10.24193/ed21.2025.32.03

Kindergarten as a Learning Organization: its Specificities Compared to other Institutions in Pre-University Education

Mihaela Rădulicea, Simona Sava

Educatia 21 Journal 32 (2025)
ISSN online: 2247-8671
Educatia 21 Journal, (32) 2025, Art. 03
doi: 10.24193/ed21.2025.32.03
Research article

Kindergarten as a Learning Organization: its Specificities Compared to other Institutions in Pre-University Education

Mihaela Rădulicea [a*], Simona Sava [a*]

[a] *Department of Education Sciences, West University of Timişoara, Timişoara, Romania*

*Corresponding author: *constanța.radulicea10@e-uvt.ro and lidia.sava@e-uvt.ro*

Abstract

Every educational institution is expected to be a learning organization, since its mission is to produce learning and facilitate the learning of every learner. Structuring and measuring the extent to which each educational institution is a learning organization is less well developed for each level of schooling in pre-university education. This paper investigates the specificity of kindergartens as learning organizations by looking at differences in perceptions of internal evaluation among kindergarten employees compared to those in schools at all levels of pre-university education. Based on the "Schools as Learning Organizations" model, quantitative, non-experimental, comparative research was conducted using a questionnaire validated by OECD specialists, translated and validated for the Romanian context, on schools as learning organizations. The analysis of the responses of the 726 respondents in pre-university education, including 43 from kindergartens, revealed that there are statistically significant differences in favour of primary schools compared to kindergartens in terms of dimensions such as promoting team learning and collaboration among staff; adoption of systems for collecting and exchanging knowledge and learning. No significant differences were identified for the other dimensions. The conclusions highlight the need to adapt organizational development strategies for kindergartens to strengthen their learning culture.

Keywords:
school as learning organization, kindergarten as learning organization, educational leadership, quantitative analysis

1. Introduction

Rapid changes and increasingly complex demands challenge pre-university institutions, from kindergartens to high schools, to continuously learn, innovate and adapt to a wide range of developments, becoming organizations that learn. Such organizations can keep the rhythm of change by fostering opportunities for their employees to improve their capabilities, supporting their continuing professional development and creating innovative educational environments (OECD, 2019).

Lifelong learning is an important benchmark for staff members, who must constantly adapt and serve as role models for their students in this process. As Schleicher (2018) argues, students will internalize the value of continuous learning only if they see it reflected in the behavior of those who guide them. Therefore, effective educational organizations are those that facilitate collaboration, reflection, and continuous professional development, aspects that are also relevant for kindergartens, which are often overlooked in debates on educational innovation (OECD, 2019). However, in Romania, this vision has only been partially reflected in practice, where the focus has been on content, and staff professional development and the implementation of student-centered pedagogies have been limited (OECD, 2024). Deficiencies in the continuing education system and unfavorable salary conditions affect the attractiveness of the teaching career and hinder the formation of an organizational culture oriented towards learning and continuous improvement (David, 2025; OECD, 2025).

In this context, the paper adds rather limited knowledge related to kindergardens as learning organizations. Existing research has focused mainly on general dimensions of educational leadership and leadership for learning (Kools et al., 2020; Stoll & Kools, 2017), on identifying organizational and cultural conditions conducive to a learning school (Kools & Stoll, 2016), on conceptual models applied in Asian educational contexts (Retna & Ng Tee, 2016), and on the importance of collaboration and professional reflection within educational teams (Siennema & Stoll, 2020). The missing of a common agreement and definition of the essential characteristics of an "educational learning organization" (ELO) has long limited the advancement of this concept in educational research and its practical applicability (Stoll & Kools, 2017).

Dedicated research conducted in Romania to address this issue in depth, especially at the preschool

level is limited. Some relevant initiatives exist, like the research conducted by Prelipcean and Bejinaru (2016), which focused on conceptualizing the learning organization and its associated competencies, while Paraschiva and Drăghici (2019) analyzed the influence of leadership and human resource management on organizational learning processes in the educational environment. Moraru (2019) emphasized the integration of organizational learning principles into school development strategies, and Popescu and Surcel (2016) investigated the role of technology and digital platforms in supporting this type of learning. In addition, more recent research by Dînșorean and Sava (2023) provided an empirical perspective on school employees' perceptions of the extent to which their units function as learning organizations, but existing studies do not specifically include the preschool level, leaving an important research gap.

This study investigates the concept of ELO through a comparative approach, analyzing the culture of organizational learning at all levels of pre-university education, attempting to highlight the specificity of kindergarten in relation to other cycles of schooling: primary, secondary and high school. At the same time, the paper extends the work carried out by Dînșorean (2022) by including kindergarten, an educational level that has not previously been explored in this direction in the Romanian context. The analysis of the differences in perception between directors, teachers, and support staff aims to provide a detailed diagnosis of how the characteristics of ELOs in the pre-university system in Romania manifest themselves.

2. Theoretical foundation

2.1. The learning organization: concepts and theoretical perspectives

The notion of the learning organization got increasing popularity especially following the publication of Peter Senge's influential book (1990), which provided a key conceptual model for this type of organization. Central to this model is the notion that organizations need to continuously develop their learning capacity to respond effectively to rapid contextual changes. This ability is considered an essential and sustainable competitive advantage for the future. However, the concept has been interpreted and applied in various ways over time. Örtenblad (2004) proposed a typology of the main interpretations of the learning organization, identifying four dominant perspectives: workplace learning, organizational learning, employee learning facilitation, and knowledge transfer. In turn, Pedler and Burgoyne (2017) developed a pragmatic and applied approach to learning organizations, focusing on concrete criteria and practices through which they can be recognized and supported in various institutional contexts. These contributions reflect the complexity and dynamism of the concept, highlighting both its transformative potential and the need for ongoing conceptual clarification (Örtenblad, 2004; Pedler & Burgoyne, 2017).

A learning organization is typically conceptualized across several levels, emphasizing the relationships among individual behaviors, team dynamics, and organizational culture and practices (Kools & Stolls, 2016).

A practical framework for analyzing and assessing learning organizations has been proposed in the literature (Watkins & Marsick, 1996; Yang et al., 2004), offering both conceptual guidance and measurement tools. According to their theory of organizational learning, a learning organization aligns its members with a shared vision, continuously analyzes the changing environment, develops new knowledge, and applies it to more effectively address the beneficiary needs. The model identifies seven analytical clusters to assess these processes.

