METHODS OF RE-EDUCATION OF SPECIFIC LEARNING DISORDERS

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ABSTRACT

Aim. In a qualitative empirical exploration, the authors use case study research to identify opportunities for re-education of specific learning disabilities in two cases. They identify and analyse the methods and organisation of teaching and the intervention plan for change. They evaluate the effectiveness of the intervention procedures and highlight specific practical experiences of educators in working with pupils.
Methods. The study analyses and interprets the risk of specific learning disabilities, identifies specific learning disabilities. In an empirical qualitative investigation, the authors use case studies and case studies that highlight two types of specific learning disabilities.

Results. The studies confirm that specific developmental learning disabilities affect the lives not only of the pupils themselves, the parents, but not least the educators in the teaching process. The authors analyse and identify specific re-education methods in the implementation of the teaching process, pointing out the difficulty of solving the problem and unlearning special educators.

Conclusion. The authors point out the need for selection of different methods of re-education of learning disorders on the basis of the individuality of the pupil, but also on the basis of different forms of solving problem areas in terms of recommendations of the special educator and the actual implementation of the teaching process by the educator.

Keywords: methods, reeducation, case study, specific learning disabilities, individual education

INTRODUCTION

The curriculum reform in education has brought with it changes in attitudes towards pupils with special educational needs. When working with a pupil with learning disabilities without the influence of the degree of mental disability, we are guided by the educational plan, but also by the results and recommendations of special educators, who propose and cooperate with a team of teachers of a regular primary school in the joint integration process of the pupil into a team of peers of pupils.

INTEGRATION

In order for this pupil to be integrated into a regular primary school, within a regular class, it is necessary to meet predetermined conditions, which include:

- Special conditions – prepare the class team for the arrival of such a pupil, pupils need to be involved in the process of integrating a pupil with special educational needs, it is necessary to create a friendly environment for the integrated pupil in the classroom.
- Personnel conditions – the need to prepare teaching staff, cooperation with the special pedagogue at the school, with the assistant is important here, it is necessary to accept the pupil with all his needs and problems with the cooperation of the school.
- Material conditions – classroom layout, removal of architectural barriers, provision of appropriate didactic and compensatory aids, selection of suitable teaching programmes, reduction of the number of pupils in the class (Budayová et al., 2022).

The successful integration of the pupil can lead to an improvement in the pupil’s life, as it contributes to his socialisation, helps him to increase
his confidence in himself and thanks to the stimulating environment, the pupil learns the normal activities of regular pupils. The benefit of integration is also on the other side, pupils learn to perceive the needs of others, they learn to respect differences and tolerance.

Pupils with specific learning disabilities are present in every primary school. There is a big difference in the proportion of diagnosed learning disabilities. The largest number of pupils are diagnosed with dyslexia and dysgraphia, while pupils diagnosed with dyscalculia are less frequent.

The basic format of specific learning disorders are disorders of processes processing and obtaining information in the central nervous system. Specific learning disorders are manifested in the field of pedagogy, as well as in the field of psychological processes and states of the individual. Their diagnosis requires a psychological and special pedagogical examination, as well as a speech examination (Matějček, 1987, 1995). Specific learning disorders are manifested, as stated by Olga Zelinková (2003; Ludvígh Cintulová, Budayová et al., 2022), in deficits in various areas of cognitive processes: phonological deficit, visual deficit, deficits in the area of speech and language, deficits in the automation process, deficits in the area of memory, deficits in time organisation affecting speed cognitive processes, and combinations of these deficits. Given that specific learning disabilities can fundamentally negatively affect an individual’s education, and thus their professional orientation and socialisation, increased attention must be paid to prevention, early diagnosis, re-education and support of pupils and students with these disorders (Bartoňová, 2012; Králík et al., 2022; Sirotkin et al., 2023).

**TYPES AND MANIFESTATIONS OF SPECIFIC LEARNING DISABILITIES**

The most well-known specific disorders include: dyslexia, dysgraphia, dysorthography, dyscalculia and dyspraxia. Among the less diagnosed and well-known are dysmusia and dyspinxia (Gadušová et al., 2020; Pokorná, 2010a, 2010b; Zelinková, 2015).

