

## EDUCATIONAL INTERVENTIONS ADAPTED TO STUDENTS WITH SPECIFIC LEARNING DISORDERS

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**Abstract:** *Inclusive education is an educational desideratum whose transposition into practice implies a concrete, punctual educational reform, with directions of action clearly outlined by unequivocal legislation, complete and in terms of the role of all factors involved and specially adapted to Romanian society. Learning disorders are relatively new concepts in pedagogical theory and practice, and in terms of their legal recognition, in Romania only in 2016 appeared a legal provision that recognizes and clarifies this issue: the notions of dyslexia, dysgraphia, and dyscalculia and provides intervention to provide the personalized and individualized learning that these students need. The prevalence of specific learning disabilities (ISDs) is estimated to be between 5 and 15%, according to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5). Trying to clearly distinguish between a child with a specific learning disability and a child with a low motivation to learn or generally low learning ability is complicated and challenging. In order to remedy learning disabilities in the classroom, the teacher must know and build a series of teaching strategies tailored to the individual characteristics of the student with TSI, but also to achieve a genuine partnership with the family, other teachers in the classroom, the speech therapist or school counsellor, the support teacher and other specialists involved in the learning and recovery process. *Lucrarea de față încearcă să identifice și să exemplifice câteva demersuri specifice de intervenție psihopedagogică în cazul copiilor cu tulburări specifice de învățare.**

**Keywords:** *specific learning disorders; personalized intervention plan; early intervention.*

Inclusive education is an educational desideratum whose practical transposition supposes a concrete and punctual educational reform with action directions marked through legislation without equivocation, complete

from the point of view of all involved factors' role, and specially adapted to the Romanian society. The examples of good practice from other educational, international systems can build models with the condition to be piloted, tested and specially analysed in different economic, cultural contexts specific to our society.

Learning disorders represent relatively new concepts in pedagogical theory and practice. Regarding their legal recognition, in Romania only in 2016, a lawful provision was enforced, which recognises and clarifies this issue: dyslexia notions, dysgraphia and dyscalculia, and foresees the intervention method in order to offer personalised and individualised learning these students' need. According to the Diagnostic and Statistical Manual of mental disorders, the prevalence of specific learning disorders (TSL) is estimated to be between 5 and 15% (DSM-5).

According to the European Dyslexia Association research, the European people's segment that presents dyslexia is approximately between 5 and 12% of the population, with the highest prevalence from the learning disorder types. There is also a significantly lower percentage between 3-5% of students who present severe cases combined between the classical types: dyslexia, dysgraphia and dyscalculia.

There are no extensive studies on this issue in Romania at the national level. The prevalence of these disorders is unknown at the school population's level since the Romanian specialists' efforts are in the early stages. Such a study on the dyslexia incidence among children under 11 years is from 2011 within the "Move forward reading" (a partnership between OMV and the Romanian Association for Dyslexic Children). This study outlines that four from ten cases of students supervised by a specialist would be dyslexia cases.

The current legal provisions are not sufficiently known by teaching staff are not correspondingly applied. The educational needs of specific learning disorder students can not be separated from the social, economic, and cultural context where they live. It will affect their development from the point of view of precocious diagnosis and intervention, representing the pedagogical intervention's successful premises.

From the point of the educational need of view, the more and more complex casuistry from the previous years is a challenge for all the involved factors: student, school, family.

It is one of the most significant challenges because it involves multiple actions, which must converge in the desired meaning. These actions are interdependent starting from knowing students' particularities, learning disorder typology, teaching staff training, adapting teaching strategies to students' needs, content structuring, classroom arrangement, ensuring necessary support, involving the family in continuing teaching endeavour

from school; all to reduce barriers in learning and ensure the necessary support.

### **Definition of specific learning disorders concepts**

The syntagma: "specific learning disorders", known under the acronym TSI or DYS in English, comprises the concepts analysed in this paper.

It is essential to underline the fact that a specific learning disorder (TSI) is not considered to be a disease, which is treated or cured, but a *particular modality of processing the information* due to the different development and functioning of the central nervous system, which persists the entire life and which can only be remediated. We can discuss specific learning disorders (dyslexia, dysgraphia, dysorthography, dyscalculia), the case of students who obtain results at the calculation or reading-writing abilities' level way below expectations, reported to their intellectual capacities and involvement, effort in performing school tasks.

