4th International Conference on Management of Educational Units ICOMEU 2022

Book of Abstracts ISBN: 978-618-5630-09-6

21-23.01.2022

“Emerging trends in education:

A fusion of Pedagogy, Management, Robotics and STEAM”

INTERNATIONAL HELLENIC UNIVERSITY

Preface

The papers presented in this year's conference have highlighted the role of STEAM education in promoting global competencies and soft skills and, also, its contribution to the positive youth development. Moreover, they have emphasized the use of STEAM in teaching international students, enhancing adult learning, promoting learning in marginalized groups and introducing humanities and democratic education in general.

It became clear that STEAM education leads to the formation of multicultural consciousness and promotes engaging artful thinking. It may highlight multiple aspects of educational innovation, and as some papers have demonstrated, it can be used to enhance environmental consciousness and attitudes towards sustainable development and tourism.

It has been also shown that STEAM education can be efficiently integrated within the intricate student and teacher evaluation and assessment procedures. Furthermore, it may promote alternative techniques that raise cultural awareness, while developing reading & vocabulary skills for pupils. Thus, it is incorporated in the Human Capital, Social Involvement and Policy Dialogue of the EU Digital Education Action Plan (2021-2027). In this sense, it establishes a two-way interaction scheme with European Programs e.g. under the E-Twinning and Erasmus^{+} umbrellas.

Needless to stress the importance of internet, digital libraries and STEAM tools to distance and mobile learning, especially under the Covid-19 quarantine conditions, as presented in the conference. It was concluded that it may also contribute significantly to the organizational challenges for education such as the e-management of schools, leadership and human capital management and, on the whole, total quality management procedures.

STEAM education can also support cross-discipline synergies e.g. by highlighting the contribution of the history and philosophy of science and ethics to the teaching of natural sciences, as factors of effective and innovative learning. It also contributes greatly to the development of digital and collaborative skills both for teachers and pupils and, additionally, it is also reported to alleviate stress and promote positive psychology for teachers and students alike.

It also plays a significant role in inclusive learning and special needs learning by providing a plethora of alternative technological tools. One should also focus on its importance in science teaching, robotics, geographical information systems, music, foreign language teaching and sports education, as it was presented by several authors. It may be considered as a vehicle for innovation, bringing the concepts and practices of the 4th industrial revolution to the classroom. And some alternative subjects such as disaster safety education, educational games and programming learning environments can be easily introduced to the classroom using experiential teaching techniques, as it was discussed in some papers. STEAM learning was found especially useful in evening schools, vocational training and lifelong learning, playing a significant socio-cultural role.

As it was stressed by our keynote speaker, STEAM education should be approached by means of an integrated interdisciplinary computational methodology. Moreover, as concluded from the presentations and the discussions throughout the conference, history, fine arts and liberal arts in general complement STEAM learning in promoting a holistic, multicultural, multifaceted educational experience.

Panagiotis Tzionas

Chairman of the Scientific Committee

SCIENTIFIC COMMITTEE

Chair: Panagiotis Tzionas, International Hellenic University

Associate Chair: Evangelos Christou, International Hellenic University

Members:
Constantinos Assimakopoulos, International Hellenic University
Spyros Avdimiotis, International Hellenic University
Georgios Bamnios, International Hellenic University
Chryssoula Chatzigeorgiou, International Hellenic University
Panagiota Dionissopoulou, Ministry of Education & Religious Affairs
Anestis Fotiadis, Zayed University, United Arab Emirates
Christos Georgiou, Ministry of Education & Religious Affairs
Theodoros Goupos, Ministry of Education & Religious Affairs
Valentini Kambatza, International Hellenic University
Soultana-Tania Kapiki, International Hellenic University
Theodoros Kargidis, International Hellenic University
Fotis Kilipiris, International Hellenic University
Nikolaos Konstantopoulos, University of the Aegean
Savvas Mavridis, International Hellenic University
Ioannis Roussakis, National & Kapodistrian University of Athens
Ioanna Simeli, University of the Aegean
Georgios Stalidis, International Hellenic University
Evangelia Stalika, International Hellenic University
Eleni Stamou, General Hospital of Athens Sismanoglio – Amalia Fleming
Fotis Stergiopoulos, International Hellenic University
Nikolaos Tapoglou, International Hellenic University
Apostolos Tsagkaris, International Hellenic University
Georgios Tsekouropoulos, International Hellenic University
Dimitrios Tziourtzioumis, International Hellenic University
Vasiliki Vrana, International Hellenic University
Stelios Xanthos, International Hellenic University
Konstantinos Zafiropoulos, University of Macedonia

ORGANIZING COMMITTEE

Chair: Chryssoula Chatzigeorgiou, International Hellenic University

Associate Chair: Ioanna Simeli, International Hellenic University

Members:
Evangelos Christou, International Hellenic University
Panayiotis Papageorgiou, International Hellenic University
Efthimia Papagianni, International Hellenic University
Vaia Papanikolaou, International Hellenic University
Evangelia Stalika, International Hellenic University
Apostolos Tsagaris, International Hellenic University

Table of Contents

STEM-ADULT EDUCATION

USING STEM LESSONS TO PROMOTE GLOBAL COMPETENCIES AND INTEGRATIVE LEARNING

Cindy C. Klimaitis, PhD
Principal
Oak Grove Elementary
5005 Grandin Road Ext.
Roanoke, VA 24018
e-mail: cklimait@vt.edu

Carol A. Mullen, PhD
Professor of Educational Leadership
Virginia Tech
School of Education, VTCRC, Office #2014
1750 Kraft Drive
Blacksburg, VA 24061
e-mail: camullen@vt.edu

and

Marlene Zakierski, PhD
Associate Professor
Director of NYC EDL Doctoral Program
EDL Department, Esteves School of Education
Russell Sage College
37 1st St.
Troy, NY 12180
e-mail: zakiem@sage.edu

ABSTRACT

STEM lessons that promote global competencies and integrative learning encompass multiple content areas. During COVID-19 and beyond, educators will want to foster deeper learning and engage underrepresented groups in STEM activities. We recognize that these challenges are hurdles for teachers enduring the systemic disruption of programs and pressures of testing.

To prepare for college and careers in a global economy, STEM lessons are developed to facilitate important workplace skills (citizenship, collaboration, communication, creativity, and critical thinking) while cultivating student curiosity. STEM (science, technology, engineering, and mathematics) and STEAM (includes the arts) can be incorporated into single lesson plans that address real life (Brannen-Sarrategui, 2015; Carmichael, 2017; Lesseig, et al., 2017; Nadleson et al., 2015; Stith, 2017; Zollman, 2012). This integration of real-world problems with subject areas assists with generating understanding, making connections, and finding relevance in what is being learned. Activities in STEM education support the creation of robust workforces and foster necessary competencies in preparation for college and careers. As Chesloff (2013) stated, "Investing to ensure a pipeline of workers skilled in STEM competencies is a workforce issue, an economic–development issue, and a business imperative," asserting that "the best way to ensure return on these investments is to start fostering these skills in young children" (p. 1). But all-too-frequently teachers are not prepared to model STEM instructional practices, so they seek professional development, coaching, and support (Klimaitis & Mullen, 2021a, 2021b).

The "5Cs" in Virginia, USA—citizenship, collaboration, communication, creativity, and critical thinking—are widely recognized 21st century skills high school graduates need, which places high expectations on teaching and learning in kindergarten–grade 12 classrooms (Mullen & Klimaitis, 2019; Reed et al., 2021; Virginia Department of Education, 2020). An expectation of formal learning is that students will experience deeper learning through relevant skills-based activities (Brannen-Sarrategui, 2015; Mullen & Klimaitis, 2019; Reed et al., 2021). Six competencies identified for deeper learning are content mastery, effective communication, collaboration, critical thinking and problem solving, self-directed learning, and an academic mindset (sense of belonging and motivation) (the Deeper Learning Hub, 2019). The 5Cs (adds *citizenship* to the "4Cs"), deeper learning, and 21st century dispositions blend theory and practice. Aspects of these constructs are incorporated in STEM lessons for two or more subjects.

In a Virginia school division, STEM lessons were analyzed to examine benefits for teachers in multiple subject areas. Elementary teachers were required to complete 10 STEM lessons per year. At the end of 2019, school principals shared 124 of their teachers' STEM lessons, which were examined from 53 teachers at 14 schools using the STEM Design Rubric. Based on components identified from a literature review, the rubric was developed by the researchers. It was used to measure embedded skill opportunities for 21st century skills, deeper learning, and core subject content integration. (This is an ethics approved study.)

STEM lesson study results were critical thinking (90%), collaboration (50%), creativity (90%), communication (54%), problem solving (91%), self-directed learning (93%), academic mindset (67%), math (31%), science (45%), and English Language Arts (42%).

Further analysis ranked each STEM lesson on its degree of skill inclusion (3–Surpasses Expectations, 2–Meets Expectations, and 1–Does Not Meet Expectations).

- 21st Century Skills: Critical Thinking & Collaboration = 2.4 out of 3
- 21st Century Skills: Creativity & Communication = 2.5 out of 3
- Deeper Learning: Content Mastery, Communication & Collaboration = 1.8 out of 3
- Deeper Learning: Problem Solving, Self-Directed, Academic Mindset = 2.7 out of 3
- Total Rubric Score Average 9.5 out of 12
- Content area: 34% of the STEM projects included two or more core subjects. (At least one core subject was included in all STEM projects.)

The research outcomes can help educators develop STEM lessons that promote global competencies and integrative learning in multiple content areas. Results suggest that STEM lessons in elementary classrooms sponsored opportunities for developing 21st century skills, the 5Cs, deeper learning, and integrated content from multiple areas (e.g., English, math). Through STEM learning, students acquire valuable skills needed for graduation, careers, college, and life. STEM lessons allow teachers to fuse subjects while bringing their classrooms to life through vital discoveries, creativity and innovation, and high engagement. For the sake of children's futures, teachers, administrators, and other stakeholders would be fostering 21st learning and, in particular, cultivating STEM capacities.

REFERENCES

Brannen-Sarrategui, S. (2015). *The impact of globalization, foreign direct investment, and multinational corporations on development of educational policy and 21st-century learning in the Costa Rican educational system* [Doctoral dissertation]. University of Southern California. https://digitallibrary.usc.edu/CS.aspx?VP3=DamView&VBID=2A3BXZ2GPMKY&SMLS=1&RW=1525&RH=981

Carmichael, C. C. (2017). *A state-by-state policy analysis of STEM education for K–12 public schools* [Doctoral dissertation] Seton Hall University. https://scholarship.shu.edu/cgi/viewcontent.cgi?article=3342&context=dissertations

Chesloff, J. D. (2013). Why STEM education must start in early childhood. *Education Week, 32*(23). http://maroundtable.com/doc_news/1303_EdWeek_STEMEarlyChildhood.pdf

Deeper Learning Hub. (2019). *Engage in deeper learning.* http://www.deeper-learning.org

Klimaitis, C. C., & Mullen, C. A. (2021a, March*). Deeper learning and 21st century skills in a Virginia-based elementary STEM program.* Paper presented at the Virginia Association of Colleges for Teacher Education and the Association of Teacher Educators virtual conference.

Klimaitis, C. C., & Mullen, C. A. (2021b). Including K–12 Students With Disabilities in STEM education and planning for inclusion. *Educational Planning, 28*(2), 27–43.

Lesseig, K., Slavit, D., & Nelson, T. H. (2017). Jumping on the STEM bandwagon: How middle grades students and teachers can benefit from STEM experiences. *Middle School Journal, 48*(3), 15–24. doi:10.1080/00940771.2017.1297663

Mullen, C. A., & Klimaitis, C. C. (2019). Defining mentoring: A literature review of issues, types, and applications. *Annals of the New York Academy of Sciences, 1483*(1), 19–35. doi:10.1111/nyas.14176

Reed, S. S., Mullen, C. A., & Boyles, E. T. (2021). *Problem-based learning in elementary school: What strategies help students develop?* Springer.

Stith, K. M. (2017*). A mixed methods study on evaluations of Virginia's STEM-focused governor's schools* [Doctoral dissertation]. Virginia Polytechnic Institute and State University. https://vtechworks.lib.vt.edu/bitstream/handle/10919/76735/Stith_KM_D_ 2017.pdf

Virginia Department of Education. (2020). *Standards of learning (SOL) & testing* [Virginia Department of Education]. http://www.doe.virginia.gov/testing/index.shtml

Zollman, A. (2012). Learning for STEM literacy: STEM literacy for learning. *School Science and Mathematics, 112*(1), 12–19.

CONNECTING BEST PRACTICES FOR TEACHING INTERNATIONAL STUDENTS WITH STUDENT SATISFACTION: A REVIEW OF STEM AND NON-STEM STUDENT PERSPECTIVES

Clayton Smith
University of Windsor, Canada
e-mail: csmith@uwindsor.ca

George Zhou
e-mail: csmith@uwindsor.ca

Michael Potter
e-mail: csmith@uwindsor.ca

Deena Wang
e-mail: csmith@uwindsor.ca

Fabriana Menezes
e-mail: csmith@uwindsor.ca

Gagneet Kaur
e-mail: csmith@uwindsor.ca

and

Gabriela Danko
e-mail: csmith@uwindsor.ca

ABSTRACT

This paper explores promising teaching practices for teaching linguistically and culturally diverse international students by identifying the teaching practices that have high levels of international student satisfaction and student perceptions of learning for science, technology, engineering, mathematics (STEM) and non-STEM international students. Research was conducted by an international, student-learning community, with guidance from a faculty-led research team. Data was collected through a qualitative research design that included focus groups and individual interviews conducted at a mid-sized Canadian comprehensive university. A total of 28 students participated (14 STEM students and 14 non-STEM students). Researchers examined differences between STEM and non-STEM students on 22 promising teaching practices regarding student satisfaction and students' perceptions of learning. Recommendations for professional practice are discussed, along with potential areas for further research.

ADULT LEARNING PREFERENCES AND COMPUTER-BASED INSTRUCTIONS

Doris Lee
Pennsylvania State University, Harrisburg
Middletown, PA, USA
e-mail: ydl1@psu.edu

ABSTRACT

Recent advances in user-friendly and cloud-integrated course authoring software and learning management systems such as Canvas and Captivate have provided an efficient means for developing computer-based instruction (CBI) or e-learning. Today, instructors, and corporate trainers all over the globe are using authoring platforms to create CBI modules; however, not much research on CBI has identified the most effective instructional process or strategies for the job. One of the challenges is, how CBI instructors could recognize the needs and learning preferences of the targeted learners in order to make instruction or training effective.

For this presentation, learning preferences can be taken to include discussion and use of students' life experiences, motivation, self-direction, self-reliance and hands-on practice (Archer & Schevak, 1998; Compeau & Higgins, 1995; Cercone, 2008; Dinmore, 1997; Ference & Vockell, 1994; Knowles, 1978, 1980, 1984; Phillips et al., 2017; Zemke & Zemke, 1995). Past literature has contained significant suggestions regarding the types of learning situations adult learners prefer. For instance, Charlton (1995) suggested that adults prefer learning in an interactive, performance-centered type of environment. Dinmore (1997) further explained that, due to the tendency of adults to integrate and assimilate their life experiences into their learning, adults are more likely to benefit from interdisciplinary courses that blend knowledge derived from both formal and informal learning situations. Adults are also more likely to enjoy learning through the interactive and participatory type of methodologies. Specifically, Ferrence and Vockell (1994, p. 25) stated that, "Adult learners have often acquired their most successful skills through concrete hands-on experience."

Recent studies have identified significant concordance between the preferences of adult learners as stated by students and as articulated by the literature. Phillips et al (2017) present a notable study in which 132 adult students from a private liberal arts college participated in a quantitative and qualitative mixed-methods survey on adult student preferences. Adult learners preferred instructors who had pre-existing knowledge of both adult learners as well as direct experience in their field of instruction; Phillips et al specifically noted the overlap between their findings and those of a study conducted by Donaldson et al. (1993) over twenty years earlier (Phillips et al, 2017). In regards to CBI, recent research has also identified similar adult learner preferences: notably, Noesgaard et al (2015) identify the importance of previous relevant work experience in determining how effective e-learning can be for adult learners, and moreover discuss how actual practice of the material can greatly influence how well adults are able to learn technical skills.

The interest in focusing on adults' learning preferences with a CBI design course for this presentation was two-fold. First, CBI courses offer a unique opportunity to examine how adult learners acquire technology-related skills. Second, technology-related courses are now widely offered to adult learners, however, there is no consensus on effective course design. This presentation will focus on the value of integrating adult learning preferences in these courses. Recommendations for improving those courses and suggestions for future research concerning the teaching of CBI design are also provided.

Key Words: adult learning, computer-based instruction, technology in training, course authoring software

REFERENCES

Archer, J. and Schevak, J. J. "Enhancing Students' Motivation to Learn: Achievement Goals in University Classroom." *Educational Psychology,* 18(2), pp. 205-223, 1998.

Compeau, D. R. and Higgins, C. A. "Application of Social Cognitive Theory to Training for Computer Skills." *Information Systems Research*, 6 (2), pp.118-143, 1995.

Cercone, K. (2008). Characteristics of adult learners with implications for online learning design. *AACE journal,* 16(2), 137-159.

Dinmore, I. “Interdisciplinarity and Integrative Learning: An Imperative for Adult Education.” *Education*, 117(3), pp. 457-467, 1997.
Ference, P. and Vockell, E. L. “Adult Learning Characteristics and Effective Software Instruction.” *Educational Technology,* 14 (6), pp. 25-31, 1994.
Knowles, M. S. *The Adult Learner: A Neglected Species* (2nd ed.). Houston: Gulf Publishing Company, 1978.
Knowles, M. S. *The Modern Practice of Adult Education: From Pedagogy to Andragogy.* (2nd ed.). New York: Cambridge Books, 1980.
Knowles, M. S. *Andragogy in Action: Applying Modern Principles of Adult Learning* (1st ed.). San Francisco: Jossey-Bass. 1984.
Noesgaard, S. S., & Ørngreen, R. (2015). The Effectiveness of E-Learning: An Explorative and Integrative Review of the Definitions, Methodologies and Factors That Promote e-Learning Effectiveness. Electronic Journal of e-Learning, 13(4), 278-290.
Phillips, L. A., Baltzer, C., Filoon, L., & Whitley, C. (2017). Adult student preferences: Instructor characteristics conducive to successful teaching. *Journal of Adult and Continuing Education, 23*(1), 49-60.
Zemke, R. and Zemke, S. “Thirty Things We Know for Sure About Adult Learning.” *Training,* 18 (6), pp. 45-52, 1981.
Zemke, R. and Zemke, S. Adult Learning: What Do We Know for Sure? *Training,* 32 (6), pp. 31-40, 1995.

INTRODUCING HUMANITIES IN STE(H)AM PEDAGOGY: A ‘NECK AND HEAD’ METAPHOR FOR THE EMPOWERMENT OF DEMOCRATIC EDUCATION

Vaia Papanikolaou
Dept. of Special Education University of Thessaly, Greece
e-mail: vayapap@uth.gr

Yiannis Roussakis
Dept. of Educational Studies National and Kapodistrian University of Athens, Greece.
e-mail: yiannis.roussakis@eds.uoa.gr

and

Panagiotis Tzionas
Dept. of Production Engineering and Management International Hellenic University, Greece
e-mail: ptzionas@ihu.gr

ABSTRACT

In this paper our aim is to point out how the successful integration of the humanities discipline (Nussbaum, 2010) within the core of the curriculum of the STEAM programs could prove beneficial for enhancing the overall framework of democratic education (Council of Europe, 2021). STEAM is an acronym for “Science, Technology, Engineering, Arts and Mathematics” and it is considered an innovative pedagogy approach (Perignat, 2019), focused on the benefits of interdisciplinary and transdisciplinary educational programs.

STEAM aims at preparing students to engage in science, where creativity and social progress could and should be of a relevant, holistic and thus, also of a humanistic nature (Perales & Aróstegui, 2021). This search for integration is a clear response to our need for further access to high quality education which, after all, is considered as one of the major quality indicators for democracy (V-DEM, 2021). We strongly believe that STEAM, as an overall framework for learning (Bain-Selbo, 2021) should encompass humanities in the form of context-based learning, incidental and place-based learning, argumentation learning and other similar approaches, supporting the continuity of experience and learner’s engagement and interaction by using the full range of blended learning techniques available. In this sense it could prove to be an effective pedagogical methodology aiming to educate and enable students to become active citizens who understand social inequalities and to contribute into making society a more democratic and egalitarian place to live in (Hynes and Swenson, 2013).

At the same time, we shouldn’t ignore the fact that various market-oriented forces, educational policy makers and other educational stakeholders may all have different perspectives about the quality and aims of the STEAM educational framework and respective curricula, in both graduate and undergraduate studies (Iacob, 2021; Mejias et al, 2021). Furthermore, the non-formal sector of education providers such as NGOs, public and private training centers, etc., plays an essential and crucial role in supporting and developing skill-based STEAM programmes and training opportunities, sometimes exclusively focused on the goals, objectives and outcomes of a solid ‘scientific’ knowledge education. Students are often perceived as consumers and labor-market pressures prioritize the goals of the knowledge economy. But although this pattern can be justified in the rationale underlying the focus of governments to achieve economic growth, it is the civic and democratic roles of education that actually help students in the understanding of the wider social and political context (Hytten and Stemhagen, 2020).

In this work, we argue that we must adopt an alternative, richer view of the relation of humanities to science, technology and art. Humanities education should be perceived as an extensive and heterogeneous mosaic of educational possibilities, especially when it comes to learning outcomes. Such outcomes should focus, not only on skills that are necessary for occupational careers but should also allow young people to cultivate a political behavior based on critical thinking – including analysis, synthesis, judgment, originality and reflection (Costantino, 2018; De Marenne, 2016; Kundnani, 2020; Möller, 2016).

A brief survey of curricula in STEAM programs both in graduate and undergraduate studies in Greece, carried out within the context of this research, has shown that although the structuring of an educational system that could detect and support current and future skills’ needs (OECD, 2020) is already being

implemented to a certain extent, humanities are almost totally missing from it. But this isn't only just a matter of Greece. The 'European Skills Agenda' points out that a new planning for better, alternatively inspired skills for individuals is required. A planning that could help societies react against the democracy threats, the economic crisis and societal instability by:

- Ensuring social fairness
- Putting into practice the first principle of the European Pillar of Social Rights: access to education, training and lifelong learning for everybody
- Building resilience to react to uncertainty and instability, based on the lessons learnt during the COVID-19 pandemic, the climate and the refugee crises
- Promote social engagement and social justice (European Commission, 2020).

We believe that this planning should be based on strong humanities education pillars and its respective learning goals must be urgently injected into today's form of STEAM education.

It should be widely understood that there does not exist any 'Faustian bargain' between an overall democratic education framework on the one hand and educating for skills and economic development on the other. After all, it is claimed that "Digital innovations can change the quality of participation and the nature of democracy, especially deliberative and direct democracy principles, by improving, effectiveness, transparency and openness of governance practices and decisions, promoting sustainability, increasing accountability, social engagement and civil participation" (Council of Europe, 2021). And this inspired the 'neck and head' metaphor in the title of this paper: if humanity were perceived as a living organism throughout the ages, science and technology could be considered as its head leading towards growth, development and wellbeing, whereas humanities studies could be portrayed as the neck that orients and guides this head towards its ethical goals.

Key Words: STEAM, democratic education, humanities

REFERENCES

Babaci-Wilhite, Z., Babaci-Wilhite, & Liu. (2019). Promoting Language and STEAM as Human Rights in Education. Springer Singapore.

Bain-Selbo, E. (2021). The Arts and Humanities in a Democracy. Soundings: An Interdisciplinary Journal 104(1), iv viii.

Costantino, T. (2018). STEAM by another name: Transdisciplinary practice in art and design education. Arts education policy review, 119(2), 100-106.

Council of Europe (2021) Democracy and Technology, https://www.coe.int/en/web/good-governance/democracy-and-technology. [Accessed the 10th of November 2021].

De Marenne, E. T. (2016). The case for the humanities: Pedagogy, polity, interdisciplinarity. Rowman & Littlefield.

European Commission, (2020), Commission presents European Skills Agenda for sustainable competitiveness, social fairness and resilience https://ec.europa.eu/commission/presscorner/detail/en/ip_20_1196 [Accessed the 10th of November 2021].

Kundnani, H. (2020). The Future of Democracy in Europe. Technology and the Evolution of Representation, Gratham House

Hynes, M., & Swenson, J. (2013). The humanistic side of engineering: Considering social science and humanities dimensions of engineering in education and research. Journal of Pre-College Engineering Education Research, 3(2), 31–42.

Hytten, K., & Stemhagen, K. (2020). When STEM and STEAM Really mean ABC: A Democratic Critique of "Anything but Civics" Schools. Educational Studies, 56(1), 18-36.

Iacob, M. (2021). STE(A)M education framework. ST(A)M on edu, report. European Commission

Mejias, S., Thompson, N., Sedas, R. M., Rosin, M., Soep, E., Peppler, K., ... & Bevan, B. (2021). The trouble with STEAM and why we use it anyway. Science Education, 105(2), 209-231.

Möller, F. (2016). Politics and Art. Oxfordhandbook.

Nussbaum, M. C. (2010). Not for profit: Why democracy needs the humanities (2). Princeton, NJ: Princeton university press.

OECD (2020). Education Policy Outlook, Greece. Education Policy Outlook series

Perales, F. J., & Aróstegui, J. L. (2021). The STEAM approach: Implementation and educational, social and economic consequences. Arts Education Policy Review, 1-9.

THE FIVE C-S OF POSITIVE YOUTH DEVELOPMENT AND PURPOSE IN LIFE AMONG ROMA AND EGYPTIAN MINORITY ADOLESCENTS IN ALBANIA

Eglantina Dervishi
Department of Psychology and Pedagogy, Faculty of Social Sciences, University of Tirana, Tirana, Albania
email: egladervishi@gmail.com

Diana Miconi
Department of Educational Psychology, Université de Montréal, Montréal, Canada,
e-mail: diana.miconi@umontreal.ca

Nora Wiium
Faculty of Psychology, University of Bergen, Norway
Bergen, Norway
e-mail: nora.wiium@uib.no

Cécile Rousseau
Division of Social and Cultural Psychiatry, McGill University
Montréal, Canada,
e-mail: cecile.rousseau@mcgill.ca

and

Silva Ibrahimi
Department of Psychology, Albanian University, Tirana, Albania
e-mail: ibrahimi.silva@gmail.com

ABSTRACT

The 5 C-s model of Positive Youth Development focus on thriving adolescents who develop positive qualities. This ability and skills help adolescents to deal with challenges, tasks and psychological problems better. Purpose in life act as a protective factor in relation with general well-being of adolescents and also support the 5-C-s though this process of growing.

The aim of this study is to examined the role of Competence, Confidence, Caring, Connection and Character and how purpose in life is explained by the 5 C-s of PYD. There is no precedent study on of 5C-s model of positive youth development in the Albanian context as for majority as for minority youth. This study was focused on 5C-s of PYD in two most marginalizes minority groups in Albania. Data were collected from 201 participants from three most populated cities with (N=100) Roma and N=101) Egyptian minority of age between 14-20 years old, from them boys N=53% and girls 48%, single are N= 88% of the adolescents and married 12% of the total sample. Finding show significant association between 5C-s and age, ethnicity, gender, levels of education and living condition of youth. An association between 5 C-s of PYD and purpose in life were find. Purpose in life have an association with character, caring, and connection. Purpose in life in interaction with 5C-s of PYD provides a framework for systematic behavior in life by motivating adolescents to plan and make efforts to achieve in decision making and performance.

Key Words: Minority, Adolescents, Competence, Confidence, Caring, Connection and Character

REFERENCES

Abdul Kadir, N. B., & Mohd, R. H. (2021). *The 5Cs of Positive Youth Development, Purpose in Life, Hope, and Well-Being Among Emerging Adults in Malaysia*. Frontiers in psychology, 12, 641876. https://doi.org/10.3389/fpsyg.2021.641876

Zhou, Z., Shek, D., & Zhu, X. (2020). *The Importance of Positive Youth Development Attributes to Life Satisfaction and Hopelessness in Mainland Chinese Adolescents*. Frontiers in psychology, 11, 553313. https://doi.org/10.3389/fpsyg.2020.553313

Ferrer-Wreder, L., Eichas, K., Stefenel, D., Buzea, C., & Wiium, N. (2021). *The Importance of Positive Psychological Strengths in Well-Being and Adjustment of Romanian Emerging Adults: A Pattern and Variable-Oriented Approach*. Frontiers in psychology, 12, 659300. https://doi.org/10.3389/fpsyg.2021.659300
Shek, D., & Lin, L. (2017). *Trajectories of Personal Well-Being Attributes Among High School Students in Hong Kong.* Applied research in quality of life, 12(4), 841–866. https://doi.org/10.1007/s11482-016-9492-5
Bowers, E. P., Larson, L. R., & Parry, B. J. (2021). *Nature as an Ecological Asset for Positive Youth Development: Empirical Evidence From Rural Communities*. Frontiers in psychology, 12, 688574. https://doi.org/10.3389/fpsyg.2021.688574
Zhou, Z., Shek, D., & Zhu, X. (2020). *The Importance of Positive Youth Development Attributes to Life Satisfaction and Hopelessness in Mainland Chinese Adolescents*. Frontiers in psychology, 11, 553313. https://doi.org/10.3389/fpsyg.2020.553313
Holt, N. L., Neely, K. C., Slater, L. G., Camiré, M., Côté, J., Fraser-Thomas, J., MacDonald, D., Strachan, L., & Tamminen, K. A. (2017). *A grounded theory of positive youth development through sport based on results from a qualitative meta-study.* International review of sport and exercise psychology, 10(1), 1–49. https://doi.org/10.1080/1750984X.2016.1180704.

THE USE OF SOCIAL MEDIA IN DEVELOPING SOFT SKILLS IN HOSPITALITY EDUCATION

Maria – Magdalini Karalazarou
International Hellenic University
Thessaloniki, Greece
e-mail: maria.krlzr@gmail.com

Evangelos Christou
International Hellenic University
Thessaloniki, Greece
e-mail: echristou@ihu.gr

Chryssoula Chatzigeorgiou
International Hellenic University
Thessaloniki, Greece
e-mail: cchatzigeorgiou@ihu.gr

and

Dimitrios Stergiou
Hellenic Open University
Patras, Greece
e-mail: dstergiou@eap.gr

ABSTRACT

Social media has developed rapidly in the last decade, becoming popular globally. There may be a part of people that is reluctant to embrace the use of social media, mostly due to privacy concerns, however, social media in recent years constitute an activity of daily life that possesses great importance and influence on a great part of human population (Rasheed, 2020). It has developed into a dominant and powerful tool of communication, interaction, source of information and learning, not only for people but for business enterprises as well (Al-Qaysi, Mohamad-Nordin, Al-Emran, 2020). It is widely accepted that with the rapid advancements of information technology, social media in particular have achieved transformation of modern societies, through its broad range of applications (Toplu, Yaslioglu, & Erden, 2014). It is undeniable that social media are found to be attractive particularly to youngest generations (Zhang, Flammer, & Yang, 2010), who are observed to be active users and this of course includes the vast majority of students in higher education (Kaplan, & Haenlein, 2010).

It has already been a common topic for discussion, the statement that educators, instead of ignoring social media as a mainstay that possesses a high level of influence on young people, should utilize it in the field of education for the achievement of various educational purposes. It has anyway been established that integrating social media use in higher education contributes in bringing institutions and students closer together (Moghavvemi, Sulaiman, Jaafar, & Kasem, 2018). Thus, social media are already taken into serious consideration to be employed as a complementary teaching tool, by its incorporation into courses for the management of a course, the enhancement of student motivation and increasement of their engagement, improvement of teaching and learning process and experience along with other educational purposes (Balevičienė, 2015).

The purpose of this paper is to provide a theoretical overview of available scientific literature, with regards to social media landscape in higher education, observed advantages and disadvantages of its usage as well as current views and perspectives of both students and educators, aiming to identify how social media may contribute in developing skills for hospitality students in higher education. Several researches have already taken place, exploring the possibility of using social media in various fields of higher education apart from hospitality, such as healthcare (Singla, Kumar & Badyal, 2020), linguistics (Laserna & Miguel 2018), engineering sciences (Yu & Liu, 2015), business and marketing administration (Barczyk & Duncan, 2011), among other fields.

The most popular platforms with prospects of use in education are considered to be Facebook (Rasheed, 2020), Twitter (Gao, Luo, Zhang, 2012), YouTube (Moghavvemi, et al. 2018), Google+ (Singla, *et al.*, 2020) and LinkedIn (Irwin, Ball, Desbrow, & Leveritt, 2012), while some additional platforms like

Telegram (Caiwei & Norman, 2014) and WhatsApp (Singla, *et al.*, 2020) have also been explored as useful tools in education. Their use can be applied to presenting videos and visual objects, sharing content, exchange information and views instantly, etc., which not only may increase students' motivation and improve their academic performance, but also may specifically contribute to the development of certain skills (Ma, Au, 2014). There are researches that even suggest the potential of using such platforms as Learning Management Systems, intending to actively engage students in the learning process and academic procedures (Rasheed, 2020).
All these platforms may have begun as tools for entertainment and soon turned into a marketing phenomenon, but now is possible to be also seen as an innovative pedagogical tool that could be used in the process of developing skills (Nair, George, 2016). These skills usually refer to soft skills, such as communicational and interpersonal, which are fundamental for the hospitality industry (Christou, & Chatzigeorgiou, 2019), but practical as well, like digital skills or even learning a new language (Nair, et al. 2016). The range of social media application in hospitality education may vary from limited to wide, according to each course taught and its learning objectives.

Key Words: social media, educational tools, soft skills, hospitality education

REFERENCES

Al-Qaysi, N., Mohamad-Nordin, N., & Al-Emran, M. (2020). A systematic review of social media acceptance from the perspective of educational and information systems theories and models. Journal of Educational Computing Research, 57(8), 2085-2109.

Balevičienė, D. (2015). Social media as a tool for improving teaching and learning experience. Signum Temporis, 7(1), 54-59.

Barczyk, C. C. and Duncan, G. D. (2013). Facebook in higher education courses: An analysis of students' attitudes, community of practice, and classroom community. International Business and Management, 6(1), 1–11.

Caiwei Ma & Norman Au (2014) Social Media and Learning Enhancement among Chinese Hospitality and Tourism Students: A Case Study on the Utilization of Tencent QQ, Journal of Teaching in Travel & Tourism, 14:3, 217-239.

Christou, E., & Chatzigeorgiou, C. (2019). Industrial placement in hospitality management education. Students' experiences and development of skills. In *ICOMEU conference proceedings. 2nd international congress on management of educational units, 29th November-1st December 2019, Thessaloniki, Greece* (pp. 157-164).

Gao, F., Luo, T., & Zhang, K. (2012). Tweeting for learning: A critical analysis of research on microblogging in education published in 2008–2011. *British Journal of Educational Technology*, 43, 783–801.

Irwin, C., Ball, L., Desbrow, B. & Leveritt, M. (2012). Students' perceptions of using Facebook as an interactive learning resource at university. *Australasian Journal of Educational Technology,* 28(7), 1221-1232.

Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of social media. Business Horizons, No 53, p. 59-68.

Laserna, M. S. S., & Miguel, M. C. (2018). Social media as a teaching innovation tool for the promotion of interest and motivation in higher education. *In 2018 International Symposium on Computers in Education* (SIIE) (pp. 1-5). IEEE.

Ma, C., & Au, N. (2014). Social media and learning enhancement among Chinese hospitality and tourism students: A case study on the utilization of Tencent QQ. *Journal of teaching in travel & tourism,* 14(3), 217-239.

Moghavvemi, S., Sulaiman, A., Jaafar, N. I., & Kasem, N. (2018). Social media as a complementary learning tool for teaching and learning: The case of youtube. *The International Journal of Management Education,* 16(1), 37-42.

Nair, R., & George, B. P. (2016). E-learning adoption in hospitality education: An analysis with special focus on Singapore. *Journal of Tourism, Heritage & Services Marketing,* 2(1), 3-13.

Rasheed Hasan, L. (2020). Is It Possible to Use Facebook instead of Moodle Learning Management Systems (LMS) to Support the Learning Process?. *In 2020 The 4th International Conference on E-Society, E-Education and E-Technology* (pp. 47-51).

Singla, N., Kumar, M. B., & Badyal, D. (2020). Introduction of social media learning tool in teaching of Microbiology. *South-East Asian Journal of Medical Education,* 14(1).

Toplu, D., Yaslioglu, M., & Erden, N.S. (2014). Corporate Reputation in the Era of Social Media: A Study in Turkish Banking Industry. *IUP Journal of Business Strategy,* No 11, p. 29-42.

Yu, F. Y., & Liu, Y. H. (2015, July). Social media as a teaching and learning tool for in-class Q&A activities to promote learning and transform college engineering classroom dynamics: The case of Facebook. *In 2015 IEEE 15th International Conference on Advanced Learning Technologies* (pp. 299-300). IEEE.
Zhang, S., Flammer, C., & Yang, X. (2010). Uses, challenges, and potential of social media in higher education: Evidence from a case study. In C. Wankel (Ed.), Cutting edge social media approaches to business education: Teaching with LinkedIn, Facebook, Twitter, Second Life and Blogs (pp. 217–240). Charlotte, NC: Information Age Publishing.

EDUCATION MARKETING-SUSTAINABILITY

JOB SATISFACTION IN SPECIAL EDUCATION PROFESSIONALS AND MENTAL HEALTH CARE WORKERS

Maria Gyftogianni
M.Sc in Education Management
Messolonghi, Greece
e-mail: mgyftogianni@yahoo.gr

and

Zoe Karanikola
e-mail: mgyftogianni@yahoo.gr

ABSTRACT

Job Satisfaction (JS) is a complex and multidimensional concept (Δημητρόπουλος, 1998. Koustelios, 1991. Kuzey, 2018. Locke, 1976. Matloga, 2005. Rice, McFarlin, & Bennett, 1989. Shouksmith, Pajo, & Jepsen, 1990) interwoven with the work environments that have as their object the human. It is related to the person's personal perceptions of how he appreciates his work, which are affected by his individual needs, values and expectations (Sempane, Rieger, & Roodt, 2002). One of the most important and crowded challenges of modern society is that of the teacher (Vasely et al., 2013). Teachers are a particular sector of workers as they are responsible for shaping the future of the nations (Gkolia, Belias & Koustelios, 2014). Both General Education and Special Education (SE) are subsystems that make up the country's wider educational system. Therefore, the effectiveness of the school is directly related to the effectiveness of the teacher (Saracaroglu, 2009). From the review of the international bibliography shows that a teacher should be effective, he should feel satisfied with his profession, both like work and as a career (Κωνσταντινίδης, 2017). Therefore, the JS of these professionals plays a key role in the effectiveness of educational organizations and the overall qualitative education of a state (Zigarelli, 1996). On the other hand, for mental health professionals, the review of international literature has demonstrated as sources of both social ties with colleagues and interdisciplinary cooperation (Μαρκάκη, 2008) as well as factors such as: gender, age, level of education, work experience, how to organize work, working conditions, wages, hours work and promotions (Haas et al., 2000). Although the importance of JS is quite recognized, however, research on educational organizations and mental health structures is at an initial stage. Two branches are particularly sensitive that need increased state care.

The purpose of this study was to examine special education professionals and mental health care workers. For the purposes of the descriptive synchronic study as a measurement tool, the Greek version of the Statistical Tool 'Job Satisfaction Survey-JSS' (Paul E. Spector, 1994) was used. In Greece has been translated / applied by Τσούνης και Σαράφης (2018). The collection of demographic data included the recording of key features such as gender, age, employment relationship, educational level, overall work experience, job, specialty and work area. The survey involved 120 special education professionals and mental health care workers. The sample was special education teachers and special educational staff, employees in KEDASY, special schools, special vocational training workshops and mental health structures. 87.5% of the total sample were women and the average age of total sample was 36.3 years. The sampling method chosen was the simple random sampling.

From the examination of the JS observed a moderate degree of job satisfaction (139.0) to the sample participants, namely, experienced more on average satisfaction by the type of work carried out as well as by the Head and Administration. On the contrary, they felt a smaller average satisfaction with regulations and processes, as well as promotion opportunities. In addition, demographic agents such as age, gender and working position seemed to be associated with JS. Also, those who worked in mental health structures felt more satisfaction than the additional benefits they received compared to their colleagues in the SE. Women and assistants felt greater satisfaction than applicable procedures. While, the greater the age and experience of workers, the less seemed to be satisfied by the applicable procedures.

Whereas workers in the service sector are the main population affected by the burnout syndrome, it is advisable to protect it. Since the JS is understood as emotional reaction of workers at work emerges the

need for interventions in the workplaces that will use emotions to promote prosperity. The implementation of intervention programs to improve employee satisfaction is deemed necessary.

Key Words: job satisfaction, special education, teachers, mental health care workers

REFERENCES

Gkolia, A., Belias, D., & Koustelios, A. (2014). Teacher's job satisfaction and selfefficacy: A review. European Scientific Journal, 10(22).

Haas, J. S., Cook, E. F., Puopolo, A. L., Burstin, H. R., Cleary, P. D., & Brennan, T. A. (2000). Is the professional satisfaction of general internists associated with patient satisfaction?. Journal of general internal medicine, 15(2), 122-128.

Koustelios, A. (1991). The Relationships between Organizational Cultures and Job Satisfaction in Three Selected Industries in Greece. PhD Dissertation. United Kingdom: University of Manchester, Faculty of Education.

Kuzey, C. (2018). Impact of health care employees' job satisfaction on organizational performance support vector machine approach. Journal of Economics and Financial Analysis, 2(1), 45-68.

Locke, E. A. (1976). The nature and causes of job satisfaction. In M. D. Dunnette (Ed.), Handbook of industrial and organizational psychology (pp. 1297-1349). Chicago: Rand McNally.

Matloga, E.S. 2005. Investigating job satisfaction of primary and secondary rural farm school teachers. University of South Africa.

Rice, R. W., McFarlin, D. B., & Bennett, D. E. (1989). Standards of comparison and job satisfaction. Journal of Applied Psychology, 74(4), 591.

Roodt, G., Rieger, H. S., & Sempane, M. E. (2002). Job satisfaction in relation to organisational culture. SA Journal of industrial Psychology, 28(2), 23-30.

Shouksmith, G., Pajo, K., & Jepsen, A. (1990). Construction of a multidimensional scale of job satisfaction. Psychological Reports, 67(2), 355-364.

Vesely, A. K., Saklofske, D. H., & Leschied, A. D. (2013). Teachers—The vital resource: The contribution of emotional intelligence to teacher efficacy and well-being. Canadian Journal of School Psychology, 28(1), 71-89.

Zigarelli, M. A. (1996). An empirical test of conclusions from effective schools' research. The journal of educational research, 90(2), 103-110.

