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Peculiarities and causes of difficulties in learning educational material among schoolchildren and ways to overcome them

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Abstract

The aim of the study is to evaluate the efficiency of using the neuropsychological approach to solve the learning difficulties of schoolchildren. An empirical study summarized the evaluation of the correction program carried out using neuropsychological games and exercises with one hundred students in the second grade of the elementary school. The following evaluation strategies were used to assess the effectiveness of the programme: Schulte tables, the fourth extra technique and "memorization of two sets of words. The results obtained can be presented as follows: (1) The studied indicators of attention such as work efficiency and mental stability improved among students, only the criterion of the degree of workability remained without significant improvements but at the same time within the normative values. (2) Analyzing the mental processes of students, we can see a significant increase in the number of children who have improved such indicators of thinking as generalization and synthesis due to corrective exercises. (3) The study of memory processes showed that the number of students who experienced special correctional exercises was higher than words at the very beginning without special psychological support. This study concludes that the general solution to learning problems and the compensation of deficiencies in the development of various cognitive processes are the objective advantages of organised corrective neuropsychological sessions with students. This experiment may provide a plan for further research and adoption of the help for schoolchildren in practice.

Keywords: Education, Educational material, Learning difficulties, Overcoming academic failure, Schoolchildren, Neuropsychological approach.

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Contents

Contribution of this paper to the literature
This paper summarizes reviews of existing works on the peculiarities and causes of common difficulties faced by students in mainstream schools. A literary review presents a dual approach to difficulties: one as a natural phenomenon, the other as a problem that needs to be resolved.

1. Introduction

The current socio-economic situation in society has set the task for the education system to make young people well-educated, morally educated, business like and enterprising who are ready to independently make responsible decisions when given the opportunity.

Special emphasis is placed on the free and harmonious development of each child's independence, giving him the chance to realise his unique potential and on getting a full-fledged and high-quality education.

A sharp decline in the general and mental health of schoolchildren, a strengthening of students' lack of motivation for educational activities, the presence in educational institutions of students who have trouble understanding educational programmes and an increase in the number of children with behavioural deviations have all been noted as problems with the implementation of the tasks set in numerous scientific studies. It is difficult to solve these issues without determining their causes and conducting a comprehensive historical and pedagogical review of the extensive educational practises aimed at avoiding and addressing student failure in school and their academic performance. Thus, the need to find effective and acceptable methods of preventing school failure for younger students is actualized. Various theoretical developments in this area reflect the heterogeneity and lack of a unified view of this problem.

One most productive and relevant approach to dealing with mental retardations in young learners as well as that of preventing and coping with difficulties in teaching them is offered by neuropsychology. The approach involves correctional and developmental techniques regarding the individual's typological neuropsychological characteristics. These characteristics include the state of higher mental functions as well as the components of these functions' development, the strengths and weaknesses of the learner.

2. Literature Review

Nation (2019) examined the factors that lead to children's difficulties with reading comprehension and text analysis. The author examines the two components of the reading process which are language comprehension and decoding skills.

Lodge, Kennedy, Lockyer, Arguel, and Pachman (2018) assign a special role to describe the two opposing aspects of the difficulties: the first one as negatively affecting the process of cognition and the second one as including a positive dimension for the student. There is a certain continuum that leads to frustration. When a student is having trouble, it's important to help them as soon as possible. The concept may be used to create the entire educational process as the most effective learning method. Thus, the authors believe that difficulties are necessary and very important to learning.

Al-Qadri, Zhao, Li, Al-Khresheh, and Boudouaia (2021) concluded that there are five fundamental learning difficulties that students experience based on the scientific analysis of various sources. These difficulties include reading difficulties, writing difficulties, difficulties of expression (correctly and accurately convey or express thoughts), difficulties of counting and general difficulties with studying (problems caused by a lack of skill in organizing learning activities). The scientists examined elementary school students using a questionnaire they had developed and found that children find it difficult to express themselves.

Antonis (2022) believes that children who have learning challenges may feel more depressed than students who seem to pick up the material more easily.