The Diagnostic and Statistical Manual of mental disorders (DSM-5) (APA, 2013) includes specific learning disorders in the neurodevelopmental disorders' category: "heterogeneous group of biological disorders, started in the development period and which, through the specific deficits in the ability to perceive and process efficiently and correctly the information, it is characterised by difficulties at the level of reading-writing instrumental skills or mathematical calculation.

According to the German Association of Psychiatry, Psychotherapy and Psychosomatics, the comorbidities analysis should be considered when diagnosing a reading-writing disorder considering the existing comorbidities introduced in the intervention plan.

Comorbidities include, in most cases: anxiety disorders, depressive symptoms, hyperkinetic disorders or attention deficits, school absenteeism, teenagers' behaviour disorders.

According to Order 3124/2017 on approving the Methodology for ensuring the necessary support to students with learning disorders, the involved concepts have the following significations:

"Learning disorders, named other *specific learning disorders (TSI)* – designates a heterogeneous group that affects the typical process of school abilities' acquisition (reading, writing, mathematical): dyslexia, dysgraphia (including dysorthography), dyscalculia. This is not a consequence of the lack of learning opportunities or learning motivation. It is not the result of an intellectual disability, laminar intellect, sensory deficit (for example, auditory, visual, motor), affective and emotional disorders of psychiatric nature, other disorders of (neuro) development (for example, ASD – autism spectrum disorders, ADHD – attention deficit hyperactivity disorder), and any cerebral trauma of acquisition malady does not cause it.

Dyslexia, dysgraphia, and dyscalculia may appear isolated or associated. They represent a biological origin disorder, not being a consequence of the lack of learning opportunities, the existence of some incapacitating conditions or some unfavourable conditions for learning”.

It is essential to outline the situations/conditions in which the diagnosis of **TSI is excluded**:

- the students’ intelligence coefficient (IQ) lower than 85 indicates the presence of an intellectual disability of a laminar intellect, when the existence of special educative requests which behave like another type of support, is assumed;
- sensorial, auditive and visual or motor deficits uncorrected, which may represent a significant obstacle in the reception and transmission of messages;
- psychiatric or neurological disorders organic or functional of acquisition (for example, autism, TSA, ADHD);
- the absence of learning opportunities (absenteeism, extended hospitalisation, belonging to unfavoured groups, lack of stimulation in both family and pre-primary education non-attendance, lack of practice, precarious or insufficient education);
- psychosocial disadvantages, including the insufficiency of knowledge of the teaching language;
- lack of learning motivation;
- other external influences relevant to the acquisition process.

### **The differentiation between students with a specific learning disorder and students with schooling difficulties**

The difficulties encountered by students in the school have an impact not only on the school performance but also on school adaptation, learning motivation, and class group integration.

Concerning the learning difficulties, the Pedagogy Dictionary (Horst Scaub și Karl G. Zenke, 2001, p.73) presents a synthetic definition that refers to the manifestation domain: “*learning difficulties manifest especially in the yield domain. Ofter, they are connected with repeated failures and have undesired influences on the personality development*”.

The attempt to distinguish a child with a specific learning disorder and low learning motivation or a general low capacity of learning is a complicated and challenging job.

In literature, the differences between learning difficulties and learning disorders are approached (Dubois și Roberge, 2010), which refer to the temporary character and remediation possibility of learning difficulties and, over time, persistence, the resistance to intervention in the case of learning disorders. Learning disorders appear earlier than the learning difficulties,

which install progressively through the increase of knowledge gaps and may appear in any stage of learning. Most of the students with TSI have a low level of school motivation (due to the lack of success, despite the efforts made), avoidant, oppositionist behaviours, passive (they get involved only if requested), had to train in tasks, develop anxiety about the school tasks or even, school phobia. All these characteristics may also appear at the students uninterested in school, with behaviour or school adaptation problems, with low learning potential, which is challenging to achieve a clear distinction.

Following recent approaches and legal provision, at the national and international level, the TSI suspicion requires a **closer observation** (minimum six consecutive months) from the teacher, the insurance of a **sufficient period of adequate instruction** for excluding the cases of schooling difficulties caused by an unfavourable context for learning and motivation growth for learning (children from deficient educational families, with a low socioeconomic and cultural level, children insufficiently stimulated in the preschool period, disharmonic families, etc.) or children with a slower neuronal maturation or caused by the fact that were schooled earlier concerning their psychotic development.

The establishment of learning difficulties is made after a summative pedagogical evaluation, in line with the programmes in which the learning objectives and performance standards are included.

Learning difficulties may be recovered, fully or partially, through an adequate psycho-pedagogical endeavour (followed by medication or not) or eliminating the conditions that lead to the pedagogical retardation instalment.

