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A Research on Schools as Learning Organizations: A Theoretical Approach

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Due to the growing pressures on the educational area to provide young people with the knowledge and skills needed to live and work in a constantly changing society and the technologies and trades that today do not exist, the model of learning organization has been extended to schools, as an attempt to re-conceptualize them from organizations that are traditionally linked to the learning and knowledge process to organizations that are capable of responding with efficiency to uncertain and dynamic environments. The purpose of this paper is to identify the state of affairs in the Romanian educational system (pre-university level) in order to provide a starting point for the implementation of the 'school as a learning organization' concept and model. The approach is theoretical, using desk research of regulations and data regarding the public expenditure in education, per capita funding, number of pupils enrolled, PISA results and correlations between the action-oriented dimensions (including their key characteristics/elements) of the model proposed by Kools & Stoll (2017) and the performance indicators (including descriptors) that are used at the Romanian national level. Results show that, between 2009 and 2018, school organizations were under increasing pressure and the implementation of this concept and model at system level could be an opportunity to focus on students from the organizational side, having the determined correlations as a foundation.

Keywords: learning organizations, schools, educational system, performance, indicators

Introduction

The challenges of the postmodern society (the emergence and development of new information technologies, the growth of inter-relational processes, the free movement of capital and the domination of multinational corporations) have led to new organizational models, as theoretical attempts of the academic and business environment, to provide solutions to the need for companies to adapt and survive: (1) the 'learning organization' – where

learning (both individual and collective) and good harmonization between the individual and the organization produce benefits to both parties and underpins the achievement of performances and competitive advantage; (2) the 'network organization' – where vertical control and communication relationships are replaced by lateral collaboration and consultation relationships, which leads to greater flexibility and adaptability when issues and action requirements that cannot be broken down and distributed among specialists within a hierarchy arise; (3) the 'intelligent organization' – where competitive advantage is not obtained from high-quality, ephemeral products, but through a needs analysis and the implementation of strategies around core elements – knowledge and service-based activities.

Among these models, the 'learning organization' is the one that gets to be the most challenging due to the fact that the results of its implementation can only be identified in the long run and it is essential to encourage permanent development (continuous learning at all levels – individual, group, organizational).

Due to the growing pressures on the educational area (to provide young people with the knowledge and skills needed to live and work in a constantly changing society and the technologies and trades that today do not exist), the model of learning organization has been extended to schools (SLO – School as Learning Organization), attempting to re-conceptualize them from organizations that are traditionally linked to the learning and knowledge processes to organizations that are capable of responding with efficiency to uncertain and dynamic environments, adapting to the socio-economic and cultural conditions of the community they belong to (including student learning outcomes, both academically and ethically, self-esteem and self-directed learning abilities).

The first approach in this direction could be identified in the late 90s, when the 'Thinking Schools, Learning Nation' agenda was launched by the Singaporean Prime Minister Goh Chok Tong at the opening of the 7th International Conference on Thinking. This agenda restructured the relationship between schools and the Ministry of Education, redefined both teaching (as a learning profession) and schools (as model learning organizations) and was the cornerstone for a school improvement process at national level, in order to help schools operate as self-improving professional learning organizations. Later on, having as background five core 'learning disciplines' (personal mastery, mental models, creation of a common vision, team learning and systemic thinking), Senge, Cambron-McCabe, Lucas, Smith, Dutton, and Kleiner proposed (first in 2000, and then updated and revised in 2012) a series of landmarks on individualized teaching, curriculum adaptations to the local context and waiver learning by memorization, stressing that schools should be seen as living systems whose survival is crucially depen-

dent on how teachers, students, parents and local governments will manage to adapt to the socio-economic transformation. The most recent international approach in this direction was made in 2017 by Kools & Stoll (2017), proposing to re-conceptualize schools based on the model promoted by Watkins and Marsick (1996), having as background seven 'specific dimensions' (continuous learning, inquiry and dialogue, team learning, embedded system, empowerment, system connection and strategic leadership); the schools are seen operating at numerous levels (individual, teams, wide communities of practices), embedded in supportive communities (Ministry of Education, Local Government, local community, parents, NGOs, higher education institutions, companies, networks of schools), with its essentials being time (for inquiry, innovation and exploration) and mutual trust. Between 2009 and 2018, the following phenomena occurred at the national educational level: (1) a general decrease in the school population (by 17% till 2016, compared to 2006), (2) the transfer of the last year's kindergarten to primary education (along with reshaping both their curriculum), (3) the gradual transformation of arts and crafts schools into technological high schools, followed, from 2014, by a strong return to professional schools, (4) a massive reorganization of the school network (many public schools lost their decision-making and administrative independence, being transformed into structures of other schools and destroying the organizational culture of both the receiving and the received school), and (5) a constant decrease of public expenditure in education (from 5.76% of total expenditures in 2009 to 3,76% of total expenditures in 2017). As a result, great pressure was felt at the Romanian educational system, with considerable repercussions on the efficiency of the school organizations.

