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Mindful Principals in Effective Schools: Mediating Role of Organizational Climate and Organizational Citizenship Behavior

Rimantas Želvys[1], Amjad Zabardast[2], Somaieh Nemati[3], Kamal Adak[4], Omid Shariati[5]

[1]   Vilnius University, Faculty of Philosophy, Institute of Educational Sciences, Universiteto g. 9, 01513 Vilnius, Lithuania, rimantas.zelvys@fsf.vu.lt
[2]   University of Kurdistan, Department of Education, Sanandaj, Iran, a.zabardast@uok,ac.ir
[3]   University of Kurdistan, Department of Education, Sanandai Iran, 72somaye@gmail.com
[4]   University of Kurdistan, Department of Education, Sanandaj, Iran, kamaladak1375@gmail.com
[5]   University of Kurdistan, Department of Education, Sanandaj, Iran, om86ir@yahoo.com

Abstract. This descriptive and correlational study is aimed at investigating the impact of mindfulness on the effectiveness of schools using mediating variables of organizational climate and organizational citizenship behavior (OCB). Data was gathered from 28 public high schools with 400 teachers. 335 teachers completed the questionnaires completely and returned them. Based on the analysis, it was observed that the established model had acceptable fit indices and accounted for 0.65% of the variance in the effectiveness of schools. The findings also indicated that organizational climate and organizational citizenship behavior had a direct effect on the effectiveness of the schools, and the principal's mindfulness had a significant relationship with the organizational climate and organizational citizenship behavior. The direct effect of principal's mindfulness was not significant on the effectiveness of schools when two mediating variables were included. However, principal's mindfulness ($\beta = 0.63$, P <0.01) predicted the effectiveness of schools indirectly through mediating variables. The results of this study showed that the indirect effect of principal's mindfulness is remarkable.

Keywords: *principal's mindfulness, organizational climate, organizational citizenship behavior, effectiveness of schools.*

Introduction

Principals play a central role in creating school climate that fosters school success and school social-emotional well-being. Today, international tests such as TIMSS[6] and PISA[7] are the most important criteria for determining the status of school effectiveness and performance in the world. Low ratings in these tests result in policymakers and educational professionals examining factors that contribute to this regression. Some of these factors are related to school inputs such as teacher characteristics, student behaviors, learning and teaching activities, school climate, school culture and school leadership (Hoy & Miskel, 2008). For instance, when Norway ranked low in the international test of student assessment in the early part of the new millennium, school management was considered to be the key factor in public debates of Norway.

The new accountability for schools, school districts, and states to address the requirements and expectations for student success and proficiency continues to transform these expectations for principals (Klocko and Wells, 2015). It has been emphasized that every school should have a professional principal with a tendency toward change; therefore, leadership has become a tool for refurbishing projects in education (Møller & Skedsmo, 2013). A professional principal considers various issues regarding the performance of educational principals and management for analysis and interpretation. Educational critics perceive leaders who have the characteristics of triggering and disseminating thoughts, inclined to improve teaching and education, and responsive to limitations and reactions as suitable for the development of schools (Jensen, 2014).

Based on this, the position of school principals can be stressful, and stress is known to interfere with sound decision making (Kaufman, 2019). Various stressors experienced by school administrators affect their job performance and own wellbeing. Principals also experience some unpleasant feelings in response to these stressors such as guilt, a sense of unfairness, loneliness, or disappointment (Mahfouz, 2018). School principals who experience high levels of stress might cope on the job with resilience and might find the ability to "bounce back" after experiencing stress.

A quality needed to help the recovery of principals and effective school leadership in the development of schools is a mindfulness practice. Educational organizations promote and train their employees in mindfulness (Hansen 2012) with the hope of it contributing to employee health and motivation. Principals get involved in the pursuit of a mindfulness practice despite their workload and mounting pressures (Klocko & Wells, 2015; Wells, 2013a).

Considering the significant amount of time spent in school by principals and teachers, the school climate is accountable for a major proportion of the total stress experienced

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[6]   Trends in International Mathematics and Science Study
[7]   Program for International Students Assessment

them. An important factor affecting principal and teacher wellbeing and work satisfaction is the climate they experience (Gagne and Deci, 2005). Those higher in mindfulness were less likely to feel frustration even in unsupportive managerial environments (Schultz, Ryan, Niemiec, et al., 2015). These results highlighted mindfulness as a potential pathway to wellness and climate at the workplace. Moreover, mindfulness appears to act as a protective factor in controlling work environments.

Mindfulness has predicted altruistic helping behavior in applied settings in the real world. Cameron and Fredrickson (2015) found that two dimensions of present-moment awareness and nonjudgmental acceptance predicted helping behavior (as operationalized by OCB) and predicted increases in positive emotions and decreases in negative emotions associated with those helping behaviors. Furthermore, mindfulness has been shown to positively correlate with positive organizational outcomes such as work engagement (Leroy, Anseel, Dimitrova, & Sels, 2013). There is a significant and positive correlation between work engagement and OCB (Babcock-Roberson & Strickland, 2010). OCB, in particular, is prospectively related to positive academic experiences such as an increase in school engagement and lower dropout rates. The capability of the teachers to go beyond the call of duty is a demand of schools to attain their objectives and goals (Robbins, 2003). Understanding more in regards to the interplay of constructs that might facilitate OCB is important because OCB has numerous beneficial consequences for schools. Principals investing in OCB for the benefit of their students, teachers, and the school as a whole might promote a supportive and sensitive work environment, thereby contributing to school functioning as well as staff well-being. Moreover, principals demonstrating OCB could also serve as role models for their staff, encouraging them to go beyond their everyday duties (Nutov and Somech, 2017).

Educational research over the past two decades has revealed that mindfulness practices of principals successfully lead to greater effectiveness of schools (Hoy, 2002; Hyland, 2014).

