

Sociology of Education: Wellbeing and Resilience in the Times of Crisis

Edited by Anna Odrowąż-Coates



Maria Grzegorzewska University Press

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Introduction

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This volume is one of the outcomes of the Mid-Term International Conference of The Research Network for Sociology of Education, of the European Sociological Association, which has joined forces with the Institute of Political Studies of the Polish Academy of Sciences and the Maria Grzegorzewska University in Warsaw, the Faculty of Education and the UNESCO Janusz Korczak Chair in Social Pedagogy, to organize the International Mid-term ESA RN 10 Conference in September 2023. The event was supported by EU funding from the EDUCATORE project* dedicated to wellbeing and resilience in education.

The eruption of the global COVID-19 pandemic, war in Ukraine, economic crisis, and unrest in many areas of the globe have dramatically deepened social differences in educational opportunities, a topic since the 1970s central to the Sociology of Education. Revealing the mechanisms of social reproduction in educational systems remains an important endeavour for sociologists of education. We tried to use the lens of sociology of education to discuss quality vs. equity, to discuss quality of outcomes vs. well-being. We invited contributors from education, sociology of education and political sciences to present their research findings and their theoretical contributions to look at education systems, education policies, educational praxis and environmental considerations around access and quality. The educational environments include both formal and informal settings, lifelong learning, self-study, adult education, third-age, but also infant communication and attachment, not narrowing the discussion to any particular age group or any particular environment, as we believe education happens throughout the lifetime and occurs in every social context.

We were particularly interested in research that pinpoints how to enhance well-being, resilience and motivation to create more inclusive, high-quality education. We were also interested in obstacles and challenges that stand in the way. We welcomed researchers that tackle newly emerged phenomena, such as post-COVID-19 crisis, and economic crisis, with new conflicts and wars emerging across the globe, the genocide still occurring and human rights being so very fragile in too many places in the world. We also included research that discusses educational realities to

support learners and their peers in their everyday struggles. We hoped that some of the conference outcomes would translate into fostering the wellbeing and resilience of children, and youths drawing from the innovative, reflective mindsets of the educators, whose wellbeing and mindfulness cascade to the end-beneficiaries.

For this edited volume we selected 9 chapters that cover: an overview of concepts of the child well-being in a time of unprecedented challenges of the twenty-first century, differences between urban and rural environments in educational resilience manifested during the COVID-19 pandemic in Romania, impact of school closures on child labour in Latin America, education for sustainable development in Romania, the development of resilience skills of teachers by non-formal educational strategies, promoting the well-being in the educational environment through the use of non-formal activities, the gender effect in computational thinking among first-year university students at the Sapientia Hungarian University of Transylvania. Penultimate chapter contains a review of Ayurveda approaches in support of health in imparting quality education. Last but not least, Sabina Zalewska talks about mental health of children and young people in Poland and beyond.

The first three chapters bring in the core elements of the book's theoretical underpinning, drawing from global statistics and concepts dedicated to children's well-being. Agata Michalowska uses an overview of policy and recommendations from international organizations dedicated to child protection, welfare and well-being. She claims that contemporary childhood is shaped by the global context in ways that previous generations had not experienced due to the scale, complexity and lasting impact of the events, processes and changes present today. This opening chapter is an invitation to expand the concept of child well-being to encompass the complex reality that children and youth exist in and to safeguard the well-being of future generations. It provides a brief overview of the interlinked challenges facing the global community and their impact on children's lives, as well as positive examples of a new approach to the concept of child well-being. This is an invitation for all of us to re-imagine child well-being, in a continual process of dialogue with children, to reflect the changing nature of our world.

In the second chapter, dr Julien Kiss, prof. Florica Ortan and dr Laurentiu-Dragos Mândrea, notice the challenges during the COVID-19 pandemic were significant in the educational environment in Romania. From the implications of moving to online didactic activities to the lack of social contact, they all left their mark on both teachers and students. If initially the major concerns were concerning the way of organizing education in a digital context, gradually problems also started to appear regarding the well-being shown by all those involved in school activities. In this article, we will try to highlight the differences recorded between the urban and the rural environment in relation to the management of some aspects of school activities. 143 teachers participated in the research, actively involved in the process of improving school performance in the environments in which they work. The results

indicate a difference between the urban and the rural environment and highlight a need to approach problems differently, especially about the allocation of resources and the adaptation of intervention strategies.

In the third chapter, dr Cecilia Maria Zsögön writes about Latin America, which she claims even before the pandemic, was the most unequal region in the world. After COVID-19, inequalities became even more accentuated. In this chapter the focus is on the impact of the crisis on the educational system and its effects on students. As of February 2021, around 120 million children had lost or were at risk of missing a full year of the school calendar due to school closures. Added to this are the multiple problems related to implementing online education. In the region, only 77 per cent of the students have access to the Internet. In addition, the closure of schools meant the interruption of other basic services such as school meals, on which more than 10 million children in the region depend. Faced with this panorama, the inquiry is to: What are the measures implemented by governments to guarantee the return of students to the classroom and amortize the effects that the crisis had on the most vulnerable groups in Latin America? Do these measures foster more inclusive education systems? What “successful” programs have been implemented that could be replicated in other countries? Dr Zsögön analysed reports from the World Bank, UNICEF, UNESCO, ECLAC, and local governments in Latin America, with the aim of understanding the impact of school closures on children, and the measures put into place to reverse the effects of this crisis. Latin America’s post-covid landscape presents complex and multidimensional challenges that include ensuring the return and retention of students in schools, fostering socio-emotional well-being and strengthening resilience. But doing all this in a context of extreme inequality, job insecurity, and economic recession requires resources and political will, which does not always have the well-being of children among its priorities. In terms of education and learning, it is clear that mitigation strategies will only be able to compensate, at best, for a fraction of the learning losses experienced during this period. Nonetheless, a window of opportunity has opened to rebuild better education systems that are more effective, equitable and resilient.

Further on, Dr Ciprian Simut and Florica Ortan delve into the sustainable development goals and consider educational goal number 4 as a factor for well-being in education in Romania.

In the consecutive chapter, Prof. Valentin Blândul and dr Adela Bradea, discuss how educational resilience represents the ability of students and teachers to readjust to a new normality after going through experiences with a strong emotional impact. Educational agents demonstrate the possession of resilience skills when they manage to set realistic goals in accordance with the new educational context, respectively to pursue their fulfilment in an adequate manner. Authors propose to analyse, from a theoretical point of view, a series of strategies specific to non-formal education by which teachers can develop a series of resilience skills that allow them

to optimally adapt to the challenges of the contemporary world. They present the training and continuous professional development program “TopFormalis Friends Club” was implemented, the purpose of which was to increase the professional level of teaching staff through extracurricular activities, which lead students to the knowledge of national scientific and international cultural values. The obtained results demonstrated that when they are involved in their own training, teachers can adapt much better to the challenges generated by education in constant change.

Dr Claudia Pop claims that the promotion of well-being in the educational environment is a topic that arouses more and more interest in the public space, especially among those interested in promoting a quality educational act, an education that puts people and the relationships between them at the forefront, but also the use of resources rich in interactive, non-formal content, obviously emphasizing communication, creativity and flexibility in thinking. The main purpose of this chapter is to demonstrate that through the use of non-formal activities, we can promote well-being in the educational environment and, also, we can obtain an effective, integral, balanced educational act with special results for students, both intellectually, as well as regarding their personality.

Prof. Ágnes Sántha, Pálma Rozália Osztián, Erika Osztián, and Zoltán Kátai from the Sapientia Hungarian University of Transylvania, show that computer skills and computational thinking are to a large extent socially biased. The research question addressed in this chapter is whether men and women have different achievements in computational thinking. The rationale for the study is provided by the lower share of female students in computer sciences which originates in the stereotypes about the alleged gender differences and interests in computational thinking. They draw from a randomized controlled trial which was conducted with 228 first-year university students from different study fields in September 2022. Groups were mixed by gender and computer science experience. Three visualization methods were used: animation, folk dance and theatre performance. After having viewed the visualizations, participants answered 18 questions that assessed their understanding of algorithms. Although slightly below the median and mean score achieved by men, the learning achievement scores of women are not significantly lower. When controlled for the effect of school performance, computer science experience and visualization type, gender has an impact on algorithm learning achievement only in the lowest quartile, that is, being a woman significantly decreases the score among those in the lowest 25% of results. In higher achievement quartiles the impact of gender vanishes. Their research results have implications for informatics education policy.

In the penultimate chapter, Prof. Mahes TS claims that education is the method of imparting knowledge in a systematic method to achieve certain knowledge, develop skills, etc. through proper understanding, rationality, kindness and honesty. It also helps in the development of character traits, individual rationality for a given situation, append mutual co-existence leading to the development of a healthy social

structure and civilization as a whole. It involves various stakeholders, such as students, teachers, parents, society, and the country as a whole, who benefit at various levels. A quality education is only possible when there is proper quality of life where health management plays an important role. Currently, due to altered lifestyles and stressors, the very values of life is compromised leading to disruption of psychological and physical health. Hence there is a need for a holistic approach that caters the health needs of the individual involving mind, body and lifestyle rather than just treatment of disease. Ayurveda being a holistic science emphasizes on proper health maintenance rather than just providing relief from diseases. Its principles, methods and procedures ensure total health to individuals who are part of the education system too. The study tries to explore the various principles, methods and procedures of Ayurveda that help to improve, promote and establish health leading to improved quality of life so as to aid in the propagation of quality education. The research will explore the causes of various problems concerning the stakeholders of today's education and then explore the literature available that provides information regarding research and authentic references on principles, methods and procedures of Ayurveda that can be possibly used to uplift the healthy status of these stakeholders so as to improve efficiency and impart quality education. Clinically, adopting food and lifestyle in line with the principles of Ayurveda has helped many people in improving their quality of life. An improved quality of life has consistently resulted in greater productivity and efficiency, which can be applicable in ensuring quality education as well.

Last but not least, Dr Sabina Zalewska writes that all people in the world want to be happy. This is a natural human need, she argues. The original understanding of happiness in science was limited to its definition as a prosperous life, i.e., a life under the care of the gods. Another understanding of happiness, already known in ancient Greece, was thinking about it as pleasure experienced continuously and constantly. In Eastern philosophical teachings, happiness is nirvana – eternal happiness. Happiness has been and still is the goal and desire of every human being. It lies in the nature of humanity. However, philosophers throughout history have differed significantly in their understanding of what this goal consists of. For Plato, it was the knowledge of ideas, especially Beauty and Goodness. For Aristotle, it was fulfilling the function assigned by rational human nature, including walking the path of the “golden mean.” For others, it was Stoic peace or opening up to God – especially in the Middle Ages. What was common to all concepts of happiness was the belief that it leads to moral, rational, and willpower-based life. There are many factors that make it difficult for a person to achieve happiness. One of them is living in a hurry. A person falls into this trap if they want to possess too much. Often, they start to consume and do not notice that they are consuming instead of living. They lack time for themselves and their loved ones. It is difficult for them to nurture friendships and family relationships. However, when they reflect on the situation, they realize

that to find inner balance, they must make room for things that are truly important to them. This can only be achieved by eliminating from life what is unnecessary and thus returning to the path towards happiness.

Overall, the volume presents an array of factors that can contribute to the well-being of participants of formal and informal educational processes. It may also be treated as a barometer of challenges to well-being due to recent catastrophic global and local events that add to the uncertainty of our times.

The need for an expanded concept of child well-being in a time of unprecedented challenges

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Introduction

A time of rapid technological, environmental, cultural and social changes calls for expanding the concept of child well-being to take into account the global, interconnected and increasingly complex reality of contemporary childhood, considering both the opportunities and the risks that children are facing today and will continue to face in the coming years, both locally and globally. The concept should incorporate the well-being of future generations to the same degree as it focuses on the well-being of the current generation of children. It is necessary to ask the question: What is child well-being in the 21st century? The answer should be formulated through a dialogue between experts, from a wide range of disciplines, and children. The combined perspectives of experienced professionals and young people could move us closer to a concept of well-being that is both anchored in the now and forward-thinking. The process of dialogue needs to be continual due to the fast pace of changes and unprecedented events taking place in this time in history, called “an inflection point” by the United Nations Secretary-General (UN, 2021).

The global community needs to reimagine the way we understand progress, the way we innovate, build our cities and structure our societies. The model of growth that we adopted can no longer be sustained – our activities are transgressing planetary boundaries, endangering Earth’s life-support systems (Richardson et al.). The technologies we are developing not only benefit us but also pose risks threatening the very existence of humanity (Stauffer et al.). We found ourselves at a crossroads in history and the decisions we make today will impact generations to come.

The global context is impacting children everywhere, although in different ways and to varying degrees. The expansion of the well-being concept will also differ between contexts and cultures, however two aspects have to remain consistent. A concept of well-being that encompasses the awareness of current and future challenges and opportunities allows to build the resilience and skills that children and youth need to thrive today and throughout their lives. A concept of well-being that encompasses the notion of future generations allows communities across the globe to systematically move towards a form of society that safeguards the livelihoods and happiness of our children's children. Creating a better now and more hopeful future requires coordinated, international efforts however it is also we, the individuals, families and communities that can act towards this goal and adjust the ways in which we parent, teach, care, work, relate to one another and live.

This paper is an invitation to think broadly about well-being of both the youth living today and those yet unborn. It focuses on the challenges faced by the global community and their impacts on children to illustrate the urgent need to act. The last section gives some examples of positive steps taken towards caring for the well-being of children – reports, initiatives and legislations that are already in place. The variety of sources gathered, not near exhaustive, reflect the vast number of factors shaping contemporary childhood and provide a brief overview intended to initiate a discussion about our shared responsibility for the health, dignity and happiness of children, across cultures and across time.

The context: current and future global challenges

Since the 19th century there has been continual progress made on all indicators of health, living conditions and well-being, such as maternal death, survival at birth, life expectancy at birth, vaccinations and eradication of diseases, access to safe drinking water and food, education, improvement of living standards and eradication of poverty (Roser, 2016). If we consider historical data and metrics, we have never before been as healthy, safe, nourished and educated as we are today. However, our march towards progress, which saved millions of lives and lifted entire populations out of poverty (Roser, 2022), has had an impact on the natural world, so vast and unprecedented that the geological epoch we are living in is labeled by some scientists as the Anthropocene from Greek: *anthropo* – man, *cene* – new, the *recent age of man* (Pavid & Rafferty, 2023). The human-caused climate change (NASA, 2023) is impacting not only the survival of other living creatures but also our own health (WHO, 2023; Baumgartner, 2021). The technological advances that created modern societies and enabled progress have also spurred the development of biotechnology and Artificial Intelligence, potential sources of vast improvements to human life and simultaneously potential sources of existential threat (Stauffer et al., 2023).

We exist in a highly complex, interlinked, interdependent and unpredictable world in which the speed of development of various events, phenomena, interactions and inventions is breathtaking. Shocks and stresses interact in positive as well as negative ways, what is considered a risk in one moment may be an opportunity in a few years, crises may be resolved and there is still development and growth happening in many areas of the world but some of the changes we are observing will most likely influence the environmental, social, cultural and political fabric of our lives in irreversible and transformative ways. The challenges listed below are only a few out of many shaping contemporary childhood, chosen on the basis of the scale of their direct and indirect impact. The degree of impact varies, depending on the child's geographical location, social status, access to resources and on the actions taken by the local and global communities.

1. Climate change. “The climate crisis is a child rights crisis” (UNICEF, 2021, p. 6). Currently around 1 billion children are at an extremely high risk of being impacted by climate change. Example statistics: 2 billion children are exposed to air pollution, 920 million are exposed to water scarcity, 820 million are highly exposed to heatwaves, 600 million children are highly exposed to vector-borne diseases (UNICEF, 2021). 80 million children are exposed to at least 6 overlapping climate and environmental hazards (UNICEF, 2021). The children affected the most by climate change come from countries which contributed the least to its causes. (UNICEF, 2021a). The vulnerability of certain regions (West, Central and East Africa, South Asia, Central and South America, Small Island Developing States and the Arctic) is “exacerbated by inequity and marginalization linked to gender, ethnicity, low income or combinations thereof especially for many Indigenous Peoples and local communities” (IPCC, 2022, p. 12). The impact of climate change is becoming increasingly complex, compounding risks which will cascade across sectors and regions, affecting health, ecosystems, infrastructure, livelihoods and food (IPCC, 2022, 18, 10). Already today pollution is responsible for more deaths than war or other forms of violence, HIV/AIDS, malaria and tuberculosis (Fuller et al., 2019). Climate change will affect most areas of our lives, deepening inequalities, if sufficient countermeasures are not undertaken.

2. Health. Immense progress has been achieved in the field of child and maternal health since the 2000's. The indicators that have stagnated or regressed include: maternal mortality, decline in childhood vaccination, malnutrition and stunting (WHO, UNICEF, 2022, UN, 2023). Since 2015, the global mortality rate of children under 5 years of age fell by 12%. Despite the declining rates around 5 million children died from preventable causes before reaching the age of 5 in 2021 (UN, 2023). What the numbers truly reveal though, is that the chance of a child to survive and thrive depends on where it was born, with a high level of inequality still existing between the Global North and Global South. A child born in a high income country is expected to live for 80.3 years, a child born in a low income country – 62,5

years. Most maternal and child deaths are concentrated in South Asia and sub-Saharan Africa. Most malnourished children live in Africa and Asia, and Africa is the only world region where the number of children affected by stunting has increased from 54.4 million in 2000 to 61.4 million in 2020 (WHO, UNICEF, 2022). Climate change, the COVID-19 pandemic and conflict have the highest impact on the health of children today, revealing the interconnected nature of crises (WHO, UNICEF, 2022). Food insecurity is one example: the combined crises of the pandemic, which caused supply chain disruptions, the war in Ukraine and high food prices increased the number of people suffering acute food insecurity to 345 million in 2022 from 135 million in 2019 and the populations most at risk of hunger as a result of climate change live in Sub-Saharan Africa, South – and Southeast Asia (The World Bank, 2022). As the climate continues to change, food and water security will be further reduced, increasing malnutrition in many communities (IPCC, 2022). Another impact of climate change, is the higher occurrence of food-borne, water-borne and vector-borne diseases, caused in part by such factors as global travel and human penetration deeper into animal habitats (IPCC, 2022), making the possibility of pandemics highly likely, with potential devastating effects for children. Some of the impacts of COVID-19 were: reduced access to education and health resources, increase in poverty, exposure to heightened violence, including trafficking, increase in labour and sexual exploitation (OHCHR, 2022, UN, 2023). The compounded effects of the pandemic are one of the causes in the rise of mental health issues in many children. An estimated 13% (166 million) adolescents ages 10-19 live with a diagnosed mental disorder, 40% of which are anxiety and depression. And estimated 45,800 adolescents die from suicide each year. (UNICEF, 2021b)

3. Geopolitics and globalisation. The world order created after World War II, based on such institutions as the UN, World Bank, IMF and NATO, guided by the Universal Declaration of Human Rights, began changing a number of years ago as global power structures began to shift (Bremmer, 2023a). Ian Bremmer, political scientist, coined the term GZero, “a world where no country or group of countries can meet the global challenges of our time” (Bremmer, 2023b). Today different countries and actors compete for power, with many regions forming arrangements based on shared interests and values (particularly in the Global South), resulting in greater fragmentation. There has been a disillusionment with globalisation and a move towards protectionism and away from interdependency. (UNICEF Innocenti, 2023). Autocracies have been on the rise (Boese et al., 2022) and dissatisfaction with democracy is sharply increasing (Foa, et al., 2020). Countries are becoming more polarized, tensions fuelled by economic anxieties, lack of trust in governments, class divides and the rise of misinformation (Edelman Trust Institute, 2023). Global inequality, although decreasing across time (Roser, 2017) has risen since 2020, with the richest 1% gaining about 63% of new wealth (Christensen et al., 2023). Global debt has risen by 50 trillion USD since 2019 and there are around

100 million more children living in multidimensional poverty (OHCHR, 2022, UN, 2023). The number of conflicts and war deaths have been declining since World War II however since 2015 there has been an increase in state-based conflicts, with an increase in war deaths in 2022, in comparison with previous years (Roser et al., 2016). Conflicts, climate change and technological advancements such as automation and AI will most likely fuel migration, with more people looking not only for better economic opportunities but for survival. Today, most people still reside in their country of origin, however the number of migrants has risen in recent years (McAuliffe & Triandafyllidou, 2021). The existing tensions, instability and uncertainty greatly affect the ability for global cooperation, necessary to tackle issues such as climate change or potential pandemics, uphold human rights, maintain economic stability and resolve conflict (UNICEF Innocenti, 2023). Crises at the global or state level affect the most vulnerable groups, including women and children. According to UNICEF, more children are in need now than at any point since World War II (UNICEF Innocenti, 2023).

4. Technology and Artificial Intelligence. The speed of technological development has been accelerating exponentially since the beginning of the 19th century (Stauffer et al., 2023), benefitting humanity in countless ways. However the same technological innovation can have both positive and (devastating) negative consequences, nuclear fission being an example. Technology is a powerful tool but, even with good intentions, the release of a new tool can shape our societies in unpredictable ways therefore it has to be managed responsibly. Additionally, there is the question of access to technology and the distribution of benefits, which was and is, largely unequal (Stauffer et al., 2023). Internet allows access to information, education and the job market. Though globally access is growing, in 2021 internet was accessible to 63% of the world, there are vast differences among countries – Denmark 98%, Bangladesh 39%, Mali 34% (The World Bank, 2023). Internet gives its users countless benefits but has gone far from the dream of being the great equalizer, a digital space of unity and openness, with misinformation and fragmentation being some of the main issues for the global community (UNICEF Innocenti, 2023). The technological advances that will have the most impact on the future of children are the rise in automation and the development of Artificial Intelligence. In 2027 an estimated 43% of tasks will be completed by machines, 44% of workers' skills disrupted, 6 out of 10 workers will require training (World Economic Forum, 2023). Automation will force many employees and whole sectors to upskill or reskill, or to transition to new positions or professions. The moment of transition will disproportionately affect different occupations and different countries, depending on the level of their development and amount of skilled workers. Even as new jobs are created by new technologies, not everyone will be able to transition, potentially leaving portions of society unemployed. (Brown, 2020). AI can now match or exceed human capabilities which will increase the speed and scale of these developments with AI

taking over jobs previously not automated, which require reasoning, communicating and coordinating (World Economic Forum, 2023). An even greater concern is AI's ability to spread false content, generate and manipulate existing visual or audio content (deepfakes) and, through language, the ability to manipulate unaware human users (UNICEF Innocenti, 2023; Harari, 2023). AI is continuously learning and self-improving, with even the experts not certain how the technology will develop, which makes the implementation of safety systems difficult. (Stauffer et al., 2023). There is also concern about potential value misalignment, resulting in AI's unintended or dangerous behaviour. All of this may have far-reaching economic, political, scientific and security consequences for societies and individuals, some of which are already felt (Stauffer et al., 2023). AI, together with biotechnology, is labelled as an existential risk by the UN Office for Disaster Risk Reduction. Governments are taking notice. The first global AI Safety Summit was hosted by the UK in November 2023, attended by representatives of 28 countries, with the goal to take action on the safe and responsible development of AI (AI Safety Summit, 2023). Responsible management of new technologies is important especially for vulnerable groups like children. The interaction between children and AI systems is complex, influenced by the context of the child's life. AI has a number of beneficial applications (education, medicine, support of SDG's) and risks (automated discrimination through bias, exacerbation of the digital divide, privacy), that need to be safely navigated (UNICEF, Ministry for Foreign Affairs of Finland, 2021). Research is already being done on designing AI for children, with a team of researchers creating the "Code for Age Appropriate AI" (Wang et al., 2022).

The moment that we are living in and experiencing is a paradox. Our time is both the reflection of human ingenuity and cooperation as well as incredible short-sightedness that resulted in human-made risks which can endanger our very existence. The challenges we face require global cooperation and a transformation of the processes, systems and institutions that may no longer be prepared for a world, in which "local threats may quickly become global, existential, and intergenerational" (Stauffer et al., 2023). Our complex reality shapes childhood in ways, and to an extent, that previous generations had not experienced. Our complex reality will also shape the well-being of future generations. Awareness of the factors and risks shaping childhood is necessary to provide children with the tools they need to build resilience and maintain well-being in the world to come.

Impact of context on child well-being

The concept of well-being is multidimensional, culturally-specific, contextual and fluctuating over time (Ben-Arieh et al., 2014). The Merriam-Webster Dictionary defines well-being as a "state of being happy, healthy, or prosperous"

(Merriam-Webster Dictionary, 2023) however other contemporary definitions go much further beyond it. According to WHO it is not only a state but a resource which is determined by social, economic and environmental factors, encompassing “quality of life and the ability of people and societies to contribute to the world with a sense of meaning and purpose”. In society it is connected to an equitable distribution of resources, sustainability, resilience and the ability to transcend challenges (WHO, 2023b). Well-being is considered an essential part of health, defined by WHO as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (WHO, 2023c). What emerges from these definitions is an interplay between the individual, the closest environment and the larger context, with well-being both a state, a process, a resource and a goal, being a source of (and potentially directing towards) meaning and purpose. It implies a state of thriving, physically, mentally and socially, which allows the ability to contribute to others. From the perspective of challenges that we face today, well-being is a delicate balancing act between risks, opportunities, environmental factors, individual agency, individual and community resources, individual and community resilience and social connections.

The way well-being is understood changes and so do child well-being indicators. Once focused on negative outcomes and the survival of a child, they later expanded to include, positive outcomes and the child’s perspective. The normative concept of children’s rights, sociology of childhood and the ecological theories of child development were particularly influential in shaping contemporary indicators (Ben-Arieh, 2010). UNICEF’s Innocenti Report Cards monitor and compare the performance of OECD countries in securing the rights of children, and have an impact on public discourse and policy makers. Three Report Cards focused on multidimensional child well-being have been published, in 2007, 2013 and 2020. The first, UNICEF’s Innocenti Report Card 7, included 21 countries, assessing 6 dimensions of child well being side-by-side: material well-being, health and safety, educational well-being, family and peer relationships, behaviours and risks, subjective well-being. The most recent, Report Card 16, covers 41 countries and adopts a much broader perspective. The framework is visualized as a series of concentric circles, resembling Bronfenbrenner’s Ecological Systems Theory, divided into “the world of the child”, “the world around the child” and “the world at large”. Some of the new aspects considered in Report Card 16 include children’s mental well-being and social skills (ability to make friends), as well as a focus on the links between the outcomes of an individual and the networks, available resources, policies and the larger contexts of economy, society and the environment (UNICEF Innocenti, 2020). This shift in approach to measuring well-being was based on the observable effects that the COVID-19 pandemic had on children. The new framework was suggested as a guide in understanding “how effects of COVID-19 will cascade down from the national context through the immediate world around the child to affect

well-being” (UNICEF Innocenti, 2020). Describing the situation of many countries in the first phase of the pandemic, the report draws attention to the effects that falling GDP, job loss, strain on health services, school closures and rising poverty had on the resources available to the child, the child’s networks and relationships. It is the degree of resilience of those networks and the availability of resources that lessen or intensify the impact of “the world at large”. Crises, such as COVID-19, affect children unequally, the severity of negative influence correlated with their social and economic status, gender, the type of profession of their parents and other aspects, deepening already existing inequalities. The pandemic affected the physical health and mental well-being of many children globally, as well as their ability to gain knowledge and skills.

In 2021 the OECD Centre on Well-being, Inclusion, Sustainability and Equal Opportunity (WISE) published “Measuring What Matters for Child Well-being and Policies”, with a similar goal as UNICEF – creating a more unified framework which takes into account all of the different dimensions of child well-being: the contexts in which it is shaped, the forces and individuals that shape it and the interactions between the different dimensions. The OECD also underlines that well-being measures and indicators must include children’s views, should, among others, be child-centered, capture inequalities, capture both the stability and change in children’s lives and reflect contemporary childhoods (OECD, 2021).

The importance of a child’s environment for development was brought to attention in the 1970’s by Bronfenbrenner in his Ecological Systems Theory. As the theory evolved, it incorporated the interplay of individual characteristics, society, culture and time. Bronfenbrenner later focused more on the complex, reciprocal interactions between an individual and the immediate external environment (proximal development processes), creating the Bioecological Model. His theory has a lasting influence, as seen in UNICEF’s and OECD’s frameworks of child well-being. These frameworks further extend Bronfenbrenner’s model by acknowledging the importance of larger social, political and environmental contexts, however they stop at the national level. What the COVID-19 pandemic made clear is that contemporary childhood is shaped by the global context in ways that previous generations had not experienced due to the scale, complexity and lasting impact of the events, processes and changes present today. Climate change, the pandemic and technological advancements, like the internet or smartphone, are examples of the force and degree to which global context shapes the everyday experiences of children and young people around the world.

Multiple studies show a link between global crises, such as the pandemic or climate change, and mental health of adolescents. A systematic review published in 2021 by Jones et al., looked at 16 quantitative studies with 40,076 total participants, concluding that the pandemic caused higher rates of anxiety, depression and stress which also lead to higher frequency of alcohol and cannabis use (Jones et al.,

2021). A German study of 3998 pupils looked at the effect that the combined crises of COVID-19, climate change and Russia–Ukraine war on adolescents, linking the crises to depression and anxiety symptoms and reduced health-related quality of life (Lass-Hennemann et al., 2023). A similarly significant number of studies focus on climate anxiety, also called “eco-anxiety”. Hickman et al. surveyed 10,000 children and young people ages 16–25 in 10 countries, both in the Global North and the Global South. The majority of respondents worried about climate change (59% extremely worried, 84% moderately worried), with 50% feeling sad, anxious, angry, powerless, helpless and guilty. The emotions connected to climate change negatively affected the daily functioning of 45% respondents. 75% respondents thought that the future was frightening and 39.1% were hesitant to have children. Climate anxiety was correlated to feelings of betrayal, the respondents not perceiving government response as adequate. Young people “are facing numerous stressors but have few resources to mitigate or avoid them”, experiencing “betrayal and abandonment because of adult inaction towards climate change” (Hickman et al., 2021). There is a difference in the levels of climate anxiety experienced by children in the Global North and the Global South. Children in the Global South are the most affected by climate change, being witnesses to climate-induced disasters, therefore express much higher levels of anxiety and grief, and report higher levels of hesitancy to have children. Not enough research is being done on the impact of climate change on mental health of populations in the Global South, with the majority of studies examining the Global North (Tsevereni et al., 2023). As the effects of climate change and human activity, including potential new pandemics, intensify with time, the number of children and young people affected will grow both in the Global South and Global North, however the numbers in Global South will be disproportionately higher.

