STRUCTURE AS AN ELEMENT OF EFFECTIVE LEARNING

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Abstract For children, structure is safety. To achieve optimum functioning and progress, the quantity and types of structuring need to be adapted to an individual's needs. While implementing the TEACCH method, elements of arranging the working environment, activity systems, visually structured tasks, and visual timetables were introduced. The study was based on a random research sample – a heterogenous group of preschool children with special needs, included in the special needs program, who have speech and language disorders of varying intensity and associated deficiencies (mental disability, autism, long-term illness, mobile impairment). To carry out the study, a qualitative method of pedagogical research was used – a case study. Prior to the implementation of the TEACCH method, a descriptive evaluation of the children's functioning in various areas (flexibility, anxiety, social skills, communication and independence) was done with the help of assessment criteria. After three months of actively using the TEACCH method, another evaluation was done, which confirmed the system's positive effects. The author noted that the observed children experienced progress in all five key areas. The biggest improvement was seen in their adjustment capabilities, the smallest in coping with anxiety. The implementation of structured teaching in the department turned out as successful and effective.

Keywords:
structure,
space,
activities,
tasks,
time

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1 Introduction

"There is nothing so unequal as the equal treatment of unequals."

Aristotle

Children with special needs (also) strive to be successful, but their environment is often inadvertently designed to prevent them from making optimal progress. Through adaptations and encouragement, it is possible to ensure that children with special needs remain successful (Sousa, 2007). Children with special needs are therefore included in appropriate educational programs and are provided with appropriate assistance (Placement of Children with Special Needs Act, n. d.). Among other things, the Centre for Hearing and Speech Maribor implements an adapted education program for preschool children, which includes listening and speech rehabilitation and the upbringing, care, and education of deaf and hard of hearing children, children with speech and language disorders, and children with autism spectrum disorders (Centre for Hearing and Speech Maribor, n. d.).

Structure, which is an important element of effective teaching (Mesibov & Shea, 2008), is adapted to the needs of children. As part of structured teaching, it is necessary to properly physically arrange the space, introduce visually structured tasks and systems of activities, and to structure time.

The purpose of the study, conducted in the section of the adapted educational program for preschool children, was to determine the impact of the introduction of structure (elements of the TEACCH system) on five key areas of children's functioning – adaptability, expressing anxiety, development of social skills, communication, and independence of children with different types and levels of deficits, obstacles or disorders.

2 Structured Teaching According to the TEACCH Method

A structured life and environment are especially important for children with autism spectrum disorders, as it helps them learn and prevents problematic behaviours. The amount and type of structure the child needs depend on the child. It is imperative that we gradually reduce the need for structuring, as the long-term goal is to increase the child's flexibility (Whitaker, 2018).

The importance of structuring:

- Language problems make it impossible for a child to understand what is expected of them. It is easier to convey a message to the child if we do not rely solely on the spoken word. In this way, we also contribute to the child's independence.
- A lack of understanding people's feelings, their intentions and motives, makes prediction impossible. Structuring (routines and lists) reduces worries and frustrations that result from dealing with people.
- Understanding and anticipating what will happen and in what order is of great concern. Children with autism spectrum disorders have problems with sense of time, sequence, and representation.
- Structuredness (and consequently predictability) helps to reduce the child's fear, which can reduce their need for routines, rituals and obsessions. Ensuring structuring satisfies the need for sameness (Whitaker, 2018).

In the TEACCH method (Treatment and Education of Autistic and related Communication-handicapped Children) it is essential that the requirements are adapted to the children and the given situation. It is crucial that the child knows exactly what the task is and what follows when they complete it. It is important that the child has an activity schedule and that the tasks are presented visually (Hannah, 2009).

Structured teaching according to the TEACCH method has two equivalent goals, namely, to teach the child as many skills as possible, according to his or her developmental abilities, and to provide an understandable environment through which the child can understand the expectations of the environment. This approach is also an educational technique and method of organizing a stimulating environment (Mesibov & Shea, 2008). It is characterized by reducing fear and, at the same time, improving motivation, attention and independence (dependence on the adult is reduced). It is especially helpful for children who are disorganised, inattentive, or dissatisfied, as well as if we want to teach them to complete one or more tasks on their own, or to acquire new skills when they do not (yet) understand what we require of them (Hannah, 2009).