In this respect, a research entitled 'A Study of the Evolution of Educational Efficiency: Romanian case' carried out in 2017 on a representative sample of 2,956 schools (out of a total of 6,413 schools with legal personality forming the national school network of 2017–2018) highlighted, among other things, that for the 2014–2017 period, 64.7% of schools registered a negative evolution of the efficiency index, 15.6% had a steady evolution and only 19.7% had a positive evolution (Paraschiva, Farkas, Jitarel & Draghici, 2017, pp. 6–7).

Therefore, finding solutions to help increase the efficiency of school organizations is more than needed at the national level and thus the opportunity given by the model and the concept of learning organization should be taken into account. In this context, in order to provide a starting point for the implementation of the SLO concept and model at the Romanian educational system level, two research questions are set:

1. What is the state of affairs at the Romanian educational system (the

pre-university level) during and after the international economic crisis of 2008–2015?

2. Are the elements/key characteristics of the SLO model proposed by Kools & Stoll (2017) already pursued in the Romanian educational system?

This paper provides a desk research analysis in two steps:

- on regulations and data regarding the public expenditure in education and per capita funding for the 2009–2018 period, the enrollment evolution from 2006 to 2016 and a perspective till 2030 (pre-university level) and the results on PISA evaluations – step 1;
- on correlations that could be established between the action-oriented dimensions (including their key characteristics/elements) of the SLO model proposed by Kools & Stoll (2017) and the performance indicators (including descriptors) that are used at the Romanian national level in order to establish the quality of the educational services provided by pre-university school organizations (along with other legal regulations in force at the national level) – step 2.

After regulations and data analysis and correlations are identified, conclusions and further developments are made.

Literature Review

The learning organization, as a concept and model, gained wide recognition when Peter M. Senge published in 1990 the work *The Fifth Discipline: The Art and Practice of the Learning Organization,* with five core 'learning disciplines' – personal mastery, mental models, creation of a common vision, team learning and systemic thinking. He proposes that people leave aside their old ways of thinking (mental models), to learn to be open to others (personal mastery), to really understand how their company/organization is working (not in terms of cause and effect, but in terms of connections between the various component parts – systemic thinking), to develop a plan with which everyone agrees (common vision) and then acts together to achieve this vision (team learning).

The concept has had numerous descriptions and extensions (from being defined in relation to business organizations, to be linked to non-profit organizations – hospitals, public administration, schools/universities), a learning organization (1) 'facilitates learning of all its members and continuously transforms itself' (Pedler, Boydell, & Burgoyne, 1989); (2) is 'continually expanding its capacity to create its future' (Senge, 1990, p. 14); and 'where people continually expand their capacity to create results they truly desire,

where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together' (Senge, 1990, p. 2); (3) people are 'skilled at creating, acquiring, and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights' (Garvin, 1993); (4) and 'are aligned around a common vision. They sense and interpret their changing environment. They generate new knowledge which they use, in turn, to create innovative products and services to meet customer needs' (Yang, Watkins, & Marsick, 2004); (5) and, finally, will enable educational setting such as universities to strategically adapt and survive to any possible futures (Prelipcean & Bejinaru, 2016).

While it is widely accepted that practice in labor market organizations (during initial training) and teamwork (during professional performance) are contexts in which learning takes place (experiential, guided or collegiate), the school remains, however, the organization that is traditionally linked to the learning and knowledge process. Because education is no longer a luxury but a necessity, and each individual must be able to cope with an uncertain and continually changing future, schools have been subjected to enormous pressure to provide (develop) an environment capable of leading and sustaining each individual on the path of becoming. Under these pressures, the concept of SLO is also introduced, having various descriptions and perspectives over time. Such a school (1) 'devotes considerable attention to shaping the human resource management policies and procedures within the school organization to facilitate peer learning and collaboration among colleagues' (Du Four, 1997); (2) promotes 'an active and proactive adaptability in dynamic environments with different social expectations, including students with different backgrounds, geographic location (rural, suburban, urban) and socio-economic and cultural conditions of the community, government structures and administrative procedures in education at the local level' (Paletta, 2011); (3) 'can be made sustainably vital and creative, not by fiat or command or by regulation or forced rankings, but by adopting a learning orientation' (Senge et al., 2012, p. 5); (4) 'develops processes, strategies, and structures that enable them to learn and react effectively in uncertain and dynamic environments' (Schechter & Mowafaq, 2012).

Since its widespread recognition (1990), the evolution of the concept and model over the course of almost three decades has undergone developments, either in the direction of learning at all levels (individual, team, organizational), as suggested by Watkins and Marsick (1996), or in the direction of management practices and organizational policies in defining the learning strategy, such as those proposed by Goh (1998) and by Garvin, Edmondson, and Gino (2008).

