Approbation of Emergency Education Strategies for Internally Displaced Ukrainian Children under the Martial Law Conditions

Abstract

The study aimed to test the first two stages of the simplified model of emergency education (elaborated by P. Aguilar, G. Retamal, and K. Triplehorn) under martial law conditions on the relatively safe territory of Ukraine. The study embraced 52 children from internally displaced families, 6 teachers, 3 practical psychologists and 12 pedagogical university students. Work with children was organised by students’ self-government members under the guidance of pedagogical teachers and professional psychologists. Based on the emergency education model, the authors developed a method of organising recreational therapy for internally displaced school-aged children evacuated from war zones. In order to assess the effectiveness of the organised activities, the «Test of differential self-assessment of functional state» was used to determine the level of children’s indices of well-feeling, activity and mood (WAM-questionnaire). The results of the surveys before and after the experiment showed that the developed method of organising the recreational therapy of internally displaced children contributed to significant positive changes in their emotional,
psychological and functional state. The reported redistribution of indices clearly illustrates the significance of those changes.

**Keywords:** emergency education, emergency, internally displaced person, martial law, psychosocial intervention, recreational therapy

**Introduction**

Since the beginning of hostilities in certain territories of Ukraine in 2014, Ukrainian society, for the first time, encountered the social, psychological and educational problems of children from internally displaced families. Educational institutions in the peaceful territory were not ready to create an adaptive learning environment for students from such families (Hnatyuk, 2014). However, studies have shown that in the peaceful territory, children from internally displaced families adapt quickly enough to new educational conditions. And the younger the child is, the faster the adaptation takes place. Most children did not want to be classified as displaced persons (Kendzor & Kolesnyk, 2017; Trubavina et al., 2021).

Since February 24, 2022, Ukraine has undergone a full-scale invasion by Russia. Military actions on a large territory of a sovereign state became a factor of great upheaval for the psyche of all Ukrainians. Millions of people were forced to leave their homes in war zones. About 8 million people left the country, and more than 7 million moved to relatively safe Ukrainian regions far from the front (Trubavina et al., 2022). However, in Ukraine, every region is subject to missile attacks from time to time, and air-raid sirens often sound. Such a tense situation caused a significant disturbance in the functioning of the individual, prompted a re-evaluation of values and a change of roles, and became a stressful factor that affected the daily life of all Ukrainians, especially children (Marynchenko et al., 2022). Children in many regions of Ukraine suffered severe psychological trauma due to shelling, the death of relatives and the difficulty of rehabilitation in wartime conditions. From the first days of the full-scale invasion, all state structures began working on evacuating people from combat zones, providing assistance to refugees, and organising their life under martial law (Soichuk et al., 2022).

Searching for ways to organise a safe educational process and providing psychological support to all its participants became a priority for the education system of Ukraine (Kolomiiiets et al., 2022). In the development of strategies for the organisation of training under martial law, the analysis of foreign experience proved valuable, based on which the Ministry of Education and Science of Ukraine, in cooperation with the State Service for Emergency Situations and the Ministry
of Internal Affairs of Ukraine, with the support of international partners, developed and published relevant online courses and recommendations for teachers. Pedagogical universities immediately introduced such materials into the future teachers training curriculum (Petrenko, 2022; Malaniuk et al., 2023).

**Analysis of Recent Research**

The corresponding scientific literature of the late 20\textsuperscript{th} and early 21\textsuperscript{st} centuries reflects the foreign experience, summarising that prolonged military conflicts prevent access to regular education for many children and youth. Most studies present the attempts to provide a systemic response to the special needs of children from the beginning of the conflict until they can receive a regular basic education. Recognising education as one of the basic rights of a child, the authors analyse the various stages of response to emergencies of a military nature using examples of humanitarian and educational intervention in the lives of IDPs, refugees and returnees (Orendain & Djalante, 2020; Norwegian Refugee Council, 2020; Hynes, 2021; Regasa & Lietaert, 2022).

The research by M. Boujikian, A. Carter, and K. Jordan (2022) proves that psychosocial interventions in educational institutions can significantly improve the life and educational potential of children affected by war. Children can recover more quickly from war trauma if their educational and emotional needs are combined using storytelling, drawing, drama, writing, music and play. Educators need to intervene as early as possible in a traumatised child’s life, as this increases his chances of recovery.