The digital revolution, especially the introduction of smartphones, is another element shaping childhood globally. Children and young people rely on the internet as a source of information and education, a virtual space in which they can socialize, relax and create. For many, there is no distinction between the online and offline life. In a UNICEF survey, 77% of young people across 21 countries report using the internet daily, however there are differences in access within countries and among countries. It is a generation born into a “highly digitized, interconnected, and more pluralistic world” (UNICEF, 2021c) and its members identify as global citizens much more often than older generations. They demand greater pluralism and tolerance, including respect for the rights of the LGBTQ+ community (71%), are more receptive to global cooperation and want government action on climate change (with highest support for climate action in low and lower-middle-income countries) (UNICEF, 2021c). Internet and social media allowed the young to connect and collaborate with people across geographies and cultures, gave access to education, skills training and employment opportunities, among other benefits. In a McKinsey survey of over 16,000 individuals, the majority of respondents report

positive impact of social media usage, including on their social connectivity, self-expression and self-esteem. However, in comparison with older generations, a higher percentage of younger respondents reported worse mental health as well as a negative impact of technology and social media on their mental health (Arora et al., 2022). Social media can be a source of mis- and disinformation, bullying and exposure to harmful content, among other risks. According to some studies, social media has a negative influence on the body image of young women (Pedalino & Camerini, 2022). More research is needed to understand the relationship between social media and mental health. Regardless of whether it is positive or negative, technology and the internet have raised a generation of children who do not know a world without it. The boundaries between the virtual and physical are blurring and will continue to blur. These influences are so profound that J. Navarro and J. Tudge proposed a Neo-ecological Theory, an adaptation of Bronfenbrenner's bioecological theory, that would "reflect our technologized world". As the authors notice, virtual microsystems are central to the life of youth, a digital space where culture is created and shared, constantly evolving (Navarro & Tudge, 2023). A space in which "the world at large" can directly affect the child, for better and for worse. With the ongoing Artificial Intelligence revolution, technology will be shaping both the private and professional lives of youth in ways that are currently unforeseeable.

A way forward: an expanded concept of child well-being

As the examples of COVID-19, climate change and the digital revolution illustrate, the global context is a powerful force in children's lives. The unprecedented changes taking place call for an expanded concept of child well-being that takes into account the potential impact of global events and processes over a child's lifetime. The concept should also incorporate a long-term perspective to safeguard the well-being of future generations. Applying this long-term view ensures the implementation of article 3 of the Convention on the Rights of the Child – "the best interests of the child shall be a primary consideration" (UN, 1989). What can be understood as "best interest" of a child today is not only meeting its current needs and providing with the right environment to thrive but also protecting the child's future, and the future of its children. Additionally, securing the "holistic physical, psychological, moral and spiritual integrity" (UNCRC, 2013) of a child should be understood as securing the holistic well-being of all children, globally. In our connected, interdependent world securing the best interests of others means securing our own.

More research is needed to understand the influence of the global context on children. We need to reexamine basic concepts, such as health, happiness and well-being, from the perspective of the challenges facing the global community in the 21st century. Research can inform new frameworks, models and policies. And

coordinated effort of multiple actors, on multiple levels is needed to implement those frameworks, models and policies and make them a reality. Of course, none of it can happen without children and youth themselves. They have to be part of the conversation, voicing their concerns, hopes and ideas, guiding the solutions.

There is a noticeable, positive shift in the way child well-being, understood in relation to children's rights, is being expanded to encompass the global context and future generations. Recently there has been more multidimensional research into child well-being and the risks facing children, UNICEF's *The Changing Childhood Project* and *Prospects for Children in the Polycrisis* being good examples. Recent policy frameworks and agendas also reflect the attention being paid to current challenges affecting children and the changing nature of childhood. The *EU strategy on the rights of the child* (EU, 2021) was informed by the views and suggestions of over 10,000 children, gathered in the *Our Europe, our rights, our future* report. Children are acknowledged as "human rights defenders" and "agents of change" (EU, 2021, p. 3) and empowering youth to be active citizens is the first goal listed in the Strategy. UN's *General Comment nr 26 (2023) on children's rights and the environment with a special focus on climate change* (UNCRC, 2023) is the first time the Committee on the Rights of the Child "affirmed children's right to live in a clean, healthy and sustainable environment" (UN, 2023b). The issuing of the Comment was motivated by youth's call to action on climate change and informed by consultations with 16,331 children from 121 countries. WHO's *Geneva Charter for Well-being* (WHO, 2021) represents an agenda for creating *well-being societies* that commit to "achieving equitable health now and for future generations without breaching ecological limits" (WHO, 2021, p. 1). In order to achieve *well-being societies* a "fundamental redirection of societal values and action" (WHO, 2021, p. 2) is needed. The Charter calls for an integrated approach to health, connecting 5 elements necessary to achieve well-being of societies: a nurturing approach to Earth's ecosystems, an equitable economy, public policy for the common good, achieving universal health coverage and addressing the impacts of digital transformation. This may not be an easy transition but there are countries which have been redefining their measure of "success" and going beyond the GDP, like Iceland and New Zealand. There are also countries which legislate for the well-being of future generations. In 2015 Wales issued the *The Well-being of Future Generations Act* (Well-being of Future Generations Act, 2015) which requires public bodies to think about the long-term impact of their decisions, inspiring a number of other countries, for example Canada's *Commissioner for Environment and Sustainable Development* (Future Generation Commissioner for Wales, 2023). In 2021 the United Nations Secretary-General published *Our Common Agenda*, which proposes appointing a *Special Envoy for Future Generations* and creating a *Declaration on Future Generations* (UN, 2021b). The report underlines the necessity of re-embracing global solidarity to achieve the ambitious goals outlined in the Agenda (UN, 2021b).

Well-being is culturally specific and contextual therefore the expansion of the concept will take different paths in different cultures and contexts. What is necessary is maintaining a wide, global perspective and a long-term view. A more encompassing approach to well-being means a different approach to childhood and children in the home, school, community and nation. It means engaging in a dialogue about the present moment, the risks and opportunities. It means providing support and tools, including self-regulating skills, to help children cope with the awareness of the challenges we are facing. It means creating a resilient social support network children can count on. It means supporting pro-active behaviour of children and acting together with them to resolve or lessen the negative impact of existing issues, to build hope, optimism and a sense of self-efficacy. All of this starts with a single interaction or conversation with a child or adolescent. It also starts with conversations among adults, parents, teachers and community members, on how to best support the well-being of children so they can thrive. And there is hope – according to UNICEF's *The Changing Childhood Project* young people today, despite the challenges, believe that the world is getting better with each generation (UNICEF, 2021c). Let's make sure it is so.

References

- AI Safety Summit. (2023). UK Government. <https://www.aisafetysummit.gov.uk/>
- Arora, L., Coe, E., Dewhurst, M., Enomoto, K. (2022). Heat waves, the war in Ukraine, and stigma: Gen Z's perspectives on mental health. McKinsey Health Institute. <https://www.mckinsey.com/mhi/our-insights/heat-waves-the-war-in-ukraine-and-stigma-gen-zs-perspectives-on-mental-health>
- Baumgartner, J. (2021). Planetary Health: Protecting Nature to Protect Ourselves. Samuel Myers and Howard Frumkin (Eds.), *International Journal of Epidemiology*, 50(2), 697–698. <https://doi.org/10.1093/ije/dyaa254>
- Ben-Arieh, A. (2010). *Developing indicators for child well being in a changing context. Child well being understanding children's lives* (pp. 129–142). UK: Jessica Kingsley Publishers. <https://www.researchgate.net/publication/262178886>
- Ben-Arieh, A., Casas, F., Frønes, I., Korbin, J.E. (2014). Multifaceted Concept of Child Well-Being. In: A. Ben-Arieh, F. Casas, I. Frønes, J. Korbin (Eds.), *Handbook of Child Well-Being*. Springer, Dordrecht. https://doi.org/10.1007/978-90-481-9063-8_134
- Boese, V.A., Alizada, N., Lundstedt, M., Morrison, K., Natsika, N., Sato, Y., Tai, H., Lindberg, S.I. (2022). Autocratization Changing Nature? Democracy Report 2022. Varieties of Democracy Institute (V-Dem). <https://www.v-dem.net/publications/democracy-reports/>
- Bremmer, I. (2023a). *The next global superpower isn't who you think* [Video]. TEDConferences. https://www.ted.com/talks/ian_bremmer_the_next_global_superpower_isn_t_who_you_think/transcript?language=en
- Bremmer, I. (2023b). About GZero Media. <https://www.gzeromedia.com/about-gzero>
- Brown, S. (2020). *A new study measures the actual impact of robots on jobs. It's significant*. MIT Sloan School of Management. <https://mitsloan.mit.edu/ideas-made-to-matter/a-new-study-measures-actual-impact-robots-jobs-its-significant>

- Christensen, M.-B., Hallum, C., Maitland, A., Parrinello, Q., Putaturo, C. (2023). *Survival of the Richest. How we must tax the super-rich now to fight inequality*. UK: Oxfam GB for Oxfam International. <https://www.oxfam.org/en/research/survival-richest>
- Edelman Trust Institute. (2023). *Edelman Trust Barometer. Global Report 2023*. <https://www.edelman.com/trust/2023/trust-barometer>
- EU. (2021). Communication no. COM(2021) 142 final, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and The Committee of the Regions EU Strategy on the Rights of the Child.
- Foa, R.S., Klassen, A., Slade, M., Rand, A., Collins, R. (2020). *The Global Satisfaction with Democracy Report 2020*. Cambridge, United Kingdom: Centre for the Future of Democracy. <https://www.bennettinstitute.cam.ac.uk/publications/global-satisfaction-democracy-report-2020/>
- Fuller, R. et al. (2019). *Pollution and Health Metrics. Global, Regional and Country Analysis. Global Alliance on Health and Pollution (GAHP)*. <https://gahp.net/pollution-and-health-metrics/>
- Future Generation Commissioner for Wales. (2023). *Well-being and Future Generations approaches across the world*. <https://www.futuregenerations.wales/global-influence-of-the-act/>
- Harari, Y.N. (2023). *AI and the future of humanity* [Video]. Frontiers Forum. <https://www.ynharari.com/ai-and-the-future-of-humanity-yuval-noah-harari-at-the-frontiers-forum/>
- Hickman, C., Marks, E., Pihkala, P., Clayton, S., Lewandowski, R.E., Mayall, E.E., Wray, B., Mellor C., van Susteren, L. (2021). Climate anxiety in children and young people and their beliefs about government responses to climate change: a global survey. *Lancet Planet Health*, 5(12), e863–e873. doi: [https://doi.org/10.1016/S2542-5196\(21\)00278-3](https://doi.org/10.1016/S2542-5196(21)00278-3)
- IPCC. (2022). Summary for Policymakers (H.-O. Pörtner, D.C. Roberts, E.S. Poloczanska, K. Mintenbeck, M. Tignor, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem (Eds.)). In: *Climate Change 2022: Impacts, Adaptation and Vulnerability* (pp. 3–33). Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (Eds.)]. Cambridge, UK–New York, NY: Cambridge University Press. doi: <https://doi.org/10.1017/9781009325844.001>
- Jones, E.A.K., Mitra, A.K., Bhuiyan, A.R. (2021). Impact of COVID-19 on Mental Health in Adolescents: A Systematic Review. *International Journal of Environmental Research and Public Health*, 18, 2470. doi: <https://doi.org/10.3390/ijerph18052470>
- Lass-Hennemann, J., Sopp, M.R., Ruf, N. et al. (2023). Generation climate crisis, COVID-19, and Russia–Ukraine War: global crises and mental health in adolescents. *European Child and Adolescent Psychiatry*. doi: <https://doi.org/10.1007/s00787-023-02300-x>
- McAuliffe, M., Triandafyllidou, A. (Eds.). (2021). *World Migration Report 2022*. Geneva: International Organization for Migration (IOM).
- Merriam-Webster. (n.d.). *Well-being*. Merriam-Webster.com dictionary. Retrieved November 10, 2023, from <https://www.merriam-webster.com/dictionary/well-being>
- Navarro, J.L., Tudge, J.R.H. (2023). Technologizing Bronfenbrenner: Neo-ecological Theory. *Current Psychology*, 42, 19338–19354. doi: <https://doi.org/10.1007/s12144-022-02738-3>
- OECD. (2021). *Measuring What Matters for Child Well-being and Policies*. Paris, France: OECD Publishing. doi: <https://dx.doi.org/10.1787/e82fded1-en>
- OHCHR. (2022). *Child Rights Input*. United Nations High-Level Political Forum on Sustainable Development. Building back better from the coronavirus disease (COVID-19) while

- advancing the full implementation of the 2030 Agenda for Sustainable Development. <https://www.ohchr.org/en/children/childrens-rights-and-2030-agenda-sustainable-development>
- Pavid, K. (n.d.). *What is the Anthropocene and why does it matter?* Nhm.ac.uk. <https://www.nhm.ac.uk/discover/what-is-the-anthropocene.html>
- Pedalino, F., Camerini, A.-L. (2022). Instagram Use and Body Dissatisfaction: The Mediating Role of Upward Social Comparison with Peers and Influencers among Young Females. *International Journal of Environmental Research and Public Health*, 19, 1543. doi: <https://doi.org/10.3390/ijerph19031543>
- Rafferty, J.P. (2023). Anthropocene Epoch. *Encyclopedia Britannica*. Retrieved November 7, 2023. <https://www.britannica.com/science/Anthropocene-Epoch>
- Richardson, et al. (2023). Earth beyond six of nine planetary boundaries. *Science Advances*, 9(37), eadh2458. doi: <https://www.science.org/doi/full/10.1126/sciadv.adh2458>
- Roser, M. (2016). *The short history of global living conditions and why it matters that we know it*. OurWorldInData.org. <https://ourworldindata.org/a-history-of-global-living-conditions>
- Roser, M. (2017). *The history of global economic inequality*. OurWorldInData.org. <https://ourworldindata.org/the-history-of-global-economic-inequality>
- Roser, M. (2022). *The history of the end of poverty has just begun*. OurWorldInData.org. <https://ourworldindata.org/history-of-poverty-has-just-begun>
- Roser, M., Hasell, J., Herre, B., Macdonald, B. (2016). *War and Peace*. OurWorldInData.org. <https://ourworldindata.org/war-and-peace>
- Stauffer et al. (2023). *Existential Risk and Rapid Technological Change: Advancing Risk-informed Development*. United Nations Office for Disaster Risk Reduction. <https://www.undrr.org/publication/thematic-study-existential-risk-and-rapid-technological-change-advancing-risk-informed>
- The Causes of Climate Change. *climate.nasa.gov*. Retrieved November 7, 2023, from https://climate.nasa.gov/causes/#otp_references
- The World Bank. (2022). *What You Need to Know About Food Security and Climate Change*. <https://www.worldbank.org/en/news/feature/2022/10/17/what-you-need-to-know-about-food-security-and-climate-change>
- The World Bank. (2023). *Individuals using the Internet (% of population)*. https://data.worldbank.org/indicator/IT.NET.USER.ZS?name_desc=false
- Tsevreni, I., Proutsos, N., Tsevreni, M., Tigkas, D. (2023). Generation Z Worries, Suffers and Acts against Climate Crisis – The Potential of Sensing Children’s and Young People’s Eco-Anxiety: A Critical Analysis Based on an Integrative Review. *Climate* 2023, 11, 171. doi: <https://doi.org/10.3390/cli11080171>
- UN. (1989). Convention on the Rights of the Child. *Treaty Series*, 1577, 3.
- UN. (2021a). *Our Common Agenda – Report of the Secretary-General*. <https://digitallibrary.un.org/record/3939258?ln=en#record-files-collapse-header>
- UN. (2021b). *Our Common Agenda – Report of the Secretary-General*. USA: United Nations. <https://www.un.org/en/common-agenda>
- UN. (2023a). *The Sustainable Development Goals Report 2023: Special Edition*. New York, USA: United Nations Publications. <https://unstats.un.org/sdgs/report/2023/>
- UN. (2023b). *New UN guidance affirms children’s right to a clean, healthy environment*. <https://news.un.org/en/story/2023/08/1140122>

- UNCRC. (2013). Committee on the Rights of the Child. *General comment, No. 14 (on the right of the child to have his or her best interests taken as a primary consideration (art. 3, para. 1))*. 29 May 2013. CRC /C/GC/14. <https://www.refworld.org/docid/51a84b5e4.html>
- UNCRC. (2023). CRC/C/GC/26: General comment No. 26 (2023) on children's rights and the environment with a special focus on climate change. <https://www.ohchr.org/en/documents/general-comments-and-recommendations/crccgc26-general-comment-no-26-2023-childrens-rights>
- UNICEF Innocenti. (2020). *Worlds of Influence: Understanding what shapes child well-being in rich countries. Innocenti Report Card 16*. Florence, Italy: UNICEF Office of Research – Innocenti. <https://www.unicef.org/reports/worlds-influence-what-shapes-child-well-being-rich-countries-2020>
- UNICEF Innocenti. (2023). *Prospects for Children in the Polycrisis: A 2023 Global Outlook*. Florence, Italy: UNICEF Innocenti – Global Office of Research and Foresight. <https://www.unicef.org/globalinsight/reports/prospects-children-polycrisis-2023-global-outlook>
- UNICEF, Ministry for Foreign Affairs of Finland. (2021). *Policy guidance on AI for children.2.0*. New York, USA: United Nations Children's Fund. <https://www.unicef.org/globalinsight/reports/policy-guidance-ai-children>
- UNICEF. (2021a). *The Climate Crisis is a Child Rights Crisis: Introducing the Children's Climate Risk Index*. New York, USA: United Nations Children's Fund. <https://www.unicef.org/reports/climate-crisis-child-rights-crisis>
- UNICEF. (2021b). *The State of the World's Children 2021: On My Mind – Promoting, protecting and caring for children's mental health*. New York, USA: United Nations Children's Fund. <https://www.unicef.org/reports/state-worlds-children-2021>
- UNICEF. (2021c). *The Changing Childhood Project*. New York, USA: United Nations Children's Fund. <https://changingchildhood.unicef.org/en>
- Wang, G., Zhao, J., Kleek, M., Shadbolt, N. (2022). Informing Age-Appropriate AI: Examining Principles and Practices of AI for Children. In: *Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems (CHI '22)*. USA: Association for Computing Machinery. Article 536, 1–29. doi: <https://doi.org/10.1145/3491102.3502057>
- Well-being of Future Generations (Wales) Act 2015. <https://www.legislation.gov.uk/anaw/2015/2/contents>
- WHO, UNICEF. (2022). *Protect the promise: 2022 progress report on the Every Woman Every Child Global Strategy for Women's, Children's and Adolescents' Health (2016–2030)*. Geneva, Switzerland: World Health Organization and the United Nations Children's Fund (UNICEF). <https://www.who.int/publications/i/item/9789240060104>
- WHO. (2021). *The Geneva Charter for Well-being*. <https://www.who.int/publications/m/item/the-geneva-charter-for-well-being>
- WHO. (2023a). *Climate Change*. <https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health>
- WHO. (2023b). *Promoting well-being*. <https://www.who.int/activities/promoting-well-being>
- WHO. (2023c). *Constitution*. <https://www.who.int/about/accountability/governance/constitution>
- World Economic Forum. (2023). *Future of Jobs Report 2023*. Switzerland: World Economic Forum. <https://www.weforum.org/reports/the-future-of-jobs-report-2023/>

Differences between urban and rural environments in educational resilience manifested during the COVID-19 pandemic in Romania

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The challenges during the COVID-19 pandemic were significant in the educational environment in Romania. From the implications of moving to online didactic activities to the lack of social contact, they all left their mark on both teachers and students. If initially the major concerns were in relation to the way of organizing education in a digital context, gradually problems also started to appear regarding the well-being shown by all those involved in school activities. In this article, we will try to highlight the differences recorded between the urban and the rural environment in relation to the management of some aspects of school activities. 143 teachers participated in the research, actively involved in the process of improving school performance in the environments in which they work. The results indicate a difference between the urban and the rural environment and highlight a need to approach problems differently, especially in relation to the allocation of resources and the adaptation of intervention strategies.

The period of the COVID-19 pandemic has generated countless educational disruptions around the world (OECD, 2022). However, the strongest impact was felt in countries where access to education was dysfunctional even before this moment.

One of the first analyses carried out by UNESCO in 2020 indicated that the impact was already dramatic after a few months of the pandemic (Armstrong, 2021). Thus, if in 2019 there were 483 million children with major reading difficulties in the world, and for 2020 the expectations were that this number would decrease to 460 million, in reality, against the background of the pandemic, the number increased to 584 million. There was therefore, in a short time, a major regression in terms of the development of children's skills (Figure 1).

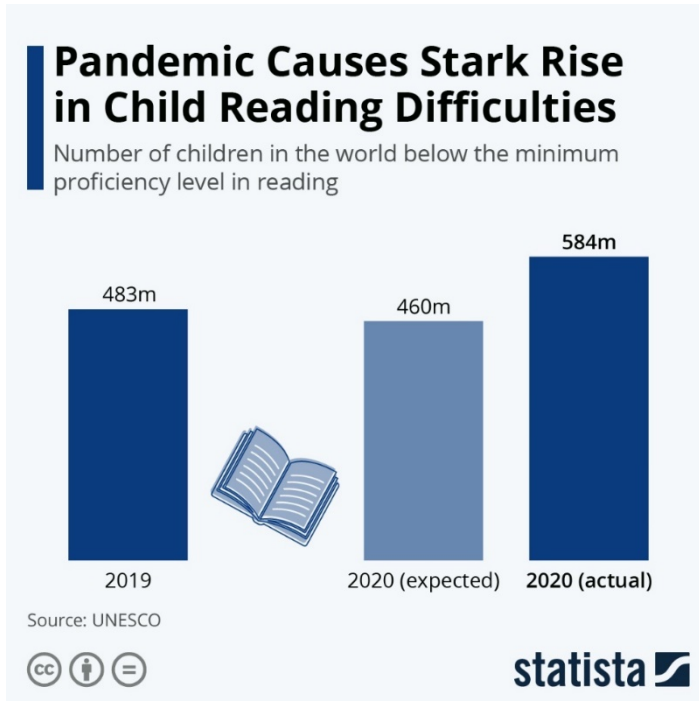


Figure 1 – Reading difficulties in the first year of COVID-19 Pandemic – a big wake up call (Armstrong, 2021)

UNICEF, UNESCO, OECD and The World Bank were among the most important bodies that drew attention to an unprecedented global decline in education in this context, the phrase “generation catastrophe” being often used. A quantitative analysis carried out after almost 2 years of the pandemic (Richter, 2022), indicates that, as a result of the alarming situation regarding the educational collapse, in the OECD countries and their partners, a number of studies have been initiated in areas such as:

- Students’ health and well-being (89%)
- Effective distance learning strategies during school closures (70%)
- Impact on teachers’ mental health and well-being (69%)

- Impact of school closures on educational outcomes (59%)
- The impact on the relationship between parents and children during the lockdown (48%)
- Impact on non-cognitive skills (48%)

In Romania, researching the impact of the pandemic on educational actors is all the more important since after 2018 the problems of education have reached a maximum in recent years. The results of the standardized PSIA assessments from that date (Figure 2) indicated a significant decline in the performance of Romanian students in relation to other countries in the European Union (European Commission, 2019).

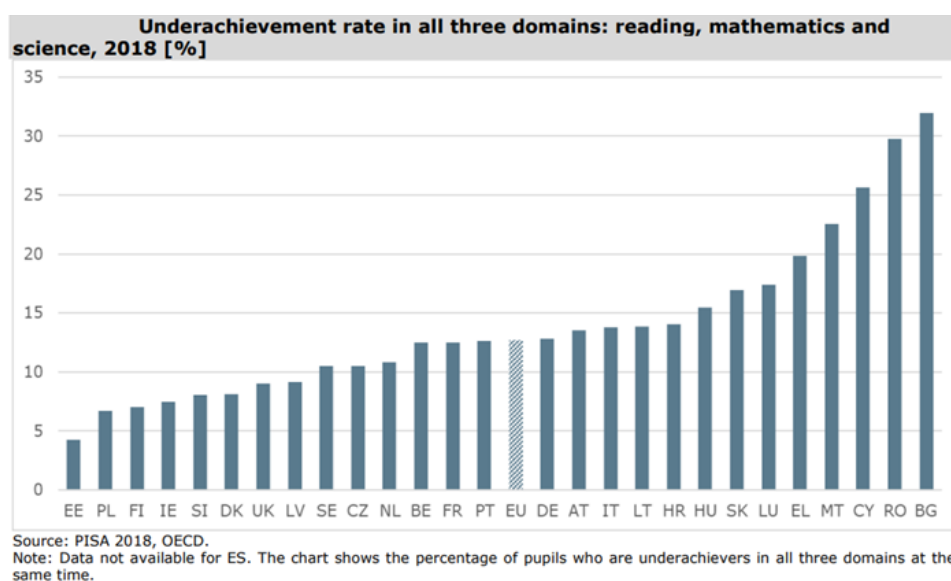


Figure 2 – Pisa results in European countries 2018 (European Commission, 2019)

In this context, the perspectives were among the most negative regarding the evolution of Romanian students' performances under the impact of the implicit measures during the COVID-19 pandemic. The moment represented a significant point of reflection, which led to a thorough investigation of both the substantive issues and the resilience strategies of the education system in general.

An extensive analysis of the sustainability of the e-learning systems used during the pandemic in Romania at the gymnasium, high school and university level, highlights the fact that the effective operation of such a strategy takes place only in the context of collaboration between parents, students and teachers (Ionescu, Paschia, Gudanes-cu-Nicolau, Stanescu, Neacsu-Stancescu, Coman, & Uzla, 2020). Or precisely here there are some serious problems, especially in vulnerable environments, where parents

are very little involved in educational activities. Although there were also benefits highlighted by some research (Holotescu, Grosseck, Andone, Gunesch, Constandache, Nedelcu, & Dumbrăveanu, 2020), especially at the level of teacher training and student creativity in adapting to new online environments, however, countless problems persisted – most of them related to unequal access to educational resources in the absence of a coherent national strategy. Other studies (Barbu, Popescu, & Moiceanu, 2022) indicated that in the absence of a unified strategy and adequate digital and pedagogical means, both teachers and students showed a decrease in commitment in relation to educational activities. In schools where there were adequate means and strategies, this phenomenon was not so intense, but these cases were rare, predominating in schools without adequate organization for the new online school reality.

Other relevant research on educational activities carried out online during the COVID-19 pandemic (Edelhauser & Lupu-Dima, 2021; Nicolau, Henter, Roman, Neculau, & Miclaus, 2020), converge towards a similar conclusion – differences in organization and resources allocated were largely responsible for a significant part of the differences found in relation to the effectiveness of online education.

Various researches that tried to highlight the factors of the pre-pandemic educational decline revealed, among others, an atypical situation – a polarization regarding access to adequate educational resources, between the so-called urban poles of development and the rural environment (Kiss & Orțan, 2022; European Union, 2019). This is the dimension on which we insisted in our own research, considering it an essential factor in relation to educational performance. The phenomenon of educational decline in rural areas is explained by a number of factors such as the major development of urban poles and the attraction of highly qualified human resources in all fields – education not being an exception. Fewer and fewer teachers are interested in practicing in rural areas due to the lack of adequate conditions – housing, transport and infrastructure, health or other indispensable services, but also the lack of leisure elements. Also, the lack of an educational model in many rural families has a negative impact on students' school motivation. We are not always necessarily talking about the lack of material resources in schools, but often the impact of adequate human resources and the educational-professional model in the family and community.

The data in our research was collected during 2020–2021. In March 2020 all schools were closed and the transition to digital education began. The information in the paper comes from 143 teachers actively involved in continuing professional training. All of them are higher education graduates, 109 from urban areas (76.2%) and 34 from rural areas (23.8%). 109 participants work in regular education (76.2%), 27 work in special education (18.9%) and 7 work in universities (4.9%). 27 participants are aged between 18–35 years (18.9%), 103 are aged between 36–50 years (72%) and 13 are aged between 51–65 years (9.1%).

A first analysis focused on teachers' perspective on the educational implications of online teaching (Kiss, Orțan, & Mândrea, 2021) and highlighted "that over half of teachers consider that the impact of the transition to online education on them has been moderate, almost half consider that it has been low and very few consider that the impact has been major. These teachers also believe that the effectiveness of online education is low. Regarding the transition to online education, most teachers consider it a natural or positive process, but almost 20% consider it a negative process. Surprisingly, young teachers are the most sceptical. One explanation may be that their preparation for online activities was relatively poor during their initial studies and at the beginning of their career, it is difficult to manage the educational activities in the absence of proximity of students. We also note that many of the young teachers who responded to the questionnaire work in preschool and primary education, precisely the levels where online education is most difficult to implement – according to the data presented which show that as we move towards gymnasium or high school, teachers believe that the adequacy of online education is increasing. Regarding the efficiency of online education, almost 80% of teachers say that it is at best satisfactory and only about 20% consider that it is at least similar or even better than on-site education" (Kiss et al., 2021, p. 844).

Other analyzes on the transition to digital education, carried out in the same period, highlighted 3 large categories of gaps (Marin, 2022):

- digital infrastructure issues (schools),
- lack of digital skills (teachers),
- lack of broadband internet connection/devices in underdeveloped areas (students).

At a stage subsequent to obtaining the initial data, we tried to deepen them with the help of focus groups, consisting of two groups of 12 teaching staff each (urban environment/rural environment) who were responsible for implementing educational digitization in their own schools. If in the initial analysis (Kiss, Orțan, & Mândrea, 2021) we focused on the analysis of the teachers' general perspective on the whole process, with the help of focus groups we aimed to analyze the issue of well-being and mental health among students and teachers.