However, there is much room for growth given current outcomes in school effectiveness. School principals stand to learn valuable lessons from mindfulness, which has been identified to explain how organizations operate in reliable and accountable ways (Hoy, 2002). One of the most important challenges for principals is the creation of an open and engaged climate in which the teachers identify and affiliate with the institution and mission. The climate describes the common perceptions of participants concerning regular behaviors. Research has shown that OCB has a positive influence on the quality of school climate. A positive climate in schools has many advantages including improved teacher satisfaction, participation in decision making of the institutions, student performance as well as school effectiveness (Jurewicz, 2004). School climate likely varies across contexts and is influenced by a range of cultural contexts and influences at any given time. Nevertheless, we do know that climate matters (La Salle, 2018). There is a dearth of research on how principals' mindfulness affects OCB and school climate, and in turn how these characteristics affect school effectiveness. Mindfulness has become increasingly a topic of

research interest in many organizational settings. It has been shown that mindfulness has many positive outcomes. Comparatively, research on mindfulness in the school setting has not kept pace with research conducted in other organizational settings. The need for role plays of leadership by principals and involvement in a positive climate, OCB and instructional improvement efforts to secure the certainty of positive student outcomes has been demonstrated through research (Honig, 2008). Based on the above reasoning, the aim of this study is to examine how mindfulness of school principals, school climate and OCB – as rated by teachers – is associated with school effectiveness.

Effective Schools

Effectiveness is a multi-dimensional concept that relates to the issue of quality and refers to educational tools and processes that result in the achievement of educational goals. To measure the effectiveness of a school, a systematic approach is needed that involves many key factors such as managerial function, individuals' performances, ethics, level of trust, culture and climate of schools, parental involvement, teachers' performances and their job satisfaction (Ostroff& Schmitt, 1993, as cite by Uline, Miller & Tschannen-Moran, 1998). Arar and Nasra (2018) summarized the definition of effective school in the educational literature in four facets: (a) the output goal approach, which claims that an effective school is a school whose achievements are above those that can be expected under defined prediction conditions; (b) the goal approach, according to which a school is effective if it achieves the goals it sets for itself within a defined period of time; (c) the resource approach, according to which a school is considered effective if it can mobilize the necessary resources to fulfill its tasks; (d) the internal processes approach, by which a school is considered effective if its functioning is smooth and its organizational climate is healthy; (e) the stakeholders' satisfaction approach, according to which an effective school is defined as a school that meets the expectations and needs of the stakeholders (parents, students, and the community); and (f) the combined approach, by which an effective school is an educational institution that works systematically and continuously for self-improvement in order to achieve its goals by maximizing its physical and human resources while maintaining the well-being of teachers and students. Hallinger and Heck (2011) determine five characteristics of an effective school: developing high expectations of students and teachers, order, discipline, emphasis on student-centered activities, and monitoring students and teachers work and strong leadership of the school principal. The literature on effective schools has also developed in the direction of diagnosing the characteristics of successful schools around the world, including the characterization of management practices and their effect on school results. The mindfulness in this study is a characterization of management addressed directly and indirectly by mediation of the school climate and OBC.

School Climate

The definition of school climate construct is complex. Researchers have usually identified four main themes in the literature for climate, including (a) safety, (b) the structure of environment, (c) peer and adult relationships, and (d) the [physical] learning environment (Cohen, McCabe, Michelli, & Pickerall, 2009; Thapa et al., 2013). Within each of the overarching areas, there are subcomponents of the school environment. For example, cultural acceptance, peer support and adult support are subcomponents within the relationship domain. Teacher expectations, fairness of rules and consistency are aspects of the environmental structure. Wang and Degol (2016) called for multilevel modeling procedures to support these more complex conceptualizations of school climate. They continue that critics have pointed out that definitions of the school climate are so broad that they "encompass just about every feature of the school environment that impacts cognitive, behavioral, and psychological development" (p. 3). The National School Climate Center in the US (2017) describes the school climate as: the quality and character of school life. School climate is based on patterns of student, parent and school personnel's experience of school life and reflects norms, goals, values, interpersonal relationships, teaching and learning practices, and organizational structures.

With so much supporting research, the improvement of school climate has become an important educational goal (Caskey, Cerna, Hanson, Polik, & Houten, 2016). Rudasill and colleagues (2017, p. 7) describe research on the school climate as "a chaotic conceptual landscape" because definitions often fail to distinguish what school climate is and what it is not. According to their comprehensive analysis of school climate research, Astor and Benbenishty (2018) pointed out that school climate theory has been severely limited by a failure to construct conceptual models that identify mechanisms by which specific features of school climate are associated with an effective school such as student outcomes and academic achievement. Cornell and Huang (2018) also stated that school climate should be regarded as a system of school characteristics influencing one another and are linked to meaningful outcomes. They argued that inherently interpersonal characteristics such as the quality of principal-teacher relationships, should be distinguished from personal characteristics such as motivation and engagement and those, in turn, should be distinguished from behavioral outcomes such as test performance or school attendance. One reason for the growing interest in school climate is its well-established relationship with achievement (e.g., Hoy & Hannum, 1997) and health and well-being outcomes (Thapa et al., 2013). An early example of the relationship with achievement is provided by Moos and Moos (1978) who assessed the school climate. They found that students' perceptions of relationships within the school (affiliation and teacher support) were positively correlated with their mean.

According to the above statements, it is inferred that school climate is directly and indirectly influenced by mindfulness of principals and through principal's mindfulness

impact the effectiveness of schools. In this study, we utilized the Hoy and Tarter questionnaire (1997) to measure school climate.

Organizational Citizenship Behavior

Educational investigators have focused on understanding the concept of OCB amongst teachers (Somech & Oplatka, 2014; Somech & Ron, 2007). Employees' OCB is defined as "performance that supports the social and psychological environment in which task performance takes place" (Organ, 1997, p. 95).