Because the pressures in the educational area have been increasingly high, especially for correlating the expected learning outcomes with explicit labor market demands (in order to reduce the distance between the competences graduates have at the end of schooling and those demanded by employers) and with requirements that the companies are constantly and rapidly changing (in terms of graduates' transversal skills – value acquisitions and attitudes that go beyond a specific field/study program, such as autonomy, responsibility, social interaction, personal development, creativity), the models originally proposed for schools as learning organizations (centered on mutual learning and peer collaboration within the same school) have expanded, including networking and collaboration beyond school boundaries, as well as strategic leadership (as a condition to create an organizational culture of learning and to encourage organizational learning).

Analyzing the models and their outcomes proposed and adopted punctual by some school communities and educational systems (as in the case of the Netherlands, which with its Teachers Agenda 2013–2017 introduced the transformation of schools into learning organizations as one of its main objectives) for about 25 years, Kools & Stoll proposed a last model (2017) for re-conceptualizing the school as a learning organization, adapted to the contemporary educational context, based on the one proposed and extended by Watkins and Marsick (1996), with seven specific dimensions – (1) continuous learning, (2) inquiry and dialogue, (3) team learning, (4) embedded system, (5) empowerment, (6) system connection and (7) strategic leadership. This approach is intended to be a starting point in the unitary understanding of the SLO concept for all stakeholders (decision-makers, teachers, parents, employers, local communities), focusing on seven action-oriented 'dimensions:' (1) developing and sharing a vision centered on the learning of all students; (2) creating and supporting continuous learning opportunities for all staff; (3) promoting team learning and collaboration among all staff; (4) establishing a culture of inquiry, innovation and exploration; (5) embedding systems for collecting and exchanging knowledge and learning; (6) learning with and from the external environment and larger learning system; (7) modeling and growing learning leadership.

Its advantage lies, among others, in providing key characteristics (key features) for each of the seven directions of action through the guide entitled 'What makes a school a learning organization? A guide for policy makers, school leaders and teachers' (OECD-UNICEF, 2016). It, therefore, offers the possibility to measure and establish both the starting level and the degree of transformation after a certain period and a series of taken steps. For this reason, the Government of Wales considered the development of

schools as learning organizations a key means for realizing its new curriculum, by designing a Wales' SLO model through a process of co-construction together with an assessment methodology (in 2017) and developing a first assessment process (OECD, 2018).

In Romania, the general concept and model of learning organization have very few approaches that exceed the theoretical level (using a specific assessment methodology and measurement tools in order to determine incidence of certain key characteristics), directed either towards the public administration (26 County Councils) or towards business (large pharmaceutical companies or SMEs).

Research Methodology

Methodologically, in order to answer to the first research question, a first desk research analysis was developed on: (1) the public expenditure in education and per capita funding for the 2009–2018 period, (2) the enrollment evolution from 2006 to 2016 and (3) the results of PISA evaluations for the 2006–2015 period.

The data collection process for this first step relies on:

- the national laws for approving the annual general budget execution account, the annual budget execution account of the Single National Health Insurance Fund and the annual general government debt account, approved by governmental decisions, for the whole period 2009–2017; data for 2018 are not yet available, as, according to the national calendar law's project for the previous year, it is due to enter into consultation in June 2019;
- the annual governmental decisions on approving the methodological norms to determine the standard cost per student, taken annually for the next calendar year, for the period 2010–2018;
- the statistics provided by the National Institute of Statistics (Institutul National de Statistica, 2016) regarding the evolution of enrollment in the pre-university segment of education from 2006 to 2016, and its estimates till 2030 and 2060;
- data provided by the OECD regarding PISA mean scores in mathematics, science and reading, together with the share of low achievers in each of these fields, for the period 2006–2015, in Romania.

Subsequently, in order to answer to the second research question, a second desk research analysis was developed on correlations between the seven action-oriented dimensions of the SLO model proposed by Kools & Stoll (2017) (including their key characteristics/elements provided into the OECD-UNICEF guide) and the performance indicators (including descriptors)

that are used at the Romanian national level as a way to establish the quality of the educational services provided by pre-university school organizations (along with other legal regulations in force at the national level).

The correlation process for this second step relies on the analysis performed on:

- key characteristics (key features) of the SLO model provided by the guide 'What makes a school a learning organization? A guide for policy makers, school leaders and teachers;'
- the descriptors provided by Government Decision no. 1534/2008 regarding the approval of the reference standards and performance indicators for the evaluation and quality assurance in pre-university education.

Each of the 49 key characteristics provided in the guide was compared with the requirements expressed by the 96 descriptors, regardless of the performance indicator under which they were located. Additional comments were developed taking into account a qualitative analysis of the strategies for education in Romania, as well as the legal regulations in force regarding continuous training of teachers or findings regarding continuous training of teachers.

