

Thematic Article

Exploring the Prerequisites for Transforming School as a Learning Organization

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Abstract

The organization model has shifted from treating the workforce as machines to improving human centric-working environments. The Learning Organization is conceptualized as an organism that evolves through continuous learning to adapt with a constantly changing environment. School is a typical organization and many scholars argued to reconceptualize school as a learning organization. The Integrated Model of School as a Learning Organization (Kools & Stoll, 2016)) has been widely studied and tested in European schools, particularly in Wales. However, there is a gap in the research needed to understand the prerequisites of SLO transformation and thus to better prepare for reform. To explore the prerequisites of SLO, a researcher applies a qualitative approach to purposely collect secondary data from the eight empirical studies in Wales, Greece, Latvia, Spain, Bulgaria, Türkiye, and Italy. To conduct data analysis, a data coding strategy is employed to create the prerequisites and assign them to the main themes- System Level and School Level. To achieve the SLO transformation, the researcher then recommends a systematic reform that involves the education stakeholders, both at system level and at school level - to put forward the practice of the SLO seven action-oriented dimensions. Further meta-analysis research is recommended to widen the scope of conceptualizing antecedents of SLO transformation.

Keywords: school reform, school as learning organization, systematic reform, system level

Introduction

School as a learning organization (SLO) is a paradigmatic change of improving school effectiveness through interconnected thinking and learning, as argued by the Fifth Discipline for Systems Thinking (Senge, 1990). The concept of SLO was united with the idea of learning organization, being thought up so business organizations could be competitive, innovative, and responsive to the markets through the flat organization structure. This would foster multi-level learning individually, as a team and an organization (social-level learning) (Watkins & Marsick, 1993, 1997, 2003). Watkins & Marsick (1993) conceptualized the Dimension of Learning Organization Questionnaires (DLOQ) to offer an overarching framework to measure and to transform financial and knowledge-based outcomes, for, these are the ultimate goals of businesses. With a structural framework for measuring effects, the DLOQ was widely researched in different contexts, including schools (RILEY, 2023; Sheng, Watkins, Yoon & Kim, 2021; King Smith, Watkins & Han, 2020; Hussein, Mohamad, Noordin & Ishak, 2014; Akram, Watkins & Sajid, 2013; Alazmi, Alazmi & Alqahtani, 2013; Ho, 2011; Varano Jr, 2010; Khandekar & Sharma, 2006; Marsick & Watkins, 2003). Having seen the positive effects of DLOQ and the emergent needs of the LO model, which helps school adapt to and remain constant in the complex and ever changing environment, Kools & Stoll (2016) conceptualized the Integrated Model of School as a Learning Organization on the DLOQ model. It acts as a framework for schools to transform to a learning organization. The seven action-oriented dimensions were validated and tested to help schools become learning organizations, with Wales being the first to pilot the SLO transformation following its adoption by the OECD, UNICEF and the UNESCO (Kools & Stoll, 2016; Stoll & Kools, 2016).

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The Integrated Model of SLO was widely studied in European countries, namely, Wales, Latvia, Greece, Romania, Spain, Bulgaria, Turkey, and so forth. This model started as a European policy aimed at creating a knowledge economy through transforming their people from students (in a school) into learning citizens (in a learning organization) (Boreham). Several studies in Latvia, Greece, Wales and Romania have been conducted to understand the challenges of actually implementing said model into schools, as it affects education on both the school and policy levels (Kools, Gouédard, George, Steijn, Bekkers & Stoll, 2019; Papazoglou & Koutouzis, 2022; Paraschiva, Draghici & Mihaila, 2019; Lavrinoviča, Linde, Siliņa-Jasjukeviča & Lūsēna-Ezera, 2023). In order for successful execution of model input, it is argued that prerequisites need to be conceptualized to be well-prepared for school transition to the LO. Having reviewed the research studies of the Integrated of SLO model at both school and systemic levels, researchers hardly found any articles attempting to grasp the antecedences for effective application of the SLO at schools. Therefore, this study will attempt to fill the gap in research and serve the purpose of preparing schools for transformation from their current state to learning organizations.

Research Design and Methods

Research Question

The One question to explore is posed below:

- What are the prerequisites of implementing the School as a Learning Organization (SLO) model?

Literature Reviews

The Learning Organization

In the contemporary studies of organization model, the learning organization (LO) was plausibly studied following the Fifth Discipline model (Senge, 1990). This discipline model conceptualized five disciplines, and those are as follows: Personal Mastery, Mental Model, Shared Vision, Team Learning, and Systems Thinking. These sought to arouse learning from the individual level to the team and organizational levels (Systems Thinking). The model argued for interconnected thought and learning beyond a superficial environment. It is obvious that the model attempts to culturally change the traditional way that an organization usually does things. This is done through enforcing inner learning to the outer world and converging individual thinking, pushing toward a common goal and the single vision of the organization. The rationale for interconnected thinking is to offer organizations the maximum capacity to respond to any disruptive changes affected by technology and the ever-fluid environment. However, the Fifth Discipline was unable to generalize and to assess its construct. Fitzgerald (1999), Pensieri (2019), Babak Alavi & McCormick (2004) highlighted the problems of unclear structure and framework to apply in an organization. Caldwell (2012) argued that the Fifth Discipline is impractical due to its inability to evaluate learning. The Dimension of Learning Organization Questionnaires (DLOQ) were conceptualized by Watkins & Marsick (1993, 1997, 2003) to fill the gap of ambiguous framework and measurement tools. The model was thoroughly scrutinized to validate its constructs and to prove its effects on organizational performance, that is, financial performance and knowledge performance (Sheng et al., 2021; Hussein et al., 2014; Akram et al., 2013; Ho, 2011; Khandekar & Sharma, 2006; Marsick & Watkins, 2003; Watkins & Marsick, 1997), a principal's capacity to learn (King Smith et al., 2020) and a teacher's problem-solving strategies (Alazmi et al., 2013).