Systemic thinking theory is grounding organizational learning. Learning organizations are described as open systems, capable of adapting and learning from changes in the environment (Senge, 1990), facilitating a whole-school organizational learning referring to the processes by which organizations acquire and adapt knowledge, changing their behaviors to acommodate new learnings (Garvin et al., 2008). It is important that these processes are supported by social interactions and a continuously developed learning culture and climate (Örtenblad, 2002).

Studies also emphasizes the importance of employees' beliefs, values, and norms for sustainable learning, influenced by a learning atmosphere (Sillins et al., 2002), a learning culture (Gephart et al., 1996), or a learning climate (Örtenblad, 2002). "Learning to learn" is a key prerequisite to become a learning organization (Kools & Stoll, 2016).

In conclusion, the learning organization is a complex concept at the intersection of several theories and practices. Defining characteristics include openness to change, active employee participation in learning processes, the existence of a common vision, and the ability to generate and leverage knowledge.

Although there are differences between theoretical perspectives, they all converge on the idea that organizational learning is a sustainable competitive advantage, applicable in any field of activity (Garvin et al., 2008; Örtenblad, 2004; Senge, 1990; Watkins & Marsick, 1996). These conceptual frameworks can be used to understand how educational institutions, including kindergartens, can become environments conducive to organizational learning.

2.2. Specificity of learning organizations in education

The ELO is a powerful concept that inspires practices aimed at improving efficiency and catalyzing coherent and collaborative efforts at all levels of the organization to become a sustainable reality that manages to constantly improve the organizational performance and that of its learners (Harris & Jones, 2018). Although borrowed from the business environment, this concept has been adapted to education, including in Romania, where E. Păun (1999) notes that a learning organization involves the entire institutional structure, not just the individuals learning within it. Furthermore, Sava (2022) argues that all educational institutions of the future should strive to become and act as learning organizations, open to community and societal challenges.

Silins et al. (2002) highlight the integrated nature of ELO, describing processes such as environmental scanning, knowledge development, distributed leadership, and systematic collaboration. The OECD report (2024) updates this vision, emphasizing that an ELO is an adaptable, future-oriented institution that develops a culture of continuous learning and expands its boundaries to include learning from external and interconnected environments. These analytical frameworks are somewhat complementary to Senge et al.'s (1990, 2016) model of the school as a learning organization.

Building on these theoretical and empirical contributions, the main characteristics of an ELO can be identified as follows: building and sharing an educational direction focused on the development of all students; partners who support school development; facilitating ongoing professional development opportunities for staff; encouraging collaboration and team learning; promoting research, innovation, and critical reflection; implementing systems for collecting and distributing data and know-how; openness to community and integration into a broader educational system, shaping a leadership that learns and supports learning (Kools et al., 2020; Sava, 2022). In this formulation, the educational institution is seen not only as a place of teaching but as a professional community that is transformed through continuous processes of collective learning.

Detailing all eight characteristics of ELO (Kools et al., 2020), we first highlight building and sharing an educational vision focused on the development of all children. Such vision requires that directors, teachers, and support staff must work together to create an environment where learning is not just a process of transmitting information, but also an active process of engaging and supporting students to reach their full potential (Kools & Stoll, 2016). Such vision must be shared by the entire educational community: directors, teachers, students, parents, and staff, in order to support innovative and inclusive practices adapted to each student.

A climate of trust and collaboration is important for sharing good practices and responding to student diversity (Kools & Stoll, 2016). At the same time, the concept must be adapted to the external context and the specificities of the local community (Hargreaves & Fullan, 2012). Schools and kindergartens can use different methods, such as continuing training sessions for staff members, the creation of working groups, and the involvement of parents and the community in educational activities. Developing partnerships that contribute to the school's vision and development, reflects its ability to act as an open system in which collaborative relationships with parents, the local community, public organizations, NGOs, and the business community are important for building and sustaining a shared vision of learning. An ELO establishes partnerships based on equality, mutual learning, and respect, using networks and inter-school collaborations to facilitate knowledge sharing and professional development. It also actively monitors external factors to respond effectively to changes and opportunities that arise and integrates external expertise and resources to improve the ELO's performance. This approach contributes to a coherent educational vision that is adapted to the needs of society, strengthening the role of the educational institution as a learning organization (OECD, 2024).

An important component of an ELO is the creation and support of continuous learning opportunities for staff members. This approach is based on the idea that continuous staff learning has a direct impact on improving educational practices and, implicitly, on student outcomes (Hargreaves & Fullan, 2012). According to Kools and Stoll (2016), pre-university

educational institutions that encourage continuous learning promote both formal professional development and informal learning based on collaboration and experience sharing and reflections. Reflections are bases for collective practice-based learning, mainly in kindergarten (Wadel & Knaben, 2022).

Creating these opportunities requires clear institutional commitment. It is important that the leadership of the learning educational institution supports a culture of learning by organizing continuous training and development sessions, staff participation in conferences and workshops, and by facilitating the time and space necessary for collaborative learning among staff members (OECD, 2016). For example, peer mentoring programs or learning groups are effective methods for promoting the exchange of good practices and joint reflection on the educational process (Sillins et al., 2002).

There are innovative and dynamic ELO that not only keep pace with change but even anticipate and implement it quickly, benefiting from receptivity, efficient structures, well-defined practices, and a determination to embrace new developments. On the other hand, there are educational organizations that lag behind, unaffected by curricular changes (Sava, 2022). An effective solution to this situation is the creation of inter-school networks, where high-performing educational organizations support and mentor the less dynamic ones with a reduced capacity to adopt change (Sinnema & Stoll, 2020). The transfer of valuable teachers to educational organizations with greater challenges is another viable strategy that has shown positive results (Schleicher, 2021).

Another important aspect is access to modern educational resources, both digital and traditional, that support continuous learning. In addition, regular assessment of staff professional development needs can help tailor these opportunities to meet the specific challenges of each school or kindergarten (Schleicher, 2021). By implementing well-planned programs, schools and kindergartens can transform continuous learning into a natural process that is integrated into the organizational culture.