Results

The State of Affairs at the Romanian Educational System (the Pre-University Level)

On the background of the international economic crisis of 2008–2015, the effects have been felt in Romania already in 2009. In 2010 the government had to take some of the toughest austerity measures: cutting public wages by 25%, lowering social benefits by 15%, and increasing VAT from 19% to 24%. The effects have also been felt at the educational system level: in 2017 the level of payments made in education hardly reached and exceeded the level of 2009. However, a constant decrease of public expenditure in education could be observed: from 5.76% of total expenditures in 2009 to 3.76% of total expenditures in 2017 (Table 1 presents the evolution of public expenditure in education for the period 2009–2017 in Romania).

During the whole period 2000–2009, the financing mechanism based on historic costs was in place; because significant differences were identified between the average costs incurred and the historical costs per pupil, between 2003 and 2009 several pilot projects were carried out aimed to define more rigorously a financing formula. Starting from 2010, a new per capita financing mechanism was completely implemented. Therefore, the analysis will only refer to the implementation period of this funding mechanism, i.e., 2010–2018. In the beginning it was used only to finance salary

Table 1 Romania's Public Expenditure in Education, 2009–2017 Period, Expressed in the National Currency (ROL)

Year	Expenditures made, expressed in ROL		Share in total expenditure
	Total value	of which, in education	
2009	89,851.7	5,176.3	5.76 %
2010	102,627.7	4,315.2	4.20 %
2011	106,088.7	4,207.6	3.96 %
2012	104,569.8	3,993.9	3.81 %
2013	110,128.0	3,867.2	3.51 %
2014	115,615.9	4,442.4	3.84 %
2015	125,215.8	4,491.9	3.58 %
2016	130,083.1	5,040.0	3.87 %
2017	144,418.8	5,430.2	3.76 %

Notes Calculations based on the Romanian Laws for approving the annual general budget execution account, the annual budget execution account of the Single National Health Insurance Fund and the annual general government debt account, approved by governmental decisions (http://www.mfinante.gov.ro).

costs but, with the new education law and related regulations (means starting from 2012), the new funding mechanism covers all basic expenses (including non-wage costs).

According to the national education law and its related regulations, the basic financing of pre-university education takes into account the principle of 'the financial resource follows the student,' based on which the student's budget allocation is transferred to the school unit he/she is learning. The financing of State pre-university schools includes: (1) a core funding (covering salary costs and related contributions), determined from the standard cost per pupil, multiplied by the specific correction coefficients (for the temperature area, special education, education in minority languages) and by the number of pupils enrolled; and (2) a complementary funding (covering continuous training and staff evaluation, student's assessment, expenditure on material goods and services), determined as a coefficient of the reference value (defined for a standard student, considered to be the student in the gymnasium schooling level, the urban environment), which means it is also correlated with the standard cost per pupil. Therefore, at funding level, a component for the continuous training of teachers is provided. The advantages of this per capita financing mechanism were evident at a first stage, establishing a balance between budgetary projection and budget execution, but now its limits have begun to become increasingly obvious, as it is not geared towards performance indicators and results. As a result, more numerous situations requiring corrections have come to light, especially for schools in disadvantaged socio-economic areas.

Table 2 The Standard Cost per Student in Romania, Expressed in ROL

Year	Pre-school education (short program)		Pre-school education (prolonged program)		Primary education	
	(1)	(2)	(1)	(2)	(1)	(2)
2010	1.895	2.071	3.474	3.474	2.180	2.597
2011	1.478	1.617	2.712	2.712	1.701	2.027
2012	1.478	1.617	2.712	2.712	1.701	2.027
2013	1.605	1.755	2.943	2.943	1.847	2.200
2014	1.653	1.807	3.031	3.031	1.902	2.266
2015	1.671	1.827	3.065	3.065	2.520	2.898
2016	2.018	2.206	3.700	3.700	2.322	2.766
2017	2.480	2.712	4.548	4.548	2.854	3.400
2018	2.926	3.200	5.367	5.367	3.368	4.012

Continued on the next page

The evolution of per capita financing was influenced by the international economic crisis that affected Romania. For instance only in 2016 the level of standard cost per student exceeded the level of 2010 (Table 2 presents the evolution of the standard cost per student, for the 2010–2018 period in Romania), reflecting to a large extent the retroactive recognition of teachers' salary rights. Although in the last 3 years there has been an increase in the absolute value of per capita funding in all segments, this must be seen in the general context of a revision of the salary grid since August 2016.