This method of structured teaching is suitable for long-life use at home, school, kindergarten, work, and recreational activities anywhere and anytime, for people of different ages and developmental abilities (Mesibov & Shea, 2008). The participation of professionals in educational institutions with families and vice versa, the up-to-date exchange of information, and monitoring children's functioning are important (Mesibov & Shea, 2008).

2.1 The Physical Arrangement of Space

Factors that prevent a child from functioning properly need to be identified – sometimes the environment can be regulated to avoid them. Even quiet music can mask the noise of cars at night and allow a child to sleep peacefully (Whitaker, 2018). By structuring the environment, one strives to achieve a reduction in distractions and confusion that prevent the child from understanding what is required of them; removing triggers or temptations that could cause difficult behaviour; providing ongoing visual instructions and reminders to facilitate the understanding of requirements (Whitaker, 2018). Physical structure and organization allow the classroom/playroom to be clear, interesting, and manageable (Mesibov & Howley, 2003).

Figure1: Corner for exercising the speech apparatus
Source: own.

Figure 2: Marked toy storage areas
Source: own.

By providing the appropriate structure, some of the child's essential problems are addressed effectively and directly. The requirements for the child's comprehension and use of language and memory are reduced, and his or her visual abilities are well utilized (Whitaker, 2018).

Especially for younger children, it is advisable to create a connection between a particular activity and the space, which in practice means that we create physically separate spaces for "independent work, group activities, play, personal care and more" (Whitaker, 2018). The child thus knows exactly what is going on where and develops the habit of behaving in a particular manner in an environment without the adult repeating instructions and exercising control (Whitaker, 2018). In playrooms and classrooms, where separate spaces cannot be provided, one can provide visual instructions for a specific activity, e.g., for lunch, we use a tablecloth of a different colour than for activities like painting. Gadgets for activities are always stored in the same places, in specific boxes, which we only bring out when it is time for that activity. You can easily cover certain gadgets (like a computer or a TV) with a

tablecloth when you do not need them. If a child has problems with one of the utensils intended to reduce his or her fear, then the child might not know or be able to decide where to go. This reduces the likelihood that the child will dawdle and disturb others. We can mark the limits of the space that the child can use – stop them at the line and afterwards reward them for doing so.

Thus, the line becomes a reminder, the child learns to respond because they remember the reward. It is also important to label lockers and storage spaces with symbols, pictures or words, which can prevent behavioural problems and contribute to independence, as the child knows exactly where things are stored or where certain toys are found (Whitaker, 2018).

Figure 3: An activity system for toilet use
Source: own.

In rooms adapted to the needs of children with autism spectrum disorders, one may create individual, partitioned workstations for independent work. To arrange a work corner at home, it is important to position it away from occupied spaces, doors, windows, and other sources of disturbance – preferably next to an empty wall. If it is possible to make a barrier (by moving furniture), this is a very good solution,

otherwise one can use a large cardboard box. If this is not possible, the boundaries of the work area can be marked with a tablecloth or tape (Whitaker, 2018).

2.2 System of Activities

Tasks need to be physically organized by creating a framework that guides the child through the task. This strengthens the child's independence and reduces the need for help and adult supervision. A set of instructions with photos is important, especially for tasks that have a certain sequence (cooking, going to the toilet). It is much easier for a child to tidy up the table if they have separate and marked containers for cutlery, glasses and plates. Toys can be stored in baskets, placed next to each other from left to right, and in this order, we teach the child to play with the toys and then put them away (Whitaker, 2018).

Activity systems complement schedules that state the sequence of activities. This is an effective way of organizing individual (special) activities. There are several different ways to individualize activity systems, while their effectiveness varies from child to child. It is important for the child to figure out what needs to be done, understand how much needs to be done and in what period, and monitor their progress. Regardless of the level of ability of children or students, materials must be clearly marked and arranged (Mesibov & Howley, 2003).

2.3 Visually Structured Activities

Tasks or activities must be supported visually or concretely in order to be clear, meaningful and understandable. Visual instructions are important to help understand what is expected of children.Visual organization is needed, because the child's attention is sooner redirected when the material is disorganized, while visual clarity ensures that the child recognizes the most important components and characteristics of the task (Mesibov et al., 2004).

