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**ONLINE EDUCATIONAL ACTIVITIES FOR CHILDREN WITH
INTELLECTUAL DISABILITIES**

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Abstract

The changes at national and global level regarding the teaching conditions, home-based online learning, in the family environment, have brought challenges of educational, mental, relational, social nature. An additional challenge is the presence of intellectual disability and those associated with it in children. The process of learning in children with intellectual disability is influenced by the common characteristics of the disability (heterochrony, genetic viscosity, mental rigidity, fragility of verbal conduct) and the individual peculiarities of each child. The material adaptation based on the particularities of children is imperative to make the information accessible, to facilitate learning and then to apply the lessons learned in practice. The presented study is carried out using the method of studying the curricular documents and questionnaire-based surveys, applied to teachers from the C.R.D.E.I.I. Special Middle School who have performed online activities with children with moderate, severe intellectual disabilities and associated disabilities between October 2020 and May 2021. By applying the questionnaire to teachers (psychopedagogues, speech therapists, kinetotherapists) who teach in the special school, we will highlight the modality in which the adaptation of materials to the needs of the students as well as the selection of effective methods, thus managing to involve the students in learning, have occurred, to bring them closer to knowledge.

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1. Introduction

The year 2020 came with challenges and changes due to the shift of the teaching act online. From the perspective of accessing teaching strategies tailored to educational needs and interests, the methods used received a new coat. The teaching means became those provided by the family, those offered through digital devices, computers.

The didactic training in the online environment implies the existence of functional gadgets, an internet network, the development of the digital skills for teachers and students. The need to develop these skills is due to the changes in the world, with computer technology gaining momentum due to the evolution of society (Baciu & Stan, 2006).

Generally, the process of social change is not an easy and fast one. People prefer certainty, stability and safety and, therefore, any change can be and is often regarded with at least suspicion, distrust and met with resistance. There are few who meet the change, accept and adopt it without reservation. Adaptation to change is gradual for each individual and each organization (Bocoş et al., 2015)

With this study we want to highlight the modality in which the adaptation of the teaching methods, materials and tools has occurred to the needs of students with moderate, severe intellectual disabilities and associated disabilities during the online teaching activities, October 2020 - May 2021. The data were obtained by using questionnaires to the teachers from the C.R.D.E.I.I. Special Middle School.

2. Problem Statement

Intellectual disability is part of neurodevelopmental disorders, it manifests itself during the child's development period up to the age of 18 and affects the intellectual and adaptive function of the child (American Psychiatric Association, 2016). The severity levels of intellectual disability can be: mild, moderate, severe, profound. This is determined by a complex assessment of the development level of the intellectual function as well as the adaptive function, of how the child copes in the environment and adapts to change.

The impairment of the cognitive processes to a greater or lesser extent depends on the severity of intellectual disability and has an impact on the student's ability to learn:

- analysis and synthesis of perceived images is more deficient by reducing the number of perceived elements;
- the constancy of perception requires more time to be developed in children with intellectual disabilities than in children without a disability;
- the perceptual field is narrowed and because of this the orientation in space is difficult (Arcan & Ciumăgeanu, 1980);
- solving everyday problems does not exceed the level of concretism;
- storing or updating incomplete information;
- omitting elements or adding information unrelated to the topic you are pursuing;

We can only refer to the knowledge assimilated by the student when it can be reused and applied in practical situations. By directing the teacher's learning, by using the right materials and methods, we

can speak of effective learning taking into consideration the cognitive peculiarities of each child and his/her involvement in his or her own learning.

The learning process for children with intellectual disabilities is negatively influenced by the common characteristics of intellectual disability and the individual peculiarities of each child. The changes of the teaching circumstances at national and global level, the learning moving at home, in the family environment, have brought challenges of an educational, mental, relational, socio-emotional nature.

As of 22nd October 2020, it has been decided that all educational institutions in Cluj-Napoca to suspend their teaching activities face-to-face and conduct them online in order to prevent disease increase with the SARS-CoV-2 virus. Since the 9th of November this decision has been extended to national level. The (intensive) educational activities were restarted for primary schools in February 2021 and for secondary schools on 5th May 2021.

In the European Union there is an increased attention to digital education addressed in the Digital Education Action Plan (2021-2027) aimed at developing the digital skills of pupils and teachers, creating easy-to-use digital tools and the security of educational platforms.

At the national level there have been changes regarding the conditions under which online education is carried out as stated by Romanian Ministry for Education and Research (2020) in the operating regulations for schools.

