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EDUCATION, REFLECTION, DEVELOPMENT DOCTORAL SCHOOL

**DOCTORAL DISSERTATION**  
**SUMMARY**

**Enhancing the effectiveness of the instructional-educational process through the use of  
blended learning strategies for pupils with non-categorical and transitory learning  
difficulties in primary school**

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**Keywords:** noncategorical and transitory learning difficulties; blended learning strategies; cognitive and motivational training program; innovative approaches in differentiated teaching.

The digital progress and the changes in society caused by technological developments have prompted the education system to adopt innovative teaching methods and strategies adjusted to the needs of digital native learners. The integration of digital tools in the teaching

process is a complex process, which involves the development of digital competencies of pupils and teachers. Technology has brought significant improvements in education, but there are also challenges in harnessing the potential of technology, based on sound evidence, theories and conceptions, only then can we be said to be providing support to students, teachers and educational institutions in preparing skilled, agile and practice-ready graduates (Smith et al., 2020).

Systematically incorporating technology into the teaching process allows the teacher to offer differentiated support according to the needs of the students, which makes it easier to adapt the work tasks to their pace of solving and understanding. Differentiation becomes a key focus for the teacher, with the opportunity to access digital resources in the creation of materials for pupils with non-categorical and transitional learning difficulties (NTLD).

In chapter I entitled "The concept of blended learning and the possibilities for its integration into the teaching and learning process in primary education" the potential of blended learning in creating a differentiated learning environment for pupils with non-categorical and transitory learning difficulties is presented. The use of blended learning (BL) strategies provides opportunities for students as well as teachers to take part in the educational process in varied and interactive ways. The teacher gives students the chance to optimise their learning skills, encouraging them to learn independently as well as collaboratively with others. Through the use of mixed or combined learning tools, what we call blended learning, students are allowed to continue their learning outside the classroom. The use of technology also creates differentiated instructional pathways to meet students' unique needs while respecting their individuality within a group.

In addition to this, if technology is well integrated into the lesson, becoming a routine for students, but closely monitored by the teacher, it can have a remarkable impact on student development. By having access to different teaching strategies, the teacher can individualise the learning process for each pupil, as each student is unique and has a personal way of assimilating information at their own pace. Blended Learning is a combination of traditional (face-to-face) and online learning. Blended Learning is a unique environment where interactive methods and strategies can be used in both traditional and virtual lessons.

These blended learning strategies offer the opportunity for teachers to differentiate academic content to suit the individual needs of students. Differentiation is a combination of closely monitoring progress and adapting instruction in response to students' personalised needs (Heitink et al., 2016), becoming a way of teaching in which teachers proactively modify curricula, teaching methods, resources, and learning activities to meet the diverse

needs of students, maximising learning opportunities for all students. Differentiated and individualized teaching is based on the recognition of the plurality of learners within a whole class, it involves teachers' teaching responses and adaptations to the individual needs of the learners (Bondie et al., 2019). Chapter II, Students with Noncategorical and Transitory Learning Difficulties, clarifies the profile of students with noncategorical and transitory learning difficulties, how these difficulties are distinguished from specific learning difficulties and how we can adapt academic content to the needs of students. Learning difficulties refer to problems related to learning. Identifying non-categorical and transitory learning difficulties is a long and challenging process, as we cannot refer to certain defining characteristics. Nowadays, it is a question of empowering schools and socio-educational factors, trying to identify the factors that give emergence to these learning difficulties (migration, belonging to a particular minority, laterality, the digitization phenomenon, etc.), and then providing support by adapting educational content to the specifics of each child, taking into account the needs and natural pace of growth and development. Learning is an extremely complex process, influenced by many factors, which becomes an individualised process for each person. In developing the classroom as an optimal space for learning, the teacher has a key role in creating the teaching-learning-evaluation framework, providing pupils with the whole teaching resources: knowledge, experience, explanations, opinions, affectivity, openness, sensitivity, understanding, acceptance and tolerance. Collaborative learning leads the teacher to reconsider their role as organiser of learning contexts and the learning environment, becoming a co-participant with the students in the proposed activities. The teacher makes themselves available to the pupil to empower pupils, to help them to develop, to build self-confidence, cooperation and initiative.

Non-categorical and transitory learning difficulties may occur at a particular point in a student's existential moment, but they resolve themselves after a certain time. These difficulties can be defined as induced because they can be influenced by external factors that have an impact on students' academic activity. Factors that may influence pupils' work include the relationship between parents and children; the relationship between pupils and teachers; the influence of the peer group; change of school environment; change of residence; tragic events involving the pupil, etc.

The scientific literature discusses the fact that there are some causes of learning difficulties, some biological and physiological causes (premature birth; chronic diseases; hormonal problems; metabolic problems, etc.), psychological causes (affective disorders; perceptual problems; slow learning pace, etc.), environmental causes (change of school

environment; poor living conditions; relationship difficulties) or some unknown causes (Catalano, 2009). In other words, in the case of non-categorical learning difficulties,- there is a risk of developing a poly difficulty of learning or plural difficulty of learning, as students face several learning difficulties simultaneously, caused by various factors related to the cognitive and affective characteristics of the student, the type of content to which the student is exposed, the methods used by the teacher and the factors inherent to the lesson (Penso, 2002), becoming also a defining element for the transitory character of non-categorical learning difficulties.

Chapter III entitled *Creating an Effective Learning Environment for Students with Non-categorical and Transitory Learning Difficulties Using Blended Learning Strategies* addresses the importance of creating a learning environment based on blended learning strategies that will challenge students with NTLD. Inclusive learning environments using blended learning tools offer accessibility and support to children with low socio-economic status as well as to categories of learners with learning difficulties or certain special educational needs (Bosse, 2014). The use of digital technologies can make learning materials more easily accessible to students individualised to their needs and interests, creating a flexible and accessible learning environment. According to the *Global Education Monitoring Report 2023 (GEM)*, digital technologies are helping to reduce the cost of access to education for some disadvantaged groups: those living in hard-to-reach areas, students who face learning difficulties, lack time or have missed out on educational opportunities in the past. While technology facilitates access to education, this report shows that there are digital divides in terms of access to appropriate technologies and the skills needed to use them effectively. An increasing number of educational platforms offer the opportunity to create differentiated and individualised educational content tailored to the needs and developmental levels of students.

In the case of students with non-categorical and transitory learning difficulties, emotional support is essential in raising awareness of the learning difficulty and establishing remedial steps, given that students may experience a learning difficulty due to external situations. In this sense, the model offered by the *7 Habits of Effective Learners* can facilitate the empowerment of learners and encourage autonomy in the learning process, helping learners with learning difficulties in setting meaningful goals and addressing a growth mindset. By applying this principle of paradigm shift and seeing the school differently, activities can be developed to support the growth mindset, improving classroom management and pupils' academic outcomes.



The second section of the paper proposes a cognitive and motivational instructional training program, "Innovative approaches in differentiated teaching using blended learning (BL) strategies for students with non-categorical and transitory learning difficulties ( NTLD) in Mathematics and Environmental Exploration (MEM) and Communication in Romanian (CLR)".

This research aims to determine the influence of blended learning activities on students with non-categorical and transitory learning difficulties in Mathematics and Environmental Exploration (MEM) and Communication in Romanian (CLR), and to identify innovative approaches in differentiated teaching of these subjects in order to make learning more effective for these students. Through the formative intervention at the level of students with non-categorical and transitory learning difficulties, in the context of teaching activities based on blended learning strategies, we expect that students will improve their competencies related to operating with theoretical and practical notions, both in MEM and CLR.

**The research objectives were:**

O1. To design an experimental cognitive and motivational instructional training program based on blended learning strategies for second grade students with NTLD for MEM and CLR disciplines.

O2. To determine the effectiveness of the implemented program through the initial and final assessment of 2nd grade students with non-categorical and transitory learning difficulties.

O3. To determine the effectiveness of the activities included in the experimental program based on blended learning strategies in facilitating learning for students with non-categorical and transitory learning difficulties at MEM and CLR in second grade.

O4. To determine the association between low performance of students with NTLD and low intrinsic motivation.

Under pedagogical research, the following research questions are proposed concerning the issues of our study:

a) **The main research question:** How does the experimental cognitive and motivational training program Innovative Approaches in Differentiated Differentiated Teaching using blended learning strategies for students with NTLD will lead to the improvement of general and specific competences in the curricula of the subjects Mathematics and Environmental Studies (MEM) and Communication in Romanian (CLR)?

b) **Secondary research questions:**

- How significantly does using blended learning strategies contribute to improving non-categorical and transient learning difficulties?
- To what extent can the differentiation of the teaching process based on blended learning strategies used with second-grade students with NTLD lead to improving key competencies?
- To what extent can non-categorical and transitory learning difficulties be associated with low learning motivation?

In organising and conducting the experimental research we used the theoretical premises and the specific objectives stated above, which allowed us to formulate the working hypotheses necessary to carry out an effective and relevant experiment for educational activity.

As a result, **the research hypothesis** from which the experiment was structured is based on the idea that: the experimental program of cognitive and motivational program *Innovative approaches in differentiated content teaching in MEM and CLR using blended learning strategies* will contribute to the increase of individual performance of students with NTLD in the second grade.

To clarify the general hypothesis, three secondary hypotheses have been added, closely related to Mathematics and Exploration of the Environment (MEM) and Communication in Romanian (CLR), whose effects influence the general hypothesis. These can also be called auxiliary hypotheses since they can add value to the general hypothesis.