SCHOOL AND THE FORMATION OF MULTICULTURAL CONSCIOUSNESS

Savvas A. Stafylidis
Aristotle University of Thessaloniki, D.P.E.S.S.
Thessaloniki, Greece
e-mail: savvasstafilidis@acadimia.com

Andreas S. Stafylidis
Aristotle University of Thessaloniki, D.P.E.S.S. in Serres
Serres, Greece
e-mail: stafylid@phed-sr.auth.gr

Ioanna C. Karagkiozi
School of Industrial Studies of Thessaloniki, University of Macedonia, Greece
Thessaloniki, Greece
e-mail: 2ioannakara@gmail.com

and

Charalampos S. Stafylidis
Democritus University of Thrace, D.P.E.S.S
Komotini, Greece
e-mail: thes2.charalamposstafylidis@acadimia.com

ABSTRACT

The school can influence the formation of students' multicultural consciousness. The purpose of this research is the literature review of School and the Formation of Multicultural Consciousness. The migration of peoples through different periods of time could and did create a new reality in every aspect of a society, one of which is the school. Often some problems can arise from this new reality and it is advisable for the educational community to address this issue, to raise awareness and information. The issue was approached taking into account the goals of a school for all in a scientific and educational way. In conclusion, it seems that the school plays an important role in shaping a multicultural consciousness and the present work could be an information material for the educational public. The migration of peoples for various reasons (social, economic, etc.) over different periods of time could create and create a new reality in every aspect of a society, one of which is the school (Alesina & Tabellini, 2020; Dee & Murphy, 2020; Stevens et al., 2020). Education is the environment where the formation of a person's fundamental value and attitude in various issues, such as otherness takes place (Mitin et al., 2017). Often some problems can arise from this new reality and it is advisable for the educational community to address the issue and be informed, so that the scientific and educational approach of teachers is appropriate, targeted and individualized. It is therefore important to explore the role of the school in these contexts, something that has preoccupied many researchers for decades, as well as the role of teachers (Coles, 2019; Faas et al., 2018). The education system may be an area for transmitting the value of human coexistence in a multicultural society (Dmitrieva et al., 2018). In a multicultural society the role of a school environment is to contribute to the effective development of tolerant consciousness and the value of coexistence of people (Dmitrieva et al., 2018). Furthermore, values such as appreciation, respect for diversity and skills are important for a holistic approach to intercultural education (Gorski, 2009). Effective educators should be aware of multicultural issues (Constantine & Sue, 2005; Milner & Ford, 2007) and have addressed and dispelled their own prejudices (Bannick & van Dam, 2007; Boyle-Baise, 2005), while they will have the appropriate pedagogical strategies for the purposes of intercultural education (Sleeter, 2002; 2017). To conclude, the challenge of curricula and education in the field of multicultural education is often the emergence of educational tactics and the development of teachers' knowledge of local culture, languages, customs, values and relationships of different cultures (Tilsen et al., 2021). These characteristics should be taken into account and combined in the pedagogical process, for a successful cultural environment of teaching and learning, because the school and generally the educational system could influence the formation of students' multicultural consciousness.

REFERENCES

Alesina, A., & Tabellini, M. (2021). The Political Effects of Immigration: Culture or Economics? (No. 14354). Institute of Labor Economics (IZA).

Bannink, A., & Dam, J. V. (2007). Bootstrapping reflection on classroom interactions: Discourse contexts of novice teachers' thinking. Evaluation & Research in Education, 20(2), 81-99.

Boyle-Baise, M. (2005). Preparing community-oriented teachers: Reflections from a multicultural service-learning project. Journal of Teacher Education, 56(5), 446-458.

Coles, J. A. (2019). The Black Literacies of Urban High School Youth Countering Antiblackness in the Context of Neoliberal Multiculturalism. Journal of Language and Literacy Education, 15(2), n2.

Constantine, M. G., & Sue, D. W. (Eds.). (2005). Strategies for building multicultural competence in mental health and educational settings. John Wiley & Sons.

Dee, T. S., & Murphy, M. (2020). Vanished classmates: The effects of local immigration enforcement on school enrollment. American Educational Research Journal, 57(2), 694-727.

Dmitrieva, E. E., Kashtanova, S. N., Medvedeva, E. Y., Olkhina, E. A., & Kudryavtsev, V. A. (2018). Tolerant consciousness of educational and multicultural space subjects. Espacios, 39(38).

Faas, D., Smith, A., & Darmody, M. (2018). The role of principals in creating inclusive school environments: insights from community national schools in Ireland. School Leadership & Management, 38(4), 457-473.

Gorski, P. C. (2006). Complicity with conservatism: The de-politicizing of multicultural and intercultural education. Intercultural Education, 17(2), 163-177.

Milner, H. R., & Ford, D. Y. (2007). Cultural considerations in the underrepresentation of culturally diverse elementary students in gifted education. Roeper Review, 29(3), 166-173.

Mitin, S. N., Shukshina, L. V., Bazhdanova, Y. V., Koretskaya, I. A., & Vasyakin, B. S. (2017). Value and meaning attitudes as a factor of forming tolerant ethnic consciousness in the multicultural milieu of a higher education institution. Eurasian Journal of Analytical Chemistry, 12(7), 1193-1200.

Sleeter, C. E. (2002). State curriculum standards and the shaping of student consciousness. Social Justice, 29(4 (90), 8-25.

Sleeter, C., & Carmona, J. F. (2017). Un-standardizing curriculum: Multicultural teaching in the standards-based classroom. Teachers College Press.

Stevens, G. W., Boer, M., Titzmann, P. F., Cosma, A., & Walsh, S. D. (2020). Immigration status and bullying victimization: Associations across national and school contexts. Journal of Applied Developmental Psychology, 66, 101075.

Tilsen, J., Forrester, J., & Upadhyay, B. (2021). Exploring nature of criticality in high school science teaching: sociopolitical consciousness in multicultural science education. Cultural Studies of Science Education, 1-13.

ENGAGING ARTFUL THINKING INTO THE SCHOOL CURRICULUM

Despoina K. Amarantidou
International University of Greece
Open Hellenic University
Thessaloniki, Greece
e-mail: damarant@sch.gr

ABSTRACT

We are living in a world that is changing rapidly and becoming more globalized. Especially the changes in the areas of science, technology and economy are becoming effective in areas like education and health that are closely related to human life. We are experiencing a quick process named globalization that changes economic, social and political structures of the world and that no one can predict the outcome. These changes create new opportunities while opening new challenging and innovative areas.

Artful Thinking is a program that was developed by Harvard Project Zero in collaboration with the Traverse City, Michigan Area Public Schools (TCAPS). The program was one component of a larger TCAPS grant from the US Department of Education, linked by the theme "Visible Thinking" that aimed at developing a model approach for integrating art into regular classroom instruction. The purpose of the Artful Thinking Program is to help teachers regularly use works of visual art and music in their curriculum in ways that strengthen student thinking and learning. Moreover, it helps students develop thinking dispositions that support thoughtful learning – in the arts, and across school subjects (Tishman & Palmer. 2006).

Works of art provoke rich, multilayered meaning-making in ways unlike other disciplines. They raise questions, evoke connection-making, and in many ways transform the shape of inquiry. There are many ways to connect art to the curriculum, from targeted connections between the content of artworks and specific topic or themes, to more open-ended approaches that leave loose the directions in which a work of art will lead (Efland, 2002).

More particularly, Artful Thinking has six (6) interrelated components: The Artful Thinking Palette refers to thinking routines, works of art, curricular connections, visible thinking, and teacher study groups. A routine can be thought of as any procedure, process, or pattern of action that is used repeatedly to manage and facilitate the accomplishment of specific goals or tasks (Salmon, 2012). Using the artist's palette as a central metaphor, the Artful Thinking Palette is comprised of six thinking dispositions which strengthen students' intellectual behaviors and can deepen students' thinking in the classroom. The Artful Thinking Palette includes:

- The orange component: Comparing & Connecting, invention of headings.
- The yellow component: Exploring Viewpoints.
- The purple component: Finding Complexity.
- The green component: Observing and Describing.
- The blue component: Questioning and Investigating.
- The red component: Reasoning.

Furthermore, it is an enquiry approach that emphasizes an ethic of care, a constructivist approach to teaching and creative problem solving, as claimed by Henderson (1992). Emphasis is placed on construction and learning is active and co-operative as the six teams interweave assessment with teaching. The trainees are viewed as thinkers, creators and constructors, adopting one basic principle of teacher training which is the special training for foreign language teachers (Strevens, 1974). One of the wonderful advantages of integrating the arts is that 21st Century Skills are inherent in the processes of the arts. The skills, knowledge and expertise students must master to succeed in work and life according to the 21st Century Partnership are communication, collaboration, creativity, grit (perseverance and passion for long-term goals), self-efficacy, innovation, meta-cognitive awareness (Flavell, 1979), multiple intelligences (Gardner, 1993) and critical thinking (Facione, 1990).

Key Words: construction, artful thinking, creativity, thinking routines, innovation, critical thinking

REFERENCES

Efland, A. (2002). Art and Cognition. Integrating the Visual Arts in the Curriculum. New York: Teachers College, Columbia University.

Facione, P. A. (1990). Critical thinking: A statement of expert consensus for purposes of educational assessment and instruction. The California Academic Press.
Flavell, J. H. (1979). Metacognition and cognitive monitoring: A new area of cognitive developmental inquiry. American Psychologist, 34(10), 906-911.
Gardner, H. (1993). *Frames of mind: The theory of multiple intelligences.* New York: Basic Books.
Henderson, J.G. (1992). *Reflective Teaching: The Study of your Constructivist Practices*. EnglewoodCliffs, New Jersey: Merrill.
Salmon, A. K. (2012). Engaging Young Children in Thinking Routines. Published online: 25 July 2012.
Strevens, P. (1974). Some basic principles of teacher training in ELTJ 29/1: 19-27.
Tishman, S., Palmer. P. (2006). Final Report: Artful Thinking. Harvard, Graduate School of Education.

EUROPEAN EDUCATIONAL PROGRAMS, TEACHERS' MOTIVES AND BARRIERS TO PARTICIPATE

Panagiota Kamperi
MSc International Hellenic University
Thessaloniki, Greece
e-mail: p.kamperi@gmail.com

and

Ourania Gkouna
PhD, University College London
International Hellenic University
Thessaloniki, Greece
e-mail: ouraniagouna@gmail.com

ABSTRACT

In the context of reforming the education system within the European countries-members, the European Union has introduced several projects aiming to enhance the quality of the educational process. European educational programs, in which numerous tutors from Europe and third countries had already participated, were found to be of significant importance in the effort to address this aim (Debych, 2020;Poce et al., 2020). However, there appear to be many teachers who have never taken part in any such projects despite the obvious benefits that exist both for them and for the students, as well as for the school unit and for society. Over the years, a number of these European educational programs have been updated and replaced by more recent versions. In most cases the degree of participation of tutors in European educational programs is directly proportional to the ambition and motivation of the particular school's principal (Lourbas & Dakopoulou, 2013; Wasserman et al., 2016; Argiropoulou & Simaionidis, 2017). Several studies have been conducted regarding factors affecting teachers' motivation(Han & Yin, 2016).In general, the influence of European educational programs on teachers and the analysis of the impact, the participation experience had on them, have been the subject of many studies (Gorozidis, & Papaioannou, 2014). However, the motivations behind the decision on whether to participate in such actions or not, has not been extensively analyzed. Consequently, it is very interesting to study not only the factors that motivate teachers to engage in this type of schemes, but also the factors that prevent them from doing so. Consequently, this study aims to pinpoint factors, which act as motives or deterrents for tutors' participation in European educational programs. This quantitative research was conducted with the use of questionnaires on a sample of 295 primary and secondary education teachers who work either in the public or the private sector. The participants; selection was made through snowball sampling method. Among others, the findings determined the key factors that can provide motivation or a deterrent for tutors. More specifically, the most important motives were the desire for lifelong learning and the intention to learn/be further educated. On the other hand, the most important barriers reported were the lack of information and time. Furthermore, teachers who had already participated in a program were found to consider learning something new and the expansion of their social network to be the most important motivational factors and were the ones to have greater overall motivation.On the other hand, teachers who had never participated in such a program regarded the improvement of their skills, salary and their professional development as the most important motives. Moreover, teachers, who had never joined in any similar program, held that the cost of participation, lack of information and lack of time posed the most significant obstacles to their participation in a European educational program. A moderately negative correlation was found between the above-mentioned factors and motives, such as the salary increase, professional development and ~~skills~~ acquisition, teachers'age and teaching experience. Finally, it is recommended that those findings be used as guidelines in any potential plan regarding teachers' professional development and by extension the development of the entire educational organizations.

Key Words: European educational programs, motivation theories, teachers' motivation, motives, obstacles

REFERENCES

Argyropoulou, E., &Symeonidis, A. (2017). Η ανάδειξη των προσόντων του αποτελεσματικού Διευθυντή Σχολικής Μονάδας μέσα από τις διαδικασίες επιλογής. Μια εμπειρικήμελέτη περίπτωσης. *Έρευνα στηνεκπαίδευση*, *6*(1), 53-72.

Debych, M. (2020). The Triggers for Internationalization and Quality Enhancement in Higher Education of France. *International Scientific Journal of Universities and Leadership*, (9), 3-14.

Gorozidis, G., &Papaioannou, A. G. (2014).Teachers' motivation to participate in training and to implement innovations.*Teaching and teacher* education, *39*, 1-11.

Han, J., & Yin, H. (2016). Teacher motivation: Definition, research development and implications for teachers. *Cogent Education*, *3*(1).

Lourmpas, S., &Dakopoulou, A. (2013). Educational leaders and teachers motivation for engagement in innovative programs. The case of Greece. Procedia- Social and Behavioral Sciences.

Poce, A., Amenduni, F., Re, M., & De Medio, C. (2020). Assessing a MOOC users experience in a virtual mobility project: preliminary results for quality enhancement. *Italian Journal of Educational Technology*, *28*(1), 62-76.

Wasserman, B. E., & Yehoshua, G. (2016). Relationship between the principal’s leadership style and teacher motivation. *International Journal of Learning, Teaching and Educational Research*, *15*(10), 180-192.

ASPECTS OF EDUCATIONAL INNOVATION IN THE BEGINNING OF THE 20th CENTURY. THE EXAMPLE OF MILTOS KOUNTOURAS IN THE GIRLS' SCHOOL OF THESSALONIKI

Christos Georgiou
Phd in Education
International Hellenic University
e-mail: georgiouchris18@gmail.com

and

Georgios P. Gounaris
Primary School Principal
Thessaloniki, Greece
email: ggounaris8@gmail.com

ABSTRACT

The change and evolution of the educational reality has been combined with the adoption of a culture of change by the educational organizations and is directly connected to its socio-political and cultural context. In the context of the evolutionary process of these organizations the role of innovation is crucial, an element that expresses the political will and, in this case, the orientation of the educational policy. The innovative interventions are, therefore, part of the strategic planning of senior management and organizational structures which in turn create the framework for the action of individuals who envision the post-formation of the educational environment in order to upgrade the quality of the produced work. One such case is Miltos Kountouras, one of the most important educators of the Interwar period and basic factor in the educational reforms that took place within the Venizelos governments.

This announcement presents, through archival and bibliographic research, the pedagogical and educational beliefs of M. Kountouras, the conditions in which his pedagogical and educational theory was formed and the effort to apply his innovative ideas in the Girls' School of Thessaloniki during the period 1927-1930.

The main source of irrigation of his educational theory is firstly the literary movement and then the educational populism which at the beginning of the 20th century is going through its dynamic phase. In the context of the quests of educational populism, educational associations (Student Company and Educational Group) were founded in 1910, in which M. Kountouras participated actively and was initiated in the educational principles of the movement, but also in the new pedagogical conceptions which are introduced by the factors of the new educational orientations. The decisive factor for the transformation of the education of girls in new bases during this period is the short-term operation of the Upper Girl's School of Volos (1908) under the direction of Alexander Delmouzos. In the coming years, during the Venizelos governments, with the relevant legislation, women's education is upgraded and the teaching of girls is included in the state care with the aim of providing equivalent education to the female teachers like the one of the male teachers.

These political and educational contexts form the basis of the pedagogical and educational theory of M. Kountouras, who in the context of the search for the transformation of the Greek School will formulate it publicly in 1923 in an extensive article in the newspaper "Kampana" of Mytilene with the emblematic title "Close the Schools". In this text, the pedagogue expresses his pedagogical and sociocultural vision for the renewal of the educational environment.

During the period 1923-1926, M. Kountouras was trained in Germany where he came in contact with the principles of the New Education movement, the Work Schools and the progressive pedagogical thinking in general. After his return in Greece he was appointed Headteacher in the Girls' School in Serres for a short period of time and afterwards he was transferred to the Girls' School in Thessaloniki, as a Headteacher again, where he will remain until 1930. In this specific period of time (1917-1930), Kountouras, trying to apply the principles of the progressive educational movements, will make a series of innovations aimed at cultivating the critical spirit, the creative work, the active participation of students in the educational process and their social contribution, elements that brought to school a lively and revolutionary spirit of renewal.

His innovations concerned the basic principles of operation of the Higher Girl's School, the didactic and pedagogical interventions and the organization of school life. It was, in modern terminology, a project

of transforming school culture. The most basic refreshing elements that contributed to this change and constitute the innovative educational programme of the Girls' School in Thessaloniki, are the following:

- The establishment of the demotic Greek in teaching, as the basic means of his innovative effort.
- The application of the principles of Work School which Kountouras characterizes as a School of Creation having as basic elements the self-action, the dialogue and the team work, manual and mental.
- The introduction of Art in all its dimensions (music, theatre, dancing etc.), as the basic parameter of innovation, interwined with the curricula of other courses.
- The establishment, in parallel with the formal programme, of "specialty groups" in which children participate according to their interests and have artistic or manual content.
- The Thursday gatherings which aim at building a school community based on democratic principles.
- The introduction of new ways of organizing excursions and visits with the aim of the greatest pedagogical and educational benefit.
- The reform of the way the school library operates.

M. Kountouras innovative interventions in Thessaloniki were met with doubts and reactions from both the educational world and the social and political establishment of the town, as a result of which he was removed from the Girls' School and under the pretext of his promotion, he was placed in the newly established Educational Advisory Council of the Ministry.

Key Words: Innovation, Girls' School of Thessaloniki, M. Kountouras, School of Creation

REFERENCES

Αριστοτέλειο Πανεπιστήμιο Θεσσαλονίκης. ΠΤΔΕ (1991). *Μίλτος Κουντουράς: Εκατό χρόνια από τη γέννησή του*. Εκδ.: Βάνιας. Θεσσαλονίκη

Καλάργαλης, Α. (2011). *Μίλτος Κουντουράς. Κλείστε τα Σχολε*ιά. Άρθρα στην Καμπάνα. Θεσσαλονίκη: Αδερφοί Κυριακίδη

Καράμηνας, Ι. (2005). *Ο Παιδαγωγός Μίλτος Κουντουράς*. Αθήνα: Ατραπός

Κουντουράς, Μ. (1985). *Κλείστε τα σχολειά* – (Εκπαιδευτικά Άπαντα)-(Επιμέλεια-Σχόλια: Αλέξης Δημαράς). τ. Α΄. Εκδ.: Γνώση. Αθήνα

Κουντουράς, Μ. (1985). *Κλείστε τα σχολειά* – (Εκπαιδευτικά Άπαντα)-(Επιμέλεια-Σχόλια: Αλέξης Δημαράς). τ. Β΄. Εκδ.: Γνώση. Αθήνα

Μπουζάκης, Σ. (2002). Εκπαιδευτικές Μεταρρυθμίσεις στην Ελλάδα. τόμ. Α΄. *Μεταρρυθμιστικές προσπάθειες 1913-1929*. Εκδ. Gutenberg. Αθήνα

Τσιπούρας, Στ. (2001). *Φιλοσοφικές προϋποθέσεις και κοινωνικές προεκτάσεις στο παιδαγωγικό έργο του Μ. Κουντουρά. Α.Π.Θ*. Τμήμα Θεολογίας

EVALUATING INNOVATIVE ACTIONS: THE APPRAISAL OF SCHOOL PRINCIPALS FOR THE IMPLEMENTATION OF INCLUSIVE EDUCATION PROGRAMMES

Ilias P. Vasileiadis
University of Western Macedonia Department of Psychology
Florina, Greece
e-mail: ilvasileiadis@uth.gr

Spyros G. Koutras
Queen Margaret University, Department of Speech and Hearing Sciences
Edinburgh, United Kingdom
e-mail: skoutras@qmu.ac.uk

Ioanna G. Dimitriadou
University of Macedonia
Thessaloniki, Greece
e-mail: idimit@uom.edu.gr

and

Aikaterini A. Samara
European University of Cyprus
Thessaloniki, Greece
e-mail: aikaterinisam@gmail.com

ABSTRACT

Although ten years have passed in the Greek educational system since the institutionalisation of inclusive education as a dominant applied educational policy for students with difficulties in social adjustment. However, is apparent the absence of central planning, structural changes and systematic interventions to strengthen the school integration of these students (Vasileiadis et al., 2021). Students with social adjustment difficulties continue to have occasional and intermittent attendance, and their socialisation is promoted mainly through social coexistence programs. Social coexistence programs are conducted mainly by school psychologists, within the responsibilities of the Interdisciplinary Support Committees (Interdisciplinary Support Committees) with equal participation of all students in each class and aim at social interaction, removing prejudices and changing attitudes towards students with difficulties in social adjustment. They usually have a weekly basis and last one to two teaching hours. (Mu, Siegel & Allinder, 2000). During the programmes, all students are invited to participate in academic and social activities related to everyday school life. Researchers and professionals involved in co-education processes try to consider the specific characteristics of each district and each school unit in which a coexistence programme is to be implemented and the possibilities and margins given by the socio-economic level and educational policies pursued in each country. According to the international literature, programmes can be categorised based on the educational level to which each programme is applied. However, this does not exclude the fact that programmes can be implemented equally at different levels (Rea, McLaughlin & Walther-Thomas et al., 2002). The role of the school principals in the implementation of the social coexistence programmes is organisational and coordinating, while it is considered essential for efficient outcomes. They inform the parents about implementing the actions and administratively supervise the procedures (Vasileiadis & Roussakis, 2019). The literature review shows that the majority of research so far regarding inclusive education processes focuses mainly on the views and beliefs of those involved with a quantitative analysis. On the contrary, there is a significant limitation to quality researches in which the participants are the directors themselves, the actors in the inclusive education process.

The purpose of this study was to evaluate the effectiveness of social coexistence programs by the principals of secondary schools conducted during the school year 2018-19 in the framework of the Interdisciplinary Support Committees (EDY). The evaluation was conducted using semi-structured interviews in two phases, before and after implementing social coexistence programs, with 25 principals

of General Lyceums and EPAL of the broader area of the regional unit of Thessaloniki. Data processing and analysis were based on the principles of thematic analysis.
The qualitative analysis of the data highlighted specific issues, including the need for formal institutionalization of social coexistence programs as part of the school curriculum and the absence of a culture of interdisciplinary cooperation between those involved in educational processes and the need for effective cooperation between those involved. These findings are discussed in relation to how they can feed the relevant research and how they can implement similar interventions on a broader sample of schools.

Key Words: Inclusive education, School principals, Social coexistence

REFERENCES

Mu, K., Siegel, E. B., & Allinder, R. M. (2000). Peer interactions and sociometric status of high school students with moderate or severe disabilities in general education classrooms. Journal of the association for persons with severe handicaps, 25(3), 142-152. https://doi.org/10.2511/rpsd.25.3.142

Rea, P. J., McLaughlin, V. L., & Walther-Thomas, C. (2002). Outcomes for students with learning disabilities in inclusive and pullout programs. Exceptional children, 68(2), 203-222. https://doi.org/10.1177/001440290206800204

Vasileiadis, I & Roussakis, I. (2019). Shaping factors of the inclusion policy and school psychological support for students with disabilities in the school context in Greece: Evaluations of the Special Schools principals. Pedagogical Review 86: 11-29.

Vasileiadis, I., Koutras, S., Dimitriadou, I. & Gripsiou, I. (2021). Enhance the Interaction of Students with Learning Difficulties by Implementing a Social Coexistence Programme in Greek Primary Schools. Universal Journal of Educational Research 9 (9)1713-1723. http://dx.doi.org/10.13189/ujer.2021.090911

SPECIAL EDUCATION PRACTICES

EDUCATIONAL MARKETING AT THE 3rd PRIMARY SCHOOL OF DRAMA AND THE INFLUENCES OF SUSTAINABILITY ON EDUCATION

Smaragda Ch. Mavroeidi
3rd Primary School
Drama, Greece
e-mail: smaragdamav@gmail.com

and

Athanasios S. Gounas
International Hellenic University
Thessaloniki, Greece
e-mail: sakisgo@hotmail.com

ABSTRACT

The most important institution for the development of the child is undoubtedly school education. Investing in the quality of education is very important and necessary. Through quality education, man is cognitively and morally complete. Its purpose is to equip each student with all those abilities and skills that will shape him/her into an autonomous and active person in society. To a man who will be able to meet the demands of society, for the benefit of himself and others. (Ανδρεαδέλλη, 2018)

In the context of international competition, the demand for the modernization of education continues to prevail. In recent years there has been an attempt to change the general culture of schools, readjusting roles and creating new ones. More and more teachers no longer rely on outdated programs, sterile lectures or school textbooks. The old traditional teaching tends to lose ground.

Educational Marketing is a process where a school unit, through coordinated actions, tries to satisfy student's current and future needs, in a way that will bring benefit to them and to society. In other words, it is considered the 'means' for the upgrading of the school unit and the improvement of its competitiveness in Primary Education. (Kotler & Fox 1995)

Innovative educational activities, through a strategic marketing plan, aim to promote new practices in teaching and learning, attracting students, parents and the interest of society. New educational media and environments promise new learning opportunities, which will bring the student closer to today's needs. Educational innovations change the perceptions, principles and beliefs of students and teachers, as well as their general attitude towards school and the learning process. (Fullan & Ballew,2001)

Education for sustainable development and the "Sustainable School" are examples of innovation, based on original ideas, giving us a different perception of school. Teaching is based on pioneering methods such as holistic learning, critical thinking, opening up the school to the local community and decision-making through participation of both teachers and students, aiming at changing mentality. (Καλαϊτζίδης, 2014) Moreover, sustainability education includes teaching values, taking initiatives, planning actions and making a general change in environmental culture, thus posing a challenge for modern education. (Φλογαΐτη & Δασκολιά, 2004)

The "Sustainable School" is therefore a school whose organization and operation are governed by the principles of sustainability. Gough (2005) believes that such a school creates all those learning conditions that teach students skills for a better quality of life. Thus, the creation of responsible citizens who act with sustainability in mind, starts in school and continues throughout their lives. The aim of this demanding program is a school that will be a vision, that will be loved by children, that teachers will enjoy working and of course will be trusted by parents. (Gough, 2005)

This work was carried out in order to highlight the contribution of Educational Marketing in the effort of a public school of a provincial city (3rd Primary School of Drama) to innovate, to distinguish and to compete with the rest by offering an educational novelty, which is so much needed by school units and society. Both Educational Marketing and Sustainability in Education were theoretically approached, and then a quantitative survey was conducted using a questionnaire.

The findings of the research highlighted the importance of Educational Marketing and the need for training for both educational staff and school heads. Moreover, the idea of the "Sustainable School"

seems quite interesting as there is a large percentage of teachers who are already aware of it and would like to teach in such a school unit.

Key Words: Educational Marketing, Innovation, Sustainable School, Education for Sustainable Development, Primary Education

REFERENCES

Ανδρεαδέλλη, Ε. (2018). *Το πρόβλημα των αξιών στην εκπαίδευση: Ο ρόλος και η σημασία της σχολικής κουλτούρας και ηγεσίας.* Διπλωματική Εργασία ed. Θεσσαλονίκη: Πανεπιστήμιο Μακεδονίας.

Καλαϊτζίδης, Δ., Νομικού, Χ.(2014). Το Αειφόρο σχολείο: μια αναγκαία και ικανή καινοτομία. *Επιστήμες Αγωγής*.

Φλογαΐτη, Ε. & Δασκολιά, Μ.(2004). *Περιβαλλοντική Εκπαίδευση:Σχεδιάζοντας ένα αειφόρο μέλλον.* Αθήνα: Τυπωθήτω.

Fullan, M. & Ballew, A. (2001). *Leading in a Culture of Change: Personal Action Guide and Workbook.* San Francisco: Jossey-Bass.

Gough, A. (2005). *Sustainable Schools: Renovating Educational Procecces*. s.l.:Environmental Education and Communication.

Kotler P., Fox K.(1995). *Strategic Marketing for Educational Institutions,* 2 nd edition, Prentice Hall Inc, Englewood Cliffs.

INTRODUCTION OF MARKETING IN GREEK PUBLIC EDUCATION

Ioannis Pitsias
International Hellenic University
Thessaloniki, Greece
e-mail: gpitsias@gmail.com

ABSTRACT

In the modern society of constant competition and the constant need for further development of companies and organizations, marketing is taking up more and more space in their operation (American Marketing Association, 2008).
Of course, marketing is now being applied more and more intensively and more often in public education, despite the significant restrictions imposed by the current legislation in the context of the operation of the public school (Foskett, N., 2002).
From the above, the question arises as to whether or not marketing should be introduced and how it should be introduced in Public Education. A question that is also addressed in this presentation, highlighting the results that emerged from the elaboration of my dissertation.
It is an indisputable fact that public education operates in a strict context, where the application of marketing is set at specific limits. This, however, does not negate the fact that the prospect of introducing and implementing marketing in Public Education will not upgrade the provided public education service (Davis, B., & Ellison, L., 1997).
The result of the research is extremely encouraging. The majority of respondents are positive about the prospect of introducing marketing to public education. They even recognize the benefits that will result. Specifically, the majority of teachers are characterized by their positive attitude in the introduction of marketing in Public Education.
Moreover, the introduction of marketing in Public Education can improve the finances of state-underfunding of public schools Greek public schools through donations and attract resources from other activities that may be hosted in public schools during non-teaching hours - afternoon schedule (DeCenzo, A.D. & Robbins, P.S., 2004).
The prospect of introducing marketing in Public Education finds a positive response in respondents. Of course, it is worth mentioning clearly the fact that there is no significant correlation between teachers with studies or not in marketing in relation to the field that will be further strengthened by the introduction of marketing in Public Schools and the importance of its introduction.
The area that will be further strengthened by the introduction of marketing in Public Education does not seem to have a direct correlation either with the years of service of teachers in their school unit or with whether they work in public or private education.
The above conclusion emerges from the pluralism found in the answers regarding the sector that will benefit most in relation to the public character of the Greek public school and the limitations that characterize it in the context of its operation.
On the contrary, a direct correlation was found when respondents were asked to answer whether they consider the introduction of marketing in Public Education important regardless of whether they work in private or public education.
For all the above reasons, of course within a framework of rules, the introduction of marketing in Greek public education seems to gather the positive attitude of the teachers who participated in the respective research (Kotler, P., Keller, K.L., 2009).

REFERENCES

American Marketing Association (2008). The American Marketing Association Releases New Definition for Marketing. For Immediate Release January 14, 2008.
Davis, B., & Ellison, L. (1997). Strategic Marketing for schools: How to harmonize marketing and strategic development for an effective school.
DeCenzo, A.D. & Robbins, P.S. (2004). Fundamentals of Management: Essential Concepts and Applications. New York: Wiley.
Foskett, N. (2002). The principles and Practice of Educational Managment. At B. T. L, Marketing. London: Paul Chapman.
Kotler, P., Keller, K.L., (2009). Marketing Management, 13th ed. New Jersey: Prentice Hall Inc.

RESEARCH ON ATTITUDES TOWARDS CLIMATE CHANGE: MEASURING YOUNG PEOPLE'S BELIEFS AND INTENTIONS FOR POSITIVE ENVIRONMENTAL CHANGE

Magdalini Thoma
Chemistry teacher, MSc, Secondary Education Schools
Lamia, Greece
e-mail: mag.thom1@gmail.com

ABSTRACT

The aim of this quantitative research is to investigate the environmental consciousness of young people by examining their knowledge, attitudes and behaviors in order to determine the environmental intentions and beliefs of young people and to determine whether these attitudes differ according to age and sex.

To achieve the above, a survey was conducted in the city of Lamia-Fthiotida in March and April 2019 in which 199 young people participated. The method of sampling was cluster sampling which is a random sampling in which each sampling unit is a group of elements of the surveyed population (Shiver & Borders 1996, Harisis & Kiochos 1997).

The tool used after a thorough literature review was the internationally recognized CCAS (Climate Change Attitude Survey) which as a psychometric tool of Social and Environmental Psychology has been established as a tool for measuring the connection of people with nature (Hefler et. al. 2009). The scale consists of a multidisciplinary question that includes 15 statements / items to measure the beliefs and intentions of young people towards the environment with an emphasis on climate change, with possible answers to the five-point Likert scale, where 1 states I completely disagree and 5 Strongly Agree.

To extract the results, the Statistical Package for the Social Science 25.0 for Windows was used, with the methods of Descriptive and Inferential Statistics. Exploratory Factor Analysis in Major Components (PCA) through the technique of orthogonal rotation of maximum variance (Varimax) led to the extraction of three factors. The first factor corresponds to "Intention" (Cronbach's a reliability 0.848). The second factor corresponds to "Self-efficacy" (Cronbach's a reliability 0.743). The third factor corresponds to "Beliefs" (Cronbach's a reliability 0.721).The findings showed that the overall average for the scale is 4.17 and indicates a high level of significance. The "Beliefs" factor has the highest overall average (4.46). The "Intent" factor has the lowest overall average (3.83), while the "Self-Efficacy" has 4.21.

For the examination of the difference of the score in terms of gender, non-parametric tests were used, since after the regularity test with the Kolmogorov-Smirnov test it emerged that all three factors and the scale as a whole do not follow a normal distribution ($p < 0 , 05$). A statistically significant difference was found in the "gender" of the CCAS scale as a whole, the "intention" factor and the "beliefs" factor. In all the above differences the girls had a higher average ranking than the boys. The control of the differentiation of the score of the scale "CCAS", the factor "Intention", the factor "Self-efficacy" and the factor "Beliefs", in terms of age with KRUSKAL_WALLIS test (since the previous regularity test showed abnormal distributions) showed that there is a statistically significant difference in average prices. In all cases the difference was identified between the ages of 15 and 18 years.

Its results can be a small part of more general research so that attitudinal change strategies can be developed and implemented based on substantive learning about the effects of climate change, biodiversity and human societies, in order to achieve protection. of the natural environment based on the principles of sustainability and sustainability (UNESCO 1997). Cultivating environmental awareness and improving the environmental behavior of citizens is essential for making and adopting policy decisions in favor of environmental protection (Amburgey & Thoman 2012).

Key Words: environmental awareness, climate change, youth, Climate Change Attitude Survey

REFERENCES

Amburgey, J.W., Thoman, D.B., 2012. Dimensionality of the New Ecological Paradigm: Issues of factor structure and measurement. *Environment and Behavior,* Vol. 44, No. 2, pp 235-256.

Hefler, E., Cervinka, R. & Zeidler, D. (2009). Connect edness with Nature and Support in Life through Spirituality. *Journal of Health Psychology,* 17: 379-388

Shiver D.B. and Borders. (1996). *Sampling Techniques for Forest Resource Inventory.* John Wiley & Sons .Inc.USA.

UNESCO (1997) The Thessaloniki Declaration, International Conference: Environment and Society: Education and Citizens' Sustainability for Sustainability, Thessaloniki, UNESCO.

Harisis, I.K and Kiochos, (1997). *Sampling Theory & Applications*. "Interbooks" publishing house. Athens.

STUDY OF VIEWS, ATTITUDES AND INTENTIONS OF USING NEW TECHNOLOGIES IN PRIMARY EDUCATION UNITS: THE CASE OF NEUROMARKETING

Athanasia Panagiotidou
International Hellenic University
Thessaloniki, Greece
at.panagiotidou@gmail.com

Chryssoula Chatzigeorgiou
International Hellenic University
Thessaloniki, Greece
cchatzigeorgiou@ihu.gr

and

Nikos Panagiotidis
University of Ioannina
Ioannina, Greece
panagiotidissnikos@gmail.com

ABSTRACT

Modern requirements, technological developments and constant challenges could not leave the field of education unaffected. In order to ensure their survival and development, educational units need to follow an appropriate strategic planning that is governed by the principles and philosophy of marketing (Zancajo, 2018). Modern requirements and ongoing challenges have led to the need to combine knowledge from different sciences, and therefore different methods and technologies are employed to provide solutions to major issues - problems in education. These so-called "hybrid" areas of research include the use of neuromarketing in education (Ababkova & Leontieva, 2018). One such area/innovation is the introduction and application of neuromarketing in education.

Numerous definitions of neuromarketing and its purpose have been formulated in the literature. Neuromarketing is identified as a new field of research that is recognized by both academia and business world. Its purpose is to gather objective information about the brain's reactions when a person comes in contact with a marketing stimulus using the tools of neuroscience (Murphy, Illes & Reiner, 2008). In most research, neuromarketing is defined as a field of research that connects the sciences of marketing and neuroscience in order to understand consumer behavior. (Lee, Broderick & Chamberlain, 2007).

As for education, the application of neuromarketing techniques and methods enable teachers to understand what is going on in their students' brains during the educational process. In this way they adjust their teaching according to the abilities of the students, improving the quality of the provided teaching and on the other hand the educational unit increases its level of competitiveness by offering a new, innovative service. The role of teachers in the application of neuromarketing is very important, as its implementation is done by them.

The purpose of this study is to study the knowledge, attitudes, expectations and intentions of the use of neuromarketing by primary education units. The sample consisted of 122 primary school teachers and more specifically 68 teachers and 54 kindergarten teachers. The questionnaire was based on the study of Eser, Isin and Tolon (2011) on the perceptions of academics, neurologists and marketing professionals about neuromarketing. It includes six sections with the first referring to the teachers' knowledge about neuromarketing, the second to their views, the third to their attitudes, the fourth to their intentions to use, the fifth to their expectations and finally, the sixth refers to the demographics of the respondents. A 5-point Likert scale (where 1 = Strongly Disagree, 5 = Strongly Agree) was used to measure the answers to emphasize the intensity of the choices and to be able to compare them.

The results of the research showed that teachers have a moderate level of neuromarketing knowledge but showed a positive attitude wishing to use the results in their teaching while at the same time they have high expectations from its application in education. In addition, the results showed that there was a correlation between the subscale Knowledge and the subscales Attitudes/Intentions/Expectations as well as between the subscale Attitudes and the subscales Intentions/Expectations.

Key Words: marketing, neuromarketing, teachers, education

REFERENCES

Ababkova, M. Y., & Leontieva, V. L. (2018). Neuromarketing for education: Rethinking frameworks for marketing activities. *European Proceedings of Social Behaviour Sciences*, 1-9.
Eser, Z., Isin, F. B., & Tolon, M. (2011). Perceptions of marketing academics, neurologists, and marketing professionals about neuromarketing. *Journal of Marketing Management*, 27, 854–868.
Lee, N., Broderick, A. J., & Chamberlain, L. (2007). What is 'neuromarketing'? A discussion and agenda for future research. *International Journal of Psychophysiology, 63*(2), 199-204.
Murphy, E. R., Illes, J., & Reiner, P. B. (2008). Neuroethics of neuromarketing. *Journal of Consumer Behaviour, 7*(4-5), 293-302.
Zancajo, A. (2018). Educational providers in the marketplace: Schools' marketing responses in Chile. *International Journal of Educational Research*, *88*, 166-176.

ENVIRONMENTAL EDUCATION AND TRAINING FOR ENTREPRENEURS AND WORKERS IN TOURISM INDUSTRY, AS A USEFUL TOOL IN ACHIEVING SUSTAINABLE DEVELOPMENT

Ioanna Grigoriadou
Msc, PhD candidate International Hellenic University Department of Organization Management, Marketing & Tourism
Thessaloniki, Greece
e-mail: ioanna.grig@outlook.com

Dimitrios Theocharis
Msc, PhD candidate International Hellenic University Department of Organization Management, Marketing & Tourism
Thessaloniki, Greece
e-mail: dim.theocharis@yahoo.gr

and

Greta Hoxha
Msc in Health & Welfare Management Units
International University of Greece
Thessaloniki, Greece
e-mail: iwannachotza@gmail.com

ABSTRACT

Due to the current reality, the concept of sustainability is becoming increasingly important and should be placed at the forefront of any company's attention. Through catastrophic fires, floods, global warming and climate crisis, it is necessary to educate entrepreneurs and workers, on how to change the way of action.

As it is recognized, hotels, as important members of the global tourism value chain, have negative impacts on the environment (Sloan et al., 2009). The last years there has been a growing concern for a 'green' hotel in the view of customers, as they experience an increased awareness of environmental damage and excessive consumption of goods, energy and water (Mbasera et al., 2016). Nonetheless, the leading international hotel chains are emphasizing their commitment to sustainability and integrating it into their strategic plan (Jones, Hillier, & Comfort, 2014). Luxury hotels around the world, have implemented environmental practices that address energy efficiency measures that reduce water consumption, waste, and carbon emissions and that control, protect, and maintain fauna and flora to promote of unique natural landscapes (Pereira, Silva & Dias, 2021).

In Greek tourism industry, this major natural chapter is considered inexhaustible and automatically renewable, offered for free exploitation with the ultimate goal to be the unlimited economic growth. The tourism industry's impact on natural ecosystems must be minimized so that their functions are maintained intact for future generations. Hotel management and personnel must be educated about sustainable policies and how to implement them, in order to more easily achieve sustainable goals (Varelas, Karvela & Georgopoulos, 2021). It is needed to educate hoteliers on how to achieve sustainability, based on 'work culture', 'professional ethics' and operational practices (Jithendran & Baum, 2000).

Is continuously Environmental Education, a valuable tool to achieve a positive impact on both companies and the environment? In the present paper, an attempt is made to explore the need of educating Greek tourism industry's human resources (entrepreneurs and workers), in order to start working on an eco-friendly way that leads to sustainability. The hospitality industry must learn to be more flexible in adopting information technologies and sustainable philosophies, firstly for their own survival and secondly to strengthen their position inside the task environment (Varelas, Karvela & Georgopoulos, 2021). The aim is to understand this complex and multilevel issue but also to instrumentalize and apply this knowledge, through educational action, as vocational training can lead to a better understanding of man's relationship with the natural environment. The implementation of these training processes becomes of major importance as a mean to achieve sustainable development in Tourism industry. In the first stage of the present research, the associate literature is reviewed. In the second stage, primary quantitative

research is done, with the questionnaire as a research tool. Research sample consists of employees and entrepreneurs from the hotel industry.
The findings of this research concerning the region of Greece, are the expected, as indeed, most of the people answered that they had never been trained before on how to work in a sustainable way, and they didn't even realize the huge impact of their actions during work on the Greek natural ecosystem.
The key conclusion that emerges from the elaboration of this paper is that hotel companies in Greece need to offer vocational education and training to their human recourses in order to finally adopt sustainability policies and ways of working, respecting their surrounding environment.

