

Special Education Teachers' Gifted Guidance and the role of Digital Technologies

Loukeri Paraskevi – Ioanna, Stathopoulou Agathi, Anna Maria Driga
vivianlouke@gmail.com, agathi.stathopoulou@yahoo.com,
anna.maria.driga@gmail.com

Abstract: The empowerment of followers' personal vision and the quality of their work are both significantly associated with leadership. Additionally, the respect that a group of followers have for a leader is a criterion for labeling the leader as "charismatic - emotionally intelligent." The eventual goal and the chosen techniques are therefore crucial components of good leadership. In this way, a high-level work environment can be guaranteed, safeguarding employees against the effects of job burnout. The effects of job burnout on Special Education teachers appear to be extremely serious both for the teacher's well-being and for the effectiveness of their work. Teachers who experience job burnout tend to be mentally and physically exhausted, despondent, and constantly anxious, keeping themselves to themselves and hard to reach. In order to safeguard teachers from the threat of job burnout, this study will look at the relationship between the emotional intelligence of school administrators and the presence of a supportive work environment.

Key words- leadership, emotionally intelligence, empowerment, special education

1. Introduction

A charismatic leader cares about motivating their followers to reach their individual objectives that are founded on their own unique vision. It's possible that charismatic leadership has nothing to do with someone having a beautiful personality or being well-liked by their peers. As a result of their empowerment and motivation, the followers' performance grew to the highest level imaginable. The personal vision of the employees frequently aligns with the organizations, which has been communicated to the followers by the leader (Lodge, 2006). A leader has the ability to enthuse, inspire, and generally activate the greatest performance in their followers. Leaders can typically be identified by their personal ideals as well as by their strategy, tactics, and managerial abilities. Aristoteles said that they were able to comprehend and assist the feelings of their adherents (Weber, 2009).

The inspirational influence, the expression of clear and persuasive organizational goals, the group mentoring and guidance, the innovative mentality, the conflict management as well as the building of the appropriate working environment which facilitates the cooperation towards the organization's goals accomplishment, are only a few credentials of a charismatic leadership (Goleman, 2014).

2. The School Director as a Charismatic Leader

Many teachers may encounter and work with a school leader at some point in their careers who can motivate them, help them establish their own goals, and greatly aid in connecting those with the goals of the school as a whole (Maxwell, 1998). The role of the school leader might also be emphasized as a vital link between teachers and those in higher Educational Management units. The specific and unique objectives of each school unity should also be in line with the broad directives of the Education Ministry. As a result, each School Principal should conform to them in all plans and actions. More specifically, each School Director can effectively use the available tools to accomplish the expectations stated by the relevant Ministry.

Generally speaking, the School Leader is in charge of organizing the human resources of a school unity to achieve the goals (Saitis, 2007). A school leader is actually the coordinator who takes the lead, engages in communication and interaction with teachers as well as the entire school community (parents, students, and staff, for example), all in the interest of securing and establishing a balanced and supportive working environment that is supportive of cognitive development and academic outcomes (Brinia, 2008). Additionally, the Leader makes clear the social and educational needs of the school community and encourages the teachers to use the right strategies to meet these needs (Saitis, 2007).

Nowadays, schools shall serve a multidimensional role and for this very reason it is crucial to seek for School Leaders than School Principals. A charismatic school Leader has a vision shared with the team. He/she allocates the educational staff, according to personalized interests, temper, and abilities so that, the vision can be converted into strategy. The difference between the Leader and the Director is that the former promotes his/her ability to inspire and motivate the team, in order to become as much innovative and creative as possible, with the result of a supportive working environment. On the contrary, the latter facilitates his/her power to fulfil the organization goals (Blush & Middlewood, 2005).

3. Job Burnout in Special Education Teachers

International studies have found a strong correlation between emotional weariness and teacher job burnout. More precisely, educators who are at risk for job burnout syndrome frequently describe their sense of exhaustion or inadequacy over the effectiveness of their work and their low levels of energy in the classroom. Job satisfaction is a significant component in determining the quality of a teacher's professional life. Since they frequently feel ineffective, teachers who have low levels of job satisfaction are more likely to experience job burnout (Guglielmi & Tatrow, 1998; Maslach & Leiter, 2008).

It has been discovered that a teacher who is emotionally worn out and whose professional health is considerably harmed is generally less effective at their job. (2006) Hakanen, Bakker, and Schaufeli. At the same time, emotional exhaustion in teachers appears to be a reliable sign of job burnout, which, at extreme levels, may lead to the eventual abandonment of one's career (Leung & Lee, 2006). For the educator personally as well as for his or her professional life, the effects of teacher burnout are very serious.