Karunanayake, Madushani, and Vimukthi (2020) conducted research to study the features of existing learning difficulties among students and found the following: 1. Teachers were unable to distinguish the difficulty faced especially its kind due to several gaps that were found in the organisation of the teachers and the method itself. 2. Teachers do not know how to help a particular student with an impassable learning difficulty. 3. We frequently observe teachers speaking to children who are struggling in a dismissive manner rather than in a supportive one. 4. Intelligent students are more likely to get encouragement from teachers than weak students.

Maryani, Husna, Wangid, Mustadi, and Vahechart (2018) identified the reasons why primary school children had learning difficulties. Scientists suggested the following reasons: low concentration of attention on educational information, low motivation of students to learn a school subject, teaching methods that did not contribute to the development of students' search activity, lack of parents' attentive attitude to school problems of their children, negative influence of various information and the child's inability to pick out the key point while arresting time and attention to worthless material.

Several other reasons for learning difficulties are identified by the authors. Bhebhe, Ntinda, and Maseko (2022) consider that physical infrastructure and educational resources are unavailable and insufficient to support students with learning difficulties in the classroom. There are too many students in the classroom making it difficult to provide individuals who have learning issues and the lack of teachers' specialized training to work with students with learning difficulties. According to Bhebhe et al. (2022), addressing and reducing these reasons would help with the issue of newly emerging learning challenges in the teaching of children.

Susanto (2021) studied the difficulties that a student experiences when memorizing and replenishing vocabulary while learning a foreign language. He identified the types of speaking difficulties (difficulties with pronunciation and spelling of words, picking the suitable meaning of a word in the context) and the factors that caused these difficulties (the difference between written and oral speaking, the vast amount of words to memorize, difficulties with pronunciation of words and others).

Salam and Nurnisa (2021) also researched the challenges of language learners highlighting similar types of difficulties associated with the pronunciation of specific sounds, spelling, memorizing long syllabic words and understanding the meaning of unfamiliar words.

The processes used by students to overcome challenges in learning particularly when changing learning modalities as well as experiences that may be used to analyse are explained by Olila (2021). Thus, the author identified the following effective coping strategies: developing new learning styles and habits, using technology that can aid learning and committing oneself to discipline, commitment and purpose.

Efriana (2021) describes a number of challenges and difficulties faced by teachers and students when shifting to an online form of education, namely:

1. Difficulty in understanding and assimilation of the material by all students when the material is presented for independent work without the teacher's direct supervision.
2. Technical capabilities and limitations of the teacher oneself when not every student has adequate computer skills.
3. Restrictions in the form of online verification of students' activity throughout the course of study.

Suparwito (2019) identifies factors influencing the difficulty level of learning which include:

1. Active participation in the learning process.
2. The teacher's attitude to the subject and approach to teaching.
3. The usefulness of the knowledge gained, the perspective of using knowledge in life increase stimulus and interest.
4. The quizzes, assignments, projects and exams as an important element for checking the acquired knowledge of students and provide feedback for the teacher.
5. The teacher's commitment to the subject and the accessibility of explanations.

Zakopoulou, Sarris, Zaragkas, Tsampalas, and Vergou (2019) confirmed the impact of memory on primary school students' poor academic performance when they discovered a statistically significant relationship between working memory and the variables of digit span, picture memory, pattern memory, grapheme discrimination, phoneme discrimination and phoneme composition. Reading and abstract theoretical reasoning are challenging for students with weak memories.

In contrast to previous researchers, Cisco (2020) exhibits a different concept of learning difficulties such as how to address apprehension and confusion without rejecting them. Difficulty is a natural process in learning, a kind of riddle that encourages the student to engage in a creative search. According to Cisco (2020) and Jonathan's observations, the students were divided into two groups: the discomfort of the difficulty paper gave an impulse to overcome confusion while the difficulties left the second set of students dissatisfied but it was their recognition of this dissatisfaction and its consequences that helped them gain a better knowledge of the subject.

The approach adopted by Rosedahl and Ashby (2019) on the problem of learning material difficulties focuses on establishing the measure of complexity itself as a concept of structural and underlying learning tasks. The scientists believe that difficulty and complexity have become matters that are sought to be simplified but complexity is at the heart of achievements.