The results, sometimes counterintuitive, highlighted the following aspects:

- the lockdown measures were felt more strongly in the urban environment – we can interpret this fact through the lens of the lack of urban mobility, compared to the rural environment where people live in larger households, which limited the felt impact of the impossibility of traveling outside the household,
- in relation to socialization, the tendency of students to spend even more time on social networks (and after the end of the lockdown, to keep this trend) – during the lockdown, social networks received an implicit validation as the main source of socialization. The situation was felt more widely in the urban environment, but the trend was identical in the rural environment as well,

- emotional disorders, socialization issues, worsening of school performance in students with learning difficulties (detected upon returning to school). The same trend is felt both in urban and rural areas. Thus, a clear pattern of vulnerability was identified and implied the need for prophylactic intervention to prevent possible worsening of mental health in inappropriate contexts,
- exacerbation of problems in families where there were dysfunctional relationships – the lockdown led to an exacerbation of existing problems in dysfunctional families, with an even greater impact on children. In the rural environment, this tendency is mentioned as being somewhat counterbalanced by some household responsibilities, which do not exist, or are significantly diminished in the urban environment,
- more time spent by parents with their children – especially in the urban environment, this aspect we can consider positive – more time spent by family members, together,
- more involvement of the family in the process of education – also in the category of positive aspects we can also include the reports regarding a stronger involvement of families in the education of children – also in the urban environment this was observed to be more accentuated,
- the significant frustration felt by teachers in the absence of possibilities to control the educational process – several teachers complained of an increased level of frustration, due to the impossibility of controlling educational activities. The urban environment correlates with a more intense involvement of the parents and implicitly a better control, while in the rural environment a less functional collaboration with the family was found in order to implement educational strategies,
- the satisfaction regarding the acquisitions in the area of digital pedagogy skills – here, both in the urban and in the rural environment, we observe a mention of the increased satisfaction of teachers in relation to their own personal development, implicitly following formal or informal training in the area digital pedagogy. As it was also highlighted in the quantitative data processing (Kiss, Orțan, & Mândrea, 2021), a large part of the teachers believe that there is a positive outcome for the entire education following this transition to digitalization.

Subject to the fact that these conclusions are preliminary, the quantitative and then the qualitative data on the transition to digital education show us some similarities, but also many differences between the general resilience of students and teachers or families in urban and rural environments. If in terms of the technological and pedagogical challenge, there are no big differences between urban and rural environments, on the other hand if we refer to aspects related to implicit well-being or mental health, here the differences start to appear. In general, in the urban environment there was a tendency to spend more time with the family and to support children educationally in the implementation of didactic strategies. Also, in

the urban environment, in dysfunctional families there was a stronger tendency for the degradation of relationships and family climate. Taking into account only these small differences that our analysis revealed, we support a differentiated approach to intervention measures for urban and rural environments, so that the solutions are targeted and coherently adapted to the context. Without such an approach, resources and proposed solutions may prove ineffective, so misallocation could generate even more inequities.

References

- Armstrong, M. (2021). *Pandemic Causes Stark Rise in Child Reading Difficulties*. Retrieved from: <https://www.statista.com/chart/24540/number-of-children-below-reading-proficiency-level/>
- Barbu, A., Popescu, M.A.M., Moiceanu, G. (2022). Perspective of Teachers and Students towards the Education Process during COVID-19 in Romanian Universities. *International Journal of Environmental Research and Public Health*, 19(6), 3409. MDPI AG. Retrieved from: <http://dx.doi.org/10.3390/ijerph19063409>
- Edelhauser, E., Lupu-Dima, L. (2021). One Year of Online Education in COVID-19 Age, a Challenge for the Romanian Education System. *International Journal of Environmental Research and Public Health*, 18(15), 8129. MDPI AG. Retrieved from: <http://dx.doi.org/10.3390/ijerph18158129>
- European Commission. (2019). *Pisa 2018 and the EU. Striving for social fairness through education*. Luxembourg: Publications Office of the European Union. doi: <https://doi.org/10.2766/964797>
- European Union. (2019). *Education and Training Monitor 2019 – Romania*. Luxembourg: Publications Office of the European Union.
- Holotescu, C., Grosseck, G., Andone, D., Gunesch, L., Constandache, L., Nedelcu, V.D., ...& Dumbrăveanu, R. (2020). Romanian educational system response during the COVID-19 pandemic. In: *eLearning and Software for Education Conference* (pp. 11–19). Retrieved from: https://ibn.idsi.md/vizualizare_articol/115703
- Ionescu, C.A., Paschia, L., Gudanesu Nicolau, N.L., Stanescu, S.G., Neacsu Stancescu, V.M., Coman, M.D., Uzla, M.C. (2020). Sustainability Analysis of the E-Learning Education System during Pandemic Period – COVID-19 in Romania. *Sustainability*, 12(21), 9030. MDPI AG. Retrieved from: <http://dx.doi.org/10.3390/su12219030>
- Kiss, J., Ortan, F. (2022). Education and social vulnerability of students from disadvantaged backgrounds in Romania. In: A. Odrowaz-Coates (ed.), *Social pedagogy for social inclusion and children's rights discourses*. Warsaw: Maria Grzegorzewska University Press.
- Kiss, J.F., Orțan, F., Mândrea, L. (2021). Teachers' perspective on the educational implications of online teaching. *Pedagogika-Pedagogy*, 93(6), 843–855.
- Marin, A.M. (2022). Log in or out of online schooling: the case of Romania. *SN Social Sciences*, 2(8), 142.
- Nicolau, C., Henter, R., Roman, N., Neculau, A., Miclaus, R. (2020). Tele-Education under the COVID-19 Crisis: Asymmetries in Romanian Education. *Symmetry*, 12(9), 1502. MDPI AG. Retrieved from: <http://dx.doi.org/10.3390/sym12091502>

- OECD. (2022). *Education at a Glance 2022: OECD Indicators*. Paris: OECD Publishing. doi: <https://doi.org/10.1787/3197152b-en>
- Richter, F. (2022). *Studying Covid's Impact on Education*. Retrieved from: <https://www.statista.com/chart/28535/countries-undertaking-studies-to-evaluate-the-effects-of-the-pandemic-on-education/>

Exploring the Impact of School Closures on Child Labour in Latin America

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Introduction

Every child has the right to be protected from economic exploitation and from performing any work that is likely to interfere with the child's education or harm the child's health

Article 32 of the Convention on the Rights of the Child

Among the activities that threaten the well-being of children, child labour could easily find itself at the top of the list. After years of sustained progress, the coronavirus pandemic and the consequent closure of schools worldwide have placed millions of children at risk of labour, due to a combination of causes, including poverty and the lack of employment opportunities for adults. In this article, we focus on school closures and their impact on the rise of child labour in Latin America. This region, known for its pressing disparities, found itself facing a deepening of these inequalities due to the impact of the COVID-19 pandemic. This global crisis constituted not only a health emergency but also an educational one, marking one of the most significant shocks ever experienced by the education sector worldwide. As of February 2021, approximately 120 million children in the region faced the possibility of losing a full year of schooling due to widespread closures. Implementing online education proved challenging, as only 77% of students in Latin America had internet access. Additionally, school closures disrupted essential services, including school meals, on which more than 10 million children in the region depend (World Bank, 2021). The pandemic disproportionately impacted vulnerable groups that were already facing challenging circumstances.

Studies show that in previous crises that led to declining living standards, numerous low and middle-income countries witnessed significant setbacks in their efforts

to reduce child labour and increase school enrolment among children (ILO-UNICEF, 2020). Even though the pandemic disrupted every facet of society, this paper focuses on its repercussions on the educational system. It explores how school closures may have contributed to an increase in child labour in the region, together with the worsening in poverty, unemployment, informality, limited social and health coverage.

We consider child labour to be a form of violence against children, often stemming from the inability of adults to ensure a dignified, healthy, and happy life, as established by the Convention on the Rights of the Child, ratified by all countries in the world -except the United States. Child labour is also addressed in the Sustainable Development Goals (SDG), specifically in Target 8.7, which calls for “immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms”. Other relevant treaties related to child labour are the ILO Convention 182 on the worst forms of child labour (1999) and the Convention 138 on the minimum age of admission to employment (1973).

When discussing illicit activities like child labour and exploitation, the lack of reliable data is a constant concern. In evaluating the potential impact of the pandemic on child labour, we rely on estimations from reports of international organizations such as UNICEF and the International Labour Organization (ILO). Data is constructed by projecting the risk of child labour, based on indicators such as poverty, informality, unemployment, access to credit, social protection, and others which deterioration can lead to child labour.

Education and robust social protection measures proved to be crucial in the prevention of child labour, as they can play a significant role in alleviating the impacts of economic downturns in Latin America. For instance, during the coffee crisis in Central America from 2000 to 2001, several countries in the subregion witnessed enhancements in primary school enrolment rates and a modest decrease in child labour incidence. In this context, social assistance programs played a crucial role in preserving household well-being, particularly in coffee-growing areas, where they supported household finances and children’s school attendance, in contrast to areas without such programs (ILO-UNICEF, 2020b). But when it comes to COVID-19, indicators reveal that the region was ill-equipped to handle the repercussions of the pandemic and ensuing lockdowns. This crisis may have forced millions of children into child labour, potentially marking its first increase in over two decades, as suggested by the latest reports from the ILO.

When it comes to education, child labour can be both a cause and a consequence of school dropouts, mostly driven by economic necessity. Poverty and limited access to essential resources can force families to send their children to work to supplement their income. Consequently, when children are engaged in labour, it becomes difficult for them to maintain regular school attendance, leading to elevated rates of school

dropouts. Despite a steady increase in school attendance and completion rates over the past two decades, particularly at the primary education level, education in Latin America remains exclusive for disadvantaged social groups. According to reports by UNESCO (2020), obstacles preventing access to quality education persist, disproportionately affecting individuals with disabilities, migrants, refugees, indigenous peoples, Afro-descendants, and, notably, girls within these marginalized communities.

The COVID-19 pandemic highlighted the structural inequalities in the region, exposing the limited capacity of vulnerable groups to adhere to official lockdown measures. Furthermore, the pandemic had a profound impact on education through widespread school closures, revealing significant shortcomings in inclusive education that demand urgent attention. According to UNESCO (2020) the interruption of studies or the challenges in ensuring continuity through virtual platforms, together with economic hardships affecting household incomes, have heightened the risk of students dropping out of school, particularly at the secondary and tertiary levels.

Child labour as an obstacle for wellbeing

The Convention on the Rights of the Child (CRC) considers child labour to be any activity performed for economic purposes by children or adolescents aged 0 to 18 years (CRC, Article 1), whether legal or illegal, paid or unpaid, visible or invisible. UNICEF defines child labour as any work that exceeds a minimum number of hours, depending on the child's age and the nature of the work. This type of work is considered harmful to childhood and should therefore be eliminated. Beyond technical criteria, international agencies agree that child labour constitutes a threat to the potential and dignity of children, as well as compromising their physical and mental development by hindering or making it difficult to access education. Children must combine attending classes with working, which can lead to school dropouts or repetition. Unlike activities that help a child to develop, such as contributing to housework for a few hours a week or taking on a job during school holidays, child labour interferes with schooling and is harmful to a child's physical, mental, social and/or moral development (ILO-UNICEF, 2020).

One of the most common forms of child labour in Latin America is found in agriculture, which accounts for the majority of child workers worldwide, approximately 132 million (ILO, 2010). The same report by the International Labour Organization (ILO, 2010) states that agriculture is one of the most dangerous sectors to work in at any age, and even more dangerous for children. Among the risks it presents to children are the handling of pesticides and fertilizers, as well as the carrying of heavy loads. This work is often not even registered because it is often considered "family assistance" which contributes to its persistence and normalization. The agricultural sector encompasses the majority of the world's impoverished population,

and many are denied their fundamental rights to trade union freedom, association, and collective bargaining.

Another widespread – and often overlooked – form of child labour in Latin America is domestic work. This typically occurs in family structures where adults are absent for long periods, and in numerous families, where household care and domestic responsibilities fall upon children, especially girls (ODSA, 2000). In areas with inadequate housing infrastructure and services, the burden of domestic work is even heavier: it involves carrying water, firewood, or charcoal, and the risks are greater due to the absence of adequate electrical installations, solid flooring, reliance on coal or wood stoves, and lack of access to clean water. When domestic work is carried out in other people's households, additional risks emerge. Girls work long hours, are unable to attend school, experience isolation from their families and friends, and are vulnerable to mistreatment, violence, and abuse from their employers.

When working conditions deteriorate, we confront what international organizations classify as the worst forms of child labour. These include practices resembling slavery, the sale and trafficking of children, debt bondage, forced or compulsory labour, and the involvement of children in armed conflicts. Additionally, they encompass the recruitment and use of children for prostitution and pornography, as well as for the production and trafficking of narcotics, all of them listed in the ILO Convention 182 (1999). This convention also mandates that states must implement direct assistance to liberate children from these forms of labour and facilitate their “rehabilitation and social integration”.

Impact of COVID-19 on child labour

The global disruption of education caused by lockdown measures and the lack of remote learning solutions in many countries is likely to have led to an increase in the number of children engaged in economic activities. Households may have turned to child labour to cope with job loss and the health crisis associated with COVID-19, especially if children were not enrolled in the education system.

The crisis heightened economic instability, disrupted supply chains, and halted manufacturing activities. Financial markets faced constraints due to tightened credit conditions, and public budgets were under immense pressure to meet growing demands. As these factors collectively lead to reductions in household income, the expectation that children should contribute financially become more pronounced.

The situation was particularly delicate for children from marginalized minority groups, those living on the streets and homeless, single-parent households or those headed by children, migrants, refugees, or those from areas affected by conflicts or disasters. These groups are more vulnerable to child labour. Those already working may do so for longer hours or under worsening conditions. Gender inequalities

may grow more acute within families, with girls expected to perform additional household chores and agricultural work. Temporary school closures may have exacerbated these tendencies, as households looked for new ways to allocate children's time (ILO-UNICEF, 2020).

Another factor that could lead to child labour was the increasing COVID-19 death toll, accompanied by a rising number of children who were left without one or both parents, as well as other caregivers like grandparents. Children deprived of family care are particularly vulnerable to child labour, trafficking, and various forms of exploitation (ILO-UNICEF, 2020, p18). In cases where adult household members fall ill or pass away, it is not uncommon for children to step into their roles. For example, the loss of a mother frequently leads to additional household responsibilities for the child.

The latest global estimates indicate that the number of children in child labour has risen to 160 million worldwide. Around 63 million girls and 97 million boys were in child labour globally at the beginning of 2020, accounting for almost 1 in 10 of all children worldwide. The number of children aged 5 to 17 years in hazardous work – defined as work that is likely to harm their health, safety, or morals – has risen by 6.5 million to 79 million since 2016 (ILO-UNICEF, 2020b). Past crisis situations, like the 2014 Ebola epidemic, have demonstrated the significant role health crisis play in heightening the risks of child labour and forced labour. In such situations, children, particularly girls, not only face an increased risk of child labour but can also become overwhelmed by additional household chores and caregiving responsibilities (ILO, 2020).

When it comes to the impact on the worst forms of child labour, criminal networks exploit crises capitalizing on vulnerabilities to restrict the freedom of victims and increase the financial gains obtained from forced labour and human trafficking. Quarantine restrictions have transformed the dynamics of exploitation; for instance, women and children can be subjected to sexual exploitation for commercial purposes by their abusers online or within private residences.

For the first time in the 20 years that the United Nations Office on Drugs and Crime (UNODC) has collected data on trafficking in persons, a decrease was registered in the number of victims detected globally in 2020. Pandemic-related restrictions on movement and business operations may have at least temporarily reduced some forms of trafficking, including trafficking for the purpose of sexual exploitation and cross-border trafficking (UNODC, 2022). But the decrease on the number of victims detected does not mean that there was an actual decrease on trafficking. As law enforcement and public services were under increasing strain, pandemic restrictions may have also driven some forms of trafficking to more hidden locations, potentially increasing the dangers to victims and making it less likely they could come to the attention of the authorities (UNODC, 2022). Overall, there is little evidence to suggest that the threat of this crime has diminished with the drop

in detected victims, and many reasons to fear that Covid, but also other crises and conflicts, including the climate emergency, are escalating trafficking risks. As a result, more children could be forced into exploitative and hazardous jobs. Gender inequality may worsen, as girls are particularly vulnerable to exploitation in the agricultural sector and in informal or domestic work and face greater risks of sexual and gender-based violence (ILO-UNICEF, 2020, p. 12).

Evidence shows that guerrilla groups such as ELN and FARC, took advantage of the pandemic lockdown, to increase the recruitment of children: during quarantine months, Colombian armed groups doubled the total of children recruited (compared to 2019), according to the Coalition Against the Involvement of Girls, Boys, and Youth in the Armed Conflict in Colombia (COALICO). The closure of schools and the redeployment of the army in some territories to reinforce public order in cities facilitated this surge (Cantillo, 2020; Torrado, 2023).

Impact of COVID-19 in Education

Latin American was facing a learning crisis even before the pandemic. Learning poverty, defined as the percentage of 10-year-old children unable to read and understand a simple story, was already very high in the region, at 51%. In addition, Latin America already exhibited the greatest inequality in the world in access to quality education by students. The pandemic made this situation worse: it is estimated that at least 15% of students will never return to school in their lifetimes. Learning losses are likely to be much greater among children in the lowest income quintile, widening the already high socioeconomic gap in educational attainment by 12%. The earlier reopening of private schools compared to public schools that took place in some countries contributes to this increase, and to the deepened of inequalities World Bank (2021b). But Latin America, including the Caribbean, is not a homogenous region, and significant differences emerge when we examine each country individually. For example, intra-national inequalities become apparent when we break down data by school type, geographic area, and specific demographic groups, which are often linked to socioeconomic status (SES). The average performance of students attending private schools or in urban areas was 2.5 and 1.9 years of education greater than that of students attending public schools or in rural areas. Additionally, the countries of the region appear to consistently have greater inequality between groups than the rest of the world (World Bank, 2021).

On the other hand, the average learning poverty rate in Latin America also conceals significant differences among countries, ranging from 21% in Trinidad and Tobago to 81% in the Dominican Republic (World Bank, 2021, p. 19). According to the results of the Program for International Student Assessment (PISA), 15-year-old students in LAC were three years behind students from countries in

the Organization for Economic Cooperation and Development (OECD) in terms of performance in mathematics, reading, and science.

During the initial phases of the COVID-19 pandemic and the subsequent lockdowns, educational institutions swiftly implemented distance learning strategies, with an emphasis on multimodal solutions, to reach students and their families more widely and provide support to parents and teachers. However, the effectiveness of these initiatives varied across regions and institutions (World Bank, 2021). Even assuming a broad reach of such policies, it has been challenging to achieve adequate levels of effective participation and quality. For instance, online platforms have been an obligatory education response to school closures, but less than half of households in the region have access to internet or a computer (UNESCO, 2020). The pandemic has exacerbated pre-existing inequalities, compounding the risks of further marginalization and disengagement among learners, a challenge already faced by underserved communities, individuals with disabilities, and migrant populations.

Limited access to internet is more pronounced among disadvantaged groups. In Peru, Mexico, Panama, and Colombia, for example, only 14, 19, 24 and 25% of students in the bottom quintile have internet access at home, respectively (World Bank, 2021). Even with a computer or telephone with internet connection, there are still substantial disparities between families in the extent to which they can help their children learn; some key differences include: the amount of time available to devote to teaching, the non-cognitive skills of the parents, resources to access the best online material (Burguess & Sieverstsen, 2020).

The interruption of in-person education received in schools, combined with the economic difficulties faced by families, has had significant adverse effects on the physical, mental and emotional well-being of students. For teachers of all levels, challenges were also significant, since there were almost no digital classes or virtual classrooms developed before the pandemic on public primary schools. Educators did not receive sufficient support to respond to the new workload and the demand for additional skills to optimize the implementation of remote education, and they themselves were subjected to the pressures and stress resulting from the pandemic (Zsögön, 2020). Moreover, Latin America and the Caribbean was the region with the most extensive total or partial school closures: 70 school weeks between February 2020 and March 2022, a period considerably longer than the global average of 41 weeks (ECLAC, 2022).

How can school closures lead to an increase in child labour in Latin America?

Despite the efforts of educational systems to implement various innovative online and distance learning methods, these measures have not equally reached all children across different geographic locations and social groups. The transition to

online education has been the norm for most schools; however, nearly half of the global population lacks access to the internet, exacerbating educational disparities and leaving many students further marginalized.

Beyond their educational role, schools serve as essential sources of social protection for both children and their families, a point emphasized by the ILO-UNICEF report (2020). The disruption of these services, including meals for over ten million students in the region, has had adverse consequences on their physical, mental, and emotional well-being. Evidence about child labour rising as schools close during the global shutdown is gradually mounting. In Malawi, for instance, the government closed schools to prevent the spread of the virus. Unable to learn, children soon ended up with other tasks. As one child says, “many parents in my neighbourhood have taken advantage of the ‘holiday’ to send children to town to sell fruits and vegetables” (ILO-UNICEF, 2020, p. 17).

Some of the consequences of school closures, which contribute to a decline in the overall quality of life for families in the region, are linked to the impossibility to acquire essential educational skills. For instance, studies show that after ten months without classes (one school year), more than two out of every three first-year high school students (71%) may not be able to properly comprehend a moderately lengthy text, whereas before the pandemic, this figure was 55%. Learning poverty could increase by more than 20%, from 51% to 62.5%, equivalent to an increase of about 7.6 million learning-poor individuals World Bank (2021b). These results also carry direct costs, for each student’s potential but also for the countries and communities.

The pandemic has exposed the structural inequalities prevalent in Latin America and it has underscored the unequal distribution of gender roles and social care responsibilities, which erodes women’s rights and autonomy. COVID-19 resulted in a rise in poverty and therefore an increase in child labour as households used every available means to survive. Studies show that a one percentage point rise in poverty leads to at least a 0.7% increase in child labour (ILO-UNICEF, 2020). Fewer employment opportunities and lower wages can drive people into informal or exploitative work, which can further suppress wages and in turn contribute to child labour. Compared to adults, children are more likely to accept work for less pay and in vulnerable conditions. When households need more financial support, they turn to children, and businesses may deliberately recruit children to cut costs and boost earnings (ILO-UNICEF, 2020).

In Latin America, 2020 witnessed levels of poverty and extreme poverty that had not been observed in the past 12 and 20 years, accompanied by a deterioration in inequality indicators within the region (ECLAC, 2022). The adverse effects extended to employment and labour force participation rates, particularly among women, primarily due to the impact of the COVID-19 pandemic. This occurred despite the implementation of emergency social protection measures by countries to mitigate

its consequences (ECLAC, 2022). The increase in informal employment and economic hardships could potentially force many children out of school and into the labour market, as highlighted in the ILO-UNICEF report (2020).

In an effort to mitigate these challenges, policies aimed at enhancing the educational inclusion of marginalized populations were instituted across the region. Specifically, advancements were made in devising new strategies to promote inclusion in early childhood education. Strong social inclusion policies, primarily focused on conditional cash transfers, continued, and were expanded in numerous countries within the region. However, these substantial policy initiatives do not fully address the challenges that persist in the region when it comes to achieving full educational inclusion of the most disadvantaged social groups, as underscored by UNESCO (2022, p. 17).

Discussion

The COVID-19 pandemic posed a significant challenge to education systems, but also provided lessons about what really matters for lifelong learning and training. It is essential to learn from this crisis and from the innovative experiences that have arisen. This knowledge should inform the preparedness of education systems to respond swiftly, extend assistance to those most in need, and guarantee the uninterrupted continuity of learning. The emphasis should be placed on prioritizing vulnerable populations and those at the highest risk of exclusion, with the ultimate goal of diminishing socio-educational disparities, as emphasized by UNESCO (2020).

Concerning children, the necessity to work can have a significant impact on school repetition and dropout. Research has demonstrated a clear correlation between children engaged in labour and those who are not, in terms of their school attendance, and overall well-being. Moreover, evidence shows that regular school attendance not only provides children with an education but also offers them a degree of protection against the risks associated with child labour. Such protection encompasses physical and psychological well-being, shielding against exploitation, and fostering opportunities for personal growth and development.

However, it is essential to critically examine the role of the school, as it can contribute to reinforce socioeconomic inequalities by categorizing specific forms of knowledge as “legitimate” while displaying indifference, if not outright disregard, for the experiences and knowledge of working children. These children possess skills that are often intricate and sophisticated, yet they often go unrecognized and undervalued, especially in the case of children engaged in informal economy activities on the streets, who are exposed to a multitude of risks associated with this environment.

Bourdieu (1970) argues that the school reproduces social inequalities by reinforcing the habitus of middle-class families. In other words, the school is not the

place where these inequalities are created but where they are legitimized. In *La Reproduction*, Bourdieu and Passeron assert that educational institutions are structured to favour students who already possess cultural capital, defined by dominant groups as the “legitimate culture” that should be transmitted to all students. In this way, the school naturalizes and conceals social inequalities by transforming class differences into individual inequalities in access and appropriation of “culture”.

However, particularly in the case of vulnerable children, it is crucial to acknowledge the school’s multifaceted role as a socialization institution, a source of support, and a space that attends to immediate basic needs by providing food and even addressing health issues. But none of these can be done without proper financing. School systems must invest the necessary resources to start recovering from the dramatic learning losses and other negative effects of the pandemic. In Latin America public financing for education has not been a top priority; even before the crisis, the region’s spending on education had been declining, dropping from 5.3% of GDP in 2014 to 4.5% in 2017, and 4.6% in 2018, according to the latest verified data (World Bank, 2021). Furthermore, the unprecedented health crisis and economic downturn in the region have created immediate and pressing needs, primarily in the areas of healthcare and social protection, which are competing for resources.

Students from vulnerable backgrounds were already learning very little before the crisis and were at risk of dropping out of school. Therefore, it is crucial to ensure access to cost-free, high-quality education, extending at least until the minimum employment age. Additionally, campaigns to motivate children to return to school and intensified recovery learning programs are fundamental to re-enrolling children in classrooms and aiding their recovery of lost educational progress.

There are several examples of innovations that could be institutionalized. For instance, during school closures, early warning systems (EWS) were implemented to identify students who were at risk of dropping out, allowing for timely interventions to provide them with necessary support. Another example of a good practice is the use of targeted financial support mechanisms, including cash transfers for high-risk students, which have proven effective in addressing the impacts of the pandemic. School feeding programs also played a significant role by partially compensating for the income losses of families during school closures and by attracting students back to schools once they reopened (World Bank, 2021).

In addition to economic measures, a cultural change is also needed to tackle child labour in the region. Cultural factors are sometimes used to justify the existence of these practices by emphasizing their “socializing” or “educational” role, often at the expense of acknowledging the physical and psychological harm it inflicts on children. This perspective neglects the well-documented correlations between child labour and poverty, unemployment, informality, and the impact on school attendance and academic progression. In certain contexts, child labour may be normalized or even seen as a form of apprenticeship or educational pathway (Zsögön, 2021). Nevertheless, it is

essential to acknowledge the significant negative consequences that it imposes upon the well-being, development, and future opportunities of children.

In this regard, we believe that human rights and children's rights can be a valuable tool. These rights offer a framework to safeguard and promote the well-being, dignity, and future opportunities of children, thereby challenging the normalization of child labour and advocating for their protection and development. Considering child labour as a violation of human rights also helps make it a serious public concern rather than a private matter within families. Moreover, the human rights perspective can assist in treating some of the worst forms of child labour that disproportionately affect girls – such as domestic work, servitude, sexual exploitation, child marriage- as crimes against girls. These forms mostly affect girls due to their gender, and despite laws that may appear neutral, women and girls are often *de facto* unequal before the law, since laws have traditionally been designed following a male image (UNICEF, 2008).

When it comes to addressing the worst forms of child labour, including trafficking for exploitation, there is an acknowledgment that while criminal activities are becoming more intricate and transnational, challenging traditional notions of sovereignty in the realm of criminal law, legislations have not evolved at a similar pace (IPEC-ILO, 2005). Therefore, they face extreme difficulty in moving beyond the principle of territoriality, which is needed to account for transnational crimes.

Conclusion

Child labour has been on the rise with the closure of schools during the pandemic. The temporary shutdown of educational institutions disrupted the lives of over 1 billion students across more than 130 countries. In Latin America, the suspension of in-person learning had profoundly detrimental effects on groups lacking adequate at-home pedagogical support, those with limited internet connectivity, and restricted access to educational resources, as highlighted by UNESCO (2022).

Even when classes resumed, many parents could no longer afford to send their children to school. As a result, more children were forced into labour. Gender inequality also intensified, with girls being especially susceptible to exploitation, notably in the agricultural sector and through informal or domestic work. To address the risk of child labour, several measures can be considered, including the expansion of social protection programs, facilitation of access to credit for impoverished households, promotion of decent employment opportunities for adults, and the removal of financial barriers to children's return to school.

When signing the Sustainable Development Goals (SDG), the world made a commitment to eliminate all forms of child labour by 2025. Over the past two decades, we have witnessed a significant milestone with 94 million fewer children

engaged in child labour. However, this remarkable accomplishment is now under threat. The pandemic has undone much of this progress, and the global target of ending child labour, now appears increasingly challenging, if not impossible, to achieve.

References

- Bourdieu, P., Passeron, J. (1970). *La reproduction*. Paris: Minuit.
- Burgess, S., Sievertsen, H.H. (2020). *Schools, skills, and learning: The impact of COVID-19 on education*. <https://voxeu.org/article/impact-covid-19-education>
- Cantillo, J. (28 June 2020). *El ELN y los disidentes de las FARC aprovechan el confinamiento por el coronavirus para aumentar el reclutamiento de menores* [The ELN and FARC dissidents take advantage of the coronavirus confinement to increase the recruitment of minors]. Infobae.
- ECLAC. (Economic Commission for Latin America and the Caribbean). (2022). *Estudio Económico de América Latina y el Caribe Dinámica y desafíos de la inversión para impulsar una recuperación sostenible e inclusiva* [Economic Study of Latin America and the Caribbean and challenges for investments to grant a sustainable and inclusive recovery]. ISBN: 9789211220872
<https://elpais.com/america-colombia/2023-06-29/la-onu-alerta-del-aumento-en-el-reclutamiento-de-ninos-por-parte-de-las-disidencias-de-las-farc.html>
- <https://www.infobae.com/america/colombia/2020/06/28/el-eln-y-los-disidentes-de-las-farc-aprovechan-el-confinamiento-por-el-coronavirus-para-aumentar-el-reclutamiento-de-menores/>
- ILO (International Labour Office) and United Nations Children's Fund. (2020b). *Child Labour: Global estimates, trends and the road forward*. ILO and UNICEF, New York, 2021. License: CC BY 4.0.
- ILO (International Labour Office). (2006). *La eliminación del trabajo infantil, un objetivo a nuestro alcance* [The elimination of child labour, a goal within our reach]. International Labor Conference, 95th Session, Report I (B), Geneva.
- ILO (International Labour Office). (2010). *Accelerating action against child labour – Global Report under the follow-up to the ILO Declaration on Fundamental Principles and Rights at Work*. Geneva.
- ILO (International Labour Office). (2020). *El impacto del COVID-19 en el trabajo infantil y el trabajo forzoso: La respuesta del Programa de referencia IPEC+* [The impact of COVID-19 on child labour and forced labour: The response of the IPEC+ Reference Program] ILO. Geneva.
- ILO (International Labour Organization). (1999). *Worst Forms of Child Labour Convention*. C182, 17 June 1999, C182ILO Convention 182.
- International Labour Organization and United Nations Children's Fund. (2020). *COVID-19 and Child Labour: A time of crisis, a time to act*. New York: ILO and UNICEF.
- IPEC-ILO. (2005). *Programa de Prevención y Eliminación de la Explotación Sexual Comercial de Niñas, Niños y Adolescentes en la Triple Frontera (Argentina–Brasil–Paraguay)* [Program for the Prevention and Elimination of Commercial Sexual Exploitation of Girls, Boys and Adolescents in the Triple Border (Argentina–Brazil–Paraguay)], ILO, Paraguay.