Despite increases, in fields as pre-school and primary education (essential to combat early school leaving and to ensure a start in life on equal terms) spending remains below the EU average (0.7% compared to 1.5% of GDP in EU-28), a fact highlighted by The Education and Training Monitor Report 2018 Romania (European Commission, 2018), along with the need to optimize costs in education, while also improving equity, especially in the context of the sharp drop in the number of pupils. In this regard, according to the latest national statistics provided by the Romanian Institute of Statistics (Institutul National de Statistica, 2016) from 2006 to 2016, the total number of pupils decreased by 17%, 20% in pre-school education and by 13% in schools (pre-university education), and will continue to decrease. The estimates at a general level are of 16.56% by 2030 (and of 42.5% by 2060), at pre-school level of 21.43% by 2030 (and of 45.4% by 2060) and at primary level of 19.78% by 2030 (and of 44.1% by 2060), all compared to the 2014–2015 school year (Institutul National de Statistica, 2016).

In terms of PISA assessments, between 2006 and 2012 Romania showed a slight improving trend in all 3 fields (mathematics, science and reading) and in making progress towards reducing the share of low achievers. But in 2015, Romania took a step backwards compared to 2012,

Table 2 *Continued from the previous page*

Year	Gymnasium education		High school theoretical education		Technological high school education	
	(1)	(2)	(1)	(2)	(1)	(2)
2010	2.857	3.494	2.713	2.713	2.953	2.953
2011	2.230	2.727	2.119	2.119	2.306	2.306
2012	2.230	2.727	2.119	2.119	2.306	2.306
2013	2.420	2.783	2.420	2.420	2.503	2.503
2014	2.492	2.866	2.492	2.492	2.577	2.577
2015	1.021	1.210	2.520	2.520	2.606	2.606
2016	3.043	3.499	3.043	3.043	3.146	3.146
2017	3.740	4.301	3.740	3.740	3.868	3.868
2018	4.413	5.075	4.413	4.413	4.564	4.564

Notes Column headings are as follows: (1) urban area, (2) rural area. Calculations based on the annual Government Decisions on approving the methodological norms to determine the standard cost per student.

Table 3 Romania's Results in PISA Evaluation, 2006–2015 Period

Year	Mathematics		Science		Reading	
	(1)	(2)	(1)	(2)	(1)	(2)
2006	415	52.7	418	46.9	396	53.5
2009	427	47.0	428	41.4	424	40.4
2012	445	40.8	439	37.3	438	37.3
2015	444	39.9	435	38.5	434	38.7

Notes Column headings are as follows: (1) mean, (2) percentage. Calculations based on PISA 2015, 2012, 2009 and 2006 results (see https://www.oecd-ilibrary.org/education/pisa_19963777).

as most of EU countries, in reducing the share of low achievers in science and reading, being still far from the 2020 benchmark (by 2020, the share of low-achieving 15-year olds in reading, mathematics and science should be less than 15%). Although, in relation to its own performance, Romania has evolved positively, compared to the performance of other EU countries, there are considerable differences, with a long position behind them (Table 3 presents the PISA mean scores in mathematics, science and reading, altogether with the share of low achievers in each of these fields, for the 2006–2015 period). Although it is clearly stated that PISA cannot identify cause-effect relationships between inputs, processes and educational outcomes, this kind of evaluation reveals the 15-year-old students performances in mathematics, science and reading, allowing all interested parties to identify the state of affairs at national level, to monitor national trends over the years and to compare them with performances in other countries.

In this general context, taking into account the transfer of the last year of kindergarten to primary education (in 2012) and the evolution of Romania's results in the PISA evaluation, a reshaping of the curriculum for pre-school and primary education was decided. As a result, Romania has begun the implementation (between November 2017 and November 2021) of the national project CRED ('Relevant Curriculum, Open Education for All'), funded by the ESF (42 million euros) to support the reform of the current school curricula, aiming to facilitate the understanding of the new skills-based curriculum, focused on students, as well as to modernize teaching practices.

The Correlations Between the SLO Model Proposed by Kools & Stoll and the Romanian Performance Indicators

The analysis is conducted taking into account: (1) all seven action-oriented dimensions of the SLO model proposed by Kools & Stoll (2017) and their key characteristics/features provided in the guide 'What makes a school a learning organisation? A guide for policy makers, school leaders and teachers' (OECD-UNICEF, 2016); (2) all the 43 performance indicators (including descriptors) that are used at the Romanian national level in order to establish the quality of the educational services provided by pre-university school organizations (provided in Government Decision no. 1534/2008), as well as other legal regulations in force at the national level regarding continuous training of teachers and findings regarding continuous training of teachers.

Dimension 1: Developing and Sharing a Vision Centered on the Learning of All Students

Developing and sharing a vision centered on the learning of all students, common for all school organizations, involves two elements – to have a public policy at the national level (a national strategy) directed towards it with leaders able to attract staff into creating such a vision, communicating this vision to others, and making people (through their own example) enforce it altogether.