The authors use the COVIS (Cognitive Vision System)in which the Striped Difficulty Metric (SDM) is highlighted as the most objective and suitable for measuring the complications of the material being studied. COVIS (Cognitive Vision System) is a procedural learning model developed in cognitive science to explain human perception and the visual processing of information. COVIS is one of the models offered within the framework of the visual information processing modeling called the two pathway model. The COVIS model itself explains how these two pathways interact and affect visual perception. It assumes that visual information passes through both paths simultaneously but at different rates and with different filters. As a result, there is a rapid and unconscious perception of the location and movement of objects followed by a slower and more conscious perception and recognition of the shape and features of objects.

Eryilmaz, Işmarci, Yayik, Mengüç, and Koç (2022) studied difficulties in elementary school children in the process of studying mathematics. According to them, it is necessary to introduce computer and technical support into the practice of teaching which will impact all sensory organs as they are referred to by the authors themselves, supporting technical multi-programs to improve the understanding of the subject. This study involved the study of difficulties in children who required a special correctional background setting.

Elwan, Gaballah, and Khalifa (2019) confirm the importance of teaching schoolchildren such components as "planning", "attention", "simultaneous processing" and "successive processing" proposed by scientists Das and Naglieri. The planning process is responsible for the control and use of existing processes and knowledge, orientation towards achieving goals and self-regulation, attention provides focused and selective cognitive activity. Simultaneous processing allows combining individual stimuli into a group and sequential processing combines stimuli into a sequential order forming a certain sequence.

As a result, the analysis of the various causes of academic difficulties covers a wide range of topics which includes problems related to students' poor writing and reading skills, the ineffectiveness of teachers' methods of instruction and a lack of parental support. The existing neuropsychological approach by Akhutina, Panikratova, Korneev, Matveeva, and Vlasova (2019) effectively solves the difficulties that students have due to the weakness of certain mental processes. A specially organized set of neuropsychological exercises can fill in the gaps in development thereby increasing the effectiveness of the student's learning. We have developed a program for correcting the cognitive difficulties of educational material for elementary school students using a neuropsychological approach based on the research of the following scientists. Analysing the students' attention before and after special supportive neuro-correctional activities, we determined the dynamics of these exercises and evaluated the relevance of the work that had been done.

3. Research Method

Schulte tables, the "fourth extra" technique and memorization of two groups of words were used as neuropsychological techniques to examine the level of cognitive function development in second-grade students of the primary school in the version of the A.R. Luria battery of tests. It should be noted that we conducted these methods twice, the first time as a summative stage to identify the baseline level of development of cognitive

processes in children and the second time to test the efficiency of the program we organized to correct cognitive difficulties in schoolchildren at the end of all enrichment activities.

1.Continuous attention and performance distribution were assessed using the "Schulte Table" technique. The following indicators are analyzed in the course of the methodology: performance efficacy (PE), warm-up degree (WD) and mental stability (MS). Each indicator determines work productivity. The warm-up degree shows how quickly students get involved in performing the task and the mental stability indicator denotes the exhaustion of attention in the process of the challenged task.

2.The 'fourth extra' technique is used to solve problems that require to find an extra element in a list or sequence. This technique involves finding an element that differs from the others by a certain criterion and is aimed at exploring verbal thinking.

3.Memorization of two groups of words (the test is aimed at studying the processes of memorizing auditory and verbal information). It provides a tool to study the neurodynamic component of the memorization process and the influence of interference on the processes of memorization and reproduction. It also provides means for revealing the difficulties of phonemic analysis, evaluating the possibilities of involuntary memorization, developing regulation for monastic activity and controlling the process of memorizing and reproducing words.

4. Results

The data were analyzed with R version 4.2.1. Descriptive statistics were calculated and presented as means (M) and standard deviations (SD) for continuous data with a symmetric distribution while medians (Mdn) and percentiles (P25; P75) were displayed alternatively. The distribution of the data was evaluated by analyzing Skew and Kurtosis as well as the visual inspection of histograms. A Levene's test was used to assess the assumption of homogeneity of variance.Furthermore, if parametric assumptions were fulfilled, the matched-pairs t-test was used to analyse pairwise comparisons for continuous data. Otherwise, the Wilcoxson signed-rank test was used. The effect size was expressed as Cohen's d as well as the rank-biserial correlation coefficient r. The statistical level of significance was accepted as $p < .05$.