Dyslexia - is a specific reading disorder, manifested by the inability to learn to read using normal teaching methods (Bartoňová, 2010). Dyslexia is one of the best-known terms in the field of specific learning disorders. Dyslexia can be defined as a learning disorder in which there are difficulties with acquiring reading skills. An individual who has been diagnosed with this specific learning disorder is not able to achieve a sufficient and adequate level of language skills in the area of writing, spelling and reading itself while attending the usual type of basic education facility. The individual’s performance in connection with the individual’s age and intellect in the other assigned language skills is well below the expected level (Krejčová, 2019; Ott, 1997).
Dysgraphia – “is a writing disorder that affects the graphic side of written expression, i.e. legibility and editing” (Zelinková, 2003, p. 9).

Dysorthography – “A specific spelling disorder that is manifested by so-called specific errors in spelling (e.g. impaired ability to distinguish between soft and hard syllables or sibilants); often occurs in combination with dyslexia and dysgraphia” (Slowík, 2016, p. 129).

This statement is supported by other authors who add that dysorthography is often associated with dyslexia (Zelinková, 2015; Michalová, 2004).

Dyscalculia – Matějček (1995, p. 93) compares dyscalculia to dyslexia in mathematics. He further states that: “Most often this disorder manifests itself in such a way that the child cannot understand the symbolic nature of the number and clings completely disproportionately to concrete illustrative ideas” (1995, p. 93).

Ladislav Košč (1972) formulates another definition of dyscalculia in the following form:

Developmental dyscalculia is a structural disorder of mathematical abilities that has its origin in genes or perinatal influences conditioned by the disruption of those parts of the brain, which are a direct anatomical-physiological substrate for the age-appropriate maturation of mathematical functions, but which, at the same time, do not result in a decrease in general intellectual abilities. (p. 194)

Dyscalculia is a disorder of mathematical abilities that is aggravated by other specific learning disorders such as dyslexia (Blažková, 2017; Simon, 2006).

Dyspinxia - is a specific drawing disorder, it is characterised by a low level of drawing. The child handles the pencil clumsily, harshly, cannot transfer his idea from three-dimensional space to two-dimensional paper, has difficulty understanding perspective. According to Zdenka Michalová (2008), dyspinxia is a specific drawing disorder. Individuals with this learning disability are characterised by an inadequate level of drawing in relation to their physical age.

**CASE STUDY**

Personal anamnesis: The boy is currently 11 years old, he is the younger of two siblings and is the more powerful and smaller. Both siblings are in the foster care of their aunt. Birth on time, spontaneous, without problems.

The boy has been in the care of his aunt since he was two years old, because he and his sister were physically abused by their mother. By staying in this family, he has a very nice relationship both with his sister and also with his aunt (foster) and her daughter. Everyone who lives with the boy is a smoker and only the foster mother goes to work, the other members of the household are on social benefits. The boy has no responsibilities at home. He is managed in a children’s psychiatric clinic, where he was
diagnosed with attention and activity disorder. He is medicated for lack of concentration, impulsivity, and a tendency to affective attacks. Neglect, emotional and emotional deprivation in childhood is evident. The foster mother communicates with the school if she has to.

According to the pedagogical-psychological consultancy, the boy has a handicap identifier of 06T7TZ0, which are serious behavioural disorders and serious learning disorders. He is medicated and managed by a children’s psychiatric clinic. His medication has been changed three times in the past two years. The boy has hand tremors, which he has all the time, and when he is nervous or has a more difficult assignment in class, the tremor is so strong that he is unable to write the text. The teacher’s assistant, who is available to the boy throughout the lesson, writes for him.

Social History
Both siblings live in the same city apartment with their grandmother and great-grandmother, of course the foster aunt and her seven-year-old daughter. He is most fixated on his aunt and he loves and likes to take care of his cousin who is mentally disabled and he plays with her very nicely according to his and his aunt’s words. He is always cleanly dressed, the nanny takes care of the cleanliness and tidiness of the children. He doesn’t play much with children the same age as the boy. He seeks out younger children who believe his made-up stories. Siblings do not interact with father or mother.

As the authors Edward Zygmunt Jarmoch, Martina Pavlikova, Maria Gaziova, Gabriel Pala, Anton Datelinka (2022) and Lucia Ludvigh Cintulová, Libuša Radková & Zuzana Budayová (2022) state, the social environment plays an important role in creating a positive psychological and physical development of a child. Even today, many families have individual problems, but also problems in social life that manifest themselves intra-and extra-personally (Judák, Akimijak et al., 2022; Kobylarek, Madej, Roubalová et al., 2022; Radková et al., 2022).