Tasks without a visual or physical component/support are often unsuccessfully solved by children with autistic disorders, as such tasks are not important enough for them; they do not attract their attention (Mesibov et al., 2004).

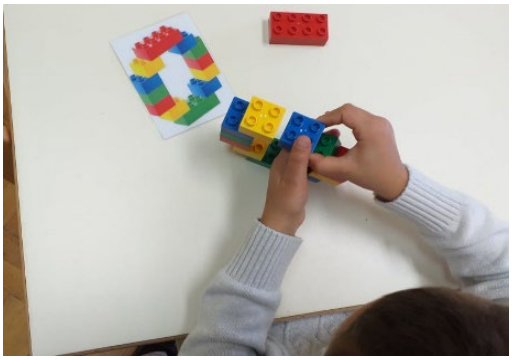

Figure 4: Assembling the cubes according to the visual template
Source: own.

Figure 5: A visually structured activity – sorting by colour
Source: own.

2.4 Structuring Time – Routines and Schedules

Physical structure thus helps children understand, where certain activities take place and what function a particular space has, while visual schedules cover sequences of events, explain which activity follows, and when and in what sequence (Schopler et al., 1995), and help the child to function more independently. With such activities we structure time, enable easier understanding (for visual learners), and strengthen the feeling of security, because children know/see, what activity is taking place and what follows. With these predictions, visual schedules reduce fear of uncertainty and, at the same time, motivate children to complete more difficult tasks, as these are more enjoyable for the children (Berložnik et al., 2014).

Children with autism spectrum disorders have a great need to know what is happening in the moment and what follows. They have problems with sequences and timing. This is often the reason for them repeating the same questions (Whitaker, 2018). They find it difficult to cope with change and they become upset at unexpected events. They are anxious when confronted with the unknown and as such, they find it difficult to organize themselves (Hannah, 2009).

Some children have an extraordinary ability to remember the time of the event, but do not have a sense of time, so it is important to consider the order and modes of the activity – the sequence of steps and how to perform the individual steps of the activity. Desired behaviours and developing independence can also be achieved by helping the child understand what is happening and anticipate what will happen (Whitaker, 2018).

Routine is important for children with autism spectrum disorders so that they know how things are done and in what order (Whitaker, 2018). Basically, routines are typical events of the day. They are "activities, events, behaviours, repetitive habits" (Jurišič, 2018). The level of detail and consistency depends on the child. Some need consistency only in the routines of getting up and going to bed, others need routines throughout the whole day. It is important that the parent is the one who establishes the routine, as otherwise it can be very distracting if the child learns the course of the day and insists on it (Whitaker, 2018).

Routines provide children with "structure and order, predictability and safety" (Jurišič, 2018), but they also provide good learning opportunities.

Figure 6: Visual schedule before the morning snack
Source: own.

Figure 7: Visual schedule from the morning snack until it is time to go home
Source: own.

Whitaker (2018) provides useful guidelines for establishing routines:

- It is effective to establish independent routines as soon as possible. Assistance to children with autism spectrum disorders must be systematically abolished, as they are very prone to becoming dependent on foreign aid.
- The least intrusive stimuli should be used to encourage a certain sequence of behaviours – visual (gestures) are more desirable than verbal and verbal more than physical.
- When the help is annulled, it is recommended to cancel the last step first (e.g., when the child is putting on their trousers, we guide the movements of the hands and in the end, we let the child pull up the trousers by themself).
- Routines create predictability and help the child understand the meaning of the activity – where things are going and what is essential. Once they are familiar with all the steps, they can start showing signs of expectation or even take the initiative for the next step.
- Routines help the child to cope more easily with transitions between activities.
- If school activities take place in a predictable pattern, children with autism spectrum disorders perform better. Situations that are a normal part of school life (asking for help, tidying up at the end of the class, finding your place, etc.) require special routines.
- Through individual activities, a child with autism spectrum disorders is assisted by their personal routine (despite the fact that the class has a fairly detailed schedule).
- Social stories are useful for explaining the individual steps of a routine.