Key Words: Education, Sustainability, Hotel Industry, Environmental issues

REFERENCES

Abdou, A. H., Hassan, T. H., Dief, E., & Moustafa, M. (2020). A description of green hotel practices and their role in achieving sustainable development. Sustainability, 12(22), 9624.
Alvarez, R., Ferguson, D. H., & Dunn, J. (1983). How not to automate your front office. Cornell Hotel and Restaurant Administration Quarterly, 24(3), 56-62.
Bethapudi, A. (2013). The role of ICT in tourism industry. Journal of applied economics and business, 1(4), 67-79.
Buhalis, D. (2019). Technology in tourism-from information communication technologies to eTourism and smart tourism towards ambient intelligence tourism: a perspective article. Tourism Review.
Dao, V., Langella, I., & Carbo, J. (2011). From green to sustainability: Information Technology and an integrated sustainability framework. The Journal of Strategic Information Systems, 20(1), 63-79.
Jithendran, K. J., & Baum, T. (2000). Human resources development and sustainability—The case of Indian tourism. International Journal of Tourism Research, 2(6), 403-421.
Jones, P., Hillier, D., & Comfort, D. (2014). Sustainability in the global hotel industry. International Journal of Contemporary Hospitality Management.
Longoni, A., & Cagliano, R. (2015). Environmental and social sustainability priorities: Their integration in operations strategies. International Journal of Operations & Production Management.
Mata, F. J., Fuerst, W. L., & Barney, J. B. (1995). Information technology and sustained competitive advantage: A resource-based analysis. MIS quarterly, 487-505.
Pereira, V., Silva, G. M., & Dias, Á. (2021). Sustainability practices in hospitality: Case study of a luxury hotel in Arrábida Natural Park. Sustainability, 13(6), 3164.
Ping, L. (2009, December). Strategy of green logistics and sustainable development. In 2009 International Conference on Information Management, Innovation Management and Industrial Engineering (Vol. 1, pp. 339-342). IEEE.
Rivera, J. (2004). Institutional pressures and voluntary environmental behavior in developing countries: Evidence from the Costa Rican hotel industry. Society and Natural Resources, 17(9), 779-797.
Sloan, P., Legrand, W., Tooman, H., & Fendt, J. (2009). Best practices in sustainability: German and Estonian hotels. In Advances in hospitality and leisure. Emerald Group Publishing Limited.
Varelas, S., Karvela, P., & Georgopoulos, N. (2021). The Impact of Information Technology and Sustainable Strategies in Hotel Branding, Evidence from the Greek Environment. Sustainability, 13(15), 8543.

AN EMPIRICAL STUDY OF A MATHEMATICAL MODELING ASSESSMENT TOOL FOR PRESERVICE TEACHERS

Reuben S. Asempapa
Pennsylvania State University, Harrisburg
Middletown, PA, USA
e-mail: rsa26@psu.edu

and

Doris Lee
Pennsylvania State University, Harrisburg
Middletown, PA, USA
e-mail: ydl1@psu.edu

ABSTRACT

The importance of training teachers in mathematical modeling and its close relationship with the quality of education in the 21st century has been made clear in the content of different reports and standards published by national and international organizations. Additionally, there has been an increasing emphasis on the importance of mathematical modeling nationally and internationally in teacher preparation programs around the world (Borromeo Ferri, 2018). On this basis, we believe that today's preservice teachers (PSTs) should be able to know and train students to use mathematical modeling as a natural part of their daily lives. According to the objectives of the Association of Mathematics Teacher Educators (AMTE) standards framework (AMTE, 2020), PSTs must link mathematical modeling skills or competences to their professional practice. Additionally, in the United States of America (U.S.), both the Common Core State Standards for Mathematics (National Governors Association Center for Best Practices [NGA Center] & Council of Chief State School Officers [CCSSO], 2010) and the Next Generation Science Standards (NGSS Lead States, 2013) point toward modeling as a central, unifying theme across mathematics and science education. One of the key concepts behind this movement in assessing PSTs' knowledge in mathematical modeling is because PSTs' lack of knowledge focused on mathematical modeling in teacher preparation programs poses a threat to the ideals of helping students learn and do mathematics (Wolf, 2015).

It is important to assess PSTs' knowledge of mathematical modeling because there are limited assessment tools globally to guide mathematics educators' and researchers' evaluation of PSTs' knowledge of mathematical modeling practices that challenge their responsibilities to promote and support students development in modeling practices that foster mathematical literacy and competencies (Ziebarth, Fonger, & Krathy, 2014). Moreover, having reliable, tested, and validated assessment tools, which includes mathematical modeling knowledge instruments, will improve the relationship between PSTs and the modeling teaching standards and practices set forth by national standards to promote modeling education in students (Nortvedt & Buchholtz, 2018).

While mathematical modeling plays a valuable role in helping students solve interdisciplinary challenges, the way in which they are integrated to provide the greatest learning benefits remains unclear with PSTs. Therefore, the purpose of this study was to develop an assessment tool that assesses PSTs knowledge of mathematical modeling. Using a variety of sources, an initial Mathematical Modeling Knowledge Scale (MAMKS) was developed that included an 8-item with a 6-point Likert response category and demographic information. Specifically, a descriptive survey research design (cross-sectional) was used for this study. PSTs of mathematics from a Midwestern state university were self-selected for this research study. The MAMKS was honed to a 6-item version using interviews with experts, item analysis, reliability analysis, and factor analysis. The study employed a survey research design as described by DeVellis (2017). The reliability of the MAMKS was moderately high and acceptable ($\alpha = .80$) for a one-factor scale. The findings suggest a psychometrically acceptable scale and a reliable tool to measure pre-service teachers' knowledge of mathematical modeling. This study

provides insight for mathematics educators and researchers seeking engaging ways to integrate mathematical modeling in authentic contexts and potential uses and applications of the MAMKS. This study provides important implications for examining the benefits of an assessment tool that measures PTSs knowledge of mathematical modeling.

REFERENCES

Borromeo Ferri. R. (2018). Learning how to teach mathematical modeling in school and teacher education. Picassoplatz, Switzerland: Springer.
DeVellis, R. F. (2017). Scale development: Theory and applications (3rd ed.). Los Angeles, CA: Sage.
National Governors Association Center for Best Practices & Council of Chief State School Officers. (2010). Common core state standards for mathematics. Washington, DC: Author.
NGSS Lead States. (2013). Next generation science standards: For states, by states. Washington, DC: National Academies Press.
Nortvedt, G. A., & Buchholtz, N. (2018). Assessment in mathematics education: Responding to issues regarding methodology, policy, and equity. ZDM Mathematics Education, 50(4), 555–570. https://doi.org/10.1007/s11858-018-0963-z
Wolf, N. (2015). Modeling with mathematics: Authentic problem solving in middle school. Portsmouth, New Hampshire: Heinemann.
Ziebarth, S., Fonger, N., & Kratky, J. (2014). Instruments for studying the enacted mathematics curriculum. In D. Thompson, & Z. Usiskin (Eds.), Enacted mathematics curriculum: A conceptual framework and needs (pp. 97–120). Charlotte, NC: Information Age Publishing.

INNOVATIVE WORK BEHAVIOR, CREATIVE SELF-EFFICACY, AND DYSFUNCTIONAL MYTHS IN THE SCHOOL FRAMEWORK: A CUSP CATASTROPHE MODEL

Angelos Gkontelos
Department of Philosophy and Education
Aristotle University of Thessaloniki
Thessaloniki, Greece
e-mail: gkontelos@edlit.auth.gr

and

Dimitrios Stamovlasis
Department of Philosophy and Education
Aristotle University of Thessaloniki
Thessaloniki, Greece
e-mail: stadi@auth.gr

ABSTRACT

In this paper, the Innovative Work Behavior (IWB) of teachers is investigated as a function of the Creative Self-Efficacy (CSE) and the Dysfunctional Myths (DM) in the school context. Creative ideas comprise the basis of any innovation and creativity is the procedure of resulting in new ideas (Scott & Bruce, 1994), while innovation entails the process of placing these ideas in practice (Gurteen, 1998). In education, the cultivation of creativity through innovative ideas is vital, while teachers' IWB is by far important and necessary for supporting their primer goals.

IWB can be described as a succession of behaviors in which individuals originate novel ideas in their work, figure out working obstacles, promote them to other members of the organization and achieve positive consequences (Lambriex-Schmitz et al., 2020; Messmann & Mulder, 2011; Pan et al., 2018). Moreover, via IWB the employees support the organization's sustainability through generating, promoting, realizing new ideas (Kimwolo & Cheruiyot, 2018). As an aftereffect of self-efficacy, CSE is defined as the individuals' beliefs of their own capabilities on an innovative task they are faced with (Tierney & Farmer, 2002). It interprets the personal and contextual hints in the creative process (Ghosh et al., 2019) and due to its sensitivity to such factors, it is characterized as an unstable belief which can configure creative and innovative procedures (Jaiswal & Dhar, 2015). On the other hand, there are some individual differences, perceptions, or beliefs that lack reasonableness and being actually misunderstandings of reality, affect behavior in a peculiar manner. These are known as Irrational Beliefs (IB, Ellis, 1958), they are detected in different forms and might lead to non-functional consequences like anxiety, anger and depression (Bernard, 2016; Turner & Bennett, 2018). DM describe the conclusions drawn from IB and research has shown that under bounded rationality they influence decision-making in an unpredictable way by inducing nonlinear phenomena (Stamovlasis & Vaiopoulou, 2017). Based on the latter findings, a further investigation is endeavored exploring the role of DM on IWB of teachers examined as the dependent measure. In the relevant research the traditional linear modeling has been employed, which however has limited explanatory power and it is inadequate to capture potential nonlinear effects often observed in human behavior.

The present study employs data taken from a large sample of primary education teachers (N=964), who completed online the three instruments measuring IWB, CSE and DM (Bernard, 1988; Lambriex-Schmitz et al., 2020; Tierney & Farmer, 2002). Selected dimension from the IWB, and specifically the IGen (Idea Generation), along with the Auth (Authoritarianism) dimension of the DM were used to examine the applicability of a catastrophe theory model. A cusp analysis was carried out using IGen as a dependent variable, CSE as an asymmetry factor, while Auth was the bifurcation factor. The calculation were based on the probability density function of the stochastic cusp equation using *cuspfit* in R (Grasman et al., 2009). A cusp structure was revealed, which suggests that beyond a critical value of DM, changes in IWB occur as transitions between two behavioral modes. This nonlinearity is a dynamic effect which has theoretical and epistemological implications (Stamovlasis, 2016) for the field and can only be interpreted within Complexity Theory perspective.

Key Words: innovative work behavior, dysfunctional myths, creative self-efficacy, cusp catastrophe

REFERENCES

Bernard, M. E. (1988). Teacher irrationality and teacher stress. *Paper Presented at the 24th International Congress of Psychology, Sydney, Australia*.

Bernard, M. E. (2016). Teacher Beliefs and Stress. *Journal of Rational - Emotive and Cognitive - Behavior Therapy*, *34*(3): 209–224. https://doi.org/10.1007/s10942-016-0238-y

Ellis, A. (1958). Rational Psychotherapy. *The Journal of General Psychology*, *59*: 35–49. https://doi.org/10.1080/1046171X.1989.12034348

Ghosh, V., Bharadwaja, M., Yadav, S., & Kabra, G. (2019). Team-member exchange and innovative work behaviour: The role of psychological empowerment and creative self-efficacy. *International Journal of Innovation Science*, *11*(3): 344–361. https://doi.org/10.1108/IJIS-12-2018-0132

Grasman, R. P. P. P., van der Maas, H. L. J., & Wagenmakers, E.-J. (2009). Fitting the Cusp Catastrophe in R: A cusp Package Primer. *Journal of Statistical Software*, *32*(8): 1–27. https://doi.org/10.18637/jss.v032.i08

Gurteen, D. (1998). Knowledge, creativity, and innovation. *Journal of Knowledge Management*, *2*(1): 5–13. https://doi.org/10.4324/9781315162836-3

Jaiswal, N. K., & Dhar, R. L. (2015). Transformational leadership, innovation climate, creative self-efficacy and employee creativity: A multilevel study. *International Journal of Hospitality Management*, *51*: 30–41. https://doi.org/10.1016/j.ijhm.2015.07.002

Kimwolo, A., & Cheruiyot, T. (2018). Intrinsically motivating idiosyncratic deals and innovative work behaviour. *International Journal of Innovation Science*, *11*(1): 31–47. https://doi.org/10.1108/IJIS-05-2017-0038

Lambriex-Schmitz, P., Van der Klink, M. R., Beausaert, S., Bijker, M., & Segers, M. (2020). Towards successful innovations in education: Development and validation of a multi-dimensional Innovative Work Behaviour Instrument. *Vocations and Learning*, *13*(2): 313–340. https://doi.org/10.1007/s12186-020-09242-4

Messmann, G., & Mulder, R. H. (2011). Innovative Work Behaviour in Vocational Colleges: Understanding How and Why Innovations Are Developed. *Vocations and Learning*, *4*(1): 63–84. https://doi.org/10.1007/s12186-010-9049-y

Pan, Y., Diao, H., & Li, S. (2018). *Path Analysis of Psychological Capital Affecting Teachers' Innovative Behavior Based on Structural Equation*. *Icepms*, 0–4. https://doi.org/10.25236/icepms.2018.125

Scott, S. G., & Bruce, R. A. (1994). Determinants of innovative behavior: a path model of individual innovation in the workplace. *Academy of Management Journal*, *37*: 580–607. https://doi.org/10.5860/choice.32-1325

Stamovlasis, D. (2016). Catastrophe theory: Methodology, epistemology and applications in learning science. In M. Koopmans and D. Stamovlasis (Eds.), *Complex Dynamical Systems in Education: Concepts, Methods and Applications* (pp. 141–175). Cham, Switzerland: Springer Academic Publishing. https://doi.org/10.1007/978-3-319-27577-2

Stamovlasis, D., & Vaiopoulou, J. (2017). The Role of Dysfunctional Myths in a Decision-Making Process under Bounded Rationality: A Complex Dynamical Systems Perspective. *Nonlinear Dynamics, Psychology, and Life Sciences*, *21*(3): 267–288.

Tierney, P., & Farmer, S. M. (2002). Creative self-efficacy : potential antecedents and relationship to creative performance. *Academy of Management Journal*, *45*(6): 1137–1148. https://doi.org/10.2307/3069429

Turner, M. and Bennett, R. (2018). *Rational emotive behavior therapy in sport and exercise*. Routledge.

DEVELOPING SECOND LANGUAGE ACQUISITION IN MULTILINGUAL STUDENTS: A CREATIVE WRITING-BASED INTERVENTION

Dr Christina Kalaitzi
International Hellenic University
Thessaloniki, Greece
e-mail: kalaitzic@bc.teithe.gr

Dr Paschalia Nathanail
Hellenic Open University
Thessaloniki, Greece
e-mail: pasxnath@yahoo.com

and

Dimitrios Theocharis
International Hellenic University
Thessaloniki, Greece
e-mail: dim.theocharis@gmail.gr

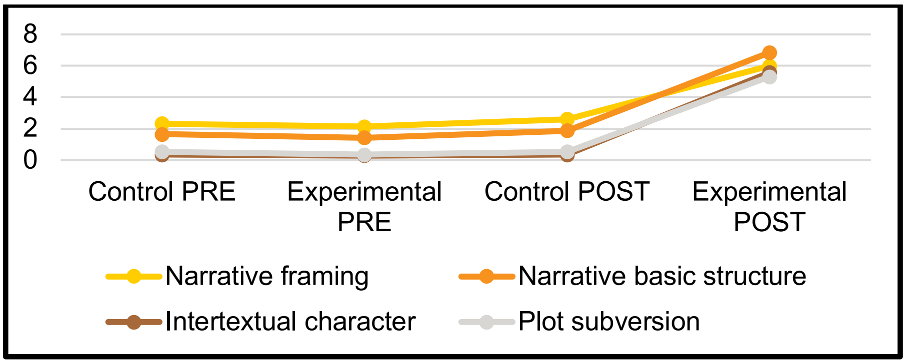
ABSTRACT

In teaching a tongue as a second language, creative writing as a process-based writing approach, outweigh traditional methods in improving the written expression skills of learners (Göçen, 2019). Students increase fluency and confidence through creative writing assignments, considering them both engaging and beneficial, given that writing is not graded based on grammar, spelling or structural deficiencies (Arshavskaya, 2015). Also, the process of going outside the box, challenging imagination, being authentic, and writing by enjoying, impacts students' creativity dimension (Turkben, 2019). Although it has been established that writing skills are a challenging skillset for students learning a tongue either as a native or as a second language, there seems to be a gap on the impact of creative writing on narrative techniques used by second language learners (SLL). Based on those facts, the aim of the current study is to identify the effects of creative writing-based practices on the development of narrative skill of A1-A2 level students learning Greek as a second language. Specifically, this research would assess the extent to which SLL' simple structured stories of A1-A2 level can be developed to complex narratives of more advanced levels.

54 A1-A2 level SLL students were selected for sampling. They were randomly differentiated to form the Experimental and Control Group. A pretest and a posttest were implemented to both groups. An intervention, that took place within a period of 3 months with an average of 6 class hours per week delivered by the researcher, was conducted only in the E.G. The intervention -based on previous action research projects- consisted of a teaching approach of specially designed activities – already validated from previous related research, aiming at the use of the four narrative elements which composed the indicators of the questionnaire (Kalaitzi, 2019). In developing the creative writing activities, A1-A2 level writing outcomes and A1-A2 writing competency of Common Application Text for European Languages were considered.

Results show that A1-A2 level SLL' narrative skill lacks of structural and morphological narrative patterns. In fact, during pre-intervention, both groups have similar performance regarding narrative techniques. On the contrary, after intervention, the differences between groups found to be statistically significant. While C.G. shows only a small increase on all scales, E.G. measures can be classified at B1-B2 levels (Table 1).

Table 1
Both Groups PRE & POST Intervention Performance at Narrative Techniques



Current findings validate previous research showing that creative writing, as an engaging teaching approach, enables A1-A2 Level SLL combine the use of specific narrative techniques, which frames the levels of second language acquisition into the ones of B1-B2 in terms of written narrative skill. Further on, the fact that both groups provided measurable results and notable deviations of their performance, enabling a between groups comparison and leading to safe assumptions, strengthens the impact of the intervention.
What appears at the end is the need of enhancing teaching practices; such effective and appropriate as creative writing is, aiming at the development of narrative skill at multilingual students, which subsequently can lead to their second language acquisition.

Key Words: multilingual education, SLL, second language acquisition, narrative skill, creative writing-based intervention

REFERENCES
Arshavskaya, E. (2015). Creative Writing Assignments in a Second Language Course: A Way to Engage Less Motivated Students. *InSight: A Journal of Scholarly Teaching,* 10:68-78.
Göçen. G. (2019). The effect of creative writing activities on elementary school students' creative writing achievement, writing attitude and motivation. *Journal of Language and Linguistic Studies,* 15(3):1032-1044.
Kalaitzi, C. (2019). *The youngest writers. The development of narrative skill through picture short stories: a creative writing project* [Οι πιο μικροί συγγραφείς. Η εικονογραφημένη μικροαφήγηση στην ανάπτυξη της αφηγηματικής δεξιότητας: ένα project δημιουργικής γραφής]. Thessaloniki: Kyriakidis Bros.
Turkben, T. (2019). The Effects of Creative Writing Practices on the Writing Skills of Students Learning Turkish as a Second Language. *Eurasian Journal of Educational Research,* 19(83):183-208.

EVALUATION AND SELF-EVALUATION IN DAF (GERMAN AS A FOREIGN LANGUAGE) COURSES

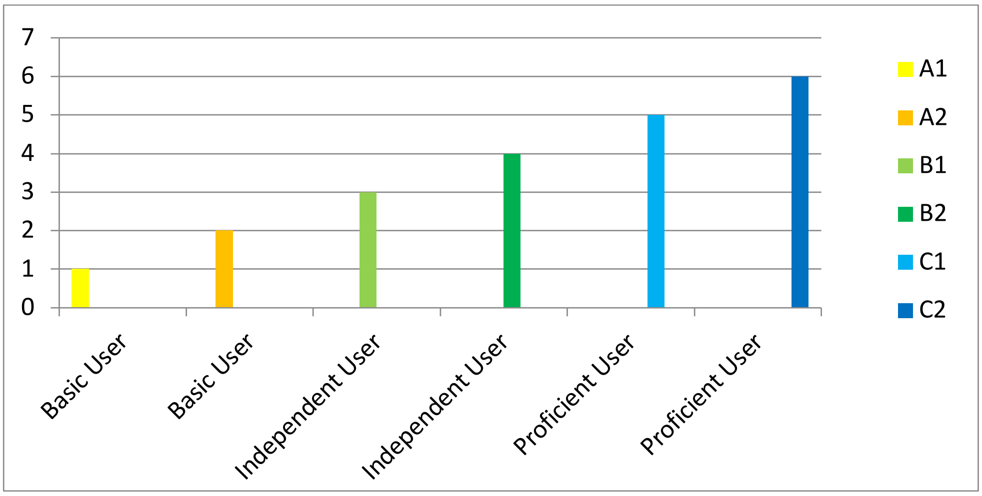
Artemis Tzouvaleki
Aristotle University of Thessaloniki
Thessaloniki, Greece
e-mail: tzouvaleki.artemis@gmail.com

ABSTRACT

How can teachers evaluate the achievement of learning goals and how can learners evaluate themselves? The aim of this paper is to introduce evaluation and self-evaluation methods used in DaF (German as a Foreign Language) courses. The research is based on scientific theories, teaching methodology (didactics) and secondary sources.

The evaluation of learning goals can be formal (e.g. tests) or informal (e.g. observation) (Ende et al. 2013). Both methods enable teachers to determine the language skill level of learners according to the Common European Framework of Reference for Languages (Council of Europe, 2021a).

Chart 1
Language skill levels according to the CEFR



Evaluation can also be summative or formative. It can target selective learning skills and take place at the end of an instructional unit (e.g. grading) or be continuously integrated into the learning process (e.g. observation and feedback) (Grotjahn and Kleppin, 2015). Observing each learner individually enables teachers to recognize the achieved learning goals and whether a learner is concentrated, active or not etc. These observations should be documented so that teachers can clearly identify the motivation, cooperation and achieved skills (e.g. new vocabulary) of each learner (Lundquist-Mog and Widlok, 2015). Developing and improving observation skills is essential as it allows teachers to evaluate learners and the learning process successfully (Ziebell and Schmidjell, 2012). Teachers can provide feedback to their learners as well as receive feedback from them. Giving feedback to learners should not only concentrate on skills that have not yet been achieved or mastered at a good level, but also on praising those that have been accomplished as well as the overall effort, giving learners the confidence to move on with their learning process (Lundquist-Mog and Widlok, 2015). Asking for feedback can build learners' trust in them and thus make teachers appear more reliable, which has a positive impact on the teacher-learner relationship. For example, Feedback-Posters with phrases such as "I understood/ almost understood/ haven't yet understood…" can be marked by learners (Ende et al. 2013).

Self-evaluation promotes learner autonomy and self-responsibility. It encourages learners to be motivated and active during the courses and the learning process. After completing tasks, learners are able to recognize which learning goals they have achieved, which they have not yet mastered so well and which they need to practice (Ende et al. 2013). A well-known instrument used in DaF courses is the European Language Portfolio (Council of Europe, 2021b).

Table 1

A simplified version of an ELP consists of three parts:

1	Language Passport	learners introduce themselves
2	Language Biography	learners note their achieved skills
3	Dossier	learners document the new skills they have mastered

Evaluation, in all its forms, is a process that must be organized systematically and repeatedly during DaF courses (Lundquist-Mog and Widlok, 2015), as the secondary sources show. Evaluation is not just about grading, testing or certifying a learner and their language skills. It is an ongoing process that can be undertaken by both teachers as learners, which has a great impact on the teacher-learner relationship. Therefore, teachers and learners should be able to observe, document and reflect on the learning process.

Key Words: evaluation, self-evaluation, DaF, CEFR, ELP

REFERENCES

Council of Europe. (2021a). Common European Framework of Reference for Languages (CEFR): The CEFR Levels. Https://www.coe.int/en/web/common-european-framework-reference-languages/level-descriptions. [Accessed the 19th of January 2022, 15:30]
Council of Europe. (2021b). European Language Portfolio (ELP): Aim of an ELP. Https://www.coe.int/en/web/portfolio/aim-of-an-elp. [Accessed the 19th of January 2022, 16:20]
Ende, K. et al. (2013). *Curriculare Vorgaben und Unterrichtsplanung*. München: Ernst Klett Sprachen.
Grotjahn, R. and Kleppin, K. (2015). *Prüfen, Testen, Evaluieren*. Klett-Langenscheidt.
Lundquist-Mog, A. and Widlok, B. (2015). *DaF für Kinder*. München: Klett-Langenscheidt.
Ziebell, B. and Schmidjell, A. (2012). *Unterrichtsbeobachtung und kollegiale Beratung: Neu*. München: Langenscheidt.

DEVELOPING AND ASSESSING YOUNG EFL LEARNERS' WRITING SKILLS: A CASE STUDY OF DESCRIPTIVE ASSESSEMENT COMBINED WITH THE INNOVATIVE METHOD OF PORTOFOLIO

Eleni Sofou
Thessaloniki, Greece
e-mail: elenisofou@windowslive.com

ABSTRACT

In a society which is constantly changing and evolving, there has been a need for development in the educational system, respectively. Assessment, as an intrinsic and irremovable element of education, has been subject to change in modern educational society. Turn to alternative assessment has taken place in the last decades, which has brought about improvements in assessment practices implemented in education.

The Portfolio has been recommended as an alternative method of assessment and it has been applied in various educational practices, enhancing a learner-centered learning environment; it is suggested as an additional part to the traditional forms of assessment. The research demonstrated that The Portfolio is considered a really helpful assessment tool for every single participant in the teaching and learning process. Herman et al. (1992), Simon and Forgette-Giroux (2000) define Portfolio as a systematic and continuous collection of studied material and work, which educators, students and/or peers have written comments on. In parallel, Williams (2000) asserts that Portfolios consist of learners' work and artefacts which are self-evaluated and display students' skills and thinking.

Self/peer-assessment is an additional part in the Portfolio assessment. Self-assessment helps learners become responsible and independent writers, designers and assessors of their writing Portfolios monitoring their language learning (Bailey & Heritage 2008). Through peer-assessment students became their peers' assessors and responsible for the analysis and evaluation of their classmates' products and learning process (Dafnoudi, 2016). As Cramer (1982) supports, evaluating their peers' work trainees become aware of learning how to write. Through either self-assessment or peer-assessment learners were offered meaningful feedback promoting face validity. Assessment and taught content are interrelated, in addition to washback effect, considering that learners' involvement and motivation became stronger (Brown, 2004).

Apart from the positive impact of the Portfolio method on learners, teachers' work is assisted as well. They share with students the responsibility for the establishment of goals and for evaluating advancement (Venn, 2000). In addition, the educator became aware of students' needs and language learning experiences (Griva and Kofou, 2017). Teachers were provided with the chance to understand trainees' progress and improvement of a skill assessing and realizing the ongoing process of learning (Hebert, 2001). The teacher pragmatically examined the practicality of the Portfolio and the applicability of the tools and strategies she integrated.

Descriptive grading enhances learners' active participation in socially acceptable, adequately validated and creative tasks (Jonavonic and Minic, 2016). In the words of Griva and Kofou (2017), beneficial details were offered via qualitative variables concerning learners' strengths, weaknesses and advancement deriving from various alternative methods. Individualization is an important element in descriptive assessment; trainees' progress and improvement were motivated because that they were approached and evaluated individually (Gojkov, 2003 in Jonavonic and Minic, 2016). When students are assessed, learners' needs, interests (Κασσωτάκης, 2003; Κωνσταντίνου, 2006) in addition to previous knowledge and abilities for a successful record of students' advancement and effort (Jonavonic and Minic, 2016) are identified. As Black and William (1998) assert, descriptive feedback which concentrates on achievements and paves the way towards improvement has positive effect on learning.

The study attempted to pave the way towards the implementation of the Portfolio method with the descriptive assessment in language teaching and learning concerning young EFL learners in a framework of case studies, providing educators with helpful understanding integrating the Portfolio as a basis for descriptive assessment in their teaching and evaluation ventures.

Key Words: Portfolio, alternative assessment, descriptive assessment, writing skills, autonomy, self/peer-assessment

REFERENCES

Bailey, A. L., & Heritage, M. (2008). *Formative assessment for literacy, Grades K-6: Building reading and academic language skills across the curriculum.* Thousand Oaks: Corwin/Sage Press

Black, P. & Wiliam, D. (1998). *Inside the black box.* London: NferNelson

Brown, S. (2004). *Assessment for Learning. Learning and Teaching in Higher Education,* 4: 87-102

Cramer, R. L. (1982). Informal approaches to evaluating children's writing. In J. J. Pikulski and T. Shanahan (Eds.), Approaches to the Informal Evaluation of Reading (pp. 80- 93). Newark, Del.: International Reading Association.

Dafnoudi, Ch. (2016). *The ELP in Greek Senior High School Developing and Assessing Students' Writing Skills, while Autonomous Learning is promoted.* Unpublished Dissertation. Patras: Hellenic Open University.

Griva, E. & Kofou, I. (2017). *Alternative Assessment in Language Learning: Challenges and Practices.* Thessaloniki: Kyriakidis Editions.

Hebert, E. A. (2001). *The Power of Portfolios: What Children Can Teach Us About Learning and Assessment.* San Francisco: Jossey-Bass.

Herman, J.L., Aschbacher, P.R., and Winters, L. (1992). *A practical guide to alternative assessment.* Alexandria, V.A: Association for Supervision and Curriculum Development.

Jovanovic, M., & Minic, V. (2016). Individualisation of teaching in the process of descriptive assessment. *Journal of educational and instructional studies in the world,* 6(1): 28-37.

Simon, M., & Forgette-Giroux (2000). Impact of a content selection framework on portfolio assessment at the classroom level. *Assessment in Education: Principles, Policy and Practice,* 7(1): 83-101

Venn, J.J. (2000). *Assessing students with special needs.* Upper Saddle River, NJ: Merrill.

Williams, J. (2000). *Implementing portfolios and student-led conferences.* ENC Focus, 7/2.

Κασσωτάκης, Μ. (2003). *Η αξιολόγηση της επιδόσεως των μαθητών (Μέσα, μέθοδοι, προβλήματα, προοπτικές).* Αθήνα: Εκδόσεις Γρηγόρη.

Κωνσταντίνου, Χ. (2006). Το παιδαγωγικό περιεχόμενο της αξιολόγησης του μαθητή. Στο: *Η αξιολόγηση στην εκπαίδευση: παιδαγωγική και διδακτική διάσταση: 71 κείμενα για την αξιολόγηση.* Αθήνα: Αφοί Κυριακίδη.

ALTERNATIVE ASSESSMENT VIA THE CULTURAL PORTOFOLIO: RAISING CULTURAL AWARENESS WHILE DEVELOPING READING & VOCABULARY SKILLS/STRATEGIES

Alexandra Pasi
MEd (HOU), MSc candidate (IHU)
Thessaloniki, Greece
e-mail: alexpassis@yahoo.com

ABSTRACT

Assessment and evaluation in general are an integral part of contemporary education; therefore, there is a reciprocal relationship between the two; that is learning and on the one hand and testing on the other (Bachman, 1990). Undeniably, assessment plays an underlying role in the Greek educational system because of the importance attached thereto within the culture (Papakammenou, 2018). Since learning and evaluation seemed to be intertwined, there is a need for more effective and productive evaluation methods which take into consideration different learning abilities, skills and needs. This has resulted in an increased interest in alternative assessment which considers the learner as a whole, taking into consideration a variety of skills, abilities, attitudes and offers a range of assessment tools to accommodate various learning styles (Barootchi & Keshavarz, 2002; Gardner, 1983). When formative assessment is integrated and implemented in classroom activities, student progress and achievement increase (Pla-Campas et.al., 2016). Alternative assessment, also known as authentic assessment, can be achieved via journals/ diaries, projects, anecdotal records, think-aloud protocols, play-based and portfolios (Grivas and Kofou, 2017), with the cultural portfolio the focus of this paper.

On-going globalization, mobility and migration coupled with advanced modern technology has thrown different cultures closer together by facilitating communication and blurring borders. In a multicultural and multiethnic Europe, it is vital to be not only communicatively competent but interculturally as well, a concern also expressed by the Council of Europe (2018) in its advocating of pluriligualism and pluriculturalism. "A language is part of a culture and a culture is part of a language; the two are intricately interwoven so that one cannot separate the two without losing the significance of either language or culture." (Brown, 1994, p.165). Subsequently, the onus of promoting interculturalism often falls on the L2 language teacher.

Bearing this in mind, research was carried out during the school year 2019-2020 with first graders at a private senior high school in Thessaloniki, Greece. In particular, the research investigates the cultural portfolio as a means of contributing to intercultural awareness, promoting reading and vocabulary strategies and skills, and being used as a means of alternative assessment.

On the one hand, the portfolio has proven to be an effective tool for alternative assessment (Γρίβα και Κωφού, 2019). In addition, it can be used to promote skills and strategies such as those needed for reading while enriching vocabulary.

On the other hand, the cultural portfolio should do what its name implies: bring cultural awareness and cultural diversity into the classroom through the readings chosen for the portfolio Bryam & Guilherme, 2010; Πάση & Κωφού, 2021). Subsequently, learners can benefit from this approach of learning content through foreign language engagement.

Despite being based on a small convenience sample using quantitative data collection methods (a needs analysis, checklist and questionnaires) the research findings suggest that the cultural portfolio is a viable tool for alternative assessment, and effective at enhancing the strategies and skills required for reading as well as promoting interculturalism.

Key Words: cultural portfolio, intercultural awareness, reading and vocabulary strategies, alternative assessment

REFERENCES

Bachman, L. (1990). *Fundamental Considerations in Language Testing*. Oxford: Oxford University Press.

Barootchi, N. & M.H. Keshavarz (2002). Assessment of achievement through portfolio and teacher-made tests, *Educational Research*, 44(3), 279-288.

Brown, H. D. (1994). Principles of Language Learning and Teaching (2nd ed.). New Jersey: Prentice-Hall Regents.
Byram, M., & Guilherme, M. (2010). Intercultural education and intercultural communication. Tracing the relationship. In Y. Tsai & S. Houghton (Eds.), *Becoming intercultural: Inside and outside the classroom.* Newcastle upon Tyne, UK: Cambridge Scholars.
Council of Europe. (2018) *Common European framework for languages: Learning, teaching, assessment. Companion volume with new descriptors*. Strasbourg: Cambridge University Press. Available at https://rm.coe.int/cefr-companion-volume-with-new-descriptors-2018/1680787989 Accessed 28/06/2020.
Gardner, H. (1983). *Frames of mind: The Theory of Multiple Intelligences*. New York: Basic Books.
Griva, E. & Kofou, I. (2017) *Alternative assessment in Language learning: Challenges and Practices*. Thessaloniki: Kyriakidis Editions.
Papakammenou, I. R. (2018). Examining washback in EFL multi-exam preparation classes in Greece: A focus on teachers' teaching practices. In *Teacher involvement in high-stakes language testing* (pp. 321-339). Springer, Cham. https://doi.org/10.1007/978-3-319-77177-9_18
Pla-Campas, G., Arumí-Prat, J., Senye-Mir, A. M., & Ramírez, E. (2016). Effect of using formative assessment techniques on students' grades. *Procedia-social and behavioral sciences*, 228, 190-195.
Γρίβα, Ε., & Κωφού, Ι. (2019). *Η εναλλακτική αξιολόγηση στο σύγχρονο εκπαιδευτικό περιβάλλον: Σχεδιασμός και εφαρμογή περιγραφικών μεθόδων αξιολόγησης για τα γλωσσικά μαθήματα*. Θεσσαλονίκη: Εκδόσεις Κυριακίδη.
Πάση, Α & Κωφού, Ι. (2021) Το πολιτισμικό Portfolio ως όχημα ευαισθητοποίησης και ανάπτυξης της πολιτισμικής επίγνωσης εφήβων μαθητών μέσω αναγνωσμάτων στην αγγλική γλώσσα. Στο Πρακτικά Συνεδρίου, *6ο Πανελλήνιο Συνέδριο Εκπαίδευση και Πολιτισμός στον 21ο αιώνα*, 23/04/2021-25/04/2021 (σσ.268-279). Αθήνα.

HUMAN CAPITAL, SOCIAL INVOLVEMENT AND POLICY DIALOGUE IN EU DIGITAL EDUCATION ACTION PLAN (DEAP) (2021-2027)

Anca Parmena Olimid
Faculty of Social Sciences, University of Craiova
Craiova, Romania
e-mail: anca.olimid@edu.ucv.ro

and

Daniel Alin Olimid
Biology Specialization, University of Craiova, Romania
e-mail: daniel.olimid@edu.ucv.ro

ABSTRACT

The present paper focuses on the human capital-social involvement-policy dialogue relationship within the European Union (EU) Digital Education Action Plan 2021-2027 (DEAP) entitled: "Resetting education and training for the digital age" launched in 2020 (European Commission, 2020). Two main approaches based on the key topics of the digital education ecosystem (DES) and the digital skills and competencies (DSC) emphasize the centrality of the Communication on DEAP in education and training sectors as well. After expressing the need to define the "strategic and longer-term approach" focused on digital education (DE), DEAP integrates the notions of: "digital transition", "public health crisis", "resilience", "digital transformation", "digital learning practices", "digital teaching", "digital education". Guided by these notions, the research methodology lays out based representations of the digital sector that underlie the strategic priorities and social resilience. Therefore, the research reviews the major findings of the DEAP underlying three elements: (*a*) highlighting the role of emerging technologies and digital education; (*b*) identifying the particular approaches focused on the need for advanced DSC by indicating the dual mechanisms of the strategies and objectives of the Digital Europe Programme (DEP) (Regulation 2021/694), namely: digital skills and digitalisation; (*c*) specifying the practical implications of the establishment of a European Digital Education Hub (EDEH).

In addition, we examine the contributions of DEAP to digital learning practices (DLP), digital teaching (DT) and computing education (CE). In this context, EDEH will be meant to organize a network of services in the field of DE and to focus on the need for the implementation of actions, projects and cross-sector plans. Finally, with respect to the concepts of "digital capacity", "digital competence" and "digital education content", we examine how these notions are perceived in the Commission Staff Working Document (SWD) launched on September 30, 2020 [Commission Staff Working Document SWD(2020) 209 final], accompanying the Communication on DEAP. The particular perspective of the SWD (2020) shows the significance of digital competence development (DCD) by indicating the challenges and impact of the COVID-19 crisis and the intervening effects of the "targeted actions" in the field of the priority areas of DES and DSC [Commission Staff Working Document SWD(2020) 209 final]. To focus the DEAP objectives, the SWD (2020) takes into account five dimensions of the research namely: (*a*) the respect of human rights; (*b*) the human capital approach; (*c*) human intervention; (*d*) human capacity; (*e*) humanitarian aid.

The research findings also indicate the links between strategic actions, leadership, policy dialogue, policy initiative, policy solutions, policy cooperation and policy objectives. At the same time, SWD (2020) generates new research approaches to human development, human capital, social involvement and resilience by discussing the interconnection between (*i*) digital technologies, resilience and social involvement and (*ii*) education, resilience and digital transformation. However, based on these research findings, the study also indicates the role and impact of (*i*) the organizational resources, namely: (1) educational resources; (2) digital content; (3) online resources; (4) platforms; (5) learning resources and (*ii*) the implementation measures by highlighting: (1) the needs of the educational institutions, the evaluation strategies and the role of competencies (Christou & Eaton, 2000; Christou & Sigala, 2003; Sigala & Christou, 2007; Olimid, 2019; Caena & Redecker, 2019; Olimid & Olimid, 2019; Salajan, 2019; Papanikolaou, Roussakis & Tzionas, 2020); (2) connectivity; (3) cyber security; (4) learning analytics in educational area.

We conclude with a discussion on the consequences of the COVID-19 for the education sector arguing for policy formulation and strategy implementation based on the relationship between cooperation, interaction, connectivity and educational management (Zawacki-Richter, 2021; Olimid & Olimid, 2021).

Key Words: social involvement, human development, policy, EU, education

REFERENCES

Caena, F. & Redecker, C. (2019). Aligning teacher competence frameworks to 21st century challenges: The case for the European Digital Competence Framework for Educators (*Digcompedu)*. *Eur J Educ*, 54:356-369.

Christou, E. & Eaton, J. (2000). Management competencies for graduate trainees of hospitality and tourism programs. *Annals of Tourism Research*, 27(4): 1058-1061.

Christou, E. & Sigala, M. (2003). Internet tools and applications in tourism and hospitality education: A reality check of educators in Europe, 2003 International CHRIE Conference Proceedings, pp. 85-91.

Commission Staff Working Document. Accompanying the document Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions Digital Education action Plan 2021-2027 Resetting education and training for the digital age {COM(2020) 624 final}, Brussels, 30.9.2020 SWD(2020) 209 final. https://ec.europa.eu/education/sites/default/files/document-library-docs/deap-swd-sept2020_en.pdf.

European Commission (2020). Digital Education Action Plan (2021-2027). Resetting education and training for the digital age (Communication). https://ec.europa.eu/education/sites/default/files/document-library-docs/deap-communication-sept2020_en.pdf.

Olimid, A. P. (2019). Comparing educational policies, programmes and practices in EU institutional governance (2011-2017). *The European Proceedings of Social & Behavioural Sciences*, 67:789-797.

Olimid, A. P. & Olimid, D. A. (2019). Systèmes d'information des citoyens et ressources éducationnelles dans l'Union Européenne: analyse du nouveau cadre Europass dans la vision de la Décision (UE) 2018/646. *Revista Universitară de Sociologie*, 1(HorsSer):142-151.

Olimid, A. P. & Olimid, D. A. (2021). EU Institutional Resilience and Population Protection during COVID-19: Explaining the Social Impact of the Regulation (EU) 2021/241. *Revista de Științe Politice. Revue des Sciences Politiques*, 69:109-119.

Papanikolaou, V., Roussakis, Y. & Tzionas, P. (2020). The influence of political power and ideology on quality evaluation policies in higher education. *Journal of Contemporary Education, Theory & Research* 4(2):26-34.

Regulation (EU) 2021/694 of the European Parliament and of the Council of 29 April 2021 establishing the Digital Europe Programme and repealing Decision (EU) 2015/2240 (Text with EEA relevance) PE/13/2021/INIT. *JO L*, 11.5.2021, 166:1-34. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32021R0694.

Salajan, F. D. (2019). Building a policy space via mainstreaming ICT in European education: The European Digital Education Area (re)visited. *Eur J Educ*, 54:591-604.

Sigala, M. & Christou, E. (2007). Exploiting Web 2.0 in open and distance education: Developing personalised and collaborative learning environments. In A. Lionarakis (ed.), *Proceedings of the 4th International Conference on Open and Distance Learning-ICOL 2007* (pp.181-195). Athens: Propombos.

Zawacki-Richter, O. (2021). The current state and impact of Covid-19 on digital higher education in Germany. *Hum Behav & Emerg Tech*; 3:218-226.