The importance of OCBs (which are spontaneous) has been emphasized more than behaviors deriving exclusively from the job description. The OCBs (for example, gestures of support, readiness to contribute after work hours, proposing improvements in organizational functioning, and other activities) protect the organization and enhance its effectiveness (Turnipseed & VandeWaa, 2012). Scholars have provided several reasons why OCBs might contribute to school success (e.g., Jimmieson et al., 2010). In general, research has shown that OCBs contribute to organizational effectiveness through creating social capital, increasing efficiency and enhancing productivity (Jackson, 2009).

Although most scholars agree that the concept of teacher OCB is multidimensional (e.g., Oplatka, 2006), a literature survey suggests that scholars disagree as to the identity of the actual dimensions. Some researchers have applied and adopted existing typologies used for general organizations in the educational context (e.g., Jimmieson et al., 2010), and others have attempted to develop unique typologies for schools that address their unique characteristics (Hoy & Miskel, 2008; Owens, 2001) such as ambiguity of organizational technology, ambiguity of customers, and ambiguity of organizational hierarchy. For example, Somech and Drach-Zahavy (2000, 650) define teacher OCB as follows: OCBs are those behaviors that go beyond specified role requirements and are directed towards the individual, the group, or the organizational unit, in order to promote organizational goals. According to this definition, OCBs are behaviors that are not part of the formal role requirements, but aim to promote the organization's objectives. This definition determined three dimensions of teachers' OCB, namely that behaviors can be directed toward the student, toward the teaching staff, or toward the school as a whole. First, OCBs toward the student include activities that teachers engage in to help individual students such as academic help after school hours, helping students at risk, or paying attention to students' personal problems. Second, OCBs toward the team include activities teachers take part in to help their peers such as sharing class notes and other pedagogical material, providing professional help, or exchanging pedagogical knowledge. Thirdly, OCBs toward the organization as a whole include other activities teachers participate in school such as school events and activities, school committees, or unrewarding tasks (Nutov and Somech, 2017). Other researchers such as Christ, van

Dick, Wagner, and Stellmacher (2003), also verified a three-dimensional OCB concept for teachers. Oplatka (2006), who studied teacher OCB, not only confirms Somech and Drach-Zahavy's three-dimensional OCB model, but also using his findings adds OCB in the classroom as a fourth dimension to the typology. This includes all activities in which teachers initiate and implement changes in instructional methods, perform more in-depth evaluation of students' work, or participate in the class's social activities.

Mindful Principals

This research was based on the theoretical framework of mindfulness as established by Langer (1992), applied to school settings by Hoy (2003) and refined by Weick and Sutcliff (2006). Hoy (2003) raised the issue of mindfulness and its necessity for leadership in the school and also recommended it as a skill for school principals. He believes that determining the processes and performance of schools by unmindful principals will not be credible and of great value to achieve the school goals and to improve the ranking of the school. Many premature behaviors throughout a day relate to the lack of mindfulness in solving problems and dealing with them. Interest in the study and pathology of factors influencing the growth and development of society in critical cases tends to lead to radical concepts with wider effects such as mindfulness (Brown, Rayn, & Creswell, 2007). This concept has different meanings due to different situations and circumstances at certain times. Considering the Asian culture and customs, meanings such as care, attention, and situation awareness were derived. It was still used in this sense by the 1990s, until gradually a special meaning was dedicated to it and took on a particular state of consciousness and the presence of memory and subjectivity in the present. Gradually, the conscious vigilance exercises provided an introduction in scientific areas as well as systematic approaches for the development and proper application of mindfulness skills. These exercises were also used in other areas such as medicine to manage treatment, improve addiction, and reduce stress and as pre-requisites for psychotherapy. Finally, the definitions came to the stage that conscious mindfulness became a propagandistic skill associated with widespread use in all parts of society such as education, sports, commerce, and even the mode of troop and military training of soldiers. Clark, Keefe and Haines (2019) believe that mindfulness is a socio-material practice. That is, practicing mindfulness is almost profoundly focusing on the present moment and its materiality to open ourselves to noticing life's complexity and our inextricable connections to its unfolding.

Regarding education, schools are the most important and formal educational institutions which attempt to improve their performance and needs reforms and all-round changes. Currently, school reform is focused on three strategies: 1. assessing and improving academic achievement based on standardized tests; 2. educational interventions; and 3. helping schools that fail to succeed (McDonnell, 2012). Proponents of these policies

believe that managers can better respond to different needs of students, especially those with lower social backgrounds with high dropout rates by implementing various controls in the area of structural simplification, standardization of interventions and the assessment of educational outcomes, (Foster, 2004). Small problems must be managed and changed into an opportunity for progressing before they become a crisis. This requires mindfulness. Weick and Sutcliffe (2001) changed the level of discourse from person to organization. They point out that mindfulness is applicable for schools at both levels of empirical and theoretical approaches. There is the possibility that organizational environment fosters mindfulness. Hoy (2003) states that we expect the culture of a rigid bureaucracy which not only does it not enhance mindfulness, but also creates a mental molding. Developing and expanding mindfulness require a stress - free environment where individuals can exercise their activities freely.

Organizations have found that some of the successes are due to continuous processes and continuous learning that were carried out by collective mindfulness, which provides organizations with a high degree of credibility (Weick and Sutcliffe, 2006). Examples of organizations with a high degree of credibility are submarines, chemical plants, air traffic control centers and re-command systems. Flook, Goldberg, Pinger, et al (2013) believe that the main difference between organizations with a high degree of credibility and other organizations is sensitivity or attention in which most people react to very weak signals and warn that change or risk is near. What is important about educational institutions with a high degree of credibility is the presence of mindfulness to address issues. Some scholars suggest that emphasis must be placed on the strategies that are implemented in high credibility organizations such as performance of schools, student failure, achievement gap and goals, and many other challenges in public education (Gullen, 2011).