Sometimes the visual schedule for routines needs to be changed because we want to or because circumstances force us to. It is useful if the child prepares for the possibility of change in time – occasionally changing the order, omitting small steps, adding changes. This gives us a sense of what challenges await the child and parent (Whitaker, 2018).

Visual schedules are a method that "allows the child to negotiate and helps them remember the stimulus, but they are also essential for structuring time" (Whitaker, 2018). Many children with autism spectrum disorders and other disorders do not understand the concept of time. At the same time, they also have problems in communication, including understanding verbal instructions and explanations (Larkey, 2006).

Visual schedules are one of the main methods of the TEACCH approach. They are very common in classrooms in the United Kingdom. A priority area is addressed, namely visual skills, to deal with a typical problem area for the child, like anticipating future events (Whitaker, 2018). With schedules, we effectively improve the planning of activities, and thus the independence of children. Schedules also facilitate transitions between activities and spaces (Jurišić, 2016).

A child who is familiar with their daily routine is more relaxed at school because they see it (in pictures or words). Schedules are also effective at home, as they give the day structure, and the child does not feel that the day is going unplanned (Hannah, 2009).

Whitaker (2018) provides guidelines for creating visual schedules:

- When creating visual schedules, we choose a system that the child understands – pictures, symbols, drawings or printed words.
- For children who do not respond to images, objects that are directly related to a particular activity and represent it but are not actual objects from the activity (e.g., a box of cereal represents lunch time), can be used.
- It is necessary to create a connection between the activity and the picture (symbol). The child is shown the picture at the beginning of the activity that even attracts their attention during the activity. Simple and consistent language is used. Let us define what we do. When a child shows signs of expectation, we know that they understand the picture (e.g., we show them

a picture of a park, the child grabs their shoes and a jacket).

- Because children find it difficult to understand that something is coming to an end, it is helpful to develop a routine that clearly indicates the end of the activity. The word "end" should be clearly emphasized, and the child should be encouraged to put away the accessories and move the picture into the space (box, envelope) containing completed activities.
- Once the child understands the choice of symbols, an understanding of the concept and phrase "first… then…" begins to develop. This is a useful step when a less popular activity is followed by another, more interesting one for the child. We choose a fixed place for the schedule, paste two pictures in order (top-bottom/left-right), help the child to take the first and look at the second, while explaining the order.
- Gradually introduce a schedule that includes more time (half a day, all day). The child should be encouraged to check what is coming and thus become more independent. This is a very useful strategy, especially if the child is worried about future events and asks about them.
- Pictures with prizes or favourite activities can be included when the child understands short schedules. This gives the child the assurance that they will still be able to engage in their favourite activities, as well as seeing when this will happen.
- Routine in the use of schedules is important – we introduce the child to the use of the schedule at the beginning and end of the activity. It is best to start by using a schedule in the place the child is used to, putting away the picture of the completed activity and taking the new one that follows. Older children can use portable schedules (spiral folder, symbols on a ring, etc.).

The schedule helps the child in their organization – in dressing, preparing for school, in their evening routine. Activity schedules are also effective for weekly tasks (shopping, going to the library, etc.). It is reassuring for the child to have a weekly schedule placed in a prominent place and updated regularly. We also teach children to perform tasks independently with schedules and lists of instructions – the child must test them accompanied by an adult, as it is important that the child is given clear, gradual and unambiguous instructions (Hannah, 2009).

Visual schedules help to develop everyday life skills (Alberto et al., 2005, in Spriggs et al., 2015), in physical activities (Cannella-Malone et al., 2013, in Spriggs et al., 2015), behavior regulation (Bryan & Gast, 2000, in Spriggs et al., 2015), vocational skills (Rouse et al., 2014, in Spriggs et al., 2015), leisure skills (Blum-Diamaya et al., in Spriggs et al., 2015), and academic skills (Spriggs et al., 2007, in Spriggs et al., 2015).

Faherty (2000), in Davies (2010), and Cramer et al. (2011) finds that the use of visual schedules reduces anxiety and increases adaptive abilities.

