Proposing a new model for long-term learning among mid-level school leaders: toward enhancing organizational learning via simulation training

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Abstract

Purpose – The purpose of this paper is to propose a new theory promoting long-term learning among mid-level leaders in schools via simulation training.

Design/methodology/approach – The proposed model is derived from the socioecological model, a model that takes into account the multifaceted effects of different disciplines. The proposed interdisciplinary model may be assimilated by considering the ethical-social context of mid-level leaders undergoing simulation training.

Findings – A new interdisciplinary model emerges from the original socioecological model. The model's interdisciplinary approach, crossing disciplines such as leadership, management and learning, enables this model to serve as a platform for research that enhances long-term learning among mid-level leaders in schools.

Practical implications – The elicited model, which can be assimilated via simulation training, may enhance long-term learning among mid-level leaders in schools and help to shape educational policy, improve learning and impact the exchange of knowledge between countries.

Originality/value – The emergent interdisciplinary model is expected to foster thinking beyond the traditional boundaries of each discipline and to enhance long-term learning in an ethical context among mid-level school leaders. The model's interdisciplinary approach, which creates new emergent dimensions suited to the challenges of the 21st century, makes this model a unique platform for research and simulation training that enhances long-term learning.

Keywords Long-term learning, Mid-level leaders, Organizational ethics, Socioecological model, Management, Organizational learning, Social-ethical challenges

Paper type Conceptual paper

Introduction

There are numerous professional leadership development programs but very few are dedicated to mid-level school leaders (De Nobile, 2018); that is, teachers who not only teach their subject of specialization but also play other significant roles in their school (e.g. guidance counsellors and grade-level coordinators). Moreover, worldwide, scholars and practitioners (Gilbert *et al.*, 2018; Oliver *et al.*, 2018) have called for initiating a wide range of reforms for management preparation due to the failure of traditional programs intended to enhance organizational learning (Pedler and Hsu, 2019) in dealing with social-ethical cases related to schools (Perry-Hazan, 2019).

Although ethics is an integral part of mid-level school leadership, leadership programs that focus on social-ethical challenges in school management (Shapira-Lishchinsky, 2018) are few and far between. Studies, conducted by Davidoff (2016) and Ben-Amram (2016), indicated that instead of "passive learning," "interactive learning," such as simulation training – a process in which the trainees take part in role-plays with actors in situations taken from real-life experiences – has a better long-term learning impact in school settings. Long-term

learning is defined as a process that motivates participants to go beyond formal learning, once the formal course or workshop has ended (Boud and Falchikov, 2006). This long-term learning develops key skills and capabilities for the future, leading to improved knowledge retention (Halpern and Hakel, 2003) that may enhance organizational learning in schools and improve school management (Reese, 2019).

By proposing a new model, the paper's main goal is to promote the process of long-term learning among mid-level school leaders by considering the social-ethical context via simulation training. The new model is interdisciplinary in that it is the product of the integration of several different disciplines, such as learning, mentoring, leadership, school management and organizational ethics. This interdisciplinary model via simulation training will enable mid-level leaders to learn beyond the traditional boundaries of each separate discipline.

This paper focuses on the following two research questions: (1) what characterizes the long-term learning process via simulation training among mid-level school leaders in their schools? and (2) what dimensions should be included in an emergent multidimensional model that may explain the process of long-term learning via simulation training?

Below is a description of the mid-level school leaders' roles; the social-ethical context in which they work; the emergent new model elicited from the different layers of the socioecological model; simulation training of mid-level leaders as a contributor to their long-term learning and finally, the importance of the cross-national context, practical implications and conclusions toward enhancing long-term learning and leadership in schools around the world.

Mid-level school leaders

The definition of "mid-level leadership" is quite complex as it relies on a number of variables such as the educational system's regulations, policies, the institution's size, and the titles and roles that vary across educational levels, districts and countries (Gurr, 2018; Gurr and Drysdale, 2018). Previous studies (De Nobile, 2018; Rönnerman *et al.*, 2015) referred to "mid-level leaders" as those who have an acknowledged position of leadership in their educational institutions (e.g. "curriculum coordinators," "pedagogical coordinators," "subject coordinators" and "grade-level coordinators") while also filling significant teaching roles in the school. Therefore, they can be seen as leaders who are positioned between the principal and the teachers and practice their leadership "among" their teaching colleagues.