100 students in the second grade of a secondary school participated in the study. We carried out 3 diagnostic methods:

1. Schulte tables.
2. The 'fourth extra' technique.
3. Memorizing two groups of words.

The "Schulte Tables" approach involved the participants with five tables, one after the other, each with randomly placed numbers from 1 to 25 using a stopwatch. The participants showed the numbers and named them in ascending order. The test was repeated with five different tables. The task execution time and the number of errors were recorded. The obtained diagnostic results are shown in Table 1.

The analysis of the data obtained showed that according to the first criterion, work efficiency (WE), the assessment of which is correlated with the age of the child and is measured in points where a high score is a good result and a low one refers to a poor result, after special remedial classes with students in the class increased the percentage of students who took the least amount of time to complete the presented stimulus material from 30% to 42% and the time of the smallest indicator remained the same ranging from 33% to 35%. The results of the performance indicator are presented in Table 1.

Table 1. Performance indicator in %.

Scores	Before	After
1 (46 - 50 sec.)	30	42
2 (51 - 60 sec.)	24	7
3 (61 - 70 sec.)	6	11
4 (71 - 80 sec.)	7	5
5 (More than 81 sec.)	33	35

In terms of the degree of workability where the result is less than 1, 0 is an indicator of good workability. The higher this indicator is 1, 0 means that the test subject needs to prepare for the main work. The percentage of students with a good degree of quick response to inclusion in work has increased from 30% to 92%and there is also a sharp decrease in the number of students with poor involvement in work from 70% to 8%. The percentage results are shown in Table 2.

Table 2. Index of the degree of workability in %

Coefficient	Before	After
> 1, 0	70	8
< 1, 0	30	92

The results were as follows in terms of mental stability: a result of less than one means that the subject is mentally stable while results of one or more means that the subject is not mentally stable enough to do the task. A rise in the coefficient of psychological stability of students' attention following corrective exercises from 52% to 94% and a drop in the percentage of students with low mental stability and consequently with rapid fatigue from 48% to 6%. The results are presented in Table 3.

Table 3. The indicator of mental stability in %.

Coefficient	Before	After
>1,0	48	6
< 1,0	52	94

Table 4 shows the comparison of PE, WD and MS before and after the implementation of the program. The findings suggest that PE was significantly higher after the program (Mdn= 48.80) than before (Mdn= 55.40), T = 4961.5, p < .001, r = .965. However, for the WD the opposite was true: the indicator's level experienced a significant increase after the program (Mdn= 0.990) as opposed to the level before the program (Mdn= 0.940), T = 1506.5, p = .003, r = .353. There was not a significant effect of the program on the MS, T = 2751.0, p = .438, r = .099. Thus, the stated statistical results show that the implemented programme for addressing learning problems with neuropsychological exercises is important by almost all criteria. In terms of the degree of workability, the indicator has increased and we can explain this by the fact that the criterion of the normative value is taken as 1, the indicators do not go beyond the normative value and there is still the influence of a secondary factor which may become the basis for continuing research in this area for a more in-depth answer.

Table 4. Comparison of PE, WD and MS after the program.

Variable	Before (N=100)	After (N=100)	T - value	p-value	R
PE	55.4 (44.1-80.1)	48.8 (36.7-66.5)	4961.5	<0.001	0.965
WD	0.940 (0.83-1.01)	0.990 (0.91-1.04)	1506.5	0.003	0.353
MS	1.04 (0.90-1.12)	1.01 (0.94-1.08)	2751.0	0.438	0.099

Note: Results are presented as Mdn (P25-P75); r – rank-serial correlation.

During the "Fourth Extra" test, the students are given 5 groups of 4 words, each of which contains a word that must be checked and an explanation of why it should not be in the group. Performance is measured by two criteria: the number of correctly chosen words and the number of proper explanations of the choice where each correct answer scores one.

