Pedagogical challenges in Distance Learning during COVID-19 conditions – Experience of Latvia

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Abstract

Due to the global pandemic caused by the spread of coronavirus disease, the educational process has experienced very significant transformations – in the pedagogical process both pupils and parents, teachers and education policy makers have encountered essential challenges and an unprecedent experience The aim of the research, based on the theoretical study of the distance learning concept and empirical research, and finding out the teachers' attitude towards distance learning, is to describe the Latvia experience in distance learning during COVID-19 conditions. The research's methodology is based on teacher survey, regulatory analysis, and concessional analysis. The study highlights problems in the context of distance learning and makes a significant contribution to further research. Analysing the results of the empirical study and outcomes of the survey, it has been concluded that teachers feel psycho-emotional and physiological overload due to distance education.

Key words: distance learning; education; pedagogical process; pupil; teacher.

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1. Introduction

In March 2020, the World Health Organization announced that the spread of coronavirus disease Covid-19 has reached the scale of a global pandemic (World Health Organization, 2020), as a result, the state of emergency was declared in Latvia (Ministru kabineta rīkojums Nr. 103, 2020), in Latvia the arrangement of educational process experienced very significant changes – distance learning became an integral part of the learning process. In November 2020, amendments were made to the Latvian Education Law, where Article 1 was supplemented with the definition: "distance learning is a part of the full-time educational process in which pupils learn, including application of information and communication technologies, without being physically in the same room or place with the teacher"; also in Article 1 it has been defined what distance learning is: "a form of education acquisition in which the pupil acquires independently the content of the curricula implemented in the educational establishment, applying especially designed learning materials, different technical and electronic means of communication offered by the educational establishment. The learner's achievements are assessed in compliance with the requirements of the respective educational programme" (Izglītības likums, 1998).

1.1. Conceptual framework

The conceptual framework of distance learning process has also got some positive effects such as: (I) pupils who, for justifiable reasons, are unable to attend school; (II) pupils who live far away from school; (III) lack of teachers, for instance, one teacher can teach several pupils from different schools. However, at the same time a lot depends on the pupil's motivation, on their ability to analyse information and on the environment (Daniela, 2021). Alongside distance learning the public demand for competent teachers in a versatile way is increasing as well. The society expect that "teachers will possess a profound and extensive awareness of what they are teaching to whom and how pupils are learning, since what teachers know and care about makes a difference in pupils' learning – teachers will be passionate, sympathetic and thought-through, they will make education central and promote pupils' involvement and responsibility, they will react efficiently to pupils with different needs, origin and languages, as well as promote sensitivity and social equality, provide continuous pupils' contribution and feedback (Schleicher, 2018, 256). Moreover, tomorrow's students need to develop curiosity, imagination, resilience and self-regulation; they will have to respect and appreciate others' ideas, perspectives and values; and they will have to deal with failures and rejection and move forward after having encountered some problems (OECD, 2018). Modern children have to learn to live in a dynamic and changeable world which requires a change in the familiar environment, thus it is important to acquire the basic things already in the school environment, where the learning and teaching process is led by a wise and skilful teacher. Besides, technologies have to be applied in order to obtain competence which is necessary for the economic, social, environmental, financial and personal growth and progress.

1.2. Historical transformation of the term "distance learning"

Distance learning has got different concepts and theories, whose origins can be found in the second half of the 20th century, based on the theoretical research the historical development of the distance learning concept from 1966 to 1997 has been collated:
- planned and systematic activity which includes selection of learning materials, didactic preparation and design, as well as monitoring and support provision of pupils' learning, and achieve it, applying at least one appropriate technical environment in order to eliminate the physical distance between the pupil and teacher (Delling, 1966).
- a set of teaching methods which develops learning habits, applying printed, electronic, mechanic or any other device in order to facilitate communication between the pupil and teacher (Moore, 1972).

