

**‘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**

**I.C.T. IN GIFTED CHILDREN’S EDUCATION:  
TEACHING SUGGESTIONS AND DIDACTIC APPLICATIONS IN  
HUMANITIES**

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## **ABSTRACT**

The research area about the gifted students needs further investigation. In the current bibliographic research, the gifted students' definition is attempted to be examined and explored, since the scientific views significantly differ from each other. Furthermore, an effort has been made to outline their profile and their educational needs. Fundamental aim of this study is to display in detail teaching suggestions and didactic applications specially designed for gifted students, as far as lessons related to Humanities are concerned, using Information and Communication Technologies (I.C.T.).

## REFERENCES

1. Adams-Byers, J., Whitsell, S. S., & Moon, S. M. (2004). Gifted students' perceptions of the academic and social/emotional effects of homogeneous and heterogeneous grouping. *Gifted Child Quarterly*, 48(1), 7-20.
2. Awanbor, D. (1989). Characteristics of gifted and talented children and problems of identification by teachers and parents. *International Journal of Educational Development*, 9(4), 263-269.
3. Barell, J. (1991). Creating our own pathways: teaching students to think and become self-directed. In C. NICHOLAS & G. A. DAVIS (Eds.), *Handbook of gifted education* (pp. 256–270). Needham Heights, MA: Allyn & Bacon.
4. Besnoy, K. (2006). How do I do that? Integrating web sites into the gifted education classroom. *Gifted Child Today*, 29(1), 28–34.
5. Bilal, D., & Kirby, J. (2002). Differences and similarities in information seeking: Children and adults as Web users. *Information Processing and Management*, 38, 649–670.
6. Billig, M. (2005). *Laughter and ridicule: Towards a social critique of humour*. London: Sage Publications.
7. Bisland, A., Karnes, F. A., & Cobb, Y. B. (2004). Leadership Education: Resources and Web Sites for Teachers of Gifted Students. *Gifted Child Today*, 27(1), n1.
8. Catlin, D. (2016). Learning intentions and educational robots. *Constructionism*, 158-166.
9. Catlin, D. (2014, August). Using Peer assessment with educational robots. In *International Conference on Web-Based Learning* (pp. 57-65). Springer, Cham.
10. Colangelo, N. & Davis, G. (2003). Introduction and Overview. In N. Colangelo & G. Davis, *Handbook of Gifted Education*. (3rd ed., pp. 3-10). Boston MA: Allyn & Bacon.
11. Coleman, L. & Cross T.L., (2002). Social and Emotional Development of Gifted Students. In K.A Heller., F.G. Monks, R.J. Sternberg, F.R. Subotnik (Eds.) *International Handbook of Giftedness and Talent*, (pp. 203-212). Oxford: Pergamon.
12. Coleman, L. J., & Cross, T. L. (2001). *Being gifted in school: An introduction to development, guidance, and teaching*. Waco, TX: Prufrock Press.
13. Conchinha, C., & de Freitas, J. C. (2015, November). Robots & NEE: Learning by playing with robots in an inclusive school setting. In *2015 International Symposium on Computers in Education (SIIE)* (pp. 86-91). IEEE.
14. Cooper, C. R. (2009). Myth 18: *It is fair to teach all children the same way*. *Gifted Child Quarterly*, 53(4), 283-285.