Thus, we evaluated the following parameters: the number of correctly picked words (CPW) and the number of correct explanations of the choice of words (CW).

According to the first criterion which is the quantity of correctly chosen words, there has been a marked decrease in the number of zero indications, although prior to the implementation of the programme, there were 20 students present. Furthermore, there was a more than twofold increase in the highest score for the test from 9 to 33 participants. The results are presented in Table 5.

Table 5. Correctly picked words (CPW) in the "fourth extra" test (%).

Score	Before (Number of students)	After (Number of students)
0	20	0
1	4	0
2	15	11
3	12	31
4	40	35
5	9	33

According to the criteria of the quantity of accurate word explanations, there is an upward tendency in the top indicators, namely 3 scores (from 23 to 38 students), 4 scores (from 23 to 38 kids) and 5 scores (from 0 to 5). Table 6 displays the findings using the criteria of appropriately constructed explanations for word choice.

Table 6. Correct explanations of the choice of words (CW) (%).

Score	Before (Number of students)	After (Number of students)
0	23	0
1	15	5
2	36	19
3	23	38
4	3	33
5	0	5

Table 7 displays the comparison of *CPW* and *CW* before and after the implementation of the program. With respect to *CPW*, on average, the figure increased significantly after the program (M = 3.70, SE = 0.094) compared to the level before the program (M = 2.72, SE = 0.169), t(100) = −7.512, p< .001, d = 0.747. Similarly, the *CW* saw a significant rise after the program (M = 3.14, SE = 0.094) as opposed to the *CW* before the program (M = 1.66, SE = 0.115), t(100) = −16.255, p< .001 and d = 1.617.

Table 7. Comparison of CPW and CW after the program.

Variable	Before (N=100)	After (N=100)	t - value	p-value	D
CPW	2.72 (1.70)	3.70 (0.94)	−7.512	<0.001	0.747
CW	1.66 (1.16)	3.14 (0.95)	−16.255	<0.001	1.617

Note: Results are presented as M (SD); d Cohen's d.

The "memorizing two groups of words" technique involved a task where students were asked to repeat and memorize 2 groups of 3 words. Words are read out 3 times where the first time the children are not told to remember the words but just to repeat, thereby checking the involuntariness of the memorization processes and in the second and third attempts, the researcher makes a provision to memorize the words. The scoring system assumes an assessment based on two criteria: the first is memorization and the second is the number of mistakes

made. Since the overall total number of words is 6, the scores range from 0 (i.e. the child for personal reasons failed to recall a single word) to 6 (maximum words recalled).

Thus, considering the general indicators according to the technique of "memorizing two groups of words" from the analysis of quantitative data, it can be noted that after the introduction of the program at the second and third reproduction a larger number of students managed to recall all 6 words namely: 32 before, 41 after and 37 before and 43 after the program. The over-time results of memorization of words are presented in Table 8.

Table 8. Word memorization over time.

Number of words	No. recalled before (Number of students)			No. recalled after (Number of students)		
	1	2	3	1	2	3
0	0	1	3	0	0	0
1	0	3	1	5	0	0
2	0	7	3	19	0	1
3	32	11	3	38	6	4
4	6	20	15	33	25	18
5	35	26	38	5	28	34
6	27	32	37	0	41	43

Table 9 shows the results of the program and its impact on productivity in memorizing 2 groups of words. In the first attempt, the productivity of memorizing 2 groups of words was significantly higher after the program (M = 4.97, SE = 0.093) compared with the number before the program (M = 4.57, SE = 0.119), t(100) = −6.281, p< .001, d = 0.625. Similarly, in the second and third attempt, the productivity of memorizing 2 groups of words was significantly higher, t(100) = −5.630, p< .001, d = 0.560 and t(100) = −2.271, p= .025 and d = 0.226, after the program (M = 5.04, SE = 0.094) and (M = 5.15, SE = 0.092) compared with the number before the program, (M = 4.54, SE = 0.145) and (M = 4.94, SE = 0.125) respectively.

Table 9. Comparison of the productivity of memorizing 2 groups of words after the program.