- a method with whose help it is possible to acquire education from distance. Knowledge, skills and attitude are rationalized, applying shared work and organizational principles, also applying extensively technical media, especially in order to reproduce learning materials of high quality which enable teachers to teach a great number of pupils simultaneously regardless their place of residence (Peters, 1973).
- a study form that includes all teaching methods and all levels of education, which does not have direct and independent monitoring from the teacher's side, but teachers plan, organize and manage the educational process (Holmberg, 1977).
- based on a very general observation that personal senses of empathy and personal relationships between pupils and teachers support learning motivation and strive to improve learning outcomes (Holmberg, 1986).
- an educational process in which somebody coordinates a significant part of the learning process, and which is situated in another place and away from the pupil (Perraton,1988).
- direct communication and interaction between teachers and pupils, where interaction is a means of cooperation – the pupil is given the freedom to choose the time and place of study regardless the pupil's abilities and resources (Garrison, 1989).
- representation of an industrialized form of teaching and learning (Peters, 1989).
- a way how to provide training to a person, who is engaged in the planned studies, by printed or electronic means, but is located in another place and time which is different form the teacher's location (Moore, 1990).
- in order to overcome the distance, in the learning process there has to be included: (I) a dialogue – purposeful, constructive interaction, which is appreciated by both parties, advancing towards a better understanding; (II) structure – flexibility or inflexibility regarding the goals of the course, strategies and types of assessment and evaluation; (III) the dimension of learner autonomy (Moore, 1994).
- home studies, independent studies, freelancing studies, distance learning, remote studies (Keegan, 1996).
- certain practices prevalent in industry, in particular the use of technology and division of labour, could be used in the learning process (Moore, Kearsley, 1996).
- can be related to a great number of various programmes, which serve different audiences, applying a wide range of mass media and, finally, rapid changes of technologies challenge the conventional way in which the e-learning is defined (Hanson et al., 1997).

After having collated the historical development of distance learning concept during the time period from 1966 to 1997, it has to be mentioned that the distance learning process, which is systematic, purposeful and at the same time also individual, provide pupils with an opportunity to obtain certain knowledge, skills and methodological support regardless the pupil's location, mostly depends on the educator's professional competence, pupil's digital skills and accessibility to information technologies. Of course, over time, the content framework of the concept of distance learning and the forms of distance learning process develops. So, for instance, at the beginning of the 21st century Katrina Meyer (2002) in her work *"Quality in Distance Education: Focus on On-Line Learning"* mentions that there is not such a universal way which would tell us how to describe the quality of education and the distance learning process, since in every term there are other very complex terms which depend on various factors, e.g. technologies, description of the learning process, pupils, study design, etc. (Meyer, 2002). In its turn, after March 2020 when the coronavirus disease had reached the extent of global pandemic, distance learning has in a certain way evolved and become as an integral part of the everyday learning process.

1.3. Distance learning – teacher's experience in the national and local context

As mentioned above, efficient organization of distance learning, first of all, depends on educator's professional mastery, digital competence (Caena, Redecker, 2019) and accessibility to information technologies. Of course, there are also other influencing factors that largely determine the course of distance learning processes and its effective organization. So, for instance, in the research *"On Problems and Their Solutions in Distance Educational Process Provision in the Conditions of National Emergency Situation"* (2020) by Latvian Trade Union of Education and Science Employees the most important factors influencing distance education are highlighted:

1. technical facilities and digital skills of the learning process.
2. organization of the learning process.
3. ensuring cooperation with students and colleagues.
4. observance of educators' rights.

