

Selected socio-psychological and pedagogical issues of the remote education

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Abstract: Remote education, which has become the standard of our times, requires an interdisciplinary approach. The article presents selected socio-psychological and pedagogical issues related to teaching and learning with the use of ICT based on a review of the literature on this issue. The analysis covered the results of research on the level of digital competences and pedagogical activities, mainly in crisis situations (Emergency Remote Teaching, ERT). These situations showed that the resilience of teachers and students can be enhanced by support and cooperation systems not only in urgent online education. An important aspect of the undertaken analyzes is the transformation of the school towards a learning organization and the social challenges accompanying this change.

Keywords: remote education, resilience, mental support, cooperation

1. Introduction

The urgent need to use digital tools in education has caused many problems, both organizational and psychological, as the real reality has turned out to be not yet fully prepared for radical changes in both the school methodology and the methods of acquiring knowledge by students. The development of digital educational tools requires the effort of representatives of many scientific disciplines, including educators, sociologists, cultural scientists and psychologists. The latter, apart from theoretical justifications, conduct a series of empirical studies on the psychological possibilities of adolescents' adaptation to new learning conditions. The socio-psychological factors characterizing the subjective well-being of students in this situation include the most frequently mentioned: learning skills (including distance learning), satisfaction with the results obtained from this form of education, maintaining relationships with classmates and teachers, and the effectiveness of remote interaction with teachers.

The forced transition to distance learning during the pandemic determined the development of new models of teachers' professional activity. The results of the research after the «first wave» showed that the academic teachers' environment was not prepared for distance learning not only due to the lack of the necessary competences and skills to work in the Internet environment, but also psychologically. In particular, the psychological unpreparedness of teachers to move from traditional forms of interaction to remote ones, the collapse of the known «live» models of communication with students and colleagues turned out to be a great difficulty (Iłina, 2021). The main groups of risks faced by teachers due to forced transition to remote work have also been identified. On the one hand, teachers in the era of remote work developed new skills and competences, mastered innovative online technologies, managed to overcome numerous psychological struggles, etc. On the other hand, teachers are aware that the necessary education transformation process will not only significantly change their professional activity, but also lead to the emergence of completely new social roles and patterns of professional behavior.

As for students, the research by Brooks et al. (2020) indicate that when students are online, they become less mentally engaged, have different attitudes to sleep and rest, and less favorable diets, contributing to, among others, for weight gain and loss, or cardio-respiratory disorders. In addition, remote work affects their motivation, interest and commitment to learning (Carvalho et al., 2020). Several studies suggest that enthusiasm is a

key factor in influencing the pace and quality of learning (Odeh et al. 2020). Lin, Zhang, and Zheng (2017) believe that student motivation is one of the most important factors influencing academic progress or their ability to learn. Likewise, students' perceptions of learning can be constructive or destructive, and this ultimately affects their willingness to learn. Yet there are also examples that learners' active knowledge management and motivation, and the combination of cognitive and metacognitive factors are key to active online learning (Odeh et al. 2020).

The civilization changes and social change noted in recent years have prompted the authors to seek and implement new didactic solutions in Poland, taking into account the described psychological, pedagogical and social problems (Tomczyk et al. 2020). Reflections focus on digital skills and experience in the use of modern information and communication technologies in education in Poland. On the basis of the conducted analyzes, two groups of users of the online educational platform were identified. One third of users have varied e-learning experiences, which corresponds to their digital skills. The remaining two-thirds of respondents need more training in the areas assessed. Subsequent studies have shown that the respondents are open to the development of their own teaching competences and appreciate the role of lifelong learning. Teachers expect substantive and methodological support, as well as the promotion of the idea of lifelong learning (including the development of digital competences) in the society (Tomczyk et al. 2022).

