QUALITY OF LIFE

IN THE GLOBAL UNCERTAINTY

DIMENSIONS

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Quality of Life
in the Global Uncertainty Dimensions

Monograph

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2.6. Development of adolescents' giftedness in the educational environment as a factor in improving the quality of life of the young generation

Intelligence and creativity have today become the primary factors determining the success of an individual, enterprise, and nation. However, the development of intelligence and creativity is increasingly shifting from being a spontaneous process toward a more technological one. Thinking is the main resource of a human being. The quality of our future entirely depends on the quality of our thinking today. This statement is true both at the level of the individual and on a global scale.

In our time, intelligence is identified as the most important psychological trait contributing to success, both personal and social. In modern society, intelligence is primarily needed to solve complex problems encountered in highly skilled professional activities, as well as in learning, which occupies a significant place in human life. Accordingly, intelligence has become a quality upon which professional achievements, educational level, and income depend the most.

Today's society is characterized by a special attitude toward the individual, the recognition of their rights, and the creation of a favorable environment for the maximum development and self-realization of personal potential. Intellectual qualities and creativity gain particular importance, as the level of prosperity and efficiency of social progress directly depend on the number of creative individuals. In this context, the development of capable and talented children at all educational stages comes to the forefront. Therefore, the tasks of identifying and supporting gifted students, as well as analyzing the factors and conditions that contribute to forming intellectual and creative traits in children, are increasingly relevant. The school period is vital for the formation and development of cognitive and creative abilities.

The concept of giftedness, especially in childhood, remains quite complex and multifaceted. Issues in this field have long attracted the attention of researchers in psychology; however, many questions remain debatable, underscoring the need

for further theoretical and empirical investigations as well as an improvement in approaches to the identification of giftedness in students.

The strategy for working with gifted children in modern society is shifting from an extensive to an intensive state strategy. The extensive approach to working with giftedness is based on selection through the diagnosis of achievement and development through access to advanced knowledge. The intensive system of supporting gifted youth focuses on identifying gifted children based on their potential capabilities and developing them with consideration of their individual motivational and personal characteristics. This allows for a fuller realization of the potential of giftedness. Along with developmental technologies, diagnostic techniques for assessing intelligence, creativity, and competencies are also being improved as a necessary complement.

The issue of giftedness as an important social and psychological problem is receiving even more attention than before, which reinforces its relevance in contemporary contexts. In current psychological science, the phenomenon of giftedness is actively studied by both domestic and foreign scientists, including J. Renzulli (Renzulli, 1978), R. Sternberg (Sternberg, & Davidson, 1986), K. Robinson (Robinson, 2017), V. Molyako (Molyako et al., 2012), O. Kulchytska (Kulchytska, 2002), S. Maksymenko (Maksymenko, 2023), N. Ilina (Ilina, 2023), V. Onatsky (Onatsky, 2002), Ya. Vasylkevych (Vasylkevych, & Derecha, 2020; Vasylkevych et al., 2020; Vasylkevych, & Tovstun, 2024), O. Kikinezhdi (Vasylkevych et al., 2020) among many others.

The development of theoretical foundations for the phenomenon of giftedness remains at the center of modern psychology: numerous authors (J. Bruno, J. Guilford, P. Torrance, F. Monks, R. Pages, J. Renzulli, A. Tannenbaum, J. Feldhusen, K. Heller, O. Kulchytska, etc.) offer different interpretations and approaches, each emphasizing different traits of this important psychological phenomenon. Notably, the system for classifying types of giftedness popular in the United States includes

general intellectual, academic (achievement), creative (productive thinking), athletic (psychomotor), leadership, and artistic (performance) types of giftedness. N. Bielska's (Bielska, 2018) research reviewed types of intellectual giftedness among children participating in the contest-defense of research and creative works by the Minor Academy of Sciences of Ukraine and described their cognitive-behavioral and personality characteristics.