Teachers who keep on working under the shadow of Job Burnout are emotionally exhausted, physically fatigued, depressed, continually anxious, cynical, and distant, without interest. Teachers' Job Burnout syndrome affects not only the educator him/herself, as well as, the entire school unity. Teachers facing Job Burnout are not able to contribute properly at their teaching duties and consequently, students' academic results are usually negatively affected (Friedman & Farber, 1992).

According to recent studies, teachers who work in Special Education schools field present higher anxiety level and emotional exhaustion compared to their colleagues who work in mainstream schools (Billingsley et al, 2004; Boe et al, 1997; Fore et al, 2002; Wisniewski & Gargiulo, 1997).

A research, conducted in Greece, in 2000, in a sample of 110 teachers working either in Special Education schools or in Special Education classrooms, appeared a medium to high emotional exhaustion (Antoniou, Polychroni & Walters 2000). Kokkinos and Devazoglou (2006) analysed data, collected from a sample of 745 primary school teachers, 430 of whom were occupied in General Education schools (in the areas of East Makedonia and Thrace) and 315 worked in Special Education field in several areas of Greece. According to the findings, Special Education teachers need to deal with a greater amount of emotional exhaustion compared to General Education teachers.

Job Burnout syndrome is rather common in the educational area, according to research findings and the body of literature. At the same time, the degree of job satisfaction appears to be a safeguard against job burnout. Because of this, the leadership style plays a critical role in creating a safe working environment, sustaining high levels of job satisfaction, and averting job burnout. A 2019 study in Greece with 285 primary school leaders in general education found a

substantial association between the transformational leadership style and the job satisfaction component, which serves as a buffer against job burnout 2019 (Loukeri).

4. Emotional Intelligence and Charismatic Leadership

A charismatic leader typically focuses on creating a stable, collaborative workplace that may provide employees' emotional empowerment. Over the years, leaders have served as their followers' emotional safety net in the face of any danger or ambiguity (Goleman et al., 2014). The ability to identify one's own emotions as well as those of others, to recognize the differences between them, to label them appropriately, and to apply this emotional information for making decisions is known as emotional intelligence (Coleman, 2008). An individual's ability to recognize and manage his or her own emotional state, as well as that of others, with an eye toward personal and social development is referred to as having emotional intelligence (Goleman, 2011). A sort of mediator between the leader and the team members, emotional intelligence ensures the dialogue and, as a result, efficient communication.

A highly emotionally intelligent Leader appears several characteristics, which differentiate him/her from others. Such characteristics are the non-critical behaviour towards his/her colleagues, the recognition of others' emotional considerations, the followers' guidance, and support through personal experience. This kind of Leader is also honest concerning his/her feelings and intentions, taking any responsibility he/she needs to. What is more, detail matters to him/her without ignoring at the same time the key – points of a situation. He/she is also quite supportive to his/her followers being decisive and a very efficient conflict manager within the team. Leader has a strong self-confidence and honestly cares for his/her followers' progress (Louis et al, 2010). A great number of studies highlights Leader's emotional intelligence to be crucial for the structure of a motivational and inspirational work environment where, employees are secured from potential Job Burnout syndrome (Goleman, 2000; Fox, 2002).

An international research investigated the success factors of senior executives, in a sample of 515 Leaders in Japan, Germany, and Latin America. According to the findings there are three determinant factors which affect the Leader profile: their previous working experience, the responsibilities they used to have in previous workplaces and their emotional intelligence level (George, 2000). Moreover, studies conducted in international companies showed that, top management employees, with higher emotional intelligence are 15 – 20 % more effective in achieving company's KPI's compared to those with lower emotional intelligence (McClelland & David, 1998).

International literature supports that the Leaders, who are able to handle their own feelings and set their own satisfaction of minor importance, appear as role models for their followers gaining thus their respect (Hersey et Blanchard, 1977). Within this tactic the Leader may achieve the

“idealized influence” offering at his/her followers the essential emotional support and initiatives for enhancing their performance (Fisher & Ashkanasy 2000). Additionally to the gift of understanding others’ feelings, an emotionally intelligent Leader can distinguish others’ personal expectations supporting them towards the fulfilment through an inspirational motivation; an additional characteristic that differentiates this Leader (Mathew & Gupta, 2015). Furthermore, it is worth to be mentioned, that a Leader with high leveled emotionally intelligence, recognizes the uniqueness of every single team’s member with different needs and priorities. This individualized consideration of each person makes the followers to feel that they are special, and their Leader regards at them accordingly (Caruso et al 2002). The above mentioned special characteristics of an emotionally intelligent Leader are also found in the theory of Transformational Leadership, one of the most effective leadership style, a fact that indicates the correlation between the emotionally intelligent Leader and the Transformational Leader.