The process of school transformation was also explored. The main objective of the study was to present a substantive analysis of the Polish educational environment based on the opinion of primary and secondary school principals in relation to the threats and prospects brought about by the global blockade of the real / stationary educational process due to Covid-2019. The conceptual framework was based on a theoretical perspective (cognitive and affective processes in multimedia teaching, theory of motivation and goal setting) and the model of the school as a learning organization and the assumptions of Emergency Remote Teaching. Categorized interviews with school heads were conducted using a categorized interview questionnaire, and the respondents considered various categories of problems in educational practice related to the remote functioning of schools. The conducted research allowed to identify various areas of the impact of Emergency Remote Teaching on the transformation of the school as a learning organization, such as the functioning of the school in mutual internal and external network cooperation, dissemination and expansion of communication areas using information technology, strengthening network interaction through information technologies and other areas (Potyrała, Demeshkant, Czerwicz et al. 2021).

Knowledge and skills also fit into the construct of resistance. Resilience is a construct relating to well-being, self-creation, and above all, an adequate response to a threatening situation or avoiding threats. Resilience allows you to develop habits that allow you to overcome fate, i.e. difficult situations. They were the subject of research conducted by Burkot, Sepioł and Demeshkant in 2021.

2. Materials and methods

2.1 Study methodology

The *main purpose* of the undertaken research was to analyze documents and source data on the socio-psychological and pedagogical problems of remote education in Poland.

Detailed objectives were focused on the exploration of the phenomenon of remote education from the institutional (school as a learning organization) and individual (teachers, school principals, students, parents of students) perspective. The theoretical goals include conducting an analysis of evaluation studies that can identify indicators that determine the functionality of online platforms and tools used by online teachers, and among the cognitive goals, the analysis of the Polish remote educational environment in socio-psychological and pedagogical contexts based on the opinion of primary school principals and secondary education and parents of students covered by distance education. In the latter case, attention was paid to the level of knowledge and skills of parents of

primary school students in the field of Internet safety in the context of digital skills. Research was analyzed that included the measurement of knowledge and skills in the prevention of electronic threats, which are defined as problem situations and e-threats. These situations are related to mental and physical health, social aspects and technical issues related to the use of ICT.

The *conceptual framework* was based on a theoretical perspective (cognitive and affective processes in multimedia teaching, theory of motivation and goal setting) and the model of the school as a learning organization and the assumptions of Emergency Remote Teaching.

The following *research problem* was formulated:

How has Emergency Remote Teaching influenced the transformation of the school as a learning organization and what are the socio-psychological and pedagogical consequences of this change?

2.2 *Study methods*

The *method of document analysis* was used, with particular emphasis on:

A / *analysis of the results of research on the evaluation of Polish educational experiences* related to the use of online platforms and related problems, including categorized interviews with school principals and teachers, where respondents considered various categories of problems in educational practice related to the functioning of schools during and after the pandemic.

The following cognitive categories used in the interviews were noted:

1 / network cooperation between teachers and school management;

2 / online and offline relationships,

3 / teachers' competences in the field of remote teaching and educational activities in crisis situations,

4 / pedagogical and psychological support for teachers and students during the remote teaching,

5 / setting goals by the head teacher as a remedy for stress and a sense of threat,

6 / autonomy of the school and the role of the head teacher in the decisions specific to the school environment,

7 / the authority of the teacher;

B / *analysis of research results in the field of intentional education*, which includes recognizing and reacting to negative processes resulting from the use of new media, which may be a starting point for designing comprehensive educational activities that help prevent dangerous social situations;

C / *analysis of the results of research on the resistance construct*, where the research conducted at the end of 2020 on a group of respondents from Germany and Poland, who were principals and managers of primary and secondary schools, was analyzed. Each participant answered 12 open-ended questions about preventing and dealing with the dangers of working remotely during a pandemic.

3. **Research results**

The evaluation of *Polish educational experiences related to the use of online platforms* focused on three areas:

1 / course quality,

2 / e-learning and

3 / self-assessment of digital skills.

The analysis of the data taking into account the variable (student, active teacher) showed that teachers were able to more accurately assess whether the content of the course was useful for their work. They also preferred concise forms of information delivery and focused mainly on practical aspects. However, the research showed their low knowledge of the methodology of creating e-learning trainings (Tomczyk et al., 2020).

Detailed analysis of the results also showed that teachers scored well on the test in terms of knowledge of sexting and image protection, but did not do well on copyright and online information credibility; male teachers know more about the technical aspects of digital security than female teachers; trainees need special support in the form of informal and non-formal education (Potyrała & Tomczyk, 2021).