- ODSA (Observatorio de la Deuda Social Argentina). (2010). *La estratificación social del trabajo infantil. Niñez y adolescencia en la Argentina urbana en 2010* [The social stratification of child labor. Childhood and adolescence in urban Argentina in 2010]. Barometer edition of childhood social debt, Buenos Aires.
- Torrado, S. (29 June 2023). *La ONU alerta del aumento en el reclutamiento de niños por parte de las disidencias de las FARC* [The UN warns of the increase in the recruitment of children by FARC dissidents]. España: El País.
- UNESCO. (2020). *Global Education Monitoring Report 2020 Latin America and the Caribbean Inclusion and education: All means all*. Paris: UNESCO. ISBN: 978-92-3-100414-8
- UNESCO. (2022). *Education in Latin America at a crossroads: Regional monitoring report SDG4 – Education 2030*. Paris: UNESCO. ISBN: 978-92-3-100541-1
- UNICEF. (2008). *Global Policy Section, Child marriage and the law*. New York.
- UNODC. (2022). *Global Report on Tracking in Persons 2022*. Vienna: United Nations Office on Drugs and Crime. ISBN: 9789211304626
- World Bank. (2021). *Acting Now to Protect the Human Capital of Our Children: The Costs of and Response to COVID-19 Pandemic's Impact on the Education Sector in Latin America and the Caribbean*. Washington, DC: World Bank.
- World Bank. (2021b). *COVID-19 y la crisis educativa en América Latina y el Caribe: ¿cómo podemos evitar una tragedia?* [COVID-19 and the educational crisis in Latin America and the Caribbean: how can we avoid a tragedy?]. <https://blogs.worldbank.org/es/education/covid-19-y-la-crisis-educativa-en-america-latina-y-el-caribe-como-podemos-evitar-una>
- Zsögön, C. (2020). Challenges of teaching and learning during the coronavirus pandemic in a Latin America country. In: *WHAT WOULD KORCZAK DO? Reflections on Education, Well-being and Children's Rights in the Times of the COVID-19 Pandemic*. UNESCO/Janusz Korczak Chair's Book Series, The Maria Grzegorzewska University. E-ISBN: 978-83-66010-55-0
- Zsögön, C. (2021). Discourse analysis around the issue of child labour in the Global South. *Language, Discourse & Society*, vol. 9, no. 1(17).

Education for sustainable development and the integration of sustainable development goal 4. A Romanian educational perspective

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Introduction

The 2030 Agenda for Sustainable Development was adopted and implemented in Romania in 2016. The Romanian Government created a governmental department, dedicated to implementing the 17 Sustainable Development Goals (SDG) agreeing that Education for Sustainable Development (ESD) (Ministerul Educației, 2018) is the best and most efficient way to fulfill the Agenda's goals. However, teachers may feel inadequately prepared for integrating the sustainable goals. The Ministry of Education presented a series of strategic documents on the same website, highlighting the national strategy for ESD, the UNECE Strategy, the Joint declaration of the ministers of the environment and education, together with translated and adapted 2030 Agenda. It also offered several resources, such as the quality criteria for schools, a guide for responsible life, and a guide for facilitating global education. One of the most important documents, presented on the same website is the *National Strategy for Sustainable Development, Horizons 2013–2020–2030* (Ministerul Mediului, 2008). Together with these, several other resources have been developed by teachers and state institutions, to aid the implementation of ESD in Romanian schools, that can be found freely online, but which are not the focus of our research. Having presented the wider context,

at the beginning of 2023, the Romanian Government published the school program for several new disciplines, amongst which Education for Sustainable Development was included, as a optional discipline, in the 8th grade, not in the core curriculum, but at the schools' choice. ESD has a transdisciplinary character, being at the intersection of social education, geography, mathematics, and nature sciences. ESD is based on the SDGs of the 2030 Agenda for Sustainable Development. The three general competencies, that ESD aims to develop are critical assessment of deeds, events, ideas, processes that occur in a student's life and in the life of his or her community, cooperation for accomplishing several community issues, and manifesting social, civic, economic, and protective behaviours in relation to the environment. The document also describes several teaching methods, of which the educational project is the most important, together with several evaluation methods. At its core, the ESD described by the educational program is not teacher centered, but student centered, placing a higher emphasis on how students learn through engaging issues and methods, not by being transferred information from the teacher (Guvernul României, 190AD).

The research aims to assess whether teachers in the pre-university educational system are prepared and able to develop the necessary competencies for students to think and live in a sustainable manner, starting from the requirements of the 2030 Agenda on Sustainable Development. The research also tries to ascertain whether the aims of the Agenda can be implemented successfully, and the teachers feel qualified to develop the necessary skills in their students, therefore avoiding jeopardizing the implementation of the Agenda in the Romanian educational system.

Research questions

The research will try to answer two basic questions, namely:

- Q1. What knowledge do teachers have about the 17 SDGs of the 2030 Agenda for Sustainable Development?
- Q2. To what extent can teachers integrate the principles of the 17 SDG's within the disciplines that they are already teaching?

The research questions are important in order to ascertain whether the teachers in the pre-university educational system are able to genuinely prepare students and help them develop the necessary competencies and skills to think and live in a sustainable manner.

Literature review

According to Novo-Corti et al. (Novo-Corti et al., 2018) education is considered as an important pillar for understanding what and how ESD works, even at the level

of economic higher education. ESD is also considered an important tool in engaging with environmental global issues, but through individual actions, as Dumitru and Stoenescu argue (Dumitru & Stoenescu, 2011). Despite the fact that Dumitru and Stoenescu wrote the report in 2011, it underlines the fundamental issues related to the importance of education and placing the emphasis on the students' engagement with practical issues. In a more recent study, Ilovan et al. (Ilovan et al., 2018) conclude that it is mostly Geography teachers who are highly interested in ESD, because it has an strong environmental element, while students were interested in ESD for the same reason, while adding various other educational materials, such as educational projects, educational software, trips, and competitions.

ESD is presented as a holistic interdisciplinary learning strategy, encompassing values, critical thinking, cross-methodological approaches, decision making policies aiming at preparing students for the future challenges, in an everchanging society, as Lampă, Greculescu, and Todorescu argue (Lampă, Greculescu, & Todorescu, 2013), emphasizing that the discipline helps even the weakest students to become educated and act in a responsible manner, without posing danger for themselves or others. The tensions between the requirements of ESD and the 2030 Agenda and the limitations of the Romanian educational system is described by Mustață et al (Mustață et al., 2013), while Bagoly-Simo argues that the curriculum does not always facilitate or favor ESD (Bagoly-Simó, 2014). An important finding argues that optional, not mandatory, ESD related actions are more efficient in developing sustainable development attitudes in students, which marks an important milestone in how education should approach the development of relevant and long lasting competencies in students throughout the Romanian educational system, as Badea et al found (Badea et al., 2020).

Methodology

In conducting the research, we used a survey as a method, starting with the development of the questionnaire and its distribution online through Google Forms. The applied questionnaire consists of two parts. The first part includes questions regarding various socio-demographic aspects of the respondents, while the second part of the questionnaire contains specific questions concerning the openness of pre-university teachers to the issues generated by the objectives of sustainable development and their level of knowledge regarding the 17 Sustainable Development Goals (SDGs). The questionnaire is based on several studies conducted by Zguir et al, Al-Thani et al, Smaniotto et al., and Garcia et al. (Al-Thani, Ari, & Koç, 2021; Fekih Zguir, Dubis, & Koç, 2022; García-González, Jiménez-Fontana, & Azcárate, 2020; Smaniotto et al., 2022). The research data were collected from pre-university teachers in Bihor County between January and February 2023. The research

data were analysed using IBM SPSS Statistics version 28. Regarding the responses collected from the participants, a Likert scale with 5 response levels was mostly used for the items, ranging from 1 – to a very small extent to 5 – to a very large extent. The internal consistency of the items saturating the scale was verified using the Cronbach's Alpha coefficient, which, for the overall score, is 0.969, indicating a high value (Cronbach & Shavelson, 2004).

Results

In the study, a total of 190 pre-university teachers participated, with ages ranging from 22 to 61 years. The teachers who took part in this survey were predominantly female (78%). Out of the 190 teachers, 47% came from rural areas, while 53% came from urban and Metropolitan areas. Regarding their teaching environments, only 44% work in urban and Metropolitan areas, while 56% of the respondents work in rural areas. As for teaching experience, it can be noted that most of the participating teachers have over 20 years of teaching experience (45%), while 29% have teaching experience ranging from 10 to 20 years, 13% have between 0–3 years, and 13% have between 3 and 9 years. Regarding the educational level in which teachers spend most of their teaching hours, the majority teach in the primary education cycle (33%), followed by the lower secondary level at 28% and the upper secondary level at 24%.

To facilitate the integration of sustainable development concepts into the curriculum, it is important to assess the level of knowledge that teachers have on this subject. In this regard, to answer the first research question “Q1. What knowledge do teachers have about the 17 SDGs of the 2030 Agenda for Sustainable Development?” we will now analyse the knowledge level of the teachers participating in the survey, based on the 17 strategic objectives of sustainable development within the 2030 Agenda. Teachers were asked to self-assess on a scale from 1 to 4, where 1 – I have no knowledge of the subject, 2 – I have limited knowledge, 3 – I know the subject quite well, and 4 – I know the subject very well, to what extent they possess information about each of the 17 SSG's.

According to the results obtained and presented in Table 1, most of the respondents have a good understanding or very good knowledge of the social objectives, while having limited knowledge of the economic objectives. Among the 17 goals, Quality Education is the most well-known (77% of the respondents claimed to have significant knowledge on this subject), while Life Below Water is the least known goal (62% stated they have no knowledge about this concept). Analysing the responses item by item for the three pillars, the highest means were obtained for the following items: for the social pillar: Item 1.4: Quality Education (mean value = 3, mode = 3) and Item 1.3: Good Health and Well-being (mean value = 3, mode = 3);

economic pillar: Item 1.8: Decent Work and Economic Growth (mean value = 3, mode = 3); environmental pillar: Item 1.6: Clean Water and Sanitation (mean value = 2.87, mode = 3) and Item 1.15: Life on Land (mean value = 2.57, mode = 3). Regarding the lowest means obtained for the 17 items describing the SDGs, we have, for the social pillar: Item 1.16: Peace, Justice, and Strong Institutions (mean value = 2.40, mode = 2) and Item 1.2: Zero Hunger (mean value = 2.40, mode = 2); for the economic pillar: Item 1.9: Industry, Innovation, and Infrastructure (mean value = 2.42, mode = 2); and for the environmental pillar: Item 1.14: Life Below Water (mean value = 2.35, mode = 2).

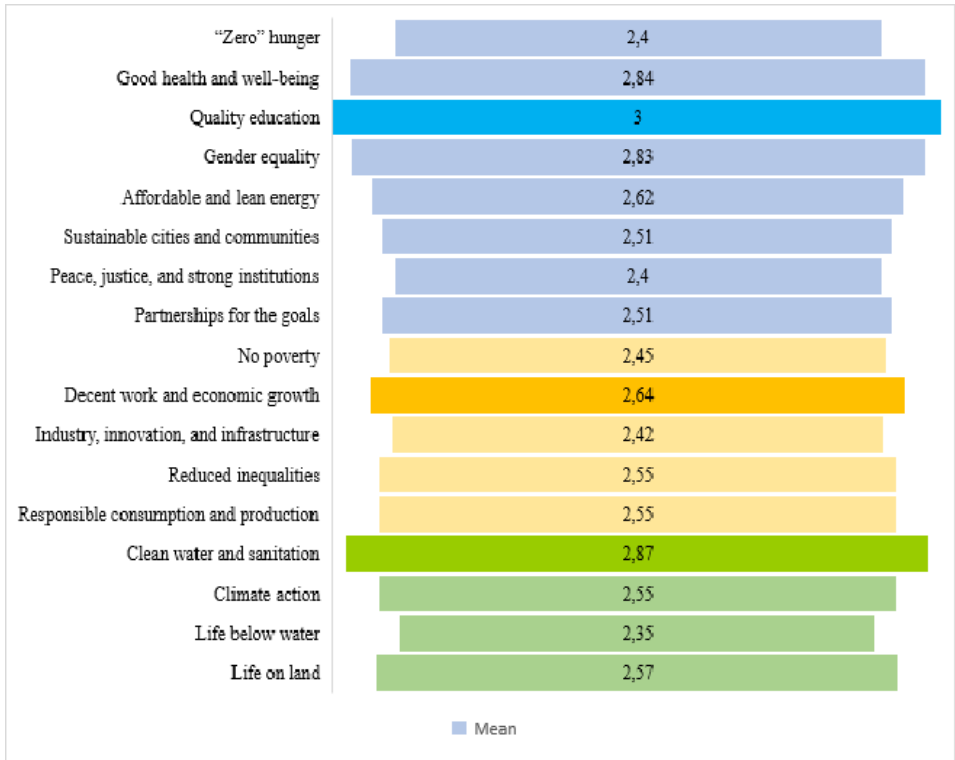


Figure 1. The weighted average assessment of the Sustainable Development Goals

Source: own contribution

According to Table 1 and Figure 1, it can be observed that the most important goal, according to the respondents, is Goal 3, namely Quality Education within the social pillar. Goals like Decent Work and Economic Growth within the economic pillar and Clean Water and Sanitation within the environmental pillar were also highly appreciated by the respondents. The least knowledge was identified in the goals Life Below Water, Zero Hunger, and Peace, Justice, and Strong Institutions.

Table 1. The results of the descriptive study regarding the level of knowledge of teachers about sustainable development goals

Sustainable Development Goals (SDG's)	Relative frequencies				Mean	Mode
	<i>I have no knowledge of the subject</i>	<i>I have limited knowledge of the subject</i>	<i>I know the subject quite well</i>	<i>I know the subject very well</i>		
	(1)	(2)	(3)	(4)		
Social						
1.2. "Zero" hunger	8.4%	46.8%	41.1%	3.7%	2.40	2.00
1.3. Good health and well-being	3.7%	26.3%	52.1%	17.9%	2.84	3.00
1.4. Quality education	1.1%	21.6%	53.2%	24.2%	3.00	3.00
1.5. Gender equality	3.2%	27.9%	51.6%	17.4%	2.83	3.00
1.7. Affordable and lean energy	6.8%	36.3%	44.2%	12.6%	2.62	3.00
1.11. Sustainable cities and communities	8.4%	43.7%	35.8%	12.1%	2.51	2.00
1.16. Peace, justice, and strong institutions	11.1%	46.8%	32.6%	9.5%	2.40	2.00
1.17. Partnerships for the goals	9.5%	39.5%	41.1%	10.0%	2.51	3.00
Economic						
1.1. No poverty	4.7%	49.5%	41.1%	4.7%	2.45	2.00
1.8. Decent work and economic growth	5.3%	37.9%	44.2%	12.6%	2.64	3.00
1.9. Industry, innovation, and infrastructure	8.9%	46.8%	36.8%	7.4%	2.42	2.00
1.10. Reduced inequalities	7.4%	37.9%	46.3%	8.4%	2.55	3.00
1.12. Responsible consumption and production	6.8%	42.6%	38.4%	12.1%	2.55	2.00
Environment						
1.6. Clean water and sanitation	3.2%	26.8%	49.5%	20.5%	2.87	3.00
1.13. Climate action	8.9%	39.5%	38.9%	12.6%	2.55	2.00
1.14. Life below water	11.6%	50.0%	30.0%	8.4%	2.35	2.00
1.15. Life on land	5.8%	39.5%	45.8%	8.9%	2.57	3.00

Sustainable Development Goals (SDG's)	Relative frequencies				Mean	Mode
	I have no knowledge of the subject	I have limited knowledge of the subject	I know the subject quite well	I know the subject very well		
	(1)	(2)	(3)	(4)		
	Social					
1.2. "Zero" hunger	8.4%	46.8%	41.1%	3.7%	2.40	2.00
1.3. Good health and well-being	3.7%	26.3%	52.1%	17.9%	2.84	3.00
1.4. Quality education	1.1%	21.6%	53.2%	24.2%	3.00	3.00
1.5. Gender equality	3.2%	27.9%	51.6%	17.4%	2.83	3.00
1.7. Affordable and lean energy	6.8%	36.3%	44.2%	12.6%	2.62	3.00
1.11. Sustainable cities and communities	8.4%	43.7%	35.8%	12.1%	2.51	2.00
1.16. Peace, justice, and strong institutions	11.1%	46.8%	32.6%	9.5%	2.40	2.00
1.17. Partnerships for the goals	9.5%	39.5%	41.1%	10.0%	2.51	3.00
Economic						
1.1. No poverty	4.7%	49.5%	41.1%	4.7%	2.45	2.00
1.8. Decent work and economic growth	5.3%	37.9%	44.2%	12.6%	2.64	3.00
1.9. Industry, innovation, and infrastructure	8.9%	46.8%	36.8%	7.4%	2.42	2.00
1.10. Reduced inequalities	7.4%	37.9%	46.3%	8.4%	2.55	3.00
1.12. Responsible consumption and production	6.8%	42.6%	38.4%	12.1%	2.55	2.00
Environment						
1.6. Clean water and sanitation	3.2%	26.8%	49.5%	20.5%	2.87	3.00
1.13. Climate action	8.9%	39.5%	38.9%	12.6%	2.55	2.00
1.14. Life below water	11.6%	50.0%	30.0%	8.4%	2.35	2.00
1.15. Life on land	5.8%	39.5%	45.8%	8.9%	2.57	3.00

Source: own contribution.

The results further indicate that the respondents who participated in the survey have the most knowledge about goals such as Quality Education (97%), Good Health and Well-being (95%), Gender Equality (94%), Decent Work and Economic Growth (94%), and Clean Water and Sanitation (94%). The least knowledge is related to Life Below Water, where 15% stated that they have no knowledge about this subject, and Partnerships for the Goals are also relatively less known.

The second research question we aimed to answer is Q2. To what extent can teachers integrate the following concepts within the disciplines that they are already teaching? To answer this question, we analysed both the level of preparedness of teachers to include sustainable development topics in their classroom and their opinion on the inclusion of information about education for sustainable development in the core curriculum or school-based curriculum. The results of the descriptive analysis are presented in the following graphical representations.

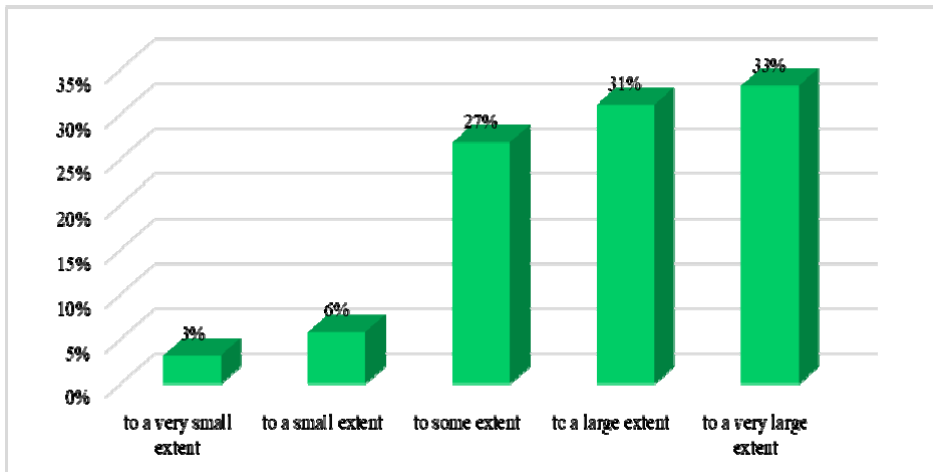


Figure 2. The level of preparedness of teachers to include sustainable development-related topics in the classroom
Source: own contribution

Regarding the level of preparedness of teachers to include sustainable development-related topics in the classroom, we observe that most respondents feel prepared to include such topics in their teaching. Specifically, 33% of respondents stated that they feel very prepared to include sustainable development topics in the classroom, 31% feel quite prepared, 27% to some extent, while 9% mentioned that they feel prepared to a small extent or not at all.

Considering the second research question, in our analysis, we included the following question: “Information about education for sustainable development should be included: in the core curriculum or in the school chosen curriculum?” According

to the results presented in Figure 3, we can state that the majority of respondents (56%) believe that information about education for sustainable development should be included in the school-chosen curriculum, while 44% of the respondents have stated that this information should be included in the core curriculum.

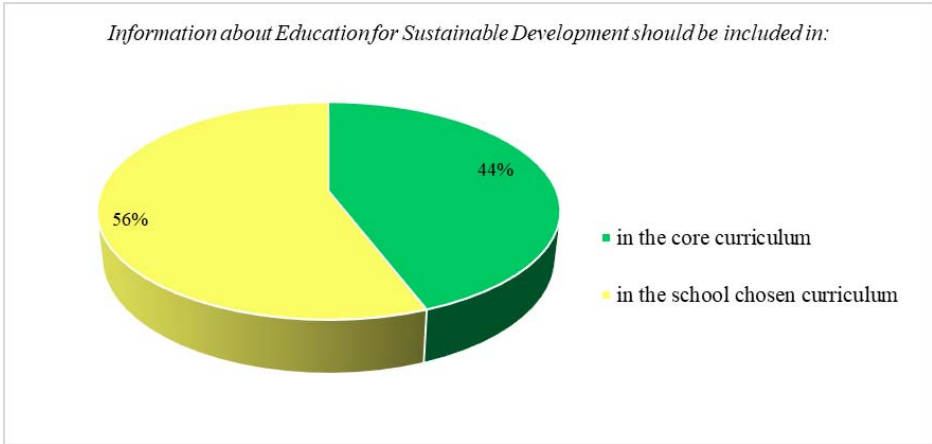


Figure 3. Inclusion of information on sustainable development into the school curriculum
Source: own contribution.

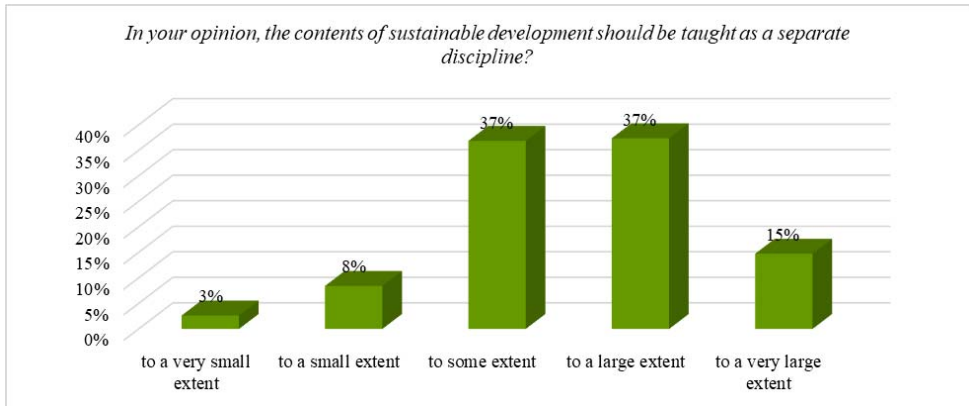


Figure 4. Teachers' opinion regarding teaching the contents of sustainable development as a separate discipline
Source: own contribution.

Building on the previously presented question, we found it relevant to analyse the opinion of the teachers regarding the teaching of contents related to sustainable

development within a separate discipline, as well as within the disciplines they currently teach. According to Figure 4, only 15% stated that these contents could be taught within a separate discipline, while 37% of them mentioned that these subjects could be taught within a separate discipline to some extent.

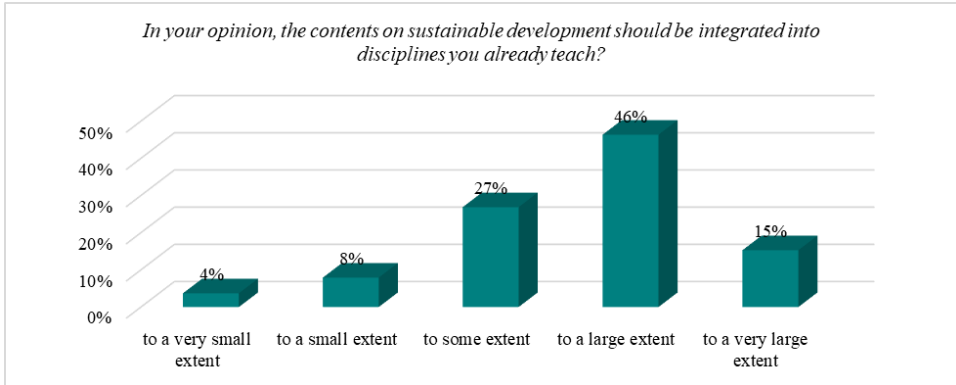


Figure 5. Teachers' opinion on integrating contents on sustainable development within disciplines they already teach

Source: own contribution.

The opinion of teachers regarding the integration of contents related to sustainable development within the disciplines they teach differs from the previously presented opinion. Thus, we observe that the majority, namely, 46% of the respondents, believe that these contents should be taught within the disciplines they currently teach.

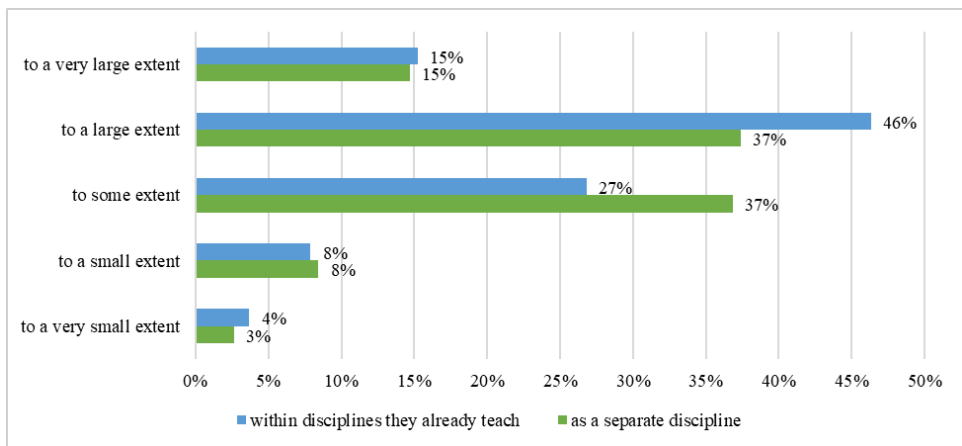


Figure 6. Teachers' opinion on integrating subjects from sustainable development into a new discipline vs. disciplines they already teach

Source: own contribution.

Teachers' perspective on integrating ESD into their already taught disciplines is significantly higher than considering ESD as a different discipline. It would be more practical to consider integrating it, since teachers are already knowledgeable about the subjects of their disciplines, having a wider coverage, than having another teacher teach a different discipline. It would also make more sense, since the core curriculum disciplines are taught on a daily basis, while a different discipline would require additional time and class logistics.

Discussion

According to the results obtained, most of the respondents are fairly well acquainted or very well acquainted with the social objectives and have limited knowledge about the economic objectives. Of the 17 SDGs, quality education is the most well-known (77%), while the least known objective is aquatic life (62%). The results are in full accord with the concepts that the teachers integrate in the classroom, namely praising positive behaviour, respecting one's neighbour, being open to change, children's rights, recycling and reducing waste. The results show that there is a need to clarify the use of ESD in the Romanian system, in order to create an educational environment that prepares students for engaging the 17 SDGs throughout their schooling years, through various educational outlets, but also to aid teachers in understanding how to teach the SDGs and how to integrate their contents in the subjects they teach. ESD has been implemented by the Ministry of Education as a standalone and optional discipline, integrated into the school chosen curriculum. The question still remains regarding who will be responsible for teaching such a complex and wide ranging discipline. It could have been better to integrate the contents into other disciplines, especially considering that the Romanian curriculum is already thick and presents challenges to teacher, as well as to students.

The teachers' level of knowledge regarding the 17 SDGs is concerning, and is a warning sign, that there would be a need to prepare teachers to properly engage the subjects of ESD. Their familiarity and depth of knowledge revolves around the SDGs that have been associated with some social and economic issues. Good quality teaching has been a desire ever since the fall of communism, in the context of a full educational system reformation. The issue of ESD is also concerning because of the interest students would show for a discipline that is separated from the others. A different discipline, that requires separate hours, would most likely be taught after the regular classes, meaning lower attendance and lesser impact. However, if

ESD were taught within regular course, at least for a certain amount of time, so that teachers and students alike would get acquainted with the importance of the subject, attendance would be higher, and understanding would be deeper. Teachers' reluctance to have ESD as a separate discipline stems from the heavy and thick curriculum that the educational system already has in place. Since the educational system revolves generally around regular national evaluations, that are spread throughout the schooling years, from kindergarten through high school, it also revolves around two important national evaluations, that take place at the end of gymnasium (8th grade) and the baccalaureate (12th grade). The struggle is to get as many students as possible to pass the exams and also to get as many of them as possible with the highest grades. The struggle is real to get information across to the students, while diversifying the curriculum and keeping it manageable.