School as a Learning Organization (SLO)

The concept of LO has inspired many educational scholars, policy makers and practitioners to rethink school as a learning organization. A learning school is believed to help school learn and adapt to any environment while preparing students for the rough and tumble world. According to Senge (1990), a school that learns is an organization that has their staff at all levels collectively and continuously enhancing their capacity to create (O'Neil, 1995). What is more, Kools & Stoll (2016) defined SLO as "the one that has the capacity to change and adapt routinely to new environments and circumstances as its members, individually and together, learn their way to realizing their vision". We can conclude, therefore, there are common characteristics of SLO. Some of them include:

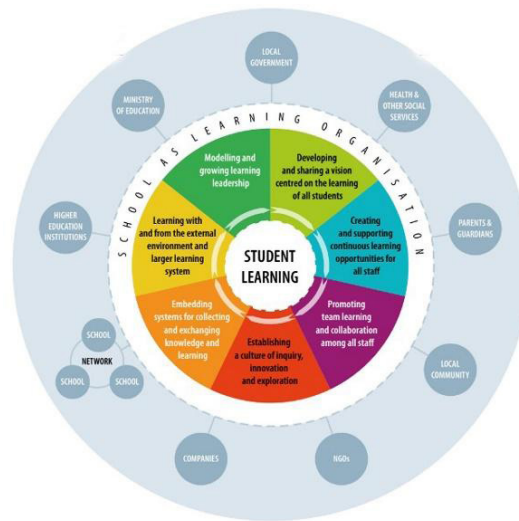
- Learning must happen inclusively at all levels from individual operational staff members (inclusive of janitors, security guard and so forth) to teachers and administrators
- Learning must be put into practice in order to embrace changes in schools
- All staff must improve their capacities through learning
- All learning and changes must focus on achieving school goals and visions, namely, improving student academic results

As argued by Boreham, LO is not simply an institution that engages in organizational learning. Learning in and of itself is not enough. A system and structure, and culture are necessary to foster and capture learning at all levels. Therefore, we need a framework that turns these LO characteristics into practice at school. The Integrated Model of SLO was also adopted by many international bodies namely OECD, UNICEF and UNESCO as a theoretical framework for SLO.

Kools & Stoll (2016) conceptualized seven action-oriented dimensions and 49 measurement items which will guide a system and structure for school to operate as a learning organization.

- Developing a shared vision centered on the learning of all students
- Promoting and supporting continuous professional learning for all staff
- Promoting team learning and collaboration among all staff
- Establishing a culture of inquiry, exploration and innovation
- Embedding a system for collecting and exchanging knowledge and learning
- Learning with and from the external environment and larger system
- Modeling and growing learning leadership

Figure 1. The Integrated Model of School as Learning Organization



(Note: Adapted from Kools & Stoll [2016])

The model was adopted in Wales as a framework for schools to transform to learning organizations (Kools, Pont, Gouëdard, Rodriguez, Stoll & George, 2018). Several studies in other European countries were conducted to validate the measurement constructs and their impediments to implementation in schools (Lavrinoviča et al., 2023; Harris, Elder, Jones & Cooze, 2022; Papazoglou & Koutouzis, 2022; Papazoglou & Koutouzis, 2020; Kools, Stoll, George, Steijn, Bekkers & Gouëdard, 2020; Kools et al., 2019; Paraschiva et al., 2019). As mentioned above, the inputting of the SLO model in school is critical, requiring a comprehensive analysis of the school level and the systemic level in the interest of supporting school transformation. Kools et al. (2018) envisioned the system-level policy support for schools in Wales to outline key policy criteria that would aid school transformation to LO.

Figure 2. System-level policies for developing SLOs in Wales



(Note: Adapted from Kools et al. [2018])

There are three dimensions and 13 subsets proposed by policy makers in Wales to accommodate the building out of SLOs. However, Khay (2024) reviewed the system-level policy in support of SLOs in Cambodia, and argued for 4 dimensions and 14 subsets, which incorporates decentralization in the analysis. In Wales, Greece, and Latvia, decentralization of authority and subsequent autonomy at the school level was deemed necessary to effectively implement SLO. Several other scholars conducting research in, School-Based Management (SBM) also argued for the devolution of autonomy and authority in order for school to have impact on student learning (Caldwell, 2005; Fullan & Watson, 2000; Wohlstetter & Odden, 1992). Departing from classic organizational management, which was more bureaucratic, it was debated that decentralization could solve the problem of inefficiency and ineffectiveness resulting from a centralized system (McGinn & Welsh, 1999; Rondinelli, McCullough & Johnson, 1989). Moreover, this could be a remedial strategy that system-level authority would need to enact to respond to the local or household needs for quality education (Mok, 2003; Winkler, 1989). In addition, SBM was a popular management strategy that almost all governments used to decentralize decision-making power at the school level with objectives similar to those mentioned above (Patrinos & Fasih, 2009). Schools need decision-making power in order to develop and put in place their annual development plans, and to seamlessly operate personnel management, budgeting, financing, and the curriculum. Without autonomous decision-making, schools as learning organizations will hardly achieve any of the 7 dimensions. Since decentralization is involved with reform at the policy level, it is paramount that it be integrated as a domain for analyzing system-level policy.

Figure 3. Criteria for examining system-level policy in Cambodia

Criteria	Key Subsets
Dimension	
Shared and future focused vision centered on learning of all students	<ul style="list-style-type: none"> - consolidating inclusive visions across the national, middle tier and school level - Central focus on equity and well-being
The development of professional capital and a thriving learning culture	<ul style="list-style-type: none"> - Basing selection into initial teacher education on a mix of criteria and methods - Prioritizing professional learning in certain areas - A coherent leadership strategy (learning leadership, transformational leadership, instructional leadership and distributed leadership) - Greater support for secondary school leaders - Promoting collaborations between schools and teacher education institutions
Assessment, evaluation and accountability promoting SLOs	<ul style="list-style-type: none"> - School inspection - A participatory self-evaluation process - National criteria for school evaluation - Monitoring system through student's assessment results, school inspection report and school evaluation report - Aligning performance measure to the new curriculum
Decentralization of authority	<ul style="list-style-type: none"> - School level decision-making autonomy - Transfer of funds and resources to school levels

(Note: Adapted from Khay [2024])

Conceptual Framework

The implementation of the Integrated Model of SLO at the school level also reported several obstacles, and offered recommendations regarding improvement for effective school transformation to LO. An experience from the Greek school context, Papazoglou & Koutouzis (2020) conducted a quantitative study with 418 primary schools to validate the Integrated Model of SLO (Kools & Stoll, 2016) measurement questionnaires and to study the relationship between school size and geographical location, and their effect on SLO transformation. The finding proved that smaller school size accelerates the effective transformation whilst larger school sizes will slow down the transformation process. Geographical areas do not challenge the school transformation process whatsoever. To conclude, remote school sites can also transform to LOs as easily as urban or easy-to-reach institutions.