Similar psychosocial interventions in school settings are diverse, many of which are described in the scientific literature. J. Ramberg, S. Brolin Laftman, T. Akerstedt, and B. Modin (2019) explain that psychosocial programming consists of structured activities aimed at promoting the psychological and social development of children, and call for the strengthening of protective factors that limit the consequences of adverse influences. Activities such as painting, dancing, music and drama are forms of communication through which children tell their stories to be heard and recognised. With the help of such measures, psychological recovery and social reintegration can take place.

The relationship between education and psychosocial well-being is analysed in a study by U. M. Heltne, R. Dybdahl, S. Elkhalifa and A. Breidlid (2020). The authors demonstrate the role of schooling in children’s psychosocial support and well-being in the context of Sudan and South Sudan.
Qualitative research by E. Carter, A. C. Ochoa, P. Leonard, S. Nzaramba, P. Rose, D. G. Regasa, and I. Lietaert was conducted among teachers and parents on the provision of education and psychosocial support to refugee children or children living in other emergencies in Rwanda and Ethiopia. Despite the lack of integrated psychosocial support, teachers and schools are recognised as having an important role, especially in terms of meeting emotional needs (Carter et al., 2022; Regasa & Lietaert, 2022).

C. Davis and G. Payan (2022) and K. Rajab (2018) conclude that further development of support strategies intended for school teachers should be based on existing ideas and practices using the potential of integrated psychosocial support. Such support is appropriate in any emergency and especially in times of war.

In the works by P. Aguilar and G. Retamal (1998) and K. Triplehorn (2001), we found a simplified model of emergency education, which is gaining increasing recognition among teachers who have to work in emergencies. The model is addressed to those who have to carry out the task of creating an education system in the midst of chaos. It is usually used in refugee camps. Within the framework of this model, the scientists proposed a program of educational services in emergencies, which involves three stages: recreational activities in a safe place, informal education, and formal education. The first stage aims to create safety zones for children and organise entertaining expressive activities, such as sports, art, and theatre. According to the programme’s authors, all these elements of psychosocial intervention contribute to better adaptation of children to new living conditions, help overcome stress, and develop psychological resilience. Researchers emphasise the special importance of the first stage, arguing that the expression of feelings during play can be fundamental in forming stress resistance in children. Scientists insist that children can understand stressful and traumatic events that happen to them. At this stage, the scientists propose to organise parallel training of teachers, education specialists, parents and community leaders of refugees or internally displaced persons for further cooperation (Aguilar & Retamal, 1998). The second stage is designed to promote social reintegration and the development of cognitive and social skills of affected children and youth through structured informal educational activities (Triplehorn, 2001). It was assumed that the children were shocked by the war, and they first needed to be prepared for the fact that they would go to school again. However, there are criticisms of this second phase. Many practitioners suggest that moving directly from initial recreational activities (stage I) to the resumption of formal education (stage III) would be better. Most often, decisions are made by communities, which, even following the sequence of the three-phase model, strive to restore formal education as soon as possible. The rapid restoration
of the formal education system is the main goal shared by almost all war-affected communities. Therefore, the first two phases often proceed very quickly.

Research Methodology

The purpose of the study was to implement the first two stages of the simplified model of emergency education (developed by P. Aguilar, G. Retamal and K. Triplehorn) in the conditions of martial law on the comparatively safe territory of Ukraine and to confirm its effectiveness.

The main research methods were: analysis of the foreign experience of organising work with students in wartime conditions; interviewing focus groups of school-age children from internally displaced Ukrainian families and observing them; functional state testing using appropriate psycho-diagnostic techniques. The observation was conducted for six months (March-August 2022) in a relatively safe area of Ukraine (Vinnytsia region).

The geography of the families’ previous residence covered four regions of Ukraine: Donetsk, Mykolaiv, Kharkiv, and Kherson, where active military operations took place.

The study involved 52 children from internally displaced families aged 7 to 15 years: 4 children – 7 years old, 5 children – 8 years old, 5 children – 9 years old, 6 children – 10 years old, 7 children – 11 years old, 6 children – 12 years old, 8 children – 13 years old, 6 children – 14 years old, 5 children – 15 years old.