The social-ethical context among mid-level school leaders in long-term learning

Mid-level school leaders play important roles in bringing about changes and improvements in their respective schools. Additionally, with the increasing demand to raise the bar of ethical standards, and given that the teachers in mid-level leadership positions comprise the future school management (Gurr and Drysdale, 2018), the proposed model is important since it focuses on mid-level school leaders and the challenges they face in their ethical-social surroundings.

Specifically, mid-level school leaders often need to make decisions that require solving ethical dilemmas and making moral judgments. When two or more ethical principles clash, there is usually no perfect way to act. They often need to adopt a solution that does not completely satisfy their principles (Shapiro and Stefkovich, 2016). Mid-level school leaders are often confronted with numerous tasks related to ethical questions (Rönnerman *et al.*, 2015). For example, they must deal with colleagues who do not always behave according to ethical principles and standards of conduct. They often have to deal with parents who are highly critical of the teachers and the school curricula, which arouses additional ethical challenges (Addi-Raccah and Grinshtain, 2018).

Norberg and Johansson (2014) raised a number of ethical dilemmas that may be of concern to mid-level school leaders. For example, should they provide more resources for weak students or gifted students? When it comes to issues of majority versus minority opinions, which side should they take? The literature points to a recurring tension between the ethical principle of caring for the other (students and teachers) and the need to follow formal, standardized rules (Shapiro *et al.*, 2014). Another type of ethical dilemma occurs when the mid-level leader has an educational agenda and the student and his/her family do not concur with the agenda (Finefter-Rosenbluh, 2016). Moreover, ethical dilemmas often appear when the stakeholders advocate differing views about what is "good" leading to questions about whose viewpoint should be accepted (Shapiro *et al.*, 2014).

Mid-level school leaders constantly make ethical judgments both in and out of the classroom. However, the decision criteria often rely upon the social and cultural contexts, in which judgments are made and decisions are executed. Therefore, in other contexts, with different participants and at different points in time, the same mid-level school leader might decide and act differently (O'Neill and Bourke, 2010). For example, according to Hansen (2002), when educational leaders were asked "whose ethics are we talking about?", their answers were related to differences in class, culture, gender and language. They suggested that ethics widely differ and that educators are obligated to be sensitive to this fact and nonjudgmental when confronted with ethical issues. Subsequent studies (e.g. Norberg and Johansson, 2014) argued that schools exist in a social and political milieu and therefore, mid-level school leaders can modify their outlook on education over time and, consequently, modify their ethical decisions as well.

A new model for long-term learning among mid-level school leaders

People create contexts, and contexts create people (Cardno and Robson, 2016). Therefore, we cannot separate mid-level leaders from their social context during their continuing professional development and practice in the field. Today's dynamic social and ethical challenges require us to evaluate whether the professional development programs for educational leaders are appropriate. Bronfenbrenner, who was an influential scholar in the field of developmental psychology, proposed a new point of view toward human development by incorporating the context in which a child develops (Soyer, 2019). According to Bronfenbrenner (2005), human development is not only psychological but consists of four other important sources: culture, society, economy and politics. Bronfenbrenner's ecological theory laid the groundwork for an interdisciplinary approach toward the study of human development (Ceci, 2006) and embraces development as a lifelong process that reflects the individual's perception of the environment and his or her affiliation to it. This definition differs from the conventional conception of development, which focuses on the characteristics of the individual (Soyer, 2019).

Bronfenbrenner developed his theory of ecological systems in an attempt to define human development and understand it within the context of the systems that form a person's environment (Johnson, 2008). According to Bronfenbrenner's (2009) approach, the ecology of human development is the scientific study of the progressive, mutual accommodation throughout one's lifetime between an active, growing human being and the changing attributes of the immediate surroundings in which she/he lives.