The main difference between the two issues approached: the uninterested student, insufficiently motivated, with knowledge gaps, school adaptation problems, and the student with TSI refers to the **recorded progress**. The students from the first category may have significant improvement due to adequate, supportive training, remedial activities, or resolving some external causes that generated or supported some behaviours (for example, resolving some familial conflicts). When speaking of the TSI student, the progress is plodding despite the constant effort made by the student, the family and the teachers involved in the educative process.

It happens because the specific learning disorders imply a deficit at the neuronal, cognitive level, which may be compensated only partially, not totally, remediated. The difference is made by the early on as possible specific therapeutical intervention, or on the contrary, made only later or not at all, which leads to educational gaps accumulation, but especially to emotional and school adaptation disorders besides the disorders mentioned above.

### **The Methodology for ensuring necessary support for students with specific learning disorders**

The individualisation process of differentiated learning/training represents a core principle of classic pedagogy that in students with TSI, has great relevance.

The differentiation of training supposes an adaptation strategy of instructive – educative actions at the psycho-physical particularities of students to better integrate into the school activity. The projecting and realisation of differentiated training supposes the **relation valorisation** between the engaged *human resources* on one side and required *knowledge and capacities/competencies* through school programmes and the school institution structure on the other side.

The main request in learning organisation and guidance is the individualisation of strategies and methods for students with learning disorders.

In order to remediate the learning disorders at the students from the classroom, the teacher shall know and build a series of particularised teaching strategies based on the individual characteristics of the students with TSI, and also to realise an authentic partnership with the family, the other teachers from the classroom, the speech therapist or the school counsellor, the supporting teacher and other involved specialists in the process of learning and recovering.

This endeavour shall be preceded by an excellent preliminary investigation of the student's abilities by identifying the predominant learning style and recognising strengths that may constitute valuable resources in the learning process.

The teacher (professors, schoolmasters, educators), who educates the students with learning disorders, shall fulfil a couple of fundamental requests:

- to know as well as possible each student's learning difficulties/disorders, specific to some curricular areas and study disciplines, as well as their manifestation mode;
- to apply instruments of observation, monitorisation of students' acquisitions;
- to adapt the methodological and procedural resources, as well as the material ones to the learning difficulties specificity, to diminish and overcome them;
- to apply the legal provisions in force;
- to apply compensation measures, compensatory instruments, dispensaries measures foreseen by the law;
- to make adapted evaluations to these students;
- to compile personalised educational plans;

- to collaborate with the supportive teacher (if any in the unity), the family, and all factors involved in the recovering process;
- to ensure that the students in a problematic situation own the necessary acquisitions (knowledge, capacities, abilities, etc.) for exceeding the crisis in which they are;
- to self-evaluate the learning activities efficacy to adjust learning conditions;
- to contribute to constructing a secure, adequate and stimulative learning environment.

In the last years, Romanian specialists focused their attention on studying this issue and their efforts and work on the standardisation of some tests' batteries. One such example is that the Research Laboratory within the Faculty of Psychology and Education Sciences from Cluj Napoca, where the MT reading tests for the primary cycle – 2(MT) (Cornoli and Colpo, 2011, used in Italy) are in the process of standardisation.

**Order 3124/2017** on approving the Methodology for ensuring necessary support for students with learning disorders regulates the adequate evaluation proceedings for screening dyslexia, dysgraphia, dysorthography, dyscalculia, and the intervention type for providing individualised and personalised learning in their case.

***The purpose and objectives*** of this legal provision are:

- guaranteeing the right to education of all students identified with TSI;
- favouring the early diagnosis and the establishment of the rehabilitative didactic pathways;
- adopting forms of verification and evaluation adequate to the formative need of the students;
- fostering students' schooling success through supportive teaching measures, ensuring adequate training and promoting the development of each student's potential
- training teachers, support teachers, psychologists, speech therapists, school counsellors, as well as empowering and sensitising parents in dealing with problems related to learning disabilities;
- reducing relational and emotional difficulties, secondary to learning disorders;
- providing support measures (compensatory instruments and exemption measures);
- ensuring equal opportunities for the development of all students' abilities, necessary in the social and professional environment.
- increasing communication and collaboration between school, family and other involved institutions (CJRAE, medical units, non-governmental associations)

## RESEARCH DESIGN

### **The purpose and general objectives of the research**

In the school environment, students with specific learning disorders, which have certain particularities, determine the development of supportive educational policies but especially require implementing differentiated teaching strategies that fit their psycho-educational profile.