ONLINE EDUCATION

ONLINE EDUCATION IN VOCATIONAL EDUCATION AND TRAINING

Andreas S. Stafylidis
Aristotle University of Thessaloniki, D.P.E.S.S. in Serres
Serres, Greece
e-mail: stafylid@phed-sr.auth.gr

Savvas A. Stafylidis
Aristotle University of Thessaloniki, D.P.E.S.S.
Thessaloniki, Greece
e-mail: savvasstafilidis@acadimia.com

Ioanna C. Karagkiozi
School of Industrial Studies of Thessaloniki, University of Macedonia, Greece
Thessaloniki, Greece
e-mail: 2ioannakara@gmail.com

and

Charalampos S. Stafylidis
Democritus University of Thrace, D.P.E.S.S
Komotini, Greece
e-mail: thes2.charalamposstafylidis@acadimia.com

ABSTRACT

Regarding the fact that Educational systems tend to change around the world the training - professional development of teachers and educators of formal and non-formal education and vocational education and training is crucial (Villegas - Reimers, 2003). The purpose of this research is the literature review of Online Education in Vocational Education and Training. The pandemic period of COVID-19 altered Education rapidly all over the world (Edy, 2020; Mallion et al., 2021; Syauqi et al., 2020). Online learning became an educational tool in Formal Education and in Vocational Education, efficient for its purposes during crisis situations such as the pandemic period, in many countries, as well as in Greece (Karalis et al., 2020; Vlassopoulos et al., 2021). Although, students tend to believe that online learning is less effective in many situations (Syauqi et al., 2020). Specifically, in Vocational Education, where the students should develop applied skills for their future professional activity, the usual educational process with in-person participation is preferable by them. Educational systems, teachers and educators should be prepared, informed and educated for online education, as in the future online education might be used more frequently. There are countries, such as Australia where the Vocational Education and Training was taught through online platforms even before the pandemic period (Cox & Prestridge, 2020; Reeson et al., 2016). Furthermore, teacher - centred pedagogy and student - centered pedagogy may affect the learning management system, which teachers and educators use online (González, 2009). It is noted that educators who prefer student - centred pedagogy provide online materials and opportunities to the students in order to build knowledge through communication and practical experience in the Vocational educational and training online program. Teacher - centred pedagogy focuses on providing students with online autonomous techniques in order to build knowledge (González, 2009). In conclusion, it is important to investigate ways and the appropriate advanced skills for the vocational education and training teachers – educators. With the appropriate online skills and tools, the vocational education and training teachers – educators would be able to apply the right teaching methods and opportunities to students (Schmidt, 2019). Lifelong learning would be evolved through digital online education and might there would be more opportunities for participation in the future for the students (Mason & Carr, 2021). Before the Covid - 19 pandemic, emergency remote education was not used at a great grade, especially in Greece. Additionally, there were training programs that used the in person and online training, but the majority of adult educational programs were using the in person teaching process. Specific digital skills should be trained for both teachers of vocational education and training programs and the students. Future researches may investigate the success of online training in vocational education and training and the specific training of adult educators in online teaching methods.

REFERENCES

Cox, D., & Prestridge, S. (2020). Understanding fully online teaching in vocational education. Research and Practice in Technology Enhanced Learning, 15(1), 1-22.

Edy, D. L. (2020). Revisiting the impact of project-based learning on online learning in vocational education: analysis of learning in pandemic Covid-19. In 2020 4th International Conference on Vocational Education and Training (ICOVET) (pp. 378-381). IEEE.

Gonzalez, C. (2009). Conceptions of, and approaches to, teaching online: a study of lecturers teaching postgraduate distance courses. Higher Education, 57(3), 299-314.

Karalis, T., & Raikou, N. (2020). Teaching at the times of COVID-19: Inferences and Implications for Higher Education Pedagogy. International Journal of Academic Research in Business and Social Sciences, 10(5), 479-493.

Mallion, E., Doukakis, S., Vlachou, S., & Filippakopoulou, E. (2021). Exploring the role of educational neuroscience in learning through the perspectives of adult vocational education students of computer science in the field of online learning. A case study. In 2021 6th South-East Europe Design Automation, Computer Engineering, Computer Networks and Social Media Conference (SEEDA-CECNSM) (pp. 1-7). IEEE.

Mason, J., & Carr, D. (2021). Boosting Lifelong Learning Through Digital Online Education: Australian Perspectives and Practices. In A. Suryadi, A. S. Akhyadi, Y. Shantini, & A. R. Rosmia (Eds.), Advances in Social Science, Education and Humanities Research: Proceedings of the First Transnational Webinar on Adult and Continuing Education (TRACED 2020), (Vol. 548, pp. 129-136). (ASSEHR). Atlantis Press.

Reeson, A., Mason, C., Sanderson, T., Bratanova, A., & Hajkowicz, S. (2016). The VET era: Equipping Australia's workforce for the future digital economy. Report for TAFE Queensland. Brisbane: CSIRO.

Schmidt, T. (2019). When the whole is more than the sum of its parts: Investigating ways that advanced skills for VET teachers are conceptualised and how they are developed. Doctor of Philosophy), Griffith University, Brisbane, Queensland.

Syauqi, K., Munadi, S., & Triyono, M. B. (2020). Students' Perceptions toward Vocational Education on Online Learning during the COVID-19 Pandemic. International Journal of Evaluation and Research in Education, 9(4), 881-886.

Vlassopoulos, G., Karikas, G. A., Papageorgiou, E., Psaromiligos, G., Giannouli, N., & Karkalousos, P. (2021). Assessment of Greek High School Students towards Distance Learning, during the First Wave of COVID-19 Pandemic. Creative Education, 12(04), 934.

EDUCATORS DISTANCE EDUCATION PERCEPTIONS DURING THE COVID-19 PANDEMIC 3nd WAVE IN GREECE

Georgia -Sofia Iordanidou
International Hellenic University
Thessaloniki, Greece
e-mail: giorgiaiordan@yahoo.gr

and

Evangelia Stalika
International Hellenic University
Thessaloniki, Greece
e-mail: evangelia.stalika@gmail.com

ABSTRACT

Despite the undoubted leaps and bounds in this endeavor for almost all the educational institutions that sought to harmonize themselves with modern technology, none of them proved to be fully prepared for a sudden cessation of school life and the replacement of what has been done so far, with distance learning and e-learning. The advent of Covid- 19 global pandemic has rapidly transformed educational reality and introduced new education and training conditions, with the aim of protecting the universal value of public health.

This research seeks to highlight some positive and successful factors for the implementation of the distance learning, according to the perceptions and views of directly interested users, namely the participating educators. In addition, it seeks that with its conclusions and findings, it will contribute in a substantial and effective way, to the enrichment of the existing theory on the improvement and promotion of the educational process, with the help and contribution of new technologies.

The sample consisted of 428 Greek educators. The Learning Scale for Distance Education-DEAS and the Unified Theory of Acceptance and Use of Technology-UTAUT were used as study tools.

The continuous variables, concerning the Likert scale and their descriptive statistical analysis were performed in the form of "mean" and "standard deviation". Respectively, with regard to the distinct variables, which concerned the demographic characteristics of the sample, their presentation was made in the form of "frequency" and "relative frequency (%)". Additionally, in order to investigate two related numerical variables, the procedure of Pearson's correlation coefficient test was applied. One-way analysis of variance (ANOVA) was used for detecting differences in sample based on the participants' demographic characteristics, as well as, t-test independent samples in the case of the independent variable gender.

It was found that the participating teachers stated that they considered that distance learning effectiveness to be superior to the perceived difficulties that arise. At the same time, the distance learning performance expectancy presented a higher price, while on the contrary, behavioral intention in terms of success factors received the lowest price. Remarkably, educators who participated in the research perceived the performance expectancy of distance education as a dependent of the expected effort required on their part to make the change.

To conclude, the new global health crisis data, which imposed social distance and compulsory closure in schools, by replacing the teaching in person with the e-learning, pushed teachers to become more creative, developed personally and professionally, in order to face the new conditions. In any case, educators, during the pandemic, made superhuman efforts to maintain a normalcy, thus experienced the health crisis even more intensely. Inevitably, teachers were armed with patience and perseverance, increased their empowerment and self-esteem, while wishing to make distance learning an effective learning process.

Key Words: educators, Covid-19, distance learning, success factors

REFERENCES

Alea, L. A., Fabrea, M. F., Roldan, R. D. A., & Farooqi, A. Z. (2020). Teachers' Covid-19 awareness, distance learning education experiences and perceptions towards institutional readiness and challenges. *International Journal of Learning, Teaching and Educational Research*, *19*(6), 127-144. https://doi.org/10.26803/ijlter.19.6.8

Bozkurt, A., Jung, I., Xiao, J., Vladimirschi, V., Schuwer, R., Egorov, G., ... & Paskevicius, M. (2020). A global outlook to the interruption of education due to COVID-19 pandemic: Navigating in a time of uncertainty and crisis. *Asian Journal of Distance Education*, *15*(1), 1-126.

Daniel, J. (2020). Education and the COVID-19 pandemic. *Prospects*, *49*(1), 91-96. https://doi.org/10.1007/s11125-020-09464-3

Foti, P. (2020). Research in distance learning in Greek kindergarten schools during the pandemic of covid-19: Possibilities, dilemmas, limitations. *European Journal of Open Education and E-learning Studies*, *5*(1), 19-30. http://dx.doi.org/10.46827/ejoe.v5i1.3080

Gouëdard, P., Pont, B., & Viennet, R. (2020). Education responses to COVID-19: Implementing a way forward. https://bit.ly/3eV4u8z

Jimoyiannis, A., Koukis, N., & Tsiotakis, P. Shifting to emergency remote teaching due to the COVID-19 pandemic: An investigation of Greek teachers' beliefs and experiences. In A., Reis, J. Barroso, J. B. Lopes, T. Mikropoulos & C.-W. Fan (Eds.), *Technology and Innovation in Learning, Teaching and Education* (pp. 320-329). Cham, Switzerland: Springer.

Klapproth, F., Federkeil, L., Heinschke, F., & Jungmann, T. (2020). Teachers' Experiences of Stress and Their Coping Strategies during COVID-19 Induced Distance Teaching. *Journal of Pedagogical Research*, *4*(4), 444-452.

Koçoglu, E., & Tekdal, D. (2020). Analysis of Distance Education Activities Conducted during COVID-19 Pandemic. *Educational Research and Reviews*, *15*(9), 536-543. doi: 10.5897/ERR2020.4033

Luo, J., Rajendra, J., Roberts, M., Rapallo, N., Khan, F., Mardon, A. & Mardon, C. (2020). *Education During COVID-19*. Golden Meteorite Press Book.

Nambiar, D. (2020). The impact of online learning during COVID-19: students' and teachers' perspective. *The International Journal of Indian Psychology*, *8*(2), 783-793. doi: 10.25215/0802.094

DIGITAL LIBRARIES AS A BASIC MEANS OF LEARNING DURING THE PERIOD OF COVID-19 PANDEMIC

Valentini Ch. Kambatza
Deputy Professor
International University of Greece
Thessaloniki, Greece
e-mail: vkambatza@gmail.com

ABSTRACT

The present piece of work constitutes a literature review regarding the historical course of Libraries, with particular emphasis given on the special role of "Digital Libraries" at crucial periods for humanity. The pandemic of Covid-19 has caused important losses, submitting into trial psychosomatic human endurances, as well as socio-economical and political structures.

The study aims at the presentation of determining factors that have contributed to the post-evolution of traditional Libraries and to the necessity of the creation of "Digital Libraries". Their special role is stressed during the period of the compulsory lockdown of citizens, due to the threatening extension of Covid-19. Under these unusual conditions, "Digital Libraries" have been highlighted as a basic means of learning and entertainment, which was enlisted by different auspices of Education.

The Greek, ancient word *«Βιβλιοθήκη»* means the place of a book. The term, under the traditional meaning, is referred to a specific spatial environment (with the physical presence of the librarian and the readers) where collections of books, magazines, records and CD-roms are placed according to thematic units or authors. There are lending and inter-lending departments, a reading area and a place with electronic computers where different events are actualized (book presentations, creative writing workshops, reading clubs). In the modern era of technology, a library acquires an expanded role, collecting non-printed informational material, old maps and rare files, which are digitally deposited.

During the last decades, a crucial change regarding the structure and the role of libraries has been observed. This turnaround (despite the new socio-political conditions) is due to the new situation because of the pandemic. *"Digital Libraries"* serve the new needs of citizens completely. There are electronic, virtual or hybrid libraries, or libraries without building infrastructure (Τοράκη, 2002). The notion of *"Digital Libraries"* was located in 1945 for the first time, in the work of Vannenar Bush who invented a mechanical device based on microfilms. The term *''Library of the future''* was adopted in 1965, by J. C. R. Licklider (reference to a special type of libraries, wholly based on electronic computers). Afterwards, the terms *"hypertext"* and *"hyper-space"* have prevailed (Ted Nelson). Finally, the modern term *"Digital Library"* is owed to the organization called Digital Libraries Initiative (1994).

Since the decade of the 90s, a change has been s noticed on the role of the libraries because of the approach of the duties and responsibilities of the librarians to the educational and informative procedure (Virkus and Metsar, 2004: 294-295). During the 21st century, libraries are modified into an educational resource of activities for informal learning and self-learning (Odfrey, 1999). A *"Digital Library"* is referred to a distributed, computational environment, which simplifies the functions of creation, storage, management and re-use of digital material, allowing the multiple quest of resources, the storage and retrieval of information and the extraction of data in the framework of a universal network. The full information of the reader regarding cultural inheritance is considered among the benefits of distance education through a *"Digital Library"*, provided that books share the fate of societies of which they comprise an integral part (Bauman, 2000:4).

More specifically, during the pandemic period, the role of these libraries has been really important, because of the fact that the reader may be safely informed and totally entertained, through distance, from his/her own computer. This can be achieved only with the right equipment and technological knowledge, without special cost and without transfer (Αποστολίδου, 2012). The digital material functions as a basic means of learning in the framework of Education, especially in the pandemic period, as pupils and students seek material during the implementation of a project. Even during a lesson, the screening of authentic resources and images, which make the teaching material more comprehensible, is possible. Simultaneously, the concept of inter-culture is cultivated (Janson & Janson, 2009).

Certainly, distance education is not a panacea, although it covers the gaps of traditional training (Καρούλης, 2000 & Ρες, 2004) and it does not cancel the latter's role (Μπώκος, 2002: 246-257, Simmonds, 2001:1). Therefore, the post-evolution of traditional libraries into digital ones has functioned as a total necessity during this crucial period of humanity.

Key Words: Library, Education, Technology, Covid-19, Culture, Literature

REFERENCES

Αποστολίδου, Β. (2012). Η Λογοτεχνία στα νέα περιβάλλοντα των ΤΠΕ: Κυβερνολογοτεχνία και e-books, Ψηφιακές Κοινότητες Αναγνωστών, Δημιουργική Γραφή και Αφήγηση στον Ψηφιακό κόσμο. *Ερευνητικό πρόγραμμα στο πλαίσιο ΕΣΠΑ*. Θεσσαλονίκη: Κέντρο Ελληνικής Γλώσσας (ΥΠΕΠΘ).
Μπώκος, Γ.Δ. (2002). *Τεχνολογία και Πληροφόρηση. Από τη Διαχείριση του Βιβλίου στη Διαχείριση της Γνώσης.* Αθήνα: Παπασωτηρίου.
Ρες, Γ. (2004). Ανοικτή και εξ' αποστάσεως Εκπαίδευση: Μια ευέλικτη, πολυμορφική, *«μαθητοκεντρική»* επιλογή. Ανακτήθηκε από https://web.archive.org/web/20111015185325/http//www.cpe.gr/periodiko/res4.pdf
Τοράκη, Κ. (2002). Ψηφιακές Βιβλιοθήκες στο ελληνικό Διαδίκτυο: σημερινή εικόνα και ρόλος. *11ο Πανελλήνιο Συνέδριο Ακαδημαϊκών Βιβλιοθηκών.* Λάρισα: 67-81.
Bauman, Z. (2000). *Does Reading Have a Future?* Διαθέσιμο στο: http://www.honco.net/100day/02/2000-0911-bauman.html
Odfrey, H. (1999). *An investigation into use of public librairies for learning (Thesis).* Διαθέσιμο στο: http://dagda.shef.ac.uk/dissertations/199899/godfrey.pdf
Simmonds, P. I. & Andaleeb, S. S. (2001). Usage of Academic Libraries: The Role of Quality Service and User Characteristics, *Library Trends.* Διαθέσιμο στο: http://www.findarticles.com/p/articles/mi_m1387/is¬4¬49/ai¬-_77811348
Virkus, S. and Metsar, S. (2004). General Introduction to the Role of the Library for University Education, *Liber Quarterly*: 294-295, Γερμανία. Διαθέσιμο στο: http://liber.library.uu.nl/publish/articles/000101/article.pdf
Europa.eu *Η πολιτιστική κληρονομιά της Ευρώπης.*

PROCEDURES EMERGING FROM DL WITH SCOPE IN THE FUTURE

Nikoleta Ioannou
Teacher in Primary Education
Msc Education, Hellenic Open University
Thessaloniki, Greece
e-mail: nicol_ioannou@yahoo.com

ABSTRACT

Since it first emerged, the main purpose of Distance Learning (DL) was to provide instruction characterized primarily by the instructor and the learner being in separate locations (Keegan, 2000). The primary scope of this form of learning was in Higher Education; only recently it came to be implemented in all levels of education, due to the emergency circumstances brought on by the pandemic over the last two years (2020-2021). According to Athanasoula-Reppa (2006), distance learning emphasizes the learner's active participation, giving them the opportunity to learn on their own, through the process of self-education and self-motivation (Lionarakis, 2006). Certainly for all of this to occur and for this type of learning to function effectively, technology played a decisive role (Anastasiadis, 2006; Aldon et al., 2021).

Specifically in the case of the Covid-19 pandemic, communication via personal computer and the use of the Internet became necessary for the continuation of school attendance by students at every level, as lockdowns were extended and the future appeared uncertain. But in addition to the learning process, the school's administrative operation also changed. Communications between the principal and teachers took place via telephone calls, messaging, emails, and later through teleconferencing. This process became more popular, as it allowed them to meet in real time with no health risk and to organize the educational issues that occurred and shifted continuously. In other words, the Teachers' Association continued to convene and remained the school's most powerful body, finding solutions to the problems that were posed by the new reality of the digital classroom.

Furthermore, communication between the school and its students and their families commenced via email, online blogs and posts on the school's website. Certainly, there was no shortage of telephone calls to the principal and teachers, a fact that turned the school and its human resources into a 24-hour service on a daily basis. School units faced a multitude of problems, such as a lack of equipment and Internet access both for teachers and for students (Tabatadze & Chachkniani, 2021). Even the schools themselves faced difficulties due to network overloads and a lack of computers. Nevertheless, it appears that the effort to maintain contact and provide distance learning gradually became mainstream and overcame the numerous problems that emerged initially, by virtue of the willingness and diligence of the teachers and the principal in each school unit. And so, online classes and the new methods of communication that relied on digital media not only functioned successfully during the health crisis but remained as the primary method of communication subsequently.

From a survey conducted in August of 2021 on a sample of principals in Primary Education on the subject of distance learning as it was implemented during the pandemic, it resulted that procedures such as the aforementioned (communication via email, teleconferences of the Teachers' Association) aided the smooth operation of the school. Furthermore, they proved to be useful tools that will be implemented henceforth as a rule, as they facilitate the operation of the school unit, promote direct communication, and rally the Teachers' Association which now has the opportunity to convene easily and in plenary, overcoming any difficulties and problems that were created by the previous status quo. As a result, new foundations were established for school organization and administration, since through a period of emergency schools succeeded in instituting more modern and flexible ways of direct and easy communication, both with the students and their families and among the Teachers' Association.

REFERENCES

Αθανασούλα-Ρέππα, Α. (2006). Ο ρόλος του Καθηγητή – Συμβούλου στην Ανοικτή και εξ Αποστάσεως Εκπαίδευση. Στο Λιοναράκης, Α. (επιμ.) Ανοικτή και εξ αποστάσεως εκπαίδευση (σελ. 78-107). Αθήνα: Προπομπός.

Aldon, G., Cusi, A., Schacht, F., & Swidan, O. (2021). Teaching Mathematics in a Context of Lockdown: A Study Focused on Teachers' Praxeologies. Education Science, 11, 38.

Αναστασιάδης, Π. (2006). Περιβάλλοντα Μάθησης στο Διαδίκτυο και Εκπαίδευση από Απόσταση. Στο Λιοναράκης, Α. (επιμ.) Ανοικτή και εξ αποστάσεως εκπαίδευση (σελ. 108- 150). Αθήνα: Προπομπός.

Keegan, D. (2000). Οι βασικές αρχές της Ανοιχτής και Εξ αποστάσεως εκπαίδευσης. Αθήνα : Μεταίχμιο.

Λιοναράκης, Α. (2006). Η θεωρία της εξ αποστάσεως εκπαίδευσης και η πολυπλοκότητα της πολυμορφικής της διάστασης. Στο Λιοναράκης, Α. (επιμ.) Ανοικτή και εξ αποστάσεως εκπαίδευση (σελ. 11-41). Αθήνα: Προπομπός.

Tabatadze, S. & Chachkhiani, K. (2021). COVID-19 and Emergency Remote Teaching in the Country of Georgia: Catalyst for Educational Change and Reforms in Georgia? Educational Studies, 57, 78–95.

TEACHERS AND NEW TECHNOLOGIES. THE EFFECTS OF DISTANCE EDUCATION DURING THE 2nd AND 3rd QUARANTINE IN GREECE FOR COVID-19, ON THE USE OF THE INTERNET AND STEM TOOLS AS WELL AS THE USE OF NEW TECHNOLOGIES BY TEACHERS

Maria D.Kotanidou
Department Of Physics, IHU
Kavala, Greece
e-mail: Kotanidoumairh@gmail.com

and

Nikolaos I, Chatzinikolaou
Department of Organizational Management, Marketing and Tourism IHU
Thessaloniki, Greece
e-mail: Nikosxatzinikolaou1@gmail.com

ABSTRACT

The pandemic and the confinement at home - which was chosen as one of the main ways to stop Covid-19 - brought the internet even more to the forefront and turned it for the majority of people into a necessary tool need to work, to educate, to serve their daily needs and communicate with relatives and friends. Children, adolescents, retirees, employees and consequently teachers now spend their daily lives using the internet many times more than in the past.

Studying topics related to STEM education and new technologies in general can broaden the horizons of the mind. If one learns to think scientifically, will learn trial and error method.

The key is to solve problems creatively, to challenge, to search for the truth and always be willing to explore more about how things work. Children need to learn these things. That is why children need to study science and that way of thinking.

To be a good scientist, one must be creative and imaginative. And while the arts and imagination are often set aside as unimportant to children, it is important to know that learning STEM, a child also practices these aspects of their thinking. Good STEM education should not be boring, simplistic and focus only on the pure facts of mathematics or science. It must incorporate other skills and be oriented to all children so that they can learn and enjoy.

The traditional architectures of education that wanted students to be "prisoners" in space and time, on the walls of a classroom and the suffocating schedules are over. During the pandemic, learning was "everywhere".

This paper introduces the impact that STEM education has on society in terms of the advancement of science for the benefit of the general public, makes an allusion to technological illiteracy and mentions what happened in Greece in terms of education during incarceration. Cause of the distancing measures.

In the second part we presents the results of a survey in order to evaluate the current practices of STEM teachers regarding the way they organize teaching as well as the contacts they had with technology during distance learning. In particular, the research explored areas such as: pedagogical approaches, the type of resources used by teachers and students to facilitate teaching and learning in STEM subjects, the use of ICT in the teaching process and the need for specialized training and education of teachers and their attitude towards students.

Key Words: Covid-19, STEM, Technological Skills, Technological Literacy

REFERENCES

Abilities, I. A. (2012). Innovative Allies: Spatial and Creative Abilities. *SAGE Journals.*
Alade et al., 2. (2016, september). Measuring with Murray: Touchscreen technology and preschoolers' STEM learning. *Computers in Human Behavior,* σσ. 433-441.
Bybee, R. W. (2010). What Is STEM Education? *Science ,* σσ. 31-49.
Ching et al., 2. (2018, august). Investigation of geometric sensitivity of a non-axisymmetric bump: 3D mean velocity measurements. *Experiments in Fluids,* σ. 143 .
Ching, Hsu & Baldwin (2018). (2018). Developing Computational Thinking with Educational Technologies for Young Learners. *Instructional Media Design Commons.*

Colwell, R. (2001). Promising Practices for Addressing the Underrepresentation of Women in Science, Engineering, and Medicine: Opening Doors. *Hardcopy Version at National Academies Press.*
Couse & Chen. (2010, September). A Tablet Computer for Young Children? Exploring its Viability for Early Childhood Education. *Journal of Research on Technology in Education*, σσ. 75-96.
cunsil, e. (2019). *Achievements about European Institute of Innovation and Technology - EIT.*
Huber M, v. V. (2016). Towards a 'patient-centred' operationalisation of the new dynamic concept of health: a mixed methods study. *BMJ Open 2016.*
Mantzicopoulos, 2. (2008). Patterns of Young Children's Motivation for Science and Teacher-Child Relationships. *The Journal of Experimental Education,* σσ. 121-144.
Mcgee, E. &. (2017). The Troubled Success of Black Women in STEM. Cognition and Instruction. Στο E. O. Bentley, *Cognition and Instruction* (σσ. 1-25). Journal homepage.
Meyrick, 2. (2011). How STEM education improves student learning. *Meridian ,* σσ. 1-5.
Mitnik, R. &. (2009). Collaborative robotic instruction: A graph teaching experience. Computers & Education. *Computers & Education,* σσ. 330-342.
Pantoya, 2. (2015). Ανάπτυξη μιας μηχανικής στην πρώιμη παιδική ηλικία. *American Journal of Engineering Education (AJEE),* σσ. 61-307.
Rockland, 2. (2010). Προώθηση του «Ε» στην εκπαίδευση K-12 STEM. *The Journal of Technology Studies,* σσ. 5-9.
Sarama, C. &. (2013, january). Rethinking Early Mathematics: What Is Research-Based Curriculum for Young Children? *Springer.*
Solomon. (2015). *The impact of ozone depleting substances on the circulation,.* ockland.
Εμβαλωτής, Α. &. (2020). *Εισαγωγή στην ανάλυση επειρικών δεδομένων εκπαιδευτικής έρευνας.* Αθηνα: Πεδίο.
Παπαδάκης, Σ. Κ. (2018). Η αποτελεσματικότητα του υπολογιστή και του tablet βοήθησε την παρέμβαση στην κατανόηση των αριθμών από τους μαθητές της πρώιμης παιδικής ηλικίας. Μια εμπειρική μελέτη που πραγματοποιήθηκε στην Ελλάδα. . *Educ Inf Technol,* σσ. 1849-1871 .
Ψυχάρης Σαράντος, Μ. Κ. (2018). Οι επιπτώσεις του προγραμματισμού υπολογιστών στις δεξιότητες συλλογιστικής των μαθητών γυμνασίου και στη μαθηματική αυτο-αποτελεσματικότητα και στην επίλυση προβλημάτων. *Εκπαιδευτική Επιστήμη*, σσ. 583-602.

THE INVESTIGATION OF SECONDARY SCHOOL TEACHERS' AND STUDENTS' PERCEPTIONS ON MOBILE LEARNING

Ilias K. Loukas
Esperino Gymnasio – L.T. Karditsas
Karditsa, Greece
e-mail: iliiloukas@uth.gr

ABSTRACT

Mobile learning is when the learning experience that you're trying to design happens to be out and about in the world. (Dikkers, 2012). Learning using mobile devices is highly valued effective, Peter Lonsdale, Chris Baber and Mike Sharples, (2004) and is a very important and constantly evolving field of research (Baran, 2014; Mannade & Hazare, 2017).

The main aim of this study was the investigation of the perceptions of teachers of all specialties and students who participated in the European program Erasmus + KA229 entitled "innovation and Mobile Learning", and code project 2018-1-EL01-KA229-047747_1, from September 2018 to August 2020. The individual **aims** of the research were:

a) to record the teachers' and students' opinions on Mobile Learning and

b) to ascertain the teachers' differences of opinion with regard to gender

c) to investigate the extent to which the activities of the program affect the abilities and skills of the participants related to mobile learning,

d) the participants evaluate the main mobile learning applications used in the activities of the program. Google tools(Forms, Docs, Maps, Earth), web 2.0 tools and mobile apps for: 1) collaborative learning(Padlet, Voice Thread, etc), 2) content creation(Thingling, Animoto, Nearpod, etc), 3) assessment(Kahoot, Rubistar etc.).

30 teachers and 84 students from different schools of 5 countries (Greece, Bulgaria, Spain, Turkey and Italy) participated in the research, responding to a structured five-leveled Likert scale questionnaire, which was distributed via e-mail to them. Two questionnaires were given to the participating teachers and students. One at the beginning of the program and one at the end to investigate any changes in perceptions. The questionnaire consisted of three distinct parts (Uzunboylu & Ozdamli, 2011). The first part concerned the demographics of the research participants (eg country, gender, age, level of education), the second part contained seven general questions related to the research topic (eg possession and use of mobile devices in teaching and personal use, level of ICT knowledge), the third part contained the main questions of the research (26 questions). The final questionnaire also contained a fourth part for the evaluation of the program activities and the main mobile learning applications used. From the factor analysis of the major components, three factors emerged: a) "M-Learning is appropriate for teaching and learning" (11 questions), b) "M-Learning is proper for the communication between the teacher and student" (6 questions) and c) "M-Learning is suitable for personal use" (7 questions). The structural validity and reliability of the questionnaire for the Greek population was also ascertained. From the results, it was evident that both the teachers and students had a positive attitude towards Mobile Learning and they had the intention to use mobile devices in their teaching. The results show that the students improved for the most part their perceptions regarding mobile learning in all the variables (26) of the questionnaire (Paired Samples Statistics). There was a very positive effect on the perceptions on the skills and confidence of the participants regarding the use of mobile learning applications in the educational process. The results also showed that there was an excellent acceptance of the educational usefulness of the software used since the students rated on average more than 3.9 on a 5-point Likert scale.

The most popular among the 11 applications evaluated was Kahoot, a free online program that allows teachers to easily and quickly create playful questionnaires to evaluate students in real time. There were statistically significant differences between teachers of different genders in the variables: 1. The M-Learning tools eliminate time and space limitation t (28) = 3,902, p <0.05, 18. (M-Learning applications are convenient to share my specialized knowledge with my colleagues.) t (28) = 2,772, p <0.05. Male teachers had a more positive approach to 25 of the 26 main questionnaire questions than women.

However, a statistically significant difference in the participants' opinions in relation to gender was not discovered.

Today there is a continuous development of educational applications with the use of mobile devices.

Therefore, it is very important to conduct research on the perceptions and attitudes of teachers in the part of introducing and utilizing M-Learning in the teaching process. Knowing the perceptions of teachers and the factors that contribute to the acceptance of such systems will help in the integration of mobile devices in the learning process.
This work has revealed that teachers and students of Secondary Education consider M-Learning applications as a suitable tool for teaching and learning. The results showed that teachers and students believe that learning through mobile devices enhances student interaction and communication between teacher and student. Finally, participants showed that they accept M-Learning applications as a suitable tool for personal use. The above perceptions of the participants did not seem to be influenced by gender. The participants positively evaluated the program in which they participated and used its applications with Kahoot at the top of their preferences.

Key Words: Mobile Learning, mobile devices, secondary school, teachers' perceptions

REFERENCES

Baran, E. (2014). A review of research on mobile learning in teacher education. Journal of Educational Technology & Society, 17(4), 17-32.
Baydas, O., & Yilmaz, R. M. (2018). Pre- service teachers' intention to adopt mobile learning: A motivational model. British Journal of Educational Technology, 49(1), 137-152.
Bidin, S., & Ziden, A. A. (2013). Adoption and application of mobile learning in the education industry. Procedia-Social and Behavioral Sciences, 90, 720-729.
Boticki, I., Baksa, J., Seow, P., & Looi, C. K. (2015). Usage of a mobile social learning platform with virtual badges in a primary school. Computers & Education, 86, 120- 136.
Chen, Y. S., Kao, T. C., & Sheu, J. P. (2003). A mobile learning system for scaffolding bird watching learning. Journal of Computer Assisted Learning, 19(3), 347-359.
Cohen, J.W. (1988). Statistical power analysis for the behavioral sciences (2nd edn). Hillsdale, NJ: Lawrence Erlbaum Associates.
Cumaoglu, G. K. (2015). How Mobile Devices Affect Students According To Teachers' Beliefs. Journal of International Education Research, 11(4), 217-230.
Dikkers, S. (2012). Dewey buys a smart phone. In S. Dikkers, J. Martin, & B. Coulter (Eds.), Mobile media learning, (pp. 19-26). Berlin: Springer-Verlag.
Gyang Chaka J. & Govender I. (2017). Students' perceptions and readiness towards mobile learning in colleges of education: a Nigerian perspective. South African Journal of Education, 37(1), February 2017.
Lonsdale, P., Baber, C., Sharples, M. (2004) A Context Awareness Architecture for Facilitating Mobile Learning. In J. Attewell & C. Savill-Smith (eds.) Learning with Mobile Devices: Research and Development. London. Learning and Skills Development Agency, pp. 79-85.
Mannade, R. B., & Hazare, H. H,. (2017), A Literature Survey on Mobile Learning Management Systems, International Journal of Innovative Research in Advanced Engineering, 2(4), 6-12.
Mpoufidou (2018) Postgraduate Thesis, The investigation of perceptions of primary education teachers for mobile learning.
Sharples, M., Arnedillo-Sánchez, I., Milrad, M. & Vavoula, G. (2009). Mobile learning. In N. Balacheff, S. Ludvigsen, T. Jong, A. Lazonder & S. Barnes (Ed.). Technology- enhanced learning (pp. 233-249). Dordrecht: Springer.
Uzunboylu H., Ozdamli F.(2011), Teacher perception for m-learning: scale development and teachers' perceptions, Journal of Computer Assisted Learning. Vol. 27, Issue 6 p. 544-556.

PRIVATE PRESCHOOL UNITS AND ELECTRONIC MARKETING

MSc Dimitra Vasileiou,
Kindergarten Teacher, Primary Education of Western Thessaloniki,
Thessaloniki, Greece
e-mail: d4vasiliou@gmail.com

Dr. Georgios Tsekouropoulos ,
Assistant Professor, International Hellenic University,
Department of Organization Management, Marketing & Tourism,
Thessaloniki, Greece
e-mail: geotsek@bua.teithe.gr

and

Dr. Nikolaos Papadopoulos,
Academic Fellow, International Hellenic University,
Department of Organisation Management, Marketing and Tourism,
Thessaloniki, Greece
e-mail: nikospapadopoulos@bua.teithe.gr

ABSTRACT

E-marketing techniques are applied in most organizations and have been shown to contribute to the improvement and performance of organizations (O'Konnor & O'Keefe, 1997). Especially, educational organizations are facing challenges worldwide and it is necessary to move from traditional marketing to online methods and strategies that meet the modern needs of stakeholders and at the same time ensure their development and competitiveness (Kusumawati, 2019). The way digital marketing works for schools is twofold. On the one hand it facilitates school owners to be informed about the market and provides them with all the information about customers and on the other hand it allows potential consumers to search for information, exploring the virtual world until they find the right school (Purwanti et al., 2021). The utilization of e-marketing by private pre-school education units is an interesting field of research and the subject of this study.

The aim of the study is, through the investigation of the perceptions of school owners, principals and teachers, about the role of marketing in schools, to highlight the means of e-marketing and the degree of their utilization and effectiveness in the units before and during the health crisis. The research conducted was quantitative using an electronic questionnaire. The sample of the research, which lasted from 1/4/2021 to 1/6/2021, consisted of 110 participants from the private preschool structures (Kindergartens, Nursery Schools and Infant Schools) of Eastern and Western Thessaloniki. This was followed by statistical data processing through the spss tool which was used for descriptive and inductive analysis.

The results showed that regarding the e-marketing tools that organizations generally used before the pandemic to communicate with their parents, they mention telephone and live communication as their primary means. The results are in line with the findings of a 2008 survey in Slovenia (Tankosić & Trnavčevič, 2008). On the contrary, regarding the means they used to promote the organization, it was found that the tool they used the most was social media, followed by e-mail and the website. Their preferences are in complete agreement with the preferences of Gabbidon's research teachers (2019). In the pandemic, on the other hand, organizations make more use of social media and the web, both to communicate with parents and to promote themselves. These results contradict a recent study in Turkey which found that during the pandemic teachers used more traditional e-marketing tools such as telephone and video calling (Yildirim, 2021). In the question about the needs of schools during the pandemic, most participants cited the need to redesign online advertising and the need for Internet connectivity. The results contradict previous research, where teachers mentioned the material and technological equipment as the main need (Daniel, 2020; Imram et Ahmed, 2020; Peterson et Thankom, 2020; Yildirim, 2021). Regarding the question whether the experience of the organization is related to the preference of the tools for advertising organizations during the pandemic it is found that the organizations that are active in this

service sector, for more than 15 years, use social media and e-mail to a higher degree. They also rate the above areas as more effective than the other participants.
In conclusion, preschool organizations understand the contribution of e-marketing to the performance and effectiveness of their organizations and utilize its modern means and tools. E-marketing is proving to be able to modernize and improve the strategies and policies of organizations, so that they become innovative and pioneers of their kind.

Key Words: e-marketing, social media, private pre-school education, Covid-19 pandemic

REFERENCES

Daniel, J., 2020. Educatin and the COVID-19 pandemic. *UNESCO IBE.*

Gabbidon, I., 2019. *Social Media and Preschool Leaders: Examining the Adoption and Experiences of Social Media.* Florida: ProQuest.

Imran, A. &. Ahmed, I. 2020. Job Insecurity in Private Education Setor Considering COVID-19 Pandemic: Bangladesh Panorama. *American International Journal of Business and Management Studies,* 2(2).Available at: https://www.researchgate.net/profile/Ikbal-Ahmed-2/publication/344447010_Job_Insecurity_in_Private_Education_Sector_Considering_COVID-19_Pandemic_Bangladesh_Panorama/links/5f76915d92851c14bca7a27a/Job-Insecurity-in-Private-Education-Sector-Considering-COVID-19-Pandemic-Bangladesh-Panorama.pdf [Accessed: 10 July 2021]

Kusumawati, A., 2019. Impact of Digital Marketing on Student Decision- Making Process of Higher Education Institution: A Case of Indonesia. *Journal of Learning and Higher Education,* Vol. 2019. Available at: https://pdfs.semanticscholar.org/a272/ab6597a38473080cff09e49440321c93c094.pdf [Accessed: 10 July 2021]

O'Konnor, G. &. O'Keefe, B. 1997. Viewing the Web as amarketplace: the case of small companies. *Decision Support Systems,* Vol.21(3):171-183.Available at: https://doi.org/10.1016/S0167-9236(97)00027-4 [Accessed: 10 June 2021]

Peterson, O. &. Thankom, A., 2020. Spillover of Covid-19: Impact on the Global Economy. *Munich Personal RePEc Archive.* Available at: https://mpra.ub.uni-muenchen.de/99850/ [Accessed: 20 July 2021]

Purwanti, Y., et al. 2021. The Influence of Digital Marketing & Innovation on the School Performance. *Turkish Journal of Computer and Mathematics Education,* 12(7):118-127. Available at: https://doi.org/10.17762/turcomat.v12i7.2551 [Accessed: 20 June 2021]

Tankosić, A. &. Trnavčevič, A., 2008. Internet Marketing Communication and Schools: The Slovenian Case Study. *Organizacija Research Papers,* Vol.41:136-143. Available at: http://organizacija.fov.uni-mb.si/index.php/organizacija/article/view/248/496 [Accessed: 20 June 2021]

Yildirim, B., 2021. Preschool Education in Turkey During the Covid-19 Pandemic: A Phenomenological Study. *Early Childhood Education Journal.*Available at: https://link.springer.com/content/pdf/10.1007/s10643-021-01153-w.pdf [Accessed : 10 June 2021]

ADMINISTRATIVE DECISISONS/PRACTICES MAKE THE SCHOOL EFFECTIVE

Konstantinos S. Demirtzidis
Ministry of Education
Aristotle University of Thessaloniki
Kozani, Greece
e-mail: kostasdemer@hotmail.com

ABSTRACT

The purpose of this work is to develop a model of effective educational administration and leadership through the conceptual definition of educational administration and the understanding of the concept of leadership in school.

In particular, the educational administration will be identified and demarcated and its basic functions that are vital for the smooth operation, development and efficiency of educational organizations will be identified. Management includes a set of procedures with their individual functions, which describe the behavior of administrative executives, based on principles and axioms of science (…) while, through the human resource management modern organization harmonizes the work of its various departments and is subject to quality controls processes and services it offers (Πετρίδου , 1998).

Then, the concept of leadership will be analyzed, the modern models and forms in which it can be practiced in schools will be presented and the basic differences between leadership and administration will be captured. Finally, the concept of school effectiveness will be analyzed and effective ways of administration and leadership at school level will be listed, emphasizing the skills that an effective principal of a modern school unit must have. In this light, Management as a science, culture, systems and skills is the main condition for survival and the most critical success factor (Μπουραντάς, 2002).

The ability to develop leadership skills as well as the ability to manage are extremely important for teachers as, in the context of their educational work, they are called to manage situations directly and effectively both within the school unit (with students, colleagues, school principal) and with the external environment (with parents, local community, representatives of institutions, etc.). At the same time, these skills enhance the professional competence and professional profile of teachers and contribute significantly to their professional development in positions of responsibility. In each case, the importance attached to the effectiveness of leadership and administration for the successful operation of school units undoubtedly is very large and reflects significant educational changes policy in recent decades. (Παπαλόη, 2012).

When the presentation of the work is completed, the interested parties
will be able to:

- state the definition of the concept of educational administration,
- understand the importance of Human Resource Management,
- recognize the basic theories of management,
- identify its basic functions,
- state the definition of school leadership,
- identify modern leadership styles,
- identify the difference between leadership and management,
- understand the concept of school efficiency,
- understand the need for effective governance and leadership
  to school,
- list the key skills of an effective manager
  school unit.

Key Words: educational administration , management functions , decision making , effective school administration and leadership

REFERENCES

Μπουραντάς, Δ., (2002). Μάνατζμεντ. Θεωρητικό υπόβαθρο, σύγχρονες πρακτικές. Αθήνα: εκδόσεις Γ. Μπένου.

Παπαλόη, Ε., & Μπουραντάς, Δ., (2012). Η φρόνηση των διευθυντικών στελεχών στον χώρο της εκπαίδευσης ως θεμελιώδης προϋπόθεση για την ανανέωση των εκπαιδευτικών και διοικητικών πρακτικών. Στο Δ. Καρακατσάνη, Γ. Παπαδιαμαντάκη (επιμ.), Σύγχρονα Ζητήματα Εκπαιδευτικής Πολιτικής: Αναζητώντας το «Νέο Σχολείο». Θεσσαλονίκη: Επίκεντρο.

Πετρίδου, Ε., (1998). Διοίκηση - μάνατζμεντ: Μία εισαγωγική προσέγγιση. Θεσσαλονίκη: Εκδ. Ζυγός.