**Secondary Hypothesis 1:** The experimental cognitive and motivational training program based on the differentiation of the teaching process using BL strategies for second grade students with NTLD will contribute to the development of the general competencies foreseen in the syllabus of the subjects MEM and CLR:

C.G. 1. Using numbers in elementary calculations (MEN, 2013)

C.G. 3. Receiving a variety of written messages in familiar communication contexts (MEN, 2013)

**Secondary Hypothesis 2:** The experimental cognitive and motivational training program based on the differentiation of the didactic process using BL strategies for second grade students with NTLD will contribute to the development of specific competencies foreseen in the syllabus of the subjects MEM and CLR:

C.S. 1.5. Performing multiplication and division in the 0-1000 concentric by repeated addition/subtraction (MEN, 2013)

C.S. 4.1. Writing messages in different communication contexts (MEN, 2013)

**Secondary Hypothesis 3:** The experimental cognitive and motivational training program based on the differentiation of the didactic process using BL strategies for second grade students with NTLD will contribute to the development of specific competencies foreseen in the syllabus of the subjects MEM and CLR:

C.S. 5.2 Solving problems of the type  $a\pm b=x$ ;  $a\pm b\pm c=x$  in 0-1000 concentric;  $a-b=x$ ;  $a:b=x$ , in 0-100 concentric, with support in objects, images or schematic representations (MEN, 2013)

Expressing interest in reading age-appropriate books (MEN, 2013)

**Secondary Hypothesis 4:** The experimental cognitive and motivational training program based on the differentiation of the teaching process using BL strategies for students with NTLD in the second grade will contribute to increase their intrinsic motivation.

**The independent variable** of the research was **(V.I.)** The experimental cognitive and motivational instructional training program based on differentiation of the teaching process using BL strategies for students with NTLD in the second grade.

**Dependent variables:**

**(V.D.1)** the level of development of the general competences stipulated in the syllabus of Mathematics and Environmental Exploration and Communication in Romanian C.G. 1. Using numbers in elementary calculations (MEN, 2013) and C. G. 3. Receiving a variety of written messages in familiar communication contexts (MEN, 2013).

**(V.D.2)** the level of development of the specific competences foreseen in the syllabus of Mathematics and Environmental Exploration and Communication in Romanian C.S. 1.5. Performing multiplication and division in the 0-1000 range by repeated addition/subtraction (MEN, 2013) and C.S. 4.1.

**(V.D.3)** the level of development of the specific competences foreseen in the syllabus of Mathematics and Environmental Exploration and Communication in Romanian C.S. 5.2. Solving problems of the type  $a\pm b=x$ ;  $a\pm b\pm c=x$  in the 0-1000 concentric;  $a-b=x$ ;  $a:b=x$ , in the 0-100 concentric, with the support of objects, images or schematic representations (MEN, 2013) and C.S. 3.4. Expressing interest in reading age-appropriate books (MEN, 2013).

**(V.D.4)** the degree of intrinsic motivation of students with NCD.

The sample of subjects included in the experimental research consisted of 210 second grade students with non-categorical and transitory learning difficulties, enrolled in one of the 5 schools participating in the study, in Cluj-Napoca, which have the necessary infrastructure to use blended learning strategies. The identification of students with learning difficulties was

based on the methods proposed in the focus group conducted with teachers in Cluj-Napoca. The sample size was identified based on power analysis. According to the power analysis performed in GPower (for a standard power of 0.95) the sample we will need is a minimum of 208 participants, who will be divided into two groups, one experimental and one control. The alpha threshold is 0.05, which indicates that the results are likely to be significant. For this purpose, the 210 pupils were divided into two groups: 106 pupils in the experimental group and 104 pupils in the control group.

The experimental research theme *Innovative approaches in differentiated instruction using blended learning strategies for students with non-categorical and transitory learning difficulties in Mathematics and Environmental Exploration (MEM) and Communication in Romanian (CLR)* aimed to develop an experimental cognitive and motivational training program for students with NTLD in the second grade, through which open educational resources were developed and used in the experimental phase. Differentiated materials were created using different platforms and apps, targeting the competences proposed in the research. At the same time, the platforms and apps were selected to allow the realisation of OERs in line with the research theme, offering the possibility to differentiate the content according to the competence level of the students. In addition to the activities circumscribed to the two subjects (MEM and CLR), activities were carried out to facilitate the increase of students' motivation. The materials used at this stage come from the international Leader in Me program, which aims to prepare students to become more motivated and self-aware. In addition, the underlying principles of the program, the Seven Habits of Highly Effective People and the Four Disciplines of Execution, transcend cultural boundaries in their universality, preparing all types of learners, regardless of their level of competence.

#### **Research methods and instruments:**

Both qualitative and quantitative research methods were used in the research, which allowed a rigorous and detailed data collection: analysis of school documents, focus group method, questionnaire survey, experimental method, Questionnaire for the Assessment of Learning Strategies (SMALSI), Standardised Tests for National Assessment at the end of the second grade.

In the research approach, a focus group with primary school teachers was considered to facilitate the composition of the sample of students with non-categorical and transitory learning difficulties who fulfil the criteria for taking part in the experimental research: not to hold a CES certificate, to be enrolled in grade II at schools in Cluj-Napoca and to be literate.

**The observational phase** ran from September to December 2023. In this stage we aimed to use the triangulation method in creating the profile of the student with non-categorical and transitory learning difficulties, as well as highlighting their individual needs in relation to academic work. Following this stage, we were able to observe the parents' perspective on their children's learning difficulties, how the activity of these pupils in the classroom is described from the teacher's perspective, as well as the influence of the environment on the pupils' activity, information obtained through direct observation of the pupils in the classroom.

**The pre-experimental phase** (December 2023) aimed at the initial testing of students with non-categorical and transitory learning difficulties. To obtain information on the students' proficiency level, the testing method was used: the initial test which facilitated the identification of students' needs, and gaps in understanding of the basic concepts in the two subjects. The initial testing of the students utilised the test for the National Assessment Class II, the year 2023, Test 1, for each of the three tests: Mathematics and Exploring the Environment, Communication in Romanian - reading, and Communication in Romanian - writing. Following the initial testing of the students, it was possible to determine the level of proficiency of each student in each of the three components. In addition to the competencies related to the two subjects, the Strategic Strategies for Assessment of Learning Assessment Questionnaire (SMALSI), provided by the Cognitrom Research Organization, was used to discover the initial motivation level of the pupils with NTLD.

**The experimental phase** took place from January to March 2024, during which time individualised plans were drawn up for students with non-categorical and transitional learning difficulties, followed by the implementation of the proposed intervention program over 10 weeks, one activity per week for each of the two subjects, MEM and CLR. At this stage the actual experiment was carried out, which aimed at differentiating the teaching process based on blended learning strategies used with second-grade students with non-categorical learning difficulties. The proposed activities offered the opportunity to deepen at their own pace the concepts addressed, students receiving differentiated and individualised materials. The planning of the sessions took into account the objectives proposed for each of the three proposed levels: elementary, intermediate, advanced, creating Open Educational Resources (OER) appropriate to each objective, for each level, within each lesson. In addition to the activities to achieve competences in MEM and CLR, activities were carried out to increase students' motivation, personal appreciation and self-esteem. These activities discussed the personal values each individual has and the progress we can make if

we are confident in our strengths. At the same time, in this stage of increasing motivation, students were taught to set a goal and concrete steps to reach it, but more than that, techniques for monitoring progress. One activity is highlighted in the following example:

**Title of activity:** Practice and write correctly

**Subject:** Communication in Romanian

**Week:** 8

**Aim of the activity:** Practice writing correctly

**Materials:** Differentiated digital games; support material Leader in Me;

**Organisation and implementation of the activity:** In the first part of the activity, students learned what a personal mission statement is, each of them trying to compose a personal mission statement based on the examples given in the Leader in Me support materials. The aim of the mission statement was for students to identify weaknesses in their academic work that they would like to improve. The figures below represent the steps for completing the personal mission statement. After this step, the students were divided into three teams to solve differentiated work tasks using the station method. In rotation, students had the opportunity to solve the work tasks at all three stations. At each station, students could access a digital game, which they solved online, while also writing their answers in **their notebooks.**

**Station 1:** Choose the correct syllable division of the given words.

<https://wordwall.net/resource/35994955/cate-silabe>

**Station 2:** Write suitable synonyms for the following words.

<https://wordwall.net/resource/31109963/sinonime>

**Station 3:** Put the punctuation marks in the right place.

<https://wordwall.net/resource/7958305/semnele-de-punctua%c8%9bie>

**Comments:** Students had limited time (5-7 minutes) to complete the tasks for each station. After the digital timer sounded, students rotated to another workstation. The digital timer was projected on the board throughout the activity.

**The post-experimental phase** aimed at the final testing of students with non-categorical and transitory learning difficulties. The final testing of the students used the test for the National Assessment grade II, the year 2023, Test 2, for each of the three tests: Mathematics and Environmental Exploration, Communication in the Romanian Language- Reading, Communication in the Romanian Language- Writing. At the same time, in terms of motivation, the Questionnaire for the Assessment of Learning Strategies (SMALSI) was

applied to see the level of motivation of the students following the experimental cognitive and motivational training program. At the end of the activities, pretest and post-test results were compared and an analysis of students' results in the National Assessment at the end of the second grade was also carried out.

### **Research results**

Statistical data were analysed using the statistical program SPSS 26. In order to test the general hypothesis, both (1) parametric tests, used when the data distribution is consistent with the theoretical distribution, i.e. normality (T-test; ANOVA; Pearson correlations), and (2) nonparametric tests, used to determine whether there is a significant relationship between variables (Mann-Whitney U test; Kruskal-Wallis; Spearman correlations; Kolmogorov-Smirnov and Shapiro-Wilk), which revealed both the associations between the variables in the research hypothesis and the hierarchical multiple regressions which revealed that students with non-categorical learning difficulties who participated in a cognitive and motivational training program based on blended learning strategies, showed progress in the subjects MEM and CLR, in terms of the six competencies considered.

### **Results obtained in the observational phase**

The use of the triangulation method facilitated the development of the profile of the pupil with non-categorical learning difficulties, relating to the perspective of teachers and parents, as well as to the observation of pupils' behaviour in the classroom. The data analysis shows that pupils with NTLD have difficulties in using numbers in elementary calculations, and teachers have a lower perception of pupils' skills than parents and observations. This suggests that pupils exhibit moderate numeracy skills, with slightly more positive ratings in family and observational contexts. At the same time, pupils have difficulties understanding keywords and their application in solving mathematical problems. Teachers perceive writing skills as below average, while parents reflect more positive ratings. Pupils' motivation is assessed as moderate by teachers and activities in this direction are needed.