Lack of control or predictability can lead to problems during transitions, increased reliance on the adult, and the occurrence of unwanted behaviours (Banda & Grimmett, 2008, in Spriggs et al., 2015). Dettmer et al. (2000, in Connelly, 2017) state that children who use visual schedules are less likely to show unwanted behaviour when we expect something from them. Visual schedules are a strategy that also prevents unwanted behaviour and especially during transitions.

The use of visual schedules has also been found to be effective in developing expressive and receptive communication skills, attention, organization, and memory (Quill, 1995, in Spriggs et al., 2015). The effect of visual schedules is also noticeable in the development of social skills, which are too often concluded to be spontaneously teachable. It is paramount to experience the child as an important member of the community (Riedl et al., 2009, in Cramer et al., 2011).

Visual schedules are thus an essential aspect of a structured environment and are a common practice in many classrooms for children with special needs, especially those who have problems with organization, working memory, or changes in routine (Spriggs et al., 2015). Their main purpose is to prepare the child for the next activity or step within the activity (Waters et al., 2009 and Van Laahorov et al., 2010, in Knight et al., 2014). In principle, a less pleasant activity is followed by a desired or more enjoyable one, which increases the child's motivation to complete the former (Rabian, 2005, in Spriggs et al., 2015). They ensure the predictability of planned activities (Spriggs et al., 2015) and help achieve maximum independence (Duttlinger et al., 2013, in Spriggs et al., 2015).

3 Empirical Part

3.1 Purpose

The purpose of the empirical research was to examine the impact of the use of elements of structured teaching on the functioning of children in an adapted educatinal program for preschool children. The author was interested in how the introduction of appropriate physical arrangement of space, activity systems, visually structured tasks, and schedules affects the flexibility, anxiety, development of social skills, communication, and independence of children. Our goal is that children with communication and other problems learn to use the elements of structured teaching, which help them function on a daily basis.

Objectives:

- Introduction and adoption of the use of elements of structured teaching.
- Exploring the adaptability, anxiety, communication and social skills, and independence of children before and after mastering the elements of structured teaching.

The research questions based on the research objectives were as follows:

- Do the children included in the adapted educational program for preschool children feel calm, safe, and follow the activities – are they flexible?
- Do the children enrolled in an adapted educational preschool program have anxiety problems?
- Do the children included in the adapted educational program for preschool children communicate properly and are they successful in social skills?
- Are the children included in the adapted educational program for preschool children mature for their age?

3.2 Methodology

Research Method

In the research process, a qualitative method of pedagogical research was used – a case study. Based on the assessment scale, the functioning of children in various fields (adaptability, anxiety, social skills, communication, independence) was assessed descriptively before the introduction of elements of structured teaching, and after three months of active use, the success of the introduction of these elements in the group was determined.

Research Sample

The study was based on a non-random sample of a heterogeneous group of preschool children with special needs in an adapted educational program for preschool children at the Centre for Hearing and Speech Maribor. The observed group consisted of four children in the adapted educational program for preschool children at the Centre for Hearing and Speech Maribor, from September 2019, aged 4 to 6 years, one with a severe speech and language disorder, one with a severe speech and language disorder and suspicion of an autism spectrum disorder, and two with moderate speech and language disorders, one with a mild mental disability and a suspected autism spectrum disorder, and the other with long-term illness and mobility impairment.

The Process of Gathering Data

The children, or rather their behavior, was observed, while the data were recorded with an assessment scale and used to describe it descriptively, before the use of elements of structured teaching and again after three months of active use.

Data Processing Procedures

In the study, the focus was on the behavior of the observed children and on the use of the introduced elements of structured teaching. The author observed the effectiveness of the method – the introduction of elements of structured teaching.

3.3 Results and Interpretation

The functioning of the children included in the research sample was assessed before the introduction of structured teaching elements and after three months of active use. The author observed and assessed 5 key areas of interest, namely: adaptability, expressing anxiety, social skills, communication, and independence. The progress made was presented by introducing elements of structured teaching. The author examined the research questions and interpreted the resulting differences in the children's functioning.

The Success of the Introduction of Elements of Structured Teaching by Individual Area

The children's performance was assessed descriptively, based on the results of the evaluation scale, using the following criteria:

- less successful (1),
- successful (2),
- very successful (3).