The thematic analysis of interviews with school principals in accordance with the established categories made it possible to organize the mutual relations and the relations between them, and this led to the separation of basic categories according to the research objectives. The directors emphasized that the direct teacher-student relationship is very important. Lack of offline contact raises teachers' concerns about the effects of implementing didactic material and verifying students' achievements. A teacher conducting an online lesson in a large classroom is not able to see all students, even with cameras turned on, does not recognize their emotional states, and cannot ask about students' reactions and emotions instead of direct observation. A very important issue that appeared in all the interviews was the competence of teachers in the field of remote teaching in crisis situations. The pandemic situation and the shift of entire school communities to purely distance learning was an unexpected situation. Teachers with different levels of competence in the use of information and communication technologies in education find themselves in the new professional situation. The respondents report how difficult this professional change was for them. Sometimes even the most talented teachers had problems with remote education. However, with psychological and pedagogical support, the situation quickly stabilized (Potyrała, Demeshkant, Czerwiec, Jancarz-Łanczkowska & Tomczyk, 2021).

School principals-respondents emphasized that they owe their success to team activities. Group classes, according to the school principals, allowed for the efficient organization of distance learning, but also gave great psychological support to teachers, especially those who are less able to deal with communication technologies. Examples of respondents' statements are presented in Table 1.

Table 1. *Examples of statements of respondents-school principals according to Potyrała et al., 2021*

The role of teamwork	<i>'The most important thing is that we acted as a group, we supported each other. We talked a lot. Everyone can find support in the teachers' room'. 'One of the teachers, who is better at the application, trained the others in such trial classes, trial lessons, so such mutual help was the most important'. 'We try to pass on good practices to each other. It is also important to me that the school should be such a community as this one'.</i>
The role of cooperation with other school heads	<i>'I was happy to accept the decision of such a network that was created between the head teachers'.</i>
The role of meetings with representatives of the government	<i>'It would be perfect if there was a platform where one could meet representatives of the government, be it local or state, and in some way present their proposals, because such sensible ideas are born during brainstorming'.</i>
The role of new professional situation	<i>'Some teachers are great in the classroom, but not necessarily good at remote teaching'.</i>
The role of professional development	<i>'The teachers had to learn a lot, support each other and the stress in this case was very beneficial'.</i>
The role of students' motivation	<i>'Teachers will draw conclusions and will want to learn, they will want to use information technology to improve their teaching methods under normal conditions, not only during the pandemic'.</i>

The role of mental reinforcement	<i>'The next important thing is how to motivate students to study independently. It is common to avoid calls, turn off cameras, avoid participating in lessons'.</i>
The role of institutional support	<i>'The fact of conducting classes in the normal mode is for children mental reinforcement' 'We have time for children from dysfunctional families and here they can find such a safe haven and support as opposed to institutions that are quite remote on teaching'</i>

The research identified the main areas of influence of Remote Teaching on the transformation of the school as a learning organization. They are: organization, communication, process and integration.

Intentional education involves recognizing and responding to negative processes resulting from the common uses of ICT in the educational process. In order to implement such targeted educational activities, at least basic knowledge about the typical and emerging threats related to the development of the information society is needed, which was the subject of research in the studies on parents' knowledge and skills about the risks of the digital world (Tomczyk & Potyrała, 2021).

A detailed analysis of the research outcomes revealed that the parents' self-evaluation as related to their knowledge about e-threats was directly related to their competence test results. The parents who declared that their knowledge was at a low or at a very high level obtained similar results in the competence test. Similar correlations were found between the self-evaluation of DL in the area of e-threats and the ability to use mobile devices and computers (Tomczyk & Potyrała, 2021, p. 9). Based on the results obtained, was noticed that parents showed different levels of *Digital Literacy* (DL) and the parents who scored lowest in the competence test very often overestimated their DL level (Ibidem, p. 12).

In the educational context, the analyzed digital resilience is the ability to create new behavioral resources, learning methods and problem solving in connection with the emergence of stressful, unfavorable and traumatic situations. Resilience can also be understood as resistance to any discriminatory messages based on gender, race, origin, education, place of residence, income and many other stratifying factors (Richard & Gray, 2018).

