

THE MATRIX OF CONTEMPORARY EDUCATIONAL CHALLENGES IN THE CONTEXT OF TRUST IN EDUCATION



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Abstract. *The paper defines the structural elements of the Matrix of Educational Challenges through the lens of trust in education, in line with the stated research objective. Drawing on classical and contemporary theoretical approaches from sociological and philosophical perspectives, the study explores trust as a fundamental factor shaping social interaction within the educational sphere. It emphasizes that trust in education plays a structuring role, ensuring stable and coherent institutional interaction. Through analysis and synthesis of recent scholarly research and policy reports, the study identifies key configurations of trust in education and conceptualizes the main contemporary educational challenges, related to digitalization, educational quality, education policy, military and socio-economic crises, migration processes, and workforce outflow. The interpretation of the sociological study “War, Education, and Social Capital: Three Years of Full-Scale Invasion”, conducted by the Vox Populi Agency, confirmed*



the authors' hypothesis that interpersonal trust within educational institutions is subject-based and depends on actors' expectations regarding the actions of others. The authors propose a conceptual matrix of educational challenges that integrates technological, socio-political, and competence-based dimensions in the analysis of contemporary education, highlighting causal relationships within the framework "educational challenge – configuration of trust".

Keywords: education, educational challenges, institutional trust, interpersonal trust, social matrix, societal trust, trust.

INTRODUCTION

Trust represents a crucial dimension of human relationships and communication across all spheres of society. It serves as one of the key factors shaping social interaction both at the interpersonal and broader societal level. Embedded within the social context, trust functions as a mechanism that contributes to social integration and stability, mitigating risks and fostering constructive social dialogue. Consequently, in the context of ongoing social transformations and emerging challenges, including those triggered by Russia's full-scale war against Ukraine, scholarly interest in trust as a structural foundation of social relations has intensified.

Given such a focus on the phenomenon of trust within education, identifying its key indicators becomes essential. A range of markers – both stable and dynamic, reflecting the rapidly changing social environment – shape trust within the modern educational landscape. From this perspective, educational challenges should be examined through the lens of trust-based social relations – both theoretically and empirically.

Therefore, the study pursues a dual objective: to construct a matrix of educational challenges and to analyse how various dimensions of modern education shape the configuration of trust.

LITERATURE REVIEW

In light of this research focus, particular attention is given to academic contributions that conceptualize "trust" and explore its articulation within the educational sphere. The contemporary scholarly discourse originates in fundamental interpretations of social trust as a structural element of society, elaborated within classical theoretical frameworks.

Recent studies expand these frameworks by examining trust in both macro and micro contexts, exploring its relationship with risk, economic development, and institutional stability. Scholars such as Skyrtach and Martynov outline several perspectives: trust as a positive mental disposition enabling reliance on others; as an outcome of intersubjective interaction; as a structural component of social capital; and as a prerequisite for social consensus within society (Skyrtach & Martynov, 2023, p. 168).

In a philosophical context, Hrynenko (2025) interprets trust as a form of social practice, a social value, and an existential personal priority. He emphasizes the impact of the information society on trust relations, which are shaped by communication practices that may hinder effective dialogue. According to Hrynenko, trust functions as a regulatory quality addressing discrepancies between social roles, expectations, honesty, and responsibility, thereby reflecting the interpersonal – or micro-level – dimension of trust relations (Hrynenko, 2025, p. 43).

Ethical dimensions of trust have received renewed scholarly attention. For instance, Kuipers (2022) underscores the importance of trust within ethical frameworks concerning artificial intelligence, highlighting the limitations of humanity's capacity to respond to existential challenges.

Such approaches deepen our understanding of trust within the structures of contemporary educational environment and stimulate new directions of research.

From a pedagogical perspective, Chudovska conceptualizes trust both as a moral stance and as a cognitive construct, expressed through agents' willingness to cooperate and create collaborative opportunities. Conversely, mistrust generates alienation and disintegration.

Trust relations, she argues, evolve through dynamic transitions between macro and micro levels, as social actors voluntarily engage in various forms of interaction (Chudovska, 2019, p. 62).

Expanding on this position, Mykhailova et al. (2023) examines the issue of social partnership in education, arguing that the defining characteristic of contemporary cooperation lies in partnerships grounded in mutual trust. The markers of such relations include shared goals and values, reciprocity, voluntariness, and collective responsibility for outcomes.