The type of individuals' performance indicates their level of mindfulness. Since organizational climate is a sign for individual behavior and performance and it affects the level of responsibility and fulfillment of organizational goals, one can observe the consequence of the mindfulness behavior of individuals in the climate. Measuring climate is one of the ways in which an organization's daily culture chart is plotted on. Although principals have the right to interfere with teachers' affairs using their authority or reward, indirect methods such as building trust over time and creating a climate of support and flexibility, and endeavoring to employ individuals in their field of expertise are much more effective to achieve organizational goals (Helstad and Moller, 2013). Furthermore, Langer's (1992) study shows that having a flexible mind with open perceptions and thoughts creates a new and varied cognitive pathway. He explains that mindfulness leads us to look at our perceptual processes in order to discover the structure of our experiences and to see that these perceptions are even more important and more sensitive than even visual senses to control the behavior and function of individuals.

Zheng, Yin, and Li (2018) argue that employees work and care beyond their job requirements in open and supportive climates. Some schools have teachers who

voluntarily act beyond their formal and pre-designed duties, and try their best to have a more successful and effective school. Such voluntary actions represent mindfulness actions based on alertness that create a positive and motivating climate. Volunteering behaviors were first introduced by Organ (1988) as the concept of OCB. In his opinion, voluntary behaviors cannot be recognized directly or indirectly by the reward system. He identified five dimensions for the concept of OCB: conscientiousness, sportsmanship, civic virtue, courtesy, and altruism. These dimensions will have positive and effective impacts on goals in organizations such as schools that have an educational nature. Mindful principals focusing on the flexibility and use of specialist expertise and encouraging more collaborative work by simplifying complex affairs can be the basis for creating citizenship behavior between teachers and all school members. Clement and Vandenberghe point out that the importance of OCB is due to the fact that the organization is equipped with more facilities and it reduces the need for formal and expensive mechanisms (Clement and Vandenberghe, 2000, p. 13). In a study, Ababneh and Hackett (2019) concluded that job autonomy had both direct and indirect effects on civic virtue, but only an indirect effect on altruism. Skills variety affected both civic virtue and altruism directly and indirectly. Jeweett, Scholar and Miller (2006) argue that OCB increases productivity and effectiveness in the organization. In another study, Karambayya (1989) found that citizenship behavior is in relation to high performance. He states that employees working in high-performance organizational units are more likely to engage in citizenship behavior than those working in low-performing units. In addition, Thomsen, Karsten and Oort (2016) in relation to effective schools and OCB asserted that it was important for teachers to help and support each other and seek ways to improve work processes and share their experiences.

Mindful principals also provide an open space for members to make their ideas more practical and more innovative by eliminating fear of failure. This creates an open and desirable atmosphere in which employees have considerable job satisfaction and sufficient motivation to overcome the problems. A mindful principal considers educational issues in their field of work and creates the conditions necessary to improve teaching and learning in class. With such principals, school members work well together and do schoolwork perfectly. The created atmosphere will be based on a democratic value system in which OCB and an open atmosphere will be in line with its requirements and implications.

In a case-study, Presthus (2010) examined and monitored three successful school principals from different areas over a five-week course to find out how they framed their experiences, how they talked about school culture and tried to meet institutional expectations. The results illustrated those busy activities characterized the daily work of the principals and they applied both their intellect and emotions to their daily work. Early on, their activities seemed very fragmented, ad hoc oriented, and characterized by brevity and discontinuity, but as time passed, this concept (mindfulness dimensions) was recognizable in their work. Finally, these analyses showed four main dimensions that

constituted to their leadership style of educational activities: a structural dimension, a personal dimension, an ethical dimension and a deliberative dimension.

Weick and Sutcliffe (2006) also found that mindfulness is supported in a flexible structure focusing on mistakes and failures, a tendency towards simplification, sensitivity to teaching and learning, commitment to flexibility and respect for expertise. Considering mindfulness profoundly and the necessity of creating it and its consequences, communication and interactions on the phenomenon of social life and the citizenship behavior of individuals are well understood and identified. A flexible and expertly structured construct creates an open atmosphere and creates the trust needed to move towards citizenship behaviors. When a principal at school has a profound interpretation with an open-minded approach to the performance and outcomes of individuals, they do not take inaccurate judgments that lead to disagreement and failure in educational programs. Mindfulness in addition to scrutiny and refinement of expectations based on new experiences with existing capacities will identify new aspects of the operations and provide more accurate predictions.

Examining the overall results of studies conducted in the field of the variables of this study, the main issue of this study is that the relationship between mindfulness and the effectiveness of schools, whether directly or indirectly, through the impact of mediating variables of "organizational climate" and "OCB" has not been empirically investigated. Therefore, this study aims to investigate the relationships among the variables studied and fit the proposed model of researchers. In order to achieve this goal, we tried to investigate and clarify the structural pattern of the direct and indirect impact of mindfulness on the effectiveness of schools through extensive studies in this field and appropriate selection of mediating variables. Therefore, based on literature and background studies, the hypothetical model of the research (Figure 1) was mapped and data collected and then analyzed by the structural equation model to confirm or reject it. It should be noted that the conceptual framework of mindfulness is based on Langer's theory modified by Weick and Sutcliffe and used by Hoy (2003) in empirical studies.
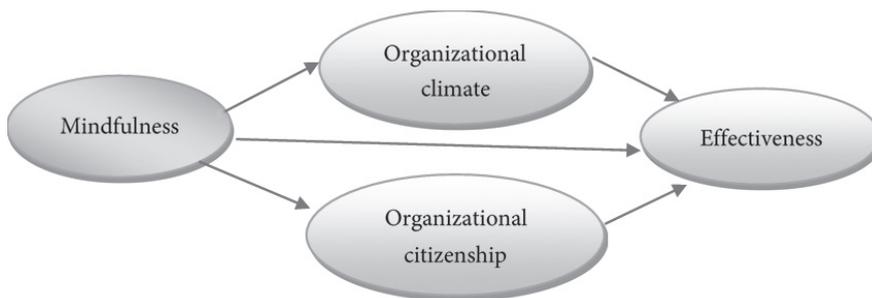

Fig. 1. The hypothesized pattern of the research

Research hypotheses:

(1) There is a significant relationship between principals' mindfulness and effectiveness of schools.