Regarding the first element, and since 2014, five sector strategies for education have been designed, approved by Government Decisions and developed – (the National Strategy for Research, Development and Innovation 2014–2020, the National Strategy for Tertiary Education 2015–2020, the National Strategy for Lifelong Learning 2015–2020, the Strategy to reduce early school leaving in Romania and the Strategy of education and training in Romania for the 2016–2020 period). However, none of them explicitly and directly addresses the focus on student learning. Regarding the second element, although the proposal for the school development plan is initiated by the teaching staff and students, parents and local councils are invited to participate (this aspect being checked and analyzed as a basic

condition in national standards, along with the way it embraces the vision and mission of the school). At this point, nonetheless, without an in-depth analysis (at staff level), it is not clear whether the vision is explicitly centered on the learning of all students and to what extent we have to deal with managers or with leaders. Nevertheless, one single performance indicator (I27, Achieving the curriculum) has descriptors referring to focusing on students, namely 'Teachers develop students' ability to learn from experience and practice' and 'Teachers systematically apply student-centered teaching methods and group-based teaching methods.' Therefore, this could be relatively correlated with one key characteristic of the 1st dimension, namely 'Learning and teaching are oriented towards realizing the vision.' As a result, at this point, a strait correlation of this dimension with the national performance indicators cannot be concluded.

Dimension 2: Creating and Supporting Continuous Learning Opportunities for All Staff

From a general systemic perspective, Romania has a well-defined legal framework that supports lifelong learning (made up of laws on education, apprenticeship, internships, volunteering and adult vocational training) that refers either to initial training or to continuous training, including teachers. The participation of teachers in professional development programs is mandatory in order to remain in the profession, recommending them to obtain at least 90 transferable professional credits every five years.

A relatively recent report on monitoring and implementation of education strategies, entitled 'Teaching Staff – SABER Country Report' and delivered under the Agreement on Technical Assistance Services for the Ministry of National Education (concluded between the Ministry of National Education and the International Bank for Reconstruction and Development), highlights three things in terms of supporting teachers to improve the educational process (World Bank Group, 2017, p. 17): (1) 'the professional development of teachers includes activities that have been found to be associated with the improvement of the instructive-educational process' (observation visits, networks of teachers, networks of schools and mentoring/individual guidance), although 'in practice, most of them do not have the expected impact;' (2) 'teachers are advised to take part in professional development activities lasting at least 360 hours over a five-year period,' but 'if they do not accumulate these credits over the five-year period, there are no repercussions' once the final entry stage in the educational system has been exceeded (i.e., once they become permanent teachers); (3) although in some cases teacher needs analysis is carried out (at school level) and the results are transmitted to the county authorities, 'most of the training courses addressed to the teachers do not take into account these analyzes and are

Table 4 Correlations between Underlying Characteristics of 2nd Dimension and Performance Indicators (Including Descriptors)/Or Legal Regulations in Force at the National Romanian Level

Underlying characteristics of 2nd dimension	Performance indicators (and descriptors)/other legal regulations
All staff engage in continuous professional learning	Participation of teachers in professional development programs is mandatory in order to remain in the profession
New staff receive induction and mentoring support	Mentoring/individual guidance is one of the professional development activities officially recognized and provided to new staff at national level
Professional learning connects work-based learning and external expertise	*Indicator 30: Scientific activity of teachers* Teachers participation in the scientific research activity carried out by the school or at local, regional, national or international level it has grown in number and percentage
	Indicator 31: Methodological activity of teachers Teachers participation in the methodological activities carried out at local level – with demonstration activities, presentations etc. – it has grown in number and percentage
	Indicator 36: Professional development of staff The application in teaching activities of the participation's results in continuous training and professional development programs is systematically monitored The application in teaching activities of the participation's results in methodological and scientific activities is systematically monitored
Professional learning is based on assessment and feedback	*Indicator 36: Professional development of staff* Observing the current activity and the feedback received from the relevant beneficiaries are used for the review of the professional development plans
	Indicator 39: Teaching staff evaluation The assessment of the teaching staff is based on feedback from relevant stakeholders The assessment of the teaching staff includes recommendations on further professional development
Time and other resources are provided to support professional learning	At the funding level, the financing of State pre-university schools includes a component that can be used for student's assessment, for expenditure on material goods and services and for the continuous training of teachers (either according to institutional needs or according to the individual needs of the staff).

Notes Based on underlying characteristics provided in the OECD-UNICEF's guide (2016), on performance indicators for quality assessment and quality assurance in pre-university education provided in Government Decision no. 1534/2008 and on legal regulations in force at the national level.

not based on the pupils' school results or on the observations made during the school inspections.' The report also includes a number of policy recommendations, among which: (1) 'introducing individual guidance (coaching)

and ensuring that it goes beyond just checking the teacher's compliance with administrative instructions;' (2) 'improving ongoing training programs to support debutants;' (3) 'setting up the training courses in which the teacher participates according to his/her needs, as well as establishing the teachers who have to take part in the courses as a priority, following the needs identified during the evaluations' (World Bank Group, 2017, pp. 24–25). From a more nuanced perspective, considering the nine key features (underlying characteristics) proposed by the OECD-UNICEF's guide (OECD-UNICEF, 2016), it results that only five of them could be correlated at this point with performance indicators (and descriptors) or with other legal regulations in force at national level (Table 4 presents this correlation).