### **Pre-experimental results**

The statistical analysis of the students' results on the initial testing for the three tests (MEM; CLR-Writing; CLR-Reading) showed that Mathematics (MEM) seems to be the subject that raised the greatest dilemmas for the students, with the greatest variation between performance levels and the lowest percentage of students at the Advanced level compared to Writing and Reading, where the majority of students are at the Advanced level. However, for

the control group, the easiest subject seems to be Reading, with 75 students at the Advanced level, compared to 70 in Writing and only 26 in Math (MEM). For the experimental group, CLR-Reading is also the easiest subject, with 88 students at the Advanced level, more than the 73 in Writing and 41 in Math (MEM). In order to see to what extent the motivation of students with noncategorical learning difficulties influences their 'performance on the three tests, the *Strategic Strategies for Assessment of Learning Skills (SMALSI) questionnaire* was applied, focusing on the scales: motivation; reading and writing skills.

The results obtained from the analysis of the items related to motivation showed that only 4 students were highly motivated in the control group and only one student in the experimental group. As far as reading and information selection skills are concerned, within each group, there was a very low number of students with well-developed skills: control group  $7/104 = 6.7\%$ ; experimental group  $6/106 = 5.7\%$ , which shows that few students checked the answers they have written before the test is given or few students remember essential information from a text they have read. This scale addresses issues related to comprehension of the information read or the speed of selecting key concepts from a text. As far as reading, writing and note-taking skills are concerned, within each group, there was a very low number of students with well-developed skills: control group  $11/104 = 10.58\%$ ; experimental group  $14/106 = 13.21\%$ , which shows that students' ability to take notes while reading a text is extremely low, students' vocabulary is quite poorly developed when writing a composition and they fail to structure their ideas in writing.

### **Comparison of pretest and posttest results**

From the comparative analysis of the results obtained by the students in the initial test and in the post-test, a significant change can be observed in the initial levels of the students (beginner, intermediate, advanced). In the case of the maths test, there was a decrease in the beginner group (15 students in the pretest and 4 in the posttest in the experimental group; 18 students in the pretest and 4 in the posttest in the control group). There was a significant difference between the two groups in the number of students who developed their skills by moving to the advanced group. At the same time, we checked whether there are significant differences between pretest and posttest in the SMALSI questionnaire in terms of motivation, reading ability and writing ability. Results showed that in the case of motivation, students are more confident in their own strengths. For the experimental group there is a statistically significant difference between the pre-test and post-test scores, suggesting an improvement in motivation. Analysing the results, we can conclude that in the experimental group there were significant differences for all three tests (MEM; CLR-reading; CLR-writing), which shows



that the experimental cognitive and motivational training program had an influence on students' activity.

## **CONCLUSIONS**

We can conclude that the differentiation and individualization of the teaching process based on *blended learning* strategies used in the case of second-grade students with DÎN leads to the improvement of general and specific competencies provided by the syllabuses of the subjects MEM and CLR, as well as to the increase of students' motivation. One of the limitations encountered in the research approach refers to the sample of subjects, as many of the teachers were reluctant to participate in this study, the teachers included in the sample were those who signed an agreement willing to take part in the research, being informed about the research objectives and dissemination of results. Even though it was emphasised that their identity would remain anonymous at the time of publication of the results, some teachers declined participation. It is relevant to introduce a new term to define these non-categorical and transitory learning difficulties as they represent a difficulty that does not result from intellectual disabilities, sensory impairments or emotional disturbance. In this sense, noncategorical and transitory learning difficulties encompass the whole range of learning problems that are common in schools, of a temporary or permanent nature and of intrinsic or extrinsic origin for students (Albuquerque, 2019). Thus, we can say that this category of learning difficulties are barriers in the learning process, having repercussions on the assimilation, processing and use of information from a cognitive, metacognitive, as well as non-cognitive perspective.

## **BIBLIOGRAPHY**

- Achter, J. A., & D. (2003). Fostering exceptional development in intellectually talented populations. In W. B. Walsh (Ed.), *Counseling psychology and optimal human functioning* (pp. 25–54). Lawrence Erlbaum Associates Publishers.
- Afanas, A. (2020). Analiza comparativă a standardelor de competență profesională ale cadrelor didactice la nivel național și internațional. In: *Studia Universitatis Moldaviae (Seria Științe ale Educației)*, nr. 9(139), pp. 36-41. ISSN 1857-2103. DOI: 10.5281/zenodo.4277335
- Akyüz, H.İ., & Samsa, S. (2009). The effects of blended learning environment on the critical thinking skills of Lubinski students. *Procedia Social and Behavioral Sciences*, 1(1), 1744-1748.

- Alammary, A., Sheard, J., & Carbone, A. (2014). Blended learning in higher education: Three different design approaches. *Australasian Journal of Educational Technology*, 30(4). <https://doi.org/10.14742/ajet.693>
- Albulescu, I. (2021). Competențele digitale ale profesorilor, în Ion Albulescu, Horațiu Catalano E-Didactica. Procesul de instruire în mediul online. București: Editura Didactica Publishing House, p. 43.
- Albuquerque, C. P. (2019). Representations of Learning Disabilities in Portugal. *Psychologica*, 62(2), 75-93.
- Alghazo, E. M., Gharaibeh, M., & Abdel-Hadi, S. (2023). Effect of a Classroom-based Intervention on the Social Skills of Students with Learning Difficulties. *Emerging Science Journal*, 7, 135-145.
- Almășan, B., Dumitrache, A., Perțea, A., Norel, M., & Horumbă, M. (2022). Ghidul practic al profesorului online, Editura Universitară, București, 2022.
- Amad, Z., Tamani, S., Sefri, Y., & Radid, M. (2023). The Flipped Classroom Approach via the M-Learning Model: Impact on Student Learning and Motivation. *Journal of Hunan University Natural Sciences*, 50(4).
- Analiza nevoilor cadrelor didactice legate de utilizarea și crearea de resurse educaționale deschise (2018) <https://drive.google.com/file/d/1DT9hXFd7QyyokaaYgR903aD6mvKUzZzB/view> (accesat la data de 12 septembrie 2023)
- Ani-Rus, A., & Catalano, H. (2023). Blended Learning Tools In Primary Schools- A Qualitative Study. In I. Albulescu, & C. Stan (Eds.), Education, Reflection, Development - ERD 2022, vol 6. European Proceedings of Educational Sciences (pp. 280-294). European Publisher. <https://doi.org/10.15405/epes.23056.26>
- Auphan, P., Ecalle, J., & Magnan, A. (2019). Computer-based assessment of reading ability and subtypes of readers with reading comprehension difficulties: A study in French children from G2 to G9. *European Journal of Psychology of Education*, 34, 641-663.
- Ausat, A. M. A. (2023). The Application of Technology in the Age of Covid-19 and Its Effects on Performance. *Apollo: Journal of Tourism and Business*, 1(1), 14-22.
- Băban, A. (2000). Strategii și metode de cercetare calitativă. Interviu și observația (II). *Cogniție, Creier, Comportament*, p. 323.
- Babazadeh, Z., Mojaver, S., Fathi, K., & Jabbari, S. (2022). The effectiveness of self-compassion training on social skills, social self-efficacy and social

- adjustment of students with learning disabilities. *Journal of Learning Disabilities*, 11(3), 30–44. doi:10.22098/JLD.2022.7665.1823.
- Badami, C., Case, D., Eloë, N., Fellah, A., Hawley, D., & Hoot, C. (2019). "Blended courses in computer science and information systems education: Adapting to changing educational methods and needs", *J. Comput. Sci. Colleges*, vol. 34, no. 12, pp. 122.
- Bahmani, T., Naseri, N. S., & Fariborzi, E. (2023). Relation of parenting child abuse based on attachment styles, parenting styles, and parental addictions. *Current psychology*, 42(15), 12409-12423.
- Bănuț, M., & Albulescu, I. (2022). Computer Science Education, Zone Of Proximal Development For Primary School Pupils. In I. Albulescu, & C. Stan (Eds.), *Education, Reflection, Development - ERD 2021*, vol 2. European Proceedings of Educational Sciences (pp. 68-92). European Publisher. <https://doi.org/10.15405/epes.22032.7>
- Barth, K., & Florescu, C. (2016). The Management Of Learning Difficulties In Classroom. *European Proceedings of Social and Behavioural Sciences*.
- Bearman, M., Nieminen, J. H., & Ajjawi, R. (2023). Designing assessment in a digital world: an organising framework. *Assessment & Evaluation in Higher Education*, 48(3), 291-304.
- Benlamri, R., Klett, F., & Wang, M. (2016). Models, technologies and approaches toward widening the open access to learning and education. *Knowledge Management & E-Learning: An International Journal*.
- Berndt, T. J., & Keefe, K. (2012). Friends' influence on adolescents' perceptions of themselves at school. In *Student perceptions in the classroom* (pp. 51-74). Routledge.
- Bihu, R. (2021). Questionnaire survey methodology in educational and social science studies. *International Journal of Quantitative and Qualitative Research Methods*, 9(3), 40-60.
- Bishara, S. (2023). Humor, motivation and achievements in mathematics in students with learning disabilities. *Cogent Education*, 10(1), 2162694.
- Bondie, R. S., Dahnke, C., & Zusho, A. (2019). How does changing “one-size-fits-all” to differentiated instruction affect teaching?. *Review of Research in Education*, 43(1), 336-362.