A team working environment that secures employees’ motivation and inspiration is one of the fundamental points of Transformational Leadership style. To be more specific, Transformational Leadership facilitates the cooperation between the team and the leader, aiming to organization’s goals achievement. As a result, the Transformational Leader becomes a role model who motivates his/her followers’ by creating a challenging and supportive environment (Bass, 1990, 53-55). The Transformational Leader inspires the employees so that each personal goal to be identified to these of the organization. As far as the Transformational Leadership style in the school context, Leithwood pinpointed three basic sectors: Setting Direction, Developing Human, Restructuring School (Leithwood & Riehl, 2003).

According to the findings of several studies, teachers' support for students' academic and cognitive performance as well as their emotional development can be attributed to transformational leadership. These factors include the school climate, school culture, and students' emotional development. As a result, it is clear that a transformational leader effectively leads the entire business toward a shared vision while encouraging teachers to collaborate in order to accomplish the objectives. Given the relationship between emotional intelligence and transformational leadership style discussed above as well as the advantages of a transformational leader, an emotionally intelligent leader can make a significant contribution to the cohesiveness of a school.

5. Conclusion

The literature that is currently available indicates that effective leadership practices are primarily focused on inspiring and motivating followers in ways that support organizational objectives. Additionally, the capacity of leaders to inspire, persuade, and pique the interest of

their followers is correlated with their emotional intelligence. Particularly when making decisions, the relationship and interplay between emotional intelligence and leadership style are of utmost importance. Similar to this, the school director's primary responsibility in an educational setting is to create the desired connections between the entire team, the leader, and the teachers. The emotional support that the Leader provides to the instructors in order to support their multitasking and demanding duty is closely related to charismatic leadership traits and the leadership style in general (Blase & Blasé, 2001; Rewster & Railback, 2003). In other words, empathy is strongly characterizing a charismatic Leader and at the same time it seems to be a protecting factor against employees' Job Burnout syndrome, a syndrome quite common in education field (Eichinger, 2000).

The emotional support provided by Special Education Teachers to their students is closely correlated with their job satisfaction and organizational commitment, according to numerous worldwide research. Moreover, a charismatic leader can support a consistent school culture, which in turn can strengthen teachers' continued participation in a particular school community (Gersten et al., 2001). As a result, it would appear that a charismatic and highly emotional intelligent leader could ensure the spiritual and emotional growth and well-being of schoolteachers (Day, 2000; MacGilchrist, 2003).

Concluding, we emphasize the significance of all digital technologies in the field of education and in teacher's guidance domain, which is highly effective and productive and facilitates and improves assessment, intervention, and educational procedures via mobile devices that bring educational activities everywhere [45-49], various ICTs applications that are the main supporters of education [50-70], and AI, STEM, and ROBOTICS that raise educational procedures to new performance levers [71-85] and friendly games [86-89]. Additionally, the development and integration of ICTs with theories and models of metacognition, mindfulness, meditation, and the cultivation of emotional intelligence [90-127], as well as with environmental factors and nutrition [41-44], accelerates and improves more than educational practices and results, especially in teacher's guidance domain.

6. References

- [1] Antoniou, A.S., Polychroni, F. & Walters, B. (2000). Sources of stress and professional burnout of teachers of special educational needs in Greece. Paper presented at International Special Education Congress 2000, 24-28, July 2000, 1-11. U.K.: University of Manchester.
- [2] Babalis, T., Trilianos, A., Stavrou, N. A., Koutouvela, C., Tsoli, K., & Alexopoulos, N. (2012). Good Schooling as the Outcome of the Interaction between Children and Teachers in Greek Primary School. Online Submission.
- [3] Bass, B. (1990). Bass & Stodgill's handbook of leadership (3rd ed.). New York: The Free Press. <https://books.google.gr/books?id=KxLizZ3aYmUC&printsec=frontcover&hl=el>
- [4] Blase, J., & Blase, R. R. (2001). Empowering teachers: What successful principals do. Corwin Press.
- [5] Bouradas D. (2005). Leadership: The road to success. Kritiki (In Greek).