The results of the survey conducted within the framework of the research *"On Problems and Their Solutions in Distance Educational Process Provision in the Conditions of National Emergency Situation"* (2020) highlight the following problems in the context of distance learning:

- the selection of the most suitable digital tools for the study content, to provide distance learning in an emergency situation in the country has been accomplished only partially.
- only half of the educators have a full access to all necessary information technology systems required for remote work.
- a third of pupils are insufficiently equipped with an appropriate internet connection speed and technical facilities.
- only half of pupils and their parents adhere to the procedures set by the educational institution in the distance learning process implementation.
- communication with pupils and their parents has been encumbered – most of teachers do not receive any feedback from pupils and/or their parents.
- additional time resources are needed compared to the face-to-face study process.
- work conditions have got worse due to the remote work arrangements compared to the face-to-face pedagogical work.
- the degree of educators' burnout syndrome is significantly increasing.

It should be noted that 5003 respondents participated in the electronic survey of the Latvian Trade Union of Education and Science Employees of which: 1214 primary school teachers; 1923 comprehensive basic education teachers; 1404 comprehensive secondary education teachers; 256 vocational education teachers; 206 higher education teaching staff (Latvijas Izglītības un zinātnes darbinieku arodbiedrība, 2020).

1.4. Purpose of study

The aim of the research, based on the theoretical study of the distance learning concept and empirical study, finding out the teachers' attitude towards distance learning, describe the Latvia experience in distance learning during COVID-19 conditions.

2. Research methodology

2.1. Data collection method

In order to understand better the teachers' work environment, also to detect the range of current pedagogical challenges and problems during the distance learning process, the authors of the article carried out the empirical study (teachers' survey) in one of the comprehensive educational establishments in Latvia.

In the survey 12 statements have been set, applying the Likert scale, and 1 question. The structure of the survey consists of the teachers' self-assessment: (I) about the received methodological support; (II) about the received psycho-emotional support; (III) about the support from pupils, pupils' parents and colleagues; (IV) about the working conditions; (V) about their wellbeing. The survey is anonymous, and it has been offered to fill it in electronically, applying the *Google Survey Online* platform.

2.2. Participants

In the case study a simple random selection was used, organizing a survey (Martinsone, Pipere, Kamerāde, 2016). The average age of respondents is 54 years, of which 75% female and 25% male, the average working pedagogical experience of respondents is 19 years. The survey was anonymous and electronic using *Google's Survey Online* tool.

The survey was carried out in May 2021, 65 out of 69 or 94% of all teachers working for the chosen educational establishment took part in the case study. The respondents' pedagogical profile is very broad – teachers of various subjects from Class 1 to Class 12.

2.3. Analysis

The research used percentages and graphical representations in the analysis of the collected data. The data was first grouped and thereafter represented in the graphs.

3. Results

Assessing the educators' self-assessment on the received methodological support (Figure 1), it can be concluded that most of the teachers (76.92%) think that the school administration provides the methodological support, whereas a negative tendency has been observed at the municipal and national level, namely, on average 93.85% of teachers do not receive the necessary methodological support from the city's methodological union and governmental institutions during the distance learning process.

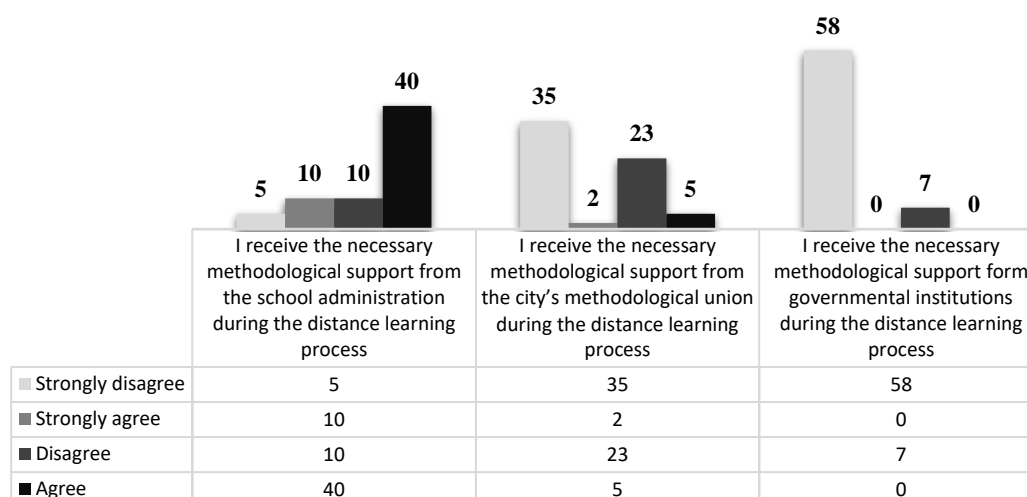|	I receive the necessary methodological support from the school administration during the distance learning process	I receive the necessary methodological support from the city's methodological union during the distance learning process	I receive the necessary methodological support form governmental institutions during the distance learning process
Strongly disagree	5	35	58
Strongly agree	10	2	0
Disagree	10	23	7
Agree	40	5	0