The problematic nature of the environment is emphasised by problematic areas that also occur in later adolescence and adulthood. Many situations arise that need to be solved, but a person without physical and psychological potential and personality is not able to draw conclusions correctly for a given type of problem solving (Kondrla, et al., 2023; Kondrla et al., 2022; Murgaš et al., 2022; Tkáčová et al., 2021; Tkáčová et al., 2022). Family and social history worsened during the pandemic situation. Any form of deterioration of the overall social situation also affected the experience of individual members of the family, group and community. It is a societal phenomenon that manifests itself in individual experience, but also in the transformation of this individual and family life and experience into social life (Kobylarek, Madej, & Roubalová, 2022; Ludvigh Cintulová et al., 2021; Maturkanič et al., 2022).
Educational History
Since 2017, the boy has been attending a small-class primary school at his place of residence. He was deferred from school for a year.

They have not lived in the place where the school is for three years now, but have moved to a bigger city. However, the boy does not want to leave his current school, so he commutes 20 km by bus every day. He goes to the morning group, which for him means getting up at five in the morning, he comes to the group at 6.30 a.m. and leaves for the bus from the afternoon group at 3.50 p.m. It is very demanding for the boy, so he goes twice a week by agreement with his aunt home right after lunch. The boy likes it, he always looks forward to going home.

Both children lack a male role model, order and the security of a loving home. Recently, he has been told that if he does not learn and behave as he should, he will go to a children’s home. That’s probably why he’s also trying more sedatives. There is a good agreement with the boy at school, because he has a clearly defined schedule with rules, which he and the teacher and the teaching assistant have agreed upon.

Crisis History
The biggest crisis event was certainly the physical abuse and separation from the mother without the intervention of the father. The father of the children lives abroad, and irregularly pays alimony determined by the court. There is no contact with children since their birth. The boy lives only in a female collective, he lacks a male role model. The school perceives the boy’s spending time at school as a significant danger. He doesn’t have free time for himself, he gets tired very easily. He often falls asleep in the afternoon group. At school, he spends a lot of time in the afternoon group so that the family doesn’t have to worry about him so much (the words of the family).

Recommendations of the School Counselling Facility for the Education of a Pupil with Special Educational Needs at School
The age of the boy, pupil on the day of the examination is: 10 years 10 months 15 days, he attends the 4th grade and thus 5 years of schooling. It has a major disability identifier - severe behavioural disorders and severe learning disabilities.

Conclusions of the Pupil’s Examination Essential for the Pupil’s Education and Stay at School
The boy is the younger of two siblings who are together under the foster care of an aunt. He had a delay in schooling, he is now in the fourth grade. He repeated the second grade. Due to graphomotor difficulties, he has been guided by a special teacher in the counselling centre since preschool age. The boy is being treated in a children’s psychiatric outpatient clinic, diagnosed with a disorder of attention and activity, incontinence, impul-
sivity, prone to affective attacks, and is medicated. Neglect, emotional and emotional deprivation in childhood is evident. The psychiatrist also recommended a teaching assistant for the elementary school. At school, he works with a teacher’s assistant and has a pedagogical intervention. These measures have proven effective. According to the previous psychological examination, mental development is age-appropriate. Fine motor skills are still not very dexterous, movements are less coordinated, slower, hand tremors are still present. He has difficulty with demands for speed, his grip is spastic, he has difficulty imitating the shape. The writing is shaky, harder to read. Writing is more difficult dysgraphia. The boy is less independent in his studies, he needs a high degree of support from the teacher. Frequent encouragement to work. During the examination in the consulting room, there is a noticeable improvement in cooperation, he performs the required task, but he needs consistent and clear guidance. He still needs frequent individual motivation and encouragement. He needs to set the rules clearly in advance, what he has to manage and gradually increase the demands. Reading is slower, some words are syllabified. Little is wrong if he doesn’t point the finger. Comprehension is good, can retell the text. There are no specific dyslexic errors in reading. He tends to avoid reading. He can write according to dictation, he knows the spelling rules, but he cannot use them. He sometimes makes mistakes in letter substitutions. In counting, he adds and subtracts readily, but still has great difficulty with multiplication. He does not have a fixed small multiplication table. Attention and activity disorders, low work capacity and insufficient practice at home contribute to the boy’s learning difficulties. The Pedagogical-Psychological Counselling recommends continuing to stay in the current school. The teachers pay individual attention to the boy, work with him, tutor him. The environment of a smaller school is more favourable for him also in terms of educational difficulties. Daily preparation for teaching is still necessary.

