OPEN EDUCATIONAL RESOURCES A WAY TO ACHIEVE INCLUSIVE EDUCATION

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Abstract: The concepts of digital teacher, digitized classroom, gamification or training design are more and more familiar to us recently. Often, it's not what a teacher says that's important, but how they say it. Teaching a lesson through a long monologue does not arouse students' interest, rather, it bores them, disturbs them. The way a teacher relates, communicates with his students is essential. Discovering and initiating attractive ways of presenting knowledge, direct interaction with direct or virtual reality produces immediate effects and the results of active learning will not be long in coming. In this context, it is necessary to encourage teachers in order to create quality open educational resources to support them in their teaching activity. Technology helps teachers as long as they know how to use it. Platforms give you the opportunity to customize your educational path, to let students communicate naturally. In this paper I want to share some of the open educational resources that can be used in the activities with students with special educational needs by both special education specialists and mainstream education in the case of integrated SEN students.

Keywords: national curriculum, open educational resources, training courses, special educational needs, integrated education

Title 1: Open educational resources

Certainly the main objectives of the discoveries in the field of technology were: easing work, considerably increasing the amount of information, exponentially expanding the spread area, eliminating some barriers, developing at the cultural, economic and social level.

Technological development, the use of the Internet, mobile communication services and related services have fostered easy access to information for most people. The main role of introducing computer science in school is not only to allow the access of young people to knowledge / information, but especially to ensure and make available to everyone the development of new learning tools but also to learn new techniques for reorganizing knowledge.

"Multimedia technologies, especially interactive ones, can play a special role in discovering new knowledge and values, in an agreeable form, in accordance with the students' interests. Digital transcoding involves additional, specialized operations - both from a didactic and IT perspective - and is ensured by teams of specialists that must include, at least, the pedagogue, the psychologist, the communication expert, the software developer and, possibly, the designer, because we live in a world where the forms, the appearance manage to enhance or compromise the contents. In other words, the digitization of learning involves a change in an important aspect of the curriculum - that which is available to the student through the textbook. However, it is known that a good curriculum, thought for the long term, is not done in a year or two, but requires several years of analysis, expertise, testing, evaluation, reformation. However, we are aware that, in today's times, reflection and reaction times need to be shortened." (Cucoș., C., 2013)

Open Educational Resources (Open Educational Resources) refers to open access to educational resources, facilitated by information and communication technologies, for consultation, use and adaptation by the community of users, for non-commercial purposes. The term was adopted at the 2002 UNESCO Forum, which looked at the impact of Open Courseware projects on higher education. Open educational resources include: materials for teaching - learning: open projects (open courseware and open content), free courses, directories of learning objects (learning objects), educational journals; open source software - for development, use, reuse, search, organization and access to resources; also include virtual learning environments (LMS - Learning Management Systems), learning communities; intellectual property licenses that promote open publishing of materials, design principles and best practices, localization of content.

"With roots in neurocognitive sciences, the concept of "universal design for learning" - UDL, universal design for learning - is slowly gaining ground in education. Aware of the unique nature of each student, instead of imposing an educational path for all students in the class, we should propose diverse learning experiences that suit each one, maximizing the chances of progress. The challenge for teachers is to think of engaging activities that will draw students into the learning process - but it is obvious that, most of the time, one (same) activity does not satisfy the interests and needs of all students in a class, nor it is located in the zone of proximal development of each one. Therefore, we have two directions for optimizing didactic activities, which can be combined in practice by incorporating some suggestions from the theory of universal design for learning: differentiated design, by level groups, by interest groups, by potential groups (and mixed, when it is possible); designing learning activities that are complex enough for each student to find their own path." (Istrate, O., 2020)

Through computer-assisted instruction, learners communicate interactively with the computer system using a system of programs intended for learning in various domains. The computer offers real possibilities for individualizing instruction. Alois Gherghuț considers the computer and related programs to be,,...a kind of mediator or pedagogue (...) whose role is to maintain, strengthen motivation and adapt the learning process to the student's school level." (Gherguț., A., 2005, pp. 294-295)