The authors used the WAM-questionnaire technique for self-monitoring and self-assessment of well-feeling, activity and mood. The WAM scale consists of indices (3-2-1-0-1-2-3) and is located between 30 pairs of concepts of the opposite meaning, reflecting mobility, activity, strength, health, fatigue, well-feeling, and characteristics of emotional states. The technique’s advantages are brevity and the possibility of repeated use over time (Lemark & Petrysche, 2012).

Children were asked to correlate their current state with signs on a multi-level scale, that is, to choose and mark the indices that most accurately reflect their current functional state. See Table 1.

<table>
<thead>
<tr>
<th>Nr.</th>
<th>Current State</th>
<th>Indices</th>
<th>Current State</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Feeling Good</td>
<td>3 – 2 – 1 – 0 – 1 – 2 – 3</td>
<td>Feeling Bad</td>
</tr>
<tr>
<td>2</td>
<td>Feeling Strong</td>
<td>3 – 2 – 1 – 0 – 1 – 2 – 3</td>
<td>Feeling Weak</td>
</tr>
</tbody>
</table>

Table 1. WAM-questionnaire on a multi-level scale
<table>
<thead>
<tr>
<th>Nr.</th>
<th>Current State</th>
<th>Indices</th>
<th>Current State</th>
<th>Indices</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Passive</td>
<td>3 – 2 – 1 – 0 – 1 – 2 – 3</td>
<td>Active</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Slow-moving</td>
<td>3 – 2 – 1 – 0 – 1 – 2 – 3</td>
<td>Lively</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Cheerful</td>
<td>3 – 2 – 1 – 0 – 1 – 2 – 3</td>
<td>Upset</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Good Mood</td>
<td>3 – 2 – 1 – 0 – 1 – 2 – 3</td>
<td>Bad Mood</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Able-bodied</td>
<td>3 – 2 – 1 – 0 – 1 – 2 – 3</td>
<td>Disabled</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Sappy</td>
<td>3 – 2 – 1 – 0 – 1 – 2 – 3</td>
<td>Exhausted</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Slow</td>
<td>3 – 2 – 1 – 0 – 1 – 2 – 3</td>
<td>Quick</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Sluggish</td>
<td>3 – 2 – 1 – 0 – 1 – 2 – 3</td>
<td>Energetic</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Happy</td>
<td>3 – 2 – 1 – 0 – 1 – 2 – 3</td>
<td>Unhappy</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Joyous</td>
<td>3 – 2 – 1 – 0 – 1 – 2 – 3</td>
<td>Gloomy</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Exerted</td>
<td>3 – 2 – 1 – 0 – 1 – 2 – 3</td>
<td>Relaxed</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Healthy</td>
<td>3 – 2 – 1 – 0 – 1 – 2 – 3</td>
<td>Unhealthy</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Indifferent</td>
<td>3 – 2 – 1 – 0 – 1 – 2 – 3</td>
<td>Engaged</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Calm</td>
<td>3 – 2 – 1 – 0 – 1 – 2 – 3</td>
<td>Anxious</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Excited</td>
<td>3 – 2 – 1 – 0 – 1 – 2 – 3</td>
<td>Dismal</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Exhilarated</td>
<td>3 – 2 – 1 – 0 – 1 – 2 – 3</td>
<td>Sad</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Rested</td>
<td>3 – 2 – 1 – 0 – 1 – 2 – 3</td>
<td>Tired</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Fresh</td>
<td>3 – 2 – 1 – 0 – 1 – 2 – 3</td>
<td>Emaciated</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Sleepy</td>
<td>3 – 2 – 1 – 0 – 1 – 2 – 3</td>
<td>Busting</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Willing to Rest</td>
<td>3 – 2 – 1 – 0 – 1 – 2 – 3</td>
<td>Willing to Work</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Carefree</td>
<td>3 – 2 – 1 – 0 – 1 – 2 – 3</td>
<td>Troubled</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Optimistic</td>
<td>3 – 2 – 1 – 0 – 1 – 2 – 3</td>
<td>Pessimistic</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Sturdy</td>
<td>3 – 2 – 1 – 0 – 1 – 2 – 3</td>
<td>Weary</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Brisk</td>
<td>3 – 2 – 1 – 0 – 1 – 2 – 3</td>
<td>Inert</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Difficult Thinking</td>
<td>3 – 2 – 1 – 0 – 1 – 2 – 3</td>
<td>Easy Thinking</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Absentminded</td>
<td>3 – 2 – 1 – 0 – 1 – 2 – 3</td>
<td>Attentive</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Hopeful</td>
<td>3 – 2 – 1 – 0 – 1 – 2 – 3</td>
<td>Disappointed</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>Satisfied</td>
<td>3 – 2 – 1 – 0 – 1 – 2 – 3</td>
<td>Dissatisfied</td>
<td></td>
</tr>
</tbody>
</table>