Conclusion

The Romanian Ministry of Education was quick to adopt the 2030 Agenda for Sustainable Development, together with the 17 SDGs in 2016. During the development of this research there were no official regulations on how to integrate the 17 SDGs and the overall 2030 Agenda into the educational curriculum. In 2023 the Official Monitor of Romania published a list of new disciplines, that would be taught within the pre-university system, one of them being Education for Sustainable Development, as an optional discipline. As the question of what training would teachers need to be able to teach a separate discipline, the research asked whether ESD should be a separate discipline or integrated into the core curriculum and if teachers consider themselves professionally prepared to teach the contents of ESD? The results of the research show that teachers would rather have ESD contents integrated into the disciplines they already teach, thus not as a separate discipline and that they are familiar with some of the SDGs, but not with all of them. A lower number of teachers feel prepared to teach ESD contents, meaning that the concepts of ESD and the 2030 Agenda for Sustainable Development remain controversial and unknown to the educational environment. Despite the fact that there is a governmental structure and a webpage dedicated to the 2030 Agenda and the integration of ESD in the curriculum, together with several papers and methodologies elaborated by various teachers in the Romanian educational system, the discipline seems to be of lower interest, for the time being. Policy makers should consider the impact of such European and global initiatives and take a practical approach to the matter, since teachers are at the forefront of the implementation of educational objectives, while students are the future of ESD and the 2030 Agenda, in terms of implementing and living for a genuine and dedicated lifestyle, based on the principles of the Agenda and the SDGs.

References

- Al-Thani, W.A., Ari, I., Koç, M. (2021). Education as a Critical Factor of Sustainability: Case Study in Qatar from the Teachers' Development Perspective. *Sustainability*, 13(20), 11525. doi: <https://doi.org/10.3390/su132011525>
- Badea, L., Șerban-Oprescu, G.L., Dedu, S., Piroșcă, G.I. (2020). The Impact of Education for Sustainable Development on Romanian Economics and Business Students' Behavior. *Sustainability*, 12(19), 8169. doi: <https://doi.org/10.3390/su12198169>
- Bagoly-Simó, P. (2014). Tracing Sustainability: Education for Sustainable Development in the Lower Secondary Geography Curricula of Germany, Romania, and Mexico. *International Research in Geographical and Environmental Education*, 23(2), 126–141. doi: <https://doi.org/10.1080/10382046.2014.908525>
- Cronbach, L.J., Shavelson, R.J. (2004). My Current Thoughts on Coefficient Alpha and Successor Procedures. *Educational and Psychological Measurement*, 64(3), 391–418. doi: <https://doi.org/10.1177/0013164404266386>
- Dumitru, D., Stoenescu, C. (2011). *Education for Sustainable Development Romania. Research Report*. Bucharest: Centrul Educatia 2000+.
- Fekih, Z.M., Dubis, S., Koç, M. (2022). Integrating Sustainability into Curricula: Teachers' Perceptions, Preparation and Practice in Qatar. *Journal of Cleaner Production*, 371, 133167. doi: <https://doi.org/10.1016/j.jclepro.2022.133167>
- García-González, E., Jiménez-Fontana, R., Azcárate, P. (2020). Education for Sustainability and the Sustainable Development Goals: Pre-Service Teachers' Perceptions and Knowledge. *Sustainability*, 12(18), 7741. doi: <https://doi.org/10.3390/su12187741>
- Guvernul, R. (190AD). *Monitorul Oficial al României*.
- Ilovan, O.R., Dulamă, M.E., Boțan, C.N., Havadi-Nagy, K.X., Horváth, C., Nițoiaia, A., Nicula, S., Rus, G.M. (2018). Environmental Education and Education for Sustainable Development in Romania. Teachers' Perceptions and Recommendations. *Journal of Environmental Protection and Ecology*, 19(1), 350–356.
- Lampă, I., Greculescu, A., Todorescu, L.-L. (2013). Education for Sustainable Development – Training the Young Generation for the Future. *Procedia – Social and Behavioral Sciences*, 78, 120–24. doi: <https://doi.org/10.1016/j.sbspro.2013.04.263>
- Ministerul Educației. (2018). *Educație Pentru Dezvoltare Durabilă / Ministerul Educației*. (<https://www.edu.ro/educa%C8%9Bie-pentru-dezvoltare-durabil%C4%83>) (Retrieved: November 5, 2023).
- Ministerul Mediului. (2008). *Strategia Națională pentru Dezvoltare Durabilă a României Orizonturi 2013–2020–2030*.
- Mustață, R.V., Bonaci, C.G., Hinteă, C., Neamțu, B. (2013). Business Education for Sustainable Development: The Case of Romanian Universities. *Amfiteatru Economic*, (7).
- Novo-Corti, I., Badea, L., Tirca, D.M., Aceleanu, M.I. (2018). A Pilot Study on Education for Sustainable Development in the Romanian Economic Higher Education. *International Journal of Sustainability in Higher Education*, 19(4), 817–38. doi: <https://doi.org/10.1108/IJSHE-05-2017-0057>
- Smaniotta, C., Brunelli, L., Miotto, E., Del Pin, M., Ruscio, E., Parpinel, M. (2022). Sustainable Development Goals and 2030 Agenda – Survey on Awareness, Knowledge and Attitudes of Italian Teachers of Public Mandatory Schools, 2021. *Sustainability*, 14(12), 7469. doi: <https://doi.org/10.3390/su14127469>

Developing the resilience skills of teachers by non-formal educational strategies

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Introduction

Most stories and movies in the media have a happy ending where the positive heroes win, but the problems are either overcome or there are important premises for this to happen. However, real life is much more complex, and many challenges that some people may face do not always have a happy ending. In recent years, humanity has faced such challenges that have put its ability to manage them effectively to the test, and in this sense, the COVID-19 pandemic, the war in Ukraine, the energy crisis etc. can be mentioned. But there are also a series of challenges that act at a much narrower level – of the social micro-group or even individual – a fact that forces the person to identify solutions with specific applicability. Problems related to the health of the individual or his family members, difficulties at work, educational crisis situations, the appearance of a disability, the unexpected loss of an important person etc. can be mentioned here. Some people manage to adapt better and cope more successfully with such global or personal “dramas”, others, on the contrary, have great difficulties in overcoming such obstacles. The first category usually includes “resilient” people, i.e. those people who have the ability to maturely and quickly understand certain shocks, tragic events, unfortunate events or accidents (Blândul, 2014).

The school, as a component of the community, is extremely sensitive to any problem it faces. The most eloquent example in this sense is represented by the transition of learning to the online environment with the onset of the COVID-19

pandemic in the spring of 2020 or with the seismic movements in southeastern Europe in the winter of 2023. This forced educational managers to redefine the way of designing and implementing the school curriculum, and on teachers and students to reconceptualize their way of achieving the entire instructive-educational process. The new educational reality has significantly affected all school actors, some managing to adapt promptly and efficiently to digital challenges, and others encountering serious difficulties in this direction. A possible explanation for this state of affairs would be given by the fact that school is not only an environment for academic learning, but also one that seeks the formation of socio-emotional and life skills to support students and teachers in optimal integration into society. The closure of schools affected precisely this aspect of the educational approach, limiting social contacts and direct interpersonal communication between the educational actors involved. This is why, the formation of resilience skills for students, but equally for teachers, principals or school inspectors, other representatives of local and national school authorities must be a mandatory requirement that governs Romanian and international education for a period long into the future (Marinescu, 2021).

The problem

The term “resilience” was used for the first time in the field of exact sciences, being later taken over by other sectors of activity. In its broadest sense, it denotes the person’s ability to adapt and return to normal after suffering an emotional, economic or medical shock, reaching a balanced lifestyle, thanks to his mental, behavioural and adaptive capacities (Agasisti et al., 2018; Fleming & Ledogar, 2008; Luthar, Cicchetti, & Becker, 2000; Kreisler, 1996; Masten, Best, & Garmezy, 1990; Moll Riquelme et al., 2022; Wang, Haertel, & Walberg, 1994). In education, the concept was borrowed relatively recently, denoting the ability of the actors involved to readjust to a new normality after going through some experiences with a strong emotional impact. Students and teachers demonstrate the possession of resilience skills when they manage to set realistic goals in accordance with the new educational context, respectively to pursue their fulfilment in an adequate manner.

From the analysis of the proposed definition, the deeply adaptive nature of school resilience can be noted, expressed by the person’s ability to successfully manage the educational challenges they face and to achieve academic performance in apparently unfavourable conditions. In the traditional pedagogic literature (which used the concept of “resilience” much less) there was a lot of talk about “school adaptation” as a fundamental premise of school success. Thus, school adaptation implies a modality to respond harmoniously to the conditions of a determined school environment or to new experiences, the establishment of concordances between the school requirements and the student’s response possibilities, a fact that can be

achieved through the appropriate acquisition of the informational content taught within the instructional process – educational, establishing optimal interpersonal relationships within the school group, appropriate internalization of school norms and values, etc. It can be seen from this definition that school adaptation has a deep “basal” character, in the sense that the student is invited to face current problems in school life, without explicitly taking into account educational crisis situations. On the contrary, in the case of school resilience, the focus falls precisely on this second aspect, the resilient person having to properly manage the post-traumatic event moments (Blândul, 2015).

There are at least two ways in which the person can react in educational crisis situations, thus demonstrating the possession of resilience skills: reactive and proactive. In the first case, the reaction of the individual is a passive one, following the occurrence of the event and responding to the changes produced in the educational environment. On the contrary, in the second case, the individual himself intervenes to transform the academic environment and lead the educational process in the direction of improving its quality. However, in order to achieve such a desired goal, it is essential for the individual to have the theoretical knowledge necessary to solve the critical situations they may face at a given moment, practical skills to manage them adequately, as well as positive attitudes, expressed through the desire to overcome the problems they face. In this way, the competence of resilience is created – the “key factor” of school adaptation in difficult situations.

School resilience is a problem of both the individual and the community of which he is a part of. If at the individual level resilience competence is significantly influenced by cognitive and socio-emotional factors, at the community level what matters most is the quality of interpersonal relationships established between individuals. From this second point of view, a series of factors could be identified that create optimal premises for the process of educational resilience: family (emotional, material support and the personal model of educational resilience), schoolchildren (emotional support, social recognition, logistical support/administrative management, the teacher–student relationship, the personal model offered by teachers, etc.), community (the infrastructure necessary for the educational process). We propose, in the following, a brief analysis of each of them, but having students and teachers as the main educational agents as the central element.

One of the most important factors that contribute to the formation of a child's resilience skills is the family which he comes from. The process is complex and lengthy and has a strong connection with how parents fulfil their educational, caring roles and the social and behavioural patterns they have in relation to their children. First of all, the family must ensure that the child's primary needs are met (food, hygiene, clothing etc.), followed by social ones (such as: the need to ensure emotional security, to belong to a social group, etc.). If the child is encouraged and supported, even when he makes mistakes, he will develop confidence in himself

and those around him, while also forming a high level of self-esteem. On the contrary, when criticized recurrently, self-confidence and self-image will have low values. Things evolve relatively similarly with regard to adults. To develop the ability to effectively solve problems and adapt to unforeseen situations, the adult must be trusted and encouraged to experiment with new patterns of intervention. In this way, he will develop his self-confidence, a fundamental premise of resilience skills in atypical conditions.

Another important factor that can support the formation of resilience skills of teachers and students is represented by the school organization (Henderson, 2012). School, as a generic term that includes both physical and educational space, is an environment where students and teachers spend a large part of their working day. Beyond the implementation of the instructional-educational process, the school is the place where students learn secondary socialization skills, where they acquire models of behaviour or where they are advised in order to choose their future school or professional path (Banerjee et al., 2016; Luthar, 2019.). As such, the situations of uncertainty caused by various social, economic, medical, etc. crises. they have a significant impact on how the school implements the teaching and training process, affecting students and teachers alike. Overcoming such a situation of uncertainty forces the school to rethink and rebuild the entire way of designing and implementing the educational curriculum, respectively the way of functioning of the managerial, administrative structures and interpersonal relations at the institutional level. According to a study carried out by UNICEF during the COVID-19 pandemic, in order to achieve such an approach, the following objectives must be met: The transformation of pedagogy through the development of a more inclusive and flexible curriculum and instructional practices, which meet the individual needs of each student and teacher, respectively Transforming school ethos, school structures and organization so that inclusiveness, care, respect and holistic support constitute the primary mission of schools. Specifically, the authors of the study propose 4 pillars on which to build a resilient school: access to education for all students, quality inclusive education, well-being, mental health and psychosocial assistance, respectively safety in schools.

Thus, the first pillar that must be taken into account is access to education for all students and has an extremely wide scope, including all aspects related to school enrolment, the prevention of school dropouts and student support measures, in order to determine to return to school if they have left it and participate in the education process. The second pillar aims at inclusive education and requires the school to adapt to the psycho-individual characteristics of each student, regardless of whether or not they have certain disabilities. Such a school introduces the concept of “school for all”, regardless of the problems that educational agents may face. The third pillar refers to the well-being of students, teachers and parents, including elements related to ensuring the mental health and psychosocial assistance of those

concerned. These two dimensions aim at the promotion of psychosocial well-being as well as the prevention/treatment of any form of mental illness and is achieved through a holistic approach from an educational, social, medical, etc. point of view. Finally, the fourth pillar is represented by safety in schools, an aspect that includes all the measures that must be taken in order to carry out in good conditions all formal and non-formal activities in the school environment (UNICEF, 2020). In order to build a resilient school, it is extremely important that the actions stipulated by the 4 mentioned pillars are interdependent, respectively in close correlation with the other socio-educational interventions coming from the family or the community.

Consequently, any educational program that aims to build resilient schools should propose the following objectives (Guțu & Vicol, 2014):

- Supporting schools to increase their resilience and to ensure the continuity of the educational process in crisis situations, to offer quality education services both in the case of classroom and distance learning;
- Ensuring equal access to education for all students, especially for the most vulnerable, ensuring access to ICT equipment and internet connectivity;
- Enhancing the quality of education by training teachers in selecting and using appropriate ICT tools and adapting teaching content and methods to the teaching environment;
- Increasing the attractiveness of STEM subjects among students, especially among girls;
- Improving sanitary conditions in at least one educational institution and raising awareness of the importance of observing hygiene practices.

Finally, the third major factor that can support the building of resilience skills of teachers and students is represented by a functional community. The main indicators that ensure resilience at the community level could be the following: genuine connection between community members, sharing of common values, existence of harmonized structures, roles and responsibilities within the community, mutual support between members, achieving good intra- and inter-community communication, the sharing and sharing of resources, the promotion of volunteering, the existence of a sense of belonging to the school and the community, the appropriate response of community members to educational crisis situations etc. Knowing and making optimal use of these indicators can create the conditions for a society capable of reacting adequately to the challenges of the contemporary world and permanently adapting to situations marked by uncertainty.

From what was stated in the previous paragraphs, it can be appreciated that institutional resilience is given by the efficient way of organization and administration that allows institutions to effectively manage crisis situations, as well as design intervention strategies in order to successfully overcome them. But beyond the systemic organization remain the people, those who must form a series of skills designed to allow them to individually manage the uncertainties they face. Cognitive competences

include both cognitive and socio-affective components, such as: positive conception of the world and life, autonomy in relation to the environment, control of emotions, sense of humour, ability to understand and analyse different situations, self-esteem high, empathic skills, self-discipline, the ability to focus on a problem, trust in those around you, etc. (Gu, 2014; Gu & Day, 2013; Kirk & Wall, 2010; Mansfield et al., 2012; Moll Riquelme et al., 2022; Steward, 2014; Whatman et al., 2020). The formation of such resilience skills is but a complex and long-lasting process, which implies, among other things, the acquisition of models of resilient behaviour from those around you, or the formation of the mentioned skills by going through personal and professional development programs specially dedicated to this purpose.

According to the Romanian legislation in force, the training of teaching staff has two major stages: initial and continuous. The initial training is carried out in parallel with the bachelor's/master's degree or post-graduate studies and involves the completion of Level I (on completion of which the person is validated to be taught in lower secondary education), respectively Level II) on completion of which the person is competent to teaches in all cycles of pre-university and university education, adult education, etc.). The continuous training of teachers is carried out by their promotion of teaching degrees, respectively by going through continuous training and professional development programs that provide them with 90 Transferable Professional Credits every 5 years. Such programs can address topics of wide interest for teachers, from issues concerning their professional development (such as, for example, special school psychopedagogy, mentoring in education or educational management), to aspects aimed at their personal development. We believe that this last segment of activity would also include programs whose major objectives are the training of teachers' resilience skills, which is why we propose, in the following paragraphs, to describe such a program, based on a needs analysis carried out among its beneficiaries.

The Methodology of Research

The objectives

Summarizing what was presented in the previous paragraphs, it can be appreciated that resilience presupposes the individual's ability to successfully adapt to new situations, following the experience of traumatic events or marked by heightened uncertainty. Educational resilience is a problem that interests both the education system and the individual, and in the case of the latter, resilience can be demonstrated by having cognitive and socio-affective skills that allow him to adapt to the new with minimal losses. Starting from these theoretical findings, the aim of this research was to identify the directions of action in which pre-university teachers in

Bihor County, Romania feel the need for training for the development of resilience skills. The main objectives pursued were: (1) identifying how the school's vision promotes the building of a resilient academic environment for teachers and students; (2) the evaluation of the quality of social relations (personal and professional) within the school, as a premise for the formation of resilience skills in the educational environment, respectively; (3) the analysis of the training needs of teaching staff in relation to the formation of the resilience skills.

Participants

The sample selected for this research was made up of 84 teachers (N=84) who teach in pre-university education in Bihor County, Romania. Percentage-wise, they represent 10.62% of the total number of teachers who teach at the level of the entire county. The structure of the sample was as follows:

- Gender – female – 93% / male – 7%;
- Place of origin – urban – 71% / rural – 29%;
- The school cycle where they teach – preschool – 13% / primary – 29% / secondary school – 29% / high school – 26% / post-high school – 3%;
- Didactic degree obtained – beginner – 4% / completed – 13% / didactic degree II – 11% / didactic degree I – 68% / doctorate in sciences – 4%;
- Teaching discipline – Language and communication – 17% / mathematics and sciences – 8% / social subjects – 8% / arts – 1% / physical and sports education – 2% / technological subjects – 9% / educational counselling – 3% / teacher for preschool education – 13% / teacher for primary education – 29% / other situations – 10%;
- Chronological age – under 25 years – 4% / between 26 and 35 years – 13% / between 36 and 45 years – 44% / between 46 and 55 years – 32% / over 56 years 4%.

The method of selection of the group of subjects was represented by simple random sampling.

Measures and materials

The group of subjects consisting of 84 people was administered a questionnaire consisting of 55 objective multiple-choice items in which the respondents were invited to choose an answer with a value of 1 to 6 points, according to their disagreement or agreement with the analysed item. The main indicators included in this questionnaire concerned: the clarity of the school's vision and the level of involvement of the teaching staff, respectively of the educational partners in its realization; the quality of social relations (personal and professional) existing at the level of

teaching and auxiliary teaching staff in the school; involvement of teaching staff in continuous professional training activities; the openness of school leaders to solving the challenges of the contemporary world in a creative way. The questionnaire was administered online between June and July 2022, and data processing was carried out by calculating the statistical frequencies of the collected responses.

Results

The obtained results are presented in the following tables and graphs, where, on the rows, the evaluated items are recorded, and on the columns, the number and percentage of respondents, as well as the value of the answers given (where 1 means “total disagreement”, and 6 – “total agreement”).

Table 1. The role of school vision in building a resilient environment for teachers and students

Indicators:	1		2		3		4		5		6	
	N	%	N	%	N	%	N	%	N	%	N	%
Optimizing the well-being of educational actors	1	1,2	1	1,2	6	7,1	10	11,9	2226,2		44	52,4
Emphasis on vocational training in a changing world	0	0	3	3,6	11	13,1	8	9,5	28	33,3	34	40,5
Didactic activities designed in relation to the school's vision	3	3,6	1	1,2	6	7,1	12	14,3	27	32,1	35	41,7
Teachers involved in developing the school's vision	2	2,4	4	4,8	13	15,5	20	23,8	26	31	19	22,6
Managers involved in developing the school vision	0	0	2	2,4	4	4,8	4	4,8	23	27,4	51	60,7
Students involved in developing the school's vision	3	3,6	2	2,4	12	14,3	19	22,6	20	23,8	28	33,3
Parents involved in developing the school's vision	3	3,6	6	7,1	6	7,1	21	25	25	29,8	23	27,4
Partners involved in developing the school's vision	2	2,4	5	6	13	15,5	15	17,9	27	32,1	22	26,2

From the analysis of Table 1, several interesting aspects can be found regarding how the coherent construction of a vision of the school can contribute to the formation of a resilient academic environment. In short, the vision of any school in Romania is designed in accordance with the educational ideal, according to which the Romanian school has the duty to train proactive citizens, having a harmoniously developed personality that makes them able to insert themselves as responsible agents of change in society. In this context, the vision of the Romanian schools aims at increasing the efficiency of the instructional-educational process, as well as the academic results of the students, optimizing the material standards in order to obtain a quality education, ensuring equal opportunities, the effective integration of the school into the local community, national and European etc. The teachers included in the present research seem to be aware of the importance of clearly establishing the school's vision for building a resilient environment, most of them claiming that the vision of their schools aims to optimize the well-being of all educational actors involved (52.4%), the focus is on professional training of students in a constantly changing world (40.5%), and didactic activities are designed in close relation with the projected vision (41.7%). All respondents agree that for the development of educational policies that underpin the school's vision, it is important for the entire community to participate, but breaking down the answers, it can be seen that the ones most involved in solving this problem should be school managers (60.7%). The answers seem to be much more nuanced when it comes to the involvement of teachers, students, parents or other educational partners in the development of the school's vision, the scores obtained no longer reach the maximum threshold, nor can they be polarized around any value. The conclusion that can be drawn from the previously discussed would be that, although they recognize the importance of a clear vision of the school for a resilient academic environment and can identify a number of indicators of such a vision, the responding teachers seem less interested in getting involved in designing them, leaving this responsibility predominantly to educational managers.

The results presented in Table 2 indicate the opinion of the research subjects regarding the existence in their schools of interpersonal and professional relationships between teachers that contribute to building a resilient academic environment. As can be seen, the answers given are polarized in the upper part of the value scale, which means that, in most cases, the analysed indicators are present to a great or even very great extent in the life of the schools where the 84 respondents teach. Among these indicators, it is worth mentioning: providing opportunities for teachers to develop their specialized, methodical and psycho-pedagogical skills necessary for teaching activities, collaboration between teachers to manage different problem situations, providing support/mentoring to beginning teachers, but also to those who want to get involved in various actions that involve taking calculated risks, analysing good practice models whose implementation has been successful in

Table 2. Elements regarding the quality of social relationships (personal and professional) within the school

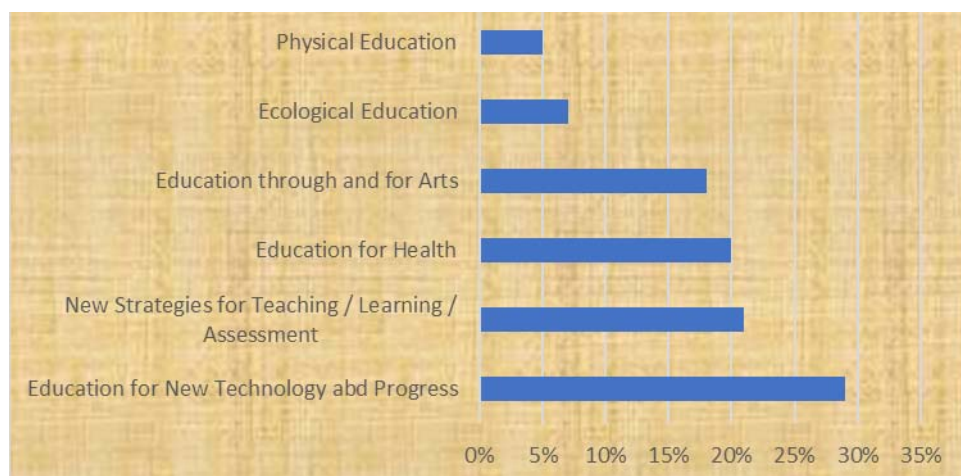
Indicators:	1		2		3		4		5		6	
	N	%	N	%	N	%	N	%	N	%	N	%
Support for beginning teachers	9	10,7	7	8,3	13	15,5	13	15,5	17	20,2	25	29,8
Periodic feedback to optimize the teaching activity	4	4,8	6	7,1	15	17,9	16	19	25	29,8	18	21,4
New skills training opportunities	1	1,2	5	6	10	11,9	23	27,4	19	22,6	26	31
Collaboration between teachers	1	1,2	3	3,6	10	11,9	17	20,2	26	31	27	32,1
Comfortable atmosphere at work	3	3,6	5	6	12	14,3	23	27,4	25	29,8	16	19
Relationships of mutual trust between teachers	4	4,8	4	4,8	12	14,3	17	20,2	32	38,1	15	17,9
Common solutions for improving the work of teachers	2	2,4	10	11,9	13	15,5	16	19	25	29,8	18	21,4
Support for the teacher in taking calculated risks	2	2,4	5	6	9	10,7	17	20,2	28	33,3	23	27,4
Creative approach to everyday activities	0	0	5	6	11	13,1	19	22,6	27	32,1	22	26,2
Open failure analysis	5	6	7	8,3	17	20,2	23	27,4	12	14,3	20	23,8
Problems are learning opportunities	33,6		4	4,8	16	19	19	22,6	19	22,6	23	27,4
Assessing institutional progress	2	2,4	5	6	9	10,7	24	28,6	24	28,6	20	23,8
Analysis of examples of good practice	1	1,2	4	4,8	14	16,7	17	20,2	25	29,8	23	27,4

other educational units, interpreting the problems that have arisen as opportunities for personal and institutional development, etc. It is surprising, however, that relatively few subjects gave maximum scores to some indicators related to the pleasant atmosphere at work or the existence of interpersonal relationships based on trust between teachers. A first finding that can be derived from this would be that most of the teachers included in the research are favourable to professional collaboration, but become more reserved in promoting interpersonal relationships. However, for

the formation of adaptive skills in crisis situations, it is essential that those involved can function as a real team in which its members collaborate very well professionally, but feel close to each other in a socio-emotional way as well.

Table 3. Criteria according to which the continuous training of teaching staff is carried out

Indicators:	1		2		3		4		5		6	
	N	%	N	%	N	%	N	%	N	%	N	%
Teacher training is a priority for the school	3	3,6	2	2,4	10	11,9	12	14,3	19	22,6	38	45,2
Teacher training is focused on the didactic process	2	2,4	0	0	15	17,9	14	16,7	27	32,1	26	31
Teacher training is focused on the needs of students	1	1,2	2	2,4	8	9,5	21	25	28	33,3	24	28,6
Teacher training is in line with the school's vision	1	1,2	3	3,6	8	9,5	25	29,8	28	33,3	19	22,6



Picture 1. Educational fields in which teachers want to benefit from continuous professional training

From the analysis of the results presented in Table 3, it can be seen that the issue of continuous training of teaching staff in schools is very topical, with 45.2% of respondents giving a maximum score to this item. Most often, the professional development programs in which teachers want to participate focus on optimizing the way the instructional-educational process is carried out (31%), on meeting the needs of students (28.6%), respectively on fulfilling the vision of the school (22, 6%). Deepening the research, the most frequently cited areas in which teachers want to improve themselves are aimed at education for new technology and progress (29%),

the acquisition of modern strategies in teaching / learning / didactic evaluation (21%), health education (20%), education through and for art (18%), ecological education (7%), respectively physical education (5%) (Picture 1). The finding that emerges from this could be that most teachers are rather focused on optimizing the way in which they carry out their current didactic activity only on satisfying the educational needs of their students, respectively on their professional development and only then on their personal development.

Discussions

A first particularly important aspect that resulted from the research and that deserves to be discussed refers to the attitude of the teaching staff towards the school (concept viewed in a generic sense) and towards the educational process (seen as the main activity in the school environment). The preliminary findings formulated following the quantitative interpretation of the research results indicate that most teachers are focused on how they should carry out their work in order to achieve the highest possible performance with their students, being less concerned with building interpersonal relationships quality, based on trust or mutual collaboration, or on creating a pleasant atmosphere at work. The finding is also reinforced by the fact that most of the subjects included in the research want to perfect themselves in acquiring modern and effective teaching/learning/didactic evaluation techniques, being less interested in responding to the real educational needs of their students. One of the possible explanations for this state of affairs could be given by the way of organization of the current education system in Romania, cantered, rather, on the teacher and the ways in which he should carry out his teaching activity in order to obtain academic results as high as possible with their students. In such conditions, the concern for building a resilient school environment or for developing the adaptive skills of teaching staff remains a strictly individual problem, each of the educational agents involved being left to find their own solutions.

The second comment that can be made on the research results refers to the relationship established between the socio-professional structure of the sample of research and the obtained results. It can be observed that the majority of respondents are female persons who teach subjects in the Curricular Area "Language and Communication" in schools in the urban environment, have obtained the Didactic Degree I and are chronologically aged between 36 and 45 years old. Although they have reached the highest form of professional training by obtaining the didactic degree I, teachers still need to complete continuous professional training programs, as Romanian legislation in the field obliges them to accumulate 90 transferable professional credits every 5 years through attending such courses. The decision regarding the topic of the continuous professional training program in which they wish to

improve themselves remains exclusively at the discretion of the teaching staff, who can opt for professional training or personal development. It seems that the subjects included in the sample of this research were more interested in topics related to their specialized and methodical training, leaving in the background elements related to relationships within the school team or their personal development. In such conditions, the formation of resilience skills after experiencing difficult personal or professional situations or, at least, some components of these skills, was not among the priorities of the surveyed teachers. However, the problem remains a very topical one because, even if these resilience skills are not as necessary for everyday teaching activities as specialized, psycho-pedagogical or methodical ones, their possession can represent a significant advantage for teachers in exceptional problematic situations.

To overcome such limits and train teachers' resilience skills, the Association for Education and Training "TopFormalis" from Oradea, Romania proposes the implementation of the Continuous Professional Training and Development Program "Education for quality in the training of trainers". The purpose of the program is to increase the professional level of teachers through activities specific to non-formal education that lead them to know national and international scientific and cultural values in order to best adapt to the challenges of the contemporary world. A number of 40 teachers selected on a voluntary basis among those interested in developing their resilience skills using non-formal didactic strategies will participate in this program. The main objectives of the program are the following: (1) Development of the resilience skills of the 40 teachers who will participate in 4 monthly workshops on issues of knowledge of students' personality, non-formal strategies used in teaching, tools used for online teaching, etc.; (2) Stimulating the interest in the personal development of the 40 teaching staff who will participate in 4 monthly workshops on the importance of well-being, the importance of movement, the need for continuous adaptation, etc., respectively; (3) The promotion of social inclusion and equality opportunities among the 40 teachers to help them understand the problems faced by disadvantaged school groups. The main activities implemented within the program will be the following:

- WS1 – Possibilities of increasing the quality of non-formal education through mentoring programs;
- WS2 – Social inclusion through play and art;
- WS3 – Education through and for authentic values;
- WS4 – eTwinning projects. Ways to stimulate creativity;
- WS5 – Increasing the quality of life through sports educational activities;
- WS6 – Burnout syndrome and the challenges of the contemporary world;
- WS7 – Examples of good practices regarding student class management;
- WS8 – The modern education system. E-learning and assessment.