- [6] Brewster, C., Railsback, J. (2003). Building trusting relationships for school improvement: Implications for principals and teachers. Oregon, USA: Northwest Regional Educational Laboratory.
- [7] Brinia B. (2008). School Units Management. Stamouli (in Greek).
- [8] Bush, T., Middlewood, D. (2005). Leading and Managing People in Education. London: Sage Publications.
- [9] Caldwell, B. (1992). The principal as leader of the self-managing school in Australia. *Journal of Educational Administration*, 30:6-19.
- [10] Caruso, D. R., Mayer, J. D., & Salovey, P. (2002). Emotional intelligence and emotional leadership. In Kravis-de Roulet Leadership Conference, 9th, Apr, 1999, Claremont McKenna Coll, Claremont, CA, US. Lawrence Erlbaum Associates Publishers.
- [11] Day, C. (2000). Teachers in the Twenty-first Century: Time to renew the vision. *Teachers and Teaching: Theory and Practice*, 6(1), 101-115.
- [12] Eichinger, J. (2000). Job Stress and Satisfaction Among Special Education Teachers: Effects of gender and social role orientation. *International Journal of Disability, Development and Education*, 47(4), 397-412.
- [13] Fisher, C. D. & Ashkanasy, N.M (2000). The emerging role of emotions in work life: an introduction, *Journal of Organizational Behavior*, 21, 123-129.
- [14] Friedman, I.A., & Farber (1992). Professional self-concept to teacher burnout. *Journal of Educational Research*, 88 (5), 281-292.
- [15] George, J.M. (2000). Emotions and leadership: The role of emotional intelligence. *Human Relations*. 53, 1027-1055.
- [16] Zempylas, M, Papanastasiou, E. (2006). Job satisfaction variance among public and private kindergarten schoolteachers in Cyprus. *Journal of Educational Research* (43), 147-16.
- [17] Goleman, D. (2017). Leadership that gets results (Harvard business review classics). Harvard Business Press.
- [18] Goleman D., Boyatzis, R. & Mckee, A. (2014) The new Leader. The power of emotional intelligence in organization management. Pedio (in Greek).
- [19] Lantieri, L., & Goleman, D. P. (2008). Building emotional intelligence: Techniques to cultivate inner strength in children. Sounds True.
- [20] Goleman, D. (2011). The brain and emotional intelligence: New insights. Northampton, MA: More Than Sound LLC.
- [21] Guglielmi R. S., Tatrow, K. (1998). Occupational Stress, Burnout, and Health in teachers: A methodological and theoretical analysis. *Review of Educational Research*, 68 (1), 61-99.
- [22] Hakanen, J., Bakker, A.B., & Schaufeli, W.B. (2006). Burnout and work engagement among teachers. *Journal of School Psychology*, 43, 495-513.
- [23] Kokkinos, C.M., Davazoglou A.M. (2009). Special education teachers under stress: evidence from a Greek national study. *Educational Psychology*, 29 (4), 407-424.
- [24] Loukeri, P.I. (2019). Transformational Leadership, Job Satisfaction and Organizational commitment: The Primary School Principal. Doctoral (PhD) Thesis, Department of Primary Education, Faculty of Education, University of Athens (in Greek).
- [25] Hersey, P., Blanchard, K (1977). *Management of Organizational Behavior 3rd Edition—Utilizing Human Resources*. New Jersey/Prentice Hall.
- [26] Leithwood, K., & Duke, D. (1999). A century's quest to understand school leadership. *Handbook of research on educational administration*, 2(5), 45-72.
- [27] Leithwood, K., Jantzi, D. & Steinbach, R. (1999). Changing leadership for changing times. UK: McGraw-Hill Education.
- [28] Leithwood, K. A., & Riehl, C. (2003). What we know about successful school leadership. Philadelphia, PA: Laboratory for Students, Temple University. http://olms.cte.jhu.edu/olms2/data/ck/file/What_we_know_about_SchoolLeadership.pdf (20.07.2018).
- [29] Louis, K., Leithwood, K., Wahlstrom, K. & Anderson S. (2010). Learning from Leadership Project: Investigating the Links to Improved Student Learning. United States: Educational Research Service.