In the processing, these numbers were re-coded in the following way: negative states on the WAM-scale are taken for 1 point, the next one for 2 points, and so on. We took into account the fact that the scale poles are constantly changing. Positive states always receive high scores, and negative states always receive low scores. Based on these points, the average arithmetic value was calculated in general and separately for well-feeling, activity, and mood (Table 2).
We also considered that when assessing the functional state, the values of individual indicators and their ratio are important. For example, assessments of well-feeling, activity and mood for a rested child are approximately the same. As fatigue increases, their relationship changes due to a relative decrease in well-feeling and activity compared to mood.

Distribution of functional state indicators by categories:

Questions for well-feeling: 1, 2, 7, 8, 13, 14, 19, 20, 25, and 26.
Questions for activity: 3, 4, 9, 10, 15, 16, 21, 22, 27, and 28.
Questions for mood: 5, 6, 11, 12, 17, 18, 23, 24, 29, and 30.

Based on the total number of points (from 10 to 70), we determined the functional state of the child at the current moment separately for each of the three categories (well-feeling, activity, and mood):

- less than 30 – Low Level;
- from 30 up to 50 – Average Level;
- more than 50 – High Level.

The analysis of the foreign scientists’ works, which highlighted the education policy for refugees and internally displaced persons (IDPs) in different countries (Sommers, 2002; Tawil & Harley, 2004; Arnold, 2005; Hollmann, 2005; Petkova et al., 2017; Ilinich et al., 2023), was also valuable for preparation and conducting the study.

### Research Results and Discussion

After declaring martial law, most Ukrainian schools and higher educational institutions were temporarily closed. Education provision was paused, but almost all universities in relatively safe areas of Ukraine, including pedagogical institutions, accepted families of internally displaced persons (IDPs) in their dormitories. It turned out that most IDP families had children of different ages who were scared, confused, nervous, and distrustful. From the very beginning of the full-scale invasion (in late February 2022), the dormitories of Vinnytsia Mykhailo Kotsiubynskyi State Pedagogical University (VSPU) have become the shelters for internally dis-

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**Table 2. The key to recodification**

<table>
<thead>
<tr>
<th>WAM Test</th>
<th>Enthusiastic</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Frustrated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recodification</td>
<td>Enthusiastic</td>
<td>7</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>Frustrated</td>
</tr>
</tbody>
</table>

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placed persons from the temporarily occupied territories. More than 7,000 IDPs stayed in the dormitories alternately; more than 200 lived permanently, including 52 children.

That was why VSPU teachers and students (besides humanitarian aid) decided to organise constant psychological support for the refugee children. The simplified model of emergency education (elaborated by P. Aguilar, G. Retamal, K. Triplehorn) was decided to be taken as the basis for providing this assistance.

The Department of Youth Politics, Social Work and Psychological Service staff took on this activity’s main responsibility. Their initial tasks were to determine: how many children need that kind of help; what psychological problems they face; how they can be helped. It was found that though the stories of the IDP families were different and unique, the difficulties faced by both children and adults were often very much alike.

The amount of the child’s anxieties and negative experiences depended on many aspects, in particular: the child’s age; duration of the child’s stay directly in the centre of traumatic events; what exactly the child experienced and saw; quantity and quality of accumulated losses and negative experiences (loss of someone from close relatives, friends, etc.); who of the adults was nearby the child in difficult moments; in what circumstances the child found himself now.

The observation showed that the longer a child was away from military operation zones and related circumstances, the faster he/she calmed down, adapted, and began filling his/her life with new impressions and emotions. Nevertheless, some children continued being anxious, acutely reacting to unexpected loud sounds resembling war sounds. Some children in their dreams returned to experienced events and slept poorly. Consequently, other fears unrelated to the wartime situations might intensify. In such cases, it was important for adults to listen to the children, not to devalue their fears, but help them cope with those negative emotions.