Table 1: The performance of the observed children in adaptation before and after mastering the use of elements of structured teaching

	ADAPTABILITY	
	Before using the elements of structured teaching	**After mastering the use of elements of structured teaching**
N	Very successful	Very successful
B	Less successful	Very successful
D	Successful	Very successful
L	Less successful	Very successful

In all children, the use of elements of structured teaching was effective in their adaptive abilities. A child diagnosed with only a speech and language disorder showed a high level of adaptability even before the introduction of elements of structured teaching in the kindergarten class, and the other three children were significantly influenced by it. The children with severe speech and language disorders and suspected autism spectrum disorders, and the children with moderate speech and language disorders, long-term illness and mild mobility impairment made the most progress in flexibility.

Table 2: The performance of the observed children in coping with anxiety before and after mastering the use of elements of structured teaching

	ANXIETY	
	Before using the elements of structured teaching	**After mastering the use of elements of structured teaching**
N	Very successful	Very successful
B	Less successful	Very successful
D	Successful	Successful
L	Less successful	Successful

The child who had no problems with flexibility also did not have problems with anxiety. The child with a moderate speech and language disorder and a suspected autism spectrum disorder showed the same level of anxiety as before the observation, while the other two children progressed. The most progress was shown in the child with a moderate speech and language disorder, long-term illness and mildly impaired mobility, while the child with a severe speech and language disorder and a suspected autism spectrum disorder also dealt with anxiety successfully.

Table 3: The performance of the observed children in social skills before and after mastering the use of elements of structured teaching

	SOCIAL SKILLS	
	Before using the elements of structured teaching	**After mastering the use of elements of structured teaching**
N	Successful	Very successful
B	Less successful	Successful
D	Less successful	Successful
L	Less successful	Successful

All of the observed children progressed in the field of social skills, in which three children were less successful and one successful before the introduction of elements of structured teaching. The child with a severe speech and language disorder was very successful in social skills.

Table 4: The performance of the observed children in communication before and after mastering the use of elements of structured teaching

	COMMUNICATION	
	Before using the elements of structured teaching	**After mastering the use of elements of structured teaching**
N	Successful	Very successful
B	Successful	Very successful
D	Less successful	Successful
L	Less successful	Successful

All of the observed children also progressed in the field of communication, two became very successful in communication (the child with a severe speech and language disorder and the child with a moderate speech and language disorder, long-term illness and a mild mobility impairment), two were successful (the child with a moderate speech and language disorder, a mild mental disability and a suspected autism spectrum disorder, and the child with a severe speech and language disorder and a suspected autism spectrum disorder).

Table 5: The performance of the observed children in independence before and after mastering the use of elements of structured teaching

	INDEPENDENCE	
	Before using the elements of structured teaching	**After mastering the use of elements of structured teaching**
N	Successful	Very successful
B	Successful	Very successful
D	Successful	Very successful
L	Less successful	Successful

The use of elements of structured teaching helped the child with a moderate speech and language disorder, a long-term illness, and reduced mobility to become very successful in independence, the child with a moderate speech and language disorder, a mild intellectual disability and a suspected autism spectrum disorder maintained their level of independence, while the child with a severe speech and language disorder and a suspected autism spectrum disorder progressed and became successful.

From the presented data of the children's performance in five key areas (adaptability, anxiety, social skills, communication and independence) before the introduction of elements of structured teaching and after their adoption, it is clear that the observed children progressed in all five key areas. The most progress was seen in the area of flexibility, with as many as two children (a child with a moderate speech and language disorder, a long-term illness and a mild mobility impairment, and a child with a severe speech and language disorder, and a suspected autism spectrum disorder), who were failing before the introduction of structured teaching being very successful after three months. The least progress at the group level was shown in dealing with anxiety. The child with a moderate speech-language impairment, a mild mental disability, and a suspected autism spectrum disorder was not able to improve their ability to cope with anxiety, while the child with a moderate speech-language impairment, long-term illness, and a mild mobility impairment advanced the most.

Before the introduction of the elements of structured teaching, two of the children were unsuccessful in adapting and one was successful – all three made progress in this area. One of the observed children was very successful in the beginning. In expressing anxiety, two were unsuccessful, both progressing. Two of the children remained at the same level; one had no problems with anxiety, the other remained otherwise successful in this area, but no progress was observed. All four observed children advance in social skills; three were initially less successful and became successful, one very successful. In the area of communication, all children progressed by one level; also in independence.