Title 2: About the CRED project

"Relevant curriculum, open education for all - CRED", a far-reaching project for the Romanian educational system, launched in 2017, implemented over six years, was one of the most important projects of the Ministry of Education for pre-university education specialists. The project, co-financed by the European Social Fund through the Human Capital Operational Program 2014-2020, took place at the national level with 12 partners: the Institute of Educational Sciences, 8 Houses of the Teaching Corps from each development region and 3 School Inspectorates. Being an integral part of the Europe 2020 Strategy, through the Strategy for the Reduction of Early School Leaving, the CRED project offered primary and secondary school teachers the opportunity to develop professionally, by acquiring new skills.

Title 3: Teacher Training Program: Digital Educational Resources: Achievement, Use, Evaluation

On May 9, 2022, the CRED project launched a new accredited training program entitled: "Digital educational resources: creation, use, evaluation", a 50-hour online course of which 25 are synchronous and 25 are asynchronous. Teachers in pre-university primary and secondary education have the opportunity through this course to perfect their computer skills and abilities, to strengthen their teaching career by accumulating a number of 15 transferable professional credits and to create open educational resources - RED. The course is structured on three modules: module 1 - Platforms for creating open educational resources, module 2 - Pedagogical perspective of RED design and use, module 3 - Responsible and safe use of RED.

I had the pleasure and honor of participating in the CRED-RED project as a national

trainer for a number of 5 groups of trainees from Bihor and Bistrița Năsăud counties between October 2022 and March 2023.

The purpose of the training program is to prepare teachers for the design, implementation and evaluation of educational situations that integrate applications and educational resources and digital format. Among the specific objectives of the "Digital educational resources: creation, use, evaluation" training program, I mention the following:

-to use digital technologies dedicated to the development of open educational resources

-to pedagogically design digital educational resources in order to carry out significant and effective didactic activities, appropriate to the field of the discipline, the group - class and the external conditions of learning

-to responsibly use the digital environment for educational activities, in compliance with the legislation, rules and principles of safe use of educational platforms and digital educational resources.

Following a competition, I was designated as a trainer in this training program. As a first activity before starting my activity as a trainer, I participated in the training course for trainers entitled: Digital educational resources: Realization, use, evaluation", training course level 1 category 1 with a duration of 50 hours of training. In this course I actually learned what are the steps of making a quality educational resource, what applications can I use, what platforms can be accessed to distribute resources and how do I evaluate an open educational resource.

One of the final products of the CRED project is the https://digital.educred.ro/ platform, which I invite you to access. The platform provides:

- tutorials;
- the livresque library, assessment test for Romanian language and literature and mathematics for secondary school;
- open educational resources created within the CRED project: resources from county school inspectorates, resources from CNPCC, resources from University of Bucharest, resources from the CRED educational space, various educational resources, soco-emotional resources;
- early childhood education (resources for children and parents, resources for easy childhood education professionals);
- teleschool.

Titlul 4: Resursele educationale deschise o modalitate de realizare a educatiei incluzive

The education for all (EFA) paradigm launched in 1990 by UNESCO in Jomtien, Thailand and reaffirmed at the World Forum on Education for All in Dakar, Senegal (2000) approached education from an inclusive perspective that „...encouraged the expansion of the school's mission and role usual, by transforming it and adapting the educational offer so that it can meet the educational requirements of a diversity of children, each with their own learning and development peculiarities that the school cannot ignore. In this new context, inclusion encourages the expansion of the mission and role of the regular school by transforming it and the educational offer so that it can meet the educational needs of a wide variety of children, each with their own learning and development particularities, which the school cannot ignore." Gherguț, A., Frumos, L., (2019, p.12) Inclusive education starts from the belief that the right to education is one of the fundamental human rights and involves the exploitation of existing resources at the level of a school organization (human, material, financial, temporal resources) to support the participation in the educational process of all children within a community. Inclusive education aims not only at the integration of children with CES, but also those who come from unfavorable socio-cultural, geographical or ethnic backgrounds, which do not allow

their access to education. Inclusion, according to Armstrong, is seen as "a process that involves a reevaluation of the premises on which educational systems are based" (Armstrong, F., 2003, p.3)