Attempt	Before (N=100)	After (N=100)	t - value	p-value	D
1	4.57 (1.19)	4.97 (0.93)	−6.281	<0.001	0.625
2	4.54 (1.45)	5.04 (0.95)	−5.630	<0.001	0.560
3	4.94 (1.26)	5.15 (0.92)	−2.271	0.025	0.226

Note: Results are presented as M (SD); d – Cohen's d.

Analysis of correctly recalled all 6 words with no errors revealed that the number of students after the implemented program increased from 18 to 26 on the first attempt from 31 to 35 on the second and from 35 to 43 on the third attempt. A similar increase in the number of students after the completed classes who recalled 4 and 5 words from memory with no errors can be observed almost at every attempt. As a result of the implemented and carried out programme, the number of individuals who correctly and without errors recalled 0 to 3 words decreased significantly. For example, there were 32 people before and 11 after, on the second attempt, there were 11 before and 7 after. Thus, it can be noted that the number of students who made fewer mistakes when recalling words in general increased after the program in comparison with those who did not have these correctional classes. The results of the number of correct words recalled with no errors by students are presented in Table 10.

Table 10. The number of correct words recalled with no errors.

Number of words	Number recalled before (Number of students)			No. recalled after (Number of students)		
	1	2	3	1	2	3
0	0	1	2	0	0	0
1	0	4	1	0	0	0
2	4	6	3	0	1	1
3	32	11	4	11	7	4
4	18	21	16	26	27	19
5	28	26	39	37	30	33
6	18	31	35	26	35	43

However, the number of mistakes made by the participants increased significantly in all three attempts (see Table 11). In the first attempt, the number of mistakes was significantly lower before the program (M = 4.25, SE = 0.119) as opposed to the number after the program (M = 4.77, SE = 0.095), t(100) = −5.782, p< .001, d = 0.575. Correspondingly, in the second attempt, the number of mistakes was significantly lower before the program (M = 4.51, SE = 0.146) as opposed to the number after the program (M = 4.92, SE = 0.099), t(100) = −4.088, p< .001, d = 0.407. In the third attempt, the number of mistakes was also significantly lower before the program (M = 4.88, SE = 0.125) as opposed to the number after the program (M = 5.14, SE = 0.092), t(100) = −2.238, p= .007, d = 0.272.

Table 11. Comparison of the number of errors when memorizing 2 groups of words after the program.

Attempt	Before (N=100)	After (N=100)	t - value	p-value	D
1	4.25 (1.20)	4.77 (0.96)	−5.782	<0.001	0.575
2	4.51 (1.47)	4.92 (0.99)	−4.088	<0.001	0.407
3	4.88 (1.26)	5.14 (0.93)	−2.738	0.007	0.272

Note: Results are presented as M (SD); d – Cohen's d.

Thus, the presented statistical results indicate the significance of the implemented program for correcting learning difficulties with the help of neuropsychological exercises. The only thing in the methodology of the "Schulte Table" in terms of the warm-up degree, the indicator has increased and we can explain this by the fact that the criterion of the normative value is taken as 1 and the indicators do not go beyond the normative value and there is still the influence of a secondary factor which may become the basis for continuing research in this area for a more in-depth answer.

4. Discussion

Learning difficulties require careful study. Zoubi, Mohammad A. Bani Younes offer the following conclusion and recommendations for the unification of poor academic performance which include the following components: harmonization of the physical and mental health of students, provide safe and comfortable learning for students, the use of pedagogical techniques to increase the overall motivation for learning activities, the development and training of school teachers with the aim of the most effective ways of transferring knowledge to students and the close connection and introduction of new technologies in the practice of teaching including world experience.

Lodge et al. (2018) describe the importance of support and state that teachers should consider students' emotions in the case of significant difficulties. One manifestation of such emotions is students may feel confused when they have to deal with a difficult task. Emotions are an important indicator and marker of students' difficulties. The increased autonomy of learning which includes computer-assisted learning and online learning makes it difficult for teachers to monitor students' varied emotions.