Promoting team learning and collaboration is a central feature of ELO, as it facilitates continuous professional development and supports the improvement of educational practice. Collaborative activities, carried out both face-to-face and through digital technologies, are strategically aimed at improving students' learning experiences and the performance of the educational team. Educational staff members reflect together on their own learning processes, learn to work in teams, and develop professional relationships based on mutual trust and respect. In this context, peer reflection becomes a natural behavior, and education institutions support these practices by allocating time and resources for collaboration, thus strengthening an organizational culture orientated towards collective learning (OECD, 2024).

Creating a culture of research, exploration, and innovation requires the involvement of educational team in various forms of investigation to expand and improve their professional practice, as well as the active engagement of students in research and exploration processes. This culture supports a continuous pace of learning, change, and innovation, based on staff openness to new approaches and a willingness to experiment and innovate in teaching. ELO encourages and recognizes initiative and risk-taking by educational team, thus promoting an environment in which challenges and mistakes are seen as opportunities for learning and development (Kools & Stoll, 2016).

Another important feature in the development of an ELO is the integration of systems for collecting and sharing knowledge for learning purposes. This requires mechanisms for constantly reviewing progress and differences between actual and expected impact. Mechanisms for constant communication and knowledge transfer are created within the educational organization, and examples of practices—both successful and unsuccessful—are made available to all staff for analysis. Sources of research evidence are accessible and there is the habit of using them in a pertinent manner, as teachers have the necessary skills to analyze and use multiple data sources, to guide teaching. The decision making, both at organization and classroom levels is evidence-based on internal evaluation and is constantly reviewed. In addition, ELOs regularly review their plans of action, modifying and adjusting them as necessary (Kools & Stoll, 2016).

The connection of ELOs with external environment and the broader educational system is also an important feature which requires them to function as open systems, welcoming initiatives from potential external collaborators. The educational organization constantly monitors the external context to quickly respond to emerging challenges and opportunities. Members of the ELO cooperate, learn, and transfer

information with professionals from other educational institutions through professional networks and inter-school partnerships. The educational institution also cooperates with parents/guardians and community members, who are considered active partners in the educational process and in the school environment. Partnerships with all relevant stakeholders and experts are meant to deepen and broaden the learning process. These collaborations are built on equality and provide opportunities for mutual learning, supported by the extensive use of information technologies to facilitate communication, peer learning and knowledge sharing, and constant collaboration with the external environment (Kools & Stoll, 2016).

A key factor in organizational learning and system development is educational leadership, supported by numerous international studies based on empirical evidence (Harris & Jones, 2015). Under the right conditions, research suggests that leaders can transform organizational performance by creating strong professional learning communities (Harris & Jones, 2015).

Based on these studies, shaping and developing learning-oriented leadership requires leaders of learning organizations to ensure that the organization's actions are consistent with its vision, goals, and values. Educational leaders become models of learning leadership, act as agents of change, being proactive and creative, and maintain a steady "rhythm" of learning, improvement, and innovation within the institution. Leaders also create an organizational culture, structures, and conditions conducive to professional dialogue, collaboration, and knowledge sharing (Sava, 2022). They initiate and participate in collaborations with other schools, parents, the community, and other partners, ensuring necessary resources and proactively addressing the students' needs (Kools & Stoll, 2016).

Although the concept of ELO is generic, in the context of this study it applies to all pre-university educational institutions, including kindergartens. Even though these are less addressed in the literature, we consider that the dimensions presented are fully applicable in their case as well.

2.3. *Kindergartens and pre-university educational institutions as learning organizations in Romania*

In the context of recent educational reforms, the concept of kindergarten and pre-university educational institutions as learning organizations has become increasingly relevant in Romania. This strategic approach aims to improve the performance of the educational institutions by promoting a culture of continuous learning, collaboration, and critical reflection among the entire educational community (Stoll & Kools, 2017).

The curriculum for early childhood education (0-6 years), approved by Order of the Minister of Education No. 4694/2019, highlights essential principles such as individualized learning, learning through play, and partnership with families, which underpin a holistic and child-centered approach in kindergartens (MEN, 2019). The implementation of this curriculum requires adequately trained professionals, who collaborate within the organization to share and co-create know-how, but also with the outside world, thus supporting the formation of an open and inclusive educational culture.

With regard to pre-university education, the regulatory framework on professional standards for teachers, established by Order No. 7386/2024, promotes specific competences for all career levels, emphasizing the role of continuous learning and collaboration within educational institutions (MEN, 2024a).

The framework methodology for ensuring the quality of continuing professional development programs (Order No. 4224/2022) regulates the continuing training process, including quality criteria and methods for accumulating transferable professional credits, so that teaching staff can respond to the challenges of modern education through continuous improvement (MEN, 2022). In parallel, the PROF program, dedicated to the professionalization of the teaching career, introduces a coherent career path architecture with differentiated standards for stages and roles, thus supporting teachers in developing the skills necessary to become active agents of learning in their organizations (MEN, 2024b).

Integrating these principles into the Romanian reality requires the development of open educational communities that facilitate collaboration between educational team, parents, and other stakeholders. In this way, pre-university education institutions can build sustainable partnerships with local authorities, NGOs, and the private sector to set up tailored educational programs for students and local communities (Albu, 2020; David, 2025). For example, in rural areas, partnerships with NGOs such as World Vision (2023) or Salvati copiii (Save the children) (2023) have enabled the implementation of remedial and extracurricular programs that contribute to

reducing school dropout rates and supporting students from disadvantaged backgrounds.

In urban areas, collaborations with the private or associative sector, or with universities, support the development of students' key skills through internships, career guidance workshops, and innovative educational projects.

A characteristic of ELOs is the adoption of an inclusive vision that recognizes student diversity and supports the integration of those with special educational needs. Collaboration with local associations and NGOs, such as Save the Children (2023), contributes to reducing discrimination and promoting inclusion in mainstream education. The active involvement of parents, through parent councils or support groups, stimulates dialogue and cooperation, which are reflected positively in students' academic performance and social development (Kools et al., 2020).

However, a systemic analysis of pre-university education reveals some limitations. Teaching practice has often focused on content rather than active teaching methods, differentiation, and inclusion, and teaching careers suffer from a lack of a clear, motivating framework linked to actual performance (David, 2025; MEN, 2024c; OECD, 2024). Beyond the existing institutional and systemic framework, at the level of each educational organization, be it kindergarten, middle school, or high school, the steps that school employees take and implement to make their institution a learning one are important. Kindergartens, which are often smaller educational institutions (if they are independent and not part of middle schools or high schools), do not have the pressure of hierarchies and school performance to demonstrate, and on the other hand, they have limited resources, which sometimes makes it questionable or difficult to quantify the extent to which they can be evaluated as organizations that learn, produce learning, and perform. In contrast, middle schools and high schools are under pressure from multiple external evaluations to prove the effectiveness of their organizational processes and the quality of their results. We are therefore not just talking about opportunities for collective learning and professional development for teachers, but about many other dimensions of organizational management that converge towards the status of a learning organization.

