia,
Colombia

Mario Rueda Beltrán Instituto de
Investigaciones sobre la Universidad
y la Educación, UNAM, México

José Luis San Fabián Maroto

Universidad de Oviedo,
España

Jurjo Torres Santomé, Universidad
de la Coruña, España

Yengny Marisol Silva Laya

Universidad Iberoamericana,
México

Ernesto Treviño Ronzón

Universidad Veracruzana, México

Ernesto Treviño Villarreal

Universidad Diego Portales
Santiago, Chile

Antoni Verger Planells

Universidad Autónoma de
Barcelona, España

Catalina Wainerman

Universidad de San Andrés,
Argentina

Juan Carlos Yáñez Velazco

Universidad de Colima, México

arquivos analíticos de políticas educativas
conselho editorial

Editor Consultor: **Gustavo E. Fischman** (Arizona State University)

Editoras Associadas: **Geovana Mendonça Lunardi Mendes** (Universidade do Estado de Santa Catarina),
Marcia Pletsch, Sandra Regina Sales (Universidade Federal Rural do Rio de Janeiro)

Almerindo Afonso

Universidade do Minho
Portugal

Alexandre Fernandez Vaz

Universidade Federal de Santa
Catarina, Brasil

José Augusto Pacheco

Universidade do Minho, Portugal

Rosanna Maria Barros Sá

Universidade do Algarve
Portugal

Regina Célia Linhares Hostins

Universidade do Vale do Itajaí,
Brasil

Jane Paiva

Universidade do Estado do Rio de
Janeiro, Brasil

Maria Helena Bonilla

Universidade Federal da Bahia
Brasil

Alfredo Macedo Gomes

Universidade Federal de Pernambuco
Brasil

Paulo Alberto Santos Vieira

Universidade do Estado de Mato
Grosso, Brasil

Rosa Maria Bueno Fischer

Universidade Federal do Rio Grande
do Sul, Brasil

Jefferson Mainardes

Universidade Estadual de Ponta
Grossa, Brasil

Fabiany de Cássia Tavares Silva

Universidade Federal do Mato
Grosso do Sul, Brasil

Alice Casimiro Lopes

Universidade do Estado do Rio de
Janeiro, Brasil

Jader Janer Moreira Lopes

Universidade Federal Fluminense e
Universidade Federal de Juiz de Fora,
Brasil

António Teodoro

Universidade Lusófona
Portugal

Suzana Feldens Schwertner

Centro Universitário Univates
Brasil

Debora Nunes

Universidade Federal do Rio Grande
do Norte, Brasil

Lílian do Valle

Universidade do Estado do Rio de
Janeiro, Brasil

Flávia Miller Naethe Motta

Universidade Federal Rural do Rio de
Janeiro, Brasil

Alda Junqueira Marin

Pontifícia Universidade Católica de
São Paulo, Brasil

Alfredo Veiga-Neto

Universidade Federal do Rio Grande
do Sul, Brasil

Dalila Andrade Oliveira

Universidade Federal de Minas
Gerais, Brasil