- Bosse, I. K. (2014). "Planet School": Blended Learning for Inclusive Classrooms. In *Computers Helping People with Special Needs: 14th International Conference, ICCHP 2014, Paris, France, July 9-11, 2014, Proceedings, Part II 14* (pp. 366-373). Springer International Publishing.
- Bouck, E. C., & Long, H. (2021). Assistive technology for students with disabilities: An updated snapshot. *Journal of special education technology, 36*(4), 249-257.
- Bradshaw, C. P. (2015). Translating research to practise in bullying prevention. *American Psychologist, 70*(4), 322.
- Brauchli, V., Sticca, F., Edelsbrunner, P., von Wyl, A., & Lannen, P. (2024). Are screen media the new pacifiers? The role of parenting stress and parental attitudes for children's screen time in early childhood. *Computers in Human Behavior, 152*, 108057.
- Bray, B., & McClaskey, K. (2010). Personalization vs differentiation vs individualization. Mid-Pacific Institute, 1(1).
- British Dyslexia Association <https://www.bdadyslexia.org.uk/dyslexia/about-dyslexia> (accesat la data de 28 august 2023)
- Butterworth, B., Varma, S., & Laurillard, D. (2011). Dyscalculia: from brain to education. *science, 332*(6033), 1049-1053.
- Cadre Didactice – Raport de Țară SABER, Livrabil 4 [https://www.edu.ro/sites/default/files/Livrabil\\_4\\_Cadre%20Didactice%20%E2%80%93%93%20SABER%20Teachers.pdf](https://www.edu.ro/sites/default/files/Livrabil_4_Cadre%20Didactice%20%E2%80%93%93%20SABER%20Teachers.pdf) (accesat la data de 30 august 2023)
- Cadrul European pentru Competență Digitală -DigCompEdu [https://eos.ro/wp-content/uploads/2022/10/eos\\_cadrul\\_european\\_pentru\\_competenta\\_digitala\\_a\\_profesorilor\\_-digcompedu\\_fin\\_002.pdf](https://eos.ro/wp-content/uploads/2022/10/eos_cadrul_european_pentru_competenta_digitala_a_profesorilor_-digcompedu_fin_002.pdf) (accesat la data de 24 iulie 2023)
- Cai, J. (2022). An application of audience response system in a hybrid teaching environment based on Bloom's digital taxonomy. *Learning TAL, 16*.
- Cardno, C. (2018). Policy Document Analysis: A practical educational leadership tool and a qualitative research method. *Educational Administration: Theory & Practice, 24*(4), 623-640.
- Castaño Muñoz, J., Vuorikari, R., Costa, P., Hippe, R., & Kampylis, P. (2023). Teacher collaboration and students' digital competence-evidence from the SELFIE tool. *European Journal of Teacher Education, 46*(3), 476-497.

- Catalano, H. (2009). Dificultăți de învățare transversale. Program de intervenție educațională pentru elevii cu părinți emigranți. Editura Paralela 45, Pitești.
- Catalano, H. (2014). The opportunity of blended-learning training programs in adult education-Ascertaining study. *Procedia-Social and Behavioral Sciences*, 142, 762-768.
- Catalano, H. (2021). E-jocurile ca strategii de instruire online. Avantaje și limite în E-Didactica. Procesul de instruire în mediul online. Coordonator Albușescu, I., și Catalano, H., Editura DPH, București, p. 105.
- Catalano, H., Albușescu, I., Stan, C., Mestic, G., & Ani-Rus, A. (2023). Child-Centered Approach through Slow Education Principles: A View to Child Personality Development in Early Childhood. *Sustainability*, 15(11), 8611. <https://doi.org/10.3390/su15118611>
- Chelcea, S. (2022). Methodology of sociological research. Quantitative and qualitative methods. Bucharest: Prouniversitaria Publishing House
- Christensen, L. B., Johnson, B., Turner, L. A., & Christensen, L. B. (2011). Research methods, design, and analysis.
- Churches, A. (2009). Bloom's digital taxonomy [PDF] [https://www.researchgate.net/publication/228328472\\_Bloom's\\_Taxonomy\\_Blooms\\_Digitally/citations](https://www.researchgate.net/publication/228328472_Bloom's_Taxonomy_Blooms_Digitally/citations) (accesat la data de 13 septembrie 2023)
- Ciesielska, M., Boström, K. W., & Öhlander, M. (2018). Observation methods. Qualitative methodologies in organization studies: Volume II: Methods and possibilities, 33-52.
- Cooley, C. H. (1902). The looking-glass self. *The production of reality: Essays and readings on social interaction*, 6(1902), 126-28.
- Cohen, L., Manion, L., & Morrison, K. (2002). Research methods in education. Routledge.
- Comisia Europeană, 2021 <https://education.ec.europa.eu/focus-topics/digital-education/about-digital-education> (accesat la data de 21 iulie 2023)
- Competențele cheie pentru dezvoltarea pe tot parcursul vieții <https://op.europa.eu/en/publication-detail/-/publication/297a33c8-a1f3-11e9-9d01-01aa75ed71a1/language-en> (accesat la data de 21 iulie 2023)
- Cooney, M.H., Gupton, P., & O'Laughlin, M. (2000). Blurring the lines of play and work to create blended classroom learning experiences. *Early Childhood Education Journal*, 27(3), 165-171.

- Cope, A. & Bradley A. (2019). *Scurt Ghid de Inteligență Emoțională. Cum să ai succes într-o lume nebună*, Editura Litera, București.
- Copeland, W. E., Wolke, D., Angold, A., & Costello, E. J. (2013). Adult psychiatric outcomes of bullying and being bullied by peers in childhood and adolescence. *JAMA psychiatry*, 70(4), 419-426.
- Cotton, D. R. E., Stokes, A., & Cotton, P. A. (2010). Using Observational Methods to Research the Student Experience. *Journal of Geography in Higher Education*, 34(3), 463–473. <https://doi.org/10.1080/03098265.2010.501541>
- Covey, S. R. (2014). *Leader in Me*. Simon & Schuster. eBook 9781476772196.
- Covey, S. R. (2020). *The 7 habits of highly effective people*. Simon & Schuster. Anniversary Edition eBook 9781982143817.
- Covington, M. V., & Dray, E. (2002). The developmental course of achievement motivation: A need-based approach. In *Development of achievement motivation* (pp. 33-56). Academic Press.
- Dangwal, K. L. (2017). Blended learning: An innovative approach. *Universal Journal of Educational Research*, 5(1), 129-136.
- Davronovich, A. D., & Mansurjonovich, J. M. (2023). Important Advantages Of Organizing The Educational Process In A Digital Technology Environment. *Galaxy International Interdisciplinary Research Journal*, 11(2), 149-154.
- Denzin, N. K., & Lincoln, Y. S. (2008). Introduction: The discipline and practice of qualitative research.
- Dermitzakis, T. (2017). Perceptions of special education teachers in primary and secondary education of the prefecture of Heraklion, Crete for their training [Master's thesis, Hellenic Open University]. Hellenic Open University Repository. <https://bit.ly/3LGR01j>
- Descrierea Programului Școala Încrăderii <https://scoalaincraderii.ro/prezentarea-programului/> (accesat la data de 13 septembrie 2023)
- Dicționar Cambridge <https://dictionary.cambridge.org/dictionary/english/blended-learning> (accesat la data de 10 iulie 2023)
- DigComp [https://joint-research-centre.ec.europa.eu/digcomp\\_en](https://joint-research-centre.ec.europa.eu/digcomp_en) (accesat la data de 22 iulie 2023)

Digital education action plan (update)

[https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12453-Digital-Education-Action-Plan/public-consultation\\_en](https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12453-Digital-Education-Action-Plan/public-consultation_en)

- Dignath, C., & Veenman, M. V. (2021). The role of direct strategy instruction and indirect activation of self-regulated learning — Evidence from classroom observation studies. *Educational Psychology Review*, 33(2), 489-533.
- Dotson, R. (2016). Goal setting to increase student academic performance. *Journal of School Administration Research and Development*, 1(1), 45-46.
- Driscoll, M. (2003). "Blended Learning: Let's get Beyond the Hype." IBM Global Services.
- Eggen, P. and Kauchak, D. (2004). *Educational psychology: Windows, classrooms*. Pearson Prentice Hall, Upper Saddle River.
- Eikeland, I., & Ohna, S. E. (2022). Differentiation in education: a configurative review. *Nordic Journal of Studies in Educational Policy*, 8(3), 157-170.
- Ensmenger, N. (2012). "The Digital Construction of Technology: Rethinking the History of Computers in Society." *Technology and Culture* 53(4): 753–776. doi:10.1353/tech.2012.0126
- European Commission, Directorate-General for Education, Youth, Sport and Culture, (2021). *Blended learning for high quality and inclusive primary and secondary education: handbook*, Publications Office of the European Union. <https://data.europa.eu/doi/10.2766/237842> (accesat la data de 12 septembrie 2023)
- European Commission, Directorate-General for Education, Youth, Sport and Culture, (2023). *Blended learning for inclusion*, Publications Office of the European Union. <https://data.europa.eu/doi/10.2766/732631> (accesat la data de 12 septembrie 2023)
- Fedorova, A. (2020). Application of blended education models in teaching students of non-language universities a foreign language (english): problems and prospects for implementing didactic goals <http://dx.doi.org/10.2139/ssrn.3750648>
- Felea, M., Dobrea, M., & Albăstroiu. (2017). Blended learning in higher education - a Romanian student's perspective. *eLearning & Software for Education*, 1.
- Felfe, C., Lechner, M., & Steinmayr, A. (2016). Sports and Child Development. *PLOS ONE* 11(5): e0151729. <https://doi.org/10.1371/journal.pone.0151729>
- Fisher, K., Cassidy, B., & Mitchell, A. M. (2017). Bullying: effects on school-aged children, screening tools, and referral sources. *Journal of community health nursing*, 34(4), 171-179.

