

**‘Specialization in ICTs and Special Education: Psychopedagogy of Integration’
Postgraduate Program
DEMOCRITUS UNIVERSITY OF THRACE Department of Greek Philology
in collaboration with
NCSR DEMOKRITOS Informatics and Telecommunications Institute**

**TAXONOMY THEORIES OF MATHEMATICAL ABILITIES AND
THEIR USE IN THE EVALUATION OF SPECIFIC LEARNING
DISABILITIES IN MATHEMATICS AND ICTs ROLE**

GALITSKAGIA VIKTORIA

**POSTGRADUATE
THESIS**

Komotini/Athens
2020

ABSTRACT

Mathematics is a science that requires complex thinking. Mathematical thinking has been studied from time to time by many researchers who have tried to classify it into levels. This paper, among other things, attempts to present several of these classifications and highlight some of their extensions to ICTs.

In recent years, awareness of students with special learning difficulties has increased and the way they are treated has changed both scientifically and socially. These students may have difficulty in reading, writing, spelling and mathematics. Numerous studies have been conducted with the main goal of approaching the subject from as many angles as possible to form a clearer picture not only of what the particular learning difficulties are, but mainly of how we can help these students. This thesis is a bibliographic review focusing on students with learning difficulty in mathematics or as it is scientifically known as "dyscalculia". It also deals with another learning difficulty faced by students in geometry, which has recently been studied by researchers and is called "ageometria". Documented scientific data by the Greek and international community are presented for the two aforementioned terms. In particular:

(a) brain functions of students with "dyscalculia and ageometria", (b) factors that influence the learning of Mathematics, (c) ways of detecting dyscalculia with the use of ICTs and (d) interventions with the use of ICTs, are presented.

References

- Accascina, G., Margiotta, G., & Rogora, E. (2005). Making bad conjectures and. *ICTMT7- Bristol*, σσ. 26-29.
- Adam, T., & Tatnall, A. (2010). Use of ICT to Assist Students with Learning Difficulties: An ActorNetwork Analysis. *IFIP Advances in Information and Communication Technology*, σσ. 1- 11.
- Adamo-Villani, N., Doublestein, J., & Martin, Z. (2005). Sign Language for K-8 Mathematics. *Journal of Educational Techology Systems*, 33(3), σσ. 241-257.
- Alarcon, M., Defries, J., Gillis Light, J., & Pennington, B. (1997). A twin study of mathematics disability. (30), σσ. 617-623.
- Alloway, T. P., & Gathercole, S. E. (2006). Working memory and neurodevelopmental disorders. *Psychology Press*.
- Almeida, A., Breda, A., & Santos, M. (2016). Learning Environment for autism spectrum disorder: a universal app roach to the promotion of mathematical reasoning. *7th International Conference on Software Development and technologies for Enhancing Accessibillity and fighting*, σσ. 162-169.
- Anderson, L. W. (2001). A taxonomy for learning, teaching and assessing: A revision of Bloom's Taxonomy of educational objectives: Complete edition. *New York : Longman*.
- Arsalidou, M., & Taylor, M. J. (2011). Is $2+ 2= 4$? Meta-analyses of brain areas needed for numbers and calculations. *Neuroimage*, 54(3), σσ. 2382-2393.
- Artzt, A., & Armour-Thomas, E. (1997). (1997). Mathematical Problem Solving in Small Groups: Exploring the Interplay of Student's Metacognitive Behaviors, Perceptions, and Ability Levels. *Journal of Mathematical Behavior*, 16(1), σσ. 63-74.
- Ashcraft, M. H., & Krause, J. A. (2007). Working memory, math performance, and math anxiety. *Psychonomic Bulletin & Review*, 14, σσ. 243-248.
- Ashkenazi, S., Mark Zigdon, N., & Henik, A. (2013). Do subitizing deficits in developmental dyscalculia involve pattern recognition weakness? *Developmental Scienc*, 16(1), σσ. 35-46.
- Ashkenazi, S., Rosenberg-Lee, M., Metcalfe, A. W., Swigart, A. G., & Menon, V. (2013). Neuropsychologia visuo – spatial working memory is an important source of domain-general vulnerability in the development of arithmetic cognition. *Neuropsychologia*, 51, σσ. 2305- 2317.
- Attout, L., & Majerus, S. (2015). Working memory deficits in developmental dyscalculia: The importance of serial order. *Child Neuropsychology*, 21(4), σσ. 432-450.
- Attout, L., Salmon, E., & Majerus, S. (2015). Working memory for serial order is dysfunctional in adults with a history of developmental dyscalculia: Evidence from behavioral and neuroimaging data. *Developmental neuropsychology*, 40(4), σσ. 230-147.

- Avila-Pesantez, D. F.-C. (2018). Design of an Augmented Reality Serious Game for Children with Dyscalculia: A Case Study. *Technology Trends*, σσ. 165–175.
- Baddeley, A. D. (2012). Working memory: theories, models, and controversies. *Annual Review of Psychology*, 63, σσ. 1-29.
- Baddeley, A. D., & Hitch, G. J. (1974). Working memory. Στο *The psychology of learning and motivation: advances in research and theory*. (σσ. 47-89.). New York: Academic: Bower GH.
- Badian, N. A. (1983). Arithmetic and nonverbal learning.
- Barron, A., Kemker, K., Harmes, C., & Kalaydjian, K. (2003). Large-scale Research Study on Technology in K-12 Schools: Technology Integration as it Relates to the National Technology Standards. *Journal of Research on Technology in Education*, 35(4), σσ. 489-450.
- Beauchamp, G. (2004). Teacher Use of the Interactive Whiteboard in Primary Schools: towards an effective transition framework. *Technology, Pedagogy and Education*, 13(3), σσ. 327-348.
- Bellinger, G., Castro, D., & Mills, A. (2004). Data, information, knowledge, and wisdom.
- Biggs, J., & Collis, K. (1982). Evaluating the Quality of Learning: the SOLO taxonomy.
- Bloom, S. B. (1956). Taxonomy of Educational Objectives. Handbook I: The Cognitive Domain. New York: David McKay Co Inc.
- Booth, T., & Ainscow, M. (2011). Index for inclusion: Developing learning and participation in schools. London: Centre for Studies on Inclusive Education (CSIE).
- Botsas, G., & Grouios, G. (2017). Computer assisted instruction of students with adhd and academic performance: a brief review of studies conducted between 1993 and 2016, and comments. *European Journal of Special Education Research*, 6.
- Bottge, B., Ma, X., Gassaway, L., Toland, M., Butler, M., & Cho, S. (2014). Effects of blended instructional models on math performance. *Exceptional Children*, 80, σσ. 423-437.
- Bowman, H., Hodges, L., Don, D., & Wineman, J. (1999). The educational value of an information-rich virtual environment. *Presence: Teleoperators & Virtual Environments*, 8(3), σσ. 317-331.
- Boyatzis, R. E., Goleman, D., & Rhee, K. S. (2000). Clustering competence in emotional intelligence: Insights from the Emotional Competence Inventory (ECI). *Handbook of emotional intelligence*, 99(6), σσ. 343-362.
- Brakel, P. A., & Chisenga, J. (2003). Impact of ICT based distance learning: The African story. *The Electronic Library* 21, σσ. 476-486.
- Bugden, S., & Ansari, D. (2015). Probing the nature of deficits in the “Approximate Number System” in children with persistent Developmental Dyscalculia. *Developmental Science*, 19(5), pp. 817-833.