The child with a severe speech and language disorder and a suspected autism spectrum disorder progressed in all five areas of observation: adaptation, expression of anxiety, social skills, communication, and independence. Globally, the child's functioning changed significantly for the better, and the greatest improvement was shown in their adaptive abilities. In the long run, one may expect even greater progress from the child, as they use the elements of structured teaching very effectively and independently.

The child with a moderate speech and language disorder, a long-term illness and a mild mobility impairment also progressed in all observed areas. Mostly in the abilities to adapt and to express anxiety. It took time for the child to accept and adopt the novelty in the playroom, but also to internalize its use.

The child with a moderate speech and language disorder, mild intellectual disabilities and a suspected autism spectrum disorder progressed in all areas except in expressing anxiety, where their abilities were stagnant, but the author will continue to pay attention to this area and work with the family to achieve progress.

In the child diagnosed with several severe speech and language disorders, the author observed progress in three of the five areas: social skills, communication, and independence. From the beginning, they had no problems with the ability to adapt and to express anxiety.

The child with a moderate speech and language disorder, a long-term illness, and a mild mobility impairment advanced the most, as opposed to the child with typical signs of an autism spectrum disorder and a severe speech and language disorder. The least progress was seen in the child with a moderate speech and language disorder, a

mild mental disability, and a suspected autism spectrum disorder. There was also less progress in the child with a more severe speech and language disorder, but they were already very successful in adapting at the beginning and did not have any problems with anxiety. The child with a moderate speech and language disorder, mild intellectual disabilities, and a suspected autism spectrum disorder, who was often absent, still has considerable potential for progress. It may be that the child's absence was the cause of slower progress.

2 Conclusion

The implementation of an adapted educational program for preschool children is largely individualized; the content, organization and the method of implementation are adapted. Numerous approaches are introduced at work, often including elements of structured teaching, which effectively influence the development of social skills, adaptability, communication, and independence, while reducing feelings of anxiety. All of this is important for reducing challenging behaviour. Structured teaching, according to the TEACCH method, is based on physical organization, activity systems, visually structured tasks and daily individual schedules.

The aim of the study was to examine the effects of the introduction of elements of structured teaching on the above-mentioned skills and feelings of children with special needs in the preschool period, whose basic deficit is in the field of speech and language.

The goals of the study were achieved – the author introduced elements of structured teaching and the children mastered them; they explored the adaptability, anxiety, communication, social skills, and independence of children before and after mastering the elements of structured teaching. Based on the research conducted, the author found that elements of structured teaching contributed to the better functioning of children in all five key areas. The greatest progress was observed in the ability to adapt, and the least progress was seen in coping with anxiety.

The introduction of structured teaching elements in the class of an adapted educational program for preschool children was successful and efficient, as only one child did not show progress in one of the observed activities, much like before the first observation and filling in the assessment scale. To some extent, this can also be explained by the fact that the child was absent for a long time, so in the future, the

author will try to make up for the lost time and help the child to progress in this area.

It should be noted that the elements of structured teaching, according to the TEACCH method, were effective in all the observed children. They all have problems of varying intensity in the field of speech and language, as well as associated problems, obstacles or deficits (mental development disorders, suspected autism spectrum disorders, long-term illness and mild mobility impairment). Among other things, the author wanted to show that a structured environment is important and effective for all children, not just children with autism. Also, in the kindergarten class of the adapted educational program in which the children were observed, the long-term goal is set to minimize the amount of structure over time and strengthen the adaptability of the children as much as possible.

Interactive visual supports that allow dissemination and long-term use should be considered in the future. They face a number of challenges related to current tools and practices. The use of group screens, personal mobile devices and personal recording technologies can replace many classic methods and improve the quality of work (Hayes et al., 2009). The most important thing is to derive from children, find their strengths, enable them to make the adjustments they need, and adapt the methods of working with them – for optimal development and progress in all areas. At the same time, it is crucial that professionals are also flexible and willing to learn to find the positive aspects of the technology available to us.

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