In conclusion, transforming kindergartens and other pre-university educational institutions into learning organizations is not only possible but also necessary for the Romanian system to adapt to current challenges. The success of this endeavor depends on the coherence of public policies, support for professional training, and the active involvement of the educational community.

3. Research methodology

3.1. Research objective and question

This study falls within the category of quantitative research, based on a non-experimental, comparative, cross-sectional design. The investigation analyzed the concept of the kindergarten as a learning organization, operationalized through the eight variables defined in the model developed by Kools et al. (2020). It aims to highlight the specificity of the kindergarten as a learning organization compared to other pre-university educational institutions in Romania. In this regard, the study seeks to answer the following *research question*:

Are there significant differences between the internal evaluation of learning organizations at the kindergarten level compared to other cycles of pre-university education?

3.2. Sample

The total size of the sample is 726 participants from pre-university educational institutions in Romania. The group consists of directors, teachers, and teaching assistants. The distribution by educational level is as follows: kindergarten – 43 participants, primary school – 51 participants, secondary school – 317 participants, high school – 315 participants. Even though it seems like there's an uneven number of respondents per education level, there are situations where preschools are part of schools or high schools, as affiliated structures, or high schools include all education levels. Out of the 59 participants from early childhood education, 12 were excluded as they were working in children's clubs, which are not part of the formal pre-university education system targeted by the present study.

Table 1

Sample demographic data (N = 726)

Characteristic	N	%
Gender		
Female	589	81.1
Male	125	17.2
Not specified	12	1.7
Employee status		
Permanent (indefinite term)	465	64.0
Substitute (fixed-term employee)	261	34.0
Environment		
Rural	253	34.8

Urban	473	65.2
Cycle of education		
Kindergarten	43	5.9
Primary	51	7.0
Secondary School	317	43.7
High school	315	43.4
Position		
Directors	74	10.2
Teachers	606	83.5
Teaching assistants	46	6.3

The sample was a convenience sample, with respondents being asked through various channels (school inspectorates, teacher groups, professional networks, etc.) to complete it online. However, it is diverse in terms of relevant categories (gender, background, employment status, position, educational cycle). Table 1 provides details of the sample from demographic and professional points of view.

3.3. The instrument

The dimensions of the learning organization were measured using items items from the SLO questionnaire (Kools et al., 2020), translated and validated for the Romanian context by Dînșorean A. in his bachelor's thesis completed in 2022, under the coordination of Prof. Simona Sava. The instrument consists of 65 items, organized according to the following eight dimensions:

One of the first aspects examined was the existence of a *shared vision focused on the learning of all students*. This dimension was measured with eight items that assessed, among other things, the extent to which the school's vision emphasizes students' cognitive and socio-emotional development as well as their overall well-being. Another dimension referred to the *involvement of partners* in shaping the school's vision, captured through three items, including the degree to which students are invited to take part in defining this vision. Attention was also given to *creating and supporting opportunities for continuous learning among staff members*. This was measured with ten items that highlighted, for instance, the importance attributed to professional development. *Team learning and collaboration among staff* were assessed through another set of ten items, focusing on the extent to which teachers work together to improve their practice. A further dimension addressed the *culture of research, innovation, and exploration*, with nine items evaluating whether staff are encouraged to experiment and innovate in their work. Similarly, *adopting systems for collecting and sharing knowledge* was assessed with eight items that considered how evidence is gathered and used to monitor progress and identify weaknesses. The school's *openness to the external environment* and engagement with the wider learning system was also evaluated, using five items that reflected the involvement in networks and collaborations with other schools. Finally, *modeling and developing leadership of learning* was measured with twelve items, focusing on the degree to which school leaders emphasize the improvement of teaching and learning processes. Answers were captured on a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

According to Kools et al. (2020), the instrument used in their study demonstrated strong psychometric properties, indicating a high degree of reliability. For each of the eight dimensions, the Cronbach's Alpha coefficient was above 0.80. The Romanian adaptation of the instrument also revealed excellent reliability, with Cronbach's Alpha coefficients consistently above 0.90 across all dimensions, thus supporting its validity and consistency in assessing schools as learning organizations (Dînșorean, 2022; Dînșorean & Sava, 2023).

3.4. Data collection procedure

For data collection, an online questionnaire was distributed to the official email addresses of pre-university educational institutions and county school inspectorates in Romania. To strengthen both the response rate and the representativeness of the sample, we worked in close partnership with directors across different regions, receiving further assistance from inspectors in charge of educational management. The data was collected in 2022 as part of the bachelor's thesis of Adela Dînșorean (2022), coordinated by Simona Sava, and we have the authors' consent to use it, as the database has been made available to us. In her bachelor's thesis, A. Dînșorean focused on successfully validating the data collection tool for the Romanian context.

The data obtained in this process was collected through the QuestionPro platform, which provided both the distribution link and secure storage of the information. The database used in this research is an extension and update of the initial data set collected in the bachelor's thesis by Dînșorean (2022).

3.5. Data analysis procedure

SPSS software (Statistical Package for the Social Sciences) was employed for data processing. Descriptive statistical procedures, such as the calculation of mean, standard deviation, minimum,

and maximum values, were applied in line with the methodological guidelines of Sava (2004).

To analyze the differences between educational cycles (kindergarten, primary school, secondary school, high school) in terms of internal evaluation of educational organizations, we used analysis of variance (ANOVA), and when assumptions were violated, we resorted to the nonparametric alternative— the Kruskal-Wallis test. Following Cohen's (1988) guidelines, the magnitude of the effect was computed to examine how meaningful the differences were in practice. The partial eta squared index (η_p^2) was also calculated to identify the effect size. According to Cohen's (1988) interpretations, the values of this index are classified as follows: $\eta_p^2 \approx 0.01$ (low intensity), $\eta_p^2 \approx 0.06$ (medium intensity), and $\eta_p^2 \approx 0.14$ (high intensity).