- Bull, R., Espy, K. A., & Wiebe, S. A. (2008). Short-term memory, working memory, and executive functioning in preschoolers: longitudinal predictors of mathematical achievement at age 7 year. *Developmental neuropsychology*, 33(3), σσ. 205-228.
- Butterworth, B. (1999). *The Mathematical Brain*. London: Macmillan.
- Butterworth, B. (2005). Developmental dyscalculia.
- Buzzi, M. B. (2015). *Playing with geometry: a Multimodal Android App for Blind Children*. Retrieved from <http://dx.doi.org/10.1145/2808435.2808458>.
- Carey, S. (2004). Bootstrapping and the origin of concepts. *Daedalus*(133), σσ. 59-68.
- Carey, E., Hill, F., Devine, A., & Szűcs, D. (2016). The Chicken or the Egg? The Direction of the Relationship Between Mathematics Anxiety and Mathematics Performance. *Frontiers In Frontiers In*, 6, σ. 1987.
- Carr, M. &. (1995). Cognitive and metacognitive predictors of arithmetics strategy use. *Learning and Individual Differences*, 7, σσ. 235-247.
- Caviola, S., Mammarella, I. C., Lucangeli, D., & Cornoldi, C. (2014). Working memory and domain-specific precursors predicting success in learning written subtraction problems. *Learning and Individual Differences*, 36, σσ. 92-100.
- Chan, C. C., Chui, M. S., & Chan, M. U. (2002). Applying the Structure of the Observed Learning Outcomes (SOLO) taxonomy on student's learning outcomes: an empirical study. *Assessment & Evaluation in Higher Education*, 27(6).
- Chantry, J., & Dunford, C. (2010). How do computer assistive technologies enhance participation in childhood occupations for children with multiple and complex disabilities? A review of the current literature. *British Journal Occupational Therapy*, 73, σσ. 351-365.
- Charitos, D., Karadanos, G., Sereti, E., Triantafillou, E., Koukouvinou, S., & Markatos, S. (2000). Employing virtual reality for aiding the organisation of autistic children behaviour in everyday tasks. *Proceedings of ICDVRAT*, σσ. 147-152.
- Cheng, D., Xiao, Q., Chen, Q., Cui, J., & Zhou, X. (2018). Dyslexia and dyscalculia are characterized by common visual perception deficits. *Developmental neuropsychology*, 43(6), σσ. 497-507.
- Cho, S., Ryali, S. S., Geary, D. C., & Menon, V. (2011). How does a child solve 7+ 8? Decoding brain activity patterns associated with counting and retrieval strategies. *Developmental science*, 14(5), σσ. 989-1001.
- Chopra, P. K., & Kanji, G. K. (2010). Emotional intelligence: A catalyst for inspirational leadership and management excellence. *Total quality management*, 21(10), σσ. 971-1004.
- Churches, A. (2007). Bloom's Digital Taxonomy. <http://burtonslifelearning.pbworks.com/f/BloomDigitalTaxonomy2001.pdf>.

- Cihak, D. F. (2009). Using Video Modeling via Handheld Computers to Improve Geometry Skills for High School Students with Learning Disabilities. *Journal of Special Education Technology*, 24(4), σσ. 17-29.
- Clark Jr, R., Coughran, B., Traina, I., Hernandez, A., & al., e. (2005). "On the Correlation of Mechanical and Physical Properties of 7075-T6 Al Alloy". *Engineering Failure Analysis*, 12, σσ. 520-526.
- Clements, D. H., Swaminathan, S., Hannibal, M. A., & Sarama, J. (1999). Young children's concepts of shape. *Journal for research in Mathematics Education*, 30, σσ. 192-212.
- Clements, D., & Battista, M. (1992). Geometry and Spatial Reasoning. Στο D. A. Grouws, *Handbook of Research on Mathematics Teaching and Learning* (σσ. 420-465). NCTM.
- Clements, D., & Samara, J. (2006). Early Math: Young Children and Geometry. *Special Education and Mathematics*, σσ. 163-196.
- Clinton, E. (2015). Using video modeling to teach academic skills to students with disabilities: A review of the literature. *The International Journal of Applied Research*, 1, σσ. 382–390.
- Cohn, R. (1961). Dyscalculia. *Archives of Neurology* , σσ. 301-317.
- Cornoldi, C., & Vecchi, T. (2004). Visuo-Spatial Working Memory and Individual Differences,. *Psychology Press*.
- Craig, G. J., & Baucum, D. (2007). Η Ανάπτυξη του Ανθρώπου. Αθήνα: Παπαζήση.
- Creech-Galloway, C., Collins, C., Knight, V., & Bausch, M. (2013). Using a simultaneous prompting procedure with an iPad to teach the Pythagorean Theorem to adolescents with moderate intellectual disability. *Research and Practice for Persons with Severe Disabilities*, 38, σσ. 222-232.
- Davis, N. E., & Tearle, P. (1999). A core curriculum for telematics in teacher training.
- Davis, P., & Florian, L. (2004). Teaching Strategies and Approaches for Pupils with Special Educational Needs: A Scoping Study. DfES Publications Nottingham.
- de Castro, M. V. (2014). Effect of a virtual environment on the development of mathematical skills in children with dyscalculia. *PloS one*, 9(7).
- Dehaene, S., Piazza, M., Pinel, P., & Cohen, L. (2003). Three parietal circuits for number processing. *Cognitive Neuropsychology*(20), σσ. 487-506.
- Dehaene, S., Spelke, E., Pinel, P., Stanescu, R., & Tsivkin, S. (1999). Sources of mathematical thinking: Behavioral and brain-imaging evidence. *Science*, 284(5416), σσ. 960-974.
- Dennis, M., Berch, D., & Mazzocco, M. (2009). Mathematical learning disabilities in special populations: phenotypic variation and cross-disorder comparisons. *Developmental Disabilities Research Reviews*, 15, σσ. 80-89.