**The purpose of the psycho-pedagogical intervention is to improve** the school skills of students with specific learning disabilities and by using differentiated educational strategies adapted to their particularities and providing support measures.

### **General objectives of the research:**

- Knowing the psycho-educational profile of the students with specific learning disabilities.
- Ensuring supportive measures foreseen by the national legislation.
- Design and implementation of personalised intervention programs.

## RESEARCH METHODS

Ø *The case study* is used as an investigation method of data collection on the subject and for analysing the effects of psycho-pedagogical intervention carried out in this research.

Ø *Questionnaire-based survey method*: on its basis, answers are obtained regarding the phenomena, situations, behaviours analysed/investigated.

### Ø *Interview method*

Ø *The Method of observation* that allowed and collected data on the investigated subject also identified problems or problematic situations regarding the reporting manner to work tasks and the group of students in the classroom.

Observations provide essential information about the purpose and manner of learning, communication, social skills, desirable or undesirable behaviours during activities.

- *The analysis of the activity products/students' portfolios/school documents* – presents the students' results following the instructive-educational activities.

## Research plan organisation

### **Documentation**

The issue investigated and presented in this paper is engaging due to the novelty but especially comes to meet a growing need of the Romanian education system related to applying adapted methods and ensuring the necessary support for students with specific learning disabilities.



### **Selecting subjects**

The three subjects of the case studies presented are students diagnosed with TSI and were selected from the Assessment Service for School and Vocational Guidance's database (SEOSP). Certificates of school and professional guidance by COSP were issued, on which basis the school units to which they are registered must provide the supportive measures foreseen by Order 3124/2017. The parents were the ones who addressed SEOSP and requested additional information about the supporting efforts to which they are entitled. They noted that students are not adequately supported because their teachers have not attended training activities on the learning disabilities issue, do not know and do not apply the supportive measures provided by the legislation in force, mainly due to its novelty and bureaucratic complexity. The CJRAE network of school counsellors facilitated the intervention over them.

### **Initial evaluation of cases**

After identifying and locating the selected cases, a first step was the initial assessment of the subjects. Tests, questionnaires, observation grids, analysis of activity products, school results were all used to establish and identify the difficulties with which they also face the initial level of their acquisitions. The initial assessment of the subjects was performed by using a questionnaire to identify students at risk of a diagnosis of specific learning disorders, under Order 3124/2017. The questionnaire followed the students' monitoring by the teachers during the first semester of the school year 2018-2019 and from the observations made and the student's results in the previous years. Simultaneously, the students' school results, the products of the activity, and the evaluations from the class, the families were interviewed to draw a psycho-educational profile of them as complete as possible.

### **Building an intervention team**

The psycho-pedagogical intervention supposes a joint effort, teamwork both from the teachers and the family's involvement in supporting the steps from the class/school and especially their continuation at home. Within this research, a unique partnership was accomplished between the classes' teachers, the school counsellor, the family and the pedagogue who implements the intervention program. Each team member had his/her contribution and made all the necessary efforts to apply the agreed and assumed support measures.

Due to the novelty of the legislative provisions and the lack of teacher training on TSI, there was a slight reluctance of teachers in approaching proposed measures, methods of intervention, given the superior interest of

the student and especially the benefits we had from all the support in the planning and implementation of the intervention plan.

### **Intervention plan elaboration**

Concerning the design stage of the psycho-pedagogical intervention plan on the identified subjects, the analysis of the initial tests results, observation grids, study of the school documents (school results), school means (notebooks, products of the activity) was taken into account. There were also several meetings with all team members: teachers, counsellor, family and pedagogue, whose primary purpose was to establish the role and involvement of each one during the psycho-pedagogical intervention.

The questionnaires, observation grids, monitoring sheets that they may/will use, and the structure of a personalised educational plan that will be completed for each subject must be respected by all teachers.

### **The per se implementation of the intervention plan**

There were ten individual sessions with subjects, 5 group activities in class, five meetings with parents and five working sessions with teachers.

The intervention plan included the realisation of personalised education Plans for the three subjects and the teachers from the class. An educational plan model was used for students with TSI adapted from the model found in the guide “The dyslexic child - a common responsibility” developed by Bartok Eva.

Phonological awareness is an essential component of reading, seen as a bridge between oral and written language. A. Roşan and C. David (2019) define phonological awareness as the ability to perceive, represent and manipulate the phonemes that make up words and propose a structured training program of phonological awareness based on scientific evidence.