According to Bronfenbrenner's original theory (2005), the environment is made up of layers of systems whose complex interactions can both affect and be affected by the individual's development. This theory can be extended to represent the development of an organization, and it is particularly appropriate for describing the intricate, multifaceted systems of an entire school district or even of a particular school (Johnson, 2008). The core is the immediate environment of the individual, including himself/herself, which is termed a

microsystem. A microsystem refers to the individual's relationship with other individuals within that system. In this immediate setting, the individual has several different roles. The microsystem is nested within the mesosystem, a system that emphasizes the relationships between two or more settings with which the individual interacts. The next environment, which includes the previous two systems is called an exosystem. An exosystem is not directly related to the individual's active participation in the environment, but it rather focuses on the events occurring in one or more environments that have an impact on that individual, thus leading to various effects on his/her developmental process.

Bronfenbrenner's theoretical model has been extended to help understand the multifaceted and interactive effects of personal and environmental factors (Figure 1, on the left) that determine behavior in various fields such as policy (e.g. Simplican *et al.*, 2015), economics (e.g. Schlüter *et al.*, 2017) and health (e.g. White *et al.*, 2013).

Assimilation of long-term learning among mid-level leaders via simulation training

Simulations create an artificial environment designed to manage an individual's or a team's encounter with reality. The learning that occurs in simulations is an integral part of the systematic acquisition of concepts, knowledge and skills that can result in improved performance (Geithner and Menzel, 2016). Previous studies support using simulations to train mid-level leaders since they sharpen complex decision-making processes and foster higher-level thinking and reflections (Shapira-Lishchinsky *et al.*, 2016). Simulations, which reflect ethical challenges, help educational leaders to transfer their knowledge to real-educational leadership situations that they might encounter (Shapira-Lishchinsky, 2013). Simulations provide opportunities for participants to practice skills in a realistic, yet risk-free learning environment (Anderson and Lawton, 2009; Thornton *et al.*, 2017).

There are different simulation patterns with a range of objectives that may advance long-term learning (Kapur, 2015): (a) insight-learning is designed to enable the simulation participants to recognize a certain point, principle or relationship; (b) task-specific procedural knowledge enables the participants to learn skill sets for diverse performance tasks. These task simulations are used in scenarios of "if that, then what?" and (c) flexible expertise objectives require participants to learn specific bodies of knowledge for managing the simulated tasks, which helps them translate the knowledge they have gained into real experiences. Flexible simulations require multiple solutions to complex problems that may arise during a school leader's day.
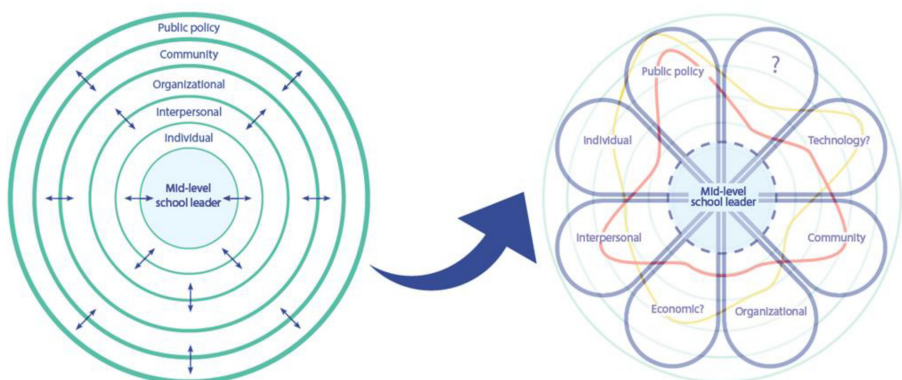
Figure 1.
Toward enhancing long-term learning via simulation training – an interdisciplinary model

Simulations provide mid-level leaders with real-life scenarios and offer real-time feedback concerning the actions they have taken to solve the problem. These simulations have the power to track the mid-level leaders' knowledge and to change their modes of thinking which, in turn, enables them to become better problem-solvers (Shapira-Lishchinsky, 2018). Mid-level leaders will be able to see their peers' responses to different scenarios, thus enabling them to more effectively answer and solve problems that resemble future problems they may face in their schools. Simulation training will allow mid-level leaders to take part in real-life scenarios without real-world negative implications. They learn from these simulations and develop at a much faster rate than by using traditional training methods, such as case studies (Gilbert *et al.*, 2018).