Among the most well-known psychological theories is J. Renzulli's model of giftedness, in which giftedness is defined as the combination of a high level of intelligence, creativity, and perseverance (the motivational component). The particular value of Renzulli's approach lies in recognizing as gifted not only those who exceed the average in all three aspects but also those children who have highly developed abilities in at least one of these traits, which significantly expands the potential circle of gifted students (Renzulli, 1978).

Many modern author models (Monks F., Tannenbaum A., etc.) include a similar triad, usually illustrated by three overlapping circles. It is notable that in analyzing the phenotype of gifted individuals, researchers often indicate disproportion in development (the phenomenon of asynchrony): advanced cognitive skills can coexist with average or even inadequate physical or social development.

Giftedness is regarded as a systemic property of the psyche, which is formed throughout life and enables a person to achieve outstanding results in a particular field of activity. This means that giftedness is the result of an elevated level of general abilities, but universal giftedness in its "pure" form is virtually nonexistent – every person has unique combinations of abilities. According to J. Renzulli's concept, general giftedness reflects high indicators of intelligence, creativity, and involvement in activity. In real life, diagnosing giftedness is often complicated by the nonstandard behavior of such children, which complicates the educational process.

The President of the Parliamentary Assembly of the Council of Europe, Luis Jung, at a meeting with representatives of Eurotalent, proposed three approaches

to working with gifted children: 1) support each child with special abilities in realizing their own happiness and development; 2) promote the fullest possible revelation and application of individual achievements in various fields; 3) engage the resources of giftedness for social advancement by placing them at the service of societal progress (Tadeyev, 2008).

At the state level, working with gifted students is implemented through a multilevel system. Its basic link is the general education school, which encompasses the majority of adolescents and children. The teacher must be able to recognize the gifted and create appropriate conditions for them, provide support among peers and, if necessary, direct them to extracurricular structures specializing in the development of talented children.

J. Renzulli, R. Hartman, and C. Kolakhan (Renzulli et al., 1971) coordinated a program to create a conceptual foundation and system of methods for working with gifted children. They collected a large body of scientific research from various countries focused on the problem of child giftedness. As a result of analyzing scientific sources, the researchers decided to develop a tool for the objective expert assessment of various aspects of child giftedness by teachers. Since the intent was to utilize teachers' expert assessments, all characteristics had to have observable behavioral manifestations that could be recorded during systematic or incidental observations in the educational process.

Experts in the diagnosis of giftedness may include not only educators but also psychologists, social workers, parents, and the students themselves (through peer or self-assessment).

To achieve the objectives set in the study, four of J. Renzulli’s questionnaires were used for expert rating assessments of the main types of giftedness:

1) academic abilities;

2) motivational and personal characteristics;

3) creative abilities (creativity);

4) leadership abilities (Vasylkevych, & Derecha, 2020).

The empirical research was conducted at the Ivan Mazepa Pereiaslav Academic Lyceum, Brovary Lyceum No. 6 and Ternopil Academic Lyceum "Ivan Franko Seukraine Gymnasium". Sixty students of middle school age and their homeroom teachers (as experts) participated in the study.

Analysis of the research results (Table 1) showed that expert opinion and peer assessment regarding a very low level of the types of giftedness (academic abilities, motivational-personality, creative, leadership) coincide: none of the study participants, according to these rating evaluations, demonstrate a very low level of indicated types of giftedness. That is, the homeroom teacher as an expert and the students themselves, evaluating each other, do not classify any of the participants as having a very low manifestation of all types of giftedness. However, according to self-assessment data, respondents tend to underestimate their own abilities, especially in creative and motivational-personal giftedness, which can manifest as indecisiveness, inability to assert their opinion, reluctance to take risks, a need for external motivation and stimulation when performing tasks, and a tendency to trust authoritative opinions without critical evaluation.