Romanian is a phonetic language in which the correspondence between phoneme and grapheme is high. It is suitable to apply phonetic methods in interventions in reading and writing disorders. Depending on the type of learning disorder, the individual characteristics of the subjects it intervened with educational methods frequently used at national and international level that proved their effectiveness to students with TSI.

Out of these, we mention:

- **The multisensorial approach** uses different materials simultaneously to help the child learn reading, writing and mathematic calculation.

Thus, the information is presented simultaneously in several sensory ways: visual, auditory, kinesthetic.

*Example - learning a sound:*

Visually – cards with that letter and objects that represent words that start with that letter.

Hearing – the instructor pronounces the sound.

Kinesthetic – movement and touch – the child can draw the letter in the sand, write it with his finger on the table surface or manipulate plastic letters.

Within the multisensorial approach, the following techniques and methods were used:

- ***Borel-Maisonny Method*** – phonetic and gestural; an associative complex is formed between the phoneme-grapheme and the ideomotor scheme of sound pronunciation: the phoneme is associated with a gesture, involving the analysers: tactile-kinesthetic, auditory and visual.
- ***Multisensorial techniques for writing-reading learning*** (writing letters, numbers or words in the kinetic sand tray, forming/modelling plasticine letters, performing the letters on the back to be aware of the movements);
- ***Constructing words from magnetic letters*** can be magnetic letters of different colours for consonants and vowels to highlight the difference between them visually.

The students pronounce each sound corresponding to the letter s/he places it on the board.

New words can be constructed by changing the initial or final letters/syllables.

- ***The read-build-write Method*** involves the design of a sheet with three headings:
  1. The word is written in the first column, and the child must read it
  2. Build – is an empty space where the child places plastic letters and says the word out loud
  3. Write – is an empty space where the child writes the word.

- ***Sticks with clues about stories***; they help the child understand the meaning of the text read and visualise the elements of a story.

On the sticks are pasted questions that guide the student, such as: Who are the characters? Where does the action take place?

- ***Reading with the instructor*** is a method that involves using worksheets in 2 copies so that the student can watch on his worksheet while he reads aloud or can listen to the instructor or an audiobook while watching on the worksheet.

They can interact with the text by emphasising a specific type of word or sound that s/he considers difficult.

It is the kind of technique that was also suitable to be drawn as a task for parents and practised the home.

- **Meixner Method** uses the principle of triple association: speech-written word-read word/tactile and visual-auditory representation. **Activities for phonemic hearing education** for the development of differentiation capacity and sounds identification.
- **The strategy of problems' resolution after Pressley and Woloshyn** involves step by step following of the five stages of the decision-making process, as follows:
  1. Describe the problem in your own words;
  2. Decide if there is a chance that your answer will be the one you suspect;
  3. Represent the problem concretely;
  4. Write the problem and the answer;
  5. Check the answer;
  6. Self-evaluate.
    - **Individual worksheets** – the teacher uses worksheets in which the volume and degree of difficulty of the tasks vary depending on the students.
    - **Memory optimisation methods:** intuitive material (images) is easier to memorise compared to verbal material (texts)
      - the familiarity of the material facilitates the memorisation, and the new or too little known ideas require more effort for their memorisation (the connection is made with the previous experience of the students)
      - their successive exposure
      - the beginning or end of a series is easier to remember than the material in the middle
      - the stimulating ambience facilitates
      - the most active processing of information by establishing similarities and differences, in-depth understanding of the material, finding examples for specific mathematical rules, etc.
      - the role of rest in the memorisation process is emphasised, especially the parents have the primary role in structuring the daily regime of the students, in avoiding the appearance of their intellectual fatigue, in the optimal combination of the intellectual activity with the physical one;
      - better memorise the materials related to interests, concerns, preferences, attitudes, analogies can be made.
- **Group activities** - for increasing group cohesion - the students collective of classrooms where these students belong.

### ***Examples of activities/exercises performed within the group activities***

#### ***1. "Find partners."***

Purpose: stimulating the spirit of cooperation, the division into teams

Materials: 2 packs of playing cards

Duration: 10 min

Content:

1. We select the playing cards as follows: if we want to make three groups of 6 people, we choose from the playing cards six black heart cards, six red heart cards, six rhombus cards.
2. Each participant receives a playing card that he must put on his forehead without looking at it.
3. The rule is to find your team partners by discovering the grouping rule without talking, knowing that there are three work teams.
4. It can be completed with a short discussion: did you like the exercise? What was difficult? What helped you achieve your goal? What did you learn from this exercise?