- [30] Lodge, T. (2006). "Mandela A Critical Life", Oxford University Press, New York, 88-95
- [31] Mathew, M., Gupta, K S. (2015) Transformational Leadership: Emotional Intelligence SCMS Journal of Indian Management, 12 (2),75-89.
- [32] Maslach, C., Leiter, M.P. (2008). Early predictors of job burnout and engagement. Journal of Applied Psychology, 93, 498-512.
- [33] MacGilchrist, B. (2003). Has school improvement passed its sell-by date? London: Institute of Education.
- [34] Maxwell, J. C. (1998). Grow the Leader inside you. Klidarithmos (in Greek).
- [35] McClelland, David C. (1998). Identifying competencies with behavioral-event interviews. Psychological Science 9(5), 331-340.
- [36] Murphy, J. (2002). Reculturing the profession of educational leadership: New blueprints. Educational Administration Quarterly. 38(2), 176-191.
- [37] Myers, E., Murphy, J. (1995). Suburban secondary school principals: perceptions of administrative control in schools. Journal of Educational Administration, 33:14-37.
- [38] Saitis C. (2007). Leader in modern school. From theory to practice. Self-publishing (in Greek).
- [39] Weber, M. (2009). Economy and Society. The Power of Sociology. Savala (in Greek).
- [40] Wisniewski, L., Gargiulo, R.M. (1997). Occupational Stress and Burnout among Special Educators: A review of the literature. The Journal of Special Education, 31, 325-346.
- [41] Stavridou Th., Driga, A.M., Drigas, A.S., 2021. Blood Markers in Detection of Autism, International Journal of Recent Contributions from Engineering Science & IT (iJES) 9(2):79-86.
- [42] Zavitsanou, A., & Drigas, A. (2021). Nutrition in mental and physical health. Technium Soc. Sci. J., 23, 67.
- [43] Driga, A.M., Drigas, A.S. 2019 "Climate Change 101: How Everyday Activities Contribute to the Ever-Growing Issue", International Journal of Recent Contributions from Engineering, Science & IT, vol. 7(1), pp. 22-31. <https://doi.org/10.3991/ijes.v7i1.10031>
- [44] Driga, A.M., and Drigas, A.S. 2019 "ADHD in the Early Years: Pre-Natal and Early Causes and Alternative Ways of Dealing." International Journal of Online and Biomedical Engineering (IJOE), vol. 15, no. 13, p. 95., doi:10.3991/ijoe.v15i13.11203
- [45] Stathopoulou, et all 2018, Mobile assessment procedures for mental health and literacy skills in education. International Journal of Interactive Mobile Technologies, 12(3), 21-37,
- [46] Kokkalia G, AS Drigas, A Economou 2016 Mobile learning for preschool education. International Journal of Interactive Mobile Technologies 10 (4)
- [47] Stathopoulou A, Karabatzaki Z, Tsiros D, Katsantoni S, Drigas A, 2019 Mobile apps the educational solution for autistic students in secondary education Journal of Interactive Mobile Technologies 13 (2), 89-101
- [48] Drigas A, DE Dede, S Dedes 2020 Mobile and other applications for mental imagery to improve learning disabilities and mental health International Journal of Computer Science Issues (IJCSI) 17 (4), 18-23
- [49] Alexopoulou A, Batsou A, Drigas A, 2020 Mobiles and cognition: The associations between mobile technology and cognitive flexibility iJIM 14(3) 146-156
- [50] Drigas, A. S., J.Vrettaros, L.Stavrou, D.Kouremenos, 2004. E-learning Environment for Deaf people in the E-Commerce and New Technologies Sector, WSEAS Transactions on Information Science and Applications, Issue 5, Volume 1, November
- [51] Drigas, A., Koukianakis, L., Papagerasimou, Y., 2011, Towards an ICT-based psychology: Epsychology, Computers in Human Behavior, 27:1416–1423. <https://doi.org/10.1016/j.chb.2010.07.045>
- [52] Drigas, A. S., Stavridis, G., & Koukianakis, L. (2004). A Modular Environment for E-learning and E-psychology Applications. WSEAS Transactions on Computers, 3(6), 2062-2067.
- [53] Papanastasiou, G., Drigas, A., Skianis, C., and Lytras, M. (2020). Brain computer interface based applications for training and rehabilitation of students with neurodevelopmental disorders. A literature review. Heliyon 6:e04250. doi: 10.1016/j.heliyon.2020.e04250