4. Results

4.1. Presentation of descriptive data

The means, standard deviations, minimum and maximum scores, as well as the reliability indices (Cronbach's alpha) for each SLO dimension, are reunited in Table 2.

Table 2

Descriptive data, minimum and maximum values, and internal consistency for SLO variables (N = 726).

Variables	M	AS	Min	Max	α
1	4.24	.70	1	5	.94
2	4.13	.80	1	5	.94
3	4.05	.69	1	5	.94
4	4.07	.73	1	5	.94
5	4.01	.71	1	5	.94
6	4.05	.74	1	5	.94
7	4.10	.69	1	5	.94
8	4.30	.70	1	5	.94

Note: M = mean; SD = standard deviation; Min. = minimum score; Max. = maximum score; α = Cronbach's alpha; 1 = a shared vision focused on the learning of all students; 2 = promoting team learning and collaboration among all staff members; 3 = creating and supporting opportunities for continuous learning for all staff members; 4 = establishing a culture of research, innovation, and exploration ; 5 = promoting team learning and collaboration among all staff members; 6 = adopting systems for collecting and sharing knowledge and learning; 7 = learning with and from the external environment and the wider learning system; 8 = modeling and growing learning leadership.

In conclusion, all eight dimensions of the SLO tool scored Cronbach's alpha coefficients above .94, indicating exceptional internal consistency. The high scores also reflect a favourable perception of ELOs. These results support the validity and reliability of the Romanian version of the tool in the national educational context.

4.2. Presentation of results

For analysis of the differences between the internal evaluation of learning organizations at the kindergarten level compared to other levels of pre-university education, one-way analysis of variance (ANOVA) was applied for two of the dimensions investigated.

Regarding the dimension of establishing a culture of research, innovation, and exploration, ANOVA *indicated a statistically significant difference* between the four groups analyzed ($F(3, 722) = 3.783$, $p = 0.010$; $p < 0.05$; $\eta^2 = 0.016$). The Tukey HSD post-hoc test showed that high school *achieved significantly* higher *scores* compared to primary school, with the difference being statistically significant (MD = 0.284, p = .040). No other statistically significant differences were found between the other group combinations.

ANOVA showed that there were no significant differences between kindergarten and other levels of pre-university education in terms of creating and supporting opportunities for continuing education for staff. The complete data can be found in Table 3.

To examine the existence of differences in the internal evaluation of the learning organization kindergarten compared to pre-university education levels, the non-parametric Kruskal–Wallis test was applied.

For the variable representing the promotion of team learning and collaboration among staff, the Kruskal–Wallis analysis *revealed a statistically significant difference between the levels of schooling* ($\chi^2(3) = 9.945$, $p = 0.019$, $\eta^2 = 0.014$). Bonferroni post-hoc tests revealed a statistically significant difference between primary school and kindergarten, with primary school showing higher scores ($p < 0.05$). No statistically significant differences were found between the other groups. The significant difference suggests that there is a more developed culture of collaboration and teamwork in primary schools compared to kindergartens, possibly due to the organization of the groups or the structure of the teaching activities.

The Kruskal–Wallis test results *indicated a statistically significant difference between the levels of*

education analyzed for the variable adoption of knowledge collection and exchange systems and learning ($\chi^2(3) = 9.087$, $p = 0.028$, $\eta^2 = 0.013$). According to Bonferroni post-hoc tests, primary schools obtained statistically significantly higher scores than kindergartens ($p < 0.05$). No statistically significant differences were found between the other groups. The results indicate that primary schools use organized mechanisms for information exchange and learning among staff members more frequently than kindergartens, which may reflect a greater formalization of educational processes.

Regarding the other variables, the Kruskal–Wallis analysis showed that there were no significant differences between respondents' perceptions in relation to their level of education. The complete data can be found in Table 4.

Table 3

Analysis of variance of SLO scores by cycle of education where respondents work (N = 726).

Variables	Cycle of education: Kindergarten (N = 43)		Primary (N = 51)		Secondary school (N = 317)		High school (N=315)		F	p	η_p^2
	M	AS	M	AS	M	AS	M	AS			
Creating and supporting learning opportunities	3.99	.571	4.25	.639	4.08	.697	4.00	.718	2,254	.081	.009
Establishing a culture of research…	3.89	.709	4.06	.808	4.08	.695	3.95	.739	3,783	.010	.016

Note: N = number of participants; M = mean; SD = standard deviation; F = F-statistic; η_p^2 = partial eta squared

Table 4

Kruskal-Wallis test on SLO dimensions in relation to the cycle of education of the respondents (N = 726)

Variables	Cycle of education: Kindergarten (N = 43)		Primary (N = 51)		Secondary school (N = 317)		High school (N=315)		χ^2	p	η^2
	M	AS	M	AS	M	AS	M	AS			
1	4.11	.728	4.38	.602	4.28	.703	4.19	.715	6.857	.077	.009
2	4.01	.851	4.27	.707	4.13	.815	4.12	.796	1.994	.577	.013
5	3.92	.775	4.27	.745	4.12	.735	4.02	.725	9.945	.019	.014
6	3.97	.663	4.38	.602	4.28	.703	4.19	.715	9.087	.028	.013
7	4.05	.655	4.20	.660	4.10	.680	4.11	.723	2.172	.538	.003
8	4.16	.859	4.43	.615	4.34	.694	4.26	.712	5.127	.163	.007

Note: N = number of participants; M = mean; SD = standard deviation; χ^2 = chi-square; η^2 = eta squared; 1 = a shared vision focused on the learning of all students; 2 = promoting team learning and collaboration among all staff members; 5 = promoting team learning and collaboration among all staff members; 6 = adopting systems for collecting and sharing knowledge and learning; 7 = learning with and from the external environment and the wider learning system; 8 = modeling and increasing learning leadership

Therefore, participants, depending on their level of education, generally agreed that their institution has the characteristics of a educational learning organization. The data show significant differences for several dimensions: high school scored higher on research and innovation culture than primary school, and primary school scored higher than kindergarten on the dimensions of promoting team learning and staff collaboration; adopting systems for collecting and sharing knowledge and learning. For the other dimensions, perceptions were similar across schooling levels.

5. Discussions

The purpose of this research was to conduct a comparative analysis of how educational institutions in Romania behave as learning organizations, with a particular focus on the differences between the kindergarten and further pre-university educational cycles. The investigation examined how staff in pre-university education perceive the functioning of their institutions as learning-oriented organizations.