In Latvia, several studies were conducted to analyze the system-level support, the blocks to putting in SLO in schools, and the perspectives of multiple stakeholders on SLO implementation in Latvian schools. Lavrinoviča et al. (2023, August), studied the hindrances of carrying out the SLO in Latvian school contexts using focus group interviews with 30 upper management levels of schools. They found the following:

- lack of SLO implementation guideline for principals and teachers
- lack of national supports for schools
- ambiguity of SLO reform which incurs staff burnout
- lack of resources
- staff's lack of knowledge and skill in learning leadership, team learning and so forth
- principal's lack of learning leadership knowledge and skill to lead learning at all levels in school
- school staff's insufficient time to engage professional learning in pedagogical aspects
- lack of collaboration and cooperation culture between schools, parents, and community at large to uphold SLO dimensions
- lack of funding or financial resources to implement the changes at school

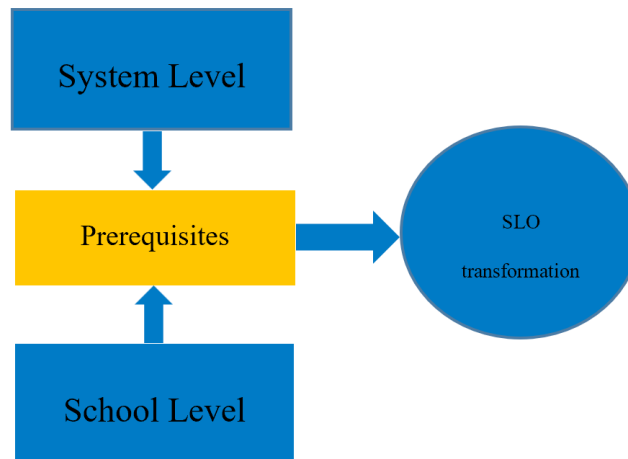
Another large-scale research in Latvian schools involved 671 members of school staff from General Education and TVET. Lastovska et al. (2023) conducted a study to explore readiness of school staff for changes and the factors to enable and to hinder the implementation of SLO. As a result, seniority of the school staff, the larger school size, and the shortage of teachers, due to replacement of the aging teachers, were found to hinder SLO transformation. School leadership to establish a supportive and enabling learning culture was recommended. Two studies to understand the comprehensive perspectives of school stakeholders and policy makers were carried out. Lusena-Ezera et al. (2023) applied a mixed method research to explore the opinions of school staff, students and parents on implementing SLO in Latvian schools. School leadership was a requisite for converging all key school stakeholders, encompassing parents, students, and teachers on inclusive school vision and the necessity of changing to SLO. School leaders would need to stir up genuine and purposeful cooperation between parents, students, and teachers aimed at formulating school goals and shared visions. According to policy makers, on SLO implementation, Siliņa-Jasjukeviča et al. (2023) interviewed 15 officials from 3 policy making institutions, and found that policy makers should agree and accept SLOs, moving forward with the operational guidelines of this concept in schools. All policy makers addressed the significant role of school leadership to promote team learning and SLO transformation. Finally, there should be a policy outline of SLO reforms directly linked with student's outcomes.

The SLO implementation in Spain, Bulgaria, Italy and Türkiye was also studied to learn about the obstructions to and opportunities of moving forward with SLO. Sierra-Huedo, Romea & Aguarales (2023) coordinated a semi-structured interview with 63 education experts, members of school management teams and teachers among 4 countries to understand how educational institutions are configured as learning organizations. Rigidity of curriculum and individualistic teaching culture were reported to be main barriers to SLO implementation in school. Transformational leadership, teacher's autonomies, and shared leadership with teachers were suggested for improving student learning outcomes. When teachers participate in decision-making and taking accountability for student learning, they are intrinsically motivated to improve teaching quality and eventually student academic achievement. With more autonomy, teachers can adaptively innovate and create new things to better their teaching and learning without fear of faults or wrongdoings. These bold actions will arouse the teacher's curiosity to experiment. There were also a few recommendations for systemic-level support, namely establishing a professional network between schools and universities to develop new

knowledge of LOs and learning of leadership skills. There also needs to be a policy to support the principal's transformational leadership and devolved decision-making power to teachers.

Having reviewed the literatures of School as a Learning Organization and the extant empirical case studies of developing and implementing School as a Learning Organization in Latvia, Wales, Greece, Spain, Bulgaria, Italy and Türkiye, we strive to develop a conceptual framework in two main categories, namely systemic-level and school-level categories in order to guide our data collection and analysis. This is depicted below in Figure 4.

