

# LIFE WITH COVID-19: SWOT ANALYSES FOR TRANSFORMATIVE DIGITAL LEARNING IN EDUCATORS' PERSPECTIVE

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**Abstract.** Covid-19 pandemic has influenced all fields of life, including education, teaching and learning procedure. Initially the situation seemed vague and uncertain, but still challengeable, by moving almost all processes online and offering the digital or distance learning.

The aim of the article to identify key aspects of distance learning from educator's perspective following Covid-19 and basing on the research results to offer transformative digital learning strategy for educational institution. The authors draw attention to the procedure how to re-direct weakness and threats into strengths and opportunities, by implementing necessary changes at four indicated levels: individual, institutional, local government and state one. An important part for any strategy creation, including transformative digital learning (TDL) strategy for educational institution, is the detailed situation analyses. SWOT analysis structure has been offered by analyzing respondents' views for the conducted online questionnaire for educators and experts' interviews. Additionally literature review has been made to create the list of key elements necessary for the TDL strategy development, including global networking providers and nowadays paradigm shift –the transformative one.

**Keywords:** SWOT analyses, transformative digital learning, distance learning, paradigm shift, TDL strategy.

## Introduction

Covid-19 pandemic has influenced all fields of life, education, teaching and learning hasn't been an exception. If from the beginning of Covid-19 pandemic the situation in education seemed vague and uncertain, but still challengeable, by moving almost all processes online and offering the digital or distance learning. Covid-19 pandemic has triggered digital transformation of learning requiring the new strategy development on the education institution level.

An important part for strategy design and development is the detailed situation analyses. SWOT analysis is one of the most common strategic planning tools. It allows to conduct analytical work in order to determine the strengths and weaknesses of an educational institution, as well as opportunities and threats of the external environment (Patrahina, 2015).

In unknown situation the strategic planning is a way to help an institution be more productive, how to guide the allocation of available resources in order to achieve defined goals and objectives, as a strategic management tool. By conducting an external analysis, an institution should identify the critical threats and opportunities that it is facing. It also helps an institution to understand which of its resources and capabilities can provide additional advantages. Based on SWOT Analysis, educational institutions can choose the appropriate learning strategy (Gurel, Tat, 2017).

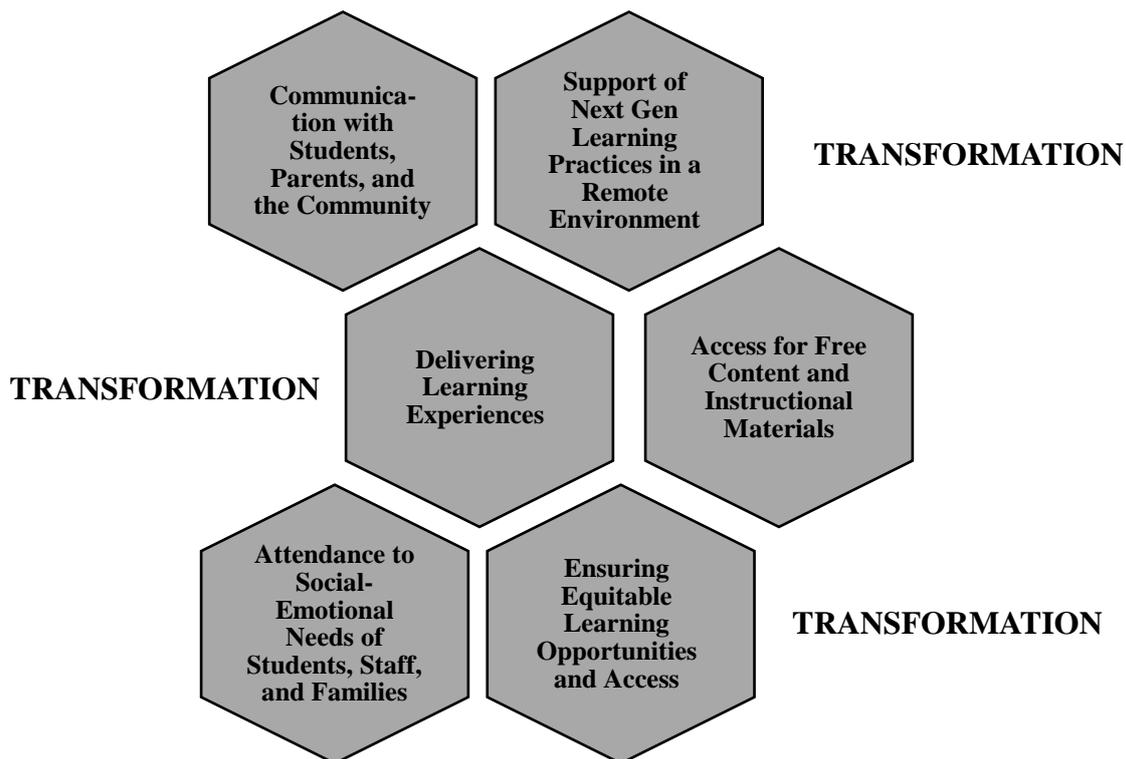
The stage of scanning the external and internal environment of an education institution is the base for an assessment of the data obtained, these data is the basis for a problem-oriented analyses of the educational institution's activities and further strategic goal defining as well as to carry out more comprehensive analysis (Morrison, 2018).