According to experts, none of the participants exhibit a low level of creative giftedness, which means all those studied possess abilities for creative activity. However, based on expert assessment, 24% of the participants show low academic ability, indicating that this category of students lacks a broad vocabulary for their age, cannot quickly understand, remember, and reproduce factual information, read little, and are not inclined to analyze or draw their own conclusions. These findings are most consistent with those from the academic abilities self-assessment ratings.

The rating assessments on motivational and personal giftedness practically do not differ and indicate that a third of the participants show a low level in this type of giftedness. This may be manifested in a lack of persistence in problem-solving and an absence of striving for better results.

Regarding leadership giftedness, only 3% of the participants were rated by peers as showing a low level; however, this indicator differs significantly from both expert assessment and self-assessment. That is, a quarter of the participants believe they are unable to independently resolve conflict situations, take responsibility, adapt to new situations, express themselves, and feel unsure among unfamiliar people.

Table 1. Level Characteristics of Types of Giftedness by Rating Assessments

Giftedness Scale		Level of Giftedness			
		Very Low	Low	Average	High Level
Academic Abilities	Expert Rating	0	24	69	7
	Self-Assessment	3	21	62	14
	Peer Assessment	0	10	83	7
Motivational-Personal Giftedness	Expert Rating	0	31	38	31
	Self-Assessment	10	28	59	3
	Peer Assessment	0	38	62	0
Creative Giftedness	Expert Rating	0	0	24	76
	Self-Assessment	10	21	69	0
	Peer Assessment	0	10	90	0
Leadership Giftedness	Expert Rating	0	35	62	3
	Self-Assessment	3	24	70	3
	Peer Assessment	0	3	94	3

The indicators of the average level of manifestation of all types of giftedness according to the rating assessments range from 24% to 94%. However, according to peer assessment, the largest number of respondents show an average level of these types of giftedness. According to experts, only 24% of subjects demonstrate creative giftedness at this level, and 38% – motivational-personal giftedness.

According to experts, 76% of respondents show a high level of creative giftedness, unlike the self-assessment and peer assessment results for this type of giftedness (0%). Thus, experts believe that the majority of students generate many original and unconventional ideas, prefer tasks involving "mental games," possess a well-developed imagination, fantasize, enjoy suggesting new versions, and tend to be impulsive.

According to peer assessment, none of the respondents demonstrate a high level of motivational-personal giftedness, though experts disagree. They believe that 31% of students nevertheless possess a high level of this kind of giftedness. The most consistent rating assessments relate to leadership giftedness: according to the expert rating, self-assessment, and peer assessment of this type, only 3% of participants display leadership abilities.

Figure 1 shows the levels of academic ability according to rating assessments.