Along with the restructuring of usual family relationships, children faced the loss of familiar social contacts (communication with relatives, friends, classmates, inability to continue going in for favourite sports or develop their hobbies, certain isolation in the new space where the family had moved). It takes plenty of time and special measures to restore them.

During the school years, each child develops a stable circle of friends, gains a certain social status among classmates, and acquires a certain idea of the teaching staff. But after evacuation from the combat zones, children have to start all over again. Therefore, discussing adaptation to a new school becomes relevant for most children from IDP families. In their conversation with parents, children often
ask: How will my new classmates treat me? Will they ask a lot of questions? What should I answer to the questions about relatives (especially those who died or left on the occupied territories)? Is it possible to avoid these questions at all? Will I be able to study at a new school?

In stressful and crisis situations, children react differently than adults. These reactions often depend on their age and the degree of their basic safety sense violation. Generally, in peaceful circumstances, children can cope with changes and adapt to new circumstances much faster than adults. But in conversations with IDP parents, it was revealed that there are also those children for whom these changes (for various reasons) are much more difficult. Many children change their usual behaviour; some often cry, misbehave, and react with fear to loud sounds; some children go to a reserved disposition and remain silent; most distance themselves from their surroundings, fleeing into the world of gadgets.

The Centre of Recreation, Education and Entertainment UNIVER-3D was established based on VSPU to provide psychosocial support for children and adolescents from IDP families. While spending spare time in the centre, the children could distract themselves from the experienced stressful situations, make new friends, and develop their creative abilities. Generally, the psycho-emotional state plays a significant role in a person's life, influencing greatly all spheres of activity, not to mention children for whom these indicators are considered basic for full-fledged intellectual and physical development. The UNIVER-3D Centre provided conditions for pedagogically appropriate and emotionally attractive recreational therapy for children from IDP families (games, competitions, quizzes, entertainment, replenishment of emotional forces, restoration of health, etc.).

For a more detailed understanding of the children's functional state, clearing up the main factors which (directly or indirectly) determine their willingness to perform certain activities and interactions and detect and eliminate any violations related to the sphere of children's emotions and feelings, we used the test «Differential self-assessment of the functional state» (Lemark & Petrysche, 2012). We regard this test as one of the most effective tools to determine the well-being, activity, and mood of a child of any age (the WAM-questionnaire). This method was used to track changes in children's emotional and functional states at the beginning and the end of the recreational therapy at the UNIVER-3D Centre.

The results obtained during the first days of the children's stay at the UNIVER-3D Centre (in March 2022) showed that according to the «well-feeling scale», 58% of the children had low indices, 37% – average indices, and only 5% – high indices. It indicated that for children who had undergone war experience, the
functional state of well-feeling (normally characterised by stable, positive, and harmonious moral and psychological experiences) was in negative dynamics.

According to the «activity scale», 30% of children had low indices, 54% – average indices, and 16% – high indices of their own activity assessment. Such results indicate that it is difficult for children to be active and lively in post-stressful events.

The distribution of indices according to the «mood scale» showed that in the conditions of the new environment, 38% of children had low indices, 49% – average indices, and 13% – high indices of mood. The obtained results indicated that most children had a depressed emotional background due to experienced negative events. It is logical and understandable since the children’s emotional and psychological moods reflected personal feelings and the atmosphere within their families.

The main tasks of organising recreational therapy at the UNIVER-3D Centre were: ensuring the comprehensive development of children and their personal growth; development and implementation of creative potential; formation of an active life position. To fulfil these tasks, several thematic weeks were held in the Centre. The first thematic week «With Ukraine in My Heart» was patriotic, aimed at building faith in a better future for Ukraine and its victory in the war. Therefore, the main activities were: the game «I am Happy in a Free and Independent Country», making amulet bracelets for the Ukrainian soldiers, and drawing postcards with wishes for victory and quick return home. The activities of the second thematic week «We Are Little Researchers» included introducing children to research work, working in groups based on scientific interests, designing and conducting simple experiments, various scientific quests, and the final contest «Competition of Little Inventors». During the third thematic week «In the World of Native Nature» the children took part in the quiz «Water Bodies on Earth», the drawing competition «Nourishing Water», the experiments with 3 aggregate states of water (liquid, ice, and steam), game «Water Music», and walking excursion to the Southern Buh River.