(2) Principals' mindfulness has indirect effects on the effectiveness of schools through influencing mediating variables of organizational climate and OCB.

(3) The model of the role of principals' mindfulness style on the effectiveness of schools through two mediating variables of organizational climate and OCB has a favorable fit with the collected data.

Method

Procedure

The statistical population of this research includes all public high school teachers (except four special schools) in Marivan in the academic year of 2016–2017. According to the Krejcie and Morgan sampling table, 250 people is sufficient for the sample size. However, due to undertaking confirmatory factor analysis on the questionnaires and the fact that factorial analysis is sensitive to sample size, 400 individuals (from each school, 15 teachers were selected through an easy and accessible method) were selected. At first, out of a total of 32 high schools in Marivan, 28 schools were selected (16 male only and 12 female only schools). Questionnaires were distributed with the presence of a researcher in each school. Four questionnaires were used to collect data on this research.

Sample

In total, of the 400 teachers, 83.8% returned the questionnaire, resulting in a final sample size of 335. Of these, 128 teachers were female and 207 were male. 15 percent of them had less than 5 years of work experience, 39 percent had between 6 to 15 years of work experience, 30 percent had between 16 to 25 years of work experience and 16 percent had over 25 years of experience.

Measures

Four questionnaires were used to collect data in the research as follows:

1.	The first set of data was collected from responses from the mindfulness survey, School Mindfulness Scale (M-Scale) developed by Hoy (2003). The M-Scale is a Likert-type scale that measures the degree to which the principal is a mindful person. The M-Scale rests on five properties: preoccupied with failure, reluctance to simplify, sensitive to the unexpected, commitment to resilience and deference to expertise in problem solving (Hoy, Gage and Tarter, 2006). Here we needed to know each of these dimensions more specifically. Focusing on mistakes and failures refers to how principals learn from their mistakes and do logical risk-taking, how principals are encouraging teachers in the

teaching process to use mistakes and failures as learning experiences, or how they turn their abilities into creativity and recognize the dangers and make mistakes without fear of failure. The reluctance to simplify means that principals, by preserving the diversity of opinions, eliminate disagreement among the entire school community and rectify common rules and standardized methods based on new experiences and situations. The sensitivity to teaching and learning in the field of teaching and learning is the most important part of the principals' duties. How the actions of an individual as the principal of a school are influenced by his values and beliefs; in other words, the principal's educational outlook leads him towards his actions and behaviors. Principals will be more closely connected with their school, supporting the learning and teaching process. Commitment to resilience means that principals support the culture of rethinking and trust so that school members can accept, correct, and moderate their mistakes, and how mindful principals identify and correct concerns or problems before they become a crisis. Deference to expertise refers to creating open spaces for accepting and strengthening abilities and challenging thoughts and practices, and how principals engage teachers in creating and implementing solutions (Kearney, Kelsey, Cheryl & Herrington, 2013). In order to increase the validity and reliability of the questionnaire in this research, we have tried to analyze its factors. All questions, structure of the questionnaire and its components were confirmed, which will be explained below. The reliability of the questionnaire was calculated at 0.89 using Cronbach's alpha.

2. Organizational climate: The Hoy and Tarter questionnaire (1997) was used to measure the organizational climate. The questionnaire had 34 items, the responses of which vary along a 4-point scale defined by "rarely occurs", "sometimes occurs", often occurs" and "very frequently occurs" and has 5 components of supportive behavior, directive behavior, engaged behavior, frustrated behavior and intimate behavior. The reliability of these components were 0.91, 0.87, 0.85, 0.85, and 0.71, respectively. In this research reliability was calculated to be 0.92 after confirming the factor analysis and elimination of some of the questions.

3. OCB: the questionnaire used in this study to measure OCB was from DePaola and Tarter (2001), which included 12 items. After confirming the confirmatory factor analysis, the reliability of the Cronbach alpha questionnaire was equal to 0.91.

4. Effectiveness: In this study, we assessed the effectiveness of schools based on the organizational effectiveness of Matte (1972), which highlights the quality and quantity of student achievements, and the effectiveness of teachers and their flexibility versus environmental changes as the most important dimensions of effectiveness. In order to measure the effectiveness of schools, Hoy and Miskel's questionnaire was used which measures the dimensions of teachers' efficiency, adaptability and flexibility, and the quantity and quality of student achievements. Miskel and Hoy (1982) used these dimensions to measure the effectiveness of schools and provided a comprehensive theoretical framework for the effectiveness of schools which is supported by the experimental results

of Hoy and Ferguson (1985) and Hoy, Tartre and Cut Camp (1991) and hence the reason for the validity of this tool to measure the effectiveness of schools (Hoy and Miskel, 2013, p. 319). In this research, the reliability of the questionnaire was calculated using Cronbach's alpha method for both subscales of teachers 'performance and adaptability (0.86), and the quantity and quality of students' achievements (0.89) and for the total was 0.91.

Analytical method

The research questions were investigated through structural equation modelling (SEM). Since the relationship between principals' mindfulness and effectiveness of schools through two mediating variables of organizational climate and OCB was examined as a model, structural equation method was used. In studies where the purpose is to test a particular model of a relationship between variables, we use SEM. Structural equation modeling is an advanced multivariate statistical process with which a researcher can construct theoretical concepts, test their measurement reliability, hypothesize and test a theory concerning their relationships, take into account measurement errors, and consider both direct and indirect effects of variables on one another. (Bollen, 1989). In this research, SPSS and AMOS18 software were used to analyze the data. Through this software, first, , all the questionnaires were included in the measurement models as confirmatory factor analysis and then entered into SEM to measure the causal relationships between the latent variables to verify the validity of the constructs.