However, some comments are needed:

1. Regarding the participation of teachers in professional development programs – once the final entry stage in the educational system has been exceeded, the recommendation to obtain at least 90 transferable professional credits every five years remains rather an incentive system to promote in the teaching career or to gain access to leading positions (school principal, or school inspector);
2. Regarding mentoring/individual guidance for new staff – even if this training method is used, its quality needs improvement;
3. Regarding resources provided to support continuous training of teachers – they must bear some of the costs of professional training (which is one of the reasons why teachers do not get a minimum of 90 credits once the final entry stage in the educational system has been exceeded) because the financing component that includes continuous training of teachers may be used for multiple purposes (continuous training and staff evaluation and/or student's assessment and/or expenditure on material goods and services).

For the 3rd Dimension (Promoting team learning and collaboration among all staff), for the 4th Dimension (Establishing a culture of inquiry, innovation and exploration) and for the 7th Dimension (Modelling and growing learning leadership), no correlation could be found at this time between underlying characteristics provided in the OECD-UNICEF's guide (OECD-UNICEF, 2016) and performance indicators or legal regulations in force at the national level.

Dimension 5: Embedding Systems for Collecting and Exchanging Knowledge and Learning

Considering the eight key features (underlying characteristics) proposed by the OECD-UNICEF's guide (OECD-UNICEF, 2016), it results that three of them could be correlated at this point with performance indicators (and descriptors) at the national level (Table 5 presents this correlation).

Table 5 Correlations between Underlying Characteristics of 5th Dimension and Performance Indicators (Including Descriptors) at the Romanian National Level

Underlying characteristics of 5th dimension	Performance indicators (and descriptors)
Systems are in place to examine progress and gaps between current and expected impact	*Indicator 28: Evaluation of pupils' school results* Each teacher can describe for each group and student the strengths and weaknesses regarding the achievement of the curricular objectives
The school development plan is evidence-informed, based on learning from self-assessment, and updated regularly	*Indicator 37: Revision of the educational offer and of the development plan* The benchmarking is used to optimize the educational offer and the development plan The staff and relevant stakeholders are involved in reviewing the educational offer and the development plan
The school regularly evaluates its theories of action, amending and updating them as necessary	*Indicator 34: Existence and implementation of institutional self-evaluation procedures* The results of self-evaluation and external evaluation are used to plan, carry out and review the quality assurance and improvement activities and procedures

Notes Based on underlying characteristics provided in the OECD-UNICEF's guide (2016) and on performance indicators for quality assessment and quality assurance in pre-university education provided in Government Decision no. 1534.

Dimension 6: Learning with and from the External Environment and Larger Learning System

Considering the seven key features (underlying characteristics) proposed by the OECD-UNICEF's guide (OECD-UNICEF, 2016), it results that three of them could be correlated at this point with performance indicators (and descriptors) at the national level (Table 6 presents this correlation).

Conclusions and Further Developments

The results of this theoretical approach (desk research analysis) show that in last decade the pressure on the Romanian educational system has been high, with schools from the pre-university segment being subjected to financial constraints, as well as systemic architectural design changes, curricular changes and the decline of the school population. In addition, the results of the PISA tests were not encouraging: in 2015 Romania took a step back in all 3 fields compared to 2012 and in reducing the share of low achievers in science and reading, being still far from the 2020 benchmark.

The financial constraints highlighted by the evolution of education expenses and per capita financing have meant not only the reduction of salaries and expenses for the continuous professional training of teachers, but also the reduction of investments. In addition, the change of educational architectural design in 2012 (transferring the last year of kindergarten to primary education, along with curriculum reshaping) and the decline of the

Table 6 Correlations between Underlying Characteristics of 6th Dimension and Performance Indicators (Including Descriptors) at the Romanian National Level

Underlying characteristics of 6th dimension	Performance indicators (and descriptors)
The school is an open system, welcoming approaches from potential external collaborators	*Indicator 3: The existence and functioning of the internal and external communication system* The school systematically communicates with parents and other stakeholders
The school collaborates with parents/guardians and the community as partners in the education process and the organization of the school	*Indicator 1: The existence, the structure and the content of the projective documents (development plan and implementation plan)* Aims, objectives and programs established at the request of relevant stakeholders are included in the development plan and in the implementation plan
	Indicator 32: Setting up the school budget The school ensures the involvement of community partners and relevant stakeholders in budget planning
	Indicator 34: Existence and implementation of institutional self-evaluation procedures The self-evaluation procedures are carried out with the participation of relevant stakeholders
Staff collaborate, learn and exchange knowledge with peers in other schools through networks and/or school to-school collaborations	*Indicator 30: Scientific activity* Teachers capitalize on teaching the results of the scientific research activity carried out at local, regional, national or international level
	Indicator 31: Methodological activity Teachers capitalize on teaching the results of the methodological activities carried out at local level

Notes Based on underlying characteristics provided in the OECD-UNICEF's guide (2016) and on performance indicators for quality assessment and quality assurance in pre-university education provided in Government Decision no. 1534.

school population (by 20% in pre-school education and by 13% in schools) mean that neither the 2015 results on PISA tests, nor the negative evolution of the schools efficiency, as it was identified at 64.7 % from 2,956 of school organizations (out of a total of 6,413 schools with legal personality that formed the national school network in 2017–2018), were surprising.