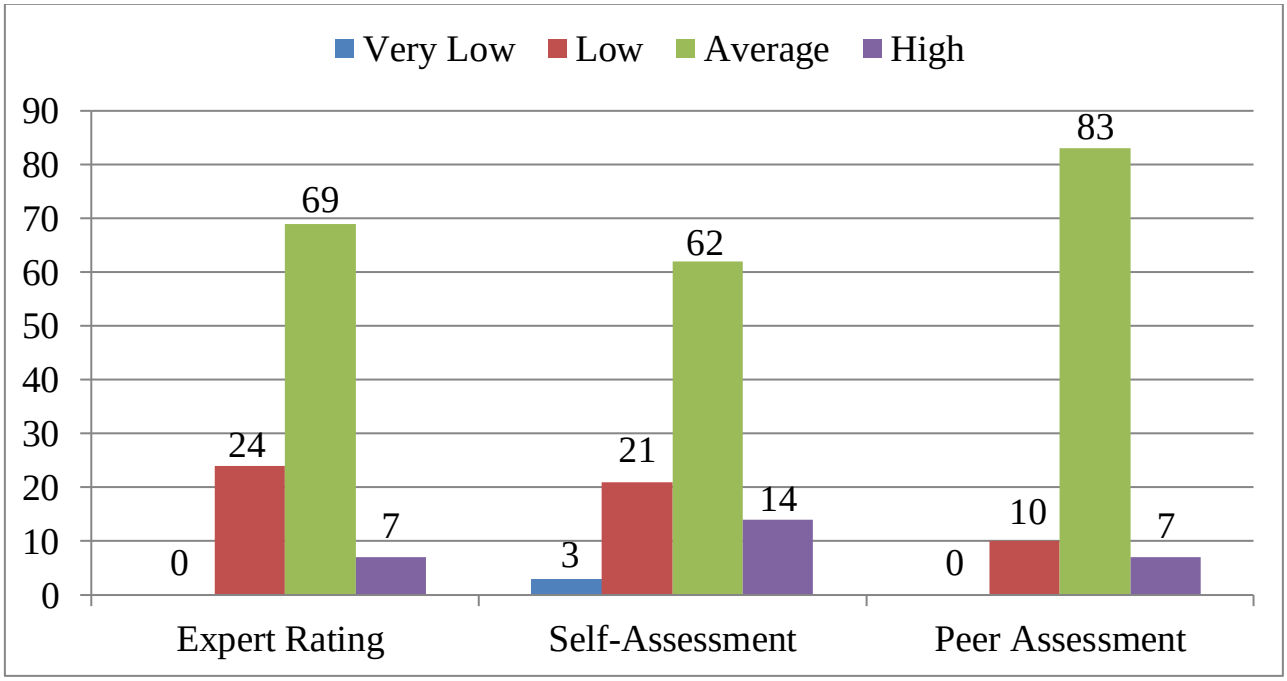

Fig. 1. Degree of Expression of Academic Abilities by Rating Assessments

According to the rating assessments, most respondents show an average level of academic ability. Expert, self-, and peer assessments of this type of giftedness barely differ. There is also a notable similarity between the expert assessment and peer assessment for very low levels, as well as between expert assessment and self-assessment regarding the high level of academic ability. Overall, the rating assessments for this type of giftedness do not differ significantly, which may indicate actual academic ability of the respondents.

Figure 2 shows the levels of motivational-personal giftedness according to expert and peer ratings.