A different analytical perspective, reflecting the accelerating social transformations, is presented by Ilyina and Lipin (2021), who analyse trust and education in the context of a changing world and note the decline of traditional forms of trust. They argue that “in a fluid and plural world, all participants in the educational process become ‘transgressors’ of established norms, while tradition and the past increasingly act as obstacles to innovation and the formation of an innovative person” (Ilyina & Lipin, 2021, p. 122). Thus, trust in “abstract systems” requires individuals to take responsibility for their choices, yet paradoxically generates distrust. Within this paradox, education faces the dual challenge of reflection and creative adaptation.

Skyrtach and Martynov further explore the development of institutional trust in education, identifying key attributes such as normative clarity, transparency, stability, predictability, and accountability. They also view trust not only as a mental state but as a rational action arising from the interaction among educational actors who, possessing specific competencies, engage in mutually beneficial exchanges of resources (Skyrtach & Martynov, 2023, p. 170). In this sense, rational trust functions as a mechanism that minimizes risks and enhances systemic resilience.

Recent research on educational challenges, particularly within the Ukrainian context, provides insights into how war-related and socio-economic factors are reshaping education. Scholars including Nikolaiev, Rii and Shemelynets (2023), Shevchuk and Shevchuk (2022), Holovakha and Dembitskyi (2024) analyse social and economic consequences of the war and their impact on education. According to Safonov and Fliarkovska, “military operations result in reduced funding for education, destruction of educational institutions and infrastructure, forced displacement of educators and learners, and limited access to quality education due to security risks” (Safonov & Fliarkovska, 2023, p. 7). N. Samoilenko et al. (2025) highlights the transformations in educational organization, encompassing security protocols, learning models, technological and material support, as well as the psychological well-being of participants in the educational process. The vision of post-war reconstruction is further elaborated in the works Kremen, Luhovyi, and Saukh (2023).

Thus, the scholarly discourse on trust and education remains multidimensional and contested, offering diverse interpretations of its evolution under shifting social conditions.

The purpose of this study is to identify the structural components of the educational challenges matrix through the lens of trust in education.

METHODOLOGY

The research on trust in education is grounded in an interdisciplinary approach, integrating sociological and philosophical perspectives. The sociological perspective conceptualizes trust as a mechanism for reducing social tension and a precondition for stabilization of social relations. Within this framework, two complementary analytical lenses are integrated: the institutional approach, which views trust as an indicator of institutional effectiveness; and the interactionist approach, which focuses on interpersonal trust among students, teachers, and administrators. In addition, a systemic approach is employed, enabling researchers to view education as a multilevel social system interacting with multiple spheres of society and external influences. This approach requires an analysis based on the principles of systematization of methods and procedures.

The study employs both general scientific and specialized research methods, including analysis and synthesis of scholarly sources on trust and education; logical generalization and classification of educational challenges and trust factors; abstraction and identification of the essential characteristics of the phenomenon; and interpretation of empirical data. Together, these methodological tools are designed to achieve the research objectives of the study.

MAIN RESULTS

To articulate the concept of trust in education with analytical precision, it is necessary to delineate the key elements shaping today's educational landscape. Undoubtedly, continuous social transformation drives educational innovation, positioning education as a central actor mediating between individuals and society. The functions of education are extending into the realms of socialization, social structuring, integration, and the formation of a unified informational space. Furthermore, new societal demands on education are emerging, particularly shifts in values toward openness, tolerance, and a culture of dialogue.

At the same time, the pace and dynamics of social development, exacerbated by wartime challenges, generate new phenomena within the educational system. These phenomena are characterized by multidirectionality, variability, and the coexistence of alternative conceptual approaches, which demand continuous scholarly inquiry and the formation of new configurations that strengthen the role of education as an instrument of social transformation in line with societal expectations. This, in turn, reinforces the relevance of analysing trust in and toward education.

Of particular interest are theoretical frameworks that provide various perspectives on how trust in education is constructed, illustrating the relationship between trust and expectation. For example, Shaw (1997) equates trust with the hope that those upon whom we depend will fulfil our expectations. Luhmann (2017) differentiates between confidence and trust in terms of their relation to notions of danger and risk, emphasizing that confidence primarily applies to social interactions between the individual and functional systems, whereas trust is necessary for establishing and maintaining relationships between personal systems (individuals).

In the context of trust in education, the theoretical framework proposed by Sztompka (1998) appears particularly relevant. He identifies three types of individual orientations, which in this study correspond to the orientations of educational actors determined by expectations of others' actions. The first two – hope/disappointment and faith/doubt – are marked by passivity, detachment, and an attempt to avoid obligations. The third – trust – manifests situationally despite uncertainty and risk. Thus, Sztompka defines trust as a wager on the uncertain future actions of others.