Figure 1. Teachers' self-assessment about the received methodological support during the distance learning process

Analysing the teachers' self-assessment about the received psycho-emotional support (Figure 2), it has to be concluded that a little bit more than half of the teachers (58.46%) think that the school administration provides the psycho-emotional support. In its turn, all respondents (100%) think that they do not receive any psycho-emotional support from the city's methodological union and governmental institutions during the distance learning process.
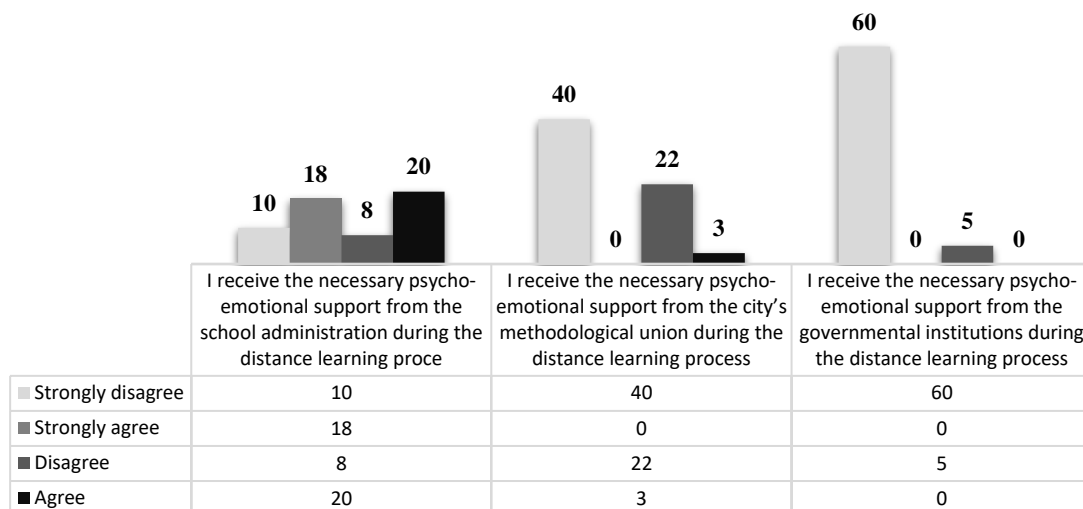
	I receive the necessary psycho-emotional support from the school administration during the distance learning proce	I receive the necessary psycho-emotional support from the city's methodological union during the distance learning process	I receive the necessary psycho-emotional support from the governmental institutions during the distance learning process
Strongly disagree	10	40	60
Strongly agree	18	0	0
Disagree	8	22	5
Agree	20	3	0

Figure 2. Teachers' self-assessment about the received psycho-emotional support during the distance learning process