Figure 4. Conceptual Framework



Research Method

Researchers will apply a purposeful sampling (Creswell, 2012) to select the extant research on implementing the Integrated Model of SLO (Kools & Stoll, 2016). Locating the published studies based on several databases, namely, Google Scholar, ResearchGate, European Journal of Educational Management, Eric, EBSCO, Journal of Educational Leadership and Policy Studies, JSTOR and OECD Libraries, we could find eight studies in Wales, Greece, Latvia, Spain, Bulgaria, Italy and Türkiye which met our criteria, displayed below:

- well-structured research design
- empirical research studies
- applying the Integrated Model of SLO by Kools & Stoll (2016)
- aims of research to study the implementation of SLO in schools and at system level

In order to analyze the data, the deductive data coding strategy is applied. We listed all the key impediments and recommendations of SLO implementation originating from the above eight critical studies on the spreadsheet, and placed them under the two designated themes – System Level and School Level (Creswell & Creswell, 2017; Creswell, 2012). Then we employed a cross-sectional data analysis of the impediments and recommendations of each study to assign to each level the data that emerged most frequently. Then we inductively developed the prerequisites and their subsets under each level, based on the data that came up. As a result, we found four main prerequisites and nine subsets spread across the two levels. In order to ensure data reliability and validity, we engaged a peer debriefing strategy and inter-rater reliability (Creswell & Miller, 2000) that involved one educational researcher and one education professional reviewing the development of prerequisites and their subsets. Each reviewer received the whole draft of research and the spreadsheet of collected data. Both developed their own prerequisites and subsets based on the data on the spreadsheet. Finally, we reviewed the consistency of the prerequisites and subsets put together by the reviewers.

Table 1. Prerequisites of SLO Transformation

System Level	
Prerequisites	Subset
Policy roadmap for SLO transformation process	Inclusive vision centered on students' learning outcomes to be shared from system level to school level
	Structured support mechanism from system level to school
	Inductive training program for SLO implementation at school
	Policy on decentralization of authority to school level
	Establishment of professional learning platform
School Level	
Prerequisites	Subset
Transformational and learning leadership to accelerate SLO transformation process	School leaders to exercise transformational and learning leadership
	Redesign a flatter structure to empower team learning and shared decision-making
Prerequisites	Subset
Team Learning, Team Mental Model and Shared Vision	School staff's readiness in capacity and in building trust to perform team learning, align mental model and shared vision
Prerequisites	Subset
Professional Learning and Development Framework	A school-based policy framework for professional learning and development of all school staff

Results

Prerequisites at System Level

Policy roadmap for SLO transformation process

Several obstacles pinpointed the ambiguity of SLO reform which hinders and incurs the obscure implementation of this new model at the school level. Several findings found that school staff and key school stakeholders could hardly understand the SLO concept and were not a crucial part of the SLO reform process. Most of them lacked proper communication from central authority or district authority. Plenty of them reported a lack of knowledge about SLO and principals lacked leadership skills when it came to learning to change. The school staff were to blame for implementing SLO with no proper guideline and instruction. An attempt was made at a seamless arrangement to operate the SLO seven action dimensions. Moreover, the policy makers did not agree on a common SLO term which would ultimately jeopardize its implementation. From our analysis, the argument is made for the system-level policy maker to develop a policy roadmap for SLO transformation that addresses these requisites.

Inclusive vision centered on student learning outcomes to be shared from the system level to the school level

The findings from Latvia and Wales confirmed that shared vision was not properly funneled to the school level. The vision centered on student outcomes needed to be inclusive passing from national authority to provincial/regional, and on to the district and to the school. Schools must share this vision to inspire school staff and key stakeholders, namely parents, to get them on board with this vision. Kools & Stoll (2016) surmised that for the shared vision to be a joint effort, school staff and key stakeholders had to understand the vision and feel that it was their own. For this to work best, the shared vision should be developed in a reverse order, from the bottom up, for voices at the school level to be heard and for shared ownership and accountability to be felt.

Structured support mechanism from the systemic-level down to the school

The support from the systemic-level is to smooth out the transformation process, particularly at the early stage of transition. A portion of that are the policy guidelines to implement the seven action-oriented dimensions. The policy guideline should also outline a mechanism for the authorities to support schools, to ease any challenges and remove obstacles in the process. Several findings from Latvia challenged municipalities and state authorities to garner support for schools (Lavrinoviča et al., 2023, August). The sporadic support not only demotivates the

process of SLO transformation but also triggers a distrust between school staff and the authorities. This escalates when school staff are skeptical of political games at the higher levels, leading them to question their own commitment and willingness to transform to an SLO. In addition, the national policy guideline is irreplaceable to setting a uniform standard for implementing the SLO seven action-oriented dimensions. The guidelines set where each school begins, how they perform and what needs to be achieved in order to be recognized as an SLO school.

Inductive training program for SLO implementation at school

The inductive training program will set the framework for initial capacity building when implementing the seven SLO dimensions. From Latvian school experiences, the results demonstrated, clarity and consensus on SLO operational terminology are needed at both the system level and the school level. There should be one definition of SLO approved at the national level that is used to input the model at school. Moreover, the inductive training program will offer a clear purpose, proper guidelines, and it will respond to any ambiguity that school staff may have about the seven SLO action-oriented dimensions. The program needs to incorporate the training course for school leaders to equip them with integrated leadership skills (transformational leadership, instructional leadership, distributed leadership and learning leadership). Papazoglou & Koutouzis, 2020; Papazoglou & Koutouzis, 2017, September discussed how integrated leadership, transformational leadership, instructional leadership and distributed leadership was to impact the learning organization process. Volante (2012) raised four integrated leadership points which include transactional leadership, yet exclude learning leadership. These are to be studied for their impacts on school effectiveness. Transformational leadership seems to gain common ground in terms of its power to transform SLOs. Therefore, the inductive training program is a necessity that will help solve the ambiguity of the SLO term and will equip school principals with integrated leadership skills.

Policy on decentralization of authority down to the school level

Decentralization is a popular government strategy to ease the bottlenecks and to improve the service delivery at the sub-national level. According to McGinn & Welsh (1999), decentralization might come with different purposes, notably in management and governance aspects. It might also involve the recipients of authority, what aspects, and levels of authority that are to be decentralized. The policy on decentralization should be a framework to determine who and what fits into the decentralization sphere at school levels. From our cross-sectional analysis of findings in Latvia, Spain, Bulgaria, Turkey, Italy and Wales, we found that school autonomy in personnel management, budgeting, funding, financial resources, and in curriculum (pedagogical aspect) are all to be devolved or decentralized. Research findings in Latvia and Wales stated that the insufficient financial resources hindered the implementation of SLO, and thus a direct and secure funding source was recommended (Lavrinoviča et al., 2023; Kools et al., 2018). The requisite for secure and direct funding to schools is to develop a legal framework for the transfer of funds and to find an autonomous funding source that schools can acquire through local tax revenue. Moreover, teachers and parents / communities are ought to be involved in the decision-making process of SLO transformation. Several scholars in SBM posed reconceptualizing the SBM to involve teachers and parents in the decision making. They surmised, it would have positive effects on learning outcomes (Kools et al., 2018; De Grauwe, 2005; Fullan & Watson, 2000; David, 1989, as cited in Wohlstetter & Odden, 1992). To involve parents and teachers in the shared decision-making bodies, there should be a legal framework to mandate their participation.