Therefore, finding solutions to help increase the efficiency of school organizations is more than needed at the national level. Since at teachers' level the implementation of the new curriculum (skills-based, focused on students) is supported by the CRED project, another course of action to gain focus on students, but at the organizational level, would be the re-conceptualization of schools using the SLO model and concept. In this way, focusing on students would be likely to become both a teaching and learning practice, as well as on a vision of school organizations shared by all their members, the implementation of the model and concept could become on

opportunity to embrace it from both sides, individual and organizational.

Implementing the concept could have as a foundation and starting point 10 performance indicators (out of 43) and 17 descriptors (out of 96) from national standards identified as being correlated with 3 dimensions (out of 7) and 8 underlying characteristics (out of 49) from the SLO model developed by Kools & Stoll (2017) and OEDC-UNICEF (2016), as well as the legal regulations in force regarding continuous training of teachers.

In the first instance, the correlation results will be used in an experimental research (a quantitative and qualitative analysis), on a sample of 238 rural and urban schools externally evaluated in the first semester of the 2018–2019 school year, in order to determine the minimum levels of incidence of the underlying characteristics of SLO's. This will provide a preliminary overview on the state of affairs at the Romanian educational system level in relation to the model of SLO's.

References

Du Four, R. P. (1997). The school as a learning organization: Recommendations for school improvement. *NASSP Bulletin, 81,* 81–87.

European Commission. (2018). *Education and training monitor report 2018 Romania.* Retrieved from https://ec.europa.eu/education/resources-and-tools/document-library/education-and-training-monitor-2018-romania-report_ro

Garvin, D. A. (1993). Building a learning organization. *Harvard Business Review, 71*(4), 78–91.

Garvin, D. A., Edmondson, A. C., & Gino, F. (2008). Is yours a learning organization? *Harvard Business Review, 86*(3), 109–116.

Goh, S. C. (1998). Towards a learning organisation: The strategic building blocks. *SAM Advanced Management Journal, 63*(2), 15–22.

Institutul National de Statistica. (2016). Proiectarea populatiei scolare din Romania, la orizontul anului 2060. Retrieved from http://www.insse.ro/cms/sites/default/files/field/publicatii/proictarea_populatiei_scolare_din_romania_la_orizontul_anului_2060_0.pdf

Kools, M., & Stoll, L. (2017). *What makes a school a learning organisation?* (OECD Education Working Paper No. 137). Retrieved from https://doi.org/10.1787/19939019

OECD. (2018). *Developing schools as learning organisations in Wales: Highlights.* Retrieved from https://beta.gov.wales/developing-schools-learning-organisations-review

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

Paletta, A. (2011). Managing student learning: Schools as multipliers of intangible resources. *Educational Management Administration Leadership, 39*(6), 733–750.

Paraschiva, G. A., Farkas, Z. B., Jitarel, A., & Draghici, A. (2018). A study of the evolution of educational efficiency: Romanian case. In V. Dermol (Ed.), *Integrated economy and society: Diversity, creativity, and technology; Proceedings of the MakeLearn and TIIM International Conference* (pp. 463–470). Retrieved from http://www.toknowpress.net/ISBN/978-961-6914-23-9/papers/ML2018-114.pdf

Pedler, M., Boydell, T., & Burgoyne, J. (1989). Towards the learning company. *Management Education & Development, 20*(1), 1–8.

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

Schechter, C., & Mowafaq, Q. (2012). Toward an organizational model of change in elementary schools: The contribution of organizational learning mechanisms. *Educational Administration Quarterly, 48*(1), 116–153.

Senge, P. M. (1990). *The fifth discipline: The art and practice of the learning organization.* New York, NY: Wiley.

Senge, P. M., Cambron-McCabe, N., Lucas, T., Smith, B., Dutton, J., & Kleiner, A. (2012). *Schools that learn: A fifth discipline fieldbook for educators, parents, and everyone who cares about education* (2nd ed.). London, England: Nicholas Brealey.

World Bank Group. (2017). *Teaching Staff: SABER Country Report.* Retrieved from https://www.edu.ro/sites/default/files/Livrabil_4_Cadre%20Didactice%20%E2%80%93%20SABER%20Teachers.pdf

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.

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