- Desoete, A. R. (2001). Metacognition and mathematical problem solving in grade 3. . *Journal of learning disabilities*, 34(5), σσ. 435-447.
- Desoete, A., & De Craene, B. (2019). Metacognition and mathematics education: an overview. *ZDM*, σσ. 1-11.
- Desoete, A., Baten, E., Vercaemst, V., De Busschere, A., Baudonck, M., & Vanhaeke, J. (2019). Metacognition and motivation as predictors for mathematics performance of Belgian elementary school children. *ZDM*, 51(4), σσ. 667-677.
- Dillon, P. (2004). Trajectories and tensions in the theory of information and communication technology in education. *British Journal of Educational Studies*, 52(2), σσ. 138-150.
- Dixon, M., Belisle, J., Stanley, C., Daar, J., & Williams, L. (2016). Derived Equivalence Relations of Geometry Skills in Students with Autism: an Application of the PEAK-E Curriculum. *Spinger*, 32, σσ. 38-45.
- Downing, P. E. (2000). Interactions between visual working memory and selective attention. *Psychological Science*, 11, σσ. 467–473.
- Drigas, A. &. (2020). The Triangle of Spiritual Intelligence, Metacognition and Consciousness. *International Journal of Recent Contributions from Engineering, Science & IT (IJES)*, 8(1), σσ. 4-23.
- Drigas, A. S. (2019). A Layered Model of Human Consciousness. . *International Journal of Recent Contributions from Engineering, Science & IT (IJES)*, 7(3), σσ. 41-50.
- Drigas, A. S., & Ioannidou, R. E. (2011). A review on artificial intelligence in special education. Στο *World Summit on Knowledge Society* (σσ. 385-391). Springer.
- Drigas, A., & Ioannidou, R. E. (2013). Special Education and ICTs. *International Journal of Emerging Technologies in Learning (IJET)*, 8(2). Ανάκτηση από <https://doi.org/10.3991/ijet.v8i2.2514>.
- Drigas, A., & Papoutsis, C. (2018). A new layered model on emotional intelligence. *Behavioral Sciences*, 8(5), σ. 45.
- Drigas, A., & Papoutsis, C. (2019). Emotional Intelligence as an Important Asset for HR in Organizations: Leaders and Employees. *International Journal of Advanced Corporate Learning (IJAC)*, 12(1), σσ. 58-66.
- Drigas, A., & Pappas, M. (2017). The Consciousness-Intelligence-Knowledge Pyramid: An 8x8 Layer Model. *International Journal of Recent Contributions from Engineering, Science & IT (IJES)*, 5(3), σσ. 14-25. doi:<https://doi.org/10.3991/ijes.v5i3.7680>
- Drigas, A., Pappas, M., & Lytras, M. (2016). Emerging Technologies for ICT based Education for Dyscalculia: Implications for Computer Engineer Education. *International Journal of Engineering Education*, 32(4), σσ. 1604-1610.

- Drigas, A., Ioannidou, R. E., Kokkalia, G., & Miltiadis, D. (2014). ICTs, mobile learning and social media to enhance learning for attention difficulties. *Journal of Universal Computer Science*, 20(10), σσ. 1499-1510.
- Driscoll, M. P. (2000). *Psychology of Learning for Instruction*. Florida State University.
- Dyson, A., Farrell, P., Polat, F., Hutcheson, G., & Gallanaugh, F. (2004). Inclusion and Pupil Achievement. *Department for Education and Skills*.
- Eysenck, M. W., Derakshan, N., Santos, R., & Calvo, M. G. (2007). Anxiety and cognitive performance: attentional control theory. *Emotion*, 7, σσ. 336-353.
- Eysenck, M. W., & Calvo, M. G. (1992). Anxiety and performance: The processing efficiency theory. *Cognition & Emotion*, 6, σσ. 409-434.
- Farnham-Diggory, S. (1978). *Learning Disabilities*. London: Fontana. London: Fontana.
- Felix, V., Mena, L., & Maestre, G. (2017, March). A pilot study of the use of emerging computer technologies to improve the effectiveness of reading and writing therapies in children with Down syndrome. *British Journal of Educational Technology*.
- Fias, W., Menon, V., & Szucs, D. (2013). Multiple components of developmental dyscalculia. *Trends in Neuroscience and Education*, 2, σσ. 43-47.
- Flavell, J. H. (1979). Metacognition and cognitive monitoring: A new area of cognitive-developmental inquiry. *American Psychologist*, 34(10), σσ. 906-911.
- Florian, L. (2004). Uses of technology that support pupils with special educational needs. *ICT and special educational needs: A tool for inclusion*, σσ. 7-20.
- Florian, L., & Hegarty, J. (2004). *ICT and Special Educational Needs: a tool for inclusion*. McGraw-Hill Education (UK).
- Fox, T. (2000). Implications of research on children's understanding of geometry. *Teaching Children Mathematics*, 6, σσ. 572-574.
- Gallistel, C. R., & Gelman, R. (1992). Preverbal and verbal counting and computation. *Cognition*, 44, σσ. 43-74.
- Gathercole, S. E., & Alloway, T. P. (2006). Practitioner review: Short-term and working memory impairments in neurodevelopmental disorders: Diagnosis and remedial support. *Journal of Child Psychology and Psychiatry*, 47(1), σσ. 4-15.
- Gathercole, S. E., Pickering, S. J., Ambridge, B., & Wearing, H. (2004). The structure of working memory from 4 to 15 years of age. *Developmental Psychology*, 40(2), σσ. 177-190.
- Geary, D. (2010). Mathematical disabilities: Reflections on cognitive, neuropsychological, and genetic components. *Learning and individual differences*, 20(2), σσ. 130-133.