Establishment of professional learning platform

Several findings from Latvia and Wales unveiled a lack of professional learning opportunity that crippled the learning ability of teachers and principals. When learning is a central tenet of SLO, every staff member must have the ability to improve and grow. One dimension of the seven action-oriented dimensions says that learning inside and outside of school is quintessential (Kools & Stoll, 2016). Learning at school requires time to relax from administrative work (Kaulēns et al., 2023; Sierra-Huedo et al., 2023; Kools et al., 2018). Learning outside of school requires joining a professional network group, an association, center, or another typical educational consultancy establishment. Research proves that there is an advantage to having ties to higher education institutions (universities, colleges or institutes), as they can improve knowledge and skills. Since SLO is a new concept and clarity is essential at the school level, the central authority should establish a professional network platform to link SLO researchers with school practitioners.

Prerequisites at School Level

Transformational and learning leadership to accelerate SLO transformation process

School leadership has been well-researched for its positive effects on school effectiveness and student learning outcome (Volante, 2012; Hallinger, 2003). Transformational leadership was popular at school in testing and practice for decades. Recent correlational studies of transformational leadership with SLOs have been conducted due to its transformational characteristics that inspire school learning (Papazoglou & Koutouzis, 2020; Koutouzis & Papazoglou, 2016, October). Learning leadership is an up-and-coming idea that pushes the leadership at school to continue to learn. As conceptualized in the Integrated Model of SLO (Kools & Stoll, 2016), it is to structure, to inspire, and to support the learning environment through developing learning culture and team learning. School leaders were encouraged to model learning leadership to intrinsically motivate their staff to also learn professionally at all levels. Several findings of Latvia, Wales, Spain, Turkey, Italy and Bulgaria confirmed the essence of transformational leadership to be enacted at school, also to inspire effective SLO transformation. Therefore, the sub-themes were developed as the prerequisites for transformational and learning leadership.

School leaders to exercises transformational and learning leadership

Several studies in Latvia and Wales reported the challenges of different perspectives, divergent goals and visions. This lack of cohesion hinders the implementation of SLO. Many policy makers in Latvia suggested school leaders should practice transformational leadership, in the hopes it might lead to SLO transformation. Kools & Stoll (2016) conceptualized learning leadership for school leaders to model, grow and inspire learning at all levels. It is a prerequisite that school leaders need to exercise transformational and learning leadership to unify all perspectives of SLO reform goals and visions. Then, as the second requisite, school leaders need to establish a learning culture or learning-centric working environment. Learning culture is a complex but unique phenomenon in organization, and leadership is said to influence this learning culture for organizational success (Haiyan, Walker & Xiaowei, 2017; van Breda-Verduijn & Heijboer, 2016; Schein, 2010). Schein (2010) offered three dimensions or levels for analyzing the learning- Artifacts, Values, and basic underlying Assumptions. Haiyan, Walker & Xiaowei (2017) based on Schein's model of learning culture, also strove to conceptualize three dimensions- Structure, Value, and Relationship. They did this to understand a leader's role in developing a teacher's learning culture. To establish an effective learning culture, school leaders need to reform the current structure, making it into a learning-supportive atmosphere that rewards learning behavior, offers flexibility at work, captures learning, encourages sharing knowledge, and promotes collaborative learning (Bishop et al., 2006). Therefore, principals must exercise the transformational and learning leadership ideas in order to bring together heterogenous views of SLO.

Redesigning a flatter structure to empower team learning and shared decision-making

The SLO model implies reforming the previous structure to a flatter one so as to empower learning at all levels, thus achieving a shared inclusive vision. A flatter structure is less popular according to school research, but it will narrow the communication gaps among school staff through reduced layers in reporting and channels of communication. According to Ghiselli & Siegel (1972), flat structures have few levels of management and broad spans of control. Flat structures were thought to correlate with staff well-being (Webb, 2023), but this did not make any difference in terms of performance when comparing staff performance (Carzo Jr & Yanouzas, 1969). Although flatter structures are not so different from hierarchical structure, transitioning to a flatter structure would reduce hierarchy, empower democracy by sharing decision-making powers and build staff relations (Serrini, 2018). Results from Latvia, Spain, Bulgaria, Turkey, and Italy confirmed trusts and individualistic teaching culture hinder SLO transformation. To tackle these challenges, school leaders need to revert to a flatter school structure that would empower team learning and impart decision-making capabilities to all staff. This flatter structure would also reduce reporting to supervisors and other administrative work. This shift would be beneficial to the school system all across the board..

Team Learning, Team Mental Model and Shared Vision

Team learning, Team Mental Model and Shared Vision were conceptualized as three of the five disciplines in the Fifth Discipline (Senge, 1990). Team learning was said to go deeper, being more than the collaborative act

(Senge, 1990) to align a team's mental model (to help them be of one mind) to achieve the team's shared vision and the organization's vision. Only deep learning can intertwine a team's mental model because it is the inner state of individual mental processing which is constructed by social learning and information processing. When team learning is realized, school staff understands the team's needs, goals and overcomes any differences that are brought in by individual cultures. The findings from our review exposed challenges in trust building, individualistic culture of teachers, senior teachers' resistance to change, the team's interpersonal relationship, open collaboration for problem solving and for promoting a team culture of inquiry, innovation and experimentation.