15. Croft, L. J. (2003). Teachers of the gifted: Gifted teachers. In N. Colangelo & G. A. Davis (Eds.), *Handbook of gifted education* (3rd ed., pp. 558-571). Boston: Allyn & Bacon.
16. Delisle, J. R. (2005). *Once upon a mind: The stories and scholars of gifted education*. Independence, KY: Cengage Learning.
17. Da Costa, M. P., & Lubart, T. I. (2016). Gifted and talented children: Heterogeneity and individual differences. *Anales De Psicología/Annals of Psychology*, 32(3), 662-671.
18. De Wet, C. F. (2006). Beyond presentations: Using PowerPoint as an effective instructional tool. *Gifted Child Today*, 29(4), 29-39.
19. Drigas, A. S., Karyotaki, M., & Skianis, C. (2018). An Integrated Approach to Neuro-development, Neuroplasticity and Cognitive Improvement. *International Journal of Recent Contributions from Engineering, Science & IT (iJES)*, 6(3), 4-18.
20. Drigas, A., & Karyotaki, M. (2018). Mindfulness Training & Assessment and Intelligence. *International Journal of Recent Contributions from Engineering, Science & IT (iJES)*, 6(3), 70-85.
21. Drigas, A., & Papoutsi, C. (2018). A new layered model on emotional intelligence. *Behavioral Sciences*, 8(5), 45.
22. Drigas, A., & Karyotaki, M. (2017). Attentional control and other executive functions. *International Journal of Emerging Technologies in Learning (iJET)*, 12(03), 219-233.
23. Drigas, A. S., & Pappas, M. A. (2017). The Consciousness-Intelligence-Knowledge Pyramid: An 8x8 Layer Model. *International Journal of Recent Contributions from Engineering, Science & IT (iJES)*, 5(3), 14-25.
24. Drigas, A., & Karyotaki, M. (2016). Online and other ICT-based Training Tools for Problem-solving Skills. *International Journal of Emerging Technologies in Learning (iJET)*, 11(06), 35-39.
25. Drigas, A., & Tourimpampa, A. (2014). Processes and ICT Tools for ADHD Assessment, Intervention and Attention Training. *International Journal of Emerging Technologies in Learning (iJET)*, 9(6), 20-25.
26. Duffy, P., & Bruns, A. (2006). The Use of Blogs, Wikis and Rss in Education: A Conversation of Possibilities. In C. *Online Learning and Teaching* (Ed.).
27. Dunn, R., Dunn, K., & Price, G.E. (2003). *The learning style inventory*. Lawrence, KS: Price Systems.
28. Gagné, F. (2005). From gifts to talents. *Conceptions of giftedness*, 2, 98-119.
29. Gagné, F. (2004). Transforming gifts into talents: The DMGT as a developmental theory. *High ability studies*, 15(2), 119-147.

30. Gagné, F. (1998). A proposal for subcategories within gifted or talented populations. *Gifted Child Quarterly*, 42(2), 87-95.
31. Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. New York: Basic Books.
32. Gardner, J. E. & Edyburn, D. L. (2000). Integrating technology to support effective instruction. In J. D. LINDSEY (Ed.), *Technology and exceptional individuals* (pp. 191–240). Austin, TX: Pro-ed.
33. Gerstein, J. (2009). Beyond the game: Quest atlantis as an online learning experience for gifted elementary students. *Journal For Virtual Worlds Research*, 2(1).
34. Gibson, E.J. (1994). Has psychology a future? *Psychological Science*, 5(2), 69-76.
35. Haensly, P. A., & Lee, K. S. (2000). Gifted Potential and Emerg-Ing Abilities in Young Children: As Influenced by Diverse Backgrounds. *Gifted Education International*, 14(2), 133-150.
36. Hannafin, M. J., & Hill, J. R. (2002). Epistemology and the design of learning environments. In R. A. Reiser & J. V. Dempsey (Eds.), *Trends and issues in instructional design and technology* (pp.70–82). Upper Saddle River, NJ: Merrill Prentice Hall.
37. Harris, J. (1999). First steps to telecollaboration. *Learning and Leading with Technology*, 27(3),54–57.
38. Heller, P., Keith, R., & Anderson, S. (1992). Teaching problem solving through cooperative grouping. Part 1: Group versus individual problem solving. *American journal of physics*, 60(7), 627-636.
39. Hensel, N. H. (1991). Social leadership skills in young children. *Roeper review*, 14(1), 4-6.
40. Hull, D. F., Bull, K. S., Montgomery, D., May, J. R., & Overton, R. (2000). Designing an Online, Introductory Gifted Education Course.
41. Institute for Educational Leadership. (2001). *Leadership for student learning: Redefining the teacher as leader*. Washington, DC: Author.
42. International Telementor Program. (n.d.). Ανακτημένο στις 5 Μαΐου 2019, from <http://www.telementor.org>
43. Jackson, P. S., Moyle, V. F., & Piechowski, M. M. (2009). Emotional life and psychotherapy of the gifted in light of Dabrowski’s theory. In L. V. Savinia (ed.), *International Handbook on Giftedness* (pp. 437-465). New York, NY: Springer.
44. Johnson, C., & Gilles, R. P. (2003). Spatial social networks. In *Networks and Groups* (pp. 51-77). Springer, Berlin, Heidelberg.
45. Karnes, F. A., & Stephens, K. R. (2000). *The ultimate guide to student product development and evaluation*. Waco, TX: Prufrock Press.