Researchers Arrow, Neville, Denston, and Nicholson (2022) studying the general literacy of students emphasized the importance of assessments of students and further measures taken that will contribute to the identification of existing learning difficulties and the subsequent intervention of teachers to correct those difficulties. Thus, it is necessary to conduct assessments that involve information about a specific difficulty and provide assistance to students that will be consistent and most importantly, effectively address the difficulty identified.

The findings of the study by scientists Al-Qadri et al. (2021) have shown that any programs arranged to overcome learning difficulties should take into account the student's age and gender. The researchers also propose to establish resource rooms that will act as a monitoring of the existing difficulties of students and will contribute to increasing their stress resistance.

Karunanayake et al. (2020) suggest that teachers should use a supportive tone while speaking to students. It has been observed that participating in extracurricular activities makes children with learning difficulties feel better. As a result, personal support for the children and the balancing of their emotional backgrounds lead to acceptance and boosting self-esteem. It is crucial to inform instructors of the distinctive characteristics of children of a certain age as well as the current challenges they face.

Fauziah and Mahmudah (2020) suggest using cooperative and research strategies consisting of a certain sequence in the process of their implementation to overcome learning difficulties. The following actions are effective: presenting incompletely illustrated information to students where the main goal is to increase motivation to learn new things.

Many scientists in their studies of learning difficulties focus on overcoming and those objective factors that can be used to minimize them and make the learning process more successful. For example, As' ad, Sudira, and Hasriani (2021) believe that overcoming learning difficulties is necessary to influence the motivational sphere of students, foster student interest in the studied material of the school curriculum and form good learning habits which can be provided with the help of effective computer-aided technical programs to encourage students' independence in learning.

Thus, many scientists believe the direct influence on the student and the individualization of financial assistance are important aspects of research to enhance the academic performance of students. The student's maturity level in relation to age-appropriate standards is taken into account by the neuropsychological approach which also takes into account differential diagnosis.

Akhutina et al. (2019) support a neuropsychological approach in correcting difficulties faced by learners since it allows defining the root causes and coping with them. According to Akhutina et al. (2019), neuropsychological correction allows solving the problems of learning difficulties in younger students by solving the following tasks that can be used when compiling a correctional development program, increasing efficiency, stability of attention, increasing the level of development of amnestic processes, increasing the level of development of programming and control functions, elimination of difficulties in processing auditory and visual information, increasing the level of development of spatial representations, improving the development of motor and graph motor spheres.

Thus, the analysis of the literature allows us to conclude that the neuropsychological approach to correcting the difficulties in mastering the educational program among younger schoolchildren will be effective within the framework of an organized study.

6. Conclusion

The approval of the programme for addressing learning difficulties had a positive impact on the indicators of attention in elementary school students and in the context of practical classes on high motivation for finishing tasks as well as a gradual improvement in their performance of tasks (complicating instructions, reducing errors and reducing the number of difficulties in performing assignments). The evaluation of the effectiveness of the developed program has proven its effectiveness. The neuropsychological approach is one of the most effective against learning difficulties.

References

Akhutina, T. V., Panikratova, Y. R., Korneev, A. A., Matveeva, E. Y., & Vlasova, R. M. (2019). Understanding of active and passive constructions in 7-to 10-year-old Russian-speaking children: Reliance on inflections or word order. *Psychology in Russia: State of the Art, 12*(1), 3-20. https://doi.org/10.11621/pir.2019.0101

Al-Qadri, A. H., Zhao, W., Li, M., Al-Khresheh, M. H., & Boudouaia, A. (2021). The prevalence of the academic learning difficulties: An observation tool. *Heliyon, 7*(10), e08164. https://doi.org/10.1016/j.heliyon.2021.e08164

Antonis, T. (2022). Learning difficulties and reading comprehension in the school performance of students in the first grades of primary school. *Journal of Scientific Research and Biomedical Informatics, 3*(1), 1-4.

Arrow, A., Neville, A., Denston, A., & Nicholson, T. (2022). Investigating the number and type of literacy assessments and interventions in Aotearoa New Zealand primary schools. *Australian Journal of Learning Difficulties, 27*(2), 185-199. https://doi.org/10.1080/19404158.2022.2064522

As' ad, S., Sudira, P., & Hasriani, A. (2021). The affecting factors difficulty in learning case in vocational school students. *The International Journal of Social Sciences World, 3*(1), 155-164.