The homogeneous perception of the *creation and support of continuing learning opportunities* for educational team indicates a fair application of professional development policies in the Romanian education system, without necessarily reflecting their quality. The OECD (2025) emphasizes the need for real and ongoing professional learning opportunities integrated into culture of educational institutions through communities of practice and mentoring, while Giles and Hargreaves (2006) highlight the importance of balancing individual skills, collaboration, and autonomy for staff professionalization. Thus, uniformity of perceptions may reflect systemic efforts

to ensure equitable access to professional development, in line with the principles of a modern and institutionally supported career. Particularly in kindergarten the reflection of daily embedded practice is considered a needed prerequisite to act as a learning organization (Wadel & Knaben, 2022).

The dimension of *promoting team learning and collaboration among staff* showed significant differences between kindergartens and primary schools, where a more consolidated curriculum structure favors a collaborative professional culture, according to the OECD report (2024). It is of concern that the kindergarten teachers signal with less extent this fundamental factor of acting as a learning organization, with constant concern for collective learning, reflection and exchange (Wadel & Knaben, 2022). Differences in the adoption of knowledge collection and exchange systems between primary schools and kindergartens reflect a lower degree of formalization of these processes in preschool institutions, as highlighted in the OECD report (2025).

For the dimension of *learning with and from the external environment* and the wider learning system, no significant differences were identified in the perceptions of educational team between school levels. This homogeneity indicates a common perception of the value of external learning and trans-institutional collaborations. According to Senge et al. (2016), openness to external environments and the integration of systemic feedback are essential components of an organization capable of adaptive and strategic learning.

Similar perceptions regarding the variable *student-centered vision* and *involvement of educational partners* show a convergence on the importance of these aspects in transforming educational institutions into learning organizations. However, the OECD (2025) warns that declarative visions may not always be reflected in coherent practices, especially in disadvantaged contexts or small units.

Similarly, the shaping and *growth of leadership for learning* did not show significant differences, although primary schools scored slightly higher. This may reflect limitations in the development of authentic leadership oriented towards cultural transformation of the institution, as recommended by the OECD (2024). Kindergarten (and school) principals should have explicit conceptualization, focus and systematic concern of developing their institution as a learning organization (Wadel & Knaben, 2022).

In summary, kindergartens as learning organizations stood out with lower scores in the dimensions of collaboration and knowledge sharing, which can be explained by the lower level of institutional formalization, the absence of a consolidated organizational culture, to the detriment of collaborative professional development of staff. This finding signals an urgent need for policies and practices to ameliorate such situations, to ensure that kindergarten offers high-quality services, keeping the pace with the changes, innovations, applying new knowledge, with a dedicated concern for reflection and on-the-job learning, practice-oriented competence development among the teachers (Wadel & Knaben, 2022).

5.1. Theoretical contributions and practical implications

The research contributes to advancing the debate on educational learning organization through a differentiated analysis of the perceptions of kindergarten staff compared to other levels of pre-university education. The study highlights that the manifestation of the specific dimensions of a learning organization is influenced by the organizational context of each educational level. Thus, despite some trends towards the standardization of institutional practices, the particularities of kindergartens, schools, and high schools determine variations in how these dimensions are perceived and applied. This finding aligns with the OECD model conceptualized by Kools and Stoll (2016), which requires specific adaptations according to the level of schooling, providing a more flexible and contextualized framework for the analysis of ELOs.

Second, by including kindergartens and primary schools in the analysis, the research provides a broader and more balanced picture of how the dimensions of an ELO manifest themselves throughout the entire pre-university education. Although the literature often focuses on secondary and high schools, the results of this study indicate that organizational learning processes are also relevant for lower levels of education.

Thirdly, this research brings an important theoretical contribution being among the few studies investigating differences between cycles of schooling in terms of the internal evaluation of ELOs (Scheleicher, 2018; Silins et al., 2002). This approach responds to the call of Kools et al. (2020) to explore the applicability of the model in diverse cultural and institutional contexts. The results obtained in Romania

provide a valuable empirical benchmark that supports the universality of some dimensions of the model but also the need to adjust others according to the cycle of schooling. In this sense, the research not only validates part of the existing theoretical construct but also actively contributes to its expansion and refinement.

In practical terms, the organizational specificities highlighted can be exploited by decision-makers, school management, and teachers, supporting professional development, optimizing organizational processes, and cultivating a climate based on collaboration and continuous learning.

The practical implications also extend to members of the educational team, who can use the results of the study as a benchmark for self-reflection and professional development. In particular, teams in kindergartens can benefit from the application of concrete tools that support collaborative practices, such as professional learning communities or exchanges of good practices between colleagues. Encouraging inter-institutional and interdisciplinary collaboration can help reduce fragmentation in the education system and foster a common culture of continuous learning, in which every educational actor actively participates in the organizational development process (Stoll & Kools, 2017). This lays the foundations for a sustainable transformation of educational institutions in a spirit of innovation and continuous reflection (Wadel & Knaben, 2022).

At the same time, interpreting the data from the perspective of the theoretical model "Schools as Learning Organizations" (Kools et al., 2020) highlights the need to strengthen key dimensions in kindergartens, such as providing opportunities for continuous learning and developing a culture of research and innovation. These dimensions, which are less developed in some kindergartens compared to primary schools, are important pillars of the learning organization. In this sense, capitalizing on knowledge sharing, encouraging collective reflection, and leadership can support the transformation of kindergartens into adaptive and innovative organizations (Wadel & Knaben, 2022).

5.2. Limitations

The results should be interpreted with due consideration of the study's limitations. First, the research was based on quantitative methodology and internal evaluation, which may introduce a certain degree of subjectivity in the responses (Podsakoff et al., 2003). Furthermore, the sample was selected based on the availability of participants, which limits its national representativeness and reduces the possibility of generalizing the conclusions to the entire Romanian pre-university education system.

The sample sizes for the groups of respondents in kindergartens and primary schools are relatively small compared to the other groups, which may affect the statistical power of the tests applied and increase the risk of type II errors. Differences in size between groups can lead to difficulties in identifying significant differences or to overestimating the effect in comparisons (Field, 2024). Furthermore, the use of parametric statistical tests, such as ANOVA, requires strict conditions to be met. For some dimensions, these conditions were not met, which is why non-parametric tests were applied, which have lower statistical power and are more conservative, which may increase the risk of type II error (Field, 2024).