Readiness of school staff in capacity and in building trust to perform team learning, alignment of mental model and to get the shared vision

When a team is full of different ideas and opinions and thoughts, it is a symptom of declining trust that prevents teamwork. Performing team learning requires knowledge and skill. Staff are culturally individualistic and thus need several courses on how to collaborate, how to be of one mind and how to catch the shared vision. As argued in the Integrated Model of SLO by Kools & Stoll (2016), school staff need time, trust, collaboration together, and technology for successful SLO implementation. Building trust among team members demands much more time to learn it well. Senge (1990) argued, staff engaged in Personal Mastery to align their mental model to achieve the shared vision. Staff have to align their personal goals and visions with that of the organizational vision. This action requires staff's capacity to perform. Therefore, the prerequisites for team learning, mental model and shared vision are staff's readiness and confidence to perform. School leaders need to come up with a plan to increase staff's work together and talk to each other for there to be effective team learning. According to Self Determination Theory (Deci & Ryan, 1985), relatedness is one among three basic psychological needs-relatedness, autonomy, and competence. Relatedness could help resolve any personal and work-related issues. School leaders need to build a program to enhance trust, interpersonal relationships, and to inspire problem-solving among teams.

Professional Learning and Development Framework

Professional development was a popular approach for staff to improve work effectiveness. Teacher's professional development was thought to be linked to student learning outcomes (Kools & Stoll, 2016; Timperley, Wilson, Barrar & Fung, 2008). However, professional development implies a contingent learning form based on development gaps and needs. For example, a traditional staff workshop is offered to introduce new things or to refresh current knowledge and skills. Their supervisors are the ones to find the skill gaps and to see what needs to improve. In the contemporary LO, school embraces continuous learning at all levels to catch up to the constantly changing environment and to globalization. Therefore, many scholars voted to change the term from professional development to professional learning (Kools & Stoll, 2016; Cordingley, 2015; Webster-Wright, 2009). The findings from Wales, after having piloted SLO transformation, said that schools should uphold professional learning through institutionalizing the framework, making professional learning compulsory for all school staff. The professional learning program also integrates a system to capture and to share knowledge with all staff thus giving access to the data for learning and development (Kools et al., 2018).

A school-based policy framework for professional learning and development of all school staff

Professional learning may imply lifelong learning. The continuum of learning and change is the core of professional learning. Although many scholars debate changing from professional development (PD) to professional learning (PL), the two are sometimes still used interchangeably (Darling-Hammond, Wei, Andree, Richardson & Orphanos, 2009). To be effective, professional development must improve teacher knowledge and instructional practice, aiming to refine student learning outcomes (Darling-Hammond et al., 2009). They proposed an effective PD program to rethink the PD content (teaching strategy, assessment, observation and reflection), PD context for learning (learning and applying, collaborative and collegial learning) and learning experience (active learning). Kools & Stoll (2016) thought PL ought to be embedded in a workplace where an induction, coaching and mentoring program must be in place. Timperley, Wilson, Barrar & Fung (2008) hypothesized that PL should equip teacher's knowledge, namely pedagogical and content knowledge, and skills to promote deep learning and to affect lasting changes in schools. Due to continuously advancing technology, researchers would argue for the TPACK model (Schmidt, Baran, Thompson, Mishra, Koehler &

Shin, 2009) to be a PL framework for teachers. Watkins & Marsick (1993, 1997, 2003) imagined four levels of learning in an organization through Dimension of Learning Organization Questionnaires (DLOQ), namely individual learning, team learning, organizational learning and societal learning. Having reviewed the Fifth Discipline and the DLOQ models, we stand for three levels of learning in school, a structured framework for Professional Learning and a Development Framework. Therefore, a prerequisite of developing a school-based policy of professional learning and development must needs to put PL into practice at all levels of learning and of all school staff.

Discussion

The SLO transformation is a major reform that requires comprehensive and collaborative commitments, deliberation and diligence among key education stakeholders, ranging from the systemic level to the school level. SLO transformation should be reform (Hargreaves, Halasz & Pont, 2007) that involves all stakeholders to uphold learning at all levels. Moreover, it is necessary that high-level authority addresses SLO reform at the strategic level to develop a concise and concrete policy roadmap for SLO transformation. The roadmap to achieve the SLO transformation should incorporate the shared and inclusive vision of learning outcomes. It should include structured support mechanisms at the school level, inductive training program for SLO implementation, decentralization policy for transfer of authority in personnel management, funds & resources, and curricula at the school level. This would establish a professional learning platform for school staff to acquire more practical knowledge with SLO experts and scholars. At the school level, we recommend leaders exercise their transformational leadership and learning leadership to create a positive learning environment and a culture of supporting learning through practice. It is also recommended to make a flatter structure in order to empower team learning and shared decision-making among teachers and other school staff. School staff should be ready to input the SLO action-oriented dimensions, namely the ability to work as a team and to have one shared school vision. The final recommendation is to institutionalize a policy framework on professional learning and development to instill learning at all levels (individual, team and organizational level learning) in school.

Conclusions

SLO has drawn attention to many policy makers, school practitioners and educational scholars, pushing them to come up with a measurement construct and to study its effects and impediments at the systemic level and the school level. The Integrated Model of School as Learning Organization (Kools & Stoll, 2016) was adopted by the OECD, UNICEF and UNESCO to move the model forward. Many European countries, particularly Wales, have adopted the model to study its effects and obstacles. In Wales, the SLO had positive effects on teacher job satisfaction and work outcomes. Gouédard, Kools & George (2023) confirmed the impact of the model on teacher self-efficacy and job satisfaction. In Latvia, several hindrances were reported in lack of trust, proper communication and support from the top-level authority, a lack of funds and resources, and other such obstacles were found. In Greece, Papazoglou & Koutouzis (2020) confirmed that smaller school size accelerates the SLO transformation. In Spain, Bulgaria, Italy and Türkiye, Sierra-Huedo et al. (2023) found that rigidity of curriculum and individualistic teaching culture hinder SLO implementation. These findings from different European countries proved, it is more than necessary to understand the prerequisites of SLO transformation.