Alongside with this, for educational institutions the paradigm shift directs the particularity of the transformation strategy development highlighting the key elements that should be transformed. Some scientists name the distance learning followed by Covid-19 as emergency paradigm shift in teaching and learning. As this has been an operative solution to the current situation done with doubts and enthusiasm, while showing considerable achievements and positive attitudes with addressed additional problems (Mondol, Mohiuddin, 2020). While distance learning or digital learning is not new. It is a mixture of tools and tactics, some of already used, to maximize uncertain circumstances of education (Baum, 2020).

Latvian educational institutions moved online among others. The strain during the pandemic affect the management of education institutions, including educators and learners. All parties involved are worried about the life with Covid-19 in the context of education. Several surveys, questionnaires, interviews with experts in the field have been conducted. The situation is still uncertain, the transformation strategy is required taking into consideration the distance or digital learning aspect, to make effective outcomes (Ozola-Balode, 2020).

### **The Theoretical Framework of the Research**

First, the literature analyses for the SWOT factors have been done. The issue is covered from the educators' perspective. According to practitioners' guide for next gen learning the following key elements have been listed (see figure 1).



*Figure 1 Transformation of Education Following Covid-19*

According to Fig.1 the most important are the following elements: firstly, communication with all parties involved in the educational process. That can be concluded by Remote Learning Plan implementation and guidelines. Secondly, support for next gen learning practices in a remote environment. That require designing deeper learning for online distance learning during social distancing. Thirdly, to ensure equitable learning opportunities and access, enhancing inclusion and equity, social equity. Fourthly, attending social-emotional needs of students, staff and families, coping with the stress of the Covid-19 outbreak, managing anxiety around the pandemic. Fifthly, delivering learning experience, including guide to distance learning, resource hubs, resources links for support, approaches to instructions. Finally, access to free content and instructional materials, to recommended network sources (Avallone, 2020).

The inner environment consists of the following components: 1) resources of the institution (staff, information, knowledge, technologies, finance, equipment, culture, values and reputation, etc.); 2) processes (methods, approaches, communication, achievement of the objectives); 3) practical work of the institution (results, indexes, achievement, collaboration). While the outer environment consists of factors with direct and indirect influence, like political, economic, social, technological etc. (Patrahina, 2015).

## **Paradigm Shift**

Educational organization strategy is directly based on the nowadays paradigm as well. The modern educational paradigm highlights the following aspects: changing the relationship between educator and learner; personality formation, including learning as a key activity; cooperation during teaching/learning; the development of a holistic personality as the primary objective of education; focus of competences development; long life overall learning (Blūma, 2016).

Today's paradigm in education has been developed basing on the expected results reflected in the 2030 School program, where the key concept included: firstly, the active participation of parties involved: integrity, significance and involvement. Secondly, the new experience creation, transformation, by providing safe learning environment, goal-oriented, regular, different context learning/teaching (Grīnfeldē, 2017).

In order to reflect the nature of the paradigm shifts in education, it is necessary to describe the hierarchical system of the learning process, the main determinant of which is the objective. On the other hand, all other elements are interrelated, which could be arranged as follows: educational objectives; educational content; learning/teaching materials and features; organization of study process; roles of educator/learner; relations between educator/learner; the achievements of the learner (assessment) (Blūma, 2016).