### **2. Interactive story - "The Castle."**

Purpose: stimulating the spirit of cooperation, the division into teams

Duration: 15 min

Content:

Interactive stories are short stories that create a dynamic, attention-grabbing atmosphere, involving children throughout to follow, to make certain gestures (to clap, to trot, etc.), or to make certain sounds, words, onomatopoeias depending on the character. There may be collective roles to which all children react and personal roles to which only one child responds. The animator must know the story very well.

Subject: a castle is visited by several people and the ghosts in the castle above it.

Keywords-gesture: castle - clapping, ghost - shouting bu-hu-hu.

Roles: mother ghost, father ghost, ghost, ghost, dog, four visitors, mayor, etc.

Gestures for roles: clapping, 360-degree rotations, screams, various onomatopoeias, etc.

### **3. "Fruit salad."**

Objectives: release of tension, relaxation, entertainment.

Description of the exercise:

Students are seated in chairs in a large circle. Everyone is given a note with the name of a fruit (apple, banana, orange, plum and cherry) written on it.

The group leader stands in the centre of the circle, standing, shouting the name of a fruit. Students who have the ticket with this fruit must get up and change their place as soon as possible. Whoever remains standing without a home will stay in the centre of the circle, and thus the game continues. We can say "fruit salad", and then everyone has to change seats from time to time. You are not allowed to sit in the chair next to you. The game ends when the students are tired.

#### **4. “Parking spot.”**

It is the classic Method used to keep participants focused on the specific topic. During class/activities, students often ask questions that seem important but not always entirely relevant for that moment of the discussion.

These questions or problems will be “parked” on the flipchart sheet, to be repeated and to be answered later.

This practice helps us make sure that important questions will not be forgotten. The discussion group can stay focused on essential discussions without being interrupted by questions that support procrastination.

Time required: 5-30 minutes

Materials needed: pencils, coloured markers, flipchart, coloured notes

##### Step 1:

At the beginning of the activity, explain to the group that you will use a “parking space” for further questions.

Write a capital letter “P” at the top of a flipchart sheet and stick this sheet on a visible wall. Explain to the participants that whenever a new idea or question arises that is not directly related to the current topic, you will write it on a coloured note and stick it on the flipchart sheet.

Note that any group member can also ask questions at the “parking space” whenever needed.

##### Step 2:

Use the ones explained at the beginning during the activity.

##### Step 3:

As you approach the end of the work session, make sure you have enough time to resume the questions and the ideas placed on the “parking spot” on the flipchart sheet. Take them one at a time and discuss them.

#### **5. “Spiders.”**

Purpose: development of team spirit, development of motor skills

Duration: 10-20 minutes

Content: the group of children is divided into at least three groups of at least four participants. Each group forms circles holding hands. He must try to capture other people in the opposing groups by running his hands over his head to the level of the shoulders of the one s/he is catching. They cannot let go of their hands during the game, and the detached circle is sanctioned.

### **3.3.2. Programme finalisation**

- Presentation and analysing the results obtained by the subjects;
- Conclusions in each of the cases presented.

## **INTERVENTION PROGRAMME SCROLLING**

**The intervention plan aims to reduce** learning difficulties by practising and developing writing-reading instrumental capacities, arithmetic calculation, and psychomotricity development.

### **Objectives:**

**O1** - Ensuring compensatory measures and instruments.

**O2** - Improving writing-calculation disorders, implementing a program adapted to the student's psycho-educational peculiarities, comprises phonematic hearing education, fine motricity development, and mathematic calculation skills development.

**O3** Family Counseling, its involvement in respecting the recovering plan.

### **O1 – Ensuring compensatory measures and instruments**

Corroborating the data obtained from the initial assessment, the difficulties identified by the didactic framework, and the information obtained following the discussions with the parents, in subject 1, substantial problems were highlighted at the level of mathematical calculation operations and the level of writing.

A first step was elaborating the Personalised Educational Plan, which includes all the support measures granted by the school according to the legal regulations brought by Order 3124/2017. The personalised educational plan was completed together with the English teacher, following a working meeting, presented in Annex 3. The student's parents were requested at a meeting during which they were informed of the provisions of the personalised educational plan; they must provide the student with the teaching resources requested by the teacher and complete/continue at home the steps initiated in class.