The workshops (WS) will take place both through face-to-face meetings and online and involve the use of non-formal interactive teaching/learning/assessment strategies. At the end of the program, learners will be invited to write an unstructured essay in which they capture the main content elements they have retained and which they believe they will be able to use in their current work with students, respectively in improving their level of resilience skills. The results obtained from the implementation of this program will be the subject of future studies and research.

Conclusion

In the context of the teaching profession, resilience can be conceptualized as a capacity, a process and also as an outcome (Mansfield et al., 2016). Resilience involves a teacher's ability to capitalize on personal and contextual resources to meet challenges, the dynamic process by which individual characteristics interact over time in different personal and professional contexts in which certain strategies are used, to enable the outcome of a teacher who experience professional engagement and growth, engagement, enthusiasm, satisfaction, and well-being (Beltman, 2015). Teachers can develop resilience by building personal resources (e.g. motivation; social and emotional competence), understanding ways to mobilize contextual resources (e.g. relationships, support networks) and developing a range of adaptive strategies (e.g. problem solving, time management, maintaining work-life balance) to be able to manage challenges to maximize resilience. For this, however, teachers should possess these skills to be able to offer, in turn, the necessary resources to students. In Romania, there is no specific curriculum focused on resilience in the initial teacher training programs.

References

- Agasisti, T., Avvisati, F., Borgonovi, F., Longobardi, S. (2018). Academic resilience: What schools and countries do to help disadvantaged students succeed in PISA. *OECD Education Working Papers*. No. 167. OECD. doi: <https://doi.org/10.1787/e22490ac-en>
- Banerjee, R., McLaughlin, C., Cotney, J., Roberts, L., Peereboom, C. (2016). *Promoting emotional health, well-being and resilience in primary schools*. Public Policy Institute for Wales. <https://www.wcppp.org.uk/wp-content/uploads/2018/04/PPIW-Report-Promoting-Emotional-Health-Well-being-and-Resilience-in-Primary-Schools-Final.pdf>
- Beltman, S. (2015). Teacher professional resilience: Thriving not just surviving. In: N. Weatherby-Fell (ed.), *Learning to teach in the secondary school* (pp. 20–38). Melbourne, Australia: Cambridge University Press.
- Blândul, V. (2015). *Bazele educației nonformale* [Basis of Non-Formal Education]. Cluj-Napoca: Mega Publishing House.

- Blândul, V. (2021). *Psihopedagogia elevilor cu dificultăți de învățare școlară* [Psycho-pedagogy of Pupils with Scholar Learning Disabilities]. Bucharest: Didactic and Pedagogical Publishing House.
- Bradea, A. (2016). Some aspects of school seen as a Professional Learning Community. *Practice and Theory in Systems of Education*, 11(4), 241–249.
- Bradea, A. (2017). The role of Professional Learning Community in schools. *The European Proceedings of Social & Behavioural Sciences*, EpSBS, 468–475. doi: <http://dx.doi.org/10.15405/epsbs.2017.05.02.57>
- Fleming, J., Ledogar, R.J. (2008). Resilience, an evolving concept: A review of literature relevant to aboriginal research. *Journal of Indigenous Wellbeing: Te Mauri – Pimatisiwin*, 6(2), 7–23.
- Gil, G.E. (2010). La resiliencia: Conceptos y modelos aplicables al entorno escolar. *Guiniguada*, 19, 27–42.
- Gu, Q. (2014). The role of relational resilience in teachers' career-long commitment and effectiveness. *Teachers and Teaching: Theory and Practice*, 20(5), 502–529.
- Gu, Q., Day, C. (2013). Challenges to teacher resilience: Conditions count. *British Educational Research Journal*, 39(1), 22–44. doi: <https://doi.org/10.1080/01411926.2011.623152>
- Guțu, Vl., Vicol, M. (2014). *Compendium of Pedagogy between Modernism and Postmodernism*. Iași: Performantica Press.
- Henderson, N. (2012). Resilience in schools and curriculum design. In: M. Ungar (ed.), *The social ecology of resilience* (pp. 297–306). Springer. doi: https://doi.org/10.1007/978-1-4614-0586-3_23
- Kirk, J., Wall, C. (2010). Resilience and loss in work identities: A narrative analysis of some retired teachers' work-life histories. *British Educational Research Journal*, 36(4), 627–641.
- Kreisler, L. (1996). La résilience mise en spirale. *Spirale*, 1, 162–165.
- Luthar, S. (2019). *Youth in high achieving schools: Maximizing resilience* [Opening keynote]. Czechia, Prague: World Leading Schools Association.
- Luthar, S.S., Cicchetti, D., Becker, B. (2000). The construct of Resilience: A Critical Evaluation and Guidelines for Future Work. *Child Development*, 71(3), 543–562.
- Mansfield, C.F., Beltman, S., Price, A., McConney, A. (2012). “Don't sweat the small stuff.” Understanding teacher resilience at the chalkface. *Teaching and Teacher Education*, 28, 357–367. doi: <https://doi.org/10.1016/j.tate.2011.11.001>
- Mansfield, F., Beltman, S., Broadley, T., Weatherby-Fell, N. (2016). Building resilience in teacher education: An evidenced informed framework. *Teaching and Teacher Education*, 54, 77–87.
- Marinescu, M. (ed.). (2021). *Fundamentări teoretice și praxiologice în predarea științelor biologice* [Theoretical and Praxiological Fundaments in the teaching of Biological Sciences]. Pitești: Editura Paralela 45.
- Masten, A.S., Best, K.M., Garmezy, N. (1990). Resilience and development: Contributions from the study of children who overcome adversity. *Development and Psychopathology*, 2, 425–44.
- Moll Riquelme, I., Bagur Pons, S. Rosselló Ramon, M.R. (2022). Resilience: Conceptualization and Keys to Its Promotion in Educational Centers. *Children*, 9(8), 1183. doi: <https://doi.org/10.3390/children9081183>
- Steward, J. (2014). Sustaining emotional resilience for school leadership. *School Leadership & Management*, 34(1), 52–68.
- UNICEF. (2020). *Building Resilient Education Systems beyond the COVID-19 Pandemic*. <https://www.unicef.org/romania/reports/building-resilient-education-systems-beyond-covid-19-pandemic>

- Wang, M.C., Haertel, G.D., Walberg, H.J. (1994). Educational resilience in inner cities. In: M.C. Wang, E.W. Gordon (Eds.), *Educational resilience in inner-city America: Challenges and prospects* (pp. 45–72). Mahwah, NJ: Lawrence Erlbaum.
- Whatman, J., Harvey, K., Fisher, J., Lawes, E. (2020). *A rapid review of resilience in schools*. <https://wellbeingatschool.org.nz/sites/default/files/documents/Resilience-in-schools-Rapid-review-Working-paper.pdf>

Promoting the well-being in the educational environment through the use of non-formal activities

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Introduction

Lately, teacher socioemotional health has been an important area of study, as the global COVID-19 pandemic made it a priority. We can affirm that because the emotional well-being of teachers is so important because it directly impacts on their teaching abilities and as a result on students' well-being and learning (Baker et al., 2020). These pandemic years closed the schools so teachers, but also students, had to teach and study online, their priority was to learn about the technology and how to teach online, while students did the same, but also studying online. Thus, the socioemotional health of teachers has been an increasingly researched area in the past years.

Schools may perceive the need to offer professional development to teachers, and therefore embrace a teacher training program that incorporates holistic self-care strategies and mental health related training (Bradea, 2023).

As work stress is a major risk factor for mental health issues like anxiety and depression, mental health should be treated as an occupational health issue in teachers. Teaching related stress may start off as just being mental fatigue or burnout, but the long term implications of this stress has negative impacts for not only teachers but their students too.

Well-being has a direct impact on professional performance, especially on the ability to teach. We can mention a few professional situations that trigger a high stress state: the busy periods during the school year, the unpredictability, the pressure to keep up with changes, but also the constant changes of the school management (Granziera et al., 2022).

Problem Statement

One of the issues of this study is *the emotional well-being of teachers*. We can say first that it is very important because it directly impacts and relates to their teaching abilities and the classroom environment (Arens & Morin, 2016). More specifically, teachers who experienced more stressors, due to the COVID-19 period or others, reported worse health and found it harder to cope and teach. On the other hand, non-formal activities can be promoted in order to help teachers, but also students to perform and use them and thus complete the formal activities according to the program (Pop, 2019).

The importance of student wellbeing has been known for some time as well. Nowadays, schools are becoming increasingly aware of the importance of teacher wellbeing. Promoting teacher wellbeing is a worthy and important aim in itself. Teacher well-being is linked with a range of positive psychological, physical and occupational outcomes among teachers, greater commitment to work, greater work motivation etc. (Collie & Perry, 2019).

Teacher wellbeing has many positive carry-on effects for students and school. Teachers experiencing greater well-being are able to form stronger connections with students, are less likely to quit the profession or change their job, and have students who are more likely to attain improved learning and achievement outcomes (Collie et al., 2011). Thus, teacher wellbeing is essential for individual teachers and it also plays an important part in fostering healthy and effective school environments.

Theoretical Framework

Well-being and prosperity are the concepts that underlie mental health. Mental health does not only imply the absence of mental illness, but also the presence of a state of well-being in which the individual is aware of his own abilities, can cope with stress, can work productively and constructively, and is able to make a contribution to his community. Wellness is a life skill. Maintaining wellness requires intentionality, reflection, and commitment to choosing thoughts and behaviours that help us be at our best (Granziera et al., 2022).

Causes: the lack of autonomy and support offered by the school management, but also the lack of understanding of the importance of teachers' well-being. This highlights the strong need to place the mental health and well-being of the whole school community at the heart of every educational institution to encourage teachers to discuss their concerns and concerns openly (Banerjee et al., 2017). Open discussions about mental health are essential to encourage people going through

a difficult time to seek help, few teachers turn to a professional or doctor if they feel worried or stressed at work.

However, models were suggested for the implementation of educational programs aimed at the well-being of teachers that could include accreditation standards, sports fields and course models (Sonnentag & Fritz, 2015). Planting a seed of emotional resilience in teacher professional development can allow teachers to build practices based on the science of human prosperity. The implementation of programs that promote the understanding of emotions, their management and the science of well-being. Thus, if teachers have strategies to support their well-being, they will be able to manage the stress factors at work and not only survive, but develop and prosper (Arens & Morin, 2016).

The theoretical approach is based on the information taken from the specialized literature, realizing, in a first section, a conceptual definition, classification and explanation, from the perspective of the general theory of well-being, on the one hand, and that of the use of non-formal activities in the activity didactic. Then, we mark the transition from generalization to what we call the didactic implementation of non-formal activities by following its objectives, characteristics, postures and finality, identifying its blockages and revealing remedial ways suggested by specialists. The next section x-rays the impact of non-formal activities in improving well-being, from the perspective of educational mentoring, focusing on the nature of the relationships between the communication factors.

The concept of non-formal or alternative education, recently imposed in the language of specialists, refers to institutionalized and organized forms for the purpose of transmitting educational values, but which do not belong to the formal education system (Eldor & Shoshani, 2016). There is also the notion of extracurricular education, but this can generate confusion, referring rather to the extracurricular activities carried out within the formal system. Another related notion is that of informal education, but this refers either to secondary educational influences, more or less intentional (mass media, “the street”, organizations, the Internet, popular culture, etc.), or to all courts with a more complete, comprehensive purpose than the educational one, such as the family, the church, the army, culture, etc. (Marti & Collie, 2019).

Therefore, we strictly see non-formal education: the set of institutions and activities with main educational functions, but which are independent of the formal education system, and which, usually, are subject to distinct regulations (Pop, 2019). To the extent that the forms of education outside the official system have known an autonomous development, in specific forms, we can talk about an autonomous system of non-formal education, its most important functions being those of completing the educational contribution of the school, as well as to support the process of professional reconversion, under the conditions of the current labour market dynamics and rapid technological changes (Banerjee et al., 2017). We can interpret the

non-formal education system as a useful social mechanism that allows mobility on the labour market, adaptation on the go and continuous adjustment between the demand and supply of work.

They are based on the competences and contents of formal education and offer various possibilities to apply the knowledge acquired in formal education. They do not exclude the effort of students and are attractive due to their varied forms (reading circles, sports, cultural-scientific, meetings with writers, science clubs, school celebrations, hikes, trips, camps, expeditions, weekend school, competitions, viewing of performances, visits to museums, libraries, etc.). As a rule, the activities take place in the school and are made up of circles on thematic or multidisciplinary subjects, cultural/sporting competitions, scientific communication sessions, commemorations or festivities, Olympiads, etc. (Bradea, 2023). They have a formative-educational character, they are optional or optional, they know different ways of financing, they do not involve the awarding of grades and rigorous evaluation, they promote teamwork, they involve a trans-/interdisciplinary approach, they are directed by specialized staff, in close contact with parents, students, sociocultural or political organizations. The content is organized by areas of interest, not by years of study or academic disciplines. (Skaalvik & Skaalvik, 2017)

Purpose of the study

The purpose of this study is to try to find the most effective methods to improve well-being, and at the same time, the teaching method and the training process in the educational environment. How can it be improved the well-being in the educational environment and if the non-formal activities are useful in class work?

In other words, we have to see the impact on teaching practice of social and emotional well-being of teachers, which is another issue which should be analysed very seriously because it, having a negative connotation, will clearly affect the act of teaching the class. What can we do so that it does not degenerate, considering it very important first of all is all about *listening*. *Listen* to teachers and incorporate their feedback when planning future virtual or in-person professional opportunities. Also, *encourage* teachers and school administrators to participate in professional development that focuses on communication particularly during times of stress (Sonntag & Fritz, 2015). At the same time, offer a more *freely planned*, like discussion form, open to teachers and administrators to discuss issues related to the social emotional health of teachers and their impact in the classrooms. Teachers can help other teachers based on shared experiences, and therefore can make suggestions or offer advice (Banerjee et al., 2017).

Research Question

Promoting well-being in the educational environment through the use of non-formal activities is or is not a way of improving the educational act? Of course, there are many other ways to do that, but this work is looking for the most effective way to emphasize that the non-formal activities used to promote well-being in the educational environment only emphasize the need for their use and the need to understand their importance in the education act.

Findings

Teacher well-being refers to positive and effective functioning at work (Collie et al., 2016). Researchers use many different approaches to measure and examine teacher wellbeing. For example, researchers may ask teachers about their satisfaction with their job or level of engagement at work (Collie et al., 2012). Teachers who are satisfied and engaged at work are functioning in positive and effective ways. Teacher wellbeing may be also measured by asking teachers about their experiences of various positive emotions and negative emotions at work and then weighing the prevalence of these different emotions across the course of a school week (Simbula et al., 2012).

Using non-formal education in their activities, teachers, and also students, experience more positive emotions than negative ones, they are considered to be faring well in school environments. The importance of student wellbeing has been known for some time. Nowadays, schools are becoming increasingly aware of the importance of teacher wellbeing. (Simbula et al., 2012).

Beyond its complementary virtues of the education system, we can note that non-formal education also presents specific advantages in relation to the first. Indeed, due to their imperfect nature, public goods, including formal education, are not selected by the impersonal mechanism of the market, but are allocated by politicians, officials, philosophers, according to ideological and political criteria, creating the risk of inadequacy between demand and offer. For example, people can be “provided” with goods they do not need or, on the contrary, they can be deprived of goods they do need (Banerjee et al., 2017). Thus, if formal education is inherently characterized by a certain rigidity in its relationship with society in general and with the labour market in particular, in the non-formal area, on the other hand, the fulfilment of real educational needs is solved automatically by the mechanism of the educational market (the natural regulation between demand and supply) which, in turn, is influenced by the labour market, the market of professions, the market of goods and services, etc. (Pop, 2019).

The advantages, admittedly limited, of non-formal education can also be found in the personal life plan, in that its beneficiaries have the opportunity to select their

own fields of learning, driven by interests or passions, hobbies, areas of interest. In addition, due to rapid changes and therefore uncertainty, the need of man to control his own life is increasing today, manifesting itself even in areas that traditionally belonged to the family and the school: it is about education and then professionalization (Banerjee et al., 2017).

Thus, education is no longer exclusively a unidirectional, long-lasting and decisive process for the whole life, but rather tends to become an interactive one, in which the subject of education has an ever greater power to select, rationalize, plan, combine the forms of education by yourself (Blândul, 2016). In this context, it seems that non-formal education takes advantage and proliferates in the “shadow” of formal educational institutions, regulating the dysfunctions created by the system and smoothing the rough edges between the traditional school and the labour market.

Non-formal education means any action organized outside the school system, through which a bridge is formed between the knowledge taught by teachers and its implementation. This modern type of instruction removes the stress of catalog grades, required discipline, and required homework. It means the pleasure of knowing and developing. We must state that it is useful to follow some rules and principles in order to carry out quality non-formal activities.

If we talk about the role of schools in promoting well-being through non-formal education, then we say that it is important that every school has multiple avenues for promoting teacher well-being. Through non-formal activities it can bond positive relationships which are definitely an essential foundation for well-being (Collie & Martin, 2016). Thus, school, by its teachers and students, should prioritize the importance of positive relationships among all school community members (Banerjee et al., 2017). For that, we can have some non-formal activities which provide teaching staff with time to build positive relationships with students and opportunities to develop effective collaborative practices with colleagues (e.g. one day trip, meetings outside the school etc.) (Eldor & Shoshani, 2016).

Schools should provide teachers with access to teaching resources and professional learning, which are essential for promoting confidence in teaching and, in turn, healthy and effective functioning at work (Collie et al., 2016). There should also be strategies to reduce extraneous workload during busy times of the year (e.g. melting free weeks, relief from supervision duties during peak marking periods etc. Teachers should be encouraged to build positive relationships with their students. They also should be encouraged to develop their confidence in teaching, which is important for well-being at work (Skaalvik & Skaalvik, 2011). For example, teachers are able to select the areas of professional learning they would like to focus on. In this case, school should provide opportunities and time for professional learning communities and peer observations among teaching staff.

Discussions and Conclusions

It is urgently needed that teachers are supported emotionally, as it is essential for the effectiveness of teaching and student learning. Teacher well-being is an important outcome and it also has important carryover effects for positive student and school outcomes. Practices that promote teacher well-being should be pursued by individual teachers and also be embedded across the whole school by using non-formal activities (Collie & Martin, 2016).

Therefore, the perspectives of the educational valences of non-formal activities highlight the more relaxed, closer relationship between the educator and the educated. Even if the teacher leads the entire teaching process, students can express themselves spontaneously and freely. The adult does not impose his point of view, at most he suggests, cooperates and supports them to become good organizers of their own activities (Banerjee et al., 2017). In the foreground is the learner, in the background the teaching staff remains, precisely so that the student can capitalize on his organizational skills, cooperation, collaboration, assumption of responsibility.

The non-formal has a palette of varied didactic strategies, which offer the student the chance to accumulate life experiences through direct contact with people, with the phenomena of material and spiritual culture. In this context, the educated person becomes a resource, a producer, an opinion leader, in other words, an active participant in his own learning (Collie et al., 2011).

The present work does not aim to idealize the existing situation, but to demonstrate the fact that through the force of technology the barriers of didactic communication can be eliminated, that their existence is a motivating factor for improvement and self-improvement, that the professionalism of teaching staff goes through an evolutionary process with the goal of training and shaping the future represented by a generation that will exist, think and create in an educational environment, using non formal activities, where the importance of well-being is well understood and appreciated (Han & Yin, 2016).

References

- Arens, A.K., Morin, A.J.S. (2016). Relations between teachers' emotional exhaustion and students' educational outcomes. *Journal of Educational Psychology*, 108, 800–813.
- Baker, C.N., Peele, H., Daniels, M., Saybe, M., Whalen, K., Overstreet, S., The New Orleans, Trauma-Informed Schools Learning Collaborative. (2021). The Experience of COVID-19 and its Impact on Teachers' Mental Health, Coping and Teaching. *School Psychology Review*, 1–14.
- Banerjee, N., Stearns, E., Moller, S., Mickelson, R.A. (2017). Teacher job satisfaction and student achievement: The roles of teacher professional community and teacher collaboration in schools. *American Journal of Education*, 123(2), 1203–1241.

- Bermejo-Toro, L., Prieto Ursina, M., Hernandez, V. (2016). Towards and job resources involved in teacher burnout and engagement. *Educational Psychology*, 36(3), 481–501.
- Blândul, V. (2016). Some ways to Improve the Programmes of Non Formal Education. *Case Studies from the Education* (pp. 79–85).
- Bradea, A. (2023). Volunteering as a Component of Non-Formal Education. In: E. Soare, C. Langa (Eds.), *Education Facing Contemporary World Issues – EDU WORLD 2022*, vol 5. *European Proceedings of Educational Sciences* (pp. 572–583). European Publisher.
- Collie, R.J., Perry, N. (2019). Cultivating teachers thriving through social-emotional competence and its development. *The Australian Educational Researcher*, 46(4), 699–714.
- Collie, R.J., Martin, A.J. (2016). Adaptability: An important capacity for effective teachers. *Educational Practice and Theory*, 38, 27–39.
- Collie, R.J., Shapka, J.D., Perry, N.E., Martin, A.J. (2016). Teachers' psychological functioning in the workplace: Exploring the roles of contextual beliefs, need satisfaction, and personal characteristics. *Journal of Educational Psychology*, 108, 788–799.
- Collie, R.J., Shapka, J.D., Perry, N.E. (2011). Predicting teacher commitment: The Impact of School Climate and Socio-Emotional Learning. *Psychology in the Schools*, 48(10), 1034–1048.
- Eldor, L., Shoshani, A. (2016). Caring relationships in school staff: Exploring the link between compassion and teacher work engagement. *Teaching and Teacher Education*, 59, 126–136.
- Granziera, H., Collie, R.J., Martin, A. (2022). Understanding Teacher Wellbeing Through Job-Demands-Resources Theory. In: *Cultivating Teacher Resilience* (pp. 229–244). Singapore: Springer.
- Han, J., Yin, H. (2016). Teacher motivation: Definition, research development and implications for teachers. *Cogent Education*, 3(1), 121–134.
- Hascher, T., Beltman, S., Mansfield, C. (2021). Teacher well-being and resilience: towards an integrative model. *Educational Research*, 63(4), 416–439.
- Klingbeil, D.A., Renshaw, T.L. (2018). Mindfulness – based interventions for teachers: A meta – analysis of the emerging evidence base. *School psychology Quarterly*, 33(4), 501–511.
- Martin, A.J., Collie, R.J. (2019). Teacher – student relationships and students' engagement in high school: does the number of negative and positive relationships with teachers matter?. *Journal of Educational Psychology*, 111(5), 861–876.
- Pop, C.F. (2019). The Non Formal Education System in Romania – a Useful Social Mechanism on the Labor Market. *Journal of Romanian Literary Studies – International Romanian Humanities Journal*, 18, 607–613. ISBN: 978-606-8624-00-6, E-ISSN: 2248-3004.
- Richter, D., Kunter, M., Klusmann, U., Ludtke, O., Baumert, J. (2011). Professional development across the teaching career: Teachers' uptake of formal and informal learning opportunities. *Teaching and Teacher Education*, 27(1), 116–126.
- Skaalvik, E.M., Skaalvik, S. (2017). Still motivated to teach? A study of school context variables, stress and job satisfaction among teachers in senior high school. *Social Psychology of Education*, 20(1), 15–37.
- Skaalvik, E.M., Skaalvik, S. (2011). Teachers' feeling of belonging, exhaustion and job satisfaction: the role of school goal structure and value consonance. *Anxiety, Stress and Coping*, 24(4), 369–385.
- Sonnentag, S., Fritz, C. (2015). Recovery from job stress: The stressor – detachment model as an integrative framework. *Journal of Organizational Behavior*, 36, S72–S103.

- Simbula, S. (2010). Daily fluctuations in teachers' well-being. A diary study using the job demands-resources model. *Anxiety, Stress & Coping*, 23(5), 563–584.
- Simbula, S., Panari, C., Gugliemi, D., Fraccaroli, F. (2012). Teachers' well being and effectiveness: The Role of the Interplay Between Job Demands and Job Resources. *Procedia – Social and Behavioral Sciences*, 69, 729–738.
- Weissberg, R.P., Durlak, J.A., Domitrovich, C.E., Gullotta, T.P. (2015). Social and emotional learning: Past, present and future. In: J.A. Durlak, R.P. Weissberg, T.P. Gullotta (Eds.), *Handbook of social and emotional learning: Research and practise* (pp. 3–19). New York, NY: Guilford.

The gender effect in computational thinking among first-year university students at the Sapientia Hungarian University of Transylvania

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Introduction

The increasing, but still lower share of female students in STEM study fields (science, technology, engineering and mathematics), including computer sciences calls for exploratory research on the divergent professional trajectories of girls and boys. The most popular view implies possible gender differences in computational thinking, whereas sociologists claim that computer skills and computational thinking are to a large extent socially biased and are rooted in basically two gender stereotypes: first, that boys have higher ability than girls, and, second, that boys are more interested than girls in computer science (Master et al., 2021). Following this line of thought, it is particularly the older girls' motivations that are negatively impacted

by societal stereotypes. However, findings are already contradictory at younger ages. Some studies claim that, at preschool age, the effect of gender stereotypes is not observable (Kanaki & Kalogiannakis, 2022), and that girls and boys are equally successful in learning computational thinking and coding (Relkin et al., 2021). Still, with respect to some dimensions of algorithmic thinking, namely sequencing and decomposition, boys outperform girls even at this very young age (Angeli & Georgiou, 2023).

At the age of 11 to 12 years, eye-tracking studies assess stronger exploratory behaviour in boys, greater interest and more positive attitudes toward computer sciences (Polat et al., 2021; Kong et al., 2018; Gao et al., 2022). In a virtual reality classroom for learning computational thinking, girls required more guidance than boys in performing computer tasks. This finding yields evidence for need to explicitly promote girls' interest and self-efficacy in computer sciences (Gao et al., 2022). Later on, the high school gender composition – which is itself the result of the diverging study paths of boys and girls – affects students' occupational sorting and women's participation in STEM study fields in the sense that learning in a community with a higher proportion of female peers decreases the chance of girls choosing STEM study programs (Brenøe & Zölitz, 2019).

Materials and Methods

Research questions

This study addresses the question whether computational learning achievement skills are different across genders in the age group of 18–20 year-old men and women, freshly graduated from high school. To address the question of eventual gender differences in learning efficacy, the impact of gender is being studied controlling for computer sciences experience and overall school performance.

Participants

In September 2022, first-year students from different study fields were invited to participate in the experiment. Study fields were: landscape architecture, garden engineering, mechanical engineering, mechatronical engineering, automation engineering, telecommunication engineering, electrical engineering, informatics, computer science, translator and interpreter, communication studies, and last, public health.

The total number of participants is 228 students, of which 161 men and 67 women.

Study design

Most studies on interest and achievement in computational thinking are based on questionnaires relying on self-reports. The novelty of this study is the experiment setting that allows for an exact measurement of the learning achievement.

The randomized experiment was carried out at the university campus site of Sapientia Hungarian University of Sciences, Faculty of Technical and Human Sciences Targu Mures, Romania.

The basis of the study is the AlgoRythmics research project and YouTube channel, where algorithms from simplest to most complex types are being performed with different kinds of visualizations (animation, dance, theatre performance) to enhance learning experience and to ensure more efficient learning (Kátai, 2021).

Instruments

One day prior to the experiment, participants filled out a data sheet on their socio-demographic features, computer sciences experience and school performance measured by the high school final exam grade (for more details on the experiment setting see Osztián et al., 2023). Subsequently, students were grouped according to their computer science experience into subjects who had no computer programming experience at all, those who learnt programming for 1 to 3 years, and those who had more than 4 years of programming experience in high school.

Three groups were formed, all of them randomly mixed by gender and computer science experience.

On the next day, the experiment itself was carried out. All three groups viewed two simple algorithms: insertion sort and shell sort. The only difference between the groups was the type of stimulus, that is, the visualization that was projected to them: one group viewed the two algorithms with animation, the second one with folk dance and the third one with theatre performance.

Following the screening, participants filled out a test by answering 18 questions to test their understanding of algorithms. Two questions were multiple-choice types, and for the rest, respondents had to write/calculate the correct answer. To all correct answers one point was assigned. Thus, theoretically, algorithm learning achievement scores (points) range from 0 to 18.

Statistical analysis

Our data contains information on the school performance measured by the high school final exam mean grade, on the experience with computer sciences measured

by the number of years of studying the subject at school, and on the learning achievement. The gender of respondent and the type of visualization are also used in the analysis. Visualization type was recoded in two dummies, namely theatre versus animation and folk dance versus animation. Animation as the most typical algorithm visualization type is being considered the reference category for the other two types.

Descriptive statistics present the dispersion of the algorithm learning achievement scores, the minimum and maximum values and the median values.

Independent samples t-test assesses the eventual differences in the learning achievement in men and women. Then, quantile regression measures the impact of school performance, experience with computer sciences, gender and visualization type upon algorithm learning achievement in different score quartiles, controlled for the effects of the other variables. Thresholds for quantile regression are set at 25%, 50% and 75%.

Results

As a first indicator of eventual gender differences we were curious to find out the distribution of scores in men and women.

The boxplot on Figures 1 sums up the basic distributions of learning achievement scores by gender, displaying the median, the minimum and maximum values, the upper and lower quartile.