In the context of mid-level educational leadership, simulations can lead to fruitful discourse, where the participants take part in role-plays in which the characters play the role of mid-level school leaders, students, teachers and parents in situations related to real-life school-related experiences (Shapira-Lishchinsky *et al.*, 2016).

The new theoretical model may support different styles of simulations:

(1) Lab simulations*,* a relatively sterile environment (a room containing video equipment and a screen), that involve mid-level leaders from different schools, who engage in role-play with professional actors.

(2) Simulations that are held inside the school of the mid-level leaders. Here the participants are mid-level leaders from the same school, and these also feature role-plays with professional actors. In both types of simulations, the mid-level leaders have the opportunity to learn from peer feedback as they are taking part in role-play that mirrors the functions of decision makers (Shapira-Lishchinsky, 2014). As a result, this experience allows these leaders to explore different approaches, test diverse strategies and arrive at a better understanding of key real-world aspects (Watts *et al.*, 2018). Studies have also shown that learning activities that include leadership situations provide a high-quality environment for the transfer of learning (Shapira-Lishchinsky, 2014; Thornton *et al.*, 2017).

(3) Individual online simulations enhance the learning process by creating a virtual reality, which challenges trainees to solve problems in a complex and dynamic manner (Berends and Romme, 1999). Online simulations have been known to bring out participants' latent cognitive abilities through problem-solving. They also arouse a high level of thinking. Participants have an opportunity to return to the start of the simulation and learn new ways to respond to the simulated scenarios. Not only do online simulations offer appropriate and relevant teaching and learning tools, but they are also regarded as essential in educational leadership preparation (Badiee and Kaufman, 2015; Lindgren *et al.*, 2016). Thus, online simulations can provide a possible remedy to the shortcomings of traditional educational leadership programs (Storey and Cox, 2015).

Previous studies have described the nature of mentoring as a method of enhancing educators' competence (Garner *et al.*, 2015; Paulus *et al.*, 2017). Thus, effective learning in a variety of simulation styles can help mid-level leaders develop improved communication skills, gain more confidence in their professional capability and more effectively translate educational theory into practice. Simulations can enhance mid-level leader's professional growth and increased recognition and appreciation by their peers while providing further opportunities for career advancement. Mid-level leaders taking part in the simulations may also benefit from the learning process by improving their self-esteem and productivity (Kim *et al.*, 2018).

Hence, the new theoretical model has the potential to promote long-term learning via simulation training of different patterns and styles.

Within the context of mid-level leadership, this paper proposes to extend the original model of Bronfenbrenner (2009) to include the following layers related to the ethical challenges that emerge from these layers via simulation training, for example:

(1) The individual layer refers to the mid-level leader's individual characteristics, such as age, gender, race and his/her professional and academic background. The positive ethical aspects may appear, via simulation training, in scenarios of social beliefs, e.g. that women's rate of advancement in the educational system is lower than men's, or in cases in which mid-level leaders are given less preparation to fulfill their responsibilities. In these cases, the mid-level leaders may perceive their principals' encouragement for them to advance in the educational system in a positive way, which is likely, in turn, to enhance their professionalism through research and continuing professional development. The negative ethical aspects may appear in simulation-training scenarios, in which the mid-level leaders perceive limited support or even discrimination due to their personal attributes, as described above. As a result, they may lessen their commitment to the school, which could, in turn, lead to less caring for their students.

(2) The interpersonal (microsystem) layer refers to the layer closest to the mid-level leaders, such as the social network they maintain with their principal, superintendent, colleagues, team, students and a multitude of classroom variables (e.g. the number of students or diversity of students' learning needs). The positive ethical aspects may appear in simulation-training scenarios in which the mid-level leaders see that their students respect them, thanks to their knowledge and/or that their principals support them because of their skills and capabilities. In this case, they will be motivated to intensify their efforts in the school and promote a supportive learning atmosphere. The negative ethical aspects may appear in simulation-training scenarios in which the mid-level leaders feel overloaded, pressured and ineffective in their social networks and frustrated by school discipline policies. In these cases, they may lessen their efforts to promote their schools.