As mentioned by Guntars Catlak, head of the National Center of Education of Republic of Latvia, today's educational challenge to prepare young people for a successful future in changing world, not only to acquire knowledge and its purposeful usage, but also to develop the capacity and willingness for lifelong learning. Global trends analyses show that significant changes are required in teaching/learning content, approaches and evaluation. At the same time, the role of personality development of young people is highlighted, including the development of behavioral habits (Skola2030, 2016).

Therefore, when the educational objective is changed by different factors, all the other elements have to be transformed accordingly, i.e. the whole paradigm should be transformed. That also defines the nature of any educational paradigm, as now we are facing the transformative paradigm including digital learning.

## **Digital Transformation of Education Institution**

For any organization, and for educational organization in particular for any change or transformation implementation the strategy is needed. The detailed analysis of the situation is the pre-condition for the strategy development. SWOT

analysis is offered by the author as the method for situation analyses for the further strategy of transformative learning development in the context of education.

As for educational organizations, to implement any changes, and in the specific case of transformative digital learning, a strategy is needed that requires a detailed analysis of the situation.

American leading corporation Alcatel Lucent offered their concept of Digital Transformation, general one for any organization, including the educational one. The first and the most important step – strategy design and development. A clearly defined strategy that leverages opportunities presented by the new technology while meeting the objectives of the stakeholders. The following four steps necessary to develop a DT strategy for education:

1. Connect everything to support tomorrow’s digital world. Set up strong strategic partnerships and build an ecosystem connecting the people, processes and things to build a communications network that is high capacity, secure and smart.
2. Deploy analytics to automate, understand and save money, necessity to use real life, real-time data to drive strategic initiatives that improve performance, roll out upgrades and make infrastructure decisions.
3. New business models are needed, updated software and on-demand services to make the procedure cheaper, more flexible and simpler to manage than traditional systems.
4. A single, simple platform needed or on-premises or in the cloud, the ultimate goal of digital transformation is to provide a single platform as the foundation of the network and communications infrastructure for the institution (Alcatel-Lucent, 2018).

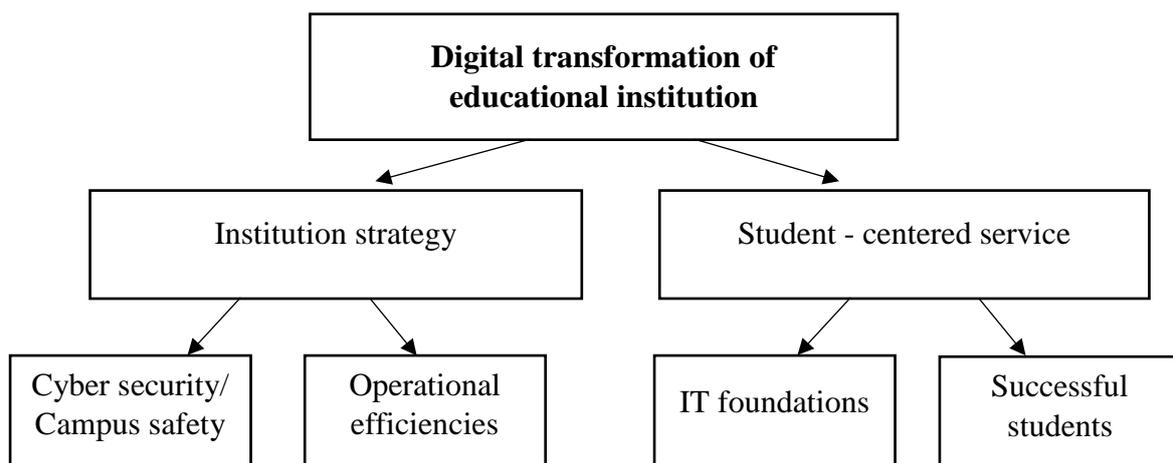


Figure 2 *Digital Transformation of Educational Institution* (Alcatel-Lucent, 2018)

Digital transformation of educational institution by covering two key points: institution strategy and student-centered service can provide the solution to situation followed by the Covid-19 pandemic.

### **Methodology of the Research**

The SWOT method was originally developed for business and industry, but it is also useful for development and education. As SWOT analysis guides to identify the organization's strengths and weaknesses and also broader opportunities and threats. Providing a full awareness of the situation that is necessary for strategic planning and decision-making that is the key factor for the implementation of transformative digital learning (Renault, 2020).