- [54] Drigas, A. S., John Vrettaros, and Dimitris Kouremenos, 2005. "An e-learning management system for the deaf people," AIKED '05: Proceedings of the Fourth WSEAS International Conference on Artificial Intelligence, Knowledge Engineering Data Bases, article number 28.
- [55] Pappas, M.A., & Drigas, A.S. (2015). ICT based screening tools and etiology of dyscalculia. *International Journal of Engineering Pedagogy*, (5)3, 61-66.
- [56] Drigas, A., & Kostas, I. (2014). On Line and other ICTs Applications for teaching math in Special Education. *International Journal of Recent Contributions from Engineering, Science & IT (iJES)*, 2(4), pp-46. <http://dx.doi.org/10.3991/ijes.v2i4.4204>
- [57] Drigas, A. & Ioannidou, R. E. (2013). Special education and ICT's. *International Journal of Emerging Technologies in Learning* 8(2), 41– 47.
- [58] Drigas, A., & Papanastasiou, G. (2014). Interactive White Boards in Preschool and Primary Education. *International Journal of Online and Biomedical Engineering (iJOE)*, 10(4), 46–51. <https://doi.org/10.3991/ijoe.v10i4.3754>
- [59] Drigas, A. S. and Politi-Georgousi, S. (2019). Icts as a distinct detection approach for dyslexia screening: A contemporary view. *International Journal of Online and Biomedical Engineering (iJOE)*, 15(13):46–60.
- [60] Lizeta N. Bakola, Nikolaos D. Rizos, Drigas, A. S., 2019 "ICTs for Emotional and Social Skills Development for Children with ADHD and ASD Co-existence" *International Int. J. Emerg. Technol. Learn.*, 14(5), 122-131.
- [61] Drigas, A. S., and Vlachou J. A., 2016. "Information and communication technologies (ICTs) and autistic spectrum disorders (ASD)," *Int. J. Recent Contrib. Eng. Sci. IT (iJES)*, vol. 4, no. 1, p. 4, <https://doi.org/10.3991/ijes.v4i1.5352>
- [62] Drigas, A. S., Koukianakis, L, Papagerasimou, Y. (2006) "An elearning environment for nontraditional students with sight disabilities.", *Frontiers in Education Conference, 36th Annual. IEEE*, p. 23-27.
- [63] Drigas A., and Koukianakis L. 2006 An open distance learning e-system to support SMEs e-enterprising. In proceeding of 5th WSEAS Internationalconference on Artificial intelligence, knowledge engineering, data bases (AIKED 2006). Spain
- [64] Drigas A, Petrova A 2014 ICTs in speech and language therapy *International Journal of Engineering Pedagogy (iJEP)* 4 (1), 49-54
- [65] Bravou V, Oikonomidou D, Drigas A, 2022 Applications of Virtual Reality for Autism Inclusion. *A review Retos* 45, 779-785
- [66] Chaidi I, Drigas A, 2022 "Parents' views Questionnaire for the education of emotions in Autism Spectrum Disorder" in a Greek context and the role of ICTs *Technium Social Sciences Journal* 33, 73-91
- [67] Bravou V, Drigas A, 2019 A contemporary view on online and web tools for students with sensory & learning disabilities *iJOE* 15(12) 97
- [68] Drigas A, Vrettaros J, Tagoulis A, Kouremenos D, 2010 Teaching a foreign language to deaf people via vodcasting & web 2.0 tools *World Summit on Knowledge Society*, 514-521
- [69] Chaidi I, Drigas A, C Karagiannidis 2021 ICT in special education *Technium Soc. Sci. J.* 23, 187
- [70] Xanthopoulou M, Kokalia G, Drigas A, 2019, Applications for Children with Autism in Preschool and Primary Education. *Int. J. Recent Contributions Eng. Sci. IT* 7 (2), 4-16
- [71] Chaidi E, Kefalis C, Papagerasimou Y, Drigas, 2021, Educational robotics in Primary Education. A case in Greece, *Research, Society and Development* 10 (9), e17110916371-e17110916371
- [72] Drigas, A.S., Vrettaros, J., Koukianakis, L.G. and Glentzes, J.G. (2005). A Virtual Lab and e-learning system for renewable energy sources. *Int. Conf. on Educational Tech.*
- [73] Pappas, M., & Drigas, A. (2016). Incorporation of artificial intelligence tutoring techniques in mathematics. *International Journal of Engineering Pedagogy*, 6(4), 12–16. <https://doi.org/10.3991/ijep.v6i4.6063>
- [74] Lytra N, Drigas A 2021 STEAM education-metacognition-Specific Learning Disabilities *Scientific Electronic Archives* 14 (10)