(3) The organizational (mesosystem) layer encompasses the microsystem and adds major factors that may affect the leaders' ability to work effectively. This layer relates to the complexity of the school environment, which affects the mid-level leader's perceptions of school life. *The* positive ethical aspect may appear in simulation-training scenarios in which the mid-level leaders believe that their school management is fulfilling its professional responsibilities with honesty and integrity. In these cases, their job satisfaction will increase, and as a result, their care for their students will grow. The negative ethical aspect may appear in simulation-training scenarios in which the mid-level leaders feel that their school principal fails to provide them with the resources necessary to do their job, or with opportunities for professional growth or with autonomy to make important decisions about their students, programs and the school in general. In these cases, they are liable to reduce their efforts in their schools and may engage in withdrawal behaviors that include tardiness, absenteeism and even resignation.

(4) The community layer defines the social system which includes, for example, interactions with the parents' cultural values and norms. The positive ethical aspect may appear in simulation-training scenarios in which mid-level leaders experience support from their students' parents. In this case, they may advance their

decision-making and actions toward the well-being and success of their students. The negative ethical aspect may appear in simulation-training scenarios in which mid-level leaders experience conflicts between their expectations and the expectations of others in their community. These include parental interventions, which may cause a decline in the mid-level leaders' motivation to advance the school.

(5) The layer of public policy (the exosystem) is composed of laws and principles. The broader principles, which are defined by public policy, have a cascading effect on the interactions of all the internal layers. The positive ethical aspect may appear in simulation-training scenarios in which mid-level leaders perceive that the local regulations and state laws protect them and support their actions. In these cases, they may endorse and assimilate the regulations that are consistent with their educational goals. The negative ethical aspect may appear in simulation-training scenarios in which mid-level leaders perceive that the law and school-district policies cause them to feel overwhelmed in carrying out their educational responsibilities (Nir, 2001). This, in turn, may lead to a decline in their efforts in the school, including their care and support for the students, parents and colleagues.

This paper proposes a new model based on simulation training elicited from the different layers of the socioecological model designed to promote long-term learning among mid-level leaders. This new model, which is consistent with the dynamic social-ethical challenges of the 21st century, has the potential to impact long-term learning among mid-level leaders from a cross-national perspective by simultaneously considering the social-ethical factors affecting these leaders in their schools (Figure 1, on the right). In continuation to previous studies focusing on the socioecological model in the context of team-based simulations (TBS) in a variety of organizations, including educational systems (Shapira-Lishchinsky *et al.*, 2016, 2018; Ben-Amram, 2016), the proposed model goes beyond Bronfenbrenner's original model, with the emergence of additional dimensions (e.g. technology and economics) as contributing to long-term learning of mid-level leaders in the social-ethical context (Shapira-Lishchinsky, 2013; Shapira-Lishchinsky, 2014; Shapira-Lishchinsky *et al.*, 2016; Zavelevsky and Shapira-Lishchinsky, 2019; Shapira-Lishchinsky and Ben-Amram, 2020).

As an additional support for the "technology" dimension in the socioecological model, Bergström (2012) argued that the use of artefacts (technologies) in the artificial world is exceedingly important. The inner environment of technology-rich learning comprises the design of certain software applications. The outer environment highlights the surroundings, of which the social relations within the inner environment are one part. Harmony in educational practice indicates that the inner environment is compatible with the outer environment. There are three rules that outline the order in the learning practice in problematic situations: making the informal content formal, technology-rich learning environments and interaction (Bergström, 2012).

In the proposed model, we also consider the economic dimension based on the application of socioecological theories that focus on economics (e.g. White *et al.*, 2013) to explain the individual–environment interaction, to improve human–environment transactions, to nurture human growth and development and to improve the environments themselves. For example, an output is a function of natural, human and capital resources and technology. The environment dictates significantly to the lifestyle of the individual and the economy of the country.