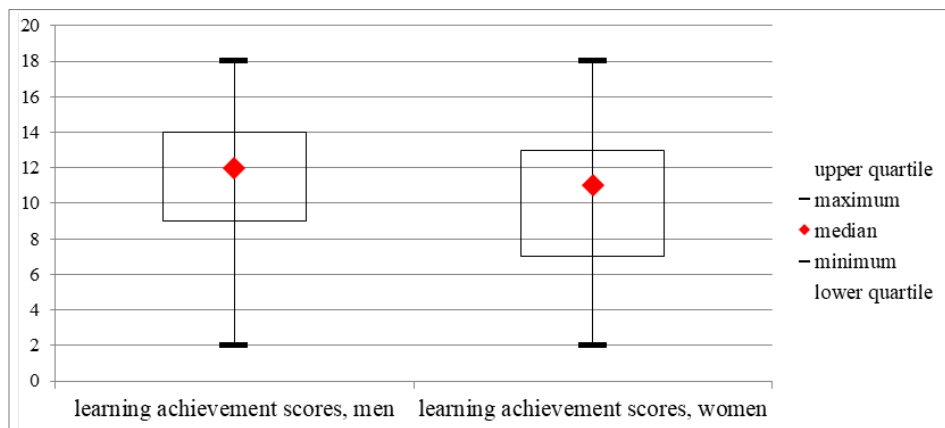


Figure 1: Basic distribution of the algorithm learning achievement scores in men and women, N=288

As shown on the figure above, the achievement scores of women are slightly lower, the median is 11 points compared to 12 of men, and scores of women also have a larger dispersion. However, female students were also able to reach the theoretical maximum of 18 points.

In the total population, learning achievement scores range from 2 to 18 points, with a mean of 10,96 points. Independent samples t-test was performed to check whether there were significant gender differences in the mean scores obtained on the test.

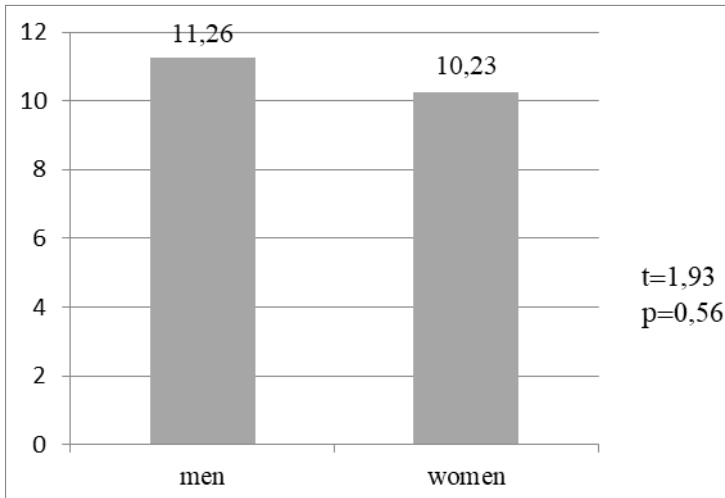


Figure 2: Mean scores of algorithm learning achievement by gender, N=228

As displayed on Figure 2, the one point difference in favour of men remains slightly above the threshold of 0,05 for significance, that is, the difference cannot be considered significant.

As descriptive and two-variable analysis results across genders do not allow for far-reaching conclusions with respect to the impact of gender upon computational thinking, controlled effects of all variables are assessed. In order to identify the predictors of learning performance, adjusted to covariates, quantile regression analysis is performed, which measures the pure impact of predictors controlling for other effects.

Quantile regression results below show the magnitude of the alleged predictors' impact upon learning achievement scores through parameter estimation at different quantiles. Information on the impact of variables is provided by coefficient values.

In the lowest quartile, the most influential predictor of achievement scores is gender (coeff.= -1,757), followed by variables related to educational background, namely the final exam grade (coeff. = 1,494) and the experience with computer sciences (coeff. = 0,781). Visualization type does not have a significant impact upon achievement in this quartile. Altogether, predictors included in the analysis account for 15,3%, 11,2% and, respectively, 11,4% of the total variance of learning achievement in the three quartiles (Pseudo R squared = 0,153, = 0,112 and = 0,114).

Table 1. Parameter estimates for the lowest quartile (0% to 25%) of the learning achievement scores

Parameter	Coefficient	t	p	95% confidence interval	
				Lower bound	Upper bound
<i>(intercept)</i>	-2,392	-,723	,470	-8,913	4,129
High school final exam grade	1,494	3,327	,001	,609	2,379
Number of years learning computer sciences	,781	3,777	<,001	,373	1,188
Visualization type: theatre vs. animation (ref.)	1,434	1,672	,096	-,257	3,125
Visualization type: folk dance vs. animation (ref.)	,043	,051	,959	-1,605	1,691
Gender	-1,757	-2,197	,029	-3,333	-,181
<i>Pseudo R squared = 0,153, Mean Absolute Error = 3,3482</i>					

Table 2. Parameter estimates for the middle two quartiles (25% to 75%) of the learning achievement scores

Parameter	Coefficient	t	p	95% confidence interval	
				Lower bound	Upper bound
<i>(intercept)</i>	4,541	1,564	,119	-1,182	10,264
High school final exam grade	,784	1,990	,048	,008	1,561
Number of years learning computer sciences	,730	4,027	<,001	,373	1,088
Visualization type: theatre vs. animation (ref.)	,255	,338	,735	-1,229	1,739
Visualization type: folk dance vs. animation (ref.)	-1,302	-1,774	,077	-2,748	,145
Gender	-,369	-,525	,600	-1,752	1,015
<i>Pseudo R squared = 0,112, Mean Absolute Error = 2,6106</i>					

Table 3. Parameter estimates for the highest quartile (75% to 100%) of the learning achievement scores

Parameter	Coefficient	t	p	95% confidence interval	
				Lower bound	Upper bound
<i>(intercept)</i>	8,992	3,835	<,001	4,372	13,613
High school final exam grade	,752	2,363	,019	,125	1,379
Number of years learning computer sciences	,462	3,158	,002	,174	,751
Visualization type: theatre vs. animation (ref.)	-1,098	-1,805	,072	-2,296	,100
Visualization type: folk dance vs. animation (ref.)	-2,023	-3,413	<,001	-3,190	-,855
Gender	-,797	-1,406	,161	-1,914	,320
<i>Pseudo R squared = 0,114, Mean Absolute Error = 3,2354</i>					

In the middle quartile it is only school performance and computer science experience that impact algorithm learning achievement (coeff. = 0,784 and coeff. = 0,730, respectively).

In the highest quartile, compared to the more classical animation, learning with folk dance strongly decreases the achievement scores (coeff. = -2,023), and this impact is much bigger than that of the school performance (coeff. = 0,752) and of the experience with computer sciences (coeff. = 0,462).

Discussion

As achievement scores increase, the positive impact of the two variables related to educational background, that of the school performance and of the experience with computer sciences decreases. Further, being a women predicts lower achievement scores only in the lowest quartile, and having watched an algorithm visualization with folk dance only in the highest 25% of results.

During the experiment, women did not perform significantly worse, but, when controlled for covariates, gender has a significant negative impact in the lowest learning achievement quartile. That is, being a woman decreases the achieved result compared to a man with same school performance, the same number years of experience with computer sciences, and who viewed the same visualization. The

impact of gender even surpasses that of educational background. This, however, only happens among those students who performed worse in the algorithm learning environment. Further on, among students with higher and highest achievement, gender plays no longer a role, women perform just as well as men, all other conditions being the same.

These findings echo some evidence from recent studies on the divergent career choice of boys and girls. Girls, especially those exposed to a higher proportion of female peers are less likely to enrol in STEM study fields and more likely to choose health-related studies. Here, however, parental educational attainment has a word to say, as the career choice of girl pupils with college-educated parents is less affected by peers. More even, family role models are followed, so that girls with mothers in STEM careers are not influenced by high school peer gender composition, but rather by their mother's profession, and these girls engage into STEM study fields to similar extent as boys (Brenøe & Zölitz, 2019). This implies that more willingness to pursue such studies and more family experience in the field results in high performance of women, too.

Our results are relevant for education policy. The fact that gender has a high negative impact, but only in the lowest achievement quartile suggests that those girls who have surmounted traditional gender stereotypes have also achieved high performance in computer sciences. Further, the gender issue in computational thinking needs rather be addressed with targeted interventions in high schools and university study programs that are less connected with the field.

Limitations

The paper presents the results of a study which addresses the gender effect in understanding algorithms in male and female university students at different study programs.

In spite of the novel findings of this study, particularly thanks to the technique of quantile regression which allows for reliable results split by quantiles even with a relatively restricted number of cases, there are two limitations that need to be addressed.

First, the development process of computational thinking is hard to study with a cross-sectional study design. Further research is needed, particularly longitudinal studies, to better capture the dynamic path of computational thinking development across genders.

Second, the issue of the effect of different visualization types needs to be further explored. As the focus of this study was the gender effect in computational thinking, the impact of visualization types remains unexplored. However, in the highest quartile, this did make a difference, in the sense that compared to other visualizations,

folk dance considerable decreased learning achievement. For computer sciences, particularly for teaching them, the issue of visualization type's efficiency is by no means negligible.

References

- Kátai, Z. (2021). *Algorithemics: technologically and artistically enhanced computer science education*. Cluj Napoca: Scientia.
- Osztíán, P.R., Kátai, Z., Osztíán, E. (2023). *Doodling and Algorithemics*. 15th International Conference on Education and New Learning Technologies. doi: <https://doi.org/10.21125/edulearn.2023.0784>
- Brenøe, A.A., Zölitz, U.E. (2019). *Exposure to More Female Peers Widens the Gender Gap in STEM Participation*. IZA DP No. 12582. Bonn: IZA Institute of Labour Economics.
- Angeli, C., Georgiou, K. (2023). Investigating the effects of gender and scaffolding in developing preschool children's computational thinking during problem-solving with Bee-Bots. *Front. Educ.*, 7, 757627. doi: <https://doi.org/10.3389/educ.2022.757627>
- Gao, H., Hasenbein, L., Bozkir, E., Göllner, R., Kasneci, E. (2022). Exploring Gender Differences in Computational Thinking Learning in a VR Classroom: Developing Machine Learning Models Using EyeTracking Data and Explaining the Models. *International Journal of Artificial Intelligence in Education*, published online: 4 November 2022. doi: <https://doi.org/10.1007/s40593-022-00316-z>
- Kanaki, K., Kalogiannakis, M. (2022). Assessing Algorithmic Thinking Skills in Relation to Gender in Early Childhood. *Educational Process: International Journal*, 11.2., 44–59.
- Kong, S.C., Chiu, M.M., Lai, M. (2018). A study of primary school students' interest, collaboration attitude, and programming empowerment in computational thinking education. *Computers & Education*, 127, 178–189. doi: <https://doi.org/10.1016/j.compedu.2018.08.026>
- Master, A., Meltzoff, A.N., Cheryan, S. (2021). Gender stereotypes about interests start early and cause gender disparities in computer science and engineering. *Proceedings of the National Academy of Sciences*, 118.48. Article e2100300030118. doi: <https://www.pnas.org/doi/10.1073/pnas.2100030118>
- Polat, E., Hopcan, S., Kucuk, S., et al. (2021). A comprehensive assessment of secondary school students' computational thinking skills. *British Journal of Educational Technology*, 52.5. doi: <https://doi.org/10.1111/bjet.13092>
- Relkin, E., de Ruiter, L.E., Bers, M.U. (2021). Learning to code and the acquisition of computational thinking by young children. *Computers & Education*, 169, 104222

Importance of health in imparting quality education – a review

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Introduction

It is a dream of every man to be educated which should be aiding oneself to achieve his or her self-designed desires or goals. Hence, it would not be wrong to say that education is the basic foundation of all the achievements. A good quality education will make a person rise to the most formidable level while on the contrary if anyone is deprived of it may lead to a steep fall in their life. Hence, every parent tries to ensure that their child gets the best quality education available to them. Not only with respect to individual's achievement, education is actually having much more implications. It ensures the relative quality of the mutual co-existence, society, region and the country as a whole. A good quality education promotes unity, healthy co-existence, an all-inclusive society, a prosperous region and a highly formidable country. On the other hand, the same education if it doesn't impart the message in a proper manner will be leading to the destruction of the unity, leading to uncivilized attitude towards the society, people, civilization and the country. This ultimately leads to chaos, confusion and complete failure of the nation and humanity at large. Thus, education intentionally engages the receptive capacities of children and others to imbue them with knowledge, skills of reasoning, values, socio-emotional awareness and control, and social interaction, so they can grow as engaged, productive, creative, and self-governing members of a society (Hahn & Truman, 2015).

Even from the social inclusion and exclusion point of view too, it is important the people who constitute the social strata will be more contributing and highly accomplished in nature when they are educated. Education has many components other than just literatures and concepts. Among them the knowledge givers namely the Teachers are very important component. For imparting a good and efficient education a teacher's health is more equally important along with skill and motivation.

A good health has been closely related to job satisfaction and motivation, low absenteeism, and high quality of work (Saïd et al., 2022). It is these teachers who give a broad understanding, help in the application of the concepts and applications of the knowledge with respect to the field of study. Thus, a good health of the teachers becomes an important component for imparting a good quality education in the system.

Ayurveda, is a holistic system of medicine that emphasizes on the complete health of the individual. Accordingly, the health is defined as the condition where the components of the body namely Dosha (Factors that control the physiological activities of the body), Agni (Metabolism), Dhatu (Anatomical or structural components of the body) and Malakriya (Process of excretion) are in a normal state along with Prasanna-Atma (Pleasant state of soul), Prasanna-indriya (Pleasant state of specialized organs – Sensory and motor organs) and Prasanna-Manas (Pleasant mind) are in the state of hemostasis. (Sushruta, 1997, p. 64). In the definition, while emphasizing on health Ayurveda has clearly laid the importance of psychological health along with the physical health. But the psychological health is affected by many aspects like social factors, financial factor, Work environment factor and emotional factor. Hence, the stressor in the form of work targets, work environment, etc. leads to a condition of psychological stress which is also a notable cause in affecting our health. The present chapter will give a theoretical idea through the different concepts and references to enhance the psychological status of the individual through different procedures as mentioned in Ayurveda. The procedures will be described for its benefits and its possible effect on the education system at large so as to be useful in providing a more stress relieved, highly motivating and high-quality education imparted by the teachers.

Theoretical framework

An important component of education is the relationship between the teacher & the student. This relationship is the important foundation for the success of the education process and the system at large. It is understood that children's interaction with their teachers and peers in a very positive manner will influence their concurrent and long-term development namely social, academic and emotional (Chen et al., 2020). As per the text Manusmriti a teacher is defined as the person who imparts the knowledge of Veda (texts) right from the point of Akshara-arambha (Alphabetical knowledge) to complete specialization by explaining the most hidden meanings and secretive aspects of the science along with the direction on different basic aspects of life namely food, lifestyle and morality (Vagbhata, 1986, p. 78). Further the text also emphasizes on the teacher as the one who takes a remuneration and imparts knowledge at a single place or in a specified area and teaches a part of

the subject or in total. He is known as Upadhyaya (Vagbhata, 1986, p. 77). As per Ayurveda the characteristic feature of a good teacher is described as “One who has a profound knowledge on the subject, has profound practical experience, highly efficient, pure or clean both physically and psychologically, highly experienced in doing the job along with highly skilled, is in possession of all the tools and infrastructure necessary for the performance of the work efficiently, all the Indriya (Special organs of the body which includes 5 sensory organs, 5 motor organs and Mind) are healthy, able to understand the nature around, able to discharge the duties efficiently, good memory regarding the field of expertise, without ego, without bias, cool temperament, emotionally strong or stable or forgiving and highly capable to convince others” (Agnivesha, 1995, pp. 736–737).

Similarly, the characteristic feature of a good student is also been described in detail in the texts of Ayurveda and other philosophies. Accordingly, the student should be highly dedicated towards study, teacher and also activities related to the institution, has a good memory, highly skilled, capable, healthy, neat appearance with smooth nails, glowing face, enthusiastic, follows Brahmacharya (Chastity), emotionally stable, has a very good background of life and endowed with virtues (Vagbhata, 1986, p. 76). With these characteristic features make the student focused and also open to learn and imbibe the knowledge completely.

From the above references, we can see that the health of the student and the teacher is equally important in getting the objective of education to be successful.

As per the definition of health in Ayurveda (Sushruta, 1997, p. 64), the body and mind are to be in healthy condition of both the student and the teacher. But due to the altered lifestyle of ours, we are subjected to profound stress both emotionally and psychologically. The effect of the psychological stress has by far affected our body systems in different ways like on cardiovascular system it is both inhibitory and stimulatory in nature. It leads to atherosclerosis, hypertension, cardiac arrhythmias, etc. on the cardiovascular system which may lead to myocardial infarction and death (Yaribeygi et al., 2017). Thus, it is well established that the psychological stress has severe adverse effects on the physical aspects of the individual as well. Infact, in many of the cases, the pathophysiological complications of disease arise from stress and that the people who are exposed to stress like work or general stressful environment have a greater chance for diseases both physically and psychologically (Yaribeygi, et al., 2017).

Rationale for the review

As mentioned in the above section, stress has a considerable stress on the physical body leading to many serious conditions. But the question is how stress is induced and how it is to be managed effectively. Owing to our present-day conditions

like environmental, inflation, wars, etc. have made it impossible to avoid stress completely. Thus, it is a necessity for making us capable enough to get cope up with it and if possible, to be relieved from it completely.

Teachers or students of today's world have their own sets of stressors owing to the competitive conditions. The job tension and discontentment among teachers have resulted in a negative effect on the efficacy of school and class (Helms-Lorenz & Maulana, 2016). With respect to students, the life events themselves are the stressors which can interact with other variables like examinations, competitions, personality, self-esteem, etc., can cause stress in students (Moeini et al., 2008).

Ayurveda on the other hand has many non-invasive procedures like Shirodhara, Shiropicchu, Shirobhyanga and Shirobasti that are helpful in many psychological and stress related conditions generally. Along with that the implementation of the basic principles of Ayurveda and Yoga like Sadvritta (Correct lifestyle) principles and concept of Hita Aahara (wholesome food) will lead to a enhancement of the ability to cope up with the stressors (Rathi & Rathi, 2020). Even in adults like teachers too, the procedures like Panchakarma (an invasive method of biopurification of body) along with the non-invasive procedures and proper implementation of the basic principles of Ayurveda will not only help in mitigating the stress induced conditions but also prevent it from recurrence (Chimankar et al., 2020). Hence when the teacher and student are healthy psychologically, there will be a better approach and a positive development with regards to performance in class and school leading to positive effects. Thus, it establishes a strong hypothetical view that the system of Ayurveda will help to improve, promote and establish health leading to improved quality of life so as to aid in the propagation of quality education.

Methodology

In the section of rationale for the review, the base for the study is highlighted. The references that are quoted in them give a way upon which a methodology is developed so as to understand and apply the ayurvedic principles and procedures for achieving the benefit of improving, promote and establish health both physically and mentally. The methodology includes review of Classical Ayurvedic texts, published scientific research articles, followed by shortlisting of the procedures and methods that are found to be useful in achieving the objective of providing health both physically and mentally. It also includes the research articles that are related to Ayurvedic principles and treatment procedures as shortlisted and their relative application scientifically. Based on the findings a theoretically viable rationale will be concluded that can be used as a base for further observation and clinical studies.

Ayurvedic procedures namely Shirodhara (Therapeutic oil streaming on scalp), Shirobasti (Placing of oil over scalp with a side covering), Shiropicchu (Placing of

oil soaked cotton piece or cloth over the bregma or mid scalp) and Shiroabhyanga (Oil massage of head) are totally known as Murdhataila (Kasture, 1998, p. 117), (Vagbhata, 1997, p. 134). The benefits of these procedures where is oil is being placed or applied on the scalp when performed regularly are explained in the texts as the one that will relieve from different Shiroroga (diseases of the head), Khalitya (Baldness), Palitya (greying of hair), Kesha prapatana (Hairfall), increase shirakapala bala (Strengthening of the scalp by maintaining of the tone), Nidralabha (Induce sound sleep), Sukhaprada (Provides relaxation) and many other benefits (Agnivesha, 1998, p. 127).

The other set of procedures that are non-invasive are Abhyanga (Oil massage), Udvartana (Powder massage) and Swedana (Sudation therapies). The Abhyanga is to be performed daily as a part of our daily routine. It helps one to be free from Jara (Oldage), Shrama (tiredness due to Exertion), Drishti prasada (Improves vision), Pushti (Nutrition), Ayu prasada (Improves quality of life) Swapna (Improves sleep) and Sutwak (Enhance skin health). This procedure if not to the whole body is at least to be done on the head, ears and foot regularly (Vagbhata, 1997, p. 20).

The Udvartana (Powder massage) is said to be useful in Medaprayayana (Liquifying of fat or sliming), Angasthirikarana (Stabilizes the body parts) and Twakprasada (Improves skin health) (Vagbhata, 1997, p. 21).

The Swedana (Sudation therapies) is useful in reducing the Stambha (rigidity of body parts), Gaurava (Heaviness of body parts), Sheetaghna (relieves cold) and Swedakaraka (results in sweating) (Agnivesha, 1998, p. 424).

Among the invasive techniques, the unique procedures of Ayurveda is the Panchakarma (5 Bio-purificatory procedures) that are useful not only to cure some of the dreadful diseases but also to maintain health. Panchakarma involves 5 procedures namely Vamana (Therapeutic emesis), Virechana (Therapeutic purgation), Asthapana Basti (Therapeutic Decoction enema), Anuvasana Basti (Therapeutic Oil enema) and Nasya (Therapeutic nasal errhines) (Bhavamishra, 2022, p. 614). These are used to cleanse the body internally from toxins that have been accumulated due to various metabolic activities in the body and the activity is known as Samshodhana (Chaudhari & Chavan, 2016). The significance of this procedure is that it is useful in removing the waste products and toxins that are generated in the body during various metabolic processes in the body (Chaudhari & Chavan, 2016). Ayurveda have stressed on the performance of the different procedures of Panchakarma relevant to that particular season so as to maintain one's health (Vagbhata, 1986, pp. 155–183).

The Murdhataila that comprises of four procedures namely Shiroabhyanga, Shirobasti, Shiropicchu and Shirodhara. Even though all the four do have the references in the text to produce varied benefits, the Shirodhara is said to produce an antistress effect by modulating the secretions of neurotransmitters and hormones in the body especially the brain (Divya, 2013).

A study that evaluated Abhyanga with Shirodhara and Swedana on stress and heart variability showed that the procedures were helpful in the reduction of mental stress, improve sleep quality and cardiovascular functions (Javed et al., 2023).

The Panchakarma (an invasive method of biopurification of body) are known to perform the action of cleansing the body from inside and is known as Samshodhana in total (Chaudhari & Chavan, 2016). When it is followed by Yoga practices have shown to reduce stress considerably leading to an increase in the quality of life (Verma, 2017). The significance of these procedures are that it is useful in removing the waste products and toxins that are generated in the body during various metabolic processes (Chaudhari & Chavan, 2016).

The above references show the benefits that the procedures provide for both psychological and physical ailments. Among these the Shirodhara has been observed as the one that induces deep relaxation from stress (Dhuri et al., 2013). Even the treatments namely shirobasti, shiroabhyanga and shiropicchu along with shirodhara also have been found to have better stress relief benefits as these treatments cause tactile stimulation leading to relaxation of mind by promoting the release of endorphins (Chaudhary & Katara, 2019). Along with these treatments the adherence to Sadvritta (Virtuous lifestyle), Yoga and meditation techniques also are required to maintain the homeostasis of the body (Verma, 201). This will be reducing the effect of stressors on the individual along with better ability to cope up with the same.

The primary stakeholder of education is a teacher and the student. Hence the review is done keeping the perspective of the student and the teacher. The two form the constituent of 2 different age group and generation level in the population. Thus, the stressors, effects of the stressors and their implications are different from each other. As mentioned in the earlier section, the stressor of a teacher is commonly with respect to the job tension, job discontentment, family commitments and liabilities. There may be additional stressors when the teacher assumes higher levels of the administration and strata of the system. Whereas the student is exposed to their own stressors as mentioned in the earlier section like examinations, competitions, personality, self-esteem, etc., which are very common. But even students are exposed to the harsh reality of life like poverty, social and environmental harshness at times leading to still more difficult for them to cope up with. On the other hand, Ayurveda which is having a holistic approach of treatment modalities is having many approaches that are both invasive and non-invasive in nature. Among the invasive techniques or procedures Panchakarma which includes 5 aspects of treatment that are purificatory in nature. It is the metabolic toxins that are the major cause of disease conditions in the body and with regular performance of Panchakarma, it is removed from the body thus ensuring health.

These references that have been obtained from different available texts and research experiences that are documented in the published articles. Moreover, in the methodology it is tried to understand how better the ayurvedic principles and

procedures that are illustrated in the references can be used for stress relief for further observations and research studies.

Results

From the review as mentioned in the section above, it is evident that an education without a healthy teacher is not possible to attain the desired objective. The stressors are the main reason which may be related to various factors leading to inability of the teacher to deliver the required knowledge and skill set to the student. This will lead to adverse effects on the student and the whole education system at large. Even the student is not spared from being affected by the stressors in their own level. These when exposed loose interest in the education leading to inability to achieve the objective of education. Thus, it is quite necessary to find an amicable solution to help the vulnerable people from these stressors and enhance their ability to get along and cope up with it. This will not only give a better capability to the teachers and the students likewise for delivering the desired outcomes of their said education. Ayurvedic system is useful in the management of the stress from time immemorial through its treatment modalities. Its non-invasive methods are safer and highly appreciated for the benefits over the years both in India and abroad alike. Its relaxation methods when performed along with dietary modifications, lifestyle modifications and Yoga have shown to be more delivering in providing the much needed relaxation along with enhancement of the ability to cope up with the stressors.

Discussion

Stressors have been around each and every individual including the teachers and students alike that have affected the psychological and physical well-being. This have also resulted in the inability of the teachers to deliver proper education along with loss of interest and focus of students to take the benefits of education. The implications are so much that it has led to many studies so as to analyze and understand the way to overcome it. It is to be observed that an approach is necessary for having the individual healthy both physically and mentally so as to cope up with the stressors and also deliver the desired outcomes of education. This is possible with proper modification of the food and lifestyle along with certain treatment modalities of Ayurveda Yoga. Ayurveda, being a holistic Indian system of medicine is traditionally practiced in India for catering various ailments. Its procedures like the Panchakarma, Abhyanga, Swedana, Shirodhara, Shiroabhyanga, Shirapicchu and Shirobasti is renowned worldwide. These treatments have shown to have utmost

benefits in both physical and psychological conditions. This is also reflected in the review as mentioned in the relevant sections. The improvement of the teacher and the student with respect to the ability of coping up with stressors will lead to better perception and execution of educational objectives which are necessary to shape the student for further challenges to come. Ayurvedic treatments and concepts will surely be the better choice for having utmost productivity and help them increase in their ability to achieve their desired objectives.

Conclusion

Finally, to conclude, stressors are the part of modern life which have made the individual of all age groups vulnerable to its adverse effects. These effects are both psychological and physical leading to more diseases and absenteeism due to loss of health. Ayurveda is surely a ray of hope that can help the individual to cope up with stress along with the much-needed relaxation. This will be able to increase the productivity of the individual and aid them to achieve the objectives of any work including education. The present review is based on various scientific papers and references from classical texts of Ayurveda that are mentioned in them which are useful in the management of psychological conditions like stress, loss of sleep, etc. along with physical conditions in general. Thus, a detailed clinical study would be helpful in ascertaining the different conclusions of this study in areas that differ from Indian subcontinent as it would not be much necessary in India as Ayurveda is being practiced since time immemorial giving out these benefits.

References

- Agnivesha. (1998). *Charaka Samhita*. Redacted by Charaka: Hindi commentary by Kashinatha Shastri, Gorakhanatha Chaturvedi; Rajeshwaradatta Shastri, Yadunandana Upadhaya, Ganga Sahaya Pandeya, Banarasidasa Gupta (Eds.), Varanasi. Chaukhambha Bharati Academy.
- Bhavamishra. (2022). *Bhavaprakasha*. English commentary by Balusu Sitaram. Varanasi. Chaukhambha Orientalia.
- Chaudhari, B.A., Chavan, A.B. (2016). Panchakarma Perception-An Overview. *Journal of Ayurveda and Integrated Medical Sciences*, 1(01), 46–51.
- Chaudhary, P., Katara, P. (2019). Role of panchakarma in the management of stress induced alopecia: a review. *International Journal of Research in Medical Sciences and Technology*, 8(2), 21–28.
- Chen, J., Jiang, H., Justice, L.M., Lin, T.J., Purtell, K.M., Ansari, A. (2020). Influences of teacher-child relationships and classroom social management on child-perceived peer social experiences during early school years. *Frontiers in psychology*, 11, 586991.
- Chimankar, R.P., Tawalare, K.A., Mishra, S.A. (2020). Prevention of lifestyle disorders with basic principles of ayurveda. *International Ayurvedic Medical Journal*, (Online), 4487–4492.

- Danish, J., Anwar, S., Gupta, D., Dhama, Y. (2023). Shirodhara and Abhyanga for better sleep, reduced mental stress, and improved heart rate variability: A case report. *Journal of Ayurveda Case Reports*, 6(2), 45–49.
- Dhuri, K.D., Bodhe, P.V., Vaidya, A.B. (2013). Shirodhara: A psycho-physiological profile in healthy volunteers. *Journal of Ayurveda and integrative medicine*, 4(1), 40–44
- Divya, K., Tripathi, J.S., Tiwari, S.K. (2013). An appraisal of the mechanism of action of shirodhara. *Annals of Ayurvedic Medicine*, 2(3), 114–117.
- Hahn, R.A., Truman, B.I. (2015). Education Improves Public Health and Promotes Health Equity. *International Journal of Health Services: Planning, Administration, Evaluation*, 45(4), 657–678.
- Helms-Lorenz, M., Maulana, R. (2016). Influencing the psychological well-being of beginning teachers across three years of teaching: Self-efficacy, stress causes, job tension and job discontent. *Educational psychology*, 36(3), 569–594.
- Kasture, H.S. (1998). *Ayurvediya Panchakarma Vignyana*. Nagpur. Shree Baidyanath Ayurved Bhavan Ltd.
- Moeini, B., Shafii, F., Hidarnia, A., Babaii, G.R., Birashk, B., Allahverdi-pour, H. (2008). Perceived stress, self-efficacy and its relations to psychological well-being status in Iranian male high school students. *Social Behavior and Personality: an International Journal*, 36(2), 257–266.
- Rathi, R., Rathi, B. (2020). Application of ayurvedic principles in prevention and management of behavioural problems in children. *International Journal of Ayurvedic Medicine*, 11(4), 636–643.
- Saïd, M., Temam, S., Alexander, S., Billaudeau, N., Zins, M., Kab, S., Vercambre, M.N. (2022). Teachers' Health: How General, Mental and Functional Health Indicators Compare to Other Employees? A Large French Population-Based Study. *International journal of Environmental Research and Public Health*, 19(18), 11724.
- Sushruta. (1997). *Sushruta Samhita*. Hindi commentary by Shastri Ambikadutta. Varanasi. Chaukhambha Sanskrit Sansthan.
- Vagbhata. (1986). *Astanga Sangraha*. Hindi commentary by Shastri Lalchand, Desai Ranjit Rai (ed). Nagpur. Shree Baidyanath Ayurveda Bhavan.
- Vagbhata. (1997). *Astanga Hridaya*. Vidyotini Hindi commentary Gupta Atridev: Upadhyaya Yadunandan (ed.), Varanasi. Chaukhambha Sanskrit Sansthan.
- Verma, A., Sanjay, S., Uddhav, D., Gururaj R.D. (2017). Effect of yoga and panchakarma therapy on psychophysiological variables: A pilot study. *Yoga Mimamsa*, 49(2), 48–52.
- Yaribeygi, H., Panahi, Y., Sahraei, H., Johnston, TP., Sahebkar, A. (2017). The impact of stress on body function: A review. *EXCLI Journal*, 16, 1057–1072.