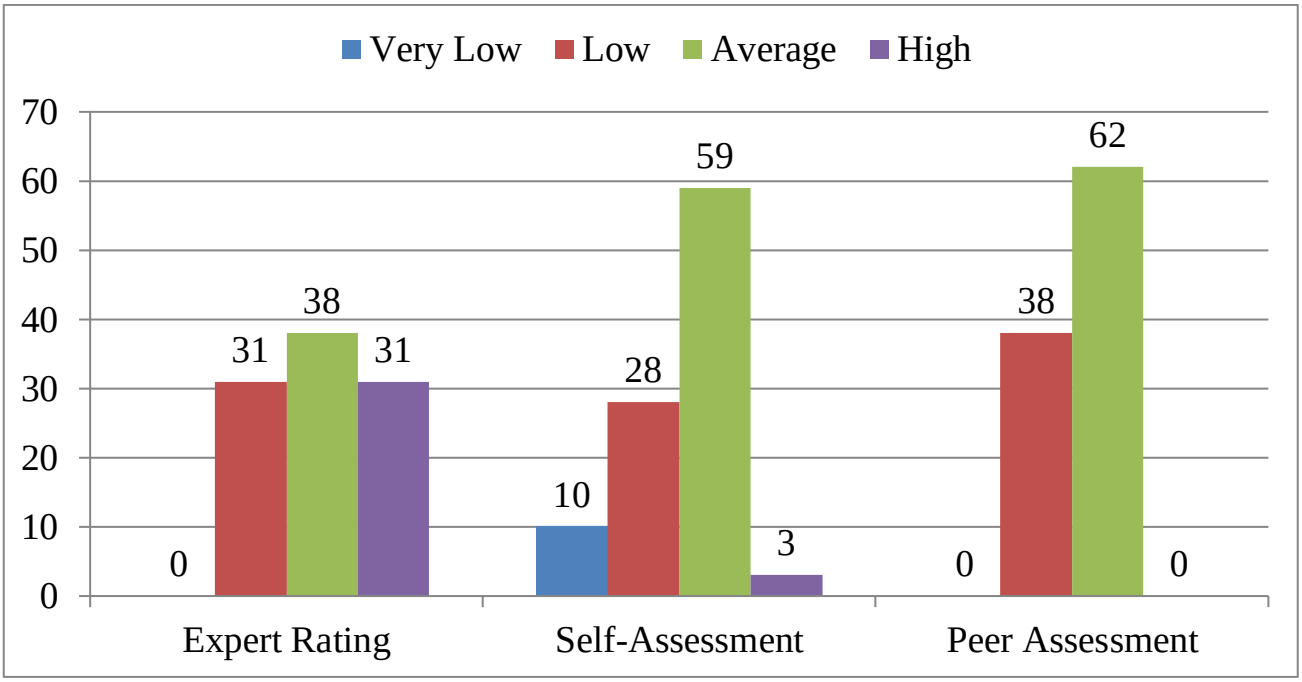

Fig. 2. Degree of Expression of Motivational-Personal Giftedness by Rating Assessments

Analyzing the degree of motivational-personal giftedness, peer assessments reveal no students with a high level of this type, in contrast to expert assessments. Thus, students underestimate the real capabilities of their classmates. This can be explained by the age-related characteristics of adolescence. Among peers, a new system of behavioral evaluation criteria and personality formation emerges, values are revised, and new moral and ethical standards develop. When analyzing the behavior and personal qualities of friends, an adolescent forms a system of requirements for them, valuing diligence, civic activity, sincerity, and honesty in peers.

When considering the degree of expression of creative giftedness, only expert evaluations indicate a high level among respondents. According to self-assessments

and peer assessments, none of the participants show a high level of creative abilities. Once again, the ratings are inconsistent. Possible reasons could be that students do not notice manifestations of creative abilities in their classmates or misinterpret them.