A major limitation in interpreting progress on the dimensions of learning organizations (SLOs) is the frequent tendency to give high scores in self-assessments, not because of genuine critical reflection, but to avoid possible administrative repercussions. The OECD (2025) highlights this phenomenon, referring to a "culture of surface compliance," in which innovative practices are reported but not internalized.

An important aspect is that the analysis focused on the cycle of education, without considering the level of employment institution, which can influence perceptions of organizational culture and learning processes. This distinction is relevant because staff may work in different institutional contexts with varying administrative and cultural characteristics. As already mentioned, even if respondents worked in kindergartens, they may have reported the school to which the kindergarten is attached as their place of work, and it is difficult therefore to accurately determine the level of education. In addition, the data comes from a larger study (Dînșorean, 2022), and the first author of this paper did not participate in data collection, which may limit control over the data focus.

Based on these limitations, several directions for future research emerge. First, it would be useful to extend the research to the international level to compare the perceptions of educational staff and students in different educational systems and to highlight possible cultural influences on organizational dynamics (Kools et al., 2020), differentiated by schooling cycles. Second, integrating perspectives of other educational actors, such as

students, parents, or local authorities, both with in-depth qualitative studies, or in a quantitative manner, would allow a more comprehensive and balanced analysis of how educational institutions function as learning organizations. In addition, combining quantitative methods with qualitative research, such as case studies or in-depth interviews, could contribute to a more nuanced understanding of the organizational processes involved and the real barriers encountered in the development of a learning culture. Third, using the level of the employing unit as the main criterion for analysis to better capture the influence of institutional and administrative context on perceptions of organizational culture and the learning process, highlighting possible differences in practices, resources, and priorities between kindergartens, primary schools, and other levels of schooling. Fourthly, to strengthen statistical analysis, future research should include a more balanced sample across school cycles, especially for under-represented levels.

6. Conclusions

This paper aimed to identify the specificities of kindergartens as learning organizations in relation to other levels of pre-university education in Romania. The results highlight that, although there is a common perception of the importance of dimensions such as student-centered vision, external partnerships, and learning leadership, kindergartens score significantly lower than primary and secondary schools in terms of research and innovation culture, teamwork, and knowledge exchange systems.

These differences can be mainly attributed to the organizational structure and limited resources available in kindergartens, which indicates the need for differentiated educational policies to support the development of these dimensions in preschool education. At the same time, similarities in terms of shared vision, leadership, and openness to the community suggest that there are elements of coherence between educational levels, probably influenced by the unified regulatory framework.

The results highlight that kindergartens, although part of the education system, are at a different stage of development in terms of the characteristics of ELO. This calls for specific strategic interventions to support kindergartens in the process of institutional consolidation, in line with international directions on organizational development in education promoted by the OECD and other relevant actors.

Acknowledgments

We extend our gratitude to A. Dinsorean for involvement in data collection and data availability, as well as to M. Kools for allowing us to use the instrument.

Authors note:

Mihaela Rădulicea, early childhood education teacher, Iecea Mare Secondary School, Timiș County. M.A. in "Educational Management and Curriculum Development," Department of Education Sciences, West University of Timișoara.

Simona Sava, Professor, PhD, Department of Education Sciences, West University of Timișoara, 4 Bvd. V. Parvan, Timișoara, Romania.

References

Albu, G. (2020). *Școala ca organizație care învață [The school as a learning organization]*. București: Editura Didactică

Cohen, J. (1988). The analysis of variance and covariance. *Statistical power analysis for the behavioural sciences*.

David D. (2025). *Raportul de diagnostic al educației și cercetării din România. Realizările prezente și implicații pentru noi reforme în domeniu (Raportul QX).* [*Diagnostic report on education and research in Romania. Current achievements and implications for future reforms*]. MEN Publishing. https://www.edu.ro/sites/default/files/Daniel_David_Raport_QX.pdf

Dînșorean, A. D. (2022). Școala ca organizație care învață [The school as a learning organization] (Lucrare de licență/ BA Paper). Universitatea de Vest din Timișoara, coordonator Simona Sava.

Dînșorean, A. D., & Sava, S. (2023). Are schools in Romania learning organizations? Perceptions of school employees. *Journal of Pedagogy*, *1*, 81-104. https://doi.org/10.26755/RevPed/2023.1/81

Field, A. (2024). *Discovering statistics using IBM SPSS statistics*. Sage publications limited.

Garvin, D. A., Edmondson, A. C., & Gino, F. (2008). Is yours a learning organization?. *Harvard business review*, *86*(3), 109.

Gephart, M. A., Marsick, V. J., Van Buren, M. E., Spiro, M. S., & Senge, P. (1996). Learning organization. *Educational Research and Perspectives*, 38(1), 105-123.

Giles, C., & Hargreaves, A. (2006). The sustainability of innovative schools as learning organizations and professional learning communities during standardized reform. *Educational Administration Quarterly, 42*(1), 124–156. https://doi.org/10.1177/0013161X05278189

Harris, A., & Jones, M. (2015). Transforming education systems: Comparative and critical perspectives on school leadership. *Asia Pacific Journal of Education, 35*(3), 311–318, https://doi.org/10.1080/02188791.2015.1056590

Harris, A., & Jones, M. (2018). The dark side of system improvement: The tyranny of top-down change. *Journal of Educational Administration, 56*(5), 527–536. https://doi.org/10.1108/JEA-01-2018-0011

Hargreaves, A., & Fullan, M. (2012). *Professional capital: Transforming teaching in every school*. Teachers College Press.

Kools, M., & Stoll, L. (2016). What makes a school a learning organisation? A guide for policy makers, school leaders and teachers. OECD Education Working Papers, No. 137. *OECD Publishing*. https://doi.org/10.1787/5jlwm62b3bvh-en.

Kools, M., Stoll, L., George, B., & Fraillon, J. (2020). *Schooling redesigned: Towards innovative learning systems*. OECD *Publishing*. https://www.oecd.org/content/dam/oecd/en/publications/reports/2015/10/schooling-redesigned_g1g5c5fb/9789264245914-en.pdf

MEN (2019). *Curriculum pentru educația timpurie (0–6 ani) [Curriculum for early childhood education (0–6 years)]* (Ordinul nr. 4694/2019). https://www.edu.ro.