**Recommendation**

**Teaching methods:**

- Continue to set the rules and the scope of the tasks they must complete;
- In reading lead to finger pointing;
- Practice reading regularly;
- Consistently practice reading, writing and counting at home every day according to the school’s instructions;
- Strengthen concentration on the task, motivate during the process, help with completion;
- Use illustrative overviews and aids;
- Solve tasks step by step;
- Repeat and consolidate the acquired knowledge more;
- Gradually strengthen independence.
Teaching organisation – I recommend a pedagogical intervention of two hours per week. Distribute tutoring between main subjects, according to the current need. Time distribution is at the teachers’ discretion. Focus on practicing the subject matter. When preparing at home, it is necessary to ensure regular, daily preparation for school and repetition of the curriculum. It is necessary to positively motivate the boy (Budayová, Svoboda et al., 2022) to allow him to do his favourite activity for the completion of tasks or small successes. When learning to help with directing attention so that it does not run away to other stimuli.

Personal support at school – The assistant will motivate the boy more, help guide his attention, assure him that he is doing the task correctly. The assistant individually practices the subject matter discussed with the boy, phasing the tasks into sub-steps. Due to the slower pace of work, the assistant repeats the instruction, can repeatedly dictate the notes. They will individually practice the subject matter that will be needed. The assistant can solve educational difficulties.

**Change Intervention Plan**

A teacher’s assistant, who he has had since the second grade, was recommended by a psychiatrist. He is not very independent in teaching, he gives up a difficult task as soon as it is assigned. There is great support from the assistant and the teacher. Boys’ hands shake a lot and it’s worse when they’re stressed. Written assignments, dictations, anything that he has to create in writing for a grade is very slow so that the writing can be read, he is often tested orally so as not to strain his concentration on the writing style. Fine motor skills are not very dexterous, movements are harder to coordinate, slower, hand tremors often appear, he does not read the text consecutively, therefore the assistant transcribes longer texts.

Reading is slow, he syllabifies himself, understanding what is read by another person is good, if he reads alone, he does not understand much of what is read. He does not want to read in the group, he is ashamed even if the class supports him, he brings up things long ago, that someone told him something, and therefore he will not read. Sometimes he only reads with an assistant, but also supports himself when reading in a group. He can’t take dictation in the rhythm of the class, an abbreviated text is dictated to him in another room of the school by an assistant, in order to have peace of mind at work.

In mathematics, he manages the calculation of examples on his own with aids, he reads the word problems but does not understand them, he is dependent on the reading of the second person in order to write down, calculate and answer.

He does not like a foreign language - it is written differently, it is read differently – only verbal learning of a foreign language.

Art education is the best subject at school, he likes drawing and painting very much.
Evaluation of the Effectiveness of the Intervention
The boy has several minutes of tutoring (previously called intervention) several times a week with the teacher’s assistant and the class teacher. Less understood material from classes is discussed or what is needed is practiced.

The fourth graders have to read and then present a book every month. Books are read with the boy in the afternoon group so that he can complete the assignment. He takes turns reading with an assistant who extends his parts of the text he is reading.

In mathematics, the memory of the use of the multiplication table is practiced, and in the Czech language, the subject matter that is currently being discussed, with a constant return to the rules even from the second grade. Soft, hard consonants, listed words and words related to them and now a new lesson on the gender of nouns.

With this boy, we work very individually with the situation he has at home, so he rarely has homework at home. He can usually do it in the school during his free time. This is his wish to have peace at home to play with his cousin.

Tutoring classes seem very beneficial to us, not just for this boy.

Case Study 2
Case Report of a Student with a Specific Behavioural Disorder and a Specific Learning Disorder, Dysgraphia
Boy Michal, 8 years old, a regular class student, now in the 2nd grade.

Diagnosis
The boy was diagnosed with behavioural disorders, attention disorders, ADHD, and a specific learning disorder – dysgraphia at the Pedagogical-Psychological Consultation.

Family History
Michael’s parents divorced when he was 4 years old. The mother has a university degree, started a family again and has a daughter with a new partner. Both children have proper care. Michal is in contact with his biological father, he regularly picks him up on weekends, the boy spends time and holidays with his father.

The boy’s father now has a good relationship with his ex-wife. The relationship with the stepfather is not ideal, the boy does not get along with him, in extreme situations the stepfather even physically punishes him.