- [75] Mitsea E, Lytra N, A Akrivopoulou, A Drigas 2020 Metacognition, Mindfulness and Robots for Autism Inclusion. *Int. J. Recent Contributions Eng. Sci. IT* 8 (2), 4-20
- [76] Stavridis S, D Papageorgiou, Z Doulgeri 2017 Dynamical system based robotic motion generation with obstacle avoidance, *IEEE Robotics and Automation Letters* 2 (2), 712-718
- [77] Kastritsi T, D Papageorgiou, I Sarantopoulos, S Stavridis, Z Doulgeri, 2019 Guaranteed active constraints enforcement on point cloud-approximated regions for surgical applications 2019 International Conference on Robotics and Automation (ICRA), 8346-8352
- [78] Stavridis S, Z Doulgeri 2018 Bimanual assembly of two parts with relative motion generation and task related optimization 2018 IEEE/RSJ International Conference on Intelligent Robots and Systems ...
- [79] Stavridis S, P Falco, Z Doulgeri 2020 Pick-and-place in dynamic environments with a mobile dual-arm robot equipped with distributed distance sensors IEEE-RAS 20th International Conference on Humanoid Robots (Humanoids)
- [80] Papageorgiou D, S Stavridis, C Papakonstantinou, Z Doulgeri 2021 Task geometry aware assistance for kinesthetic teaching of redundant robots IEEE/RSJ International Conference on Intelligent Robots and Systems ...
- [81] Kastritsi T, I Sarantopoulos, S Stavridis, D Papageorgiou, Z Doulgeri Manipulation of a Whole Surgical Tool Within Safe Regions Utilizing Barrier Artificial Potentials Mediterranean Conference on Medical and Biological Engineering and Computing ...
- [82] Stavridis S, D Papageorgiou, L Droukas, Z Doulgeri 2022 Bimanual crop manipulation for human-inspired robotic harvesting arXiv preprint arXiv:2209.06074
- [83] Stavridis S, Papageorgiou D, Zoe Doulgeri, 2022, Kinesthetic teaching of bi-manual tasks with known relative constraints, Conference: 2022 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS-2022) Kyoto, Japan
- [84] Ntaountaki P, et al 2019 Robotics in Autism Intervention. *Int. J. Recent Contributions Eng. Sci. IT* 7 (4), 4-17
- [85] Demertzi E, Voukelatos N, Papagerasimou Y, Drigas A, 2018 Online learning facilities to support coding and robotics courses for youth *International Journal of Engineering Pedagogy (iJEP)* 8 (3), 69-80
- [86] Chaidi I, Drigas A 2022 Digital games & special education *Technium Social Sciences Journal* 34, 214-236
- [87] Doulou A, Drigas A 2022 Electronic, VR & Augmented Reality Games for Intervention in ADHD *Technium Social Sciences Journal*, 28, 159.
- [88] Kokkalia, G., Drigas, A., & Economou, A. (2016). The role of games in special preschool education. *International Journal of Emerging Technologies in Learning (iJET)*, 11(12), 30-35.
- [89] Kefalis C, Kontostavlou EZ, Drigas A, 2020 The Effects of Video Games in Memory and Attention. *Int. J. Eng. Pedagog.* 10 (1), 51-61
- [90] Drigas, A., & Mitsea, E. (2020). The 8 Pillars of Metacognition. *International Journal of Emerging Technologies in Learning (iJET)*, 15(21), 162-178. <https://doi.org/10.3991/ijet.v15i21.14907>
- [91] Drigas, A. S., and M. Pappas, 2017. "The Consciousness-Intelligence-Knowledge Pyramid: An 8x8 Layer Model," *International Journal of Recent Contributions from Engineering, Science & IT (iJES)*, vol. 5, no.3, pp 14-25, <https://doi.org/10.3991/ijes.v5i3.7680>
- [92] Drigas A, Karyotaki M (2017) Attentional control and other executive functions. *Int J Emerg Technol Learn iJET* 12(03):219–233
- [93] Drigas A, Karyotaki M 2014. Learning Tools and Application for Cognitive Improvement. *International Journal of Engineering Pedagogy*, 4(3): 71-77. From (Retrieved on 13 May 2016)
- [94] Drigas, A., & Mitsea, E. (2021). 8 Pillars X 8 Layers Model of Metacognition: Educational Strategies, Exercises & Trainings. *International Journal of Online & Biomedical Engineering*, 17(8). <https://doi.org/10.3991/ijoe.v17i08.23563>
- [95] Drigas A., Papoutsi C. (2020). The Need for Emotional Intelligence Training Education in Critical and Stressful Situations: The Case of COVID-19. *Int. J. Recent Contrib. Eng. Sci. IT* 8(3), 20–35. [10.3991/ijes.v8i3.17235](https://doi.org/10.3991/ijes.v8i3.17235)