ORGANIZATIONAL CHALLENGES FOR EDUCATION: E-MANAGEMENT OF SCHOOLS

Fani Biskanaki
Educational Operation Coordinator
Epirus Prefecture, Greece
e-mail: fani.biskan@gmail.com

and

Anastasia Paliatsou
M.Ed., Greek Philology Teacher in Secondary Education
Preveza, Greece
e-mail: natassapal@gmail.com

ABSTRACT

Management of an educational unit constitutes an implementation of school development practices process through, not just human resources "exploitation" or the resources available, as well as the desired principles which could assist people achieve the goals set by the school. It constitutes, above all, a process of proper coordination and adaptation of all the above together, against respective conditions. However, when it comes to the "e-Management of Schools", it essentially constitutes a scalable, flexible, accessible and adaptable system of school management, which includes all the information needed, in order the school unit meets its future challenges. Functional automation with a simultaneous releasement of manual procedures, could become more efficient, leading to the creation of reports at the touch of a button and could help receiving quick decisions (also, perhaps more correct ones) for the future of those heavily involved in the educational process. The possibility of a more effective, school unit administration emerged as a main requirement during the Covid-19 pandemic era, during which the effective operation of a school through a digital interface, became a necessity.

The aim of the present publication is to highlight the capabilities of a school's e-Management, as well as the facilitation it offers to the school principal, the educational staff and the students themselves. The methodology applied, includes the search and recording of either research or theoretical content (research, review, etc.) or publications of the last decade, when the digital upgrade was also introduced in Greece, as well as those of the recent period of the Covid-19 pandemic. Sorting of information was done under a complex search of terms, in as many databases as possible. Sorting of information was done under a complex search of terms (specifically, the following terms were used: electronic school management, school electronic management programs, School Information Management Systems and technology integration in education), in databases such as Scopus, Research Gate and Google Scholar.

The results gathered were particularly interesting, as were the brief conclusions one could draw. More specifically, possibilities offered by the school e-Management include, as their main objectives, the direct observation of the characteristics/data of the educational staff as well as students' (teacher & student profiles), their registration in order to enter inline platforms, the easy and efficient registration of school lessons grades, reports creation and finally, any kind of copies, for every kind of use.

The e-Management of schools enables every party involved in the educational process (school administration, teachers, students and parents) to easily access data concerning teachers or students, though, mainly monitor the academic progress of the students, as well as their attitude within an effective/efficient school operation frame. During the Covid-19 era, it became clear that school management had to be achieved without the synchronized presence of students and teachers inside their classes or school environment, meaning the traditional way, altering it to the remote education via internet, which proved to be the best way to achieve this, without totally interrupting educational courses. School Management Systems could offer the appropriate solutions in the already digitized environment of the school units, giving principals as well as teachers, the chance to operate schools and contact the directions of the Central Education Administration (Ministry, etc.), completing any bureaucratic part of their duties.

The e-Management of schools enables a direct and complete image to those seeking teachers or students' profiles, meaning parents or school principal. The first ones have the opportunity of closer contact with the teachers and not just be informed about the academic progress of their kids, since they can communicate via internet with the class teacher, in order to be informed about every issue concerning their children. Teachers, from their side, now have the ability to enter grades, send supplementary notes or deliver lesson sessions during every hour of the day, communicate with parents, send updates to

student/parent smartphones and inform school principal about changes in their daily schedule. All these are placed under the umbrella of the school principal's supervision, which now has the chance to monitor - on the one hand - every students' progress and - on the other hand - to easily and quickly extract, graphs. In fact, these graphs are considered being particularly useful stuff, since thanks to them, the school principal can shape students' performance, while at the same time is able to even activate discussion forums with the parents or conduct short surveys, concerning the degree parents feel satisfied with the school's operation. Parents can even submit proposals for discussions, in order to improve various issues. In conclusion, e-Management of schools proves to be a useful tool in a demanding world. It constitutes a mean for every side involved in the educational process, so it can get in touch to the rest, as well as fulfil its obligations, quickly and efficiently.

Key Words: school administration, e-Management, school development

REFERENCES

Alanezi, A. (2019). Obstacles to applying electronic school management in Kuwait. *Research in Education*, 109 (1): 37-52.

Alradhi, K.A.A. (2015). School electronic management programs in general education schools: Reality and obstacles. *International Journal of Education Specialist*, 2(4): 119-137.

Blau, I. & Presser, O. (2013). e-leadership of school principals: Increasing school effectiveness by a school data management system. *British Journal of Educational Technology*, 44(6): 1-20.

Breiter, A. & Ruhe, A.H. (2018). Paper versus School Information Management Systems: Governing the figurations of mediatized schools in England and Germany (In: A. Hepp, A. Breiter & U. Hasebrink, *Communicative figurations: Transforming communications in times of deep mediatization*). Berlin: Palgrave-McMillan.

Colizzi, M., Sironi, E., Antonini, F., Ciceri, M.L. et al. (2020). Psychosocial and behavioral impact of COVID-19 in autism spectrum disorder: an online parent survey. *Brain Sciences*, 10(6).

Dewantara, K.W., Piarsa, I.N. & Buana, P.W. (2019). Website-based high school management information system. *International Journal of Computer Applications Technology & Research*, 8(11): 420-424. doi: 10.7753/ijcatr0811.1003

Tobin, J. (2014). Management and Leadership Issues for School Building Leaders. *International Journal of Educational Leadership Preparation*, 9 (1): 1-14.

Tondeur, J., Roblin, P.N., van Braak, J. Voogt, J. et al. (2017). Preparing beginning teachers for technology integration in education: Ready for take-off? *Technology, Pedagogy & Education*, 26 (2): 157-177.

THE ROLE OF COOPERATIOM DEVELOPED BY THE TEACHER WITH THE PARENTS, IN THE FRAMEWORK OF THE MANAGEMENT OF THE CONDUCTING DISORDERS PRESENTED BY THE CHILDREN IN SCHOOL

Spyridon Panorgias
Heraklion, Greece
e-mail: spyrospan73@hotmail.com

Eleni Stamou
e-mail:

and

Fani Karagianni
e-mail:

ABSTRACT

The collaboration of teachers and parents is a cornerstone in the educational reality as the development of a meaningful communication enriches the educational process with knowledge and experience. Parents and educators will exchange views by gathering important information in the management of their children's disorders. However, both sides should be equally involved in this effort.

The purpose of this research is to evaluate whether the relationship that the teacher develops with the parents helps in the management of their children's behavioral disorders in the school context. As parents are aware of their children's potential, working with teachers will enable teachers to understand and plan their program to deal with the problems that children present at school. According to the literature, there is little to no research on parenting and parenting in school life. The research was carried out in the secondary schools of special education, in the prefectures of Pella and Pieria, whereas 131 teachers who serve in these units participated. The analysis of the data was done using the statistical package IBM SPSS (Superior Performance Software System) Statistics Subscription.

The results showed that the collaboration of teachers with parents will create a relationship of mutual understanding where they will honestly report not only the problems of children but will also emphasize their virtues and best features, defining and shaping to a large extent the personality of the child who in turn will also affect his behavior at school. The findings of the present study help to better understand the parameters of conduct disorder so that they can be used to improve but also to encourage parents to build relationships and collaborate with teachers to better manage their children's disorders. Future research with similar parameters might provide an opportunity to document different perceptions of teacher-parent collaboration, and to explore areas related to the improvement and development of these relationships.

Key Words: Teacher-parent collaboration, parental involvement, Behavioral Disorder

TOTAL QUALITY MANAGEMENT-THE ROLE OF THE QUALITY CONTROL MANAGEMENT-CASE STUDY: EXPERIMENTAL PRIMARY SCHOOLS

Veroniki Kyrkou
Ioannina, Greece
e-mail: verkirkou@gmail.com

ABSTRACT

"Total quality management" is, at least on a theoretical level, a philosophy that could be applied with positive results in the educational sector, ensuring the high quality of educational services, but also fully meeting modern student needs. This philosophy focuses on the needs of the student himself, giving special weight to the learning process itself (Zavlanos, 2003).

The purpose of this paper is not only to present the importance of the role that the principal of each school is called to play in the performance of his duties, by simply presenting the different models and leadership styles, but to explore how which, through the adoption of the basic principles of "total quality management" is able to positively influence the mentality and behavior of teaching staff and students, so that they make every effort to achieve some common goals, guided by the most efficient operation of the school unit.

In particular, in the research was investigated the role of the director of the Experimental schools in relation to the formation of the school culture, the quality of communication between the members of the school community, the continuous improvement of the professional development of teachers, the introduction and implementation of innovations in the school unit, the utilization of modern technologies provided by the science of Informatics, the development of the social role of the school, the evaluation of the school unit, the management of financial resources for the benefit of the school and the management of the pandemic.

The research conducted is qualitative using individual interviews.

The population to which the research is addressed is six (6) Principals and five (5) Teachers who serve in Experimental Schools of Primary Education of the country.

The questions asked to the Principals who participated in the research did not differ in terms of subject matter in relation to the questions asked to the teachers of the schools.

The research sample can provide clear data for analysis and reflection in the field of Total Quality Management in education.

For the data collection, the process of individual interview was followed, through which direct communication with the Principals and the teachers who participated in the research were attempted.

Due to the restrictive measures applicable to the pandemic and to limiting the spread of covid-19, the interviews were conducted online and the interview was recorded on a tape recorder.

The duration of the research was two months. Data analysis was done with content analysis.

Principals and teachers were asked to answer specific questions about education and school.

The topics of the questions were: a) Leadership, b) Professional development of teachers - Implementation of innovative actions, c) Communication - Relations with the school community, d) Cooperation with local agencies - Financial management, e) Pandemic management.

The research revealed the following regarding the role of Experimental School Principals in the quality upgrade of the school:

- Principals have enhanced academic qualifications and teaching experience which enables them to effectively convey the school's mission to the school community
- They have a shared vision with the educational community and motivate it to make it happen.
- They are fully aware of their role and seek with their attitude and values to create a climate of cooperation and trust among members of the school community, shaping the school culture.
- They have open communication with all those involved in the educational community
- There is cooperation between the Principals and the teachers and students of the school for the organization of school life in an atmosphere of understanding, respect and trust.
- There is regular and constant communication with parents on issues of student progress and behavior.
- They defend the choices of teachers.
- They are active listeners on the issues of students' parents, and their aim is to create a climate of trust.

- In conflict management they are fair and impartial in order to prevent outbursts and controversies.

Our research supports findings related to the literature review, i.e. that the principal has a key role in the effective operation of the school.

According to the literature, the school principal should have a high level of education, but also have the will, determination and fist to promote the principles of Quality Control Management within the school. Therefore, his duties include ensuring the participation of staff in training programs, striving to optimize performance, constantly encouraging and motivating staff to work tirelessly to achieve common goals. Maintaining a balanced relationship between the group and the wider local community, the smooth running of the school, the ability to take into account all possible obstacles in order to formulate the appropriate strategies to be adopted in order to optimize the most efficient operation of the unit (Prueangphitchayathon et al., 2015).

Also, the Director has a large share of responsibility not only for the smooth operation of the unit, but also for the formation of the appropriate climate within it, in order to favor solidarity and cooperation in the joint effort with the ultimate goal of continuous quality improvement inside of the unit and its most efficient operation (Meehan, 2003). The specific philosophy in essence puts the respective school unit in a continuous process in the framework of which decisions are implemented that result in radical cuts in all levels of the structure and operation of the unit (Athanasoula-Reppa, 2008).

Moreover, according to Deming (1982), in order to be effective, a leadership must control the productivity and efficiency of employees in the performance of their duties and unite them all around the effort to achieve some common goals.

The research also concludes that the operation of the experimental schools is based on the principles of the Quality Control Management, as they aim to support the experimentation and the pilot application of educational innovations in the educational system. More specifically, we observe that the principles of Quality Control Management apply in the following areas:

- Principals and teachers, having scientific training and teaching ability, successfully meet both their teaching work and the increased extracurricular requirements of the school.
- They therefore have the conditions and capabilities needed to promote Quality Control Management principles within the school.
- The implementation of a multifaceted in-school training program for teachers, supported mainly by Ministry bodies, the Education coordinators, the Universities, results in the quality upgrade of the schools.
- The Implementation of pilot programs applied in the experimental schools, introduce innovative teaching practices in education, contributing to the upgrade of the quality of the produced educational work of the schools.
- The participation and distinctions of the students of the experimental schools in student competitions (mathematics, natural sciences, visual arts, actions of social and cultural content), proves the quality of the provided education.
- The operation of the Educational Clubs gives way to the creative concerns and the special inclinations of the students and cultivates a wide range of interests, promoting the collective work.
- The school community operates satisfactorily within a framework of cooperation, mutual understanding and trust. The large and active participation of parents in pedagogical - informational meetings, as well as the various activities of the school confirms the above picture.
- The operation of the afternoon experiential groups of parents in some schools of the sample help significantly in the formation of a healthy and creative parental involvement in the school unit, a constant demand for the comprehensive development of the students.

REFERENCES

Athanasoula-Reppa A. (2008). Educational administration and organizational behavior, Athens: Ion

Zavlanos M. (2003). Total quality in education, Athens: Stamoulis Zavlanos M. (1999). Management. Athens: Ellin

Katsaros I. (2008). Organization and administration of education, Athens: ΥΠ.Ε.Π.Θ.Π.Ι.

Katsaros I. (2008). Organization and administration of education, Athens: ΥΠ.Ε.Π.Θ.Π.Ι.

Katsarou E., Dedouli M. (2008). Training and evaluation in the field of education, Athens: ΥΠ.Ε.Π.Θ.-Π.Ι.

Deming, WE (1982). Out of the Crisis. Quality Productivity and Competitive position. Cambridge MA: Cambridge Univercity Press.

Meehan, MF (2003). Total Quality Management in Public Schools and Attrition of Certified Personnel. A Dissertation Submitted to the Graduate Faculty of The University of Georgia in Partial Fulfillment of the Requirements for the Degree DOCTOR OF EDUCATION. Athens, Georgia.
Prueangphitchayathon, S., Tesaputa, K. & Somprach, K. (2015). Application of total quality management system in Thai primary schools. Academic journals, Educational Research and Reviews. 10 (11). p. 1535-1546.

EDUCATION PRACTICES

APPLYING THE FRAYER MODEL IN A JIGSAW CLASSROOM. EXAMPLES IN PRIMARY AND SECONDARY EDUCATION

Dr. Sofia P. Tsakalidou
Aristotle University of Thessaloniki
Thessaloniki, Greece
e-mail: stsakalidou@del.auth.gr

ABSTRACT

Teaching a mixed-ability classroom is a daily routine that teachers deal with. In the effort made to meet this demanding task, there are new methods and suggestions of teaching methodology, which are extremely useful and effective, and many are based on the basic principles of differentiated instruction. The application of these methods increases the learners' active participation in the learning process, improves performance, adapts the course to their interests and needs (Camilletti, 1996˙Τσακαλίδου, 2020, 2021).

In this article we will examine the various ways of building small groups, the advantages and possible difficulties of group-work in the classroom, as well as the necessary elements that are required in any cooperative learning process (Jensen, Moore, & Hatch, 2002˙ Johnson, 2009˙ Johnson & Johnson, 2008˙ Johnson, Johnson, & Houlubec, 1994).

Furthermore, we will examine the possibility of combining two modern methodological tools in the educational process: the jigsaw classroom and the Frayer model, which have both been adapted in various subjects and fields with extremely positive results.

The jigsaw classroom is a research-based cooperative learning technique. This technique is a method of organizing classroom activity that makes learners dependent on each other to succeed. It breaks classes into groups and breaks assignments into pieces that the group assembles to complete the (jigsaw) puzzle (Voyles, Bailey, & Durik, 2015˙ Williams, 2004).

The Frayer model is a graphic organizer that helps learners determine or clarify the meaning of vocabulary words encountered while listening, reading, and viewing texts. Furthermore, it can be used to examine grammatical phenomena (Frayer, Frederick, & Klausmeier, 1969˙ Mardiyah, 2014).

In order to combine the two tools this process is followed: (a) Devide the learners in jigsaw groups. (b) Appoint the experts for each unit. (c) Create the experts' groups. (d) Give each expert group the cards with the concepts they will work with. (e) Return to the jigsaw groups. (f) Present the results in the classroom (Τσακαλίδου, 2021).

Practical examples of their combined application will be given in both levels of education (Primary and Secondary). In specific, we will examine an example for the word "quadrilateral" (vocabulary, Primary education) and for the word "temporal subordinate clauses" (grammar, Secondary education).

Also, we will explain how the Kagan's grouping wheel can be used as a means of separating groups according to different criteria (learning readiness, interests, etc.) (Τσακαλίδου, 2020, 2021). In addition, research on which this specific project is based, will be discussed (Alashry, Qoura, & Gohar, 2018˙ Aronson, 2002˙ Mardiyah, 2014˙ Nahampun, 2018˙ Peters, 1974-1975˙ Τσακαλίδου, 2020, 2021˙ Williams, 2004). In conclusion, this methodological combination can be effectively applied in many different subjects and help the learners comprehend basic concepts and make correlations at different levels.

Key Words: differentiated instruction, heterogeneity, foreign language teaching, jigsaw classroom, Frayer model, collaborative activities

REFERENCES

Alashry, S. A., Qoura, A. A., & Gohar, R. H. (2018). The impact of Frayer model and contextual redefinition strategy on improving preparatory stage pupils' vocabulary learning. JRCIET, 4(4), 11-36.

Aronson, E. (2002). Chapter 10-Building empathy, compassion, and achievement in the jigsaw classroom. In Impact of Psychological factors on education. Educational psychology. https://doi.org/10.1016/B978-012064455-1/50013-0.

Camilletti, S. (1996). Bringing out the sparkle. In S. Hart (Ed.), Differentiation and the Secondary curriculum. Debates and dilemmas (pp. 39-46). London: Routledge.

Frayer, D. A., Frederick, W. C., & Klausmeier, H. J. (1969). A schema for testing the level of concept mastery. Working paper from the Wisconsin Research and Development Center for Cognitive Learning, The University of Wisconsin, 16.
Jensen, M., Moore, R. & Hatch, J. (2002). Cooperative Learning – Part I: Cooperative Quizzes. The American Biology Teacher, 64(1), 29-34.
Johnson, D. W. (2009). Reaching out: Interpersonal effectiveness and self-actualization (10th ed.). Boston: Allyn & Bacon.
Johnson, D. W., & Johnson, R. T. (2008). Social Interdependence Theory and Cooperative Learning: The Teacher's Role. In R. M. Gillies, A. Ashman, & J. Terwel (Eds.), Teacher's role in implementing cooperative learning in the classroom (pp. 9-37). New York, USA: Springer.
Johnson, D. W., Johnson, R. T., & Houlubec, E. (1994). The new circles of learning: Cooperation in the classroom and school (3rd ed.). Alexandre Virginia: Association for Supervision and Curriculum Development.
Mardiyah, R. (2014). Improving Students' Vocabulary Achievement by Using Frayer Model. A Thesis. English Department. Faculty of Languages and Arts. State University of Medan.
Nahampun, E. E. (2018). The effect of using Frayer model on students' vocabulary mastery. Journal of applied linguistics of FBS Unimed, 3(1). DOI: https://doi.org/10.24114/genre.v3i1.1395.
Peters, C. W. (1974–1975). A comparison between the Frayer Model of concept attainment and the textbook approach to concept attainment. Reading Research Quarterly, 10, 252–254.
Τσακαλίδου, Σ. (2020). Διδασκαλία της ορθογραφημένης γραφής σε μαθητές Δημοτικού με δυσλεξία στο μάθημα της Γερμανικής ως δεύτερης ξένης γλώσσας. (Αδημοσίευτη διδακτορική διατριβή). Αριστοτέλειο Πανεπιστήμιο Θεσσαλονίκης, Φιλοσοφική Σχολή, Τμήμα Γερμανικής Γλώσσας και Φιλολογίας, Θεσσαλονίκη.
Τσακαλίδου, Σ. (2021). Ohnэ Flэiß kэin Prэis. Διδάσκοντας Γερμανικά σε μαθητές με δυσλεξία. Αθήνα: Εκδόσεις Καραμπάτος Hueber Hellas.
Voyles, E. C., Bailey, S. F., & Durik, A. M. (2015). New pieces of the jigsaw classroom: Increasing accountability to reduce social loafing in student group projects. The new school psychology bulletin, 13(1), 11-20.
Williams, D. (2004). Improving race relations in higher education: The jigsaw classroom as a missing piece to the puzzle. Urban education, 39(3), 316-344.

THE IMPORTANCE OF PRIOR KNOWLEDGE RECOGNITION FOR STAFF EVALUATION & ASSESSMENT: THE POST COVID 19 NEEDS AND TRENDS

Lemonia Boutskou
University of Macedonia
e-mail: lemonmp3@gmail.com

ABSTRACT

Recognition and assessment of prior knowledge is linked to both lifelong learning and continuing vocational training. Staff certification has become an important element in verifying the capacity of an increasingly mobile and global workforce, underscoring the recognition value of the accreditation industry that can be transported across national borders. Prior empirical knowledge recognition certifies that knowledge or skills acquired during a person's lifetime, work experience, and studies that have not previously been formally certified through academic or professional systems. This knowledge could include computer programs, as well as editing skills or organizational skills. The need for certification stems from the need to establish a modern and internationally recognized process, where employees, of various specialties and professions, can demonstrate their skills in an objective and reliable manner (Perrin and Helyer, 2015). This paper will review the changes that have occurred due to the Covid-19 pandemic in lifelong learning and whether the recognition of prior knowledge can help assess staff to fulfil new business needs. Recognition of non-formal and informal learning is recognized as an important tool in the current global crisis, due to the work challenges that companies has to faced up due to Covid-19 pandemic of the last two years. Skills acquired in informal and informal situations are essential for the performance of each individual in the labour market and education system, as well as in local communities and voluntary work. Furthermore, the results of the labour market have evolved very differently in the socio-economic groups in recent years and specifically the employment rate of the elderly has increased while at the same time unemployment rates are rising. The decrease in youth employment is accompanied by increased enrolment rates in education and training, while the rate of young people who are not employed and not included in education and training is generally stable and all this in a constantly changing work environment. evolves and tries to meet the challenges and constraints posed by the pandemic (Kimura et al., 2019). Skills training and development programs and activities are becoming increasingly important for increasing productivity and acquiring skills in areas that have emerged as important during the pandemic. Intergenerational approaches to knowledge transfer and the development of intergenerational knowledge-intensive activities are useful ways to increase performance. The role of immigrants in alleviating labour market shortages cannot yet be ignored as it grows due to retirement and the fact that the silver economy is expanding beyond traditional low-paying jobs in geriatric care and high-intensity innovation, innovation. leisure, healthcare and medical services (Hamouche, 2021; Nilasari et al., 2021). Challenges in training and developing the skills of a migrant population require new skills in the field of multicultural awareness and intercultural communication affecting change in the business world. Finally, the recognition of non-formal and informal learning can also enable employers to organize or reorganize work according to the knowledge, skills and abilities of individuals, so that they can gain a competitive advantage (Man & Man, 2019). Recognition can make employees' skills more visible without implying new formal learning, which can be unnecessary, daunting and often costly. All of the above form an interesting context in which the importance of recognizing prior knowledge is highlighted (Manda & Dhaou, 2019).

Key Words : Prior knowledge recognition, staff skills, demographic changes, Covid-19

REFERENCES

Hamouche, S. (2021). Human resource management and the COVID-19 crisis: implications, challenges, opportunities, and future organizational directions. *Journal of Management & Organization*, 1-16.
Kimura, F., Shresta, R., & Narjoko, D. (2019). The Digital and Fourth Industrial Revolution and ASEAN Economic Transformation. Retrieved from: http://www.eria.org/uploads/media/5.AV2040_VOL3_Digital_and_4th_Industrial_Revolution.pdf
Man, G.-M., & Man, M. (2019). Challenges in the Fourth Industrial Revolution. *Land Forces Academy Review, XXIV*(4), 303-307.
Manda, M. I., & Dhaou, S. B. (2019). *Responding to the challenges and opportunities in the 4th Industrial revolution in developing countries.* ICEGOV2019, April 3-5, 2019, Melbourne, VIC, Australia, 244-253.

Nilasari, M. B., Nisfiannoor, M., & Meida Devinta, F. R. (2021). Changes in motivation that affect employee performance during the Covid 19 pandemic. *JAM: Jurnal Aplikasi Manajemen, 19*(2), 435-447.
Perrin, D., & Helyer, R. (2015). Planning and negotiating your learning. In: Helyer, R. (Ed.), *The Work-Based Learning Student Handbook* (pp. 96-119). London: Palgrave Macmillan.

UTILIZATION OF ICT'S IN THE EDUCATIONAL PROCESS FROM PRIMARY SCHOOL TEACHERS TRAINED IN THE B LEVEL OF EDUCATION

Ioannis A. Kikas
International Hellenic University
Thessaloniki, Greece
e-mail: kikasjo@gmail.com

ABSTRACT

The purpose of this paper is to study the views of primary school teachers trained at ICT Level B with regards to the implementation of digital technologies in the teaching practice and their expressed level of satisfaction with their participation in this training program.

For the conduct of the research the quantitative research method was used, as for the data analysis the descriptive statistical method was used.

For the purpose of this research, questionnaires were sent to teachers, both primary and kindergarten, in Thessaloniki and Chalkidiki who have completed participation in ICT Level B and 170 questionnaires were answered.

The results of the research have shown that a high percentage of teachers have applied their computer skills in the classroom environment and believe that the usage of ICT motivates students and helps them develop higher skills (such as cooperation, decision-making, problem-solving and critical thinking to name a few). The results agree with the assumptions that emerged from previous surveys (Gerouki, 2014; Kamilari and Siakouli, 2016; Gkegka, 2017; Papadakis and Kalogiannakis, 2013; Galis and Papadimitriou,2013; Sergis and Koutromanos,2013; Komis et al, 2015; Euangelou, 2017; Ntochas, 2014).

After their B Level training they feel competent in using ICT in the educational process, like creating teaching scenarios and choosing the appropriate software for their students confirming the assumptions of the survey (Samanta and Psilos, 2018; Papadakis and Kalogiannis,2015; Komis et al, 2015; Simeonidis et al, 2014). They also believe that the B Level training program was interesting and innovative and met their needs of obtaining knowledge related to the usage of ICT, confirming the surveys which show that the trainee teachers in the B level training are satisfied with the content of the training program (Samanta and Psilos, 2018; Papadakis and Kalogiannakis,2013; Galis and Papadimitriou, 2013; Sergis and Koutromanos, 2013; Komis et al, 2015; Euangelou, 2017; Tsoulis, 2012; Ntochas, 2014). It should be noted that Kindergarten teachers seem to have a more positive attitude than elementary teachers towards the implementation of ICT in the learning process and teachers with a higher level of education use the computer in the classroom even more. Female teachers, contrary to other research results (Tsoulis, 2012) seem to be using the computer in the classroom more than male teachers. B Level education managed to cover almost all the pre-existing gaps of knowledge that teachers had regarding ICT from the previous training programs. The assumptions of the survey that were put forward according to previous surveys were confirmed (Samanta and Psilos, 2018; Papadakis and Kalogiannis, 2015; Galis and Papadimitriou, 2013; Komis et al, 2015; Simeonidis et al, 2014; Euangelou,2017; Ntochas, 2014).

To sum up, from the results of the research, it can be seen that there is still room for ICT B Level training program were not especially satisfied with the knowledge that they received pertaining to Website and Blog design as well as the question of safety when browsing the Internet and the concern about the respect of personal data.

Key Words: Education, B level training, I.C.T, views of teachers

REFERENCES

Euangelou, E. (2017). *ICT in teaching practice of the certified teachers in B level training program of the Regional Directorate of Primary Education of Western Thessaloniki,* Thessaloniki, University of Macedonia.
https://dspace.lib.uom.gr/bitstream/2159/20980/4/EuangelouEuthymiaMsc2017.pdf . [Accessed the 24th of March 2019, 23:35]

Galis, K. and Papadimitriou, E. (2013) *Philologists and ICT: The experience of B level Training program and the teaching practice*

http://mag.e-diktyo.eu/wp-content/uploads/2016/11/3epimorfenilik.pdf . [Accessed the 17th of March 2019, 20:30]
Gerouki, M. (2014) *Teachers and technology: the use of technological tools in the educational process.* P. Anastasiadis, N. Zaranis, B. Oikonomidis & M. Kalogiannakis (Training). Minutes of the 9th Pan-Hellenic conference with National Participation "Information and Communication Technology in Education". University of Crete, Rethymnon, 3- 5 October 2014 http://www.etpe.gr/custom/pdf/etpe2195.pdf . [Accessed the 24th of March 2019, 23:00]
Gkegka, S. (2017) Postgraduate thesis: *Information and Communication Technology in preschool education*.
https://dspace.lib.uom.gr/bitstream/2159/21078/4/GkegkaSophiaMsc2017.pdf . [Accessed the 20th of April 2019, 18:30]
Kamilari, G. and Siakouli, A. (2016*) The utilization of ICT in the educational process – Beliefs of teachers of primary education* Thesis. http://repo.lib.duth.gr/ispui/bitstream/123456789/10676/1/KamilariG.SiakouliA.pdf . [Accessed the 15th of May 2019, 18:05]
Ntochas, X. (2014*) Investigation of the transformation of the Mathematicians' aspects and stances towards the use and utilization of ICT in the teaching practice due to their training program* Scientific journal "educational circle" tome 2, edition 3, 2014. Retrieved in the 15th of May, 2019, from http://journal.educircle.gr/images/teuxos/2014/teuxos3/2.pdf
Papadakis and Kalogiannakis (2013) Evaluation of B level Training program for the PE 19/20 branch. *A study of cases in Education Support Centers in Athens and in Crete.* https://www.researchgate.net/publication/279510429 . [Accessed the 17th of March 2019, 18:50]
Samanta, A., Psillos, D. (2018) *The inclusion of ICT in teaching Natural Sciences after the B level* 11th pan-Hellenic and National Conference "ICT in Education" Thessaloniki, 19-21 of October 2018 (pages 139-146).
http://www.etpe.gr/conf/?cid=34. [Accessed the 30th of March 2019, 21:20]
Sergis, S. & Koutromanos G. (2013) *The effect of the training program in ICT for the educators, on Sciences and Technology issues in Education.* http://earthlab.uoi.gr/thete/index.php/thete/article/download/157/95 . [Accessed the 10th of March 2019, 21:25]
Simeonidis, S., Gkoumas, S., Savvidou, K. (2014) *Three years after the B level training program: The educators make use of and utilize the ICT in the education- teaching practices; The case of the prefecture of Kavala.* The online magazine for the educator of the new era. https://eportfolio.weebly.com/uploads/2/1/0/4/21044446/2tevxosneoupaidagogouianouarios2014.pdf. [Accessed the 30th of March 2019, 17:05]
Tsoulis, M. (2012) *The degree and the way of ICT integration in teaching practice from the certified educators of B level training program of Primary Education.*
http://www.pse.aegean.gr/pms-gender/Portals/0/Diplomatikes/2010-11/%CE%A4%CE%A3%CE%9F%CE%A5%CE%9B%CE%97%CE%A3%20%CE%9C%CE%99%CE%9B%CE%A4%CE%99%CE%91%CE%94%CE%97%CE%A3.PPT . [Accessed the 26th of March 2019, 22:15]

THE ETWINNING PROGRAM: DEVELOPMENT OF DIGITAL AND COLLABORATIVE SKILLS AND BENEFITS FOR TEACHERS IN PRIMARY AND SECONDARY EDUCATION

Katerina C. Kyriakidou
Arsakeio Primary School
Thessaloniki, Greece
e-mail: kathykyriakidou@gmail.com

ABSTRACT

The present paper aims to examine the benefits for teachers which result from their participation in the eTwinning program, an action that encourages European schools and their teachers to develop partnerships and cooperative projects with the use of ICT (Information and Communication Technologies). The program has gained a lot of visibility and is characterized by an increasing momentum, counting more than 225.000 participating schools and one million participating teachers (Licht et al., 2020). Besides the program's stated goals, that include the development of digital and collaborative skills among participating teachers and students (Crawley et al., 2009), it is interesting to examine whether the program functions as a motivational factor for teachers, resulting in the improvement of the quality and the effectiveness of their teaching (Barni et al., 2019).

Motivated by this background, a review of existing literature was performed, highlighting areas that have not been adequately researched. Attempting to contribute towards filling these gaps, a theoretical framework was developed resulting in the formulation of a research model with related research hypotheses. Suitable constructs and variables were defined in order to investigate teacher's improvement of digital and collaborative competences as well as the improvement of their perceived self-efficacy as a result of their eTwinning engagement. Following a quantitative research approach, relevant data were collected using a questionnaire comprising of 35 related questions, which was developed utilizing previously validated tools such as MeTP 2.0 (Monitoring eTwinning Practice) (Pateraki, 2018) and TET-SAT (Technology-Enhanced Teaching - Self Assessment Tool) (Abbiati et al., 2018). Initially, the questionnaire was piloted within a smaller group of participants in order to obtain feedback and assess its internal consistency. After small modifications, the questionnaire was distributed to primary and secondary school teachers actively engaged in eTwinning projects during April and May of 2021. The relatively large number of responses, that included 407 teachers serving at public as well as private schools of various geographical areas within Greece, enabled the utilization of Structural Equation Modeling (SEM) in order to perform the data analysis. The results verified the validity of the research model and confirmed the associated hypotheses, indicating eTwinning's beneficial impact on teacher's digital and collaborative competences as well as on their perceived self-efficacy.

The findings of the thesis highlight the value that eTwinning adds to the Greek Primary and Secondary Education sectors and lead to several conclusions and implications. Policy makers should promote the participation of teachers in eTwinning projects by providing related incentives and support and by utilizing concepts that have proved to be effective, such as the establishing of eTwinning Ambassadors. School directors are provided with an effective tool that can enhance much needed digital and collaborative skills of the school's teachers. Furthermore, by encouraging the school's teachers to actively engage in eTwinning projects, they contribute to their higher motivation through improving their perceived self-efficacy, resulting into a higher quality of provided educational services. Further research activities would be required in order to assess whether these findings apply to the educational systems of other participating European countries.

Key Words: eTwinning, digital skills, collaborative skills, teacher self-efficacy, primary education, secondary education

REFERENCES

Abbiati, G., Azzolini, D., Balanskat, A., Piazzalunga, D., Rettore, E. & Schizzerotto, A. (2018). MENTEP Executive Report, Summary of results of the field trials: The impact of the technologyenhanced self-assessment tool (TET-SAT). *European Schoolnet. FBK-IRVAPP, Brussels*.

Barni, D., Danioni, F., & Benevene, P. (2019). Teachers' self-efficacy: The role of personal values and motivations for teaching. *Frontiers in psychology*, 10, p.1645.

Crawley, C., Gilleran, A., Scimeca, S., Vuorikari, R., & Wastiau, P. (2009). *Beyond school projects: A report on eTwinning 2008 - 2009*. Brussels, BE: Central Support Service for eTwinning & European Schoolnet. Retrieved from http://resources.eun.org/etwinning/ 25/EN_eTwinning_165x230_Report.pdf
Licht, A., Pateraki, I., & Scimeca, S. (2020). *eTwinning Schools: towards a shared leadership approach - Quantitative and qualitative analysis of the eTwinning School practices*. Central Support Service of eTwinning - European Schoolnet, Brussels.
Pateraki, I. (2018). *eTwinning and its relation to cultural heritage*. In: I. Pateraki & S. Scimeca (Eds.), Learning from the past, designing our future: Europe's cultural heritage through eTwinning (pp. 14-36). Brussels: Central Support Service of eTwinning-European Schoolnet.

ENVIRONMENTAL EDUCATION AND UTILIZATION OF NATURAL AND RECYCLABLE MATERIALS IN EARLY CHILDHOOD

Dafni Petkou,
Department of Education and Care in Early Childhood
International Hellenic University
Thessaloniki, Greece
e-mail: dafnipetk@gmail.com

and

Franceska Kallmi
Department of Education and Care in Early Childhood
International Hellenic University
Thessaloniki, Greece
e-mail: mani.ntou98@gmail.com

ABSTRACT

The importance of the environment for man is vital as in it man is born, lives, reproduces and works. Humans's interventions in the environment begins from his appearance on Earth. The human, always based on the myth of inexhaustible nature and abundance, has over-exploited the environment and is faced with many major environmental problems. The necessity of facing up with the environmental problems has led to the creation of Environmental Education (E.E) as an important and creative way of action. The E.E is perceived as an active method**,** that brings about changes in the educational systems but also in the role of the school in society. Its institutionalization was a new proposal for the development and cultivation of an education that will aim at avoiding the environmental problems. (Flogaiti, 1998, Dimitriou 2009). The main goal of E.E. is the promotion of environmental awareness in all sections of society, promoting the constant change in the behavior of citizens (Ors, 2012, Tampakis, et. al. 2011). Many studies have found the effect of the school environment on the formation of responsible environmental behavior (Mackey, 2012, Tayci and Uysal 2012). Preschool is considered as a basis for acquiring environmental awareness in preschool age, so it is good for environmental consciousness to begin to be form from childhood. (Evans et al. 2007). The importance is enormous as it contributes to the acquisition of knowledge, attitudes and skills, activates children's emotions, and even enhances children's participation in daily activities, helping the child to acquire a responsible environmental behavior (Bradley, et al. 1999, Paraskevopoulos and Korfiatis, 2005, Bozdemir, at al. 2014).

The purpose of this study is to investigate the attitudes and behaviors of early childhood children regarding environmental education and the use of natural and recyclable materials in early childhood as a tool of environmental awareness.

The data collection was done using a questionnaire. The questionnaire is structured by multiple choice questions and graded questions. The methodology followed included random sampling and for the data processing – descriptive statistics, while the sample refers to early childhood teachers (Dafermos, 2005, Dermetzoglou, 2009).

The results of the research show that the use of natural and recyclable materials in early childhood, can lead children to an environmental education effortless, which aims mainly to raise awareness of environmental problems and further the adoption of environmentally responsible behaviors. In addition, according to the answers of the participants, the integration of environmental programs in early childhood is considered very important and equally necessary. What is particularly important is the general view of the sample that environmental education in early childhood, in the future leads to the creation of citizens' environmental consciousness. The results show that, natural materials are very often used in artistic activities and general in the preschool center. Of course, it is worth emphasizing that the integration of natural materials in children's play is not only through the teachers but also the children include natural materials in their play on their own initiative. However, as far as concerned the recycling in early childhood, through the understanding of application's and knowledge's importance, we recognize that the results are enhanced, as the greater percentage encourages the application and recognition of benefits' knowledge that children acquire.

Key Words: Environmental education, environmental awareness, sustainability, early childhood

REFERENCES

Bozdemir, H., Kodan, H. and Akdas, H.B. (2014). Primary school teacher candidates offers to primary school students about environmental consciousness. Procedia – Social and Behavioral Sciences.

Bradley, C. J., Waliczek, M. T., & Zajicek, M. J. (1999). Relationship Between Environmental Knowledge and Environmental Attitude of High School Students. Journal of Environmental Education.

Evans, G., Brauchle, G., Haq, A., Stecker, R., Wong, K., & Shapiro, E. (2007). Young Children's Environmental Attitudes and Behaviors. Environment and Behavior, pp.18-22.

Mackey, G. (2012). To Know, to Decide, to Act: The Young Child's Right to Participate in Action for the Environment. Environmental Education Research.. Ανακτήθηκε από: doi:10.1080/13504622.2011.634494

Ors, F. (2012). "Environmental education and the role of media in environmental education in Turkey". Preocedia-social and Behavioral Sciene, Vol. 46, pp.1339-1342.

Tampakis S., Manolas E., Tsantopoulos G. and Karapatsia Ch. (2011). Drawing for the protection of the environment: The case of school children in Alexandroupolis. Παιδαγωγικός Λόγος, Τεύχος 2, σελ. 99-117.

Tayci F., Uysal F. (2012). Fusun Uysal bA Study for Determining the Elemantary School Students' Environmental Knowledge and Environmental Attitude Level, Procedia - Social and Behavioral Sciences, Vol. 46, pp. 5718-5722.

Δαφέρμος, Β. (2005). Κοινωνική Στατιστική με το SPSS. Θεσσαλονίκη: Εκδόσεις ΖΗΤΗ.

Δερμετζόγλου Μ., (2009). Ο χώρος παράγοντας διαμόρφωσης του εκπαιδευτικού περιβάλλοντος του παιδικού σταθμού. Μεταπτυχιακή διατριβή, Τμήμα Προσχολικής Αγωγής και Εκπαίδευσης, Α.Π.Θ.

Δημητρίου, Α. (2009). Περιβαλλοντική εκπαίδευση: Περιβάλλον, αειφορία Θεωρητικές και παιδαγωγικές προσεγγίσεις. Θεσσαλονίκη: Επίκεντρο.

Παρασκευόπουλος Σ. & Κορφιάτης Κ. (2005). Περιβαλλοντική Εκπαίδευση. Θεωρίες και μέθοδοι. Εκδόσεις Χριστοδουλίδη, Θεσσαλονίκη.

Φλογαΐτη, Ε. (1998). Περιβαλλοντική Εκπαίδευση, Αθήνα, Εκδόσεις Ελληνικά Γράμματα.

THE CONTRIBUTION OF THE HISTORY AND PHILOSOPHY OF SCIENCE TO THE TEACHING OF NATURAL SCIENCES AS A FACTOR OF EFFECTIVE AND INNOVATIVE LEARNING

Mantziou Maria
Secondary Education Teacher of Ioannina
e-mail: mmantziou@sch.gr

ABSTRACT

The teaching of natural sciences is the field of research of didactics, which is developed through the interaction of innovations in teaching, theories, natural sciences, epistemology, pedagogy, history and philosophy of science, aiming with teaching options to improve it. quality of education. Because the characteristics of a teaching are related to the knowledge of the content, to the teaching practices, to help students to develop scientific ideas and ways of knowledge, to discover the culture of science, an important educational challenge is the teaching that introduces students to its culture, to learn what it means to participate in scientific research, in the tools of observation and measurement, in the standards of evidence and in the values and beliefs on which the production of scientific knowledge is based and how it evolves. This learning can be achieved in the context of the teaching of natural sciences related to the history and philosophy of science, teaching about how the natural sciences influence the evolution of ideas but also the evolution of perceptions in science itself, teaching the contribution of learning about what natural sciences are, how they evolved, teaching to enhance learning, to highlight the human face of science. Science is the cultural space and part of the space is considered the history and philosophy of science and a science curriculum based on the history and philosophy of science is based on the fact that learning should combine what the student learns with evolution of science (Skordoulis, 2015). The importance of the history and philosophy of science in scientific education has been recognized, the advantages of approaching the teaching of history and philosophy have been emphasized in the literature (Hodson, 1988; Duschl, 1990; Lederman, 1992; Matthews, 1994). It is proposed to introduce the history and philosophy of science in the teaching of natural sciences (Duschl, 1990; Solomon et al, 1992; Matthews, 1992, 1994; Monk, & Osborne, 1997; Van Driel, et al, 1998; Abd-El -Khalick & Lederman, 2000 · DeBoer, 2000 · Rutherford, 2001 · Seroglou & Koumaras, 2001 · Leite, 2002 · Galili, 2008 · McComas, 2008 · Niaz, 2009 · Clough, 2011 · Höttecke et al, 2012 · Teixeira et al , 2012). In order to demonstrate the contribution of the history and philosophy of science to the teaching of science as a factor of effective and innovative learning, the views of secondary school teachers on the contribution of the history and philosophy of science to the teaching of science were explored. In particular, the aim was to make clear the reasons why knowledge of the natural sciences is important, for the learning factors of the natural sciences, because the introduction of the history and philosophy of the sciences contributes to the teaching of the natural sciences, promotes scientific education, but and the obstacles, and therefore the improvements that need to be made to introduce history and philosophy to the teaching of the natural sciences. The results of the research showed that the history and philosophy of science can be introduced for pedagogical teaching utilization, as an innovative approach for teaching natural sciences that is related to teaching strategy, teaching objectives, for cognitive progress, cognitive competence.