If until recently we were thinking, "How can the devices fit into training and self-training strategies?" (Ionescu & Bocoş, 2009, p. 49) The current changes have now forced us to answer the question of: How to integrate learning – teaching – evaluation through digital devices and the Internet? The set-up for online educational activities should answer questions:

- What activities should I do to involve students in learning?
- How do I choose the materials?
- What are the right methods to interest the child, to make him curious from the very beginning of the class?
- What makes the child answer questions, get involved in the activity?

For the proper conduct of online activities in addition to preparing the necessary materials, the choice of tools and working methods is necessary to test the technology (devices, internet, electrical power, camera and microphone), eliminate noises in the room, proper lighting of the space (Iepure et al., 2020).

"The whole society is an informational one, which entails major changes in the education system" (Chiş, 2014, p. 123). Today we can refer to education via the internet and based on access to technology. This is a requirement for the development of digital skills in teachers and children with intellectual disability for the use of digital devices (smart phone tablets, computers). The whole educational perspective is changing. The design of the teaching activities requires special interventions from the perspective of moving the teaching process from the classroom, face to face, to the virtual classroom, the online environment.

3. Research Questions

What were the methods, tools and teaching materials that teachers used more frequently in carrying out online activities with children with mild, moderate, severe intellectual disabilities and associated disorders?

How were the methods, tools and teaching materials adapted for effective use in online activities with children with mild, moderate, severe intellectual disabilities and associated disorders?

4. Purpose of the Study

The purpose of this research is to highlight how the teaching materials have been adapted to the needs of students, the selection of effective methods, thus managing to involve the students in the learning process, to bring him closer to knowledge.

The objectives are:

- To highlight the methods, tools and teaching materials used in online teaching and learning activities
- To determine whether the methods, tools and teaching materials used in online teaching and learning activities have been successfully adapted

5. Research Methods

The research was conducted in May-June 2021 after the return to school of all pupils and teachers. The methods used were questionnaire-based surveys and available documents analysis.

The study of documents and specialized literature gives us the conceptual delimitation of intellectual disability, the learning particularities of children with intellectual disabilities, the measures taken at European and national level regarding the transition to online education and the digitisation of education.

The data obtained from the application of the questionnaire were interpreted quantitatively and qualitatively. The questionnaire consists of 13 items, 11 with multiple answers and 2 open answers for special education teachers.

6. Findings

The target group consisted of 60 teachers who carried out online activities with students with intellectual disabilities of different degrees of severity, from the C.R.D.E.I.I. Special Middle School. Of whom, 33 teachers, that is 55% of the targeted group, completed the questionnaire online. Based on their teaching experience, the respondents were distributed as follows (See in Table 1):

Table 1. Structure of research participants, by teaching experience

Teaching degree	Number	Percentage
Beginner	4	12.1%
Certified	10	30.3%
Grade II	7	21.2%

Grade I	12	36.4%
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The values presented in Table 1 give us information on the teachers' expertise in the teaching field, the experience in the department. Most of the respondents 36.4% have a lot of experience (teaching degree I), the beginners being the fewest in this study.

The class distribution of the respondents which carried out their teaching activities between October 2020 and May 2021 gives us information about the severity of intellectual disability and its association with other disabilities. 24.2% of the respondents teach in classes attended by children with severe intellectual disabilities and associated disabilities. The greater the severity level, the greater the need to adapt the teaching methods, tools and materials. For primary and/or secondary school, mild and moderate intellectual disability, the adaptation is done by taking into account the age and the individual peculiarities of each child. The largest share of 36.4% respondents are those teachers who teach in grades 0-VIII.

The items 2, 3, 4 refer to the level of development of the digital skills of teachers valued at low, medium, good, very good level and how these skills have been improved or not through specialised courses conducted on educational platforms and/or self-taught.

Table 2. The level of skill development in October compared to May

Level of digital skills development	October 2020		May 2021	
	Answers in numbers	Percentage	Answers in numbers	Percentage
Low	0	0	0	0
Medium	2	6.1%	0	0
Good	22	66.7%	12	36.4%
Very good	9	27.3%	21	63.6%

As can be seen in Table 2 in October, 66.7% and 27.3% of respondents were at a good and very good level and a very low percentage of 6.1% had an average level of digital skills development. In May 2021, 36.4% and 63.6% of respondents were at a good and very good level. There is a decrease of 36.4% in the good level of digital skills and a 36.3% increase in the number of respondents who had very good levels of digital skills. At medium and low level, the percentage is 0. This shows that there is concern for digital skills training among respondents. As a consequence of this increase, the use of technology should be made easier by using more resources by learning to use digital technology to create teaching materials tailored to the needs of students- as the most appropriate online tools. Digital skills were acquired by following specialized courses on platforms with 85.7% of respondents.