In the work Special psychopedagogy coordinated by Adrian Roșan, Marian Pădure believes that: ”many of the applications and equipment developed to be used by people with disabilities required scientific approaches and laborious research, so that the final products used in most activities are accessible not not only to the general public but also to users with different types of disabilities". In this sense, access technologies have been developed and perfected. The concept of access technologies or assistive technologies refers to any device, hardware equipment or software application that can increase, maintain and improve the functional capabilities of a disabled person. Every action that a teacher carries out with the help of access technologies in working with a person with disabilities is considered a technological assistance service. The online learning environment comes with specific challenges and resources that require both teachers and students to adapt and change the way they work. In the following I will present to you some open educational resources that I have made and used for students with special educational needs.

The resources were designed for preschool children or primary school students, but depending on the psycho-intellectual potential of the students, these resources can be used and adapted for older students. The first two educational resources that I present to you were made and uploaded to the livresque platform. The resource entitled "The sound and the letter M" is an interactive material that supports the teacher both in teaching and in recapitulation or assessment. The resource includes various activities carried out in different applications that contribute to the adaptation of oral communication in new contexts and to the manifestation of a positive attitude towards communication.

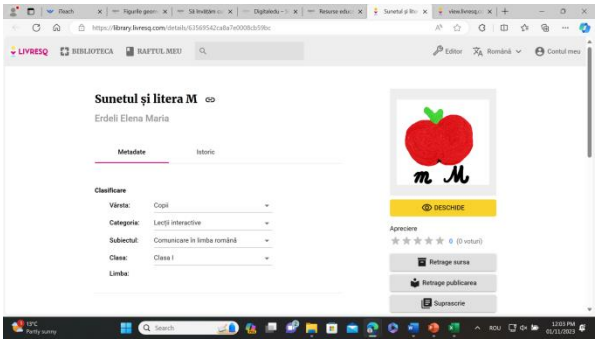

Figure 1 - Page of the open educational resource -The letter and the M sound https://library.livresq.com/details/63569542ca8a7e0008cb59bc

The resource is structured on four sub-activities and the objectives pursued aim at: achieving learning in varied contexts that take into account the particularities of the target group and improving learning and learning results through the way of carrying out the assessment (as self-assessment/peer assessment). Specifically, children must identify and differentiate the sound/letter m, M, locate the position of the sound in the word, divide the given words into syllables correctly and make sentences with certain words.

The second resource entitled "Geometric figures" can be used for mathematics and environmental exploration but also for specific therapies intended for students with special educational needs. The resource is aimed at children in preparatory class and first class in special and special integrated education, children and students with moderate mental deficiency. The proposed resource has a simple format that facilitates the assimilation of knowledge. The material presents geometric figures, making correlations between the shape of objects in the environment and them. Children have the opportunity to observe different

geometric figures, to repeat their names, to match geometric figures of the same kind and to build different objects using geometric figures.

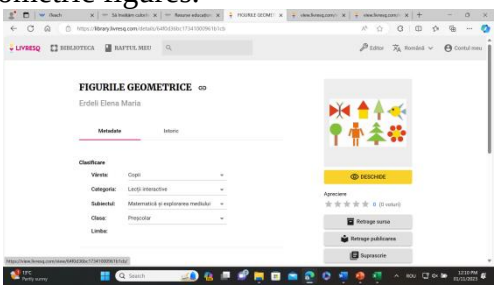

Figure 2 - Page of the open educational resource Geometric figures https://library.livresq.com/details/64f0d36bc17341000961b1cb

I published the resource entitled "Let's learn the colors of the rainbow" on the https://digitaledu.ro platform. The resource is aimed at children of preschool age. The added value for teaching/learning/evaluation resides in the fact that the resource offers the possibility of learning, naming and identifying the color of given objects, develops the cognitive and communication skills of preschoolers, combines elements of play and movement but also activities of a practical nature especially in the last part which concerns the assessment.