- Geary, D. C. (1993). Mathematical disabilities: Cognitive, neuropsychological, and genetic components. *Psychological Bulletin*, 114, σσ. 345-362.
- Geary, D. C. (1994). Children's mathematical development: Research and practical applications. *American Psychological Association*.
- Geary, D. C. (2004). Mathematics and learning disabilities. *Journal of Learning Disabilities*, pp. 4-15.
- Geary, D. C. (2004). Mathematics and learning disabilities. *Journal of Learning Disabilities*, σσ. 4-15.
- Geary, D. C. (2006). Dyscalculia at an Early Age: Characteristics and Potential Influence on Socio-Emotional Development. *Encyclopedia on Early Childhood Development*.
- Gelastopoulou, M., & Kourbetis, V. (2017). The use of Information and Communication Technologies for inclusive education in Greece. *In Research on e-Learning and ICT in Education*, σσ. 243-255.
- Gelman, R., & Gallistel, C. R. (1978). The child's understanding of number. *Harvard University Press*.
- Gerstmann, J. (1930). Zur Symptomatologie der Herderkrankungen in der Übergangsregion der unteren Parietal- und mittleren Okzipitalhirnwindung. *Journal of Neurology*, 116(1), σσ. 46-49.
- Giles, E. P. (2003). Multiple intelligences and learning styles: emerging perspectives on learning, teaching, and technology.
- Giordani, L. (1996). An impulse to soar: Sanitisation, silencing and Special Education. *Australasian Journal of Special Education*, 20(1), σσ. 5-11.
- Gotoh, G. (2004). The Quality of the Reasoning in Problem Solving Processes. *The 10th International Congress on Mathematical*. Copenhagen, Denmark.
- Graesser, A. C., VanLehn, K., & Rosé, C. P. (2001). Intelligent tutoring systems with conversational dialogue. *AI Magazine*, 22(4), σσ. 39-52.
doi:<https://doi.org/http://dx.doi.org/10.1609/aimag.v22i4.1591>
- Gruber, O., Indefrey, P., Steinmetz, H., & Kleinschmidt, A. (2001). Dissociating neural correlates of cognitive components in mental calculation. *Cerebral Cortex*, 11, σσ. 350-359.
- Guilford, J. P. (1966). Intelligence: 1965 model. *American Psychologist*. 21(1), σσ. 20-26.
- Guilford, J. P. (1988). Some Changes in the Structure-of-Intellect Model. *Educational and Psychological Measurement*. 48(1), σσ. 1-4.
- Gutiérrez, A., Jaime, A., & Fortuny, J. (χ.χ.). An alternative paradigm to evaluate the acquisition of the van Hiele levels. *Journal for Research in Mathematics Education*, 22(3), σσ. 237-251.
- Hadi, M. Y., Mohamad, B., & Jaafar, M. S. (2010). Study of information and communication technology (ICT) usage in technical and vocational special education programme. *Global Journal of Human Social Science Research*, 10(1), σσ. 35-43.

- Harvey, S. M. (2010). Diagnosing the problem: Using a tool to identify pre-registration nursing students' mathematical ability. . *Nurse Education in Practice*, *10*(3), σσ. 19-125.
- Hashim, S. M., Hashim, S., & Ahmad, T. T. (2019). *USING EDUCATIONAL GAME APPS IN IMPROVING STUDENTS MATHEMATICS' LEARNING: AN EXPLORATORY STUDY ON THIRD GRADER AT-RISK CLASSROOM AT PRIMARY SCHOOL IN SELANGOR, MALAYSIA*, *7*(5), σσ. 253-264.
- Haskell, S. H. (2000). The determinants of arithmetic skills in youngchildren: some observations. *European Child and Adolescent Psychiatry* *9: II/77-II/86*.
- Hasselbring, T. G., & Glaser, C. H. (2000). Use of computer technology to help students with special needs. The Future of Children. *Children and Computer Technology*, *10*(2), σσ. 102–122.
- Hermann, K. (. (1959). Reading Disability. Copenhagen : Munksgaard.
- Hinshelwood, J. (1917). Congenital Word-Blindness.: London: H. K. Lewis.
- Hofmann, S. G., Smits, J. A., Asnaani, A., Gutner, C. A., & Otto, M. W. (2011). Cognitive enhancers for anxiety disorders. *Pharmacology Biochemistry and Behavior*, *99*(2), σσ. 275-284.
- Hokanson, B., & Hooper, S. (2000). Computers as cognitive media: examining the Potential of computers in education. *Computers in Human Behavior*, *16*, σσ. 537-552.
- Isaacs, E., Edmonds, C., Lucas, A., & Gadian, D. (2001). Calculation difficulties in children of very low birthweight. *A neural correlate Brain*(124), σσ. 1701-1707.
- Israel, M., Marino, M., Delisio, L. L., & Serianni, B. (2014). Supporting content learning through technology for K-12 students with disabilities. *CEDAR Document IC-10*.
- Iuculano, T., Tang, J., Hall, C. W., & Butterworth, B. (2008). Core information processing deficits in developmental dyscalculia and low numeracy. *Developmental Science*, *11*(5), σσ. 669-680.
- Jain, S., & Dowson, M. (2009). Mathematics anxiety as a function of multidimensional self-regulation and self-efficacy. *Contemporary Educational Psychology*, *34*(3), σσ. 240-249.
- Jewitt, C., Moss, G., & Cardini, A. (2007). Pace, interactivity and multimodality in teachers – design ofttexts for interactive whiteboards in the secondary school classroom. *Learning, Media and Technology*, *32*(3), σσ. 303-317.
- Jurdak, M. (1989). Van Hiele levels and the Solo taxonomy. In proceedings of the 13th. *In proceedings of the 13th International Conference fo the Psychology of Mathematics Education*. Paris.
- Justicia-Galiano, M. J., Martín-Puga, M. E., Linares, R., & Pelegrina, S. (2017). Math anxiety and math performance in children: The mediating roles of working memory and math self-concept. *British Journal of Educational Psychology*, *87*(4), σσ. 573-589.
- Kadosh, R. C., & Walsh, V. (2007). Dyscalculia. *Current Biology*, *17*(22).