Resilience in the digital world does not therefore refer directly to digital skills narrowly understood as abilities, but also to discrimination and the evaluation of messages. Therefore, in this area, the connection of the world of values with the world of technology is visible. This electronic threat immunity can be acquired either spontaneously or with the help of professionals. As part of the voluntary development of resilience in the digital world, take into account the potential of social skills that are key to constructive resolution of problematic situations (Burkot et al., 2021).

The research on educational leadership and psychological resilience of students in schools in Poland and Germany has shown that the pandemic has clearly had an impact on the mental health of pupils in both countries.

The study identified the main areas of school functioning that were directly affected by the Covid 19 pandemic: organization, communication, processes and interactions. Each of them requires special attention and support. Crisis and change management is now part of the core skills of the school head. Numerous studies have shown significant psychological problems of older children and adolescents as a result of social isolation. Anxiety, anxiety, somatic symptoms, sleep disorders, depression, feelings of anger and irritability, grief and loss, as well as post-traumatic stress developed (Esposito et al., 2021) . The results obtained by Burkot, Sepioł & Demeshkant (2021) were almost identical. The results also showed that most schools took initiatives to support students in isolation by organizing special meetings for them.

4. Discussion of the research results

The conducted analysis of the literature allows to identify areas that open up new research fields in the field of relationships between the digital skills of teachers and students and the organization of the teaching process, taking into account various factors and social needs, in particular: the authority of teachers and school principals who undertake organizational and preventive tasks out of concern for the well-being of students, the importance of cooperation and support of the internal and external environment of the school, including students' parents, and building a system of responsible use of ICT tools, paying particular attention to the resilience of new media users. Digital resilience is the answer to many issues related to minimizing exposure to threats in the digital world.

The information collected may contribute to an overview of research on the digital safety of parents and their competences in the context of digital safety of their children. Davis (2012) conducted research that showed the relationship between the information searched for by children, parents' concerns about the possible risks experienced by their children and the possibilities of digital safety resources .

The results presented should inform educators about the role of parents in shaping the awareness and attitudes of children (Tomczyk & Potyrała, 2021, p.13). The complex interaction of family and environmental factors, of which not all may promote safe online behaviour, influences the lifestyle and types of online activities preferred by children. The selected socio-demographic variables also provide the basis from which to design DL strengthening activities for the selected groups of parents (Wang & Xing, 2018) . We agree with the opinion of Tomczyk & Potyrała (2021) that the data obtained do not reflect the situation fully due to some methodological limitations (the size of the tool and the selection of indicators) and the dynamic development of the information society (with new e-threats always emerging) .

The literature analysis which was carried out confirmed that children and adolescents are more susceptible to the psychological effects of the COVID-19 pandemic, they tend to show more negative psychological effects, so they need psychological support from three cooperating systems: social, school and family (Zhou, 2020) . Constant communication and cooperation between teachers, as well as between teachers and students, parents and local government were the decisive advantage of distance schooling and helping to overcome the stress caused by the general limitation of social contacts in the school context. This result differs from previous online education research, which indicated a lack of communication and collaboration as well as a general reduction in social contact in an academic context (Karalis & Raikou, 2020) .

Everyone involved in this sudden transformation of the school into a learning organization must realize that crises and disasters also disrupt the lives of students and teachers. ERT must take place under the assumption that the transition to online education is unlikely to be a priority for everyone involved (Hodges et al., 2020) , hence preventive and diagnostic measures are also difficult. The conducted analysis of the literature showed that many school principals in Poland expect further development of distance learning and support for school development and ICT learning strategies along with psychological support in building teachers 'and students' resilience. Similar results were obtained in 2020, among others, by Al Ghazo et al .

5. Conclusion

The results of the research showed that communication, motivation and support were the most important factors for the efficient functioning and transformation of the school for effective distance learning in emergency situations. These factors include: going beyond barriers, resistances, obstacles, as well as the environment in which the communication process takes place. The cultural context and the functioning of the school in a mutual internal and external cooperation network are also important. In addition, adopting an approach focused on interpersonal interactions, increasing the flexibility of interactions - moving from real interactions to online interactions in different areas, expanding the network of interaction through IT, and accelerating the flow of information between school management are key to strengthening resilience in the world of digital or hybrid education.

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