Educational innovation can only succeed if it also includes professional development and empowerment of teachers. Empowerment so that the teacher creates a framework, practices, educational approaches so that students can identify problems, plan research, practice, predict. Teachers form the view that the development and application of new approaches, the need for a more complex pedagogical knowledge requires time but the interconnection of research with practice, conceptual approaches, are important parameters for teaching the implementation of an innovation. such as history and philosophy in teaching. If education is oriented towards educating and creating citizens who think critically, with a cognitive background, creatively, then the approach through teaching with history and philosophy of science is a desirable strategy. Thus, the application through the history and philosophy of science is connected with the didactic practice, with the innovation of the curricula, with the development of the awareness and understanding of science and the role it plays in life, with the preparation of the next generation of scientists, combines learning about what the natural sciences are with the evolution of these sciences.

Key Words: Natural sciences, teaching, history and philosophy of science

REFERENCES

Abd-El-Khalick, F., & Lederman, N. G. (2000). The influence of history of science courses on students' views of nature of science. *Journal of Research in Science Teaching: The Official Journal of the National Association for Research in Science Teaching*, *37*(10), 1057-1095.

Bartholomew, H., Osborne, J., & Ratcliffe, M. (2004). Teaching students "ideas-about-science": Five dimensions of effective practice. *Science Educatio*n, 88(5), 655-682.

Clough, M. P. (2011). The story behind the science: Bringing science and scientists to life in post-secondary science education. *Science & Education*, 20(7-8), 701-717.

DeBoer, G. E. (2000). Scientific literacy: Another look at its historical and contemporary meanings and its relationship to science education reform. Journal of Research in Science Teaching: *The Official Journal of the National Association for Research in Science Teaching*, 37(6), 582-601.

Duschl, R. A. (1990). Restructuring science education: *The importance of theories and their development*. Teachers College Press.

Galili, I. (2015). On the involvement of History and Philosophy of Science in teaching Science–an approach promoting cultural content Knowledge. *Review of Science, Mathematics and ICT Education*, 9(1), 7-17.

Höttecke, D., Henke, A., & Riess, F. (2012). Implementing history and philosophy in science teaching: Strategies, methods, results and experiences from the European HIPST project. *Science & Education*, 21(9), 1233-1261.

Lederman, N. G. (1992). Students' and teachers' conceptions of the nature of science: A review of the research. *Journal of research in science teaching*, 29(4), 331-359.

Leite, L. (2002). History of science in science education: Development and validation of a checklist for analysing the historical content of science textbooks. *Science & Education*, 11(4), 333-359.

Matthews, M. R. (1994). *Science teaching: the role of history anf philosophy of science*.

Matthews, M. R. (1992). History, philosophy, and science teaching: The present rapprochement. *Science & Education*, 1(1), 11-47.

McComas, W. F., & Nouri, N. (2016). The nature of science and the next generation science standards: Analysis and critique. *Journal of Science Teacher Education*, 27(5), 555-576.

Monk, M., & Osborne, J. (1997). Placing the history and philosophy of science on the curriculum: A model for the development of pedagogy. *Science education*, 81(4), 405-424.

Niaz, M. (2009). Progressive transitions in chemistry teachers' understanding of nature of science based on historical controversies. *Science & Education,* 18(1), 43-65.

Rutherford, F. J. (2001). Fostering the history of science in American science education. *In Science Education and Culture* (pp. 41-52). Springer, Dordrecht.

Σκορδούλης, Κ. (2015). *Επιστημονική γνώση*, Εκδόσεις Τόπος.

Seroglou, F., & Koumaras, P. (2001). The contribution of the history of physics in physics education: A review. In *Science education and culture* (pp. 327-346). Springer, Dordrecht.

Solomon, J., Duveen, J., Scot, L., & McCarthy, S. (1992). Teaching about the nature of science through history: Action research in the classroom. *Journal of research in science teaching*, 29(4), 409-421.

Teixeira, E. S., Greca, I. M., & Freire, O. (2012). The history and philosophy of science in physics teaching: A research synthesis of didactic interventions. *Science & Education*, 21(6), 771-796.

Van Driel, J. H., De Vos, W., & Verloop, N. (1998). Relating students' reasoning to the history of science: The case of chemical equilibrium. *Research in Science Education*, 28(2), 187.

DISTANCE-EDUCATION PRACTICES

THE CONSEQUENCES OF THE DISTANCE LEARNING PROCEDURES TO THE UNIVERSITY STUDENTS' EFFICIENCY

Dr. Georgios Triantafyllou*
(*Correspondence author*) Dept of Business Administration and Tourism
School of Management and Economic Sciences
Hellenic Mediterranean University, Crete - Greece
e-mail: triantafyllou@hmu.gr

and

Eirini Strataki
Dept of Business Administration and Tourism
School of Management and Economic Sciences
Hellenic Mediterranean University, Crete – Greece
e-mail: eirinistrataki@yahoo.gr

ABSTRACT

The unforeseen and rapid outbreak of the pandemic worldwide forced nations to implement necessary measures to tackle the spread of the virus which led to significant disruption to the provision of education, training and mobility opportunities for learners, teachers and educators across the globe. The University education landscape changed dramatically in the past 18 months due to the Corona Virus. University Institutions faced a vast economic crisis, and the challenges posed by COVID-19 were unprecedented (Giridharan, 2020: 106; Kennedy and Highman, 2021). The pandemic spread fast across the globe and found Higher Education Institutions mostly unprepared. The impact was felt on all Higher Education stakeholders: students, researchers, academics, Institutions, Funding Agencies, and local societies (Pragholapati, 2020: 3). The particular presentation aims to understand the impact of this abrupt change to each stakeholder group, propose solutions and identify hidden opportunities focusing mostly to the academic efficiency of the students

The purpose of the present study is dual. Primarily, it constitutes an attempt to display and analyze "online learning", "student and teacher autonomy" and "stimulating a lesson via distance" as factors which determine and form the new educational and learning status quo. Secondly we focus on the teachers' and students' ability to adjust to the new academic reality by updating their knowledge and skills in a flexible and fearless way. An enormous sample of 2093 on-line undergraduate questionnaires, distributed to participants from eight universities of Greece, shares a vivid description of the new learning adjustment from both banks of the river; from the student's capability to keep up with the present liquid educational system and from the teacher's ability to confront the coming needs of field. Qualitative Content Analysis was applied for the description and interpretation of the collected data (Ronggui, 2016). It derives from the replies that students across the higher education sector have been forcefully impacted by the spread of COVID-19. The challenges they face range from mobility restrictions (18,7%), to social distancing from their peers (41,3%), to changes in their study plans (87%), to learning online models (53,5%) and to missing scholarship interviews (13,2%). Academics were also affected from the abrupt transition to online teaching (~56%), dealing with online exams (~64%), handling their research grants (22%) and mobility restrictions (14%). Institutions have been forced to close campuses and switch to online learning and digital tools with limited notice. Among the biggest challenges that HEIs faced included keeping students and staff safe and well informed about the pandemic, investing in online management tools, keeping open the research laboratories and maintaining research activities and dealing with missing funds due to low enrollment of international students to their programs (Darby, 2020; Farnell et al. 2021). Funding agencies, as Erasmus Project and HORIZON 2020, have experienced a negative impact on ongoing or planned activities (European Commission, 2020; Mishra et al. 2020) such as the need to manage the number of requests to extend the lifetime of awarded projects and keep alive

the research activities (e.g. HORIZON 2020) and staff and student mobility (e.g. Erasmus). Finally, as Higher Education Institutions are interconnected with the local society, they affect each other. As a result of the impact on Higher Education Institutions, local societies have experienced lower demand for student accommodation, lower consumption, and increased demand for internet bandwidth in parallel with the increased need to maintain a health system that can cope with the pandemic (Estes, 2020; Cirlan et al. 2021).

Key Words: Higher Education, COVID-19, distance learning, blended teaching methods, education

REFERENCES

Cirlan, E.., and Loukkola, T. (2021). *"Internal quality assurance in times of Covid-19: Report"*. Belgium: European University Association. Retrieved from: https://eua.eu/downloads/publications/internal%20qa.pdf

Darby, F. (2020). "How to recover the joy of teaching after an online pivot". *The Chronicle of Higher Education*, 66(25). Retrieved form: https://www.chronicle.com/article/how-to-recover-the-joy-of-teaching-after-an-online-pivot/

Estes, A. C. (2020). Why the internet (probably) won't break during the coronavirus pandemic. *VOX*. Retrieved from: https://www.vox.com/recode/2020/3/25/21188391/internet-surge-traffic-coronavirus-pandemic

European Commission (2020). "*Erasmus Mundus Programme Implementation in the context of Covid 19: survey report".* European Education and Culture Executive Agency, Publications Office. Retrieved from: https://data.europa.eu/doi/10.2797/257996

Farnell, T., Skledar Matijević, A., Šćukanec Schmidt, N. (2021). *"The impact of COVID-19 on higher education : a review of emerging evidence: analytical report".* European Commission, Directorate General for Education, Youth, Sport and Culture, Publications Office. Retrieved from: https://data.europa.eu/doi/10.2766/069216

Giridharan, B. (2020). Engaging with Students and Faculties Online in the Era of the Corona Virus Pandemic: A Higher Education Perspective. *Journal of Humanities and Social Sciences,* 19(1), p.103-110. doi:10.37534/bp.jhssr.2020.v2.nS.id1037.p103

Kennedy, E. and Highman, L. (2021). The age of online learning: Best practice in the evaluation of online education*. QS* London: Quacquarelli Symmonds. Retrieved from: https://www.qs.com/portfolio items/best-practice-evaluation-of-online-education/

Mishra, L., Gupta, T., & Shree, A. (2020). Online teaching-learning in higher education during lockdown period of COVID-19 pandemic. International Journal of Educational Research Open, 1, 100012. Retrieved from: https://doi.org/10.1016/j.ijedro.2020.100012

Pragholapati, A. (2020). COVID-19 impact on Students. Retrieved from: https://doi.org/10.17605/OSF.IO/NUYJ9

Ronggui, H. (2016). RQDA: R-based Qualitative Data Analysis. R package version 0.2–8. Retrieved from: http://rqda.rforge.r-project.org/.

ACTION RESEARCH AS AN INNOVATIVE PRACTICE IN PRESCHOOL EDUCATION, CASE STUDY IN A GREEK KINDERGARTEN

Sophia Rapti
MSc in Management of Educational Units
Kindergarten teacher at East Salonika
e-mail:srapti1976@gmail.com

ABSTRACT

In recent years there has been a growing interest in combining teaching and research in the field of education. This work studies and investigates, therefore, *Action Research* as an innovative teaching philosophy and practice as it has emerged through scenarios of its application in a Greek kindergarten. The teacher with co-researchers the children themselves, the parents and the "critical friend" of the action research cultivates collaborative-exploratory learning in a climate of reflection and trust and acquires skills for a lifetime through a qualitative research in a kindergarten class.

Nowadays in the “society of knowledge” our educational needs change all the time (Ksoxelis, 2002). Thus, ideas regarding the best educational practice arise, so as to make the school capable of meeting the modern needs that “pupils- citizens to be” have (Avgitidou, 2015).

Action Research appears to be an innovative, useful teaching theory and practice, to organize a class suggesting that teachers and pupils should upgrade their roles by becoming “researching-acting people” (Makrinioti, 2000) in order to participate equally in the educational process having a vision in common. Action Research enables the school stakeholders to investigate their practice and routine aiming to check whether these are as they wish and therefore improve them (Mc Niff, 1995).

Each application plan of Action Research emerges from the desire to investigate and meet the school members’ needs and to deal successfully with problematic conditions (Posch, 2003).

Numerous terms and definitions refer to Action Research. According to Katsarou (2016), it is an active, participatory research and as Reason & Bradbury mention (2001:1): “*it involves systematic development of practical knowledge, it combines action with reflection and theory with action and it leads to solutions for the people and their societies”.*

Numerous models exist. However, what they all share is that Action Research is a non- stop process of interconnected phases-circles which are connected all together spirally focusing on a problem focusing on constant, small improvements of problematic conditions (Hoogenraad, 2020) through reflection and formative evaluation.

The kindergarten class should provide children with knowledge that interests them and applies to their everyday routine (Matsagouras, 2002). Through Action Research the members of a kindergarten “learn how to learn” (Carr & Kemmis, 1997), cooperate, evaluate and suggest ideas (Avgitidou, 2014).

The research purpose of this work is double: 1. to determine how the teacher changes and improves himself personally and professionally via Action research and 2. to spot and study how the school stakeholders experience and accept Action Research’s results as changes in their culture developing skills for a life time.

As research questions arose:

1. What advocates A.R as an innovative educational practice?
2. Why is it useful to apply A.R in education and in kindergarten in particular?
3. What are the results of A.R in a Greek kindergarten?
4. Which factors make teachers either to adopt or reject A.R?

Qualitative research with a case study was chosen as we aim to imprint and interpret a topic in detail by collecting stakeholders’ experiences, perceptions and enabling their active participation, meeting their real needs, building useful knowledge.

Intentional without possibility sampling was chosen (Zafiropoulos, 2015) and a public kindergarten of East Salonika was the research sample. Specifically: two classes of 23 and 18 pupils.

As research tools they were used:

- systematic observation
- questionnaire
- dialogues
- interview
- children’s drawing

- teacher's diary
- sociogram

Action Research is easily and successfully combined with teaching and it leads to its improvement. Specifically:

- research is valuable in education field and in class making all co researchers (Day, 1991)
- collaborative learning is vital in a pupil-centered school that we all wish to have
- there is need to assign high performance on the basis of educational system: school / teacher/ students in the historian institution of education (Kastoriadis, 2000)
- the reflection, the continuous formative evaluation, the experiential training and "a critical friend" are important to education
- teachers must be Mentors and consultants to their students
- A.R succeeds in developing the 4Cs (Collaboration, Critical thinking, Communication, Creativity) (Stauffer, 2020) – valuable skills of 21st century

Key Words: Action Research, innovative practice, school members-co-researchers, reflection, collaborative-discovery learning

REFERENCES

Avgitidou, S. (2014). *Educators as researchers and reflective professio*nals. Athens: Gutenberg
Avgitidou, S. (2015). *Professional learning through Action Research*. Pedagogical Institute of Cyprus
Carr, W. & Kemmis, S. (1997). *For a critical educational theory. Education, knowledge and Action Research*. Athens: Publications Code
Day, C. (1991). Roles and relationships in Qualitative Research on Teachers' Thinking: A Reconsideration. *Teacher and Teacher Education, 7*(5-6).
Zafiropoulos, K. (2015). *How to make a scientific Work-Scientific Research and writing?* Athens: Publications Kritiki
Hoogenraad, W. (2020). *The beginning of Kaizen: Nonstop improvement*. ITpedia. http://www.softrax.nl. [Accessed the 20th of October 2020].
Kastoriadis, K. (2020). *Plato's politician*. Athens: Ipsilon
Katsarou, E. (2016). *Educational Action Research. Research with multi examples for reforming of educational action*. Athens: Publications Kritiki
Makrinioti, D. (2000). *Child and Playing in Greek society*. Athens: Institution for the child and Kastaniotis
Mc Niff, J. (2002). *Action Research for Professional Developmen*t. London: Hyde Publications
Ksoxelis, P. (2002). Teacher training today: international necessity-Greek developments and experiences. Proceedings of 2nd International .Education Conference: *At the dawn of 21st century. Historical-comparative approaches.4-6 October 2002.* Patra. http://www.eriande.elemedu.upatras.gr/eriande/synedria/synedrio2/praktika/ksohelis.htm [Accessed the 10th of January 2021].
Posch, J.L. (2003). Action Research in Austria: a review. *Educational Action Research*, *11* (2): 233 246
Reason, P. & Bradbury, H. (2001). *Introduction: Inquiry and participation in search of human aspiration.* Handbook of Action Research. London: SAGE Publications
Stauffer, B. (2020). *"What are the 21st century skills? Applied Educational Syste*ms. https://www.aeseducation.com/blog/four-cs-21st-century-skills [Accessed the12th of May 2020].

STUDENTS LEARNING EXPERIENCE DURING THE COVID 19 PANDEMIC

George Apostolou
International Hellenic University, Greece
Ioannina, 45333, Greece
e-mail: apgeorge2004@yahoo.com

Achilleas Papatsimpas
Ministry of Education, Greece
Athens, 11522, Greece
e-mail: achilleaspapat@gmail.com

and

Athanasios Gounas
International Hellenic University, Greece
Sindos, Thessaloniki, 54700, Greece
e-mail: agkounas@mkt.teitje.gr

ABSTRACT

The spread of the coronovirus around the world in 2020 led to an unprecedented state of education, where students had to stop attending classes in person. The closure of schools has resulted in a dramatic reduction in teaching time in primary and secondary schools, and school authorities, educators, parents, and students, have had to take appropriate measures to address the situation (Bertling, et al., 2020). The abstention from learning life lessons of the students and their lack in basic skills, estimate that distance education will have a negative impact on student learning, psychology, and future economic incomes (Azevedo, 2020; Psacharopoulos, 2020). Despite the pessimistic scenarios, there are also optimistic ones, if the actions implemented by governments, educational institutions, and teachers, are aimed in the right direction, they will expand and facilitate online access to education for more students, they will contribute to the further democratization of the educational process and would help to improve educational equality in the post-pandemic world (Olaniran, B. A., 2009; Reimers, 2020; Xe, X. B., 2020)

This research, conducted between February and May 2021 regarding students attending lessons in private tutorial organizations in Greece, aims to investigate how schools, tuition centers and private lessons have responded to the pandemic changes regarding the functioning of educational institutions, as well as how the pandemic has affected students' learning experience. The questionnaire is based on the PISA Global Crises Module (Bertling, et al., 2020) and consists of 90 items (multiple choice, crossover, and Likert scale type 0-5) which are divided into 9 sections and answered by 82 out of 90 students who have subscriptions for the services of the above tutoring organizations.

Descriptive statistics were used to illustrate the distribution of the data and statistical tests such as Chi-square (McHugh, 2013), Kruskal-Wallis (Kruskal and Wallis, 1952), Mann-Whitney U test (Nachar, 2008), one-sample Wilcoxon signed rank test (O-Thas et al., 2005), and t-test, were used to confirm statistical hypotheses. The results from the survey family support on home study which appears with an average of 2.08 (SD =1.08, Cronbach's Alpha 0.922) and self-directed learning appears with an average of 2.67, (SD = 0.73, Cronbach's Alpha 0.76). The optimistic findings of the research are dominated by the experience gained by the students from the use of the technological means and their familiarity with them. Students now feel better prepared for a similar future situation with an average of 3.93, (SD = 0.74, Cronbach's Alpha 0.85). Subjective impression of learning depends on the place of residence, with the inhabitants of the urban areas having the lowest mean value. Help from home is more in lower grades and for the Panhellenic examination candidates, it is also more evident in the boys of those categories, also boys feel more prepared for the future. The research conclusions and implications can be used by learning services providers, curriculum planners, teachers and parents who face the problems of the education system (Slater, Narver, 2000; Harris, 2002; Helfert, Ritter, & Walter, 2002).

Key Words: Covid-19, Greek education, Student's experience, Online education

REFERENCES

Azevedo, Hasan, Goldemberg, Diana, Syedah, Geven (2020). Simulating the Potential Impacts of COVID-19 School Closures on Schooling and Learning Outcomes: A Set of Global Estimates. Policy Research Working Paper; No. 9284. World Bank, Washington, DC. © World Bank.

Bertling, et al. (2020), "A tool to capture learning experiences during COVID-19: The PISA Global Crises Questionnaire Module", *OECD Education Working Papers*, No. 232, OECD Publishing, Paris, https://doi.org/10.1787/9988df4e-en.
Hanushek & Woessmann (2020), The Economic Impacts of Learning Losses, OECD
Harris, L. C. (2002). Measuring market orientation: exploring a market-oriented approach. Journal of market-focused management, 5(3), 239-270.
Helfert, G., Ritter, T., & Walter, A. (2002). Redefining market orientation from a relationship perspective: Theoretical considerations and empirical results. European Journal of marketing, 36(9/10), 1119-1139.
Kruskal, W., & Wallis, W. (1952). Use of Ranks in One-Criterion Variance Analysis. Journal of the American Statistical Association, 47(260), 583-621. doi:10.2307/2280779
McHugh M. L. (2013). The chi-square test of independence. Biochemia medica, 23(2), 143–149.
Nachar, Nadim. (2008). The Mann-Whitney U: A Test for Assessing Whether Two Independent Samples Come from the Same Distribution. Tutorials in Quantitative Methods for Psychology. 4. 10.20982/tqmp.04.1. p013.
O. Thas, J. C. W. Rayner & D. J. Best (2005) Tests for Symmetry Based on the One-Sample Wilcoxon Signed Rank Statistic, Communications in Statistics - Simulation and Computation, 34:4, 957-973.
Olaniran, B. A. (2009). Discerning culture in e-learning and in the global workplaces. Knowledge Management & E-Learning: An International Journal, 1(3), 180-195.
Psacharopoulos, G., Collis, V., Patrinos, H. A., & Vegas, E. (2020). Lost wages: The COVID-19 cost of school closures. Available at SSRN 3682160.
Reimers & Schleicher (2020), A framework to guide an education response to the COVID-19 Pandemic of 2020
Slater, S. F., & Narver, J. C. (2000). The positive effect of a market orientation on business profitability: a balanced replication. Journal of business research, 48(1), 69-73.
Van Lancker W, Parolin Z. COVID-19, school closures, and child poverty: a social crisis in the making (2020). Lancet Public Health. 2020 May;5(5): e243-e244.
Xe, X. B. (2020). A Study on the Democratization of Knowledge Promoted by E-Learning in China. In Handbook of Research on Digital Learning (pp. 123-139). IGI Global.

ASSESSING OPERATIONAL RISKS FOR THE DEPLOYMENT OF SUSTAINABLE POSTGRADUATE COURSES

Helena Pandremmenou
Msc of Science in Management & Organisation of Educational Units
International Hellenic University, Thessalloniki, Greece
e-mail: helena-mau@hotmail.com

Vaia Papanikolaou
University of Thessaly, Dept. of Special Education
Volos, Greece
e-mail: vayapap@uth.gr

and

Panagiotis Tzionas
International Hellenic University
Dept. of Production Engineering and Management
Thessaloniki, Greece
e-mail: ptzionas@ihu.gr

ABSTRACT

Martin Carnoy pointed out that higher education, is a "product" of free market. This is why institutions are under a continuously pressure to improve the quality of their educational services, curricula, internal processes of production's flow and their business culture in general. The theory of *Neoliberal Management* promotes the transformation of institutions on entrepreneurial organizations (Lindner, 2018, Mendoza et al., 2019).In this context there are two strategies to gain academic autonomy: a) to respond to external pressures of an increased competition, accreditation and funding by adapting the labor market directives and b) the creation of public value (Aithal & Kumar, 2020, Žalėnienė &Pereira, 2021).

The aim of this paper is to present a Lean *Performance Management model* through a Six Sigma Academic Balance Scorecard that could observe the improvement of organizations' performance by assessing operational risks in deployment of sustainable postgraduate courses (Bednarek et al., 2020, Bumhaid & Malik, 2019, Cano et al., 2020, Trimarjoko et al., 2020, Uluskan, 2016).

As the university is a multifaced organization, *Management* must use strategic tools to measure the improvement of academic performance, decrease the errors that are responsible for "customers'" dissatisfaction and add value by reducing unnecessary procedures and the consumption of resources. Under an economic point of view, *Business Process Management,* can help an institute to carry out activities in an entrepreneurial way and increase its self- efficacy through the systematization of workflow. Further it evaluates how the inputs and outputs of educational process can achieve excellence, provide novel services and promote a high-level of research (Taylor & Baines,2012). *Resource Management* models on the other hand, help an institute to set priorities, restructure processes and face up with challenges such as measurement of performance and operational risk.

Performance Management, can be perceived as a guide for a higher educational institution to improve its operational capacity, reduce the emerging risks, integrate institutional changes, and increase its sustainability and competitiveness (Balzer et al., 2016, Balzer, 2020, Simonyte et al., 2021). Liker claims that *Lean Managemen*t can lead an organization to growth with longevity. *Lean Culture* can train the administration to deal with problems and standardize the academic processes (Maciąg et al., 2019, Osman et al., 2020, Zighan & Ahmed,2020). *Balance Scorecard* is a strategic *Lean Six Sigma Dmaic methodololy* tool which transforms strategy into a business action plan. It is deemed suitable for monitoring the organization's performance goals, growth, productivity and standardization of production's flow through 4 dimensions and KPIs (Housawi et al., 2020, Kozlova & Putilov, 2017, Shirkouhi et al., 2020, Sreedharan et al., 2018).

The research question that is formed is if *Lean Six Sigma Academic BsC Model* could standardize academic procedures and measure the performance due to the principles of Lean, performance and risk management?

As a case study methodology, *Business Research* has chosen from the field of Strategic *Management* as the most appropriate (Dul & Hak, 2007). *Lean Six Sigma Dmaic* approach was used to measure academic performance and evaluate operational risks. After analyzing the theoretical concepts of Quality Assurance, Academic Excellence, Performance Measurement and Lean Management, 17 Greek Higher Education Institutions, which were following quality assurance procedures through 2012- 2018, were examined and a new model was developed. (Saunders et al., 2009, Sunder, 2018, Zafeiropoulos, 2005). The observance of academic goal setting was standardized in four dimensions through smart indicators. The findings were cross-checked with secondary data and specifically: *1*) The Balance Scorecards of Institutions and *2*) their external evaluation reports which were evaluating the achievement of excellence in overall operation in: (a) Teaching, (b) Research, (c) Curricula, and (d) Other Services, sectors.
The results delivered from the used of the proposed Lean Six Sigma Management Model show, that the institutions can monitor their performance improvement, taking into consideration the current situation and their vision for the future. Also, it can help them to limit mismanagement by assessing the operational risks in the deployment of sustainable postgraduate courses. By implementing the principles of Performance and Lean Management in real situations in postgraduate programs, universities can achieve a sustainable financial strategy, excellence in a holistic approach, towards development, according to society and economy needs in educational outcomes, research work services, and promote an innovative interaction between universities and societies.

Key Words: University, Postgraduate Courses, Measurement, Lean Management, sustainability

REFERENCES

Aithal, P. S., Kumar, S., P. M., (2020). Autonomy in Higher Education - Towards an Accountability Management Model, *International Journal of Management & Development*, 6(10), pp. 166-175, https://ssrn.com/abstract=3512951

Balzer, W. K., Francis, D. E., Krehbiel, T. C., & Shea, N. (2016). A review and perspective on Lean in higher education. *Quality Assurance in Education*.

Balzer, W. K. (2020). Lean higher education: Increasing the value and performance of university processes. *Productivity Press*.

Bednarek, M., Buczacki, A., Bielakowski, L., Gladysz, B., & Bryke, M. (2020). Postgraduate Studies on Lean Management—A Review of Initiatives. *Education Sciences*, 10(8), 197.

Bumjaid, S. E., & Malik, H. A. M. (2019). The effect of implementing of six sigma approach in improving the quality of higher education institutions in Bahrain. *International Journal of Engineering and Management Research*, 9.

Cano, M., Murray, R., & Kourouklis, A. (2020). Can lean management change the managerial culture in higher education? *Studies in Higher Education*, 1-13.

Dul, J., & Hak, T. (2007). Case study methodology in business research. *Routledge.*

Housawi, A., Al Amoudi, A., Alsaywid, B., Lytras, M., bin Moreba, Y. H., Abuznadah, W., & Alhaidar, S. A. (2020). Evaluation of Key Performance Indicators (KPIs) for Sustainable Postgraduate Medical Training: An Opportunity for Implementing an Innovative Approach to Advance the Quality of Training Programs at the Saudi Commission for Health Specialties (SCFHS). Sustainability, 12(19), 8030

Kozlova, A.A., Putilov, A.V., (2017). The Balanced Scorecard as a Tool to Develop Business Education at Leading University, *Enineering Education*,34-43

Lindner, J. (2018). Entrepreneurship education for a sustainable future. *Discourse and Communication for Sustainable Education*, 9(1), 115-127.

Maciąg, J., Maciąg, J., & Harrison. (2019). Lean Culture in Higher Education. *Springer International Publishing*.

Mendoza, J. M. F., Gallego-Schmid, A., & Azapagic, A. (2019). Building a business case for implementation of a circular economy in higher education institutions. *Journal of Cleaner Production*, 220, 553-567.

Nazari-Shirkouhi, S., Mousakhani, S., Tavakoli, M., Dalvand, M. R., Šaparauskas, J., & Antuchevičienė, J. (2020). Importance-performance analysis based balanced scorecard for performance evaluation in higher education institutions: an integrated fuzzy approach. *Journal of Business Economics and Management*, 21(3), 647-678.

Osman, A. A., Mamat, R. C., & Ali, M. M. (2020). Lean Transformation Sustainability Models. *Advances in Business Research International Journal*, 6(2), 1-18.

Saunders, M., Lewis, P., & Thornhill, A. (2009). Research methods for business students. *Pearson education*

THE VALUE OF ETHICS IN EDUCATION IN THE MODERN GLOBALIZED SOCIETY

Anastasia Sofia Alexiadou,
PhD, LLM, MA Phil, M.Ed.
Lecturer-University of Macedonia,
Thessaloniki, Greece,
Research Fellow, Research Center of Biopolitics,
Panteion University-Social and Political Sciences,
Athens, Greece
e-mail: as.alexiadou@gmail.com

ABSTRACT

Admittedly, an educational system plays a significant role in the modern globalized world. Nowadays, we live in a globalized society and therefore education should begin by preparing members for this kind of society. Consequently, Education is focusing its curricula and pedagogical programs on preparing the students for grasping the opportunities and addressing challenges of a global society (Dill, 2012), balancing local, national and global norms and ethical values in the process of educating them. Such a stance, is, therefore, considered as a pedagogical counter – action to the various challenges and problems, such as complex ethical issues, human rights' violations, globalization, migration, refugees, cultural differences, identity issues, diversity issues etc. Furthermore, education should insure that inclusiveness, integration and multicultural perspectives are adopted into all aspects of the school life by way of promoting diversity as an edifying learning experience; employing anti-racism and human rights perspectives in school policies and practices; reinforcing educators' and students' intercultural understanding and cross – cultural communication skills and eliminating, as much as possible, discriminations and exclusions from the learning experience due to ethnic origin and background (Gluchmanova, 2015). This paper explores the employment of Ethics in the educational processes in connection with contemporary global issues in multicultural and globalized educational environments (Gülcan, 2015). The present paper draws on existing literature research / review and evidence and applies a systematic document analysis / a systematic review.

A crucial question raised is how Ethics can make a difference in Education. Ethics reflects our concerns about what is right or wrong, what is good or bad, what is a human right or a duty / a rule, what is beneficial or harmful, about the relation of the individual to itself, about the meaning of life. Accordingly, Immanuel Kant in his *Critique of Pure Reason* states that "all interest of my reason (the speculative as well as the practical) is united in the following four questions: What can I know? What should I do? What may I hope? What is human?" (Kant, 1781: 677). Undoubtedly, Ethics has a considerable role in Education, in that the scope of Education and particularly within the current globalized world, is to provide people with the capacity of making decisions by their own free will, in order to be ethically responsible and autonomous individuals. Hence, it must be conceded that Ethics defines who we are and is immanent in our code of values (Josefová, 2016; Onyia, 2017).

It can be claimed that Education constitutes an ethical endeavor. Without difficulty educators can teach their students norms and rules, while at the same time they cannot easily teach them to obey these rules, unless they teach them first Ethics (Gülcan, 2015). Notably, educational leaders should espouse equal respect and dignity to every person as a moral individual (Gluchmanova, 2015), as well as integrate ethical thinking, ethical decision – making, ethical deliberation, ethical sensitivity and ethical justification in educational curricula, practices and pedagogical approaches, in order to prepare students for their future role as ethically responsible globalized citizens (Onyia, 2017).

Key Words: Education, Ethics, Globalization, Human Rights, Inclusive Education

REFERENCES

Dill, J.S. (2012). The Moral Education of Global Citizens. *Society,* 49:541–546.
Gluchmanova, M. (2015). The importance of ethics in the teaching profession. *Social and Behavioral Sciences*, 176: 509 – 513.
Gülcan,N. Y. (2015). Discussing the importance of teaching ethics in education. *Social and Behavioral Sciences,* 174: 2622 – 2625.
Josefova, A. (2016). The importance of ethics in the process of education in today globalized society.

SHS Web of Conferences, 26: 1-4.
Kant, Im. (1998 [1781]). *Critique of Pure Reason.* Translated and edited by P. Guyer and A. Wood. Cambridge: Cambridge University Press.
Onyia, Ch. (2017). The Role of Education in Shaping Ethical Behaviour and Responsible Leadership: The Classroom Perspective. *Globethics Consortium on Ethics in Higher Education*, 1-36.

CHILDREN WITH DISABILITIES AND THE RIGHT TO EDUCATION: THE CASE FOR INCLUSION

Dr. Elisavet Athanasia Alexiadou
Adjunct Lecturer HOU
Fellow/ Global Health Law Research Center/
University of Groningen
e-mail: ea.alexiadou@gmail.com

ABSTRACT

Children with disabilities worldwide constitute one of the most vulnerable and marginalized groups of children, facing constantly multiple and disproportionate barriers to the full enjoyment of their rights and to their inclusion in society (World Health Organization and World Bank, 2011; UNICEF 2012). Critically, children with disabilities encounter significant vulnerabilities and severe disability-based discrimination when trying to access education with long-lasting effects on their life course (Broderick and Ferri, 2019). Thereto, such worrying trends largely uncover that the right of children with disabilities to inclusive education is being widely neglected and violated (CRPD, 2006; UNICEF, 2012). Against this backdrop, inclusive education aims at the development of a school system based on "a child-centered pedagogy capable of successfully educating all children, including those who have serious disadvantages and disabilities. The merit of such schools is not only that they are capable of providing quality education to all children; their establishment is a crucial step in helping to change discriminatory attitudes, in creating welcoming communities and in developing an inclusive society. A change in social perspective is imperative" (UNICEF, 2012: 3).

Hence, there is no doubt that the realization of the right to inclusive education of children with disabilities should no longer remain an elusive goal (UN CRC Committee, 2007; UN CRPD Committee, 2016). The purpose of this paper is to examine inclusive education for children with disabilities through applying a human rights lens. A human rights approach to inclusive education has the potential to bring into play an overarching framework of legal obligations and tools that allow for the regulation and evaluation of the general education system on the basis of equal opportunity with the ultimate goal the inclusion of all children. The paper is based on a systematic legal analysis of international and regional human rights regimes, and literature research. The applied interpretation is in accordance with the treaty interpretation rules as enshrined in the Vienna Convention on the Law of Treaties (Articles 31-32 VCLT).

Looking forward, the general education system should be framed as a matter of equity in consistency with human rights principles and standards for achieving optimum education accessibility and inclusivity for all children. This would require the participation of the intended beneficiaries, namely the representatives of children with disabilities, in the decision-making processes in order to make the experiences and concerns of children with disabilities an integral component of the design and development of inclusive educational policies as well as regulatory monitoring and enforcement on the part of the States. The findings from this paper can have a positive impact on law, policies and practices in the field of inclusive education. They can be used to evaluate whether there are sufficient regulatory guarantees of inclusive education for children with disabilities in the current laws and policy commitments at national, and local levels; and also provide insights for the future development and/ or advancement of respective frameworks for action especially when cases of violations of the right of children with disabilities to inclusive education continue to occur.

Key Words: Children, Disability, Human Rights, Inclusive Education, Right to Education

REFERENCES

Broderick, A. and Ferri, D. (2019). *International and European Disability Law and Policy: texts, cases and materials*. Cambridge: Cambridge University Press.
Convention on the Rights of Persons with Disabilities (2006), UN Doc. A/RES/61/106
UN Committee on the Rights of the Child (2007). *General Comment No. 9: The Rights of Children with Disabilities*. UN doc. CRC/C/GC/9.
UN Committee on the Rights of Persons with Disabilities (2016). *General Comment No.4 Article 24: Right to inclusive education*. UN doc. CRPD/C/GC/4.
UNICEF (2012). *The Right of Children with Disabilities to Education: A Rights-Based Approach to Inclusive Education*. Geneva: UNICEF Regional Office for Central and Eastern Europe and the

Commonwealth of Independent States.
Vienna Convention on the Law of Treaties (1969). 1155 UNTS 331.
World Health Organization and World Bank (2011). *World Report on Disability*. Geneva: WHO.

EDUCATION POLICY

TRANSNATIONAL ORGANIZATIONS AND RECONSTRUCTION OF NATIONAL EDUCATION POLICY

.

Nikolaos M.Michailidis
MA, MSc Mathematician
Kozani, Greece
e-mail:mniikolao@hotmail.com

ABSTRACT

Globalization has had a profound effect on education and has made it necessary to move educational ideas, institutions or practices across international borders, which is referred to as educational transfer. The formation of an international education policy discourse has been facilitated by the political empowerment of supranational organizations, by the evolution of countries into nodes of these supranational governance networks, by the institutional shrinkage of the welfare state and by the various forms of globalization (Zmas, 2007). In the context of the EU, the Bologna Declaration allowed them to take part in discussions on European education, and the Lisbon Agenda formally legitimized this participation (Stamelos & Vassilopoulos, 2004). The EU took on the responsibility of "coordination" and "complementary action" next to that of the Member States (Perakis, 2012). Thus, the growing direct and indirect strengthening of the role of supranational organizations, as well as the development of information technology and technology, have made them promoters of European and non-European education in countries that do not have access to it. International organizations turned into the European Commission's biggest allies in its quest to create a solid education policy, which will lead to the convergence of the education systems of the Member States (Siakaris, 2006). The last decades, OECD's activity has intensified both with the valid collection and processing of the necessary statistical indicators and the ranking of educational events in each country, as well as with the formulation of recommendations to members and partner countries (Henry et al., 2001).

In the modern world system, the supranational institutions of government due to their enhanced role have a catalytic effect on the relationship between learning and technology, on the review of the priorities of the curricula, on the improvement of the educational cooperation between the countries. The magnitude and intensity of these effects on the educational policy of the states is becoming greater. According to Hirst and Thompson (1996), the power of states in policy-making has been limited and their central function is mostly to provide legitimacy and ensure the efficiency due to the supranational mechanisms. It is worth mentioning that the strengthening of the policy of the golden bridles is expressed with the generous financing in weak or developing countries with the aim of improving and upgrading their educational systems, but in return for the indirect pressure for the adoption of specific directions, which must satisfy the interests and aspirations of powerful states. Examples of the implementation of the policy of the golden bridles in the educational events of Greece can be mentioned the funds for the implementation and evaluation of the Innovative Programs which aimed at exploratory-collaborative learning and the development of skills and the cultivation of positive attitudes and behaviors of students (Spyropoulou et al., 2008).

In this paper, an approach was attempted according to the ways in which supranational organizations influence the educational development of their Member States. An attempt was made to categorize them with a parallel reference of examples based on the Cypriot or Greek context. It was then assessed whether and to what extent these effects gradually lead to the convergence of national education systems in the age of globalization.

Key Words: globalization, supranational institutions, national education policy

REFERENCES

Hirst, P. & Grahame, T. (1996). *Globalization in question: the international economy and the possibilities of governance.* Cambridge: Polity Press.
Henry, M., Lingard, B., Rizvi, F. & Taylor, S. (2001). *The OECD, Globalisation and Educational Policy.* Amsterdam: Pergamon.
Perakis, M. (2012). Lifelong learning and education in its legislation European Union and Greece.

*Albatross: An eye on Workplace Learning, 1 (*1*), 1-11.*
Siakaris, K. (2006). *From the EEC to the EU, The Impossible Education Policy*. Athens: Gutenberg.
Spyropoulou, D., Anastasaki, A., Deligianni, D., Koutra, Chr. & Bouras, S. (2008). Proceedings of the two-day conference *"Education and quality in the Greek school"* (pp. 88-101). Athens: Pedagogical Institute.
Stamelos, G., & Vassilopoulos, A. (2004). *European Education Policy. Composition - Themes - Implementation methodology - Impacts on Greek education and training*. Athens: Metexmio.
Zmas, A. (2007). *Globalization and education policy*. Athens: Metexmio

STEAM EDUCATION THROUGH SPORTS

Andreas S. Stafylidis
Aristotle University of Thessaloniki, D.P.E.S.S. in Serres
Serres, Greece
e-mail: stafylid@phed-sr.auth.gr

Savvas A. Stafylidis
Aristotle University of Thessaloniki, D.P.E.S.S.
Thessaloniki, Greece
e-mail: savvasstafilidis@acadimia.com

Charalampos S. Stafylidis
Democritus University of Thrace, D.P.E.S.S
Komotini, Greece
e-mail: thes2.charalamposstafylidis@acadimia.com

and

Ioanna C. Karagkiozi
School of Industrial Studies of Thessaloniki, University of Macedonia, Greece
Thessaloniki, Greece
e-mail: 2ioannakara@gmail.com

ABSTRACT

The importance of science in modern society is acknowledged by various researches and the preparation of the workforce for a new economy is crucial (Hotaling, 2021; Pavitt 1996; Xie & Killewald 2012). The purpose of this research is the literature review of STEAM Education through Sports and future perspectives. STEM Education has entered in many educational curriculums in various countries (Lee et al., 2019; Rifandi & Rahmi, 2019; Thomas & Watters, 2015). The term "STEM" (Science, Technology, Engineering and Mathematics) is used in relation to educational policy, that concerns the application of various projects amount students in all educational levels in the fields that referred to Natural Sciences, Technology, Engineering Science and Mathematics and has many challenges and opportunities (Bybee, 2013). STEM experiences are frequently used not only in formal but also in non - formal education. Sports and Sport science has gained acceptance, especially in young population, so the application of STEM projects with the incorporation of sport science, Biomechanics and Sports would be beneficial (Drazan, 2020; Drazan et al., 2017). Nowadays, STEM analysis is frequently used in various aspects of our lives (Casals & Finch, 2017). The expand of STEM Education and in popular out-of-school environments and activities, such as Sports (Larson et al., 2006), would be beneficial, because STEM Education might be currently underrepresented in these populations (Drazan, 2020). Additionally, the familiarization and the development of new skills among students in STEM field has long-term economic growth and security (Xie et al., 2015). The demonstration of applied science in students' everyday lives and out-of-school environments and popular activities such as sports is important (Prato et al., 2016). In previous researches has been observed a significant increase of self - efficacy and interest in students, when a basketball training and STEM Education was combined using basketball analytics (Drazan et al., 2017). Other researches are referring in teaching mathematical concepts through sports (Hutto et al., 2015) and in conducting research in sports through engineering education (Frank & Donnelly, 2018). Furthermore, there are many examples of research relevant to the field of STEM through sports in sports engineering education and biomechanics (Drazan, 2020; Drazan et al., 2017; Frank & Donnelly, 2018). Applications and sports data analysis through algorithms and software – hardware is crucial for the maximization of human performance, education and future vocational education and training. Moreover, the Physical Education Teachers' intentions of integrating STEM Education in teaching is very important. (Li et al., 2019), as the Physical education classes would be a possible opportunity and challenge for the integration of STEM education. In conclusion, Sports activities might involve an environment where young populations would participate and innovate using STEM Education. Data collection, motion analysis, biomechanical analysis of sport motion and other practical implementations would be opportunities through which the students could build knowledge, learn and apply the curriculum of

STEM Education and develop new skills in a goal-orientated environment that sports could develop, (McCarthy et al., 2008).