- Fletcher, J.M. (2012). Classification and identification of learning disabilities. In: Learning about learning disabilities, Ed 4. London: Academic
- Foloștină, R., & Simion, E. (2020). Învățarea digitală la copiii cu nevoi educaționale de suport. Editura Universitară, București, p. 17
- Freeman, T. (2006). Best practice in focus group research: making sense of different views. *Journal of advanced nursing*, 56(5), 491-497.
- Friesen, N. (2012). Defining blended learning. Retrieved from [http://learningspaces.org/papers/Defining\\_Blended\\_Learning\\_NF.pdf](http://learningspaces.org/papers/Defining_Blended_Learning_NF.pdf)
- Fritz, A., Haase, V. G., & Rasanen, P. (2019). International Handbook of Mathematical Learning Difficulties: From the Laboratory to the Classroom. *Springer International Publishing*. <https://doi.org/10.1007/978-3-319-97148-3>
- Fundația pentru persoanele cu dizabilități de învățare (Foundation for People With Learning Disabilities)  
<https://www.learningdisabilities.org.uk/learning-disabilities/a-to-z/l/learning-difficulties> (accesat la data de 27 august 2023)
- Gafurova, M. A. (2023). Development of Cognitive Activity of Elementary School Students in Mathematics Lessons. *Global Scientific Review*, 14, 35-39.
- Garrison, D., & Vaughan, N. (2008). Blended Learning in Higher Education: Framework, Principles, and Guidelines. 10.1002/9781118269558.
- Ghid metodologic pentru individualizarea procesului educațional prin adaptări curriculare  
[https://mecc.gov.md/sites/default/files/26\\_repere\\_sap\\_indiv\\_proces\\_educat\\_2021-2022\\_final.pdf](https://mecc.gov.md/sites/default/files/26_repere_sap_indiv_proces_educat_2021-2022_final.pdf) (accesat la data de 31 august 2023)
- Gijbels, L., Lee, A. K., & Yeatman, J. D. (2023). Children with developmental dyslexia have equivalent audiovisual speech perception performance but their perceptual weights differ. *Developmental Science*, e13431.
- Glava, C. C., & Glava, A. E. (2011). Development of metacognitive behaviour of future teacher students through electronic learning diaries as means of self reflection. *Procedia Computer Science*, 3, 649-653.
- Glava, C. C., & Glava, A. E. (2012). Teachers' views on using the internet as a learning tool. *Procedia-Social and Behavioural Sciences*, 46, 3556-3560.
- Goleman, D., Inteligența Emoțională.  
[https://ccdph.ro/wp/wp-content/uploads/2020/05/1469123057\\_Daniel\\_Goleman\\_-\\_Inteligența\\_emotională.pdf](https://ccdph.ro/wp/wp-content/uploads/2020/05/1469123057_Daniel_Goleman_-_Inteligența_emotională.pdf) (accesat la data de 16 august 2023)



- Gori, A., Topino, E., & Griffiths, M. D. (2023). The associations between attachment, self-esteem, fear of missing out, daily time expenditure, and problematic social media use: A path analysis model. *Addictive Behaviours*, 141, 107633.
- Graham, C.R. (2006). Blended learning systems: Definition, current trends, and future directions. In C.J. Bonk & C.R. Graham (Eds.), *The handbook of blended learning: Global perspectives, local designs* (pp. 3–21). San Francisco: JosseyBass/Pfeiffer.
- Gross, F. L., Jr. (1987). *Introducing Erik Erikson: An invitation to his thinking*. University Press of America.
- Gul, R., Batool, S., Khan, S. I., & Jabeen, F. (2023). The Effects Of Social Skills On Academic Competencies Among Undergraduate Students. *Russian Law Journal*, 11(3s).
- Güzer, B., & Caner, H. (2014). The past, present and future of blended learning: an in depth analysis of literature. *Procedia-social and behavioural sciences*, 116, 4596-4603.
- Haambokoma, C. (2007). Nature and causes of learning difficulties in genetics at high school level in Zambia. *Journal of International Development and Cooperation*, 13(1), 1-9.
- Hall, A. (2008). Specific learning difficulties. *Psychiatry*, 7(6), 260-265.
- Hammer, L. B., Kossek, E. E., Anger, W. K., Bodner, T., & Zimmerman, K. L. (2011). Clarifying work–family intervention processes: The roles of work–family conflict and family-supportive supervisor behaviours. *Journal of Applied Psychology*, 96, 134– 150. <https://doi.org/10.1037/a0020927>
- Hamre, B. K., & Pianta, R. C. (2005). Can instructional and emotional support in the first-grade classroom make a difference for children at risk of school failure?. *Child development*, 76(5), 949-967.
- Hanusz, Z., & Tarasińska, J. (2015). Normalisation of the Kolmogorov–Smirnov and Shapiro–Wilk tests of normality. *Biometrical Letters*, 52(2), 85-93.
- Harter, S. (1981). A new self-report scale of intrinsic versus extrinsic orientation in the classroom: Motivational and informational components. *Developmental Psychology*, 17(3), 300–312. <https://doi.org/10.1037/0012-1649.17.3.300>
- Harter, S. (2013). The development of self-esteem. In *Self-esteem issues and answers* (pp. 144-150). Psychology Press.

- Hatzenbuehler, M. L., Schwab-Reese, L., Ranapurwala, S. I., Hertz, M. F., & Ramirez, M. R. (2015). Associations between antibullying policies and bullying in 25 states. *JAMA pediatrics, 169*(10), e152411-e152411.
- Heale, R., & Forbes, D. (2013). Understanding triangulation in research. *Evidence-based nursing, 16*(4), 98-98.
- Heine, S., Krepf, M., & König, J. (2023). Digital resources as an aspect of teacher professional digital competence: One term, different definitions—a systematic review. *Education and Information Technologies, 28*(4), 3711-3738.
- Heitink, M. C., Van der Kleij, F. M., Veldkamp, B. P., Schildkamp, K., & Kippers, W. B. (2016). A systematic review of prerequisites for implementing assessment for learning in classroom practice. *Educational research review, 17*, 50-62.
- Hoogenes, J., Mironova, P., Safir, O., McQueen, S. A., Abdelbary, H., Drexler, M., & Sonnadara, R. R. (2015). Student-led learning: a new teaching paradigm for surgical skills. *The American Journal of Surgery, 209*(1), 107-114.
- Hoppe HU, Joiner R, Milrad M, et al. (2003). Guest editorial: Wireless and mobile technologies in education. *Journal of Computer Assisted Learning 19*(3): 255–259.
- Hughes, G. (2007). Using blended learning to increase learner support and improve retention. *Teaching in Higher Education, 12*(3), 349-363.
- Humphries, A. C., Cobia, F. J., & Ennis, L. S. (2015). Perceptions of the Leader in Me© process in regard to student discipline. *Journal of Education and Human Development, 4*(3), 93-104.
- Învățarea la distanță. Anchetă cu privire la activitățile educaționale desfășurate în România, în perioada suspendării cursurilor școlare față în față [www.ise.ro/scoala-la-distanta-in-perioada-pandemiei-covid-19](http://www.ise.ro/scoala-la-distanta-in-perioada-pandemiei-covid-19) (accesat la data de 13 septembrie 2023)
- Jia, J., Chen, Y., Ding, Z., & Ruan, M. (2012). Effects of a vocabulary acquisition and assessment system on students' performance in a blended learning class for English subject. *Computers & Education, 58*(1), 63-76.
- Jordon, N. C., Kaplan, D., & Hanich, L. B. (2002). Achievement growth in children with learning difficulties in mathematics: Findings of a two-year longitudinal study. *Journal of educational psychology, 94*(3), 586.
- Jorge, C. M. H., Jorge, M. D. C. A., Gutiérrez, E. R., García, E. G., & Díaz, M. B. (2003). Use of the ICTs and the Perception of E-learning among University Students: a

- Differential Perspective according to Gender and Degree Year Group. *Interactive educational multimedia: IEM*, 13-28.
- Jucan, S. A., & Stan, C. (2022). Online Educational Activities For Children With Intellectual Disabilities. In I. Albulescu, & C. Stan (Eds.), *Education, Reflection, Development - ERD 2021*, vol 2. *European Proceedings of Educational Sciences* (pp. 342-349). European Publisher. <https://doi.org/10.15405/epes.22032.33>
- Kabardov, M. (2021). Differentiation and individualisation problem in the context of education digitalisation. In *Child in the Digital World* (pp. 147-147).
- Kaiser, G., & König, J. (2019). Competence measurement in (mathematics) teacher education and beyond: implications for policy. *Higher Education Policy*, 32(4), 597–615. <https://doi.org/10.1057/s41307-019-00139-z>
- Karlen, Y., Hirt, C. N., Jud, J., Rosenthal, A., & Eberli, T. D. (2023). Teachers as learners and agents of self-regulated learning: The importance of different teachers competence aspects for promoting metacognition. *Teaching and Teacher Education*, 125, 104055.
- Khin Eng, C., & Sai Hoe, F. (2021). Exploring the Implementation of An Intervention for A Pupil with Mathematical Learning Difficulties: A Case Study. *Journal on Mathematics Education*, 12(3), 531–546. 10.22342/jme.12.3.14473.531-546.
- Kim, T. K. (2015). T test as a parametric statistic. *Korean journal of anesthesiology*, 68(6), 540.
- Kocevar, G., Suprano, I., Stamile, C., Hannoun, S., Fournier, P., Revol, O. & Sappey-Mariniere, D. (2019). Brain structural connectivity correlates with fluid intelligence in children: A DTI graph analysis. *Intelligence*, 72, 67-75.
- Kotera, Y., Taylor, E., Fido, D., Williams, D., & Tsuda-McCaie, F. (2023). Motivation of UK graduate students in education: Self-compassion moderates pathway from extrinsic motivation to intrinsic motivation. *Current Psychology*, 42(12), 10163-10176.
- Kothamasu, K. K. (2010). Odl Programmes Through M-learning Technology. Retrieved from [http://oasis.col.org/bitstream/handle/11599/2214/2010\\_KothamasuK\\_ODLProgrammes.pdf?sequence=1&isAllowed=y](http://oasis.col.org/bitstream/handle/11599/2214/2010_KothamasuK_ODLProgrammes.pdf?sequence=1&isAllowed=y)