Additionally, SWOT analysis is a tool as for analyzing the internal like individual and organization perspectives and external like local government or state perspective. This method provides the way for growth and further development on both perspectives (Plumb, Kelsey, 2018).

By analyzing SWOT structure than the key elements include: strengths by describing positive aspects, assets, resources, prospects; weaknesses by describing negative aspects, limitations, restrictions, challenges; strengths are also possible opportunities; weaknesses are also possible threats.

There are many internal factors that should be taken into consideration: human resources; physical resources; financial; activities and process; previous or past experience (Sharma, 2005).

If to name forces and facts that are not under the organization control, these include: future trends in the field; funding sources; the economy – local and national; legislations; local or national events (Renault, 2020).

### **Questionnaire Results**

The questionnaire tool place from 25<sup>th</sup> of August till 15<sup>th</sup> of September 2020, online in the framework of the project "Life with Covid-19: Evaluation of overcoming the coronavirus crisis in Latvia and recommendations for societal resilience in the future" CoLife Nr. VPP-COVID-2020/1-0013. The current analyses include the respondents answers on the two main aspects: statements concerning distance learning and recommendations for distance learning procedure at state, institution and individual level.

Additionally, the experts' interviews have been analyses and the comparison provided. The described analyses are made in the educators' perspective.

Total 559 Latvian educators have participated in the questionnaire. Kronbah's alpha is  $\alpha = ,955$  and shows good internal consistency of the questionnaire.

The results are interpreted using SWOT analyses, including strengths, weaknesses, opportunities and threats.

### Research Results

In order to clarify the attitude towards distance learning from educators' perspective the online questionnaire has been conducted. 15 statements about distance learning have been offered to the respondents. The statements have been worked out basing on the Independent Educational Society, which allows for better understanding and comparative analysis at a later stage. The Likert scale was used, where 1 – disagreement and 4 –totally agree. The average index is presented in Table1.

According to Table 1 the highest average index is for the statements of complicated perception of learner's emotions, for promoting professional development and for the necessity of more online learning materials. While the lowest average index is for the individual approach for each learner and less quality of learning process.

*Table 1 Statements Analyses in Educators' Perspective*

Statement	Average Index
Very useful experience for both educators/learners	3,19
To reveal strengths and weaknesses in education system	3,25
New challenge as for educators as for learners	<b>3,66</b>
Promote professional development	3,16
Individual approach to each learner	2,48
Develop learning skills	2,99
Less quality of learning process	2,69
Everyday work and the learning process haven't changed significantly	1,88
More difficult to organize the learning process (no flexibility to change methods and work forms)	2,96
Improvement of digital skills of educator and learner	3,36
Development of self-sufficiency of learners	3,05
Complicated perception of learner's emotions	<b>3,90</b>
Low quality of communication	3,08
More online learning materials needed	<b>3,48</b>
Lack of technical aids (computers, etc.)	3,22

The statements in the questionnaire have been offered basing on the similar survey of Independent Educational Society that took place at the end of the 2019/2020 study year, with 849 respondents, the comparison has been conducted to highlight the trends and key aspects. In both questionnaires the similar tendencies have been observed (NĪB, 2020).

The majority of respondents of both questionnaires agree with the statement that distance learning revealed as strengths and weaknesses of educational system, but can't provide the sufficient perception of learner's emotions. Despite the fact the questionnaires have been carried out at a different time and different groups of respondents have been participated it can be defined that the trends remain the same following Covid-19 pandemic.

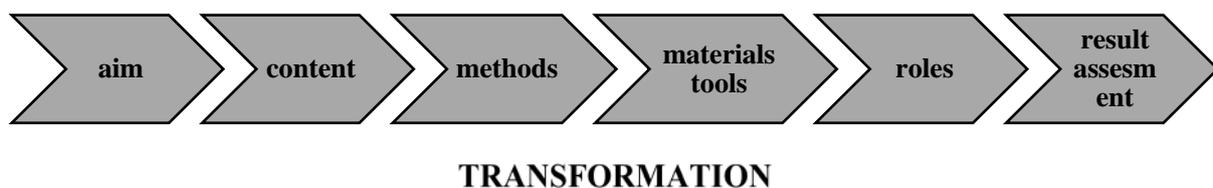
Afterwards the offered statements have been put into SWOT analyses structure, where the key weaknesses have been indicated as threats and risks (see table 2).