On the positive side, on average 81.54% of teachers receive support from pupils, pupils' parents and colleagues (Figure 3), while it should be noted that teachers receive more support from their colleagues (93.85%) and relatively less support is received from pupils (64.62%). The support received both from students and their parents and colleagues in difficult working conditions is very essential and important in order to promote a positive well-being of teachers.
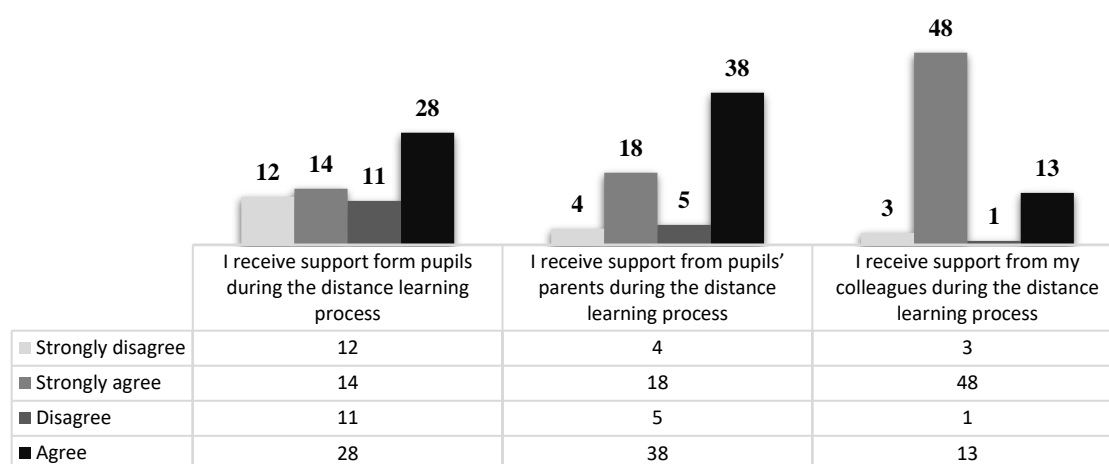
	I receive support form pupils during the distance learning process	I receive support from pupils' parents during the distance learning process	I receive support from my colleagues during the distance learning process
Strongly disagree	12	4	3
Strongly agree	14	18	48
Disagree	11	5	1
Agree	28	38	13

Figure 3. Teachers' self-assessment about the received support from pupils, pupils' parents and their colleagues during the distance learning process

Looking at the educators' working conditions (Figure 4), several important nuances should be noted, namely, all respondents (100%) noted that there has been a significant increase in workload during the distance learning process and that teachers are tired, they feel emptied, and they also feel

physical and psychological overload during the distance learning period. One of the questions in the survey was, "Would you leave the teacher's job if you had such an opportunity?" 22 out of 65 respondents or 33.85% of teachers answered in the affirmative. The identified situation can lead educators to burnout, educators are exposed to anxiety and depression during the distance learning process.
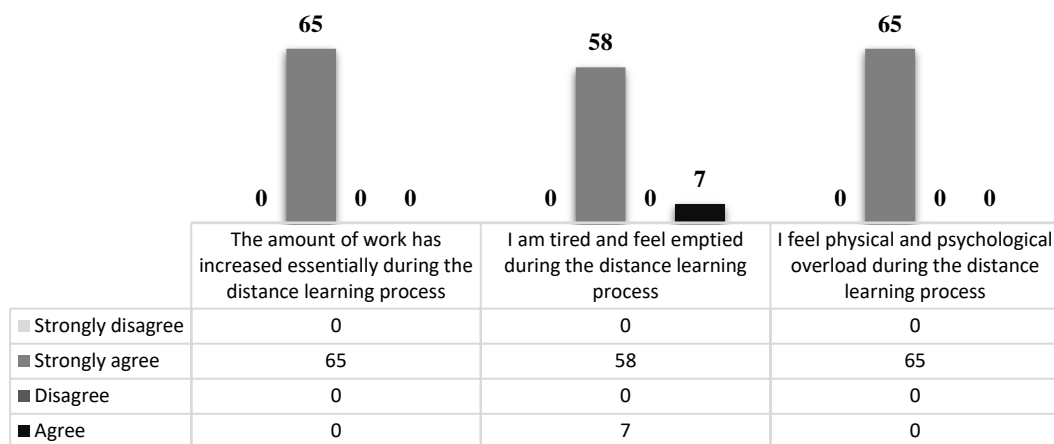