Context

To indicate how this study might relate to other educational systems, we present some information regarding the Iranian educational system. The government is the main provider of education which means therefore that the educational system is highly centralized in structure and procedure. All schools are required to follow a basic national curriculum. At the high school level, in particular, education is geared to matriculation exams which are required for entry into higher education institutions. School principals, like managers in other organizations, perform all the classic managerial activities.

Result

In the first section, we describe the steps for confirmatory factor analysis for each of the questionnaires separately. In the confirmatory factor analysis, if the fitness indices show the desired value, the structure is confirmed and if the fitness indices do not

indicate the desired value, the error of variance-covariance among the questions are examined. In confirmatory factor analysis, attention should be paid to the chi-square over degree of freedom, the fitting of absolute fit indices and comparative fit indices in analyses. These indices, which include Normed Fit Index (NFI), Comparative Fit Index (CFI), Goodness of Fit Index (GFI) and Incremental Fit Index (IFI), are partly indicative of the model's compliance with the desired model. There is also an absolute fit index, Root Mean Square Error of Approximation (RMSEAs), which is examined to evaluate the relationship between covariance-variance data.

Table 1

Factor loading of items after the correction of research measurement models using confirmatory factor analysis

Mindfulness	Preoccupied with failure 13 11 9 0.71 0.77 0.83	Sensitivity to the unexpected 10 2 0.81 0.89	Reluctance to simplify 1 7 0.63 0.71	Commitment to resilience 14 12 4 3 0.81 0.60 0.75 0.61	Deference to expertise 8 6 5 0.74 0.58 .063
Organizational climate	Supportive behavior 30 29 25 24 23 6 5 0.55 0.60 0.53 0.68 0.85 0.71	Directive behavior 19 18 13 12 7 0.79 0.63 0.5 0.71 0.53	Engaged behavior 18 28 20 17 10 4 3 0.56 0.62 0.80 0.79 0.82	Frustrated behavior **15 19 34 8 2 1** **0.63 0.74 0.8 0.85 0.63**	Intimate behavior 27 26 21 14 0.53 0.55 0.61 0.71
OCB	Conscientiousness 8 6 2 1 0.73 0.86 0.83 0.71		Altruism 4 3 0.83 0.51		Sportsmanship 12 11 7 0.75 0.68 0.61
Effectiveness	Efficiency and compatibility of teachers 8 7 6 5 4 3 0.62 0.78 0.60 0.83 0.67			The quantity and quality of student achievements 2 1 0.79 0.76	

None of the questions had covariance over each other in the mindfulness questionnaire. Therefore, it, at a high level, met the required indices fit (RMSEA = 0.53, GFI = 0.90, CFI = 0.95, IFI = 0.91, NFI = 0.94) (Table 2) and 5 components of the mindfulness questionnaire were confirmed. The factor loading values were high for these components (Table 1). In the confirmatory factor analysis of the organizational climate questionnaire, 5 components of supportive behavior, directive behavior, engaged behavior, frustrated behavior and intimate behavior were evaluated and examined. The items related to each of these components had a factor loading value of over 0.50, indicating a fairly good correlation between items in each of the components. 4 questions (11, 16, 32, and 33) had a high covariance with most questions. Absolute Indices (RMSEA) showed a high value of 138%, indicating poor fit of the model. Therefore, by removing these four questions, the measurement model was fitted with a high percentage of comparative and absolute indices. Good fitting indices in the modified model include: ($\frac{x^2}{df}$ = 2/88, REA=0/069, I= 0.95, IFI= 0.96, NFI= 0.93) (Table 2).

Model had a good fit indices by eliminating two questions, 9 and 10, from OCB questionnaire: ($\frac{x^2}{df}$ = 1/92, RMSEA= 0/0, NFI= 0.97, GFI= 0.91, CFI= 0.7, IFI= 0.96) (Table 2). The reason for the complete elimination of these questions from the research measurement

model was that these two questions severely weakened all absolute and comparative indices and made the model fit very difficult.

In the confirmatory factor analysis of the effectiveness questionnaire, all indicators of goodness of fit reached to an acceptable range by removing the first question of the questionnaire ($\frac{x^2}{df}$ =2, RMSEA= 0/71, NFI= 0.90, GFI= 0.93, CFI= 0.91, IFI= 0.93) (Table 2), and two dimensions of effectiveness (efficiency and compatibility of teachers, and the quantity and quality of student achievement) were confirmed. This indicated that the measurement model and the collected data were suitable for fitting.

Table 2

Goodness of fit indicators of research measurement models

Mindfulness		Organizational climate		OCB		Effectiveness
Indices	Observed value	Indices	Observed value	Indices	Observed value	Observed value
$\frac{x^2}{df}$	2.18	$\frac{x^2}{df}$	2.88	$\frac{x^2}{df}$	1.92	2.71
$RMSEA$	0.053	$RMSEA$	0.069	$RMSEA$	0.04	0.058
CFI	0.95	CFI	0.95	CFI	0.97	0.91
GFI	0.90	GFI	0.90	GFI	0.90	0.93
IFI	0.91	IFI	0.96	IFI	0.96	0.93
NFI	0.94	NFI	0.93	NFI	0.97	0.90

After ensuring the fitting of the research measurement models, they were entered into the structural equation model and the results of the fitting indices are listed in Table 3. As can be observed, the comparative indices of fitting are higher than 0.90, which indicates that the model is very close to the desired model, and the value of 0.66 in the absolute indices (RMSEA) indicates that the observed variance-covariance corresponds with the expected variance-covariance.