- Kadosh, R. C., Kadosh, K. C., Schuhmann, T., Kaas, A., Goebel, R., Henik, A., & Sack, A. T. (2007). Virtual Dyscalculia Induced by Parietal -Lobe TMS Impairs Automatic Magnituded Processing. *Current Biology*, 17(8), σσ. 689-693.
- Käser, T. B. (2012). Modelling and optimizing the process of learning mathematics. *International Conference on Intelligent Tutoring Systems*, σσ. 389-398.
- Käser, T. B. (2013). Design and evaluation of the computer-based training program Calcularis for enhancing numerical cognition. *Frontiers in Psychology*, 4.
- Kastberg, S. (2003). Using Bloom's taxonomy as a framework for classroom assessment. *Mathematics Teacher*, 96(6), σσ. 402-405.
- Kaufmann, L., Wood, G., Rubinsten, O., & Henik, A. (2011). Meta-analyses of developmental fMRI studies investigating typical and atypical trajectories of number processing and calculation. *Developmental neuropsychology*, 36(6), σσ. 763-787.
- Keith, Z. T. (2010). Cattell-Horn-Carroll abilities and cognitive tests: what we've learned from 20 years of research. *Psychology in the Schools*, 47(7).
- Kelly, R. R. (2003). Calculating math problems: A comparative look at deaf and hearing students. *Association of College Educators-Deaf and Hard of Hearing*.
- Kiefer, M., & Dehaene, S. (1997). The time course of pariental activation in single digit multiplication : Evidene from event-related potentials. *Math cognition*(3), σσ. 11-30.
- Kiss, A. J., & Vukovic, R. (2017). Math Anxiety and Attitudes Toward Mathematics: Implications for Students with Mathematics Learning Disabilities. *Perspectives on Language and Literacy*, 43(1), σ. 35.
- Kokkalia, G., & Drigas, A. (2015). Working Memory and ADHD in Preschool Education. The Role of ICT'S as a Diagnostic and Intervention Tool: An Overview. *International Journal of Emerging Technologies in Learning*, 10(5), σσ. 4-9.
- Koontz, K., & Berch, D. (1996). Identifying simple numerical stimuli : Processing inefficiencies exhibited by arithmetic learning disabled children. *Math Cognition*(2), σσ. 1-23.
- Kosc. (1974). Developmental Dyscalculia. *Journal of Learning Disabilities*, 7(3), σσ. 164-177.
- Krulik, S. R. (1999). Innovative Tasks to Improve Critical and Creative Thinking Skills. Στο I. Stiff, *Developing mathematical reasoning in grades K-12* (σσ. 138-145). Reston.
- Kucian, K., Grond, U., Rotzer, S., Henzi, B., Schönmann, C., Plangger, F., . . . von Aste, M. (2011). Mental number line training in children with developmental dyscalculia. *NeuroImage*, 57(3), pp. 782-795.
- Kucian, K., Zuber, I., Kohn, J., Poltz, N., Wyschkon, A., Esser, G., & Von Aster, M. (2018). Relation between mathematical performance, math anxiety and affective priming in children with and without developmental dyscalculia., 9,. *Frontiers in psychology*, 9, σ. 263.

- Kuzle, A. (2018). Assessing metacognition of grade 2 and grade 4 students using an adaptation of multi-method interview approach during mathematics problem-solving. *Mathematics Education Research Journal*, 30, σσ. 185–207.
- Leo, F., Cocchi, E., & Brayda, L. (2017). The Effect of Programmable Tactile Displays on Spatial Learning Skills in Children and Adolescents of Different Visual Disability. *IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING*, 25(7).
- Lewis, C., Hitch, G., & Walker, P. (1994). The prevalence of specific arithmetic difficulties and specific reading difficulties in 9- and 10-year old boys and girls. *Journal of Child Psychology and Psychiatry*, 35, σσ. 283-292.
- Li, Y., & Geary, D. C. (2013). Developmental gains in visuospatial memory predict gains in mathematics achievement. *PLoS ONE*, 8(7).
- Li, Y., & Geary, D. C. (2017). Children's visuospatial memory predicts mathematics achievement through early adolescence. *PloS one*, 12(2).
- Lim, C., & Tay, Y. (2003). Information and communication technologies (ICT) in an Elementary school: Students' engagement in higher-order thinking. *Journal of Educational Multimedia and Hypermedia*, 12(4), σσ. 425–451.
- Lindsay, R. L., Tomazic, T., Levine, M. D., & Accardo, P. J. (2001). Attentional function as measured by a continuous performance task in children with dyscalculia. *Journal of Developmental & Behavioral Pediatrics*, 22(5), σσ. 287-292.
- Lloret, F., & Piñero, J. (2018). TRENDS ON ICT IN MATERIALS SCIENCE EDUCATION. *REVISTA DE LA SOCIEDAD ESPAÑOLA DE MATERIALES*, 41.
- Logie, R. H. (1995). Visuo-spatial working memory. Psychology Press.
- Lucangeli, D. &. (1997). Mathematics and metacognition: What is the nature of the relationship? *Mathematical Cognition*, 3, σσ. 121-139.
- Lucangeli, D., Fastame, M. C., Pedron, M., Duca, V., Hitchcott, P. K., Porru, A., , A., . . . Porru, A. (2019). Metacognition and errors: the impact of self-regulatory trainings in children with specific learning disabilities. *ZDM*, 51(4), σσ. 577-585. doi:doi:10.1007/s11858-019-01044-w
- Luckin, R., Holmes, W., Griffiths, M., & Forcier, L. B. (2016). Intelligence unleashed: An argument for AI in education.
- Lyons, I. M., & Beilock, S. L. (2012). Mathematics anxiety: separating the math from the anxiety. *Cerebral Cortex*, 22, σσ. 2102-2110.
- Macaruso, P., Harley, W., & McCloskey, M. (1992). Assessment of Acquired Dyscalculia.
- Maehler, C., & Schuchard, K. (2016). Working memory in children with specific learning disorders and/or attention deficits. *Learning and Individual Differences*, 49, pp. 341-347.

- Maehler, C., & Schuchardt, K. (2016). (2016). The importance of working memory for school achievement in primary school children with intellectual or learning disabilities. *Research in Developmental Disabilities, 58*, σσ. 1–8. doi:10.1016/j.ridd.2016.08.007
- Mammarella, I. C., Caviola, S., Giofrè, D., & Szűc, D. (2017). The underlying structure of visuospatial working memory in children with mathematical learning disability. *British Journal of Developmental Psychology, 36*(2), σσ. 220–235.
- Mammarella, I. C., Hill, F., Devine, A., Caviola, S., & Szűcs, D. (2015). Math anxiety and developmental dyscalculia: a study on working memory processes. *Journal of clinical and experimental neuropsychology, 37*(8), σσ. 878-887.
- Marzano, R. J. (2000). *Designing a new taxonomy of educational objectives*. Corwin Press.
- Mazzocco, M. M., & Myers, G. F. (2003). Complexities in identifying and defining mathematics learning disability in the primary school-age years. *Annals of Dyslexia, 53*, σσ. 218-253.
- Mazzocco, M., Feigenson, L., & Halberda, J. (2011). Impaired acuity of the approximate number system underlies mathematical learning disability (dyscalculia).
- Mazzocco, M. M., & Devlin, K. T. (2008). Parts and ‘holes’: Gaps in rational number sense in children with vs. without mathematical learning disability. *Developmental Science, 11*, σσ. 681-691.
- McCloskey, M., Caramazza, A., & Basili, A. (χ.χ.). Cognitive mechanisms in number processing and calculation: Evidence from dyscalculia. *Brain Cogn, 4*, σσ. 171–196.
- McQuarrie, M. A., Siegel, L. S., Perry, N. E., & Weinberg, J. (2014). Reactivity to stress and the cognitive components of math disability in grade 1 children. *Journal of Learning Disabilities, 47*(4), σσ. 349-365.
- Meerbaum-Salant, O., Armoni, M., & Ben-Ari, M. (2010). Learning Computer Science Concepts with Scratch., (σσ. 69-76). Aarhus, Denmark.
- Melis, E., & Siekmann, J. (2004). Activemath: An intelligent tutoring system for mathematics. Στο *International Conference on Artificial Intelligence and Soft Computing* (σσ. 91-101). Berlin, Heidelberg: Springer.
- Miller, S. P., & Mercer, C. D. (1997). Educational aspects of mathematics disabilities. *Journal of learning disabilities., 30*(1), σσ. 47-65.
- Mitsea, E. &. (2019). A Journey into the Metacognitive Learning Strategies. *International Journal of Online and Biomedical Engineering (iJOE), 15*(14), σσ. 4-20.
- Mitsea, E., & Drigas, A. (2019). A Journey into the Metacognitive Learning Strategies. *International Journal of Online and Biomedical Engineering (iJOE), 15*(14), σσ. 4-20.
- Mokros, J. R., & Russell, S. J. (1986). Learner-Centered Software: A Survey of Microcomputer Use with Special Needs Students. . *Journal of Learning Disabilities, 19*(3), σσ. 185-190.