Thus, the recreational therapy at the UNIVER-3D Centre combined recreation, creative work, and sports with cognitive, aesthetic, ecological, and health-improving activities. The work was based on the principles of children’s voluntary participation and their free choice of various activities. Among the main forms of work, there were: group activity, work in pairs, role-playing games, collective creative work, creative projects, etc. The recreational therapy at the UNIVER-3D Centre created a positive psychological climate and encouraged communication between children of different ages.

In the last week of the children’s stay at the UNIVER-3D Centre (in August 2022), the WAM questionnaire was repeated to track the changes in their emotional and functional states.
According to the «well-feeling scale» 18% of children had low indices, 47% – average indices, and 35% – high indices of self-assessment their own well-feeling (Fig. 1).

According to the «activity scale» 16% of children had low indices, 36% – average indices, 48% – high indices of self-assessment their own activity (Fig. 2).

According to the «mood scale» 15% of children had low indices, 45% average indices, and 40% had high indices of self-assessment mood (Fig. 3).
Organising the experimental implementation of the first two stages of the simplified model of emergency education in martial law conditions, we put forward two statistical hypotheses:

1) the indicators of well-feeling, activity and mood before and after the experiment will remain similar, \( H_0 \);

2) the indicators of well-feeling, activity and mood before and after the experiment will differ significantly, \( H_1 \).

To confirm \( H_1 \) and refute \( H_0 \), we performed calculations separately for each category using the Student’s paired t-test formula for two dependent samples (Tyschenko & Volovyk, 2013):

\[
t_{\text{emp}} = \frac{\bar{d}}{S_d}, \text{ where } \bar{d} = \frac{\sum_{i=1}^{n} d_i}{n}, \text{ and } d_i = x_i - y_i \text{ is the difference between the corresponding indicators in both samples; } O_d \text{ – the average value of these differences;} \]

\[
S_d = \sqrt{\frac{\sum_{i=1}^{n} d_i^2 - \left(\frac{\sum_{i=1}^{n} d_i}{n}\right)^2}{n(n-1)}}.
\]

For the legitimate use of the Student’s paired t-test, we first ordered the empirical set of numerical data before \((x_i)\) and after \((y_i)\) the formative experiment, then formed the corresponding statistical series of the distribution of values in both samples.

We compared the empirical values \((t_{\text{emp}})\) with the table value \((t_{\text{tab}})\) for the corresponding degree of freedom.
For all three categories, the empirical value of $t_{emp}$ was greater than the table value $t_{tab}$ at the significance level $p \leq 0.01$ (5.78 > 3.25 – for well-feeling; 5.46 > 3.25 – for activity; 6.03 > 3.25 – for mood). Therefore, there are reasons to conclude statistically significant differences between the functional states of children before and after recreational activities according to the simplified model of emergency education. It confirms hypothesis H1.

Based on the comparative analysis, we can report that the emotional and functional state of children from IDP families after the recreational therapy was characterised by stable, positive and harmonious moral and psychological experiences, was within the normal limits, and showed positive dynamics. These changes allowed the children to build new relationships within the new surroundings. On their first days at the UNIVER-3D Centre, the children were characterised by a certain depressed emotional background, high level of anxiety, high level of inertness and reluctance to perform any activities. Instead, over time, we observed that in friendly and comfortable conditions, children experienced more positive emotions. Improving the psycho-emotional state allowed children to perceive and understand each other, increased their desire to participate in activities, interact, establish interpersonal relationships, and feel high emotional comfort, a sense of security, and readiness to continue studying at school.

**Conclusions**

We fully support the conclusion made by international scholars that in wartime conditions, students need psychosocial interventions to develop their own potential for resilience in extreme situations. The previously developed *strategy of emergency education* turned out to be relevant and appropriate for use in the relatively safe territories of Ukraine, which underwent a full-scale invasion by Russia. At the same time, the *strategy of training teachers for professional activities in conditions of various emergencies* remains undeveloped in pedagogical science. Therefore, as the **perspective directions of further research**, we regard: investigating the best experiences of the Ukrainian teachers who had to continue education during the wartime; observing and interviewing the students to determine their psychosocial needs; developing psycho-corrective methods for psychosocial support of all participants in the educational process; adjusting and upgrading the curricular to train future teachers for the educational process organisation in the conditions of various emergencies.
References


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