46. Kaufman, J. C., Plucker, J. A., & Baer, J. (2008). *Essentials of creativity assessment (53)*. John Wiley & Sons.
47. Κολέσια, Χ. (2014). Διδάσκοντας χαρισματικούς και ταλαντούχους μαθητές μέσω εξ αποστάσεως εκπαίδευσης. Σύγχρονες Αναζητήσεις της Ειδικής Αγωγής στην Ελλάδα. Στο: Γ. Παπαδάτος, Πολυχρονοπούλου, Α. Μπαστέα, Α. (επιμ.). *Πρακτικά 4ου Συνεδρίου Επιστημών Εκπαίδευσης*, Αθήνα 20-22 Ιουνίου 2014.
48. Kuiper, A. N. (2012). Humor and resiliency: Towards a process model of coping growth. *Europe's Journal of Psychology*, 8, 475-491. doi:10.5964/ejop.v8i3.464
49. Κωσταρίδου – Ευκλείδη, Α. (2011). *Μεταγνωστικές διεργασίες και αυτο-ρύθμιση*. Αθήνα: Πεδίο.
50. Lee, K. S. (2001). Using Telecollaboration for Self-regulated Thinking Skills: instruction with regular and gifted learners. *High Ability Studies*, 12(2), 235-247.
51. Lewis, C. W. (2002). International Telementoring Program Executive Summary: Evaluation Results from Teacher Survey. Fort Collins: Research and Development Center for the Advancement of Student Learning, Colorado State University.
52. Λόξα, Γ. (2004). Οδηγός για Μαθητές με Ιδιαίτερες Νοητικές Ικανότητες και Ταλέντα. Αθήνα: ΥΠΕΠΘ-Παιδαγωγικό Ινστιτούτο. Ανακτήθηκε στις 27 Μαρτίου 2019, από [http://www.pischools.gr/special\\_education\\_new/html/gr/8emata/xarismatika/xarismatika.html](http://www.pischools.gr/special_education_new/html/gr/8emata/xarismatika/xarismatika.html)
53. MacLeod B. (2005). Module 5 Extension, Gifted and Talented Education, Professional Development Package for Teachers. Ανακτημένο από
54. McCoach, D. B., & Siegle, D. (2007). What predicts teachers' attitudes toward the gifted?. *Gifted child quarterly*, 51(3), 246-254.
55. McCoy-Parker, K. S., Paull, L. N., Rule, A. C., & Montgomery, S. E. (2017). Challenging elementary learners with programmable robots during free play and direct instruction. *Journal of STEM Arts, Crafts, and Constructions*, 2(2), 6.
56. Μανωλάκος Π. (2010). Χαρισματικοί – Ταλαντούχοι μαθητές. Τρόποι στήριξης και τρόποι εκπαίδευσης των Χαρισματικών μαθητών. Στο Α. Παππάς (2010). *Μαθαίνω πώς να μαθαίνω. Πρακτικά του Ελληνικού Ινστιτούτου Εφαρμοσμένης Παιδαγωγικής και Εκπαίδευσης ΕΛΛ.Ι.Ε.Π.ΕΚ. 5<sup>ο</sup> Πανελλήνιο Συνέδριο*. (Αθήνα 7 Μαΐου – 9 Μαΐου 2010).
57. March, T. (2000). “WebQuests 101”: Tips on choosing and assessing Web- Quests. *Multimedia Schools*, 7, 55–58.
58. Μαρίνου, Μ., Ορκοπούλου, Μ. & Τόμπρου, Δ. Μ. (2017). Χαρισματικότητα και νέες τεχνολογίες. *Πανελλήνιο Συνέδριο Επιστημών Εκπαίδευσης*, 1, 696-706.