- Molko, N., Cachia, A., Riviere, D., Mangin, J., Bruandet, M., Cohen, L., . . . Dehaene, S. (2003). Functional and structural alternations of the intraparietal sulcus in a developmental dyscalculia of genetic origin. *Neuron*(50), σσ. 847-858.
- Moll, K., Göbel, S. M., Gooch, D., Landerl, K., & Snowling, M. J. (2014). Cognitive Risk Factors for Specific Learning Disorder. *Journal of Learning Disabilities*, 49(3), pp. 272-281.
- Mutlu, Y. &. (2017). The Effects of Computer Assisted Instruction Materials on Approximate Number Skills of Students with Dyscalculia. *Turkish Online Journal of Educational Technology-TOJET*, 16(2), σσ. 119-136.
- Mutlu, Y., & Akgun, L. (2018). Using computer for developing arithmetical skills of students with mathematics learning difficulties. *International Journal of Research in Education and Science*, 5(1), σσ. 237-251.
- NAGP, N. A. (2008). Mathematics framework for the 2009 National Assessment of Educational Progress. Washington DC:: U.S. Department of Education.
- Nation, K., Adams, J., Bowyer-Crane, C. A., & Snowling, M. J. (1999). Working memory deficits in poor comprehenders reflect underlying language impairments. *Journal of experimental child psychology*, 73(2), σσ. 139-158.
- Niederhauser, D. S., & Stoddart, T. (2001). Teachers' instructional perspectives and use of educational software. *Teaching and Teacher Education*, 17, σσ. 15–31.
- Nwagwu, W. E. (2006). Integrating ICTs into the globalization of the poor developing countries. *Information Development*, 22(3), σσ. 167-197.
- O'Connell, T. F. (2010). Using Apple technology to support learning for students with sensory and learning disabilities. . *WGBH Educational Foundation*, σσ. 19-21.
- OECD. (2002). *Understanding the Brain: Toward a New Learning Science*. Paris: Office of Economic Cooperation and Development.
- Ohtani, K., & Hisasaka, T. (2018). Beyond intelligence: a meta-analytic review of the relationship among metacognition, intelligence, and academic performance. . *Metacognition and Learning*, 13(2), σσ. 179-212.
- Pappas, M., Drigas, A., & Polychroni, F. (2018). An Eight-Layer Model for Mathematical Cognition. *International Journal of Emerging Technologies in Learning (IJET)*, 13(10).
- Pappas, M., & Drigas, A. (2016). Incorporation of Artificial Intelligence Tutoring Techniques in Mathematics. *International Journal of Engineering Pedagogy*, 6(4), σσ. 12-16.
- Passolunghi, M. S., Lanfranchi, S., Altoè, G., & Sollazzo, N. (2015). Early numerical abilities and cognitive skills in kindergarten children. *Journal of Experimental Child Psychology*, 135, σσ. 24-42.
- Passolunghi, M. C. (2011). Cognitive and emotional factors in children with mathematical learning disabilities. *International Journal of Disability, Development and Education*, 58(1), σσ. 61-73.

- Paulesu, E., Frith, U., Snowling, M., Gallagher, A., Morton, J., Frackowiak, R., & Frith, C. (1996). Is developmental dyslexia a disconnection syndrome? Evidence from PET scanning. *Brain*, *119*, σσ. 143-157.
- Peters, L., & De Smedt, B. (2018). Arithmetic in the developing brain: a review of brain imaging studies. *Developmental Cognitive Neuroscience*, *30*, σσ. 265-279.
- Piaget, J. (1952). The origin of intelligence in Children. *New York: International University Press*.
- Piazza, M., Facoetti, A., Trussardi, A., Bertelett, I., Conte, S., Lucangeli, D., & al., e. (2010). Developmental trajectory of number acuity reveals a severe impairment in developmental dyscalculia. *Cognition*(116), σσ. 33-41.
- Plerou, A. (2014). Dealing with Dyscalculia over time. *International Conference on Information Communication Technologies in Education*.
- Porter, A. C. (2002). Measuring the Content of Instruction: Uses in Research and Practice. *Educational Researcher*, *31*(7), σσ. 3-14.
- Prabowo, A., Anggoro, R., Adiyanto, R., & Rahma, U. (2018). Interactive Multimedia-based Teaching Material for Trigonometry. *Journal of Physics*:
- Price, G. R., & Ansari, D. (2013). Dyscalculia: Characteristics, causes, and treatments. *Numeracy*, *6*(1).
Ανάκτηση από <http://scholarcommons.usf.edu/numeracy/vol6/iss1/art2>
- Qin, S., Cho, S., Chen, T., Rosenberg-Lee, M., Geary, D. C., & Menon, V. (2014). Hippocampal-neocortical functional reorganization underlies children's cognitive development. *Nature neuroscience*, *17*(9), σ. 1263.
- Raddatz, J., Kuhn, J. T., Holling, H., Moll, K., & Dobel, C. (2017). Comorbidity of arithmetic and reading disorder: Basic number processing and calculation in children with learning impairments. *Journal of learning disabilities*, *50*(3), pp. 298-308.
- Rapin, I. (2016). Dyscalculia and the Calculating Brain. *Pediatric Neurology*., *61*, σσ. 11-20.
- Reynolds, C. (1984). Critical measurements issues in learning disabilities. *Journal of Special Education*, σσ. 451-476.
- Roschelle, M., Pea, D., Hoadley, M., Gordin, N., & Means, M. (2002). Changing how and what children learn in school with computer-based technologies. *The Future of Children: Children and Computer Technology*, *10*(2), σσ. 76-101.
- Rosenberg-Lee, M., Ashkenazi, S., Chen, T., Young, C. B., Geary, D. C., & Menon, V. (2015). Brain hyper-connectivity and operation-specific deficits during arithmetic problem solving in children with developmental dyscalculia. *Developmental science*, *18*(3).
- Roth, P., Petrucci, L., & Theirry, P. (2000). From Dots To Shapes": an auditory haptic game platform. *ICCHP 2000, International Conference on Computers Helping people with special Needs*., σσ. 603-610.