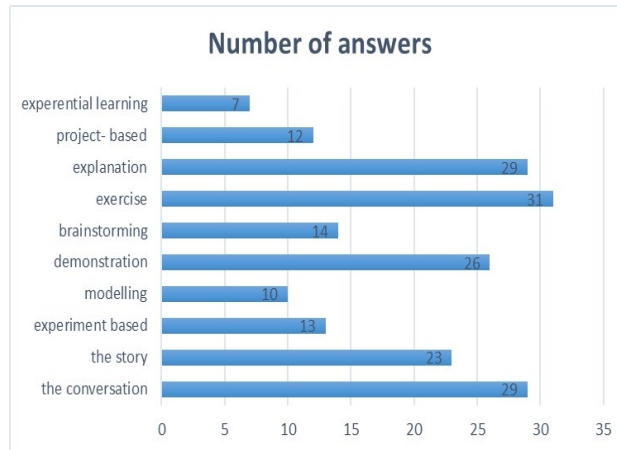


Figure 1. Teaching methods used in online teaching between October 2020 and May Type your title here

As it appears from the data presented in Figure 1, the vast majority of the respondents used expositional methods: the conversation, the story, the explanation. These methods are oriented more towards the transmission of information than towards the student's involvement in learning. They also used the demonstration and the exercise. A smaller percentage used the experiment, brainstorming, project-based learning, experiential learning, involving students more in the act of knowledge.

At the open-response item: "Example how you adapted your teaching methods for online use" the respondents mentioned that: the experiment moved home taking into account the factual possibilities of the students and their level of intellectual development. Experiential learning, collaborative online work involves the student in learning. Some respondents felt that the methods of conversation, storytelling, explanation did not need adaptation.

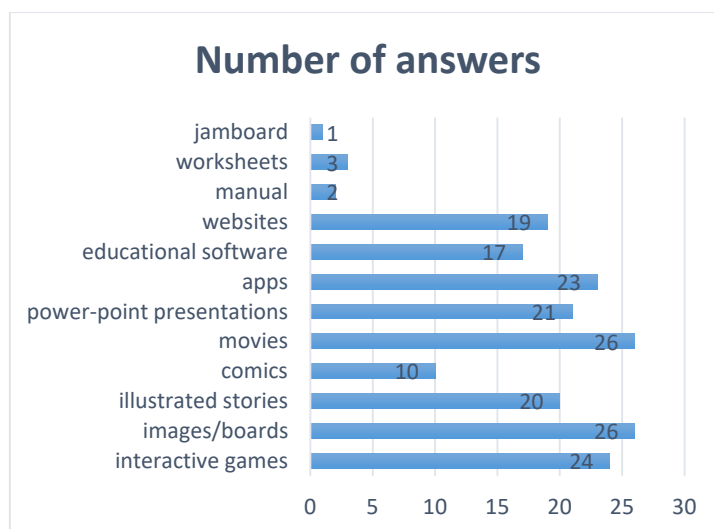


Figure 2. The main teaching materials and tools used in carrying out online activities

The most used materials were interactive games, images/boards, illustrated stories, movies, power-point presentations, educational software, websites, apps. Less used materials were manuals, worksheets,

comics, jamboard. The first ones were more easily adapted to the online environment, the interactive games could be sent to the children on the educational platform, the films could be watched together and when needed, further explanations were given. When choosing and adapting the teaching resources, it was taken in account the material possibilities of children and their intellectual development. Digital textbooks were used, with the jamboard instead of the classroom board and students were invited to fill in, real-time editable worksheets posted on the educational platform for verification, according to Figure 2.

Online teaching activities require certain technical conditions to be effective. Children must have access to the internet and have devices to connect to the educational platform. The highest percentage of device use was phones and tablets and less laptops/computers.

The involvement of the students in the activity occurred especially if they were requested. Out of 33 responses, 26 mentions that students respond only to the teacher's requests, 19 responses out of 33 that the students respond without being asked directly and a small number of 8 respondents out of 33 have encountered the situation in which the child needs the parent/family member to respond to the teacher's requests.

7. Conclusion

This period was an educationally demanding one in relational, social, emotional terms. Teachers have developed their digital skills, which suggests that they can apply new knowledge for the benefit of students in daily practice. Following the analysis of the answers we conclude that the respondents used mainly expositive methods and adapted the teaching means to the needs of the students.

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