	The amount of work has increased essentially during the distance learning process	I am tired and feel emptied during the distance learning process	I feel physical and psychological overload during the distance learning process
Strongly disagree	0	0	0
Strongly agree	65	58	65
Disagree	0	0	0
Agree	0	7	0

Figure 4. Self-assessment of teachers' working environment and wellbeing during the distance learning process

Analysing the results of the empirical research survey, it must be concluded that teachers are tired of the distance learning process, teachers feel psycho-emotional and physiological overload, moreover, the support from governmental institutions and the city, including methodological and technological support, is insufficient. The workload for teachers has significantly increased and, in general, working conditions have deteriorated in relation to the organization of remote work, compared to the face-to-face pedagogical work - teachers' self-assessment of their wellbeing is critically low. As a result, teachers are more exposed to anxiety and depression during the distance learning process, significantly increasing the degree of burnout syndrome and endangering the further professional capacity of teachers.

4. Discussion

Summarizing the historical development of the theoretical concept of distance learning during the period from 1966 to 1997, the most important components of distance learning identified should be noted: (I) teacher's physical separation from the pupil and the pupils' study group; (II) mutual communication happens through technology; (III) interaction of teacher-pupil communication; (IV) pupil's autonomy and self-directed learning; (V) pupils and their parents' attitude towards the distance learning process and participation in it. The distance learning process, which is systematic, purposeful and at the same time also individual, providing pupils with an opportunity to acquire certain knowledge, skills and methodological support regardless the pupil's location, largely depends on the educator's professional competence, pupil's digital skills and accessibility to information technologies (Vlachopoulos & Makri, 2017).

The results of the empirical study, after collating the outcomes of the survey, reflect the following tendency: (I) most of the teachers think that the school administration provides methodological support, whereas a negative tendency has been observed at the municipal and national level, namely, on average 93.85% of teachers do not receive the necessary methodological support from the city's methodological union and governmental institutions during the distance learning process (Vinichenko et al., 2016); (II) a little bit more than half of the teachers think that the school administration provides the psycho-emotional support, whereas all respondents think that

they do not receive any psycho-emotional support from the city's methodological union and governmental institutions during the distance learning process; (III) on average 81.54% of teachers receive support from pupils, pupils' parents and colleagues, at the same time, it should be noted that teachers receive more support from their colleagues and relatively less support from pupils; (IV) teachers admit that the workload has significantly increased during the distance learning process and that teachers are tired, they feel emptied, they also feel physical and psychological overload during the distance learning process; (V) a third of teachers (33.85%) would leave their teacher's job if there were a possibility.

5. Conclusion

Distance learning is an integral part of the education system. However, it is important to pay attention to both the content and form of distance learning, and the differentiation and individualization of learning approaches. Both teachers and pupils and their parents have to be able to adapt to the application of different electronic media as teaching aids. In its turn, the educator's task is to develop efficient strategies and approaches for the distance learning process in compliance with the pupils' abilities and possibilities.

In order to improve the distance learning process, it is important to provide teachers with portable work on computers, appropriate facilities, as well as provide teachers with opportunities to improve their digital competence. At the same time, it is necessary to develop a unified approach and procedure to organize the distance learning process in an educational institution, clearly defining the steps of responsibility and action, as well as observing the main conditions for the learning process organization: (I) flexibility and independence; (II) adaptation of the curriculum and learning process according to the pupils' needs and age; (III) cooperation and information (educators, pupils, parents and responsible national, municipal institutions); (IV) socially emotional and other kind of support; (V) provision – technological and learning resources, differentiation and individualization of the learning process.

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