- Rourke, B. P., & Del Dotto, J. E. (1994). *Learning Disabilities*. Στο *Thousand Oaks*. Sage.
- Rourke, B. P., & Conway, J. A. (1997). Disabilities of Arithmetic and Mathematical Reasoning: Perspectives from Neurology and Neuropsychology. *Journal of Learning Disabilities*, 1, σσ. 34-46.
- Rousselle, L., & Noel, M. (2007). Basic numeral skills in children with mathematics learning disabilities : a comparison of symbolic versus non symbolic number magnitude processing.
- Rubinsten, O., & Henik, A. (2009). Developmental dyscalculia: heterogeneity might not mean different mechanisms. *Trends in Cognitive Sciences*, 13, σσ. 92-99.
- Satsangi, R., & Bouck, E. (2014). Using virtual manipulative instruction to teach the concepts of area and perimeter to secondary students with disabilities. *Learning Disability Quarterly*, 38(3), σσ. 174–186.
- Schreuder, A. M. (χ.χ.). *Math and Dyscalculia Testing*. Ανάκτηση από <https://dyscalculiatesting.com/>
- Semrud-Clikeman, M. B.-B.-L. (1992). Comorbidity between ADHD and learning disability: A review and report in a clinically referred sample. *Journal of American Academy of Child and Adolescent Psychiatry*, pp. 439-448.
- Shalev, R. M. (2001). Developmental dyscalculia is a familiar learning disability. . *Journal Learning disability*, σσ. 59-65.
- Shalev, R. S., & Gross -Tsur, V. (2001). Developmental dyscalculia. *Pediatric Neurology*(24), σσ. 337-342.
- Sigmundsson, H., Anholt, S. K., & Talcott, J. B. (2010). Are poor mathematics skills associated with visual deficits in temporal processing? *Neuroscience Letters*, 469(2), σσ. 248–250.
- Siswono, T. Y. (2011, July). Level of Student's Creative Thinking In Classroom Mathematics. *Educational Research and Review*, 6(7), σσ. 548-553.
- Skagerlund, K., Östergren, R., Västfjäll, D., & Träff, U. (2019). How does mathematics anxiety impair mathematical abilities? Investigating the link between math anxiety, working memory, and number processing. *PloS one*, 14(1).
- Slee, R., & Allan, J. (2001). Excluding the included: A reconsideration of inclusive education. *International Studies in sociology of Education*, 11(2), σσ. 173-192.
- Sliva, J. (2004). *Teaching Inclusive Mathematics to Special Learners, K–6*. *Thousand Oaks, Calif.:* Corwin Press.
- Starcic, A., Cotic, M., & Zajc, M. (2003). Design-based research on the use of a tangible user interface for geometry teaching in an inclusive classroom. *British Journal of Educational Technology*, 44(5), σσ. 729-744.

- Stein, M. K. (2009). *Implementing standards-based mathematics instruction, A casebook for professional development* (2nd εκδ.). Reston, VA: National Council of Teachers of Mathematics.
- Stevens, C. (2004). Information and communication technology, special educational needs and schools: a historical perspective of UK government initiatives. Στο L. Florian, & J. Hegarty, *ICT and special educational needs: a tool for inclusion* (σσ. 21-34). Buckingham: Open University Press.
- Swanson, H. L., Cooney, J. B., & McNamara, J. K. (2004). Learning disabilities and memory. Στο B. Y. Wong, *Learning about learning disabilities* (3 εκδ., σσ. 41-92). San Diego: CA:Elsevier.
- Szucs, D., Devine, A., Soltesz, F., Nobes, A., & Gabriel, F. (2013). Developmental dyscalculia is related to visuo-spatial memory and inhibition impairment. *Cortex*, 49, pp. 2674-2688.
- Temple, C. M. (1992). Developmental dyscalculia.
- Thinnyane, H. (2010). Are digital natives a world-wide phenomenon? An investigation into South African first year students' use and experience with technology. *Computers & Education*, 55(1), σσ. 406-414.
- Thomas, G., & Loxley, A. (2001). *Deconstructing Special Education and Constructing Inclusion*. Buckingham Open University.
- Tinio, V. L. (2003). *ICT in Education. E-Primers for the Information Economy, Society and Polity*. Manila: E-ASEAN Task Force/UNDP-APDIP.
- Tomlinson, C. A. (2001). *How to differentiate instruction in mixed-ability classrooms*. Alexandria: Association for Supervision and Curriculum Development (ASCD).
- Torres-Carrión, P., Sarmiento-Guerrero, C., Torres-Díaz, J. C., & Barba-Guamán, L. (2018, January). Educational math game for stimulation of children with dyscalculia. Στο *In International Conference on Information Theoretic Security* (σσ. 614-623). Springer.
- Türel, Y. K., & Johnson, T. E. (2012). Teachers' Belief and Use of Interactive Whiteboards for Teaching and Learning. *Educational Technology & Society*, 15, σσ. 381–394.
- Van Luit, J. E., & Toll, S. W. (2018). Associative cognitive factors of math problems in students diagnosed with developmental dyscalculia. *Frontiers in psychology*, 9.
- Vrettaros, J., Vouros, G., & Drigas, A. (2004). Development of a Diagnostic System of Taxonomies Using Fuzzy Logic-Case SOLO (useful for e-learning system). *WSEAS Transactions on Information Science and Applications*, 6(1).
- Wang, L. C., Tasi, H. J., & Yang, H. M. (2012). Cognitive inhibition in students with and without dyslexia and dyscalculia. *Research in developmental disabilities*, 33(5), σσ. 1453-1461.
- Webb, N. L., Alt, M., Cormier, R. E., & Vesperman, B. (2005). *The web alignment tool*. Council of Chief State School Officers Report.