Interpreting these theoretical perspectives within the educational context, we distinguish between institutional trust and interpersonal trust. Institutional trust denotes confidence in an educational institution as an organization capable of performing its functions and obligations, whereas interpersonal trust reflects the web of interactions among participants in the educational process. Trust toward specific individuals – such as teachers, peers, administrators – represents a relational dimension grounded in mutual respect and reliability. It may also take the form of positional trust or distrust, directed toward social roles (e.g., teacher, friend etc). Accordingly, trust among educational actors becomes a key factor in educational quality. At the same time, it should be noted that, in all cases, trust is defined in relation to the actors of the educational process and their actions.

Institutional trust, in turn, provides the foundation for building sustainable relationships within the educational organization, ensuring integration, transparency, and openness to collaboration among participants in the educational process.

These principles underpin the analysis of “trust points” in education at both institutional and interpersonal levels.

Within the educational domain, proactive risk strategies are increasingly articulated by actors, particularly in the design and management of individual educational trajectories. In this sense, trust may be viewed as a response to risk. When conceptualized as a risk strategy, trust in education acquires positive functions – fostering academic mobility, supporting personal development, and enabling the development of individualized learning strategies. These strategies align with the idea of education without boundaries, reflecting the search for developmental certainty amid uncertainty. Their outcomes, however, may vary – ranging from success to failure – and may or may not meet expectations regarding the educational system.

It should also be noted that institutional trust manifests in various forms – ranging from trust in the education system and institutions to trust in the teacher as a representative of the professional community and the learner as an active participant. Such multidimensionality enables the formation of stable relationships and cooperative networks, contributing to institutional cohesion and collective resilience while enhancing the system’s ability to respond to educational challenges.

To verify or challenge our theoretical assumptions, we tested them using empirical evidence. The analysis draws on the findings of the sociological study *War, Education, and Social Capital: Three Years of Full-scale Invasion*, conducted by the Vox Populi Agency in May–June 2025 across 120 secondary schools in government-controlled regions of Ukraine. The target groups included: students in grades 8–11 ($n = 1,924$), parents ($n = 1,694$), teachers ($n = 2,149$), and school administrators ($n = 99$). The sample was designed to ensure representativeness with respect to settlement type, region, and school size (Mizhnarodnyi blahodiinyi fond savED, 2025). The research enabled the identification of intra-group and inter-group levels of trust and patterns of social connectedness. Data analysis revealed certain gaps in perceptions of mutual support and respect among participants in the educational process. Teachers tended to overestimate the availability of assistance they provide (86 % reported a high level of interaction), whereas students were less likely to perceive such support as sufficient or accessible (only 54 % expressed that they felt supported). Students reported the highest levels of satisfaction with comfort and sense of belonging (64 %), and the lowest with motivation to participate in school life (47 %), perceived relevance of education for the future (45 %), and availability of extracurricular clubs and activities (42 %). The findings suggest that students’ perceptions of intra- and inter-group trust, as well as the importance of social ties, are strongly influenced by their sense of belonging to the school, which, in turn, depends on external factors. Among students, 64 % of those in in-person learning, 68 % in distance learning, and 59 % in hybrid formats reported feeling a sense of inclusion within their schools.

Teachers, for their part, generally described schools as comfortable environments for learning and interaction, with 86 % providing positive assessments of school climate and collegial support. However, nearly one-third identified deficiencies in material and technical resources, especially in areas related to inclusion and safety (availability of shelters, equipment, and facilities).

The strength of horizontal ties within teaching staff remains a crucial indicator – even amid workload pressures and security instability. Analysis of the empirical data indicates that, according to school administrators, mutual support and trust between teachers and administrators remain high (97 %), and that schools continue to serve as unifying environments for students and educators, fostering conditions for trust-based relationships (91 %). Such internal institutional trust is essential for effective collaboration, support, and cohesion within educational institutions.

Parental involvement also constitutes an important component of social trust in education. It contributes to trust in institutions, facilitates communication between families and schools, and reinforces both horizontal and vertical social connections. However, the data reveal an ambivalent pattern: while most parents express interest in their children's learning outcomes, their actual engagement in school life remains limited. Only about half of teachers believe that parents are genuinely interested in student performance, and fewer than one-third report parental participation in extracurricular activities or support for school initiatives.

Our analysis of indicators of mutual support and trust confirms the hypothesis that trust is determined by the actions and interactions of educational actors. According to administrators, the most critical issues concern infrastructure, resource availability, and inclusion. For students, the main "points of trust" are extracurricular environments, the perception of school as a space for shared activity, and schooling as a foundation for future aspirations.

The interpretation of these findings underscores the significance of constructing trust in education across three interconnected levels: institutional (trust in the education system, its policies, and standards), interpersonal (trust among participants in the educational process), and societal (trust in the social role of education). This empirical lens also provides insight into the emerging educational challenges that influence public confidence in education.