Table 3

Goodness of fitness indicators of the research structural models

Indices	Fitness criterion	Observed value
$\frac{x^2}{df}$	less than 3	2.53
$RMSEA$	less than 0.08	0.06
CFI	between 0.9 to 1	0.95
GFI	between 0.9 to 1	0.93
IFI	between 0.9 to 1	0.91
NFI	between 0.9 to 1	0.92

In regards the confirmation of the first hypothesis, the results based on the existence of a relationship between mindfulness and effectiveness of schools showed that

mindfulness has direct impact on effectiveness ($\beta = 0.19$, P <0.05). This amount of impact is significant and shows that there is a direct correlation between the mindfulness and the effectiveness of schools. However, despite the significance of this relationship, this amount of correlation is diminished and becomes non-significant since it is at a low level and the mediating variables and their presence are entered into the structural model. For this reason, the direct relationship between mindfulness and effectiveness of schools was eliminated. It should be noted that the indirect path of effect is so high that it makes the direct path insignificant. Therefore, by establishing indirect paths, most of these effects are transposed through mediating variables and the direct path of mindfulness shows insignificant effect on effectiveness of school. In the next sections we will continue to explore the indirect paths of this effect.

Table 4
Direct effects of exogenous latent variables on endogenous latent variables

Variable	standard β	t value
The effect of mindfulness on		
Organizational climate	0.91	12.26
OCB	0.71	8.87
Effectiveness	0.19	1.19

The results presented in Table (4) show that mindfulness directly ($\beta=0.91$, $p<0.001$) affects organizational climate. By increasing one standard deviation in the mindfulness variable, the school climate is increased by 0.91%. Moreover, the explained variance of organizational climate is 0.83 ($R^2=0.83$) meaning 0.83 of the changes in the climate is related to mindfulness. In the following section, we can see that mindfulness directly ($\beta=0.71$, $p<0.001$) affects OCB, and the amount of variance explained by mindfulness is 0.51 ($R^2=0.51$). In other words, 0.51 of changes in the OCB is related to mindfulness, and the rest is related to other factors that are beyond the scope of this study.

Table 5
The effects of all endogenous and exogenous latent variables on the ultimate latent endogenous variable

Variable	standard β
The effect of mindfulness on effectiveness	0.81
The effect of organizational climate on effectiveness	0.37
The effect of OCB on effectiveness	0.51

Regarding the second hypothesis of the study the results showed that mindfulness indirectly and generally through two mediating variables ($\beta=0.81$, P<0/001) affects the effectiveness of schools. The changes in effectiveness through the effect of mindfulness on

the organizational climate and OCB is 0.81% predictable.The effect of these two variables-mindfulness on the organizational climate and OCB on the effectiveness of schools, and 0.65% of the effectiveness variance is explained by the final model and another 0.35% of the effectiveness variance is related to the variables outside of the model.

Concerning the third hypothesis, it should be asserted that the specified paths in the hypothesized model were confirmed except for the direct path of mindfulness on the effectiveness of which were significantly lower and was eliminated from the model. The remaining paths had high regression weights that were significant at the level of $p<0.001$. The effect of organizational climate regression on effectiveness of schools is equal to (0.37) and the effect of OCB is equal to (0.51). In other words, organizational climate predicts 0.37% while OCB predicts 0.51% of effectiveness.
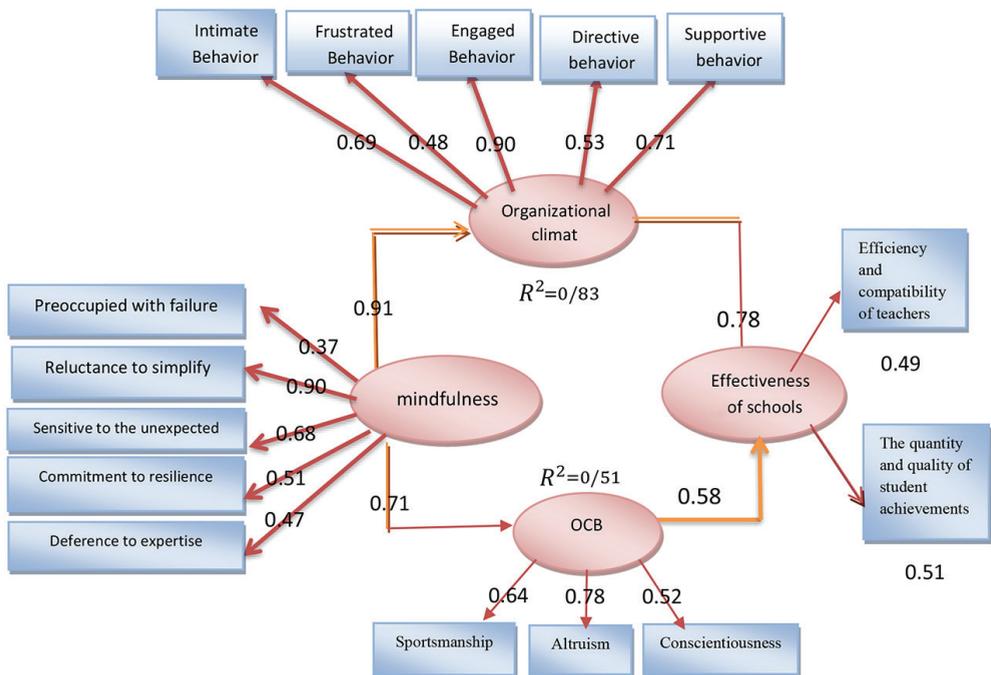

Fig. 2. The final model of the research

Conclusion and Discussion

This study aimed to investigate the effect of mindful principals on effective schools with focus on the moderating role of organizational climate and OCB. The first research hypothesis was based on the direct relationship between principals' mindfulness and effectiveness of schools. Regarding the main effect of mindful principals on effective

schools, according to the structural equation model, the results showed a weak relationship at the level of (P<0/0, β=0/19). Although this value was statistically significant in terms of the degree of effect, it is necessary to examine its indirect effects on other possible variables. For this reason, other assumptions were made. Thus, this finding supports previous literature regarding mindfulness which has been shown to positively correlate with positive organizational outcomes (Leroy, Anseel, Dimitrova, and Sels, 2013) and successfully with more effectiveness of schools (Hoy, 2002).