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References

- Akram, M., Watkins, K. E., & Sajid, S. A. (2013). Comparing the learning culture of high and low performing high schools in Pakistan. *Literacy Information and Computer Education Journal*, 4(2), 2022–2028.
- Alazmi, A. A., Alazmi, M. S., & Alqahtani, A. A. (2013). The impact of high schools as learning organizations on teachers' problem-solving strategies. *Journal of Teaching and Education*, 2(2), 523–530.
- Babak Alavi, S., & McCormick, J. (2004). A cross-cultural analysis of the effectiveness of the Learning Organization model in school contexts. *International Journal of Educational Management*, 18(7), 408–416.
- Bishop, D., Felsead, A., Fuller, A., Jewson, N., Lee, T., & Unwin, L. (2006). Connecting culture and learning in organisations: a review of current themes.
- Boreham, N. (n.d.). Learning Organizations in Europe: Implications for Vocational Education and Training.
- Caldwell, B. J. (2005). School-based management (Vol. 3). Paris: *International Institute for Educational Planning*.
- Caldwell, R. (2012). Systems thinking, organizational change and agency: A practice theory critique of Senge's learning organization. *Journal of change management*, 12(2), 145–164.
- Carzo Jr, R., & Yanouzas, J. N. (1969). Effects of flat and tall organization structure. *Administrative science quarterly*, 178–191.
- Cordingley, P. (2015). The contribution of research to teachers' professional learning and development. *Oxford Review of Education*, 41(2), 234–252.
- Creswell, J. W., & Miller, D. L. (2000). Determining validity in qualitative inquiry. *Theory into practice*, 39(3), 124–130.
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
- Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Pearson Education, Inc.
- Darling-Hammond, L., Wei, R. C., Andree, A., Richardson, N., & Orphanos, S. (2009). Professional learning in the learning profession. Washington, DC: *National Staff Development Council*, 12.
- Deci, E. L., & Ryan, R. M. (1985). The general causality orientations scale: Self-determination in personality. *Journal of Research in Personality*, 19(2), 109–134.
- De Grauwe, A. (2005). School-based management (SBM): Does it improve quality. *EFA Global Monitoring Report*, 1–14.
- Fitzgerald, L. A. (1999). Why there's nothing wrong with systems thinking a little chaos won't fix? A critique of modern systems theory and the practice of organizational change it informs. *Systemic Practice and Action Research*, 12(3), 229–235.
- Fullan, M., & Watson, N. (2000). School-based management: Reconceptualizing to improve learning outcomes. *School Effectiveness and School Improvement*, 11(4), 453–473.
- Ghiselli, E. E., & Siegel, J. P. (1972). Leadership and managerial success in tall and flat organization structures. *Personnel Psychology*, 25(4), 617–624.
- Gouëdard, P., Kools, M., & George, B. (2023). The impact of schools as learning organisations on teachers' self-efficacy and job satisfaction: a cross-country analysis. *School Effectiveness and School Improvement*, 1–27.
- Haiyan, Q., Walker, A., & Xiaowei, Y. (2017). Building and leading a learning culture among teachers: A case study of a Shanghai primary school. *Educational Management Administration & Leadership*, 45(1), 101–122.
- Hallinger, P. (2003). School leadership development. In *International Handbook of Educational Research in the Asia-Pacific Region: Part One* (pp. 1001–1013). Dordrecht: Springer Netherlands.
- Hargreaves, A., Halasz, G., & Pont, B. (2007). School leadership for systemic improvement in Finland. Paris: *Organization for Economic Cooperation and Development*, 1–44.
- Harris, A., Elder, Z., Jones, M. S., & Cooze, A. (2022). Schools as Learning Organisations in Wales: A Critical Exploration of the International Evidence Base. *Wales Journal of Education*, 24(1).
- Ho, L. A. (2011). Meditation, learning, organizational innovation and performance. *Industrial Management & Data Systems*, 111(1), 113–131.
- Hussein, N., Mohamad, A., Noordin, F., & Ishak, N. A. (2014). Learning organization and its effect on organizational performance and organizational innovativeness: A proposed framework for Malaysian Public Institutions of Higher Education. *Procedia-Social and Behavioral Sciences*, 130, 299–304.
- Kaulēns, O., Lūsēna-Ezera, I., Siliņa-Jasjukeviča, G., & Briška, I. (2023). Implementation of the School as a Learning Organisation: Latvian Educators' Experience. TO BE OR NOT TO BE A GREAT EDUCATOR, 252.
- Khandekar, A., & Sharma, A. (2006). Organizational learning and performance: Understanding Indian scenario in present global context. *Education+ Training*, 48(8/9), 682–692.