**Perioada:** 11-15 February 2019

**O2. Improving writing-calculation disorders, the implementation of a program adapted to the psycho-educational peculiarities of the student.**

#### **1. Education and development of phonemic hearing**

In order to achieve this objective, specific activities were carried out during the individual counselling sessions:

- auditory differentiation exercises,
- recognising and imitating various sounds in nature or emitted by animals, insects,
- repeating a beat with your fingers on the table,
- sound differentiation,
- lip reading for attention development,
- phonetic analysis exercises, sound differentiation, awareness of the order of phonemes in the spoken word, division into syllables.

**Period:** February 18 – March 22, 2019

### 1. *Development of fine motricity*

Following the initial evaluation of topic 1, there was a slight delay in developing fine motor skills, so the intervention plan included activities/exercises to monitor motor development.

During individual sessions and the school program at practical skills classes, these activities were carried out when they had to make gifts for Mother's Day, the exhibition of handmade trinkets, thus capitalising on the work done.

The following exercises were performed:

- Rolling glass balls on the table with each finger, one by one.
- Creating necklaces that involved stringing beads or buttons on a silicone string and making trinkets;
- "Finger greeting" - the thumb must "greet" in turn with each of the other fingers, touching them in turn;
- Tracing patterns;
- Squeezing and relaxing the fist with squishy toys;
- Picking peas with tweezers.

**Period:** February 18 – March 22, 2019

1. *Development of arithmetic calculation skills:* this is the most critical part of the intervention and consists of applying techniques and exercises tailored to the student's work style, skills, and preferences.

The types of exercises chosen and the techniques used were applied in individual sessions, especially in class. The teacher took into account the compensatory measures in the personalised educational plan.

Simultaneously, at home, the parents continued the steps started at school, applied the exercises, and involved the student more in the household activities.

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Were applied:

- the teacher made the student responsible for distributing the food supplement, the various objects that must be distributed to all colleagues: this activity ensures both interactions with all students in the class but especially allows him/her to practice basic operations: addition or subtraction (how many are missing? how many more are needed? how many are left?);
- Pressley and Woloshyn problem-solving strategy;
- Individual worksheets are used, the student does not copy from the board, and in the tests, all the students of the class receive individual worksheets, so



the modified content of the worksheets for the subject is not highlighted in class.

Verbalising *how to solve* the calculations is helpful for the inversions of numbers (for example,  $8 + 5 = 13$ , and he writes  $8 + 5 = 31$ ) to apply algorithms, calculate aloud, and repeat the steps the student can observe mistakes. This technique is also encouraged in doing homework;

- *the addition with nine* can be explained as the addition with ten from which one is subtracted;

- Exercises for differentiation and identification: predecessor, the analogy with the left hand, successor analogy with the right hand;

- to learn fractions, use cards divided into rectangles or triangles, sectors of a circle; by joining them, one can learn the division by 2, 3, 4, etc. and the names a quarter, a half, etc.;

- the use of the pocket computer in the more complex operations: multiplication, division, additionally over the order of hundreds was a compensatory measure that led to the relaxation of the student regarding the execution of these operations.

- possible explanations for various notions: when they come together, they are put together; when it decreases, it separates; multiplication is repeated addition, but a more straightforward method of calculation;

- plate with synonyms for basic operations: for *addition*, the following terms are used: sum, total, plus, together, increase by..., more by..., for *decrease*: decrease, give, take, less, difference, minus, when *multiplied* we find terms like the product, so many times, double, triple, multiple, when *divided*: half, divided, divided, per, percentage, separately; graphics representation of problems;

- using concrete supports to understand the notions;

- in order to eliminate the confusion when comparing numbers of the order of similar hundreds, it is practised to write above the numbers or the symbols U, Z, S to arrange them properly, and in terms of signs for more extensive, smaller analogies are made with the mouth of a crocodile which is always open to the more significant number.

It is very relevant to immediately observe the mistakes and identify their cause to know what needs to be corrected, the difficulties, and what has not been understood.

The frequent feedback to students also determined the increase of his self-evaluation capacity and the regular accomplishment of the self-evaluation of the results, especially in mathematics.

**Period:** February 25 - May 10, 2019

***O3 Family Counseling and its involvement in respecting the recovery plan.***

The relationship with the family is of great importance for the success of any school activity/task. It can continue at home the steps initiated by the school and because it provides psychological therapy that enhances the psycho-pedagogical intervention.

There were five counselling sessions with the parents where the school's actions were presented, support measures provided by the school. They were offered suggestions on organisations that offer resources for various education that can be taken and travelled together with them.

The development of technology allows educational software found nationally and internationally because mathematical operations and computational algorithms are the same. Among these, we mention:

The family was also advised on the student's involvement in shopping, spending time together by detaching from school problems and engaging in extracurricular activities: sports, volunteering, creative workshops, etc., that allow him to achieve small successes. But with beneficial effects on self-esteem.