The second hypothesis was based on the belief that principals' mindfulness has indirect effects on the effectiveness of schools through influencing the mediating variables of organizational climate and OCB. The results of this study indicated that mindfulness greatly affects organizational climate (β=0/91, P<0/001) and OCB (β=0/71, P<0/001). In the following section, it can be concluded that organizational climate has factor loading value of 0.39 and OCB has value of 0.51% on effectiveness. In this study, organizational climate and OCB were found to be factors leading to the difference in outcomes that schools received from mindful principals. Thus, future research that aims to investigate the impact of mindful principal should consider some factors such as school size, engagement and socio-economic status that might influence the relationship between mindfulness principals and effectiveness of schools.

In particular, the findings suggest that schools that have a low level of organizational climate and OCB are those that have been influenced by unmindful principals. As the principal mindfulness increases, schools tend to show higher organizational climate and OCB. Interestingly, for schools with a high level of organizational climate and OCB, the mindfulness principal was found to be associated with more effectiveness. Overall, these findings are consistent with existing research on the benefits of organizational climate and OCB, particularly the benefits related to OCB (Schultz, Ryan, Niemiec, et al., 2015; Babcock-Roberson and Strickland, 2010; Honig, and Rainey, 2014; Hoy and Hannum, 1997; Nutov and Somech, 2017). Kaffemanienė et al. (2017) in a study entitled "Educational Environment of the Modern School in the Aspects of Learning Factors, School Climate and Education Paradigms" almost confirm this result. They discovered that the paradigm of impact was mostly highlighted in the dimension of school climate. They concluded that the school climate created through collaboration of school community and flexible treatment of students' opinions will motivate students and enable learning.

In general, the indirect effects of mindfulness (β=0/91, P<0/001) are at a high level, indicating the high impact of mindfulness on mediating variables and ultimately on the effectiveness of schools. This result is consistent with Kearney et al. (2013) who showed that school principals' mindfulness improves the effectiveness of schools. The findings from this research provide added contribution to research that focuses on the role of mindfulness principal. Although previous studies have found that mindfulness principal could benefit effectiveness of schools (Hoy, 2002), this study offers the additional insight that outcomes can be contingent on the characteristics of schools as well.

Despite these findings, this research has some limitations. First, the results are based on cross-sectional data, thereby making causality difficult to imply. When using cross sectional data, reverse causality is a possible issue that can bias the interpretation of the results. For instance, although mindfulness was proposed to result in an effective school, we cannot completely rule out the possibility that schools which experience high effectiveness are more likely to use mindfulness compared with those which experience low effectiveness. Future research should address these limitations by using longitudinal data collection. Second, the samples selected for this study came from one school district in Iran (Marivan). Small sample size limits the generalizability of the findings. Thus, future research that collects data in a larger scope is required. Third, the school's use of mindfulness may not (reflect) be an accurate measure of the actual school climate and OCB during the academic year. Fourth, the data used in this research does not capture the information on how mindfulness practice is used at school. It is possible that schools which have low school climate and OCB practice mindfulness in a different way (level) in comparison with those that have high ranking. Future research that targets how mindfulness is practiced at schools might provide further proof to explain why the outcomes between the two groups differ.

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Rūpestingi vadovai efektyviose mokyklose: organizacijos klimato ir pilietiško elgesio organizacijoje vaidmuo

Rimantas Želvys[1], Amjad Zabardast[2], Somaieh Nemati[3], Kamal Adak[4] , Omid Shariati[5]

[1] Vilniaus universitetas, Filosofijos fakultetas, Ugdymo mokslų institutas, Universiteto g. 9, 01513 Vilnius, Lietuva, rimantas.zelvys@fsf.vu.lt
[2]   Kurdistano universitetas, Ugdymo mokslų katedra, Sanandadžas, Iranas, a.zabardast@uok,ac.ir
[3]   Kurdistano universitetas, Ugdymo mokslų katedra, Sanandadžas, Iranas, 72somaye@gmail.com
[4] Kurdistano universitetas, Ugdymo mokslų katedra, Sanandadžas, Iranas, kamaladak1375@gmail.com
[5] Kurdistano universitetas, Ugdymo mokslų katedra, Sanandadžas, Iranas, om86ir@yahoo.com

Santrauka

Šioje publikacijoje pristatomo darbo tikslas buvo atlikti empirinį tyrimą ir pasiūlyti struktūrinį modelį, įgalinantį tyrinėti vadovų rūpestingumo poveikį mokyklų efektyvumui, panaudojant tokius tarpinius kintamuosius, kaip organizacijos klimatas ir pilietiškas elgesys organizacijoje. Duomenys aprašomam tyrimui buvo renkami, pateikiant klausimynus 400 mokytojų 28 valstybinėse Marivano miesto (Iranas) gimnazijose. Klausimynus užpildė 335 respondentai. Teoriniu tyrimo pagrindu buvo pasirinkta Langer rūpestingumo koncepcija, kurią atnaujino Weickir Sutcliff, o mokyklos sąlygoms pritaikė Hoy. Rūpestingumas koncepcijoje suprantamas kaip globa, dėmesingumas ir supratingumas. Gauti rezultatai parodė, kad organizacijos klimatas ir pilietiškas elgesys organizacijoje daro tiesioginį poveikį mokyklų efektyvumui ir kad egzistuoja reikšmingas ryšys tarp vadovų rūpestingumo ir organizacijos klimato bei pilietiško elgesio organizacijoje. Tiesioginis vadovų rūpestingumo poveikis mokyklų efektyvumui nebuvo reikšmingas, tačiau išryškėjo žymus netiesioginis poveikis per organizacijos klimatą ir pilietišką elgesį organizacijoje.

Esminiai žodžiai: *mokyklų vadovų rūpestingumas, organizacijos klimatas, pilietiškas elgesys organizacijoje, mokyklų efektyvumas.*