- Kouti, A. (2017). The training of primary school teachers in Cyprus on learning difficulties [Master's thesis, University of Macedonia]. PSEPHEDA Digital Library and Institutional Repository. <https://bit.ly/3naKt4F>
- Kover, D. J., & Worrell, F. C. (2010). The influence of instrumentality beliefs on intrinsic motivation: A study of high-achieving adolescents. *Journal of Advanced Academics*, 21(3), 470-498.
- Krause, K. L., Bochner, S. & Duchesne, S. (2003). Educational Psychology for Learning and Teaching. Australia: Thomson.
- Kroesbergen, E. H., van Hooijdonk, M., Van Viersen, S., Middel-Lalleman, M. M., & Reijnders, J. J. (2016). The psychological well-being of early identified gifted children. *Gifted Child Quarterly*, 60(1), 16-30.
- Kyriakopoulos, D., & Díaz Pareja, E. M. (2023). The Training of Greek Primary Education Teachers in Learning Difficulties. *European Journal of Educational Research*, 12(3).
- LaBelle, B. (2023). Positive Outcomes of a Social-Emotional Learning Program to Promote Student Resiliency and Address Mental Health. *Contemp School Psychol* 27, 1–7. <https://doi.org/10.1007/s40688-019-00263-y>
- Lee, B., Liu, K., Warnock, T. S., Kim, M. O., & Skett, S. (2023). Students leading students: a qualitative study exploring a student-led model for engagement with the sustainable development goals. *International Journal of Sustainability in Higher Education*, 24(3), 535-552.
- Lefa, B. (2014). The Piaget theory of cognitive development: an educational implications. *Educational psychology*, 1(1), 1-8.
- Legea Educației nr.1/2011  
[https://www.edu.ro/sites/default/files/legea-educatiei\\_actualizata%20august%202018.pdf](https://www.edu.ro/sites/default/files/legea-educatiei_actualizata%20august%202018.pdf) (accesat la data de 30 august 2023)
- Lenroot, R. K., & Giedd, J. N. (2006). Brain development in children and adolescents: insights from anatomical magnetic resonance imaging. *Neuroscience and biobehavioral reviews*, 30(6), 718–729. <https://doi.org/10.1016/j.neubiorev.2006.06.001>
- Li, C., Jin, Z., Xiaohui, H., & Li, Z. (2023). Experience Of Learning Practice Based On "Byod+Flipped Classroom". In I. Albulescu, & C. Stan (Eds.), Education, Reflection, Development - ERD 2022, vol 6. European Proceedings of Educational

- Sciences (pp. 262-270). European Publisher.  
<https://doi.org/10.15405/epes.23056.24>
- Lista platformelor educaționale românești  
<https://livresq.com/ro/news/lista-platforme-educationale-romanesti/> (accesat la data de 12 septembrie 2023)
- Lopes, G. A., Furtado, J. C., & Baierle, I. C. (2023). How E-learning Is Correlated with Competitiveness and Innovation and Critical Success Factors. *Education Sciences*, 13(6), 619.
- Luna, B., Garver, K. E., Urban, T. A., Lazar, N. A., & Sweeney, J. A. (2004). Maturation of cognitive processes from late childhood to adulthood. *Child development*, 75(5), 1357–1372. <https://doi.org/10.1111/j.1467-8624.2004.00745.x>
- Lyon, G.R., Shaywitz, S.E. & Shaywitz, B.A. (2003). A definition of dyslexia. *Ann. of Dyslexia* 53, 1–14. <https://doi.org/10.1007/s11881-003-0001-9>
- MacFarland, T. W., Yates, J. M., MacFarland, T. W., & Yates, J. M. (2016). Mann–Whitney u test. *Introduction to nonparametric statistics for the biological sciences using R*, 103-132.
- Mangels, J. A., Butterfield, B., Lamb, J., Good, C., & Dweck, C. S. (2006). Why do beliefs about intelligence influence learning success? A social cognitive neuroscience model. *Social cognitive and affective neuroscience*, 1(2), 75-86.
- Matore, M., & Ewan, M. E. (2021). Rasch Model Assessment for Bloom Digital Taxonomy Applications. *Computers, Materials & Continua*, 68(1).
- McClelland, D. C. (1965). Toward a theory of motive acquisition. *American Psychologist*, 20(5), 321–333. <https://doi.org/10.1037/h0022225>
- McKnight, P. E., & Najab, J. (2010). Mann-Whitney U Test. *The Corsini encyclopaedia of psychology*, 1-1.
- McRae, K., & Gross, J. J. (2020). Emotion regulation. *Emotion*, 20(1), 1–9. <https://doi.org/10.1037/emo0000703>
- Mead, G. H. (1934). *Mind, self, and society* (Vol. 111). Chicago: University of Chicago press. <http://tankona.free.fr/mead1934.pdf> (accesat la data de 16 august 2023)
- Melton, B., Graf, J., & Chopak-Foss, J. (2009). Achievement and satisfaction in blended learning versus traditional general health course designs. *International Journal for the Scholarship of Teaching and Learning*, 3(1).
- Meyer U., Romann M., Zahner L., Schindler C., Puder J. J., Kraenzlin M. et al. (2011). Effect of a general school-based physical activity intervention on bone mineral

content and density: a cluster-randomised controlled trial. *Bone*, 48 (4): 792–797.  
Pmid:21167330

Mih, V. (2018). Psihologie educațională. Editura ASCR, Cluj-Napoca.

Mingozzi, A., Tobia, V., & Marzocchi, G. M. (2023). Dyslexia and dyscalculia: which neuropsychological processes distinguish the two developmental disorders?. *Child Neuropsychology*, 1-21.

Ministerul Educației  
<https://rocnee.eu/index.php/dcee-oriz/curriculum-oriz/programe-scolare-front/programe-scolare-in-vigoare> (accesat la data de 30 august 2023)

Mustapha, I., Van, N. T., Shahverdi, M., Qureshi, M. I., & Khan, N. (2021). Effectiveness of digital technology in education during COVID-19 pandemic. A bibliometric analysis.

Muste, D. (2022). Advantages And Disadvantages Of Online Teaching Perceived By Students From Pre-Service Teaching. In I. Albulescu, & C. Stan (Eds.), *Education, Reflection, Development - ERD 2021*, vol 2. European Proceedings of Educational Sciences (pp. 367-373). European Publisher.  
<https://doi.org/10.15405/epes.22032.36>

Myers, C., Wyss, N., Villavicencio Peralta, X., & Coflan, C. (2022). Mapping and Analysing Digital Learning Platforms in Latin America and the Caribbean (No. 47). EdTech Hub.

Narayanan, S. K. (2023). Vygotsky's perspective on concept development in the child and the role of instruction in it. *International Journal of Multidisciplinary Research (IJMR)*, 9(8), 228-233.

Nasti, C., Intra, F. S., Palmiero, M., & Brighi, A. (2023). The relationship between personality and bullying among primary school children: the mediation role of trait emotional intelligence and empathy. *International journal of clinical and health psychology*, 23(2), 100359.

NHS Data Model and Dictionary. (2020).  
[https://www.datadictionary.nhs.uk/nhs\\_business\\_definitions/learning\\_difficulty.html](https://www.datadictionary.nhs.uk/nhs_business_definitions/learning_difficulty.html) (accesat la data de 27 august 2023)

Noble, H., & Heale, R. (2019). Triangulation in research, with examples. *Evidence-based nursing*, 22(3), 67-68.

- Nugraha, N., Kadarisma, G., & Setiawan, W. (2015). Analisis Kesulitan Belajar Matematika Materi Bentuk Aljabar pada Siswa SMP Kelas VII. *Journal On Education*, 01(02), 323–334.
- Nusbaum, F., Hannoun, S., Kocevar, G., Stamile, C., Fourneret, P., Revol, O., & Sappey-Mariniere, D. (2017). Hemispheric differences in white matter microstructure between two profiles of children with high intelligence quotient vs. controls: A tract-based spatial statistics study. *Frontiers in Neuroscience*, 173.
- O. Nyumba, T., Wilson, K., Derrick, C. J., & Mukherjee, N. (2018). The use of focus group discussion methodology: Insights from two decades of application in conservation. *Methods in Ecology and evolution*, 9(1), 20-32.
- Ogden, C. L., Flegal, K. M., Carroll, M. D., & Johnson, C. L. (2002). Prevalence and trends in overweight among US children and adolescents, 1999-2000. *Jama*, 288(14), 1728-1732.
- Olweus, D. (1978). Aggression in the schools: Bullies and whipping boys. Hemisphere.
- OMEN nr. 3124/20.01.2017 Metodologia pentru asigurarea suportului necesare elevilor cu tulburări de învățare [https://www.edu.ro/sites/default/files/Anexa%20OMEN%20nr%203124\\_TSI.pdf](https://www.edu.ro/sites/default/files/Anexa%20OMEN%20nr%203124_TSI.pdf) (accesat la data de 30 august 2023)
- Onwuegbuzie, A. J., & Leech, N. L. (2005). On becoming a pragmatic researcher: The importance of combining quantitative and qualitative research methodologies. *International journal of social research methodology*, 8(5), 375-387.
- Opre, A., Benga, O., Băban, A., Ștefan, C., Kallay E., Cosma, A., Vaida, S. (2015). Managementul comportamentelor și optimizarea motivației pentru învățare. Editura ASCR. Cluj-Napoca.
- Orban, R. (2021). Issues of learning difficulties in primary school pupils. *Romanian Journal of School Psychology*, 14(27), 7-18.
- Ordinul nr. 4.150 din 29 iunie 2022- <https://legislatie.just.ro/Public/DetaliiDocumentAfis/257563> (accesat la data de 24 iulie 2023)
- Osguthorpe, R.E., Graham, C.R. (2003). Blended learning environments. Definitions and directions. *The Quarterly Review of Distance Education*, 4(3), 227-233.
- Papalia, D. E., Olds, S. W., & Feldman, R. D. (2007). Dezvoltarea umană. Editura TREI, pg. 293