59. Ματσαγγούρας, Η. (2008). *Εκπαιδεύοντας παιδιά Υψηλών Ικανοτήτων Μάθησης. Διαφοροποιημένη συνεκπαίδευση*. Αθήνα: Gutenberg.
60. Milgram, R. M. (Ed.). (1991). *Counseling gifted and talented children: A guide for teachers, counselors, and parents*. ABC-CLIO.
61. Moon, S., M. (2009). Myth 15: High-Ability Students Don't Face Problems and Challenges. *Gifted Child Quarterly*, 53(4), 274-276. doi:10.1177/0016986209346943
62. Mulrine, C. F. (2007). Creating a virtual learning environment for gifted and talented learners. *Gifted child today*, 30(2), 37-40.
63. Murdock-Smith, J. (2013). Understanding the Social and Emotional Needs of Gifted Children. *Rivier Academic Journal*, 9(2).
64. Nash, D. (2001). Enter the mentor. *Parenting for High Potential*, 18–21.
65. Nicholas, H., & Ng, W. (2007). *Technology and independent learning*. Roeper Review.
66. Nielsen, M. E. (2002). Gifted students with learning disabilities: Recommendations for identification and programming. *Exceptionality*, 10(2), 93-111.
67. Northcott, B., Miliszewska, I., & Dakich, E. (2007). ICT for (I) nspiring (C) reative (T) hinking. *ICT: Providing choices for learners and learning, Singapore*, 76, 1-769.
68. O'Connell, J. (2006). Engaging the Google Generation through Web 2.0: Part 1. *Scan*, 25(3), 46-50.
69. Ορσοπούλου, Α. -Ε., Παπανικολάου Ι. & Πολίτη-Γεωργούση Σ. (2017). Νέες τεχνολογίες, χρήσιμο εργαλείο στην εκπαίδευση των χαρισματικών παιδιών;. *Πανελλήνιο Συνέδριο Επιστημών Εκπαίδευσης*, 1, 904-921.
70. Page, S. (2000). When changes for the gifted spur differentiation for all. *Educational Leadership*, 58(1), 62–65.
71. Papoutsi, C., & Drigas, A. S. (2017). Empathy and Mobile Applications. *International Journal of Interactive Mobile Technologies*, 11(3).
72. Peterson, J.S. (2009). Myth 17: Gifted and talented individuals do not have unique social and emotional needs. *The Gifted Child Quarterly*, 53(4), 280-282.
73. Plunkett, M., Dr. & Kronborg, L., Dr (2011) Learning to Be a Teacher of the Gifted: The Importance of Examining Opinions and Challenging Misconceptions. *Gifted and Talented International*, 26:1-2,31-46, doi: 10.1080/15332276.2011.11673587
74. Pomortseva, N. P. (2014). Teaching gifted children in regular classroom in the USA. *Procedia-Social and Behavioral Sciences*, 143, 147-151.
75. Quinn, J. B. (1992). *Intelligent Enterprise: A Knowledge and Service Based Paradigm for Industr*. Simon and Schuster.

76. Read, B. (2005). Romantic Poetry Meets 21st-Century Technology. *Chronicle of Higher Education*, 51(45), A35-A36.
77. Rejskind, G. (2000). TAG teachers: Only the creative need apply. *Roeper Review*, 22, 153–157.
78. Renzulli, J. S. (2005). Applying Gifted Education Pedagogy to Total Talent Development for All Students. *Theory Into Practice*, 44(2), 80-89.
79. Reis, S., & Renzulli, J. (2004). Current research on the Social and Emotional Development of Gifted and Talented Students: good news and future possibilities. *Psychology in the Schools*, 41 (1).
80. Renzulli, J. S. (2002b). A Message from the Guest Editor: Looking at Giftedness through a Wide Angle Lens. *Exceptionality*, 10(2), 65-66.
81. Renzulli, J. (1998). The three-ring conception of giftedness. In S. Baum, S. Reis & L. Maxfield (Eds.), *Nurturing the gifts and talents of primary grade students*. Mansfield Centre. CT: Creative Learning Press.
82. Riley, T. (2003). Take a summer vacation cruising the Internet. *Gifted Child Today*, 26(3), 8.
83. Ρίζος, Σ. (2011). *Η περίπτωση των χαρισματικών παιδιών: απόψεις των εκπαιδευτικών της πρωτοβάθμιας εκπαίδευσης σε θέματα αναγνώρισης και διαχείρισης της διαφορετικότητας των παιδιών αυτών* (Διδακτορική Διατριβή). Ανακτήθηκε στις 4 Μαρτίου 2019 από <https://www.didaktorika.gr/eadd/handle/10442/25868>
84. Ρίζος, Σ. (2007). Χαρισματικά παιδιά και εκπαίδευση. Στα Πρακτικά του 4ου Πανελληνίου Συνεδρίου ΕΛΛ.Ι.Ε.Π.ΕΚ. Σχολείο ίσο για παιδιά άνισα-Αθήνα 4-7 Μαΐου 2007 (420-429). Αθήνα: Ατραπός.
85. Roberts, J., & Inman, T. (2001). Mentoring and your child: Developing a successful relationship. *Parenting for High Potential*, 8–10.
86. Robinson, A., Shore, B. M., & Enerson, D. L. (2006). *Best practices in gifted education: An evidence-based guide*. Waco, TX: Prufrock Press.
87. Schneider, J. (2009). Besides Google: Guiding gifted elementary students onto the entrance ramp of the information superhighway. *Gifted Child Today*, 32(1), 27-31.
88. Schweizer, H., & Kossow, B. (2007). WebQuests: Tools for differentiation. *Gifted Child Today*, 30(1), 29-35.
89. Siegle, D. (2005). Six uses of the Internet to develop students' gifts and talents. *Gifted Child Today*, 28(2), 30–36.
90. Siegle, D. (2004). The merging of literacy and technology in the 21st century: A bonus for gifted education. *Gifted Child Today*, 27(2), 32–34.