- Whitebread, D., & Pino-Pasternak, D. (2010). Metacognition, self-regulation and meta-knowing. Emerald Group Publishing Limited.
- Wiener, R. (1990). Computers for Special Education. Planning for the 1990's. *Tech Trends*, 35(4), σσ. 18-22.
- Wiest, L. R. (2001). The role of computers in mathematics teaching and learning. *Using Information Technology in Mathematics Education*, 11, σσ. 41-55.
- Williams, P., Jamali, H. R., & Nicholas, D. (2006). Using ICT with people with special education needs: what the literature tells us. *Aslib Proceedings*, 58(4), σσ. 330-345.
- Wilson A., J. R. (2006 A). An open trial assessment of "The Number Race", an adaptive computer game for remediation of dyscalculia. *Behavioral and Brain Functions*, 2(20).
- Wilson, A. J. (2006B). Principles underlying the design of" The Number Race", an adaptive computer game for remediation of dyscalculia. *Behavioral and brain functions*, 2(1), σ. 19.
- Yimer , A., & Ellerton, N. F. (2006). Cognitive and metacognitive aspects of mathematical problem solving: An emerging model. *Identities, cultures, and learning spaces*, σσ. 575-582.
- Yimer , A., & Ellerton, N. F. (2010). A five-phase model for mathematical problem solving: Identifying synergies in pre-service-teachers' metacognitive and cognitive actions. *ZDM*, 42(2), σσ. 245-261.
- Yunus, M., Nordin, N., Salehi, H., Sun, C. H., & Embi, M. A. (2013). Pros and cons of using ICT in teaching ESL reading and writing. *International Education Studies*, 6(7), σσ. 119-130.
- Zakopoulos, V. (2005). An evaluation of the quality of ICT teaching within an ICT-rich environment: The case of two primary schools. *Education and Information Technologies*, 10(4), σσ. 323-340.
- Zentall, S., & Javorsky, J. (2007). Professional Development for Teachers. *Behavioral Disorders*, 32(2), σσ. 78–93.
- Zerem, A. O. (2012). *m, Sci Verse Science Direct* 55, pp. 720-729.
- Αγαλιώτης, Ι. (2009). Μαθησιακές δυσκολίες στα Μαθηματικά. Αθήνα: Ελληνικά Γράμματα.
- Γρίβα, Γ. (2012). *Η μάθηση των μαθηματικών υπό το πρίσμα αναπτυξιακών διαταραχών που την δυσχεραίνουν – Θεωρητικά και διδακτικά ερωτήματα και προκλήσεις*. Ανάκτηση από <https://docplayer.gr/33509420-l-mathisi-ton-mathimatikon-γρο-to-prisma-anaptyxiakon-diatarahon-poy-tin-dyshereinoygn-theoritika-kai-didaktika-erotimata-kai-prokliseis.html>.
- Κόμης, Β. (2004). *Εισαγωγή στις εκπαιδευτικές εφαρμογές των Τεχνολογιών της Πληροφορίας και των Επικοινωνιών*. Αθήνα.
- Μπάρμπας, Γ. Β. (2008). Ψυχομετρικό κριτήριο πρώιμης μαθηματικής επάρκειας της Ουτρέχτης (προσαρμογή – στάθμιση),. Θεσσαλονίκη.

- Παντελιάδου, Σ. (2000). *Μαθησιακές Δυσκολίες και Εκπαιδευτική Πράξη, Τι & Γιατί*. Αθήνα: Ελληνικά Γράμματα.
- Ράπτης, Α., & Ράπτη, Α. (2002). *Μάθηση και Διδασκαλία στην Εποχή της Πληροφορίας: Ολική Προσέγγιση*. Αθήνα: Αριστοτέλης Ράπτης.
- Σολομωνίδου, Χ. (1999). *Εκπαιδευτική Τεχνολογία*. Αθήνα: Καστανιώτης.
- Σούλης, Σ. Γ. (2016). *Εκπαίδευση και αναπηρία*.
- Στασινός, Δ. (1999). *Μαθησιακές Δυσκολίες Του Παίδιού Και Του Έφηβου*. Αθήνα: Gutenberg Παιδαγωγική Σειρά.
- Ταϊλαχίδης, Σ. (2014). Εφαρμογές των ΤΠΕ στην ειδική αγωγή. *ΤΑ ΕΚΠΑΙΔΕΥΤΙΚΑ*. (109-110), σσ. 227-240.
- Τσουμπρακάκου, Α., Μανωλοπούλου, Δ., Γαϊτάνου, Π., Μανολοπούλου, Δ., Γαϊτάνου, Π., & Τσουμπρακάκου, Α. (2012). Εικονικές βιβλιοθήκες και Άτομα με Ειδικές Ανάγκες. Στο Γ. κ. Κουρουπέτρογλου, *Τσουμπρακάκου, Α., Μανωλοπούλου, Δ., Γαϊτάνου, Π., Μανολοπούλου, Δ., Γαϊτάνου, Π., & Τσουμπρακάκου, Α.* Πληροφόρηση και κοινωνικές προεκτάσεις.

Ιστοσελίδες

Additude. Ανακτήθηκε στις 10/5/2020 από <https://www.additudemag.com/screener-dyscalculia-symptoms-test-children/?src=test>

CogniFit. Ανακτήθηκε στις 9/5/2020 από <https://www.cognifit.com>

Dynamo Math. Ανακτήθηκε στις 10/5/2020 από <https://dynamomath.com/training/>

Dyscalculia. Ανακτήθηκε στις 2/5/2020 από <https://www.dyscalculia.org/>

Dyscalculia. Ανακτήθηκε στις 10/5/2020 από <https://www.dyscalculia.me/dyscalculia-questionnaire>

Learning Success System Ανακτήθηκε στις 9/5/2020 από <https://www.learningsuccesssystem.com/dyscalculia-screener>

Learning Upgrade. Ανακτήθηκε στις 2/5/2020 από <https://web.learningupgrade.com/courses/>

Math and Dyscalculia Testing. Ανακτήθηκε στις 2/5/2020 από <https://dyscalculiatesting.com/test.php>.

Number Dyslexia. Ανακτήθηκε στις 9/5/2020 από <http://numberdyslexia.com>

Math is Fun. Ανακτήθηκε στις 2/5/2020 από <https://www.mathsisfun.com/>

Table Fables Ανακτήθηκε στις 10/5/2020 από <https://www.tablefables.net/Index>