- Paraschiv, T. (2023). *Statistical Package for Social Sciences- SPSS teorie și aplicații*, București: Editura Universității „Titu Maiorescu” Editura Hamangiu.
- Pellegrini, A. D., Kato, K., Blatchford, P., & Baines, E. (2002). A Short-term Longitudinal Study of Children's Playground Games Across the First Year of School: Implications for Social Competence and Adjustment to School. *American Educational Research Journal*, 39(4), 991–1015. <https://doi.org/10.3102/00028312039004991>
- Penso, S. (2002). Pedagogical content knowledge: how do student teachers identify and describe the causes of their pupils' learning difficulties?. *Asia-Pacific Journal of Teacher Education*, 30(1), 25-37.
- Pintrich, P. R., Smith, D. A., Garcia, T., & McKeachie, W. J. (1993). Reliability and predictive validity of the Motivated Strategies for Learning Questionnaire (MSLQ). *Educational and psychological measurement*, 53(3), 801-813.
- Pit-ten Cate, I. M., Markova, M., Krischler, M., & Krolak-Schwerdt, S. (2018). Promoting Inclusive Education: The Role of Teachers' Competence and Attitudes. *Insights into Learning Disabilities*, 15(1), 49-63.
- Planul de acțiune pentru E-Learning <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2001:0172:FIN:EN:PDF> (accesat la data de 20 iulie 2023)
- Platforma *Livresq* <https://livresq.com/ro/> (accesat la data de 12 septembrie 2023)
- Platforma *Naradix* <https://naradix.ro/> (accesat la data de 12 septembrie 2023)
- Podsiadlik, A. (2023). The Blended Learning Experiences Of Students With Specific Learning Difficulties: A Qualitative Case Study Located In One British Higher Education Institution. *International Journal of Disability, Development and Education*, 70:3, 366-381, DOI: 10.1080/1034912X.2021.1876217
- Poletti, G. (2023). Educational Robotics Inclusive and Technology Education. In I. Albulescu, & C. Stan (Eds.), *Education, Reflection, Development - ERD 2022*, vol 6. European Proceedings of Educational Sciences (pp. 214-223). European Publisher. <https://doi.org/10.15405/epes.23056.20>
- Pop, M.-D., Pugna, A. P., Crețu, V.-I., & Potra, S. A. (2022). Two Years of Hybrid Education in Romania: A Comparative Overview of the Students' Expectations for the Online Educational Platforms. *Sustainability*, 14(21), 14241. MDPI AG. Retrieved from <http://dx.doi.org/10.3390/su142114241>
- Popa, M. (2010). *Statistici multivariate aplicate în psihologie*, Iași: Editura Polirom.



- Poulou, M. S., & Denham S. A. (2023). Teachers' Emotional Expressiveness and Coping Reactions to Students' Emotions: Associations with Students' Social-Emotional Competences and School Adjustment. *Early Education and Development*, 34:3, 607-625, DOI: 10.1080/10409289.2022.2053486
- Pramesti, C., & Prasetya, A. (2021). Analisis Tingkat Kesulitan Belajar Matematika Siswa dalam Menggunakan Prinsip Matematis. *Edumatica. Jurnal Pendidikan Matematika*, 11(02), 9–17. <https://doi.org/10.22437/edumatica.v11i02.11091>
- Prensky, M. (2001). Digital Natives, Digital Immigrants Part 1. *Horizon*, 9.
- Prior, M. (1997). *Understanding Specific Learning Difficulties* (1st ed.). Psychology Press. <https://doi.org/10.4324/9781315784816>
- Programa școlară pentru disciplina Comunicare în limba română, clasa pregătitoare, clasa I și clasa a II-a <https://www.edums.ro/invprimar/Lb%20romana%20P%20I%20II.pdf> (accesat la data de 30 august 2023)
- Programa școlară pentru disciplina Limba și Literatura Română, clasa a III-a și a IV-a <https://www.isjcta.ro/wp-content/uploads/2013/06/01-Limba-si-literatura-romana-clasele-a-III-a-a-IV-a.pdf> (accesat la data de 20 iulie 2023)
- Programa școlară pentru disciplina Matematică pentru clasa a III-a și a IV-a [https://www.isjcta.ro/wp-content/uploads/2013/06/21-Matematica\\_clasele-a-III-a-a-IV-a.pdf](https://www.isjcta.ro/wp-content/uploads/2013/06/21-Matematica_clasele-a-III-a-a-IV-a.pdf) (accesat la data de 30 august 2023)
- Programa școlară pentru disciplina Matematică și explorarea mediului clasa pregătitoare, clasa I și clasa a II-a [https://www.edums.ro/invprimar/25\\_Matematica\\_explorarea\\_mediului\\_CP\\_II\\_OM\\_EN.pdf](https://www.edums.ro/invprimar/25_Matematica_explorarea_mediului_CP_II_OM_EN.pdf) (accesat la data de 30 august 2023)
- Raducu, C. M. (2021). Learning strategies and school motivation in experiential learning vs. traditional learning. *Psychological Applications and Trends*, 153-157.
- Rahm, L. (2023). Educational imaginaries: governance at the intersection of technology and education, *Journal of Education Policy*, 38:1, 46-68, DOI: 10.1080/02680939.2021.1970233
- Rahm, L. (2018). The Ironies of Digital Citizenship: Educational Imaginaries and Digital Losers across Three Decades. *Digital Culture & Society* 4(2): 39–62. doi:10.14361/dcs-2018-0204.
- Raja, R., & Nagasubramani, P. C. (2018). Impact of modern technology in education. *Journal of Applied and Advanced Research*, 3(1), 33-35.

- Rakhshandeh, L., & Sobhi Gharamaleki, N. (2022). Comparison of emotional expression, cognitive avoidance and social skills in students with and without specific learning difficulties. *Journal of Learning Disabilities*, 11(3), 62–75. doi:10.22098/JLD.2022.7875.1844.
- Ram, S. (2018). Word blindness (dyslexia): a bibliometric analysis of global research in the last fifty years, *Word Blindness (Dyslexia): A Bibliometric Analysis of Global Research in Last Fifty Years*.
- Raport „Back to School Post-Covid”. (2020). <https://www.edu.ro/sites/default/files/Raport%20Back%20to%20School%202020-2021.pdf#> (accesat la data de 11 septembrie 2023)
- Raport privind starea învățământului preuniversitar din România 2021 – 2022 [https://www.edu.ro/sites/default/files/\\_fi%C8%99iere/Minister/2022/Transparenta/Starea\\_invatamantului/Raport-Starea-invatamantului-preuniversitar-2021-2022.pdf](https://www.edu.ro/sites/default/files/_fi%C8%99iere/Minister/2022/Transparenta/Starea_invatamantului/Raport-Starea-invatamantului-preuniversitar-2021-2022.pdf) (accesat la data de 24 iulie 2023)
- Raportul global de monitorizare a educației 2023 (GEM) <https://www.unesco.org/gem-report/en/technology> (accesat la data de 12 septembrie 2023)
- Raportul UNESCO „Viitorul educației”. (2021). <https://unesdoc.unesco.org/ark:/48223/pf0000379707> (accesat la data de 12 septembrie 2023)
- Rasheed, R. A., Kamsin, A., & Abdullah, N. A. (2020). Challenges in the online component of blended learning: A systematic review. *Computers & Education*, 144, 103701.
- Razali, N. M., & Wah, Y. B. (2011). Power comparisons of shapiro-wilk, kolmogorov-smirnov, lilliefors and anderson-darling tests. *Journal of statistical modeling and analytics*, 2(1), 21-33. URL: <https://www.nrc.gov/docs/ML1714/ML17143A100.pdf> (Accessed 15 April 2024)
- Recomandarea Consiliului Europei privind competențele-cheie pentru *Învățarea pe tot parcursul vieții* (2006) <https://eur-lex.europa.eu/legal-content/RO/TXT/?uri=celex%3A32006H0962> (accesat la data de 14 septembrie 2023)
- Recomandarea Consiliului Europei privind abordările de învățare mixtă pentru un învățământ primar și secundar de înaltă calitate și favorabil incluziunii (2021) <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32021H1214%2801%29> (accesat la data de 12 septembrie 2023)

- Reid, L., Button, D., & Brommeyer, M. (2023). Challenging the Myth of the Digital Native: A Narrative Review. *Nursing Reports*, 13(2), 573–600. <https://doi.org/10.3390/nursrep13020052>
- Reis, S. M., & Renzulli, J. S. (2010). Is there still a need for gifted education? An examination of current research. *Learning and individual differences*, 20(4), 308-317.
- Repere Metodologice în învățarea mixtă [https://mecc.gov.md/sites/default/files/repere\\_inv\\_mixta.pdf](https://mecc.gov.md/sites/default/files/repere_inv_mixta.pdf) (accesat la data de 20 iulie 2023)
- Repere pentru proiectarea și actualizarea curriculumului național [https://drive.google.com/file/d/1r8YZCPUG\\_Tipm1muMpW29XMJ0nBEef9/view](https://drive.google.com/file/d/1r8YZCPUG_Tipm1muMpW29XMJ0nBEef9/view) (accesat la data de 24 iulie 2023)
- Rithey, C. D. (2003). Learning difficulties: what the neurologist needs to know. *Journal of Neurology, Neurosurgery & Psychiatry*, 74(suppl 1), i30-i36.
- Roopa, S., & Rani, M. S. (2012). Questionnaire designing for a survey. *Journal of Indian Orthodontic Society*, 46(4\_suppl1), 273-277.
- Rose, D. (2000). Universal design for learning. *Journal of Special Education Technology*, 15(4), 47-51.
- Ross, S. M., & Morrison, G. R. (2013). Experimental research methods. In *Handbook of research on educational communications and technology* (pp. 1007-1029). Routledge.
- Rusyd, H. K., & Juandi, D. (2023). Students' mathematics learning difficulties in terms of metacognitive ability: a systematic literature review. *Pedagogy: Jurnal Pendidikan Matematika*, 8(1), 124-138.
- Ruthsatz, J., Detterman, D., Griscom, W. S., & Cirullo, B. A. (2008). Becoming an expert in the musical domain: It takes more than just practice. *Intelligence*, 36(4), 330-338.
- Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary educational psychology*, 25(1), 54-67.
- Sage, K. (2022). Zone of Proximal Development. Routledge. <https://doi.org/10.4324/9780367198459-REPRW163-1>
- Salikhov, S., & Salikhov, T. (2021). Psychological Characteristics Of Increasing Cognitive Activity In Elementary School Students. *The American Journal of Social Science and Education Innovations*, 3(05), 205–210. <https://doi.org/10.37547/tajssei/Volume03Issue05-39>