MEN (2022). *Metodologia-cadru pentru asigurarea calității programelor de dezvoltare profesională continuă [Framework methodology for ensuring the quality of continuous professional development programs]* (Ordinul nr. 4224/2022). https://www.edu.ro.

MEN (2024a). *Standardele profesionale pentru cariera didactică [Professional standards for the teaching career]* (Ordinul nr. 7386/2024). https://www.edu.ro.

MEN (2024b). *Programul național de profesionalizare a carierei didactice* – PROF [National program for the professionalization of the teaching career – PROF]. https://www.edu.ro

MEN (2024c). *Raport privind starea învățământului preuniversitar din România 2023 - 2024. [Report on the state of pre-university education in Romania 2023–2024]*.https://www.u.ro/sites/default/files/_fi%C8%99iere/Minister/2024/div/Rapoarte_sistem/Raport_Stare_invatamant_preuniv-2023-2024.pdf

Moraru, A. (2019). Învățarea organizațională și dezvoltarea școlii [Organizational learning and school development]. *Revista de Pedagogie, 67*(2), 53–69.

OECD (2016). What makes a school a learning organisation? A guide for policy makers, school leaders and teachers. OECD Publishing. https://www.oecd.org/education/school/school-learning-organisation.pdf

OECD (2019). *Helping our youngest to learn and grow: Policies for early learning*. OECD Publishing. https://doi.org/10.1787/9789264313873-en

OECD (2024). *Education and skills in Romania: Review of education policy*. OECD Publishing. https://www.oecd.org/en/publications/education-and-skills-in-romania_594cbb5d-en.html

OECD (2025). *Review of education policy in Romania*. OECD Publishing. https://www.oecd.org/ro/publications/2024/03/reforming-school-education-in-romania_82abd45a.html.

Örtenblad, A. (2002). A typology of the idea of learning organization. *Management Learning, 33*(2), 213–230. https://doi.org/10.1177/1350507602332004

Örtenblad, A. (2004). The learning organization: Towards an integrated model. *The Learning Organization, 11*(2), 129–144. https://doi.org/10.1108/09696470410521592.

Păun, E. (1999). Școala, abordare sociopedagogica [The school socio-pedagogic approach]. Polirom.

Paraschiva, G., & Drăghici, A. (2019). Leadership și învățare organizațională în instituțiile de învățământ [Leadership and organizational learning in educational institutions]. *Revista de Management și Inginerie Economică, 18*(2), 413–422.

Pedler, M., & Burgoyne, J. G. (2017). Is the learning organisation still alive?. *The learning organization*, 24(2), 119-126.

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of applied psychology*, *88*(5), 879.

Popescu, C., & Surcel, R. (2016). Professionalization of the Teaching Career in Pre-University Education. *Business Excellence and Management*, *6*(4), 12-20.

Prelipcean, G., & Bejinaru, R. (2016). Universities as learning organizations in the knowledge economy. *Management Dynamics in the Knowledge Economy*, *4*(4), 469-492.

Retna, K. S., & Ng Tee, H. (2016). Schools as learning organizations: The case of a Singapore school. *International Review of Education, 62*, 51–68. https://doi.org/10.1007/s11159-016-9542-3

Salvați Copiii România. (2023). *Proiecte de incluziune și sprijin pentru copiii cu cerințe educaționale speciale*. [Inclusion and Support Projects for Children with Special Educational Needs]. https://www.salvaticopiii.ro/afla-mai-multe/comunicate-de-presa/2023, accessed on 01.06.2025.

Sava, F. A. (2004). *Analiza datelor în cercetarea psihologică. Metode statistice complementare [Data Analysis in Psychological Research: Complementary Statistical Methods]*. ASCR.

Sava, S. (2022). Școala deschisă față de comunitate: învățare și dezvoltare organizațională [The School Open to the Community: Learning and Organizational Development]. In E. Păun (coord.). *Școala viitorului sau viitorul școlii? Perspective asupra educației postpandemice [The School of the Future or the Future of School? Perspectives on Post-Pandemic Education]* (p.67-101). Polirom

Schleicher, A. (2018). World class: How to build a 21st-century school system. *OECD Publishing.* https://doi.org/10.1787/9789264300002-en

Schleicher, A. (2021). Teachers and leaders in schools as learning organisations. *OECD Publishing*. https://doi.org/10.1787/71b7f0ee-en

Silins, H. C., Mulford, W. R., & Zarins, S. (2002). Organizational learning and school change. *Educational Administration Quarterly*, *38*(5), 613-642. https://doi.org/10.1177/0013161X02239641.

Sinnema, C., & Stoll, L. (2020). Professional learning communities: A snapshot of the evidence. *School Leadership & Management, 40*(1), 5–24. https://doi.org/10.1080/13632434.2019.1614193

Senge, P. M. (1990). *The fifth discipline: The art and practice of the learning organization*. Doubleday, Currency.

Senge, P., Cambron McCabe, N., Lucas, T., Smith, B., Dutton, J., Kleiner, A. (2016). *Şcoli care învaţă. A cincea disciplină aplicată în educaţie [Schools That Learn: The Fifth Discipline Applied to Education]*. Editura Trei.

Stoll, L., & Kools, M. (2017). The school as a learning organisation: a review revisiting and extending a timely concept. *Journal of professional capital and community*, 2(1), 2-17. https://doi.org/10.1108/JPCC-09-2016-0022

Wadel, C. C., & Knaben, Å. D. (2022). Untapped Potential for Professional Learning and Development: Kindergarten as a Learning Organization. *International Journal of Early Childhood*, *54*(2), 261-276.

Watkins, K. E., & Marsick, V. J. (1996). *Creating the learning organization: A systems approach to quantum improvement and global success*. American Society for Training & Development.

World Vision România. (2023). *Educație și sprijin pentru copiii din medii defavorizate [Education and support for children from disadvantaged backgrounds]*. https://worldvision.ro/wp-content/uploads/2024/07/Raport-anual-WorldVision2023.pdf, accessed on 01.06.2025.

Yang, B., Watkins, K. E., & Marsick, V. J. (2004). The construct of the learning organization: Dimensions, measurement, and validation. *Human Resource Development Quarterly, 15*(1), 31–55. https://doi.org/10.1002/hrdq.1086