Based on recent studies and analytical reports, we identified several groups of challenges that directly affect the level of public trust in education. Including:

1. Digitalization of education. The rapid transition to online and blended learning formats has created both new opportunities and new risks of inequality in access to quality educational services. Insufficient technical readiness of educational institutions often undermines trust in the system's ability to ensure accessibility and effectiveness of the learning process.

2. Quality-based differentiation in education. The growing gap between elite and peripheral institutions, alongside disparities between public and private education, generates perceptions of inequality and diminishes trust in the principle of social justice within education.

3. Lack of transparency in educational procedures. Non-transparent decision-making processes reduce trust in the institutional competence and integrity of educational authorities.

4. Migration and workforce depletion. Intensive migration processes and the outflow of qualified educators lead to the destabilization of the teaching environment, thereby undermining trust in the system's capacity for stable development.

5. Military and socio-economic crises. The war and related crises increase the societal demand for education as an institution of reliability, safety, and recovery, while simultaneously provoking doubts about its ability to meet these expectations.

Reflection on these challenges allows us to conceptualize trust in education as an indicator of social stability and institutional effectiveness. The growing need to examine this phenomenon arises from the search for mechanisms of social cohesion, risk mitigation, and alignment between institutional and interpersonal levels of educational interaction.

From our perspective, it is crucial to develop an analytical instrument capable of describing educational challenges through the lens of trust, acknowledging that such challenges constitute not only threats but also opportunities for development. One analytical approach is the Matrix of Contemporary Educational Challenges, which defines an "educational challenge" as a convergence of external and internal factors that disrupt educational processes while also driving their renewal and adaptive transformation.

Building upon the concept of the "social matrix" proposed by Shulha (2018, p. 15), we proceed from the understanding that its elements constitute complex social formations (Table 1). In this context, the term social is interpreted broadly – not as a category parallel to the economic, political, or cultural, but as a category that encompasses them all as integral components of the social whole.

Table 1.

The Matrix of Educational Challenges in the Context of Trust in Education

Dimension	Current Challenges	Consequences for Trust in Education
Technological and Digital Transformations	Unequal access to the Internet and digital devices; declining quality of teacher–student interaction; risk of information overload or misinformation; insufficient digital literacy.	Reduced perception of educational quality; doubts regarding the effectiveness of the learning process; erosion of trust in remote learning formats.
Socio-political Challenges (war, crises, inequalities)	Instability of the educational process; psychological trauma; migration and “brain drain.”	Uncertainty about continuity and quality; decreased respect for the teaching profession if it fails to provide support during crises; interpersonal distrust.
Reforms in Educational Policy and Content	The rapid pace of reforms not always aligned with institutional capacities; limited involvement of stakeholders in reform processes.	Growing distrust toward educational reforms; feelings of alienation and demotivation among educators and learners.
Quality and Professional Competence of Staff	Insufficient preparation for digital or hybrid teaching formats; overload and low motivation due to inadequate remuneration or resources; limited access to professional development.	Erosion of confidence in the educational system’s effectiveness and sustainability.
Trust as a Core Resource of the Educational System	Declining public confidence in educational quality.	Search for alternative learning pathways; reduced learners’ motivation; increased skepticism toward change and reform.

Source: created by the authors.

The proposed Matrix of Educational Challenges in the context of trust configurations demonstrates that educational processes are not neutral – they reflect the broader social context and its emerging dimensions. Consequently, there is an urgent need to identify mechanisms for stability, risk minimization, and coherence between institutional and interpersonal levels of trust-based relations within the academic sphere.

CONCLUSIONS

Within the framework of the research objectives defined in this study, various theoretical approaches to the interpretation of trust have been analyzed. This has led to the conclusion that trust in education and trust within education constitute a complex, multidimensional system of social relations, encompassing: the institutional dimension – trust in the educational system, its policies, and standards; the interpersonal dimension – trust among participants in the educational process; and the societal dimension – trust in the role of education within society.

Based on the analysis of scholarly studies and analytical reports, several groups of educational challenges have been identified: digitalization of education, quality differentiation, lack of transparency in institutional procedures, migration processes and workforce outflow, and military and socio-economic crises – all of which directly influence the level of trust in education.

The conceptualization of dimensions of trust in education and educational challenges made it possible to examine how different aspects of modern education shape the configuration of trust and to propose a matrix model representing the structural elements of these challenges through the lens of trust.

Future research may focus on exploring the intensifying crisis of trust in education at multiple levels – institutional, interpersonal, and societal – as manifested in the contradictions of educational strategies and the proliferation of quasi-values that distort the axiological foundations of the educational process.

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