- Sanchez, C., & Blanc, N. (2023). Feelings about School in Gifted and Non-Gifted Children: What Are the Effects of a Fine Art Program in Primary School?. *Education Sciences*, 13(5), 512.
- Sardiman, A.M. (2016). Interaction and Teaching and Learning Motivation. Jakarta: Raja Grafindo Persada.
- Scalise, K. (2007). Differentiated e-learning: five approaches through instructional technology. *International Journal of Learning Technology*, 3(2), 1
- Schaffer, H. R., & Ionescu, T. (2005). Introducere în psihologia copilului. Editura ASCR.
- Shala, M. (2013). The impact of preschool social-emotional development on academic success of elementary school students. *Psychology*, 4(11), 787.
- Shamseer, L., Moher, D., Clarke, M., Ghersi, D., Liberati, A., Petticrew, M., & Stewart, L. A. (2015). Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P). Elaboration and explanation. *Bmj*, 349.
- Sheppard, P., Polack, M., & McGivern, M. (2018). Missing millions: how older people with disabilities are excluded from humanitarian response. *HelpAge International*, London, United Kingdom.
- Shrivastava S. & Shrivastava C. (2022). The Impact of Digitalization in Higher Educational Institutions. *International Journal of Soft Computing and Engineering*. 11. 10.35940/ijscce.B3536.0111222.
- Simion, A. (2021). Evaluarea în e-Learning în Ion Albulescu, Horațiu Catalano E-Didactica. Procesul de instruire în mediul online. București: Editura Didactica Publishing House, p. 376.
- Singh, A. S., & Masuku, M. B. (2014). Sampling techniques & determination of sample size in applied statistics research: An overview. *International Journal of economics, commerce and management*, 2(11), 1-22.
- Singh, H., & Reed, C. (2001). Achieving Success with Blended Learning. Centra Software. ASTD State of the Industry Report. American Society for Training and Development.
- SMART-Edu <https://www.smart.edu.ro/> (accesat la data de 22 iulie 2023)
- Smith, C. & Strick, L. (2011). Dizabilități legate de învățare explicate de la A la Z. Editura Aramis, București.
- Smith, E. E., Kahlke, R., & Judd, T. (2020). Not just digital natives: Integrating technologies in professional education contexts. *Australasian Journal of Educational Technology*, 36(3), 1-14.

- Spark School <https://spark.school/educational-model/> (accesat la data de 20 iulie 2023)
- Stalker, H., & Horn, M. B. (2012). *Classifying K–12 blended learning*. Mountain View, CA: Innosight Institute, Inc  
<https://www.christenseninstitute.org/wp-content/uploads/2013/04/Classifying-K-12-blended-learning.pdf>
- Stanca, L., Pop, I., Felea, C., Chis, G., & Grebla, H. (2008). Blended learning—a viable solution for Romanian academic education. In the 4th International Conference of ASECU, ASE Publishing House, Editor:" ASE (pp. 222-226).
- Standardele de competență profesională ale cadrelor didactice din învățământul general [https://mecc.gov.md/sites/default/files/standarde\\_cadre\\_didactice.pdf](https://mecc.gov.md/sites/default/files/standarde_cadre_didactice.pdf) (accesat la data de 30 august 2023)
- Steenbergen-Hu, S., & Moon, S. M. (2011). The effects of acceleration on high-ability learners: A meta-analysis. *Gifted Child Quarterly*, 55(1), 39-53.
- Stein, J. (2023). Theories about developmental dyslexia. *Brain Sciences*, 13(2), 208.
- Stein, J. F. (2018). Does dyslexia exist?. *Language, Cognition and Neuroscience*, 33(3), 313-320.
- Stellern, J., Xiao, K. B., Grennell, E., Sanches, M., Gowin, J. L., & Sloan, M. E. (2023). Emotion regulation in substance use disorders: A systematic review and meta-analysis. *Addiction*, 118(1), 30-47.
- Sternberg, R. J. (2023). The educational intervention gifted children need most: To become wise, not just smart. *Gifted Education International*, 39(3), 426-442.
- Stewart, J.M. (2002). A blended e-learning approach to intercultural training. *Industrial and Commercial Training*, 34(7), 269-271.
- Stifter, C. A., & Modding, K. J. (2019). Temperament in obesity-related research: Concepts, challenges, and considerations for future research. *Appetite*, 141, 104308.
- Sunyer, J., Esnaola, M., Alvarez-Pedrerol, M., Forns, J., Rivas, I., López-Vicente, M., & Querol, X. (2015). Association between traffic-related air pollution in schools and cognitive development in primary school children: a prospective cohort study. *PLoS medicine*, 12(3), e1001792.
- Svensson, I., Nordström, T., Lindeblad, E., Gustafson, S., Björn, M., Sand, C., Almgren/Bäck, G. & Nilsson, S. (2021). Effects of assistive technology for students with reading and writing disabilities, *Disability and Rehabilitation: Assistive Technology*, 16:2, 196-208, DOI: 10.1080/17483107.2019.1646821

- Taherdoost, H. (2016). Sampling methods in research methodology; how to choose a sampling technique for research. *How to choose a sampling technique for research (April 10, 2016)*.
- Taherdoost, H. (2016). Validity and reliability of the research instrument; how to test the validation of a questionnaire/survey in a research. *How to test the validation of a questionnaire/survey in a research (August 10, 2016)*.
- Taukeni, S. G. (2019). Providing remedial support to primary school learners within their zone of proximal development. *South African Journal of Childhood Education*, 9(1), 1-7. <https://dx.doi.org/10.4102/sajce.v9i1.654>
- Taxonomia Blended Learning <https://files.eric.ed.gov/fulltext/ED535181.pdf> (accesat la data de 20 iulie 2023)
- Tayebinik, M. & Puteh, M. (2013). Blended Learning or E-learning?. arXiv preprint arXiv:1306.4085.
- Tomlinson, C. A. (2017). How to differentiate instruction in academically diverse classrooms. ASCD.
- UNICEF (2020) Crearea unor sisteme de educație reziliente în contextul pandemiei de COVID-19: Considerente pentru factorii de decizie de la nivel național, local și de unitate școlară <https://www.unicef.org/romania/media/2836/file/Crearea%20unor%20sisteme%20de%20educa%C5%A3ie%20reziliente%20%C3%AEn%20contextul%20pandemie%20de%20COVID-19.pdf> (accesat la data de 11 septembrie 2023)
- UNICEF (2020) Crearea unor sisteme de educație reziliente în contextul pandemiei de COVID-19: Considerente pentru factorii de decizie de la nivel național, local și de unitate școlară <https://www.unicef.org/romania/media/2836/file/Crearea%20unor%20sisteme%20de%20educa%C5%A3ie%20reziliente%20%C3%AEn%20contextul%20pandemie%20de%20COVID-19.pdf> (accesat la data de 14 septembrie 2023)
- Vachharajani, V., & Pareek, J. (2020). Effective structure matching algorithm for automatic assessment of use-case diagram. *International Journal of Distance Education Technologies (IJDET)*, 18(4), 31-50.
- Vainshtein, I. V., Shershneva, V. A., Esin, R. V., & Noskov, M. V. (2019). Individualisation of education in terms of e-learning: experience and prospects. *Journal of Siberian Federal University. Humanities & Social Sciences*, 9(12), 1753-1770.
- Verza, E. & Verza, F.E. (2017). Psihologia copilului., Editura Trei, București, 2017

- Vianin P. (2011). Ajutorul strategic pentru elevii cu dificultăți școlare. Cum să-i dai elevului cheia reușitei?, Editura ASCR, Cluj-Napoca.
- Vickerman, P. (2012). Including children with special educational needs in physical education: has entitlement and accessibility been realised?. *Disability & Society*, 27(2), 249-262.
- Voci, E., & Young, K. (2001). Blended learning working in a leadership development programme. *Industrial and Commercial Training*, 33(5), 157-160.
- Wei, X., Saab, N., & Admiraal, W. (2023). Do learners share the same perceived learning outcomes in MOOCs? Identifying the role of motivation, perceived learning support, learning engagement, and self-regulated learning strategies. *The Internet and Higher Education*, 56, 100880.
- Wentzel, K. R. (1991). Relations between social competence and academic achievement in early adolescence. *Child Development*, 62(5), 1066–1078.  
<https://doi.org/10.2307/1131152>
- Winner, E. (2000). The origins and ends of giftedness. *American psychologist*, 55(1), 159.
- Woltering, V., Herrler, A., Spitzer, K., Spreckelsen C. (2009). Blended learning positively affects students' satisfaction and the role of the tutor in the problem-based learning process: Results of a mixed-method evaluation. *Advances in Health Sciences Education*, 14(5), 725-738.
- Xie, M., King, R. B., & Luo, Y. (2023). Social motivation and deep approaches to learning: a nationwide study among Chinese college students. *Higher Education*, 85(3), 669-687.
- Yarashov, M. (2023). Methodology of Application of Digital Technologies in Primary Education. ЦЕНТР НАУЧНЫХ ПУБЛИКАЦИЙ (buxdu. uz), 30(30).
- Yim, K. H., Nahm, F. S., Han, K. A., & Park, S. Y. (2010). Analysis of statistical methods and errors in the articles published in the Korean journal of pain. *The Korean journal of pain*, 23(1), 35.