REFERENCES

Bybee, R. W. (2013). The case for STEM education: Challenges and opportunities. NSTA press.
Casals, M., & Finch, C. F. (2017). Sports Biostatistician: a critical member of all sports science and medicine teams for injury prevention. Injury prevention, 23(6), 423-427.
Drazan, J. F. (2020). Biomechanists can revolutionize the STEM pipeline by engaging youth athletes in sports-science based STEM outreach. Journal of biomechanics, 99, 109511.
Drazan, J. F., Loya, A. K., Horne, B. D., & Eglash, R. (2017, March). From sports to science: Using basketball analytics to broaden the appeal of math and science among youth. In MIT Sloan Sports Analytics Conference, Hynes Convention Center (p. 16).
Frank, B., & Donnelly, C. (2018). Conducting research in sports engineering education. Sports Engineering, 21(4), 255-265.
Hotaling, L. (2021). Preparing the workforce for the new blue economy. In Preparing a Workforce for the New Blue Economy (pp. 387-405). Elsevier.
Hutto, D. D., Kirchhoff, M. D., & Abrahamson, D. (2015). The enactive roots of STEM: Rethinking educational design in mathematics. Educational Psychology Review, 27(3), 371-389.
Larson, R. W., Hansen, D. M., & Moneta, G. (2006). Differing profiles of developmental experiences across types of organized youth activities. Developmental psychology, 42(5), 849.
Lee, M. H., Chai, C. S., & Hong, H. Y. (2019). STEM education in Asia Pacific: Challenges and development.
Li, C., Kam, W. K. K., & Zhang, M. (2019). Physical Education Teachers' Behaviors and Intentions of Integrating STEM Education in Teaching. Physical Educator, 76(4), 1086-1101.
McCarthy, P. J., Jones, M. V., & Clark-Carter, D. (2008). Understanding enjoyment in youth sport: A developmental perspective. Psychology of sport and exercise, 9(2), 142-156.
Pavitt, K. (1996). National policies for technical change: Where are the increasing returns to economic research?. Proceedings of the National Academy of Sciences, 93(23), 12693-12700.
Prato, A., Best, H., & Scurry, I. (2016, March). 4th Family STEM program: Sports science. In 2016 IEEE Integrated STEM Education Conference (ISEC) (pp. 102-103). IEEE.
Rifandi, R., & Rahmi, Y. L. (2019). STEM education to fulfil the 21st century demand: a literature review. In Journal of Physics: Conference Series (Vol. 1317, No. 1, p. 012208). IOP Publishing.
Thomas, B., & Watters, J. J. (2015). Perspectives on Australian, Indian and Malaysian approaches to STEM education. International Journal of Educational Development, 45, 42-53.
Xie, Y., & Killewald, A. A. (2012). Is American science in decline?. Harvard University Press.
Xie, Y., Fang, M., & Shauman, K. (2015). STEM education. Annual review of sociology, 41, 331-357.

EUROPEAN UNION EDUCATION POLICY AND EDUCATION MANAGEMENT IN SCHOOL UNITS

Kleopatra N. Vasileiou
Directorate of Primary Education of Arta
Arta, Greece
e-mail: kleopatravasileiou@gmail.com

Vasiliki Vrontou
M.SC University of Patras
Pyrgos, Greece
e-mail: vassovrontou@gmail.com

and

Athanasios Katsimpelis
PHD candidate Univeristy of Patras
Pyrgos, Greece
e-mail: athanasios.katsimpelis@upatras.gr

ABSTRACT

In recent years the Education Policy of the European Union has focused – among others - on increasing understanding of the European identity, innovation, social inclusion, and the promotion of common values shared by Member States, thus emphasizing on the European dimension of education. Within this context, school units, teachers and school leaders play a critical and pivotal role and therefore their development and autonomy are of great importance. "The effective school leadership is a major factor in shaping the overall teaching and learning environment, in raising aspirations and providing support for pupils, parents and staff, and thus in fostering higher achievement levels." (Council, par. 1., 2014). Nowadays school leadership is perceived as a cooperative and multidimensional process which aims at effective learning. The aim of this study is to investigate the EU competence and limitations on education matters as well as the evolution of the European education policy regarding school leadership and finally to reflect on the changes which have taken place in Greece regarding school management in the framework of the European Union.

EU countries are responsible for their own education and training systems, but the EU helps them achieve quality education through the exchange of good practice, setting targets and benchmarks and providing funding and expertise (European Commission, 2018:19). Particularly, the EU education policy is part of the Open Method of Coordination (OMC) which is a method of soft governance aiming to spread best practice and achieve convergence towards EU goals. Through certain mechanisms such as guidelines, recommendations, benchmarks, periodic evaluations, or peer reviews the EU encourages Member States to achieve mutual advancement.

The current dimension of the European education policy has resulted from several processes and changes which have taken place over time since the formation of the European Union. In the very beginning, education had not been a priority of the EU agenda as the focus was on a common European economic area. According to Fredriksson (2003), education issues have traditionally not played a central role within the European Union, while Panagiotopoulos (2013:19) claims that education had not been a priority in the dawn of the Union. Consequently, the initial goal of the European Economic Community (EEC) was the creation of a common labour market, thus education was not of any importance (Stamelos, Vasilopoulos, & Kavasalakalis, 2015).

However, education gradually became a key factor of EU policies and currently providing quality education to European citizens is one of the main objectives of the EU. The present study is an attempt to analyse the European education policy framework, focusing on policies connected to effective school leadership. Also, the recommendations and guidelines of the EU related to the management principles which school units should adopt to increase their quality as well as their effectiveness and efficiency will be studied in depth. More particularly, this study aims at presenting the EU policies regarding the priorities which should be set by schools, the professional development of teachers, the effective leadership as well as the evaluation and self-evaluation of school units. The dating which is followed is based on the EU documents connected to its school leadership policies and on the dating followed by researchers of the European education policy (Govaris & Roussakis, 2008:11).

REFERENCES

Bagakis, G. and Balaska, G. 2000. [Evaluation of new methods of teaching through mobility programmes of pupils in terms of the Second Community Support Framework]". Edited by: Bagakis, G. 25–39. Athens: Metehmio. [Optional educational programmes in school education]

Beukel, E. 1993. "Education". In Making policy in Europe: the Europeification of national policy-making, Edited by: Andersen, S. and Eliassen, K. 112–144. London: Sage

Govaris, X., & Russakis, I., (2008). «European Union. Education Policy». Athens: Pedagogic Institut 2008.

The official Journal of European Union (2014) «Conclusions of the Council for effective leadership in educational institutions» (2014/C 30/02)
Retrieved from: https://eur-lex.europa.eu/legal-content/EL/TXT/PDF/?uri=CELEX:52014XG0201(01)&from=EL

European Comittee (2018). «European Union. Role and goals»
Retrieved from: https://op.europa.eu/el/publication-detail/-/publication/715cfcc8-fa70-11e7-b8f5-01aa75ed71a1

Fredriksson, U. (2003). "Changes of education policies within the European Union in
the light of Globalisation". European Educational Research Journal, Volume 2, Number 4, 2003. Retrieved from: https://journals.sagepub.com/doi/pdf/10.2304/eerj.2003.2.4.3

Panagiotopoulos, G. (2013). «Training primary and secondary school teachers in scientific-pedagogical issues for obtaining a certificate of guidance competency». Training Institute.

Passias, G. 1995. " [Community policy in єducation. an overview]". Edited by: Kazamias, A. and Kassotakis, M. 205–238. Athens: Seirios. [Greek education: prospects of upgrading and modernisation]

Stamelos, G., Vasilopoulos, A., & Kabasakalis, A., (2015). «Introduction to Education Policy». Greek Academic Electronic Textbooks and Aids. GAET. Retrieved from: https://repository.kallipos.gr/bitstream/11419/226/1/00_master%20document_StamelosVasilopoulosKavasakalis_Final.pdf

EVALUATION OF EDUCATIONAL UNITS, EDUCATIONAL AND EDUCATIONAL PROJECT IN THE LIGHT OF THE LEGISLATIVE FRAMEWORK

Dimitrios G. Tonidis
Msc of Science in Management &
Organization of Educational Units
International Hellenic University
Thessaloniki, Greece
e-mail: jimpre1970@yahoo.gr

and

Theodoros. A. Goupos
International University of Greece , University of Athens
Athens, Greece
email: thgoupos@sch.gr,
thgoupos@ommt.teith.gr

ABSTRACT

The burning issue of Assessment in Public Education has been the subject of varied and innumerable discussions and consultations for almost four (4) decades. Numerous laws and decrees as evaluation bills, have been passed about the Evaluation and the way it will be implemented in the Public school area.
The aim of this dissertation is to highlight in a multifaceted way, based on the literature review, the continuous and radical changes that have taken place in the field of evaluation and educational work, focusing on the most important reforms.
The purpose of Assessment in Public Education is to give feedback so as better performances are achieved, stimulating and strengthening the School. If we approach the field of education as a system that functions like the human body, we will realize the great importance of evaluation and consequently of each of its stages, in order to achieve the maximum possible result. An integral part of the educational process should generally be the Evaluation of teachers, who are the vital factor that supplies oxygen to the process of learning. The education and training of teachers play a key role in the successful realization of teaching, in challenging and maintaining the students' interest in the constant search and in the uninterrupted journey of knowledge and learning. It is a necessary condition to achieve the participation and interaction of competent and worthy teachers in the learning process in order to have the best pedagogical result.
This research aspires through its results to outline the positions and views of teachers of Primary and Secondary education, around the subject of Assessment on three axes. Firstly, on the school unit evaluation, secondly on the educational work and thirdly on the teachers themselves.
Our sample consists of 501 teachers who are either Permanent or Substitute teachers.
The purpose of the research was identify the attitudes and perceptions of teachers towards the institution of the long-suffering Assessment and to identify the problems that exist Moreover, the research will enlighten the teachers' beliefs on how the Assessment should be carried out. The research showed that teachers consider their evaluation acceptable as long as it is objective, reliable and linked to all areas of the educational process and the educational system in general. It also highlighted the concern of the teachers related to the body that would carry out the evaluation and the connection of the result with maintaining, their working place.

Key Words: Evaluation, teacher, school unit, educational work, training, evaluation bills

REFERENCES

EFQM EXCELLENCE MODEL IN TEACHING FOREIGN LANGUAGES: PROPOSING A SELF-EVALUATION TOOL AND EXPLORING MULTIVARIATE ASSOCIATIONS OF THE UNDERPINNING DIMENSIONS

Natalia Sakellari
Ministry of Education
School of French, Aristotle University of Thessaloniki
Thessaloniki, Greece
e-mail: nsakellari@hotmail.com

and

Julie Vaiopoulou
School of Psychology, Aristotle University of Thessaloniki
Thessaloniki, Greece
e-mail: cvaiopoulou@psy.auth.gr

ABSTRACT

Over the last decades, there is a strong emphasis on the improvement of education quality, as both European and international contexts acquire young people with new skills so as to be competitive for various job sectors. Hence, educational policies aim to implement changes for education quality in schools and other educational institutions.

In this context, an emerging philosophy of management, Total Quality Management (TQM), is widely implemented. It is deemed as an effective philosophy whose principles could be adapted and adopted in education for its successful modernization and improvement (Faizal bin Ghani and Pourrajab, 2012; Heyworth, 2013). TQM implementation requires a number of changes in the institution's organization, in the attitudes and activities of all stakeholders (leaders, educators, students, etc.), in assessment practices as well as in the general culture of the institution (Laurett and Mendes, 2019). Therefore, TQM provides educational institutions with great number of methods and tools in this direction (Farooq et al, 2007; Sohel-Uz-Zaman and Anjalin, 2016).

Evaluation is recognized as an important tool for the improvement of the educational processes' practices. It is regarded as a primordial element not only for TQM but also for the education sciences (Kellaghan and Stufflebean, 2003). The term *evaluation in an educational unit* can refer to teacher's and student's evaluation, evaluation of the teaching learning process or, generally, of the educational unit's practices and management (Darling-Hammond, 2006; Kellaghan and Stufflebean, 2003; Maizatulliza and Kiely, 2017; Tagliante, 2006). Evaluation in all its forms -formative, summative, self-evaluation- can provide instructional feedback to help educational institutions improve their processes and contributes this way to the learner's progress, to the educator's professional development and to the educational unit's final results.

The present study examines the role of the component of evaluation in a self-evaluation tool for foreign language teachers. The tool is based on the *EFQM Excellence Model*, a self-assessment tool of TQM. The EFQM consists of 9 criteria and is a widely recognized framework that aims to contribute to the unit's or/and institution's performance improvement (Anastasiadou et al. 2014; Calvo-Mora et al. 2005; Kasperavičiūtė, 2011). The Model of the present study comprises of 10 criteria influencing the foreign language teaching learning process. The collection data tool was a questionnaire based on the 9 criteria of the EFQM Excellence Model, answered by 520 foreign language teachers in Greek public schools. Exploratory Factor Analysis suggested 10 factors, which were subsequently supported via Confirmatory Factor Analysis, demonstrating the factorial validity of the dataset, with satisfactory internal consistency measures via Cronbach's alpha.

The dimensions derived were implemented in multivariate statistical analyses, acting as dependent variables. Given that the students are the final recipients of every educational policy or change analyses were conducted to define what are the factors that can predict teachers' perceptions about students' satisfaction, the way that teaching foreign languages affects students' personality in general, and the general learning outcomes. The results are discussed within the current theoretical framework.

Key Words: foreign language teaching-learning process, Total Quality Management, EFQM Excellence Model, evaluation, multivariable analysis.

REFERENCES

Anastasiadou, S., Zirinoglou, P. & Florou G. (2014). The European Foundation Quality Management evaluation of Greek Primary and Secondary Education. *Procedia-Social and Behavioral Sciences*, 143: 932-940.
Calvo-Mora, A., Leal, A. and Roldán, J.L. (2005). Relationships between the EFQM model criteria: a study in Spanish universities. *Total Quality Management & Business Excellence*, 16(6): 741-770.
Darling-Hammond, L. (2006). Assessing teacher education: The usefulness of multiple measures for assessing program outcomes. *Journal of Teacher Education*, 57(2): 120-138.
Faizal bin Ghani, M. and Pourrajab, M. (2012). Sustainable education through implementation of Total Quality Management. *Global Business and Economics Research Journal*, 3(12): 42-52.
Farooq, M.S., Akhtar, M. S., Zia Ullah S. and Memon R.A. (2007). Application of total quality management in education. *Journal of Quality and Technology Management*, 3(2): 87-97.
Heyworth, F. (2013). Applications of quality management in language education. *Language Teaching*, 46(3): 281-315.
Kellaghan, T., and Stufflebean, D.L (2003). International Handbook of educational evaluation. Dordrecht: Klüver Academic Publisher.
Kasperavičiūtė, R. (2011). L'application du modèle EFQM d'excellence aux établissements de l'enseignement supérieur. *Public policy and administration*, 1(3): 387-402.
Laurett, R. and Mendes, L. (2019). EFQM model's application in the context of higher education. A systematic review of the literature and agenda for future research. *International Journal of Quality & Reliability Management,*36(2): 257-285.
Maizatulliza, M. and Kiely, R. (2017). Students' Evaluation of their English Language Learning Experience. *Dinamika ilmu*, 17(2): 295-222.
Sohel-Uz-Zaman, A. and Anjalin, U. (2016). Implementing Total Quality Management in Education: Compatibility and Challenges. *Open Journal of Social Sciences*, 4(11): 207-217.
Tagliante, Ch. (2006). *La classe de langue*. Paris: Clé International.

THE ROLE OF THE ASSOCIATION OF TEACHERS IN THE EFFECTIVE OPERATION OF THE SCHOOL. OPINIONS OF THE PRIMARY EDUCATION TEACHERS OF THE PREFECTURE OF THESSALONIKI

Panagiota Galazoula
International Hellenic University
Lagina, Greece
email:pgalazoula@gmail.com

ABSTRACT

For the effectiveness of school administration procedures, the various decision making processes should be carried out democratically, ensuring the participation of all teachers through the Teachers' School Board. (Brinia, 2008).

In order to study the participation rate of teachers as well as the way in which the Teachers School Board's role functions today, a quantitative survey has been conducted in a number of primary schools located within the prefecture of Thessaloniki. More specifically, 230, in-service teachers have constituted the research sample for the present study.

As regards the teachers degree of participation in the School Teacher' Board, this is considered to be almost fully satisfactory, since the Board's scheduled meetings are almost unfailingly attended most of the times by the majority of the teachers. These are held every month and the degree of satisfaction on the part of the participants is well-documented. However, previous research (Kousoulos and others, 2004, Hatzipanagiotou 2003), has showed that teachers do not participate to a large extent in the decision-making process. This means that something has changed in recent years in schools both in relation to teachers' involvement as well as in terms of the management of the school which has become more democratic, promoting a more participatory administration model.

Regarding the operation of the Teachers School Board, the opinion of all teachers on a subject is often asked for and the duration of the meetings of the Teachers' Board is evaluated as satisfactory. Nevertheless, there is room for improvement in the operation of the Teachers' Board as the meetings are most often held within the teaching schedule period, something that is not allowed by law. It is also necessary for the Teachers' Board to deal with the development and implementation of certain types of action that will further connect the school with the local community and striving to introduce the elements of innovation and creativity at school.

With respect to the factors that affect the effectiveness of participatory management, teachers state that in their work environment there are generally good relations between them, while the principal proposes and encourages an equal distribution of responsibilities among teachers. Factors that teachers consider not to have a positive effect on the effectiveness of participatory administration are the following: lack of theoretical knowledge of and training in the field of school administration, lack of available infrastructure and resources, lack of targeting and the lack of a plan to achieve the relevant objectives with clear and measurable criteria for evaluating the achievement of the respective objectives. It is, moreover, observed that not all teachers are aware of the legal status and rights they have as members of the Teachers' School Board. Finally, teachers agree on the importance of the principal's role, as they regularly ask for his or her support, guidance and cooperation.

Key Words: Teachers Association, participatory management, decision making, effectiveness, cooperation, collegiality

REFERENCES

Brinia, B. (2008). *Case studies of educational units*. Athens: Stamoulis

Hatzipanagiotou, P. (2003). *The school administration and the participation of teachers in the decision-making process.* Thessaloniki: Kyriakidis

Kousoulos, A. Mpounias, K. and Kampouridis, G. (2004). Participatory administration and decision-making process in Primary Education. *Educational Issues Inspection,* 9, 33-41

EDUCATION MANAGEMENT AND MARKETING

INCLUSIVE LEADERSHIP IN PUBLIC EDUCATION ADMINISTRATION: ETHICAL & DISTRIBUTED ASPECTS

Evangelia Panta
Athens, Greece
e-mail: evangeliapanta@hotmail.com

and

Yiannis Roussakis
Dept. of Educational Studies National and Kapodistrian University of Athens, Greece.
e-mail: yiannis.roussakis@eds.uoa.gr

ABSTRACT

The shift in current management discourse from administration to leadership, strongly affects managerial duties: helping the organization mobilize its people becomes a priority. In order to accomplish such a demanding task, it is argued that human resource management practices need to move from "control" to "commitment" (Arthur, 1994). Public administration presents a more complicated case: as it involves "governance" rather than "merely management' (Berman et al., 2016: 24), there is a need to implement leadership practices that are compatible with its governance tasks. It is argued that a more relevant leadership approach would be based on fundamental governance principles, i.e.respect, trust, participation, ethical integrity and collaboration (Karkatsoulis, 2004).

In his seminal typology of educational leadership Tony Bush (2011) presents ten leadership styles (managerial, participative, transformational, distributed, transactional, postmodern, emotional, contingency, moral, instructional). We argue that none of these styles per se can fully respond to the current public education leadership needs. We suggest that a new leadership style, also based on inclusion, a notion that is increasingly discussed in the discourse regarding human resource practices, could enhance positive outcomes for educational organizations (e.g. individual well-being, job satisfaction, organizational commitment, performance, organizational citizenship, creativity, see Mor Barak (1999) and Shore et al. (2011)). Although emphasis has already been placed on organizational inclusion, the concept of inclusive leadership remains peripheral and existing definitions do not illustrate its characteristics with clarity and very few models for inclusive leadership have been developed so far. Deploying the existing education leadership styles, we propose that a combination of the distributive and ethical models can serve as the basis for the conceptualization of inclusive leadership. Literature suggests approaching inclusive leadership as distributed or ethical and we have also detected limited indirect references to a possible combination of a distributed and ethical leadership so as to elaborate an inclusive leadership model (Hollander, 2008 and Gallegos, 2014).

Our review of "distributed leadership", a concept developed within the education discourse before used in other fields, focuses mainly on the works of James Spillane (2006), Peter Gronn (2002), John MacBeath (2004) and Leithwood et al. (2006). Two central conclusions are inferred related to our approach of distributed leadership: a) all forms of collaborative leadership are extremely complex, including distributed leadership itself (Raptis and Psaras, 2015), and therefore it becomes extremely difficult for the researchers to define and empirically measure its actual practices b) although distributed leadership is still at an early conceptual stage (Meng Tian et al., 2015), it constitutes a leadership approach that meets the current organizational needs and therefore is worth further elaboration.

"Ethical leadership", on the other hand, is not a recent concept: the relation between ethics and leadership is discussed since classic antiquity, and ethics form an essential element of leadership. The interest in this relation is renewed due to the moral challenges modern societies face. Two approaches stand out in the field of modern ethical leadership: Robert Starratt's for education and Brown and Treviño's for enterprises. Starratt (1991:186) emphasizes the need 'theory to approach close enough to practice' and suggests 'the joining the three ethics: the ethic of critique, the ethic of justice and the ethic of caring' to develop a framework for ethical judgments. Brown and Treviño use a descriptive approach to set the ground for the study of ethical leadership both at the theoretical /conceptual and the empirical level. At a conceptual level, they have inscribed ethical leadership within a wider theoretical field (social exchange and sociocognitive theory), they have distinguished between the moral person and the moral manager, and they have also defined ethical leadership's relation to pertinent leadership notions. Ethical leadership

is crucial to our approach, as it is a necessary element especially for public administration (which focuses on the general welfare) and a prerequisite for the serving of the fundamental values linked to inclusion.
In order to reinforce our conceptualization of leadership, we have examined how the issue of education leadership is approached in the texts of the Working Group for Schools (European ideas for better learning: the governance of school education systems, European Commission, 2018; School Leaders' Competences and Careers, European Commission, 2019; Supporting teacher and school leader careers: a Policy Guide, European Commission, 2019). In most of the relevant documents, mainly from 2014 onwards, leadership is argued to be based on abilities (mainly to distribute) and values (as trust, respect, inclusion, ethics). And, although more emphasis seems to be placed on distributed leadership, the frequent reference to values (which correspond to our understanding of ethical leadership) reinforces our argument which suggests the need for the combining development of an inclusive leadership.

REFERENCES

Arthur, B.J. (1994), Effects of human resource systems on manufacturing performance and turnover. Academy of Management Journal, 37, 670-687.

Berman E.M., Bowman J.S., West J.P., Van Wart M.R. (2016). Human Resource Management in Public Service: Paradoxes, Processes, and Problems. Sage

Brown M.E., Treviño L.K., Harrison D.A. 2005, Ethical Leadership: A social learning percepective for construct development and testing, Organizational Behavior and Human Decision Processes, 97, 117-134.

Bush Tony, 2011, Theories of Educational Leadership and Management, Sage.

Gallegos Plácida V. (2014), The Work of Inclusive Leadership: Fostering Authentic Relationships, Modelling Courage and Humility (pp. 177-202). Diversity at Work: The Practice of Inclusion, Jossey-Bass/Wiley.

Gronn Peter (2002), Distributed Leadership, Second International Handbook of Educational Leadership and Administration, 653-696.

Hollander E.P. (2009), Inclusive Leadership: The Essential Leader-Follower Relationship. Routledge/Taylor & Francis Group.

Karkatsoulis Panayiotis, 2004, The State in Transition: from 'administrative reform' and 'new public management' to 'governance'. I. Sideris [in Greek].

Leithwood K., Mascall B., Strauss T., Sacks R., Memon N., Yashkina A. (2009) Distributed Leadership to Make Schools Smarter: Taking the Ego out of the System (pp. 223-251) Distributed Leadership According to the Evidence, Routledge.

MacBeath J. (2009), Distributed leadership: Paradigms, Policy and Paradox (pp.41-57). Distributed Leadership According to the Evidence, Routledge.

Mor Barak M.E. (1999), Beyond Affirmative Action, Administration in Social Work, 23: 3-4, 47-68.

Raptis Nikolaos and Psaras Haralampos (2015). Collaborative Leadership in Education. Diadrasi. [in Greek].

Shore M.L., Randel A.E., Chung B.G., Dean M.A., Ehrhart K.H., Singh G. (2011), Inclusion and Diversity in Work Groups: A Review and Model for Future Research, Journal of Management, 37:4, 1262-1289

Spillane J.P., 2006, Distributed Leadership, Jossey-Bass Leadership Library in Education.

Starratt Robert (1991). Building an ethical school: A theory for Practice in Educational Leadership. Educational Administrational Quarterly, 27, 185-202.

Tian M., Risku M., Collin K. (2015). A meta-analysis of distributed leadership from 2002 to 2013: Theory development, empirical evidence and future research focus, Educational Management Administration & Leadership, 1–19.

ADMINISTRATION AND MANAGEMENT OF A EUROPEAN SCHOOL. E-TWINNING AND ITS CONTRIBUTION TO THE INSTRUCTION AND PROFESSIONAL DEVELOPMENT OF PRIMARY AND SECONDARY SCHOOL TEACHERS. THE CASE OF 145 GREEK EDUCATORS

Martha Vasiloglou
MSc International Hellenic University
MA Sofia University St. Kliment Ohridski
Psara, North Aegean, Greece
e-mail: marange@windowslive.com

and

Ourania Gkouna
PhD, University College London
International Hellenic University
Thessaloniki, Greece
e-mail: ouraniagouna@gmail.com

ABSTRACT

Teachers' advancement and training are among the most significant regulatory hurdles that educational organizations face. Education is one of the key components which can ensure a community's long-term prosperity and constitutes a competitive force in the context of globalization (Papadakis, 2015). In recent years, it has been observed that emphasis is increasingly being placed on improving educational practices, and by extension education systems, in an effort to lay a solid foundation for economic development (Papadakis & Kalogiannakis, 2010). Over the last few years, an increasing number of European educational initiatives have already been implemented focusing on the transformation of the educational context in order for the education systems to be able to suit high requirements at an international level (Fumasoli & Rossi, 2021). One of these initiatives concerns the collaborative project named eTwinning, which gives schools the opportunity to gain a series of pedagogical, social and cultural benefits through collaboration with foreign schools, which is chiefly achieved due to the use of technological tools. Camillieri (2016) states that within the context of eTwinning projects, the role of teachers is modified, since they are called upon to act as mediators who teach students how to observe, listen and exchange thoughts and opinions. Respectively, Kearney and Gras-Velázquez (2017) have reported that, through collaborating and exchanging feedback on teaching experiences, teachers participating in eTwinning projects achieve improvement in their lesson-planning skills and consequently, they are able to devise appropriate teaching strategies depending on the learning context. Moreover, according to Pateraki (2018) and Crawley (2012) through the eTwinning initiative, teachers are regularly provided with a variety of activities, which in turn creates favorable conditions for the development of their professional skills. The aim of this research is to present the views of educators regarding how they perceive the experience of carrying out eTwinning projects and how this involvement has contributed to their professional development. The research tool used for the collection of the research data was a questionnaire, which was made available to all participants in digital form. A quantitative research based on questionnaires was conducted and the sample analyzed concerns 145 Primary and Secondary School teachers employed in schools in Northern Greece and Attica, actively involved in eTwinning projects. Snowball sampling process was applied. The findings indicate, among other things, that teachers recognize that the key feature of these schemes is the element of collaboration, which creates favorable conditions for familiarization with new teaching practices and methods and therefore promotes professional development. Thus, it is obvious that the engagement with such cooperative actions promotes the enhancement of both learning process and academic performance of students, benefits which should be assessed alongside teachers' professional development. The transformation of the role of teachers in the classroom presupposes the strengthening and the melioration of their skills and knowledge so that they can effectively adjust the content and application of teaching methods accordingly. Additionally, the impact of participation in eTwinning projects found to be higher for primary compared to secondary education teachers. Finally, at a practical level, it is particularly important that even more actions aiming to promote specific skills are implemented, in addition to the fact that new technologies are used in order to include students and teachers from remote locations as

well as respond to any potential obstacles, such as the recent Covid-19 pandemic, and render projects feasible.

Key Words: European Union, eTwinning, professional development, teachers

REFERENCES

Camilleri, R. (2016). Global education and intercultural awareness in eTwinning.Cogent Education, 3, 1-13.
Crawley, C. (2012). A journey through eTwinning. Brussels: Central Support Service of eTwinning European Schoolnet.
Fumasoli, T., & Rossi, F. (2021). The role of higher education institutions in transnational networks for teaching and learning innovation: The case of the Erasmus+ programme. *European Journal of Education*, *56*(2), 200-218.
Kearney, C. &Gras-Velázquez, À., (2017). eTwinning Twelve Years On: Impact on teachers' practice, skills, and professional development opportunities, as reported by eTwinners. Central Support Service of eTwinning - European Schoolnet, Brussels.
Papadakis, S. (2016). Creativity and innovation in European education. Ten years eTwinning. Past, present and the future. International Journal of Technology Enhanced Learning, 8(3/4), 279-296.
Papadakis, St. &Kalogiannakis, M. (2010). eTwinning in the early childhood as starting line ofinnovative practices for the didactic of natural sciences. HSci2010 7th International Conference Hands-on Science Bridging the Science and Society gap. Greece: University of Crete.
Pateraki, I. (2018). Measuring the impact of eTwinning activities on teachers' practice and competence development - Monitoring eTwinning Practice Framework. Brussels: Central Support Service of eTwinning - European Schoolnet.

CONTEXTUALIZING UNIVERSITY BRANDS AS SOCIOCULTURAL CONSTRUCTS OF MEANING

Androniki Gakoudi
International Hellenic University
Thessaloniki, Greece
e-mail: nikigakoudi@gmail.com

Georgios Kokkinis
International Hellenic University
Thessaloniki, Greece
e-mail: kokkinisgeorgios@yahoo.com

and

Labrina Gioti
International Hellenic University
Thessaloniki, Greece
e-mail: lgioti@gmail.com

ABSTRACT

This paper aims to present, among others, a review of the major conceptualizations and dimensions espoused in the general area of the concept of branding (Keller & Swaminathan 2021; Anholt, 2010; Kotler & Keller, 2006; Kapferer, 2001; De Chernatony & Riley 1998; Aaker 1991) followed by literature on university branding (Sujchaphong, Nguyen and Melewar, 2016; Chapleo, 2015; Bennett & Ali-Choudhury, 2009; Bick, Jacobson & Abratt, 2003). The role of universities has changed in the 21st century and the modern university is now considered an institution where students are approached as 'consumers' while teachers are transformed into 'suppliers' of educational products and services (Shahnaz & Qadir, 2020; Young 2002). It is undoubted that Universities and Higher Education Institutions (HEIs) have adopted the marketing culture in order to become more marketized and promotionalized in an increasingly competitive landscape characterized by challenging boundaries. Therefore, creating a successful brand is important for every HEI. Universities are interested in communicating their images, logos and core messages for the purpose of influencing a variety of target audiences such as students, their families, faculty, alumni, government, etc. Thus marketing theory and practice have become necessary so that HEIs can gain competitive advantage and market share. From the students' perspective branding offers HEIs distinctiveness from competitors (Curtis, Abratt, & Minor, 2009; Williams & Omar, 2014; Soofi Anwar & Singh Yadav, 2020) while at the same time it works as assurance in meeting their expectations and an aid in their choice of which university to join. To this end, Du Preez (2015) argues that HEIs should adopt brand and image theories that have been implemented successfully in non-education contexts to influence the student consumers' choices. Slaughter, Slaughter & Rhoades (2014) and Munch (2014), on the other hand, in their theory of academic capitalism indicate that HEIs have already adopted a marketing culture that has turned them into enterprises competing for capital accumulation through focusing on the commercial potential of research, teaching and knowledge transfer. These insights, however, often miss a focus on the cultural processes that affect the formation of university brands namely the socio-historical context as well as their representational conventions. A brand culture perspective may reveal how university branding has opened up to approach HE brands as cultural, ideological, and political entities. In this framework, typical branding concepts such as brand equity, and brand identity need to be addressed in an interdisciplinary research context whereby a university brand is not viewed as a static concept but instead as a dynamic process of interaction whose meaning emerges as it is co-shaped by stakeholders/actors acting in a specific context. Therefore, in this paper it is proposed to contextualize university brands as "sociocultural constructs of meaning" in the minds of 'suppliers' and 'consumers'. In other words, the term "sociocultural constructs of meaning" refers to more or less subjective concepts that are co-created in the context of brand related- interactions which evolve over time and are related to the interaction of actors/stakeholders in an ever-changing environment (Mühlbacher, et al 2006). The idea of a socioculturally constructed university brand poses great challenges for brand management, because each brand should be analyzed taking into account as many dimensions of the reality in which it is created as possible, and then highlight the way they contribute to building that brand.

Key Words: Branding, University branding, academic capitalism, sociocultural constructs

REFERENCES

Aaker, J. (1991). The negative attraction effect? A study of the attraction effect under judgment and choice. *ACR North American Advances*.
Anholt, S. (2010). Definitions of place branding–Working towards a resolution. *Place branding and public diplomacy*, *6*(1), 1-10.
Bennett, R., & Ali-Choudhury, R. (2009). Prospective students' perceptions of university brands: An empirical study. *Journal of Marketing for Higher Education*, *19*(1), 85-107.
Bick, G., Jacobson, M. C., & Abratt, R. (2003). The corporate identity management process revisited. *Journal of marketing management*, *19*(7-8), 835-855.
Chapleo, C. (2015). Brands in higher education: Challenges and potential strategies. *International Studies of Management & Organization*, *45*(2), 150-163.
Curtis, T., Abratt, R., & Minor, W. (2009). Corporate brand management in higher education: the case of ERAU. *Journal of Product & Brand Management*.
De Chernatony, L., & Dall'Olmo Riley, F. (1998). Defining a" brand": Beyond the literature with experts' interpretations. *Journal of Marketing management*, *14*(5), 417-443.
Du Preez (2015). Towards a 21st century university: teachings from consumer behavior applicable to higher education South African Journal of Higher Education Vol. 29, No. 5 Published Online:1 Jan 2015 https://hdl.handle.net/10520/EJC182513
Kapferer, J. N. (2001). *(Re) inventing the brand: Can top brands survive the new market realities?*. Kogan Page Publishers.
Keller, K. L., & Swaminathan, V. (2021). *Στρατηγική διοίκηση επώνυμων προϊόντων*. Επιμ: Γ.Σιώμκος, Α.Γιοβάνης. Επιμ.Μτφρ: Γ.Κοκκίνης, BROKEN HILL PUBLISHERS LTD.
Kotler, P., & Keller, K. L. (2006). Defining marketing for the 21st century. Kotler, Philip and Kevin Lane. *Marketing Management 12e*. New Jersey: Prentice Hall, 3-31.
Münch, R. (2014). *Academic capitalism: Universities in the global struggle for excellence*. Routledge.
Mühlbacher, H., Hemetsberger, A., Thelen, E., Vallaster, C., Massimo, R., Füller, J., & Kittinger, C. (2006). Brands as complex social phenomena. In Proceedings of the *Thought Leaders International Conference on Brand Management*, Birmingham, UK.
Shahnaz, A., & Qadir, S. A. (2020). Branding the Higher Education: Identity Construction of Universities through Logos, Mottos and Slogans. *Journal of Research in Social Sciences*, *8*(1), 48-71.
Slaughter, S., Slaughter, S. A., & Rhoades, G. (2004). *Academic capitalism and the new economy: Markets, state, and higher education*. JHU Press.
Soofi Anwar, D., & Yadav, I. S. (2020). Analysis of Determinants of University Brand Equity-A Study of Student Perspective. *Journal of Critical Reviews, 7*(8), 3453- 3458.
Sujchaphong, N., Nguyen, B., & Melewar, T. C. (2016). Employee brand support, transformational leadership and brand-centred training of academic staff in business schools. In *Asia branding: Connecting brands, consumers and companies*. Palgrave Macmillan.
Williams Jr., R. L. and Omar, M. (2014) How Branding Process Activities Impact Brand Equity within Higher Education Institutions. *Journal of Marketing for Higher Education*, 24, 1-10. http://dx.doi.org/10.1080/08841241.2014.920567
Young, S. K. (2002). Evidence-based management: a literature review. *Journal of Nursing Management*, *10*(3), 145-151.

EXAMINING THE RELATIONSHIP BETWEEN SCHOOL WORKING CONDITIONS AND TEACHER JOB SATISFACTION

Maria Pinakoulia
e-mail: mariapinakoulia@gmail.com

ABSTRACT

The issues of teacher retention and teacher shortage are considered to be an international problem that can be traced in different school environments. Whether we talk about primary or secondary education, vocational or even multicultural schools, the issue of teacher job satisfaction is closely related to teacher retention. A number of studies conducted in the field of educational leadership have focused on the cause and effect between school working conditions and teacher job satisfaction, an interesting yet challenging aspect of research as the school environment is multidimensional and can be interpreted as a space which is in a constant state of conflict, negotiation, and transformation. The importance of job satisfaction plays a crucial role not only in the mental and social well-being of the teacher but of the students in general. It contributes to the effective school cohesion and enhances the status of teaching profession. The purpose of this presentation is to analyze the effect of school working conditions on teacher job satisfaction examining different studies conducted in many school environments worldwide. Recent research from various schools suggests that working conditions such as workload, teacher cooperation, student discipline, and the psychological impact of school conditions on the teacher are inextricably linked to the teacher's professional satisfaction. In a study conducted in state secondary school teachers in England showed that the nature of school leadership and management and the role of the principal at school are greatly related to the professional satisfaction of teachers. Another important factor is the training that the teacher has received in the specific subjects as well as the possibility of professional development and career within the school environment. Another study investigated job satisfaction of eighth-grade mathematics teachers in Sweden. The findings of the research showed that gender is another important factor when we examine the relation between school working conditions and job satisfaction. While female teachers and teachers with more professional experience tended to have higher levels of job satisfaction, male teachers gave more emphasis on teacher cooperation. When it comes to vocational schools in Greece, in the school environment working conditions greatly affect not only teacher job satisfaction but also teacher burnout and their mental well-being. Lastly, examining the school environment in developing countries like Ethiopia, another study found that there is a strong connection between leadership styles and teacher job satisfaction. All these studies aim to determine the sources of job satisfaction and dissatisfaction of teachers but also to improve the working conditions in the educational space. Through these researches we conclude that the school is a place of continuous negotiation that affects the psychological well-being of the teacher and consequently his professional satisfaction and efficiency.

REFERENCES

Sims, S. (2020). Modelling the relationships between teacher working conditions, job satisfaction and workplace mobility. British Educational Research Journal, 46(2), 301-320. https://doi.org/10.1002/berj.3578

Toropova, A., Myrberg, E., & Johansson, S. (2020). Teacher job satisfaction: The importance of school working conditions and teacher characteristics. Educational Review, 73(1), 71-97. https://doi.org/10.1080/00131911.2019.1705247

Vardiampasi, Evi & Vryonides, Marios. (2017). ΕΠΑΓΓΕΛΜΑΤΙΚΗ ΙΚΑΝΟΠΟΙΗΣΗ ΓΙΑ ΕΝΑ ΥΓΙΕΣ, ΠΟΙΟΤΙΚΟ ΚΑΙ ΑΠΟΤΕΛΕΣΜΑΤΙΚΟ ΣΧΟΛΕΙΟ JOB SATISFACTION FOR A HEALTHY, QUALITY AND EFFECTIVE SCHOOL. ΕΠΙΣΤΗΜΕΣ ΑΓΩΓΗΣ. 21-41.

Yohannes, M. E., & Wasonga, T. A. (2021). Leadership styles and teacher job satisfaction in ethiopian schools. Educational Management Administration & Leadership, 174114322110416. https://doi.org/10.1177/17411432211041625

THE CONTRIBUTION OF THE SCIENCE FESTIVAL TO THE CULTURAL DEVELOPMENT OF A DESTINATION. COMPARATIVE ANALYSIS OF ATHENS SCIENCE FESTIVAL, THESSALY, PATRA AND CYPRUS

Panagiota Dichala
International Hellenic University
Thessaloniki, Greece
e-mail: p.dichala@gmail.com

Evangelos Christou
International Hellenic University
Thessaloniki, Greece
e-mail: echristou@ihu.gr

and

Chryssoula Chatzigeorgiou
International Hellenic University
Thessaloniki, Greece
e-mail: cchatzigeorgiou@ihu.gr

ABSTRACT

Events and festivals are vital factors for urban life with a variety of themes such as theme festivals, political events, cultural activities, sporting events and can take place internationally and nationally. Such events are becoming increasingly important for urban development, as they have a major impact on the image of the city hosting the event in order to attract tourists, as well as industries and investors (Beth, Ager, Sitas 2020).

Festivals as a social phenomenon are found in almost all human cultures. According to Perry (2019), they are "a public celebration with a specific theme", transforming the landscape and the place from everyday space into a separate environment, which contributes to both the production and consumption of culture, while also providing a means creative expression in groups trying to be culturally preserved (Boyette, Ramsey (2019). Festivals mean a coherent set of related artistic events, which seek to convey a sense of the exceptional in the current flow of cultural overproduction. Also, are an "unusual convergence point for individuals" with a given cultural activity or of a specific group with common cultural characteristics "(Düşmezkalender, Özdemir, Yolal 2019).