Bhebhe, S., Ntinda, K., & Maseko, T. (2022). Handling learners with learning difficulties in the classroom at primary school level: A case of teachers in the Manzini region of Eswatini. *Epra International Journal of Research and Development, 7*(7), 181–187.

Cisco, J. (2020). Embracing difficulty across the disciplines: The difficulty paper as a tool for building disciplinary literacy. *Teaching and Learning Inquiry, 8*(2), 73-89. https://doi.org/10.20343/teachlearninqu.8.2.6

Efriana, L. (2021). Problems of online learning during Covid-19 pandemic in EFL classroom and the solution. *Journal of Education, Language Innovation, and Applied Linguistics, 2*(1), 38-47.

Elwan, F., Gaballah, S., & Khalifa, A. G. (2019). Impairment of some cognitive process in children with reading disability in middle childhood, late childhood, and early adolescence. *Middle East Current Psychiatry, 26*(1), 1-6. https://doi.org/10.1186/s43045-019-0001-z

Eryilmaz, P., Işmarci, Z., Yayik, D., Mengüç, E., & Koç, K. (2022). Fractures in special learning difficulty. *New Era International Journal of Interdisciplinary Social Researches, 7*(12), 70–75. https://doi.org/10.46291/newera.164

Fauziah, S. B., & Mahmudah, F. N. (2020). Strategies of science teachers in overcoming the factors that cause learning difficulties. *International Journal of Educational Management and Innovation, 1*(1), 39–49.

Karunanayake, D., Madushani, K., & Vimukthi, N. (2020). The importance of identifying students with learning difficulty in the school context. *Asian Journal of Education and Social Studies, 12*(4), 8-18. https://doi.org/10.9734/ajess/2020/v12i430316

Lodge, J. M., Kennedy, G., Lockyer, L., Arguel, A., & Pachman, M. (2018). Understanding difficulties and resulting confusion in learning: An integrative review. *Education Psychology, 3*(49), 1-10. https://doi.org/10.3389/feduc.2018.00049

Maryani, I., Husna, N., Wangid, M., Mustadi, A., & Vahechart, R. (2018). Learning difficulties of the 5th grade elementary school students in learning human and animal body organs. *Jurnal Pendidikan IPA Indonesia, 7*(1), 96-105. https://doi.org/10.15294/jpii.v7i1.11269

Nation, K. (2019). Children's reading difficulties, language, and reflections on the simple view of reading. *Australian Journal of Learning Difficulties, 24*(1), 47-73. https://doi.org/10.1080/19404158.2019.1609272

Olila, R. (2021). Learning difficulties and coping mechanisms of education students in the shift to flexible learning modality amidst COVID-19 pandemic. *JPAIR Institutional Research, 17*(1), 60-75. https://doi.org/10.7719/irj.v17i1.752

Rosedahl, L. A., & Ashby, F. G. (2019). A difficulty predictor for perceptual category learning. *Journal of Vision, 19*(6), 20-20. https://doi.org/10.1167/19.6.20

Salam, U., & Nurnisa, N. (2021). Students' difficulties in learning vocabularies. *English Community Journal, 5*(1), 46-53.

Suparwito, H. (2019). Factors influencing the difficulty level of the subject: Machine learning technique approaches. *International Journal of Applied Sciences and Smart Technologies, 1*(1), 65-82. https://doi.org/10.24071/ijasst.v1i1.1869

Susanto, H. (2021). A study on students' difficulties in learning vocabulary. *Journey: Journal of English Language and Pedagogy, 4*(2), 46-50. https://doi.org/10.33503/journey.v4i2.1413

Zakopoulou, V., Sarris, D., Zaragkas, C., Tsampalas, E., & Vergou, M. (2019). Working memory and learning difficulties: Coexistence or a strong relationship? *European Journal of Special Education Research, 5*(1), 33-52. http://dx.doi.org/10.5281/zenodo.3464718