Personal Anamnesis
The mother’s pregnancy was complicated, as was the birth. The boy was restless, aggressive and sometimes even angry since childhood, he had several injuries in childhood (broken arm, concussion).
School History
Michael started kindergarten at the age of four. From the beginning, his behaviour appeared to be problematic, he did not want to adapt to anything. He didn’t even concentrate on games, he became unmanageable when admonished by the teacher and his aggressiveness increased. He often ran around in class, just like that, for no reason and hurt the other children. Michael’s mother was warned about the situation several times, but she did not deal with it at all, she did not cooperate with the kindergarten. In every conflict, Michael’s mother defended herself and saw a fault in the teacher, who she said could not handle him. In the interests of the other children, she was suggested to devote more time to her son in the home environment, Michael needed more individual care. The mother did not agree with this solution and insisted on his staying in kindergarten. Michael was enrolled in the first grade and was not recommended to postpone schooling, so he went to the 1st grade at the age of six and a half.

School Attendance – Development of the Problem – 1st Year of Primary School
Michael is a very lively boy, he likes to be the centre of attention and often shows off. During lessons, he often interrupts, shouts something, does not pay attention, does not respond to the teacher’s instructions, completes tasks only after the umpteenth prompt. During recess, he often attacks classmates and fights with them. He once caused an injury to his classmate by hitting him on the head. Dealing with the mother was not easy, it was full of emotions. She finally admitted that she didn’t know how to deal with the boy. The boy often showed signs of bullying, under the threat of physical punishment he stole sweets from his classmates, took their belongings and also money. The school responded with a meeting with the child’s representatives, an interview with the school prevention officer and offered Michael’s legal representatives an examination at the Pedagogical-Psychological Counselling Office.

Problem Solving
At the request of the parents and the school, the boy was sent to the Pedagogical-Psychological Counselling Centre for examination. Conclusion and recommendations of the pedagogical-psychological consultancy. Fluctuations in attention and work capacity under load, apparently on the basis of ADHD terrain. The boy shows impairment of grapho-motor skills and visuo-motor skills. The boy was recommended - to take it into account - a lenient approach during writing lessons, alternating activities more often, unwinding during the lesson, for example by handing out notebooks, etc., as well as an individual approach and help from the teacher. In the field of education, it was recommended to differentiate manifestations of impulsivity from intentional harm, often highlighting the positive aspects of the boy. Not backing down when following the rules,
consistency and clear boundaries – this was recommended to parents. The boy is supposed to see a psychologist. In the case study, I dealt with a boy with behavioural disorder, attention disorder ADHD and a specific learning disorder – dysgraphia. It was very important that the parents finally proceeded to examine the boy Michael at the Pedagogical-Psychological Counseling Center, the boy was properly diagnosed and he received adequate help. The parents also began to cooperate with the school for the benefit of the boy.

**Cooperation Between the School and the Family**

The family cooperates with the school, mother and father go regularly to consult with the class teacher. He regularly attends class meetings. Michael’s mother tends to supervise his preparation for school, his father has an electrical installation company and is often not at home. But in the event of a problem, Michael often apologises and stands up for him (Haškova et al., 2021).

**CONCLUSION**

In practice, educators may come across several cases where a child, fearing that his parents will react negatively to the given situation, was afraid to draw attention to something that was bothering him. The very students who show signs of serious behavioural disorders, who give the impression of a self-confident youngster, are in fact “a pile of misfortunes”. Children are afraid of the family’s reaction. It is really about education, how a pupil or rather a child is brought up at home, by parents or legal representatives. His effort, approach to duties and solving problems that he encounters on a daily basis are based on this. Especially for children with a specific learning disabilities, who tend to be more sensitive to the reaction of their loved ones. If the child does not receive the necessary support, when he expects it most, there is a high probability that he will start showing inappropriate or conspicuous behaviour, especially in society. In many cases, it happens that another disorder is added to the specific learning disorder, e.g. behaviour disorder, or neurotic manifestations, or even running away from school (truancy). Sometimes the student begins to show aggressive tendencies, which he most often takes out on weaker classmates. This leads to a disruption of the relationship, usually between the teacher and the pupil or even between the pupil and his classmates, who may subsequently start excluding him from their team. Despite the effort to make amends, it is difficult for the pupil to regain the lost trust, if he shows any interest in it at all. All of this can also be influenced by the family environment in which the child is raised.
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