- Khay, S. B. (2024). Examining System Level Policy for School as Learning Organization: A Case Study in Cambodia. *The Asian Conference on Education & International Development 2024 Official Conference Proceedings* <https://doi.org/10.22492/issn.2189-101X.2024.30>
- King Smith, A., Watkins, K. E., & Han, S. H. (2020). From silos to solutions: How one district is building a culture of collaboration and learning between school principals and central office leaders. *European Journal of Education*, 55(1), 58–75.
- Kools, M., Gouëdard, P., George, B., Steijn, B., Bekkers, V., & Stoll, L. (2019). The relationship between the school as a learning organisation and staff outcomes: A case study of Wales. *European Journal of Education*, 54(3), 426–442.
- Kools, M., Pont, B., Gouëdard, P., Rodriguez, T., Stoll, L., & George, B. (2018). Developing Schools as Learning Organisations in Wales.
- Kools, M., & Stoll, L. (2016). What makes a school a learning organisation?
- Kools, M., Stoll, L., George, B., Steijn, B., Bekkers, V., & Gouëdard, P. (2020). The school as a learning organisation: The concept and its measurement. *European Journal of Education*, 55(1), 24–42.
- Koutouzis, E., & Papazoglou, A. (2016, October). Transforming Greek Primary Schools into Learning Organization. In *XII International Transformative Learning Conference, At Pacific Lutheran University, Tacoma, WA, USA*.
- Lastovska, A., Surikova, S., Siliņa-Jasjukeviča, G., & Lūsēna-Ezera, I. (2023). Educational Practitioners' Attitudes Towards Change: Challenges And Opportunities For Implementing The Model "school As A Learning Organisation" In General Education Institutions in Latvia. *Problems of Education in the 21st Century*, 81(5), 647.
- Lavrinoviča, B., Linde, I., Siliņa-Jasjukeviča, G., & Lūsēna-Ezera, I. (2023, August). School as a learning organisation: Impediments to its implementation in Latvia and abroad. In *Proceedings of the ATEE Annual Conference, Budapest, Hungary* (pp. 27–30).
- Lūsēna-Ezera, I., Siliņa-Jasjukeviča, G., Lastovska, A., Surikova, S., Kaulēns, O., & Linde, I. (2023). Learning Organization Practices in Latvian Schools: Perspectives from School Staff, Students, and Parents. *Education Sciences*, 13(10), 1000.
- Marsick, V. J., & Watkins, K. E. (2003). Demonstrating the value of an organization's learning culture: the dimensions of the learning organization questionnaire. *Advances in Developing Human Resources*, 5(2), 132–151.
- McGinn, N., & Welsh, T. (1999). Decentralization of education: why, when, what and how?
- Mok, K. H. (2003). Decentralization and marketization of education in Singapore: A case study of the school excellence model. *Journal of Educational Administration*, 41(4), 348–366.
- O'Neil, J. (1995). On schools as learning organizations: A conversation with Peter Senge. *Educational leadership*, 52(7), 20–23.
- Papazoglou, A., & Koutouzis, M. (2017, September). Leadership for transforming Greek schools into learning organizations. In *26th ENIRDELM Conference 14* (pp. 21–35).
- Papazoglou, A., & Koutouzis, M. (2020). Schools as learning organisations in Greece: Measurement and first indications. *European Journal of Education*, 55(1), 43–57.
- Papazoglou, A., & Koutouzis, M. (2022). Educational leadership roles for the development of learning organizations: Seeking scope in the Greek context. *International Journal of Leadership in Education*, 25(4), 634–646.
- Paraschiva, G. A., Draghici, A., & Mihaila, C. V. (2019). A research on schools as learning organizations: A theoretical approach. *International Journal of Management, Knowledge and Learning*, 8(2), 159–178.
- Patrinos, H. A., & Fasih, T. (2009). *Decentralized decision-making in schools: The theory and evidence on school-based management*. World Bank Publications.
- Pensieri, C. (2019). The Senge's fifth discipline in schools. A literature review. *Italian Journal of Educational Research*, (22), 75–112.
- Riley, L. (2023). Schools as learning organization: perceptions of teachers and principals in district-run virtual schools a mixed methods study.
- Rondinelli, D. A., McCullough, J. S., & Johnson, R. W. (1989). Analysing decentralization policies in developing countries: a political-economy framework. *Development and Change*, 20(1), 57–87.
- Schein, E. H. (2010). *Organizational culture and leadership* (Vol. 2). John Wiley & Sons.
- Schmidt, D. A., Baran, E., Thompson, A. D., Mishra, P., Koehler, M. J., & Shin, T. S. (2009). Technological pedagogical content knowledge (TPACK): The development and validation of an assessment instrument for preservice teachers. *Journal of Research on Technology in Education*, 42(2), 123–149.
- Senge, P. M. (1990). The fifth discipline. *The Art & Practice of Learning Organization*. Doubleday Currence, New York.
- Serrini, L. (2018). Rethinking organizations: the holacracy practice: an empirical analysis to assess the performability of the practice for small-medium and large-sized companies: ARCA and Zappos cases.

- Sheng, Z., Watkins, S., Yoon, S. W., & Kim, J. (2021). Examining schools as learning organizations: an integrative approach. *The Learning Organization*, 28(4), 383–396.
- Sierra-Huedo, M. L., Romea, A. C., & Agualeles, M. (2023). Are Schools Learning Organizations? An Empirical Study in Spain, Bulgaria, Italy, and Turkey. *Social Sciences*, 12(9), 495.
- Siliņa-Jasjukeviča, G., Lastovska, A., Surikova, S., Kaulēns, O., Linde, I., & Lūsēna-Ezera, I. (2023). Education Policy Institutions' Comprehension of the School as a Learning Organisation Approach: A Case Study of Latvia. *Education Sciences*, 13(9), 907.
- Stoll, L., & Kools, M. (2016). What makes a school a learning organisation: A guide for policy makers, school leaders and teachers.
- Timperley, H., Wilson, A., Barrar, H., & Fung, I. (2008). *Teacher professional learning and development* (Vol. 18). International Academy of Education.
- Van Breda-Verduijn, H., & Heijboer, M. (2016). Learning culture, continuous learning, organizational learning anthropologist. *Industrial and Commercial Training*, 48(3), 123–128.
- Varano Jr, S. A. (2010). *Professional learning communities and student achievement in Pennsylvania high schools*. Lehigh University.
- Volante, L. (2012). Educational reform, standards, and school leadership. *School leadership in the context of standards-based reform: International perspectives*, 3–17.
- Watkins, K. E., & Marsick, V. J. (1997). Dimensions of the learning organization questionnaire. *Warwick, RI: Partners for the learning Organization*.
- Watkins, K. E., & O'Neil, J. (2013). The dimensions of the learning organization questionnaire (the DLOQ) a nontechnical manual. *Advances in Developing Human Resources*, 15(2), 133–147.
- Watkins, K. E., & Marsick, V. J. (1993). *Sculpting the learning organization: Lessons in the art and science of systemic change*. Jossey-Bass Inc., 350 Sansome Street, San Francisco, CA 94104-1310.
- Webb, C. (2023). Flat structures, centralisation, and formalisation: the relationship with employee wellbeing.
- Webster-Wright, A. (2009). Reframing professional development through understanding authentic professional learning. *Review of Educational Research*, 79(2), 702–739.
- Winkler, D. R. (1989). *Decentralization in education: An economic perspective* (Vol. 143). World Bank Publications.
- Wohlstetter, P., & Odden, A. (1992). Rethinking school-based management policy and research. *Educational Administration Quarterly*, 28(4), 529–549.



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