*Table 2 SWOT Analyses of Distance Learning in Educators' Perspective*

<b>STRENGTHS</b>	<b>WEAKNESSES</b>
<ul style="list-style-type: none"> <li>✓ Very useful experience for both educators/learners</li> <li>✓ Individual approach to each learner</li> </ul>	<ul style="list-style-type: none"> <li>✓ Less quality of learning process</li> <li>✓ Complicated perception of learner's emotions</li> <li>✓ Low quality of communication</li> <li>✓ Lack of technical aids</li> <li>✓ No joint platform</li> <li>✓ Lack of material</li> <li>✓ No developed digital competence as for educators/ as for parents</li> </ul>
<b>OPPORTUNITIES</b>	<b>THREATS/RISKS</b>
<ul style="list-style-type: none"> <li>✓ To reveal strengths and weaknesses in education system</li> <li>✓ New challenge as for educators as for learners</li> <li>✓ Promote professional development</li> <li>✓ Develop learning skills</li> <li>✓ Improvement of digital skills of educator and learner</li> <li>✓ Development of self-sufficiency of learners</li> <li>✓ More online learning materials needed</li> </ul>	<ul style="list-style-type: none"> <li>✓ More difficult to organize the learning process</li> <li>✓ Complicated perception of learner's emotions</li> <li>✓ Low quality of communication</li> <li>✓ Lack of technical aids</li> <li>✓ Next COVID waves</li> <li>✓ Uncertainties in educational policy, affecting work of educational leaders, resulting in the entire educational process</li> </ul>

The majority of statements have been put into opportunities, but the effectiveness of their implementation directly depends on the strategy worked out afterwards by the educational institution for transformative digital learning implementation.

By analyzing the open questions, the respondents indicated the four different levels for the changes implementation in order to improve the distance learning in educator's perspective: firstly, individual level (change of thinking and attitudes, openness to co-operation, development, responsibility and self-reflection of different skills (digital, time-management, self-organization, communication, mutual trust, etc.). Secondly, educational institution level (developing organization strategy and operational plans, identifying the digital tools to be used, providing security and support measure, developing precise criteria for the acquisition of the content, ensuring the communication and co-operation involved, etc.). Thirdly, local government level (provide support for the development and implementation of developed strategy, operational plans and documentation of the educational institutions, to develop high-skilled IT, social and psychological support plans and coordinate the implementation, to provide the professional competence development according to the needs, etc.). Finally, at State level (unique platform for digital and interactive learning resources for random access, determination of responsibilities and obligations, clearly indicated guidelines; development of recommendations for evaluating learner learning performance, revision of educator workload, provision of various types of financial, social and psychological support and coordination, etc.).



*Figure 3 Transformation Strategy*

Following the detailed analyses, the transformation strategy should be designed. On Fig.3 the education paradigm key elements are explained in the transformation perspective. So Covid-19 has influenced the general situation including educational aspect, so in order to achieve good results the following transformation strategy is offered, that is the integral part for transformative digital learning implementation, where starting from the education aim and objective the key elements: content, methods and approaches, used materials and tools, roles of learner and educator, are transformed for best results achievement, using also transformed assessment strategy.

## **Conclusion**

The results of the research show that distance or digital learning is full of opportunities from educators' perspective, while the aspects of four defined levels should be taken into consideration: individual, institutional, local government and state one.

As the result of the research, according to SWOT structure, the following strengths, weaknesses, opportunities and threats were identified, basing for the offered questionnaire statements. The strengths of distance learning are useful experience for both educators and learners and individual approach to each learner, while the opportunities include the display of strengths and weaknesses in education system; new challenges for educators and learners; promotion of professional and learning skills development, digital skills improvements and self-sufficiency of learners. Moreover, the weaknesses correspond to the threats and risks, including less quality of learning process; complicated perception of learner's emotions, low quality communication and lack of technical aids; more complicated to organize the learning process.

We can conclude that designing the transformation strategy for distance/digital learning the key elements of paradigm shift should be taken into consideration, from the aim formation to the assessment of the achieved results from the educators' perspective. Further analyses and discussions are recommended covering the learners' perspective in the distance or digital learning context.

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