91. Siegle, D. (2003). Mentors on the net: Extending learning through telementoring. *Gifted child today*, 26(4), 51-63.
92. Siegle, D. (2001). "One size fits all" doesn't work when selecting a mentor. *Parenting for High Potential*, 7, 11.
93. Silverman, L. K. (1997). The construct of asynchronous development. *Peabody Journal of Education*, 72(3-4), 36-58.
94. Silverman, L. K. (1993). A developmental model for counseling the gifted. In L. K. Silverman (Ed.), *Counseling the gifted and talented* (pp. 51-78). Denver, CO: Love Publishing Company.
95. Sirinterlikci, A. (2006). 2006-2505: SUMMER HONORS INSTITUTE FOR THE GIFTED. *Age*, 11, 1.
96. Sisk, D. (2009). Myth 13: The Regular Classroom Teacher Can "Go It Alone". *Gifted Child Quarterly*, 53(4), 269-271.
97. Stager, G. (2004). Pointing in the wrong direction. *District Administration*, 40(1), 71.
98. STERNBERG, R. J. (1996). *Successful intelligence: how practical and creative intelligence determine success in life*. New York: Simon & Schuster.
99. Sternberg, R. J. (1986). A triarchic theory of intellectual giftedness. In R.J. Sternberg, J.E. Davidson (Eds.), *Conceptions of Giftedness*, (pp. 223-243). New York: Cambridge University Press.
100. Sternberg, R.J., & Lubart, T.I. (1993). Creative giftedness: A multivariate investment approach. *Gifted Child Quarterly*, 37(1), 7-38.
101. Subban, P., & Sharma, U. (2006). Primary school teachers' perceptions of inclusive education in Victoria, Australia. *International Journal of Special Education*, 21(1), 42-52.
102. Taormina, R. J., & Gao, J. H. (2013). Maslow and the motivation hierarchy: Measuring satisfaction of the needs. *The American journal of psychology*, 126(2), 155-177.
103. Thomson, D. (2010). Beyond the Classroom Walls: Teachers' and Students' Perspectives on How Online Learning Can Meet the Needs of Gifted Students. *Journal of Advanced Academics*, 21, 662-712.
104. Tomlinson, C. A. (2008). The goals of differentiation. *Educational Leadership*, 66(3), 26-31.
105. Τραϊφόρου, Μ. (2017). Η Σχέση της Χαρισματικότητας και των Ψυχολογικών Δυσκολιών. *Πανελλήνιο Συνέδριο Επιστημών Εκπαίδευσης*, 1, 1397-1408.
106. Troxclair, D. (2000). Differentiating instruction for gifted students in regular education social studies classes. *Roepers Review*, 22, 195-198.
107. Τσιάμης, Α. (2016). Τα χαρισματικά παιδιά ζουν ανάμεσά μας:

Ανακαλύπτοντας τα ίδια και τις ανάγκες τους. Αθήνα: Εκδόσεις Γρηγόρη

108. Twining, P., & Peachey, A. (2009, July). Open virtual worlds as pedagogical research tools: Learning from the Shome Park Programme. In *IFIP World Conference on Computers in Education* (pp. 263-272). Springer, Berlin, Heidelberg.
109. Vint, L. (2005). Fresh Thinking Drives Creativity Innovation. *Quick*( 94), 20-22.
110. Φουστάνα, Α. (2017). Συνάρτηση του υψηλού διανοητικού δυναμικού και των δεξιοτήτων προσοχής των ευφυών μαθητών. *Πανελλήνιο Συνέδριο Επιστημών Εκπαίδευσης, 1*, 1534-1542.
111. Wasserman, S. (2001). Curriculum enrichment with computer software: Adventures in the trade. *Phi Delta Kappan*, 82, 592–598.
112. Webb, D., Soutar, G. N., Mazzarol, T., & Saldaris, P. (2013). Self-determination theory and consumer behavioural change: Evidence from a household energy-saving behaviour study. *Journal of Environmental Psychology*, 35, 59-66.
113. Whitton, D. (2004). Creativity in Teaching and Learning: A Creativity Framework. *TalentEd*, 22(2), 19-27.
114. Winner, E. (1996). *Gifted children, myths and realities*. New York: Basic Books.