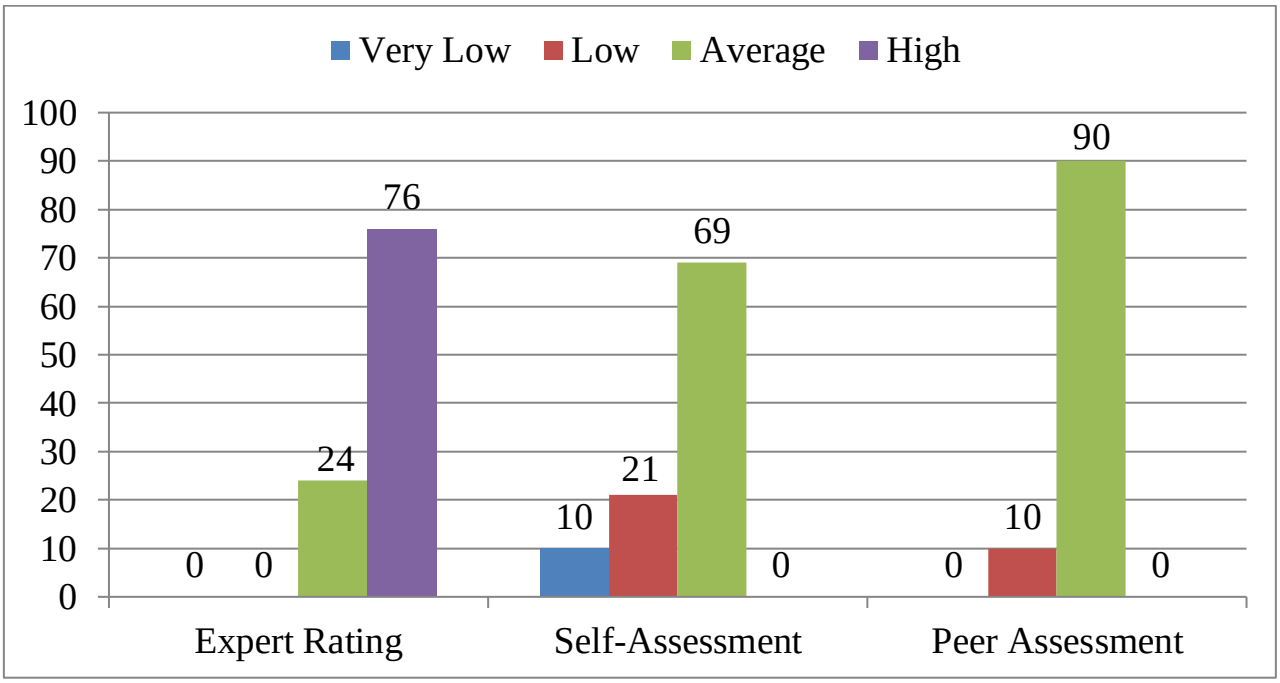

Fig. 3. Degree of Expression of Creative Giftedness by Rating Assessments

Analysis of the level of leadership giftedness (Fig. 4) shows that expert, self- and peer assessments for a high level of leadership giftedness coincide, indicating these data may correspond to the students' real abilities.

Self- and expert assessments for the average and low levels of this type of giftedness are similar, i.e., most students demonstrate an average level of leadership abilities. Peer assessment of leadership giftedness is weakly differentiated; students in general possess an average level of leadership expression.

Analysis of the results of the empirical study of various types of giftedness in adolescents using rating assessments allowed the formulation of the following conclusions: most of the respondents demonstrate an average level of different forms

of giftedness. However, a trend is noted: expert ratings of high levels of creative and motivational-personal giftedness greatly exceed both self-assessment and peer assessment of these abilities. This means that the homeroom teacher rates students' creative potential significantly higher compared to the students' own or their peers' ratings. This may indicate students' underestimation of their own possibilities or limited opportunities to manifest such abilities in the school learning process.