- [96] Kokkalia, G., Drigas, A. Economou, A., & Roussos, P. (2019). School readiness from kindergarten to primary school. *International Journal of Emerging Technologies in Learning*, 14(11), 4-18.
- [97] Pappas M, Drigas A. 2019; Computerized Training for Neuroplasticity and Cognitive Improvement. *International Journal of Engineering Pedagogy*.9(4):50-62
- [98] Papoutsi, C. and Drigas, A. (2017) Empathy and Mobile Applications. *International Journal of Interactive Mobile Technologies* 11(3). 57. <https://doi.org/10.3991/ijim.v11i3.6385>
- [99] Karyotaki, M., & Drigas, A. (2015). Online and other ICT Applications for Cognitive Training and Assessment. *International Journal of Online and Biomedical Engineering*. 11(2), 36-42.
- [100] Drigas, A. S., & Karyotaki, M. (2019). A Layered Model of Human Consciousness. *International Journal of Recent Contributions from Engineering, Science & IT (iJES)*, 7(3), 41-50. <https://doi.org/10.3991/ijes.v7i3.11117>
- [101] Angelopoulou, E. Drigas, A. (2021). Working Memory, Attention and their Relationship: A theoretical Overview. *Research. Society and Development*, 10(5), 1-8. <https://doi.org/10.33448/rsd-v10i5.15288>
- [102] Drigas A, Mitsea E 2020 A metacognition based 8 pillars mindfulness model and training strategies. *International Journal of Recent Contributions from Engineering, Science & IT* 8(4), 4-17.
- [103] Papoutsi C, Drigas A, C Skianis 2021 Virtual and augmented reality for developing emotional intelligence skills *Int. J. Recent Contrib. Eng. Sci. IT (IJES)* 9 (3), 35-53
- [104] Kapsi S, Katsantoni S, Drigas A 2020 The Role of Sleep and Impact on Brain and Learning. *Int. J. Recent Contributions Eng. Sci. IT* 8 (3), 59-68
- [105] Drigas A, Mitsea E, Skianis C 2021 The Role of Clinical Hypnosis and VR in Special Education *International Journal of Recent Contributions from Engineering Science & IT (iJES)* 9(4), 4-17.
- [106] V Galitskaya, A Drigas 2021 The importance of working memory in children with Dyscalculia and Ageometria *Scientific Electronic Archives* 14 (10)
- [107] Chaidi I, Drigas A 2020 Parents' Involvement in the Education of their Children with Autism: Related Research and its Results *International Journal Of Emerging Technologies In Learning (Ijet)* 15 (14), 194-203.
- [108] Drigas A, Mitsea E 2021 Neuro-Linguistic Programming & VR via the 8 Pillars of Metacognition X 8 Layers of Consciousness X 8 Intelligences *Technium Soc. Sci. J.* 26, 159
- [109] Drigas A, Mitsea E 2022 Conscious Breathing: a Powerful Tool for Physical & Neuropsychological Regulation. The role of Mobile Apps *Technium Social Sciences Journal* 28, 135-158
- [110] Drigas A, Mitsea E, C Skianis 2022 Clinical Hypnosis & VR, Subconscious Restructuring-Brain Rewiring & the Entanglement with the 8 Pillars of Metacognition X 8 Layers of Consciousness X 8 Intelligences. *International Journal of Online & Biomedical Engineering (IJOE)* 18 (1)
- [111] Drigas A, Karyotaki M 2019 Attention and its Role: Theories and Models. *International Journal of Emerging Technologies in Learning* 14 (12), 169-182
- [112] Drigas A, Karyotaki M 2019 Executive Functioning and Problem Solving: A Bidirectional Relation. *International Journal of Engineering Pedagogy (iJEP)* 9 (3)
- [113] Bamicha V, Drigas A 2022 ToM & ASD: The interconnection of Theory of Mind with the social-emotional, cognitive development of children with Autism Spectrum Disorder. The use of ICTs as an alternative form of intervention in ASD *Technium Social Sciences Journal* 33, 42-72
- [114] Drigas A, Mitsea E, C Skianis 2022 Neuro-Linguistic Programming, Positive Psychology & VR in Special Education. *Scientific Electronic Archives* 15 (1)
- [115] Drigas A, Mitsea E, Skianis C. 2022 Virtual Reality and Metacognition Training Techniques for Learning Disabilities *SUSTAINABILITY* 14(16), 10170
- [116] Drigas A., Sideraki A. 2021 Emotional Intelligence in Autism *Technium Soc. Sci. J.* 26, 80

- [117] Drigas A, Mitsea E, Skianis C.. 2022 Subliminal Training Techniques for Cognitive, Emotional and Behavioural Balance. The role of Emerging Technologies Technium Social Sciences Journal 33, 164-186
- [118] Bakola L, Drigas A, 2020 Technological development process of emotional Intelligence as a therapeutic recovery implement in children with ADHD and ASD comorbidity. . International Journal of Online & Biomedical Engineering, 16(3), 75-85
- [119] Bamicha V, Drigas A, 2022 The Evolutionary Course of Theory of Mind - Factors that facilitate or inhibit its operation & the role of ICTs Technium Social Sciences Journal 30, 138-158
- [120] Karyotaki M, Bakola L, Drigas A, Skianis C, 2022 Women's Leadership via Digital Technology and Entrepreneurship in business and society Technium Social Sciences Journal. 28(1), 246-252.
- [121] Drigas A, Bakola L, 2021The 8x8 Layer Model Consciousness-Intelligence-Knowledge Pyramid, and the Platonic Perspectives International Journal of Recent Contributions from Engineering, Science & IT (iJES) 9(2) 57-72
- [122] Karyotaki M, Drigas A, 2016 Online and Other ICT-based Training Tools for Problem-solving Skills. International Journal of Emerging Technologies in Learning 11 (6)
- [123] Mitsea E, Drigas A,, Skianis C, 2022 Breathing, Attention & Consciousness in Sync: The role of Breathing Training, Metacognition & Virtual Reality Technium Social Sciences Journal 29, 79-97
- [124] Mitsea E, Drigas A, Skianis C, 2022 ICTs and Speed Learning in Special Education: High-Consciousness Training Strategies for High-Capacity Learners through Metacognition Lens Technium Soc. Sci. J. 27, 230
- [125] Drigas A, Karyotaki M, Skianis C, 2017 Success: A 9 layered-based model of giftedness International Journal of Recent Contributions from Engineering, Science & IT 5(4) 4-18
- [126] Drigas A, Papoutsi C, 2021,Nine Layer Pyramid Model Questionnaire for Emotional Intelligence, International Journal of Online & Biomedical Engineering 17 (7)
- [127] Drigas A, Papoutsi C, Skianis, 2021, Metacognitive and Metaemotional Training Strategies through the Nine-layer Pyramid Model of Emotional Intelligence, International Journal of Recent Contributions from Engineering, Science & IT (iJES) 9.4 58-76