In addition, there are the unknown dimensions, which are those that are currently unknown but may emerge during future studies. The sign "?" in Figure 1 represents the unknown based on Hummels and Frens' (2008) argument that in different contexts and with a

variety of participants, different competencies and skills may emerge during the learning process.

More specifically, the shortcomings of Bronfenbrenner's original model are reflected by several issues:

(1) The model has been criticized for the difficulty in testing the theory empirically. The new model proposed herein elicits new dimensions compatible with the dynamic social-ethical challenges of the 21st century.

(2) The Bronfenbrenner model is limited to distinct socially organized subsystems, and within and between each subsystem, there are bidirectional influences only. By considering the social-ethical context, this paper proposes the relevance of the present dimensions in that context. Additionally, it uncovers additional dimensions beyond the original factors presented in Bronfenbrenner's model. Eliciting unknown dimensions while evaluating the existing ones affect the design of the new learning model in schools. All these dimensions may advance an interdisciplinary approach and encourage "long-term learning" by scrutinizing the same phenomena from different viewpoints (e.g. economics or technology). By doing so, this paper integrates known and previously unknown explanations of long-term learning among mid-level school leaders.

More specifically, this paper proposes a new learning model, with all the known and unknown dimensions considered simultaneously, without a hierarchy between the factors. The structure of Bronfenbrenner's original model encourages us to consider one or two dimensions. The new model can simultaneously integrate the learning process from a variety of dimensions (e.g. community, policy, economics and technology). Furthermore, it can fill the theoretical lacuna by explaining long-term learning in a social-ethical context via simulation training among mid-level school leaders (Figure 1). The new model will enable us to measure the level of the proposed dimensions in different learning groups of mid-level school leaders (Figure 1, on the right, red and yellow lines), comparing similarities and differences between and across countries.

To summarize, this paper proposes a new model, with all the emergent factors considered simultaneously in the same scenario (see Figure 1, on the right), without a hierarchy of factors (see Figure 1, on the left, from micro to macro). The red and yellow lines represent the level of the potential emergent dimensions of the new model.

The cross-national context of the proposed model

Previous studies (Hallinger *et al.*, 2015; Marfan and Pascual, 2018) describing the importance of a cross-national context in the educational leadership field have shown that such studies promote a wider learning perspective and present an integrative approach that infuses new meanings (Lumby and Foskett, 2016). This cross-national approach aids in explaining long-term learning processes among mid-level leaders, while paving the way for change and development in light of each country's unique characteristics (Mullis *et al.*, 2016). Different education systems, standards, assessments and professional development programs for mid-level leaders will enable a wide perspective toward improving long-term learning in difficult and challenging ethical-social contexts via simulation training.

Conclusions

This paper proposes a novel interdisciplinary model using simulation training, which is derived from Bronfenbrenner's original model (2005). This interdisciplinary-model approach is reflected in the context of mid-level leaders' ethical-social dilemmas during a long-term learning process. Moreover, most studies (e.g. Boekaerts, 2016) in the literature to date have

focused on the learning process but not on its long-term impact. All of the above enable the new interdisciplinary model to go beyond the existing ones, with the potential to explain the process of long-term learning through a new model, upgraded from Bronfenbrenner's original model, which may enhance cross-national organizational learning via simulation training.

Practical implications

To expand this new model's impact on school management, it is suggested to compare the model across countries via simulation training. The model's interdisciplinary approach integrating different disciplines (e.g. education, leadership, management and learning) makes this model a unique platform for research that engages in enhancing long-term learning among mid-level leaders in schools. This is not only reflected in traditional social dimensions such as organization, community and policy but also in added dimensions such as technology and economics. These dimensions have the potential to advance new knowledge of long-term learning among mid-level school leaders toward improving school leadership via simulation training.

The new interdisciplinary model can have a strong practical impact on educational policy (e.g. how to design effective simulation training to deal with social-ethical challenges in education); organizational learning (e.g. whether long-term learning in social-ethical contexts among mid-level leaders will improve all-school performance); leadership and management training (e.g. what should be taught in educational leadership programs) and society (e.g. how mid-level leaders can improve the ethical culture in their community via simulation training).

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