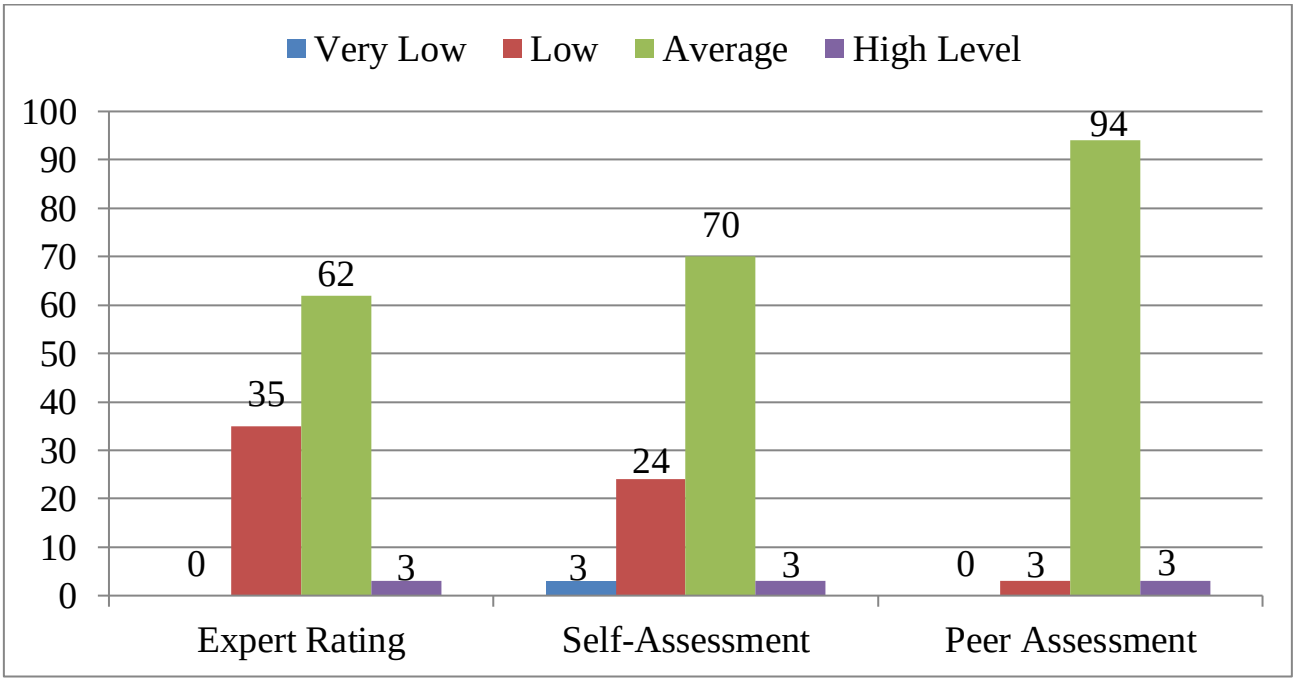

Fig. 4. Degree of Expression of Leadership Giftedness by Rating Assessments

Therefore, the development of giftedness is a priority area of activity for educational institutions. It should take into account both internal and external determinants, primarily the interaction of the individual with their social environment. Defining the optimal parameters of the learning environment, stimulating cognitive interests, and creating conditions for the individual development of creative skills must become the key to fostering personal uniqueness, which in turn will address the challenges facing modern society.

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2.5. ***Iryna Hlazkova, Yuliia Nadolska, Larysa Yepifantseva***. **From crisis pedagogy to emotional resilience: sel in foreign language teaching.** The war in Ukraine and forced remote learning have created a "double challenge" for higher education. Emotional barriers, including anxiety, fear, and frustration, have become primary obstacles in foreign language learning. These barriers reduce motivation, concentration, and communicative activity, triggering cognitive, motivational, and organizational difficulties. Empirical research among university students confirms the dominant role of emotional factors under crisis conditions. Traditional teaching methods are insufficient to address these challenges effectively.

Social and Emotional Learning (SEL) techniques help manage stress, regulate emotions, and foster trust and engagement. In crisis remote education, it is essential for overcoming emotional barriers and supporting effective foreign language acquisition.

2.6. ***Oksana Kikinezhdi, Yaroslava Vasylkevych, Mykola Ryk***. **Development of adolescents' giftedness in the educational environment as a factor in improving the quality of life of the young generation.** The article presents the results of a study on the specifics of identifying and exhibiting different types of adolescent giftedness in the educational environment. The empirical study using rating assessments revealed that most participants demonstrate an average level of various forms of giftedness. A notable trend was observed: expert assessments of high levels of creative and motivational-personal giftedness significantly exceed both self- and peer assessments of these abilities. It is concluded that the homeroom teacher estimates students' creative potential significantly higher than the students themselves or their peers do. This may indicate students' underestimation of their possibilities or the limited conditions for manifesting such abilities within the school learning process.

2.7. ***Maryna Nesterenko, Kristina Petryk***. **Analysis of the current state of preparation of future teachers for STEM-oriented professional activities.** This study examines the current state of preparation of future teachers for STEM-oriented professional activities in Ukraine. Despite a robust regulatory and legal framework, integration of STEM components into teacher education programs remains fragmented and limited. The analysis of bachelor's and master's curricula across multiple pedagogical universities reveals that STEM is often represented by isolated courses or internships, with minimal cross-curricular integration. Bachelor's programs tend to offer stronger practical and interdisciplinary training, whereas master's programs prioritize methodological and research components, limiting hands-on STEM experience. Challenges include inadequate practical training, insufficient interdisciplinary links, and a narrow focus on digital literacy over broader STEM competencies. Emphasis is placed on the systematic integration of STEM education through a series of compulsory modules, project-based learning, and professional development for teachers. A coherent state and institutional policy is necessary to ensure that graduates are fully prepared to implement STEM-oriented pedagogy. The study provides insights into curriculum improvement and policy measures to foster a scientifically and technologically competent generation of educators.

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