Figure 3 - Page of the open educational resource Let's learn the colors of the rainbow

I would recommend using the resource because it is a cheerful, interdisciplinary, activating and playful resource. You can view the resource by accessing the link: https://digitaledu.ro/sa-invatam-culorile-curcubeului-material-suport/

Another platform used for creating open educational resources is: https://wordwall.net. The title of the material is: "Fruits and vegetables", the discipline is part of the curriculum area Specific compensation therapies - Structuring and language development. The activity is intended for preschoolers. The student must access the link: https://wordwall.net/resource/7180000/fructe-%c8%99i-legume , press the Splin It button that will spin the wheel. Then they have to name the fruit or vegetable selected by the roulette wheel. The game can be complicated by assigning new tasks. For example, the child must specify the characteristics of the selected fruit/vegetable. Depending on their psycho-intellectual characteristics, students can divide the word into syllables, mention which is the first syllable and make sentences with the words found when spinning the roulette.

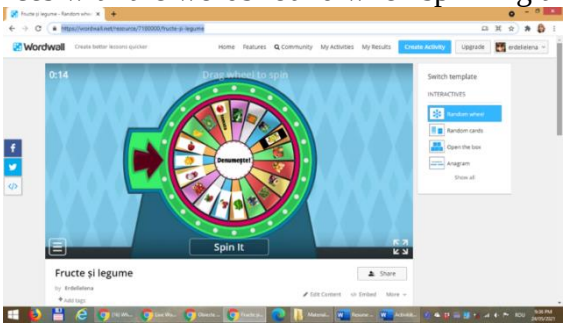

Figure 4- Page of the open educational resource "Fruits and vegetables"

https://wordwall.net/resource/7180000/fructe-%c8%99i-legume

The following activity I recommend has been created specifically for a theme in the personalized clothing/footwear intervention plan. Thus, by accessing the https://wordwall.net platform within the discipline of language structuring and development, I created the material entitled: "Clothing items/shoe items".

Figure 5- Page of the open educational resource- "Clothing items/shoe items".
https://wordwall.net/resource/2918952/sorteaz%c4%83-obiecte-de-imbracaminte-%c8%99i-obiecte-de-incaltaminte

The objectives of the activity are: sorting the images that appear on the screen into the two categories (clothing/shoes), correctly naming the objects in the images, identifying the color of the clothing/shoes, identifying the season in which we use that clothing item, developing vocabulary by making sentences with given words.

Another application I used was: ”Personal hygiene items” made with the help of learningapps.

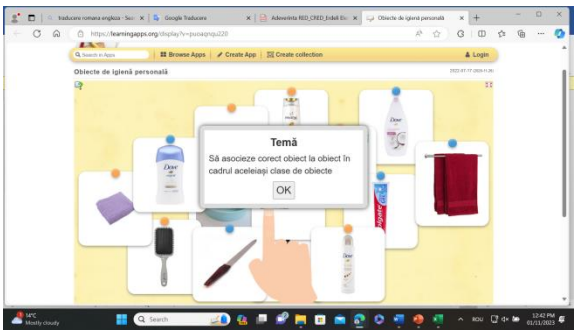

Figure 6- Page of the open educational resource- Personal hygiene items
https://learningapps.org/display?v=puoaqnqu220

I had created a game for association of personal hygiene objects especially for preschoolers, a planned theme within the discipline of structuring and language development.

The objectives of the activity were: the name of the selected object, the splitting of the word into syllables, the identification of the activity performed by using that personal hygiene object, the association of two pairs of personal hygiene objects (eg toothbrush and toothpaste).

Title 5 Conclusions

We have to admit that very often access technologies are considered a determining factor for people with different disabilities to become independent. In the hope that my activity suggestions can be useful to colleagues or perhaps future colleagues who are now students, I conclude by saying that: ,,for people without a disability, technology makes tasks easier. For people with disabilities, technology makes things possible." (Radabaugh, 1991, apud Aitken, Fairley and Carlson, 2012, p.251). Beyond the inherent problems that appear in any field of activity, access technologies currently mark the present and will surely innovate the future, and the need for continuous innovation is essential and constitutes an obligation for specialists in the field.

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