### **Conclusions/or final report on the investigation**

Following the application of the psycho-pedagogical intervention program, between February 11 and May 17, 2019, at the level of subject 1, improvements were observed in the level of arithmetic calculation skills highlighted by the school results.

Ensuring the compensatory measures and instruments provided by the legislation and included in the personalised educational plan have significantly contributed to changing the attitude of subject one towards school tasks. S/he felt supported and reducing the anxiety felt during the five years of school, was more involved, and discovered and used their skills in school and extracurricular activities. In most cases, classmates' attitude was supportive; they integrated topic 1 in their games, chose it in teams, and considered it incorrect that they not to use these compensatory means and motivating that they also need guidance.

The teacher managed these situations very well, devoting more time to activities/games to increase group cohesion, started and suggested by the counsellor. Were performed extracurricular activities together, trying to involve topic 1 in as many activities as possible, and through the responsibilities received, he frequently interacted with all his colleagues.

In terms of writing skills, they have not been significantly improved because by applying compensatory and dispensing measures, writing tasks have been significantly reduced, individual worksheets, grid-type assessment tests have been provided. There are improvements at the written-reading level. However, especially at the level of mathematical calculation, which denotes the positive effects of the measures adopted, the working methods

can be used further, with other contents depending on the curricular requirements. Slight difficulties in graphically translating the information presented orally, in taking notes are unintentional. Still, this shortcoming is offset because the student generally receives homework and homework on individual worksheets.

In the individual counselling activities, we observed an increase in the involvement and concentration on proposed activities from topic 1, due to centring these activities on the student interests and abilities of the student. She was receptive and consistent in applying at home the methods practised at school, the work style. The overflowing energy and the frequent switching of the interest on other actions of subject 3 were channelled in its involvement in domestic activities and by applying unique working methods identified by consulting some general recommendations found in the literature and sites that address ADHD.

An example is using a stationary bicycle inside the house for the student, while pedalling, to memorise the lessons or the poems read by the grandmother. This working capitalised on the particular interest/pleasure that the student has for cycling, using this interest as a resource and way of reward.

## CONCLUSIONS

The knowledge/shaping of the psycho-educational profile of the analysed subjects was an indispensable condition for the design and implementation of the psycho-pedagogical intervention that was carried out following the evaluations, discussions with the teachers and these students' family members.

Specific common characteristics were observed, which allowed the application of working methods to all but the essential resource were even subjects who, through their skills and interests and varied family context, led to the selection of activities to arouse interest to motivate their involvement in the instructive-educational process. The most important results are given by applying compensatory measures, dispensation and adapted evaluation which was the absolute novelty of this intervention. Methods and techniques have been proposed and started to be used. Differentiated work, surprising both for the teachers and for the analysed subjects and their colleagues. The most visible and relevant effects were those observed at the subjects' attitude towards everything the school represents.

There has been a transformation and perception of these students: from blamed children, considered lazy and comfortable, unjustly condemned, sometimes disturbed class factors or even problem students, have changed into students with potential, with skills that if they are correct capitalisation can lead to beneficial results, such as changing the perspective from which

the problem of students with TSI was approached, using those “inconveniences” as resources, providing immediate feedback on activities, capitalising on them in the classroom, had surprising, positive effects on increasing the cohesion of the group by raising awareness of the value of each, raising awareness and empathy with certain shortcomings that each of us has. Clarifying the status of students with specific learning disabilities is another significant result of the intervention, especially when it comes to schools and different localities where it was implemented.

The individualised didactic approach, necessary in students with specific learning disabilities, allowed us to improve writing, reading, calculation skills highlighted in the assessments made.

The limits of the paper are paradoxically also given by the novelty of both the concept of students with specific learning disabilities and the legal provisions insufficiently known and accepted by teachers: ambiguity, insecurity, distrust, reluctance was often encountered in the design stage and implementation of the psycho-pedagogical intervention. The lack of training activities on this issue, especially of the working Methodology, was another impediment encountered and which can be a perspective for continuation, extrapolation of the steps taken and presented in this paper. The feedback immediately after carrying out an activity is of great importance because it allows students to adjust their actions, identify viable alternatives to problematic situations, and enable them to consolidate the knowledge insufficiently assimilated by students.

There is also a need for specialised studies, the construction of observation grids, behaviour monitoring sheets, the acquisition of students with specific learning disabilities, a possible continuation of the steps taken, and a professional development perspective.

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