Mental health and well-being of children in the context of harmony of family and work life. Analysis of therapeutic experiences

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Introduction

All people in the world want to be happy. This is a natural human need. The original understanding of happiness in science was limited to its definition as a prosperous life, i.e., a life under the care of the gods. Another understanding of happiness, already known in ancient Greece, was thinking about it as pleasure experienced continuously and constantly. In eastern philosophical teachings, happiness is nirvana – eternal happiness.

Happiness has been and still is the goal and desire of every human being. It lies in the nature of humanity. However, philosophers throughout history have differed significantly in their understanding of what this goal consists of. For Plato, it was the knowledge of ideas, especially Beauty and Goodness. For Aristotle, it was fulfilling the function assigned by rational human nature, including walking the path of the “*golden mean*.” For others, it was Stoic peace or opening up to God – especially in the Middle Ages. What was common to all concepts of happiness was the belief that it leads to moral, rational, and willpower-based life (Dalke et al., 2013).

There are many factors that make it difficult for a person to achieve happiness. One of them is living in a hurry. A person falls into this trap if they want to possess too much. Often, they start to consume and do not notice that they are consuming instead of living. They lack time for themselves and their loved ones. It is difficult for them to nurture friendships and family relationships. However, when they reflect on the situation, they realize that to find inner balance, they must make room for things that are truly important to them. This can only be achieved by eliminating from life what is unnecessary and thus returning to the path towards happiness.

Feeling happy often gives energy and increases a person's level of activity. It also strengthens their immune system, improves physical and mental health. At the same time, it causes an increase in a person's involvement in work, improves self-esteem, and interpersonal relationships (Czapiński, 2015).

J. Czapiński emphasizes: "*Happiness is described as subjectively perceived or experienced prosperity, good state of one's life, and therefore the term mental well-being often appears as a synonym for happiness.*" (Czapiński, 2015, pp. 246–248; por. także Włodarczyk, 2014.)

It is impossible to indicate the only good, correct and universally recognized definition of happiness. Many psychologists, however, consider it as an expression synonymous with the term psychological well-being. This shows a narrowing paradigmatic approach to this topic in the field of social sciences. Mental well-being can be defined, among others, as the effect of a cognitive and emotional assessment of one's own life. It consists of a high level of fulfillment and life satisfaction. We notice and experience it when positive experiences and pleasant emotions prevail in our environment. There is also a low level of negative experiences and moods (Kasperek-Golimowska, 2012, p. 183).

E. Diener (2000, p. 35), a researcher of this issue, proposes a way of analyzing mental well-being by treating it as a subjective variable. This forces the need to consider individual preferences and criteria. According to him, well-being can be defined as the commonly used concept of "happiness". The researcher proposed a three-factor structure of subjective well-being, including three components. The first two are the affective components: positive (e.g., joy, pride) and negative (e.g., jealousy, guilt), while the third is the cognitive component (e.g. work, family (Pilar-ska, 2012, p. 92). According to her, the cognitive elements of psychological well-being create a construct known as life satisfaction.

The main certainties of psychological well-being are: health, supportive spouses and children. The influence of these factors on the sense of psychological well-being has long been of interest to researchers in the field of social sciences. Researchers claim that maintaining social relationships, while satisfying the natural need to belong, also contributes to an increase in the level of psychological well-being and correlates negatively with feelings of anxiety, jealousy, loneliness and guilt (Jach, 2012, p. 63). Marriage, as researchers point out, contributes to an increase in mental well-being. Thanks to it, individuals have a chance to fulfill certain social roles, e.g., the role of wife, husband and parent. In turn, these roles require responsibility from them, which is the reason for the increase in self-esteem and their own perception of themselves. People living in permanent, formalized relationships are less likely to feel lonely. Proximity is one of the most important factors that increase the sense of satisfaction with one's own life (Babiarz, 2013, p. 33). Divorced, separated and single people are more likely to experience depression. Also, relationships with friends, the possibility of confiding in them, trust in them, increase the sense of psychological

well-being. Having friends helps you deal with a crisis and stressful situations. Contact with parents and siblings is also important (Jach, op. cit., p. 63).

As described by the ancients, the feeling of happiness has an important source in balance, the so-called balance. golden middle. Due to the fact that family and work are among the main human environments and experiences, the balance between them is extremely important for a sense of happiness and well-being. The subject of work-life balance is becoming more and more popular among scientists. Since the mid-twentieth century, research has been carried out to identify the factors disturbing the harmonious relations between these spheres of human life. Researchers are also interested in identifying the negative consequences of the rift between them. Based on the results of this research, various organizations undertake to develop solutions to help people reconcile family and professional responsibilities.

Over the last few decades, a gradual change in the way of understanding the concept of work-life balance can be observed. Initially, the work-life balance was identified by researchers only with the absence of conflict between professional work and the demands of family life. Today, this concept is understood in a much broader sense. Work and family conflict. It was first defined by R. L. Kahn and his colleagues (Kahn et al., 1964) in 1964. They found that it occurs when the demands of work and family are to some extent incompatible. Other researchers of this issue, J.H. Greenhaus and N.J. Beutell (2006), recognized that this conflict occurs when the requirements imposed on a person in one of these areas adversely affect his ability to meet the requirements of the other area.

The work-family conflict is bidirectional. On the one hand, we can talk about the negative impact of work on the family (work-family conflict), and on the other hand, unfavorable influence of the family on work (family-work conflict). R.G. Netemeyer and his colleagues presented an analysis of these types of conflict in their research. In their view, "*work-family conflict is a type of role conflict that occurs when the demands and pressures of work affect an employee's ability to fulfill family responsibilities. Family-work conflict, on the other hand, is a conflict of roles in which the demands of family life negatively affect the employee's ability to fulfill his or her professional responsibilities*" (Netemeyer et al., 2004). These two types of conflict are not mutually exclusive, which means that a person can experience them simultaneously.

It is obvious that if this conflict exists in family life, it affects all family members. It causes various types of disorders in children and adolescents. As in the sphere of behavior, so also in the psychological sphere. In the literature, the term "disorder" is used mainly by psychiatrists, psychologists, pedagogues or sociologists, usually in the context of analyzing the problems posed by children and adolescents in the conditions of school and various educational institutions (Urban, 2000, p. 16). Definitely more such situations occur after the pandemic. This period was characterized by the disturbance of this balance even in homes where it was very much cared for. The situation required people to work remotely from home. The world of family and

professional life, along with the space of these spheres, have completely mixed up. It is obvious that this must have caused certain repercussions and costs. As a therapist with many years of experience, I notice the intensification of this phenomenon. In my office, I meet these cases and diagnose their causes.

Conduct disorders are among the most common childhood disorders. They affect 5–10% of the youngest patients and about 25% of adolescents (APA, 1994). They are one of the most invariable and difficult to treat disorders of childhood and adolescence. Research shows that the average age at which they become visible is 11–12 years. They are present in both adolescence and adulthood (Kołakowski, 2018). This means that without decisive and systematic therapeutic action, and on many levels, the problem will not go away on its own. Therefore, parents, noticing the child's problem, seek therapeutic help. The reason for most of the behavioral disorders observed by me in the clinic is the lack of time for the child and lack of attention to matters important to the child. Therefore, the child wades into various risky behaviors, somehow trying to attract the attention of the parents.

The most common behavioral disorders in children and adolescents that I deal with in the therapy office, and which are caused by the lack of balance between family and professional life, include:

Fraud and theft

These are difficult and shameful behaviours for parents, as they often have legal consequences. These behaviours often include:

- breaking into homes, apartments, cars;
- lying to obtain property, money, recognition;
- stealing items of high value.

The most common behaviours are petty thefts in stores. It's like checking if they can get away with it or if they'll be punished. If they succeed, they go for more expensive items. Stores don't report minor thefts, as they are considered low harmfulness. Children caught in the act are educated, sometimes threatened and released. Such children do not suffer any consequences. However, if they steal something more expensive, the situation changes. Parents are informed. The same applies to lies. At first, it starts with small matters, rationally justified stories, and then turns into more serious matters. It often concerns not going to school. Over time, it turns into permanently avoiding it. The child leaves the house every morning and takes a second breakfast with them. In such situations, parents feel completely helpless. They do not understand their children's behaviour and cannot find the cause. Recently, this is often combined with a lack of time for the child. Work takes up much more time. The child tries to draw attention to themselves. At first, they do it in a mild way, hoping that someone will notice. Later, they do it drastically, knowing

that if they have legal problems, they will be forced to focus on them. This is not a mature behaviour. The child thinks in infantile categories. However, it should be remembered that they cannot do otherwise.

Aggressive behaviours

The second most common type of behavioural disorder I encounter in my practice in the context of work-family imbalance is manifested in the following ways:

- aggression towards people and animals: frequent bullying, threatening and humiliating them;
- frequent initiation of fights;
- cruel behavior towards other people and animals;
- theft in the presence of the victim, extortion of money;
- forcing others into sexual activities.

Aggressive situations initially start in the form of verbal aggression. A previously polite and kind child turns into an arrogant and very rude one. Almost all parents do not notice when their children cross this thin line. They react only when the situation completely gets out of control. Something spectacular has to happen that makes them seek help for themselves and their child. Often, there are serious complaints from school or even police reports due to bullying and insulting classmates or teachers. Many of these cases take place online, on forums. Not everything is quickly revealed. Only breaking the silence can help both the victims and the perpetrators. Parents often feel that their child is capable of such behaviour. However, when they have to bear the consequences of their child's actions, they are shocked by their behaviour.

Undermining norms and rules, breaking regulations, norms, and laws

The third most common type of behavioural disorder is associated with serious consequences. Examples include serious violations of rules, such as:

- returning home late by children under 13 years of age, despite their parents' prohibition;
- running away from home for an extended period of time;
- frequent truancy before the age of 13 or completely dropping out of school;
- partying with significantly older adults in adult clubs;
- providing sexual services in exchange for material benefits;
- so-called cohabitation with adult partners. The manifestations of these disorders are spectacular from the outset. They cannot be rationalized, and the child cannot come up with a colourful story to explain and justify their behaviour.

Essentially, when parents observe this behaviour, they must take immediate action. Delaying in this case only worsens the child's condition and reinforces their behaviour. Working with a child who has been stuck in this disorder for a long time is very difficult. Essentially, it is not about drawing attention to themselves. They are already building their own reality, in a way cutting themselves off from their parents. They regard their parents' behaviour as bad or hypocritical. It is difficult to establish a relationship with them. They seem cold and calculating. They do not listen to arguments, and it is difficult to talk to them.

Excessive phone/Internet use

This is the fourth and often occurring behavioural disorder. It is also one of the signs of the times. Often, it turns into addiction. Phoneholism is another word for addiction to mobile phones. It is a new phenomenon, but its mechanism is similar to other types of addiction such as drug addiction and alcoholism. The pandemic has only strengthened this phenomenon, as well as the abuse of the Internet. When people couldn't go out and meet, the Internet became the only place for social contact. Children easily became addicted to this form of behaviour. Several types of this addiction have been noticed:

- Internet sociomania – excessive use/addiction to social media, shaping one's image on the network, e.g. Instagram;
- Internet erotomania – related to online pornography, both consumption and active participation in it;
- addiction to online and gambling games – related to playing poker, playing games on platforms;
- information overload – some people have a constant need for information.

Recently, this disorder has become the most common one that parents seek help for in counselling centres. Signs of children's abuse of cell phones and the Internet are becoming very common. Parents feel helpless as children resist attempts to take away these tools. Until recently, they were also used in education. During the pandemic, education was conducted through them, and social contacts too. The time spent online has significantly increased. That is why so many children now have problems with these abuses. Basically, there are only two ways to help in this situation. The first, when addiction is not yet involved, is to give the child something attractive instead. By that, I mean developing their interests and increasing parents' involvement in the child's life. Strengthening intra-family relationships. In the second, only the same approach as with any addiction can be implemented. Only therapy and strong detoxification measures will help.

The second very important group of problematic behaviours in the context of the lack of balance between professional and family life are mental health disorders.

During the pandemic, many studies were conducted on the risks to physical and mental health during the COVID-19 infection. The collective quarantine recommended by WHO to slow the spread of the epidemic has brought many consequences regarding mental health and social relations (Sokół-Szawłowska, 2021). Several psychological studies indicate that prolonged stressful situations are very unfavourable for health and lead to long-term negative consequences. The problem observed among Polish youth has a global dimension. Identical problems are presented by researchers from all over the world (Mołodecka, 2020). The UNICEF report on the condition of young people during the pandemic describes in detail the areas of mental health in which they have serious problems: 27% of people feel anxious, 15% – depression in the last seven days; 46% of people feel less motivated to engage in activities they usually like, and 35% of people feel less motivated to perform regular duties (UNICEF). In view of the situation, therapeutic counselling centres are experiencing a huge influx of people in need of support. Basically, most of them notice the inability to immediately accept all those in need. Waiting times are quite distant. In my practice, I also feel increasingly intensifying problems in this area. The most common mental health disorders in children and adolescents that I deal with in my therapeutic office, caused by a lack of balance between family and professional life, include:

Feeling of internal tension

It manifests itself as a feeling of anxiety. Anxiety is a sensation that is difficult to define unequivocally. Inner anxiety can be felt generally, without a specific location of the discomfort. You can also experience this problem in a specific part of the body. Adolescents often describe it as a feeling of inner anxiety in the chest or a feeling of inner anxiety in the abdominal area. However, it also occurs in the form of sweating, dizziness, rapid heartbeat, combined with attention and concentration disorders and irritability. Often, these disorders are accompanied by anxiety – almost constant, with a constant intensity, undefined – it is difficult to indicate the cause or object of such anxiety. The child repeats: “I don’t know what I’m afraid of.” This may not be very worrying for parents until it intensifies or becomes a permanent state. It leads to reluctance in social contacts and reluctance to leave one’s own room. It becomes the foundation of disorders described below. Parents seek help only when the child has difficulties that persist for almost a year. Earlier, they seem to think they can handle it themselves. This is a condition that, when caught early, prevents further, much more difficult states of mental health disorders.

A sense of worthlessness

It manifests itself in excessive self-blame, even for events and circumstances that are beyond one's control (e.g., conflicts between parents, misunderstandings in class, friends feeling unwell). The child believes that they are the cause of all the evil surrounding them. They lose their sense of self-worth and respect to such an extent that they cannot look at their reflection in the mirror. They often repeat: "disappoint everyone around them," "it would be better if I had never been born," "why am I in this world." A young person in this state always looks pessimistically into the future, with a sense of conviction that their actions, even if they could take them, are predetermined and doomed to failure. Nothing good can happen, in their opinion.

What is particularly worrying, and has intensified after the pandemic, is the lack of sense that children articulate. They don't see the point in many actions:

- planning, because the epidemic will interfere with it anyway.
- dreaming, because it won't work out anyway. The future and time are unpredictable due to the epidemic.
- building relationships, because we will all die anyway. It is better not to get attached, as it will end in suffering.

This state initially greatly worries parents. However, over time, they become accustomed to it and trivialize it, considering it a whim of the child. It rarely becomes the basis for a quick reaction. Only when the child joins their words with a narrative of suicidal thoughts do they react immediately.

Sleep problems

Insomnia is a condition that affects children of all ages. Sometimes it is temporary, caused by a single situation, other times it is chronic and then leads to serious developmental and mental disorders. That is why it is so important to quickly diagnose the problem and take appropriate measures. Otherwise, it causes unpleasant consequences that are felt not only by the child but the whole family. This problem affects up to 25 to 60% of children and young people. Sleep disturbances can lead to problems in cognitive, emotional, social, and biological functioning. Insomnia in children and adolescents manifests itself through difficulties in falling asleep and maintaining sleep continuity, waking up too early, resistance to going to bed, or problems with falling asleep. These occur at least three times a week. They result in fatigue, mood swings, irritability, problems with concentration, attention, and memory, and daytime sleepiness. During the pandemic, these disorders intensified. It was related to the lack of work hygiene and the merging of the home and work/school spaces. Children spent a lot of time in front of the computer, didn't do their daily hygiene routines, had no daily schedule. They stayed up late and woke up very

late. All of this affected their home rhythm, resulting in a lack of sleep. The influence of light from cell phone displays on children's eyes and their stimulation is also not insignificant. In addition, there were problems. Additionally, there are co-depressive problems. They also cause excitement and are the cause of sleep problems. Another problem in this category is very long sleep, over 8–9 hours, which does not provide rest. In their free time, children sleep for 12–15 hours. However, they cannot be awakened, and when they are, they are still sleepy and unrested. Prolonged states like this lead to very serious physical health problems in young people. Parents usually do not associate this with mental health problems.

Hypersensitivity to criticism

This manifests as an excessive reaction to comments. The child responds with despair or great anger even when a comment is made to them in a very delicate way or concerns a trivial matter. Generally, the child's reaction is not proportionate to the situation. The child often bursts into tears, despair, frustration, or screams. Arguments are irrelevant in this case, as the reactions are very emotional. Parents describing the situation often say: "I don't recognize my child, they react so dramatically", "I can't handle her reactions, I just asked how her day went", "such an emotional outburst, as if the world was ending. I just asked my son about his visit to the doctor."

The problems in this category have consequences in two important aspects of family life. The first is intra-family communication. Parents stop understanding their children, and it becomes difficult to communicate with them. Argumentation in conversation ceases to have any meaning. Emotions are so strong that they prefer to withdraw. The second aspect is in relationships. Many parents often say that they begin to fear their children's emotional outbursts. Therefore, they withdraw from initiating and maintaining relationships. In essence, they are happy to sit in their room and not start a conversation. Of course, this situation does not bring anything good for the entire family system.

Depressive sadness

Sadness as a feeling is not a bad thing in a child's life. Many researchers even consider it necessary for the development of a young person. However, not all sadness is good, especially depressive sadness. It can sometimes be difficult to differentiate between the two. It manifests, for example, in the way that when previous pleasures and events no longer bring joy to the child. Basically, the pool of things that make the child happy significantly narrows or disappears. Parents try to make the child

happy, but they don't react. They behave as if they were numb, indifferent to the world around them, and don't take pleasure from it. Observations show that this usually affects children who are only children or who have much older siblings.

The disturbance of depressive sadness in children and adolescents has deepened after the pandemic. It is often related to a lack of sense in life and a lack of sense in actions taken in life. This is a circumstantial depressive state. It should worry parents and draw their attention and cause concern.

Withdrawal from contacts

This disorder manifests as a withdrawal from social, class, school life, and significant reduction in contact with peers. The pandemic has certainly contributed significantly to this type of behaviour. However, every person is a social being. They need contact with others. Voluntary resignation from such contacts should cause parents' concern. It is not always a sign of mental health disorders. Sometimes, the source of the problem lies in social problems, such as a lack of acceptance in the peer group or bullying.

Withdrawing from contacts raises parental attention when it leads to isolation. And isolation is an undesirable state. Isolation destroys a child, carries an element of destruction and developmental breakdown, as it focuses on lack and need. It is a lack of emotional bonds, close contact with another person, which threatens the needs for recognition and security. Parents are often more vigilant in such cases. Isolating a child is associated with depression, and even if it is not depression, the proverbial "red light" goes on for them. This is a very important signal. It is worth taking an interest in this matter at a stage that is not as destructive as a disease (depression).

Suicidal thoughts

These include contemplating and fantasizing about taking one's own life. Suicidal tendencies also appear, that is, planning or preparing for suicide, and in extreme cases – suicide attempts, i.e., taking direct actions aimed at taking one's own life.

The scale and degree of mental health problems among teenagers in Europe are alarming. Suicide is the second most common cause of death among young people in Europe. More children aged 15 to 19 die only as a result of road accidents (WHO, 2022). Police data for 2021 show a sharp increase in suicidal behaviour among young people. In 2021, 1496 children and teenagers under the age of 18 attempted suicide, and as many as 127 of these attempts resulted in death. This represents an increase of 77% in suicidal behaviour and 19% in suicidal deaths compared to 2020 (Raport: Zachowania samobójcze wśród dzieci i młodzieży, 2012–2021).

When parents hear about suicidal thoughts from their children, they often:

- try to trivialize it by saying: “the world is so beautiful”, “others have it worse”, “you’re making it up, and I work so hard to give you everything.” These attempts to deny or mitigate the situation bring completely opposite results. The child convinces himself that the parent will not support him, does not understand him, and will not listen to him about these thoughts next time. And yet, talking about something like this is a great proof of trust on the part of the child.

An adult should appreciate that, instead they:

- focus more on themselves than on the child. They ask themselves questions like “what did I do wrong”, “where did I make a mistake”, “at what point did I not notice the problem.” This does not help the child. Instead of helping their child and focusing on them, the parent shifts their focus to their parenting skills.

In this undoubtedly difficult situation, the most important thing is the child’s well-being, and they should be at the centre of attention. Suicidal thoughts are often associated with adolescence and often appear during this period. However, they pose a much greater threat today than they used to. The current generation is much less capable of handling emotions and feelings. Especially after the pandemic, there has been an increase in such behavior. That is why it is so important not to trivialize these issues. Even if it turns out that the child will not go further or does not have a plan, it is still better to be cautious. It is better to make a mistake in this regard than not to prevent a tragedy that could happen.

Self-harming behaviours

These disorders include recently observed behaviours such as self-harm (deliberate damage to one’s own body through cutting with sharp objects, burning with a lighter or cigarette, scratching, biting, and alike), deliberately causing oneself pain, excessive use of medication to “poison oneself” (but not to take one’s life), compulsive overeating, bulimia, and anorexia. Children usually harm their bodies most often by cutting their hands or wrists, but cuts on thighs or breasts can also occur. Some of them do it so that no one notices, while others want it to be noticed. In warm weather, they wear long sleeves and pants, which should often alert adults. They aim to relieve tension or emotions that they cannot cope with. Such actions give relief, but only for a moment. It passes, and each time it passes faster. Young people become addicted to this feeling of relief over time. Their need for this feeling increases, and children must use self-harm more and more often to feel better. This, in turn, threatens their health and even their lives. It is also not an effective way to cope with problems.

When I ask why they behave this way, they say that during the act of self-harm, they are in a “*state of feeling themselves.*” They emphasize that there are so many

thoughts and emotions in them, they feel lost, and that this violence against themselves is a way to “*come down to earth.*” Children emphasize that they begin to “*feel their bodies*” and “*physical pain is easier for them to bear,*” which makes them forget about their emotional problems for a while.

Depression and depressive thoughts

It is estimated that up to 65% of young people suffer from depression, and 25% should be treated for it (Dymowska & Nowicka-Sauer, 2015). The causes of depression in adolescence include an atypical reaction to the development and maturation of the body, as well as a response to stress factors. The number of people suffering from depression increases every year. Researchers are beginning to call this disease a civilization disease. At the same time, mental disorders are becoming a serious challenge for the world. Depression is a disease that affects everyone, regardless of age, and its causes are very diverse. Researchers note that the disease can even develop in very young children. In the group of diagnosed patients, 3% concern pre-schoolers and toddlers aged 2 to 3 years. Unlike in adults, the disease in children has a characteristic course, as it most often occurs with anxiety disorders (Forum Przeciw Depresji, 2022).

Children and adolescents affected by this disease often repeat phrases such as “*everything is pointless*” and “*nothing will work for me anyway.*” This is also manifested in low self-esteem: “*I am hopeless, worse, unattractive, stupid.*” Irrationally pessimistic evaluations of reality, one’s own abilities, and the future also appear. Awareness of the disease is increasing. Parents don’t always notice it in their child’s behaviour. They don’t know how to deal with it themselves. That’s why it’s so important to seek professional help. The situation of Polish children and thus Polish families is not easy. Especially after the pandemic, a tragic picture of mental health has emerged. The Ombudsman for Children’s Rights Report from 2021 clearly shows the emotional reality of Polish children. Every seventh child in Poland feels dissatisfied with their life to the extent that it threatens their mental health. Older girls and young people from large cities have worse well-being. Half of young people do not accept themselves. Primary school students gave alarming answers in areas related to self-esteem – every tenth child evaluates themselves very critically, 17 percent often or always feel sad, and 12 percent feel lonely in the second grade of primary school. It is very worrying that 12 percent of sixth grade primary school students do not feel satisfied with their lives, and 11 percent rarely or never have fun. Almost one third, 32 percent, consider symptoms of such poor well-being as at least frequent, that they did not feel like doing anything, and 29 percent feel sad. As many as 27 percent often or always feel fed up. One quarter of younger teenagers (26 percent) often want to change something about their body, and one fifth (19 percent)

worry about their appearance. A similar percentage of students – 18 percent – are not satisfied with themselves, with girls being much more critical of their self-assessment (Raport Rzecznika Praw Dziecka, 2022).

Given so many problems related to behaviour and mental health, it is worth considering maintaining a balance between family and work life. Mindfulness in family life is very important. Only a strong and empathetic parent can help their child. That's why it's so important for their head not to be "stuck" only in work matters. It is important to be a sensitive parent to their child's issues and changes in behaviour. In this way, they will avoid many difficult situations that affect the life and health of the child and thus the whole family.

References

- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington.
- Babiarz, M.Z., Brudniak-Drąg, A. (2013). Dobrostan a dobrobyt ponowoczesnej rodziny. *Zdrowie i Dobrostan*, 4, 27–44. S. 33.
- Czapiński, J. (2012). Ekonomia szczęścia i psychologia bogactwa. *Nauka*, 1, 51–88.
- Czapiński, J. (2015). Indywidualna jakość i styl życia. Diagnoza społeczna 2015. Warunki i Jakość Życia Polaków – Raport. *Contemporary Economics*, 9(4), 200–331.
- Dalke, J., Szulc, A., Broniewska, M., Brzoska, A., Zimmermann, M. (2013). Czy jest szczęście? Analiza zagadnienia na podstawie koncepcji Władysława Tatarkiewicza. *Analiza i Egzystencja*, 21, 147–163.
- Diener, E. (2000). Subjective well-being: A science of happiness and a proposal for a national index. *American Psychologist*, 55, 34–43.
- Dymowska, A., Nowicka-Sauer, K. (2015). Depresja wśród młodzieży – problem wciąż aktualny. *Wybrane Problemy Kliniczne*. Gdańsk.
- Forum Przeciw Depresji. (2022). *Depresja u dzieci i młodzieży*. <https://forumprzeciwd depresji.pl/depresja/kazdy-moze-miec-depresje/depresja-u-dzieci-i-mlodziezy>
- Greenhaus, J.H., Beutell, N.J. (1985). Sources of conflict between work and family roles. *Academy of Management Review*, 10, 76–88.
- Greenhaus, J.H., Powell, G.N. (2006). When work and family are allies: A theory of work-family enrichment. *Academy of Management Review*, 31, 72–92.
- Jach, Ł. (2012). Poczucie dobrostanu psychicznego studentów w kontekście posiadanych zasobów finansowych i społecznych. *Psychologia Ekonomiczna*, 1, 58–74.
- Kahn, R.L., Wolf, D.M., Quinn, R., Snoek, J.D., Rosenthal, R.A. (1964). *Organizational stress: Studies in role conflict and ambiguity*. New York.
- Kanasz, T. (2015). *Uwarunkowania szczęścia. Socjologiczna analiza wyobrażeń młodzieży akademickiej o szczęśliwym i udanym życiu*. Warszawa: APS
- Kasperek-Golimowska, E. (2012). Nadzieja i optymizm vs zwątpienie i pesymizm w kontekście „dobrego życia” w kulturze konsumpcji. *Studia Edukacyjne*, 9, 179–213. S. 183.

- Kołąkowski, A. (2018). *Zaburzenia zachowania u dzieci. Teoria i praktyka*. Gdańsk.
- Mołodecka, A. (2020). Problem zaburzeń zdrowia psychicznego młodzieży w dobie pandemii z perspektywy psychologii. *Youth in Central and Eastern Europe*, 7(11), 88–92.
- Netemeyer, R.G., Boles, J.S., McMurrian, R. (1996). Development and validation of work-family conflict and work-family conflict scales. *Journal of Applied Psychology*, 81, 400–410.
- Netemeyer, R.G., Brashear-Alejandro, T., Boles, J.S. (2004). A cross-national model of job-related outcomes of work role and family role variables: A retail sales context. *Journal of the Academy of Marketing Science*, 32, 49–60.
- Pilarska, A. (2012). *Ja i tożsamość a dobrostan psychiczny*. Poznań, 92.
- Raport Rzecznika Praw Dziecka. (2022). *Ogólnopolskie badanie jakości życia dzieci i młodzieży w Polsce*. <https://brpd.gov.pl/wp-content/uploads/2021/11/Raport-RPD-samopoczucie-psychiczne-PDF.pdf>
- Sokół-Szawłowska, M. (2021). Wpływ kwarantanny na zdrowie psychiczne podczas pandemii COVID-19. *Psychiatria*, 18(1), 57–62.
- UNICEF. (2022). The impact of COVID-19 on the mental health of adolescents and youth. <https://www.unicef.org/lac/en/impact-covid-19-mental--health-adolescents-and-youth>
- Urban, B. (2000). *Zaburzenia w zachowaniu a przestępczość młodzieży*. Kraków, 16.
- Włodarczyk, K. (2014). Ekonomia wobec poczucia szczęścia. *Ruch Prawniczy, Ekonomiczny i Socjologiczny*, 76(4), 347–363.
- Zachowania samobójcze wśród dzieci i młodzieży. (2022). Raport za lata 2012–2021. file:///C:/Users/szale/Downloads/Raport_za_lata_2012-2021_zachowania_samob%3%B3jcze_m%C5%82odzie%C5%BCy.pdf

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