In particular, they are excellent means of generating experiences due to the interaction, not only between producers and consumers, but also the consumers themselves with each other. The shared experience offered through a festival is often what makes it so special and is an important reason why people participate in such experiences. In addition, cultural events in the modern city create a sense of community and meet both the individual and social need for kinship, which many believe the modern city has lost (Olya, Dieck, Ryu, 2020).

In recent years in Greece there has been an increase in the number of festivals without their exact number being easy. Some of the characteristics of these modern festivals can be summarized in the original and imaginative events, which give a special place to the cultural life of each city, in the participatory and interactive events through the connection of technology with the spectacle. In the events that utilize spaces and facilities of the natural environment of the area, which manage to highlight original alternative locations by re-utilizing buildings and facilities and finally, in the events that compose the locality of the action with the history, physiognomy and tradition of each area.

A corresponding contemporary festival is the Science and Innovation Festival, Athens Science Festival which started in 2014 and has now been established as a cultural event concerning Science, Technology, Innovation and Art. During it, participants explore science through fun, innovative and interactive ways, while at the same time researchers, distinguished scientists, educators and artists give their best to explain science and make the viewer a part of it.

With the participation of 6,000 scientific collaborators, 730 speakers, 350 artists and 1800 volunteers from the first year of its organization until today, the Athens Science Festival is rightly characterized as one of the biggest celebrations of science and technology in Greece. In the six years of its organization it has exceeded 120,000 visitors, while at the same time the specific festival did not stay within the

borders of the Greek capital, but traveled to Thessaloniki (TSF), Larissa (ThSF), Patras (PSF) and Cyprus (MSF), while other regions of Greece are expected to host their own special event, defining it as the largest scientific festival that transmits new knowledge to the general public through a continuous and open dialogue with the scientific, academic, research and business community.

REFERENCES

Beth Perry, L. Ager & R. Sitas (2020) Cultural heritage entanglements: festivals as integrative sites for sustainable urban development, International Journal of Heritage Studies, 26:6, 603-618.

Perry, B. 2019. "Governing the Creative City: The Practice, Value and Effectiveness of Cultural Intermediation." In Cultural Intermediaries Connecting Communities: Revisting Approaches to Cultural Engagement, edited by P. Jones, B. Perry, and P. Long, in press. Bristol: Policy Press.

Düşmezkalender, E. & Özdemir, C. & Yolal M. (2019). A Study on Perceived Socio-Economic Impacts of Cultural Festival on Local Residents Participation: Kafkasör Culture Tourism and Art Festival, Turizm Akademik Dergisi, 6 (1), 121-130.

Boyette, T. and Ramsey, J. R. (2019). 'Does the messenger matter? Studying the impacts of scientists and engineers interacting with public audiences at science festival events'. JCOM 18 (02), A02.

Olya, H., Jung, T., tom Dieck, M. C., & Ryu, K. (2020). Engaging Visitors of Science Festivals Using Augmented Reality: Asymmetrical Modelling, International Journal of Contemporary Hospitality Management.

EDUCATION PRACTICES

A DIGITAL REPOSITORY FOR INNOVATIVE PROGRAMS IN EDUCATION - THE NECESSITY OF KNOWLEDGE SHARING IN SECONDARY SCHOOL TEACHERS, WORKING IN WEST THESSALONIKI

Elisavet G. Karagiannidou
International Hellenic University (I.H.U.)
Thessaloniki, Greece
e-mail: kar.elsaeli@gmail.com

ABSTRACT

Many studies have reported that knowledge creation and knowledge management (KM) increase the organizations value. Knowledge sharing is the main way to achieve this, by converting tacit to explicit knowledge (Nonaka & Takeuchi, 1995). Knowledge sharing, storage and dissemination have an instrumental role to the educational learning communities (Vanhoof, Petegem & Maeyer, 2009; Devos & Verhoeven, 2003; Κανατά, Δάρρα, Σοφός & Κλαδάκη, 2017). According to Van Den Brink (2001), three factors are responsible for knowledge sharing: the social interaction between people, the structure in which knowledge sharing takes place and the information and communication technologies (ICT).

Research shows that the interest in knowledge sharing is related to the organizations' enhanced innovation (Von Krogh, Nonaka, & Rechsteiner, 2012; Al-Husseini, & Elbeltagi, 2018). In the 90's, innovation is not only used as an economical term but as an expression of creativity in educational organizations, too (Θεοδωρόπουλος, 2019). Innovation in educational organizations is reflected in the form of innovative programs.

The effects of these programs can be diffused by using technology, while a useful tool to accomplish that, is the digital repositories of good practices. Modern digital repositories of educational resources who embrace the principles of open access are presented in this research. Furthermore, an indicative model of a digital repository for innovative programs in education is described, which could contribute to the knowledge sharing and educational innovation.

This study aims to examine the ways of knowledge management that secondary school teachers use and the necessity of knowledge sharing to the educational procedure. The quantitative survey that has been realized through questionnaires, involved one hundred and forty-nine (149) secondary school teachers working in west Thessaloniki. The results have shown that the teachers were willing to advise their colleagues on work and education issues and to share their knowledge in an uncompetitive way. The use of technology and digital repositories, as well as the resulting satisfaction, were considered to be very important for the teachers. It was also found that enhanced working relationships and participation in additional training programs were very necessary for the teachers. On the other hand, the most important knowledge sharing barriers were considered to be the lack of motivation, time, technological means and equipment. Another interesting result showed that when teachers had previous participation in ICT training, the tended to use more often and efficiently technological tools related to the knowledge sharing and they did not experience the sense of fear and exposure to their colleagues. Analysis on gender differences showed that in terms of knowledge sharing female teachers were more competitive, they were more afraid to make mistakes and lose their power when compared to their male colleagues. Another barrier female teachers experienced was gender bias.

This research highlighted the need of a policy development by the education leadership that will favor and support knowledge sharing between teachers. The main conclusion of this research is that knowledge management and knowledge sharing have an essential role to play in education community, as they can lead to development and innovation.

Key Words: Knowledge Management, Knowledge Sharing, Innovation in Education, Digital Repository, Education.

REFERENCES

Al-Husseini, S., & Elbeltagi, I. (2018). The role of knowledge sharing in enhancing innovation: a comparative study of public and private higher education institutions in Iraq. *Innovations in Education and Teaching International, 55*(1), 23-33. DOI: 10.7763/IJSSH.2015.V5.449.

Devos, G., & Verhoeven, J. C. (2003). School self-evaluation—conditions and caveats: The case of secondary schools. *Educational Management & Administration*, *31*(4), 403-420. https://doi.org/10.1177/0263211X030314005.
Nonaka, I., & Takeuchi, H. (1995). *The knowledge-creating company: How Japanese companies create the dynamics of innovation.* Oxford university press.
Van Den Brink, P. (2001, November). Measurement of conditions for knowledge sharing. In *Proceedings 2 nd European Conference on Knowledge Management, Bled*. Retrieved 20 January 2020 from https://www.onthebrink.nl/wp-content/uploads/2013/07/measurement_conditions ks.pdf.
Vanhoof, J., Van Petegem, P., & De Maeyer, S. (2009). Attitudes towards school self-evaluation. *Studies in educational evaluation*, *35*(1), 21-28. DOI: 10.1016/j.stueduc.2009.01.004
Von Krogh, G., Nonaka, I., & Rechsteiner, L. (2012). Leadership in organizational knowledge creation: A review and framework. *Journal of management studies*, *49*(1), 240-277.
Θεοδωρόπουλος, Ν. (2019). *Καινοτομία στο δημόσιο σχολείο: προσλήψεις και πρακτικές των εκπαιδευτικών στην πρωτοβάθμια και δευτεροβάθμια εκπαίδευση* (Doctoral dissertation). Ανακτήθηκε στις 20-1-21 από http://hdl.handle.net/10442/hedi/45219.
Κανατά Β., Δάρρα Μ., Σοφός Α., & Κλαδάκη Μ. (2017). Το σχολείο ως οργανισμός μάθησης: αποτύπωση της υφιστάμενης κατάστασης στην πρωτοβάθμια εκπαίδευση. *Επιστήμες Αγωγής, 3*, 7-36. Ανακτήθηκε στις 20-1-21 από https://ejournals.lib.uoc.gr/index.php/edusci/article/view/41.

PRACTICE OF INTRODUCING DEMOCRACY IN THE CLASSROOM

Konstantinos Dimoulas
Social Cooperative Enterprise of Collective and Social Benefit "Organization of Psychobioanalysis' Education" «ἐκ τῶν ὑστέρων»
Larissa, Greece
e-mail:dimoulask@yahoo.gr

Evripidis K. Dimoulas
Social Cooperative Enterprise of Collective and Social Benefit "Organization of Psychobioanalysis' Education" «ἐκ τῶν ὑστέρων»
Larissa, Greece
e-mail: dimoulask@yahoo.gr

Elli K. Velliou
Social Cooperative Enterprise of Collective and Social Benefit "Organization of Psychobioanalysis' Education" «ἐκ τῶν ὑστέρων»
Larissa, Greece
e-mail: dimoulask@yahoo.gr

Theodora Ev. Papadimitriou
Social Cooperative Enterprise of Collective and Social Benefit "Organization of Psychobioanalysis' Education" «ἐκ τῶν ὑστέρων»
Larissa, Greece
e-mail:dimoulask@yahoo.gr

Aggeliki A. Koutsavlaki
Social Cooperative Enterprise of Collective and Social Benefit "Organization of Psychobioanalysis' Education" «ἐκ τῶν ὑστέρων»
Larissa, Greece
e-mail:dimoulask@yahoo.gr

ABSTRACT

In a democracy, everyone has a say in everything, in their society, the future of which they determine themselves, after group discussion and codecision, with their representative simply coordinating their actions.

This is what we tried, first and so far, alone, to apply, proportionally, in the classroom.

The class was beginning, as it were, frontally (Adams & Engelmann, 1996), discovering (McCaslin, & Good, 1996, Makri - Mpotsari, 2006), along the way, that it could have no reason for each child's action, which was, in fact, individual or subgroups' (Meyer, 1977; Anderson, Holland, & Palincsar, 1997; Matsagouras, 2007), Subgroups instead of solving the problem (Correl, 1976; Petersen, 1979), exacerbate it, being a prelude to competitive competition (Cohen, 1986). The circular placement of the desks (Polemi - Todoulou, e.g.) turned the parallel individual actions into a group action, in which, now, they could, in fact, with the desks in a circle, where everyone (sitting where everyone wants) is face to face, have all the same opportunity to be co-creators (Battistich, Solomon, & Delucci, 1993), in the common work of the class.

Initially, now, because only now it does make sense, a sociogram was designed, choosing the most appropriate form, to show the children's relationships, in the department, as a game, by the children themselves or by the teacher (Volioti, 1989, Karagiozidis, 2008, Spanou & Tsea, 2008). At the end of it, there was a discussion, about the operating statute of the class, and drafting and signing of it.

In the completely circular placement of the desks, the seat had, in fact, been abolished. The teacher, from being the leader of the class, was transformed into a coordinator of its group, who would carry out the lesson. From the previous one, the children were informed about the lesson of the day, in order to process it. After a very brief introduction, the classroom became a vast workshop. Each child, having a complete picture of the action of others, could be a regulator of the result. The course was a single (never as part of exam and part of lecture) discussion platform. The resulting product was imprinted in competition-type evolving large books, made by the children, for each lesson, for all interests, as "Free Optional Homework". At the end of the year, the Board of Directors, with an advisor in this regard, the teacher,

held the Competitions: the best book, the best participation. All entries had a chance in the Competitions. It was simply a matter of ranking. Prize: titles, awarded by the Board, and books, by the teacher. All this material is deposited in the "Archive of Student Creation", which is kept by the teacher in his own space, which he intends for a Museum.

Of course, as all the children were co-creators of the course, they had every reason in its evaluation. The evaluation sheets were collected at the end of each week. For each child, the grade point average came out by the department. In this cross-assessment, the teacher had only a small (1-3 points) modifying intervention. With the help of the sociogram, the performance of each child was resulting every week. In the quarter, and at the end, we had a similar process. Every Monday, the performance of each child was announced. The teacher was also included in the evaluation, who was graded, secretly and anonymously, by the children, every week. At the end of the year, we voted, in the same way, if we were to continue, together, next year, at least 9/10 of the children should want it. The rejection of even one student (the vote could not only be quantitative, but, above all, qualitative) could invalidate everything, primarily the issue of continuity with the department.

Results. Presumably (see, Solomon (ed.), 1999; Tsiaras, 2007), from their subsequent progress, from more or less, positive (Hadjiefthymiou, 1994).

Key Words: classroom, lesson, student-centeredness, teamwork, creation, self-assessment

REFERENCES

Adams, G., & Engelmann, S. (1996). *Research on Direct Instruction: 25 years beyond*. Distard.. Seattle, Wa: Educational Achievement Systems.

Anderson, C.W., Holland, J.D., & Palincsar, A.S. (1997). Canonical and sociocultural approaches to research and reform in science education: The story of Juan and his group. *The Elementary School Journal*, 97, 359-84.

Battistich, V., Solomon, D., & Delucci, K. (1993). Interaction processes and student outcomes in cooperative groups. *The Elementary School Journal*, 94, 19-32.

Cohen, E.G. (1986). *Designing groupwork: Strategies for the heterogeneous classroom*. New York: Teachers College Press.

Correl, W. (1976). Lernpsychologie. Basic questions and pedagogical consequences, 15. *Aufl. Donauwörth: Auer*, 136 etc ..

Hadjiefthymiou, D. (1994). Someone John Keating. Larissa: *Eleftheria*, 28.2, 6.

Kakana, D. (2008). *Collaborative teaching and learning*. Thessaloniki: Kyriakidis brothers.

Karagiozidis, P. (2008). *Collaborative teaching and Sociometry*. Athens.

Kapsalis, A.G. (1983). Pedagogical Psychology. Series (Address: P.D. Xochellis, N.P. Terzis, A.G. Kapsalis) *Pedagogy and Education*, 6. Thessaloniki: Kyriakidis brothers.

McCaslin, M., & Good, T. (1996). The informal curriculum. In D. Berliner & R. Calfee (Eds), *Handbook of educational psychology*, 622-670. New York: Macmillan.

Makri - Mpotsari, Ev. (2006). Interdisciplinary Curriculum Framework and Curricula. In *the Training of Executives of Secondary Education and Teachers at DEPPS, the A.P.S. and the new teaching material of the Gymnasium*. Training Material Issue (7-9). Athens: Ministry of National Education and Religions / Pedagogical Institute.

Matsagouras, E.G. (2007). *Teaching Strategies*. Athens: Gutenberg.

Meyer, E. (1977). *Group teaching, foundation and examples*. Thessaloniki: Kyriakidis brothers.

Polemi - Todoulou, M. (e.g.). Utilization of the Group Process in Adult Education. In *the Instructor Training Program / Educational Material for Theoretical Training Instructors* (III, 149-270). Athens: Ministry of Employment and Social Protection / National Center for Certification of Continuing Vocational Training.

Solomon, I. (ed.) (1999). *Internal evaluation and planning of the educational project in the school unit*. Athens: Pedagogical Institute.

Spanou, M., & Tsea, L. (2008). *School classroom sociogram*. University of Thessaly / School of Humanities / Pedagogical Department of Primary Education Teaching and Pedagogical Interaction in the classroom.

Tsiaras, A. (2007). The self-perception of mutual sympathy in the interpersonal relationships of school children. *Scientific Step*, issue 6.

Volioti, N. (1989). Sociometry at School. *New Education*, Issues 12 and 51.

Petersen, P. (1979). Direct instruction reconsiderent. In P. Petersen & H. Walberg (eds), *Research on Teaching*. Berkeley, C.: McCutchan.

A DIDACTIC PROPOSAL FOR B' EPAL BASED ON THE EXPLORATORY TEACHING METHOD

Meropi Markopoulou
Florina, Greece
email: melita.marko@hotmail.com

ABSTRACT

In the present work, a teaching proposal is presented for students who are in the 2nd grade of the Vocational High School (EPAL), in the course "Plant Production". The didactic proposal is based on the exploratory teaching method, which is based on the orientation of the students' interest in the exploratory questions asked by the teacher, in the formulation, the control of the hypotheses through everyday examples and the evaluation (Chalkia, 2012).

In addition, this proposal is based on Bloom's goal, which utilizes hierarchically structured levels (knowledge, understanding, application, analysis, synthesis and evaluation) (ASPAITE, 2006). The main goal is for students to be in an environment rich in learning stimuli to understand the morphology of the leaves, and their function by adopting a more favorable attitude towards plants and nature in general. Specific objectives of the teaching proposal are the trainees to clearly define the meaning of the leaf, to name its parts and to distinguish it based on its characteristics. As for the skill level the goal is developing the communication abilities of students, learning to interact and collaborate and at as for the level of attitudes the goal is for the students to feel more familiar with the natural environment and its problems.

The present proposal with the method of investigation is structured in six main phases (Barrow, 2006). The first one puts the students in a state of reflection by displaying audiovisual material with categories of leaves, which activates the emergence of pre-existing knowledge. With the expressed views of the students, through the "Mind Master" application and with the method of brainstorming, a concept map is created. In the second phase, the trainees are divided into random groups with the help of the "Wheel of Names" application and they start working on data, which they collect either through the World Wide Web, or they find from the natural environment. They observe the leaves, the information they have collected and keep what is acceptable and scientifically correct. In the third phase, the representative of each group announces the results of the field research in the plenary of the classroom and draws conclusions. The latter are compared with the results of the other groups and their members make acceptable cognitive connections. The fourth phase concerns the analysis of the research process, the steps followed by the teams and the strategy they implemented. The next phase concerns the evaluation. Each group with open-ended questions that are asked in the form of a questionnaire evaluates the whole course that they watched and at the same time, makes a hetero-evaluation after the oral announcement of the results of the other groups. The final phase refers to the recapitulation, which is carried out with verbal motivation by the teacher and the creation of a new concept map through the same digital application but also the creation of a rubric evaluation. The purpose is twofold to encourage students for self-assessment and teacher evaluation (Bybee, 1980). Thus the learning outcomes are longer as they are not acquired passively but with personal effort and involvement.

REFERENCES

A.S.PAI.T.E. (2016). Curriculum of Practical Teaching Exercises (PAD I) (edited by K. Kasimati & N. Mavrovounioti). Under suspension.

Barrow, L. (2006). A Brief History of Inquiry: From Dewey to Standards. Journal of Science Teacher Education 17, 265–278. DOI: 10.1007 / s10972-006-9008-5.

Bybee, R., Taylor, J., Gardner, A., Van Scotter, P., Powell, J., Westbrook, A. & Landes, N. (2006). The BSCS 5E instructional model: Origins and effectiveness. Office of Science Education National Institutes of Health. Colorado Springs, CO: BSCS.

Chalkia, K. (2012). Teaching Natural Sciences. theoretical issues, reflections, proposals. Athens: Patakis Publications.

TEACHING PROPOSAL FOR GEOGRAPHIC INFORMATION SYSTEMS (GIS)

Ekaterini Markopoulou
Thessaloniki, Greece
e-mail: katesagimark@gmail.com

ABSTRACT

The Curriculum for the High School defines the subject of digital cartography as part of the general unit "Topographic design and digital cartography", which has as its main purpose of teaching the familiarization of students with Geographic Information Systems software with the proposed open source software QGIS". The present didactic proposal, using the model of the six phases of exploratory learning, orients the students in the detection of complex situations, in the clarification of the posed problem, in the formulation of a test hypothesis, in its evaluation and in the drawing of the final conclusions. (Bybee, Taylor, Gardner, Van Scotter, Powell, Westdook & Landes, 2006).

In addition, by promoting the principles of collaborative teaching, which is based on the positive interdependence of team members, personal responsibility and the activation of collaborative skills (Felder & Brent, 2007) while promoting technological literacy, seeks through the emergence of students to motivate their active participation (Vastaki, 2010).

The digital applications used are those of Google Earth, the digital text application (Story Board That) in comic format as well as the software QGIS. Its main goal is to capture reality and communication through the use of different semiotic systems (images, visual symbols etc.) in the context of multimodal literacy and the use of new technologies. The individual goals are for the students to be able to:

- define the concept of georeferencing
- insert the image of a map and geo-report it according to the checkpoints, and
- determine the actual coordinates of points on the georeferenced map

In more detail, at the start of the course the teacher introduces the topic to the studetns by presenting a hypothetical scenario, which is given in the form of a comic book, thus offering them the opportunity to reflect and be able to express their views, which are recorded by the method of brainstorming after grouping through the application "X-Mind". This creates a conceptual map, which is the basis for comparing prior and acquired knowledge. Then, through the digital environment of "Google Earth" and the method of trial and error, students are given the opportunity in an interactive learning environment where all views are respected (Chalkia, 2012), to export a specific map and save it as an image in .jpg format.

Familiarization activities of the students with the tools of the georeferencing transformation parameters follow and at the end of the educational course a concept map is created again with the same digital application. In this way, the initial ideas are compared with the acquired ones in order to realize the way of change (Kokkotas, 2008). In addition, in another attempt at a self-assessment process, students are asked to answer closed-ended questions through the "Kahoot" application but also to complete a questionnaire with open-ended questions, which refer to the learning process and the teacher's effort to analyze and extract useful self-assessment conclusions.

REFERENCES

Vastaki, M. (2010). Differentiation in teaching. Teacher's Scientific Step, 12, 121 135.

Bybee, R., Taylor, J., Gardner, A., Van Scotter, P., Powell, J., Westbrook, A. & Landes, N. (2006). The BSCS 5E instructional model: Origins and effectiveness. Office of Science Education National Institutes of Health. Colorado Springs, CO: BSCS.

Felder, R.M. & Brent, R. (2007). Cooperative learning. In P.A. Madrouk (Eds.), Active learning: models from the analytical sciences (pp. 34 - 53). ACS Symposium Series 970. Washington, D.C: American Chemical Society.

Kokkotas, P. (2008). Teaching of Natural Sciences. Modern approaches to the teaching of Natural Sciences. (3rd edition). Athens: Grigoris Publications.

Chalkia, K. (2012). Teaching Natural Sciences. theoretical issues, reflections, proposals. Athens: Patakis Publications.

EDUCATIONAL INNOVATION IN PRIMARY SCHOOL: APPLICATION OF AN INNOVATIVE TEACHING METHOD AT THE SUBJECT OF MUSIC WITH THE USE OF ICT

Vasileios Siliogkas
MSc, Teacher of Music
Karditsa, Greece
e-mail: bill.siliogkas@gmail.com

ABSTRACT

Today's educational field needs innovative teaching methods that will form student-centered classes in challenging learning frameworks with the application of ICT. Only then, will the roles of all members of a school community be upgraded and soft skills such as 4Cs and other mind-skills can be developed too. An innovative teaching practice like this is what this work presents through qualitative research revealing the supportive utilization of ICT to the school course of Music with the aim of digital tools and m-scripts at the 5th and 6th grade of a Greek primary school.

Nowadays, the educational reality is characterized by tremendous technological development that introduces new types of learning (exploratory, electronic and mixed) which suggest the integration of Information and Communication Technologies (ICT) so that the education can achieve its multidimensional role.

Thus, teachers are called upon to reflect outdated pedagogical perceptions so as to try new, student-centered ones, to develop the appropriate culture in the classroom (Feldman et al., 2000) and promote among students skills for realistic situations in real conditions (Crook, 1996) with the utilization of digital tools.

Such an innovative teaching method is suggested by this research-work which recommends the supportive use of ICT in the course of Music through m-scripts and digital tools in primary education.

Although our society is flooded with digital programs and online applications, in the field of Art courses and Music especially teachers maintain a cautious attitude towards the contribution of ICT to the learning process. This is due to the lack of their experiential and appropriate training (Haydn and Barton, 2007) and to the optional application of ICT in the classroom which results in reluctance (Oldfield, 2010).

However, New Technologies is a great tool for students to acquire knowledge by themselves (Koulaidis, 2007) and as far as Music course is concerned, a new practice should be adopted to help pupils express themselves creatively in a playful school climate learning effortlessly by their active participating and meanwhile by developing soft skills and digital literacy, qualities that are necessary in the 21th century (Eurydice, 2009).

However, the combination of the Music course and use of ICT presuppose collaborative learning and a teacher who is a Mentor to his students (Odam & Patterson, 200:35). If these are ensured, ICT can:

- face the difficulties encountered in a traditional teaching course of Music
- enrich the Music course (Sharp et al., 2000) with: digital recording and partiture, audio production-audio paths, image-video, digital narration, concept maps, e-books
- enhance creativity
- develop acoustic and musical skills and
- ensure the interaction of participants which is vital in Art education (Buffington, 2008)

The research purpose is to explore the skills brought about by the use of ICT to students of 5th and 6th grade in terms of assimilation of musical concepts through m-scenarios in the teaching process.

Thus, as research questions arose:

1. How do ICT support the teaching-learning process in the Music course through m-scenarios for the 5th and 6th grade of Primary school?
2. To what extent do ICT, as a supportive teaching method, constitute the most effective assimilation of the important concepts of the Music course?
3. How does the factual supportive use of ICT in a lesson plan in the form of a m-script formulate innovative teaching methods?

Qualitative research was selected with the use of a case study as the researcher seeks to find why and how something happens (Yin, 2008).

Intentional and easy sampling without possibility (Zafiropoulos, 2015) was chosen and as a sample: a public primary school of East Thessaloniki. In particular, 13 students of 5th grade and 9 students of 6th grade took part in the research.

Therefore, the following qualitative and quantitative tools were used as data collection tools:

- m-scripts
- questionnaire
- interview

ICT sets the teacher free from sterile, passive teaching methods and diverts him into a facilitator combining successfully the real and digital environment of a classroom by using digital tools that can develop fully students' cognitive, social and emotional skills.

The m-scripts with:

- clearly defined goals and form
- short chained-activities
- flexible character

facilitate the teaching process by letting students follow their personal learning rhythm, collaborate, understand better new knowledge by searching for information, develop useful skills for a lifetime, evaluate and be evaluated.

The students foster the 4Cs-soft skills (critical thinking, collaboration, communication, creativity), develop initiative and try new methods and digital tools while getting used to evaluation.

Moreover, the teachers reflect and renounce their teacher-centered roles and involve their students in active learning by fostering life skills, innovating and envisioning goals that they share with their students.

Key Words: supportive ICT character, innovative teaching practice, new learning frameworks, student-centered learning, m-scripts, digital tools.

REFERENCES

Buffington, M. L. (2008). What is Web 2.0 and how can it further art education?'*Art Education*, *61*(3): 36 – 41.

Crook, C. (1994). *Computers and the collaborative experience of learning*. London: Routledge. Available at: https://www.taylorfrancis.com/books/mono/10.4324/9781315122519/computers collaborative-experience-learning-charles-crook [Accessed the: 18th of April 2021]

Eurydice. (2009) *Arts and cultural education at school in Europe*. Brussels: European. Available at: http://www.nefmi.gov.hu/europai-unio-oktatas/eurydice/arts-and-cultural [Accessed the 20th of January 2021]

Zafiropoulos, K. (2015). *How to make a scientific Work-Scientific Research and writing?* Athens: Publications Kritiki

Feldman, A., Konold, C. and Coulter, B. C. (2000). *Network science a decade later: The internet and classroom learning*. London: Routledge.

Haydn, T. and Barton, R. (2007). 'First do no harm': Developing teacher's ability to use ICT in subject teaching: some lessons from the UK'. *British Journal of Educational Technology*, *38*(2), 365 – 368.https://www.academia.edu/21659660/First_do_no_harm_developing_teachers_ability_to_use_IC_in_subject_teaching_some_lessons_from_the_UK [Accessed the 10th of January 2021]

Koulaidis, B. (2007). *Modern didactic approaches for the development of critical-creative thinking.* Athens. Available at: http://www.oepek.gr/download/Sygxrones_Didaktikes_B.pdf [Accessed the 10th of January 2021]

Mills, J. and Murray, A. (2000). 'Music technology inspected: good teaching in Key Stage 3'. *British Journal of Music Education*, *17*(2):129 – 156.

Odam, G. and Paterson, A. (2000). Composing in the classroom: The creative dream. In Cain, T. (2004). 'Theory, technology and the music curriculum'. *British Journal of Music Education, 21* (2): 215 – 221.
https://www.researchgate.net/publication/231754986_Theory_technology_and_the_music_curiculum and https://www.academia.edu/37633284/Theory_technology_and_the_music_curriculum [Accessed the 16th of January 2021]

Oldfield, A. (2010). *A summary of teacher attitudes to ICT use in schools*. Future lab, 1–8. Available at:http://itec.eun.org/c/document_library/get_file?p_l_id=10307&folderId=17990&name=DLFE 1550.pdf [Accessed the 18th of May2021]

Sharp, J., Potter, J., Allen, J. and Loveless, A. (2000). *Achieving QTS. Primary ICT: Knowledge, understanding and practice.* Exeter: Learning Matters Ltd.

Yin, R. (2008). *Case study research: design and methods.* 4th ed. Thousand Oaks, CA: Sage

DISTANCE LEARNING AS AN EDUCATIONAL INNOVATION IN TEACHING OF GERMAN AS A SECOND LANGUAGE IN GREEK SECONDARY EDUCATION

Maria G. Tarasidou
Teacher of German Language in Secondary Education
Thessaloniki, Greece
e-mail: marataraassidou@hotmail.com

and

Ioannis Nanos
Academic Scholar, International Hellenic University
Thessaloniki, Greece
e-mail: nanos.giannis@gmail.com

ABSTRACT

The study deals with distance learning in the context of educational innovations and more specifically in teaching of German as a foreign language course in secondary education. For this purpose, a literature research was initially performed in order to review the theory related to distance learning and to determine the contribution of innovations to the educational process. The introduction of innovations is an element that supports both the modernization of education and the improvement of educational work (Bates, 2005).

Innovation in educational systems can be introduced not only in administration, education and pedagogy levels but also among human relations that are developed during the educational process (OECD, 2016). More specifically, Information and Communication Technologies (ICT) can be part of the educational-pedagogical innovations, as through them digital teaching recourses and tools useful for the educational process are provided (Zawacki-Richter, 2011). The type of education that uses the maximum of the possibilities of ICT nowadays is distance education, which has the ability to adapt to current educational needs and uses a variety of teaching tools.

In the Greek educational system, it was identified that the directions of the European Union play a decisive role for the introduction of e-learning and the development of the appropriate tools as well as the technological equipment of the educational units. In particular, the Common European Framework of Reference for Languages (CEPA, 2020) has had a catalytic effect on the teaching of German as a foreign language in secondary education. According to this framework, one of the main aims of the German language course is improvement of students' digital literacy and the disengagement of the teacher from the use of a single teaching tool, the teaching manual. Moreover and during the Covid-19 pandemic crisis, new tools and approaches were applied by teachers, in order to support emergency remote teaching and online learning (Hodges et al, 2020; Williamson et al., 2020; Zimmerman, 2020).

Based on other studies (Das Deutsche Schulportal, 2020; Scientix, 2020; ECML, 2021) and in order to investigate the attitudes of German language teachers in Greek secondary education towards the adoption and application of innovations and new teaching tools in the educational process, an electronic survey was conducted, with a sample size of 138 participants. The research explored the views of German language teachers about educational innovation. Furthermore, it investigated teachers' experience in the use of new tools during the emergency distance education, as well as their intention to incorporate them in conventional education after the end of the pandemic crisis. Finally, the research explored the views of teachers about the contribution of new and innovative tools to the teaching of German as a foreign language in conventional education.

The results of the research agree, to a large extent, with the findings of the literature review, which was the source for the design of the research. Also, the results of the research showed the very positive attitude of the participants, irrespective of their age, regarding the innovations and new educational tools that can be used in teaching. Moreover, the respondents seem to be willing to integrate to their conventional teaching methods some of the teaching tools that they used during the period of distance learning education within the pandemic crisis.

Key Words: educational innovation, distance education, secondary education, new educational tools, German as a foreign language

REFERENCES

Bates, A.W. (2005). *Technology, E-Learning and Distance Education*, (2nd ed.). New York:Routledge.

CEPA (2020). Common European Framework of Reference for Languages (CEFR). https://www.coe.int/en/web/common-european-framework-reference-languages [Accessed the 10th of January, 2021).

Das Deutsche Schulportal (2020). Lehrer-Umfrage Erstmals repräsentative Daten zum Fernunterricht. https://deutsches-schulportal.de/unterricht/das-deutsche-schulbarometer-spezial-corona-krise [Accessed the 20th of March, 2021]

ECML (2021). Language education in Europe: the impact of Covid. https://www.ecml.at/News/TabId/643/ArtMID/2666/ArticleID/1650/Language-education-in-Europe the-impact-of-Covid-Take-part-in-the-survey.aspx [Accessed the 26th of March, 2021].

Hodges, C. B., Moore, S., Lockee, B. B., Trust, T., & Bond, M. A. (2020*).* The difference between emergency remote teaching and online learning. *EDUCAUSE Review*, 27 March 2020. https://vtechworks.lib.vt.edu/handle/10919/104648. [Accessed the 3rd of January, 2021]

OECD (2016). Innovating Education and Educating for Innovation: The Power of Digital Technologies and Skills. *Paris: OECD Publishing*. http://www.oecd.org/education/ceri/GEIS2016-Background document.pdf [Accessed the 16th of February, 2021]

Scientix, (2020). Online survey on teachers' practices and use of educational technologies during the Covid-19 pandemic. http://www.scientix.eu/covid19-survey [Accessed the 16th of December, 2020]

Williamson, B., Eynon, R., & Potter, J. (2020). Pandemic politics, pedagogies and practices: digital technologies and distance education during the coronavirus emergency. *Learning, Media and Technology*, 45(2): 107-114.

Zawacki-Richter, O. (2011). Geschichte des Fernunterrichts - Vom brieflichen Unterricht zum gemeinsamen Lernen im Web 2.0. In S. Schön & Ebner (Hrsg.), L3T - Lehrbuch für Lernen und Lehren mit Technologien. http://l3t.tugraz.at/ [Accessed the 28th of December, 2020]

Zimmerman, J. (2020). Corona virus and the Great Online-Learning Experiment. *The Chronicle of Higher Education*. https://www.chronicle.com/article/Coronavirusthe-Great/248216 [Accessed the 3rd of January, 2021].

STEM

EDUCATIONAL ROBOTICS: A NEW SCIENCE OF TECHNOLOGY IN EDUCATION

Christina Xiarchou
Educator MEd & MSc
in Life-long Learning
& Public Health
University of Macedonia
Thessaloniki, Greece
e-mail: ksiarxou1967@hotmail.com

ABSTRACT

A new science of technology in the field of education is educational robotics, which combines elements of software development, artificial intelligence, engineering, control systems and electronics. The purpose of this literature review is the conceptual approach of educational robotics in education, according to the theory of constructivism. Educational robotics is an interdisciplinary field that presents increasing interest and closely interacts with Informatics and Communications, Electronic and Artificial Intelligence. Educational robotics uses special robotic constructions, which are designed and built to operate through computer systems where they control their operation, information processing and feedback output of the robotic system (Norskov, 2009; Nocks, 2007). Robotic constructions can operate autonomously or after the intervention of the student, however their good operation requires the cooperation of many sciences such as Engineering and Sciences (Doulgeri, 2007). Educational robotics is based on the theory of Papert (1992), according to which the construction of knowledge is based on the constructive use of technology, as attributed by the particular view of Constructionism. Papert (1928) argued that students approaches learning more effectively when they have the opportunity to engage in construction activities whose result is interesting and meaningful for them (Alimisis et al., 2012). Proponents of this theory believe that new knowledge is constructed by the students themselves, when they have new experiences and attempts to integrate new information into their cognitive potential. Constructivism considers the supply of technology as a cognitive tool that helps and expands students' thinking. Through educational robotics, students of all ages and with different needs can access new knowledge interdisciplinary in almost all cognitive subjects, even those that do not belong to the category of "technical courses" and concepts in the context of STEM / Science, Technology, Engineering and Mathematics (Karim, et al., 2015). Students can develop activities that will lead them to understand the operation of robots and consequently the technological approach to knowledge in a spontaneous, fun and collaborative way (Mubin et al., 2013; Sullivan, 2017). At a global level, efforts are being made to integrate educational robotics into education by strengthening socio-political and techno-economic reorganizations (Karim et al., 2015; Emiris & Koulouriotis, 2004). In Greece, educational robotics has been included in the curricula of all levels, starting with Primary education (PEaP, 2010). In conclusion, educational robotics is a multifaceted and effective tool for learning and interdisciplinary teaching with increasing interest from the educational community. Favorable factors in the introduction of educational robotics in education are the emergence of low cost and easy handling of robotics construction packages in the global market (Frangou, 2009).

Key Words: educational robotics, constructive technology, education

REFERENCES

Alimisis D., Dimitriadis S., Komis V., Bratisis Th., Fahantidis N., Fesakis G. (2012). Contemporary trends of Educational Robotics, *Proceedings of the 8th Panhellenic Conference ETPE*, Volos.

Doulgeri, Z. (2007). *Robotics-Kinematics, dynamics and control of articulated arms*, Publications Critiki.

Emiris, D., Koulouriotis, D. (2004). *Robotics,* Athens: 2nd edition, SEDKA-4M Tekdotiki. Available at:http://www.haniotika-nea.gr/119211-ta-rompot-stin-ekpaideusi/, retrieved on 17/10/2021.

Π.Ε.Κα.Π. (2010). *Educational robotics in elementary school*. Available at: http://dide.ilei.sch.gr/keplinet/education/docs/pekap_edurobotic.pdf, retrieved on 28-10-2021.

Fragou, S. (2009). Educational robotics: pedagogical framework and interdisciplinary development methodology of synthetic works, in Grigoriadou, M., et al., (ed.). *In Teaching Approaches and Tools for teaching Informatics,* Athens: New Technologies Publications.
Karim, M., Lemaignan, S., & Mondada, F. (2015). A review: Can robots reshape k-12 STEM education? *In International Workshop on Advanced Robotics and its Social Impacts* (pp. 1–8).
Mubin, O., Stevens, C.J., Shahid, S., Al Mahmud, A. & Dong, J. J. (2013). A review of the applicability of robots in education. *Journal of Technology in Education and Learning*, 1, pp. 1-7.
Nocks, L. (2007). *The robot: the life story of a technology*. Westport: CT: Greenwood Publishing Group.
Norskov, M. (2009, November). The Robot: The Life Story of Technology-by Lisa Nocks. *Centaur us,* 51(4), pp.323-324.
Sullivan, F.R. (2017) The Creative Nature of Robotics Activity: Design and Problem Solving. *In: Khine M. (eds) Robotics in STEM Education.* Springer, Cham.

THE ROLE OF EDUCATIONAL ROBOTICS IN ENHANCING STUDENT LEARNING

Christina Xiarchou
Educator MEd & MSc
in Life-long Learning
& Public Health
University of Macedonia
Thessaloniki, Greece
e-mail: ksiarxou1967@hotmail.com

ABSTRACT

The purpose of the literature review is to present the help that educational robotics can offer in education and in enhancing learning. Students are constantly confronted with the aspects of dealing and solving real-world problems and they can be helped through designed and programming activities that educational robotics may offer. Thus, reducing the distance between the taught object and reality, learning becomes more authentic. In addition, through educational robotics, students can acquire new knowledge in a playful way, in a pleasant environment. They can also interact and accept multiple tactile experiences, which provide stimuli and motivation for learning (Eguchi, 2013). Involving students in robotics competitions increases their motivation to learn (Kraetzschmar, 2009). In addition, students who use educational robotics activities are strengthened in problem solving, as through robotic constructions they study the problem, design, manipulate objects, reflect, collaborate and solve problems in an active way (Mikropoulos & Bellou, 2013). Research has shown that educational robotics improves mathematical knowledge, algorithmic and in addition enhances technological and mechanical skills of the involved students (Stergiopoulou et al, 2017; Afari & Khine, 2017). Moreover, educational robotics acquaints students with the operation of everyday technological products, creates technological familiarity and awareness of technological possibilities in improving their lives by increasing their research and scientific way of thinking. The possibility given to students, through innovative educational robotic systems, to use their hands enhances active collaborative learning and creates hands-on learning conditions (Mikropoulos & Bellou, 2013). Also, students creating constructions that have meaning for themselves are actively involved in a more natural and effective way in the learning process and, at the same time, they enhance their creativity, reflection and critical thinking (Afari & Khine, 2017; Karim, Lemaignan & Mondada, 2015). Afari & Khine (2017) argue that for most students, engaging with robotic constructions is an enthusiastic and enjoyable process and Stergiopoulou et al., (2017) add that for students the use of robots in the classroom is an innovative, original, affordable and tangible experience, which enhances learning. Also, through educational robotics and the planning and construction activities, the active learning of the students is enhanced together with the internalization of the representative knowledge of their own movements, as they try to plan the movements of the robotic constructions (Sullivan & Heffener, 2016). In conclusion, educational robotics enables users to perform specific behaviors aimed at enhancing the learning process through robots, which are the next innovative addition to traditional education and the "next step" in student education (Karim et al., 2015).

Key Words: educational robotics, education, enhancing learning

REFERENCES

Afari, E. & Khine, M. S. (2017). Robotics as an Educational Tool: Impact of Lego Mindstorms. *International Journal of Information and Education Technology,* 7(6), pp. 437-442. doi: 10.18178/ijiet.2017.7.6.908.

Eguchi, A. (2013) Educational Robotics for Promoting 21st Century Skills. *Proceedings of the 4th International Conference on Robotics in Education*, Lodz University of Technology, Poland.

Karim, M., Lemaignan, S., & Mondada, F. (2015). A review: Can robots reshape k-12 STEM education*? In International Workshop on Advanced Robotics and its Social Impacts*, pp. 1–8.

Kraetzschmar G. (2009) Educational Robotics: On the Role of Robotics in Learning and Education. In: Zacharias C. et al. (eds) *Forschungsspitzen and Spitzenforschung*. Physica-Verlag HD.

Mikropoulos, A. & Bellou, I. (2013). Educational Robotics as Mindtools. *Themes in Science and Technology Education.* 6 (1). pp. 5-14.

Karim, M., Lemaignan, S., & Mondada, F. (2015). A review: Can robots reshape k-12 STEM education? *In International Workshop on Advanced Robotics and its Social Impacts*.pp. 1–8.
Stergiopoulou, M., Karatrantou, A. & Panagiotakopoulos, C. (2017) Educational Robotics and STEM Education in Primary Education: A Pilot Study Using the H&S Electronic Systems Platform. In: Alimisis D., Moro M., Menegatti E. (eds) Educational Robotics in the Makers Era. *Edurobotics 2016. Advances in Intelligent Systems and Computing, vol. 560. Springer, Cham* DOI 10.1007/978-3-319-55553-9_7.
Sullivan, F.R. & Hefferman, J. (2016). Robotic Construction Kits as Computational Manipulatives for Learning in the STEM Disciplines. *Journal of Research on Technology in Education.* 48 (2). pp. 105-128.

STEAM IN KINDERGARDER

Louiza Novatsidou
e-mail: novalou@hotmail.gr

ABSTRACT

This paper describes the STEAM approach to Kindergarten, entitled: "I build my own dam". Its aim is to demonstrate that approach in a student-centered program with an interdisciplinary character, such as that of primary education, which takes into account the individuality of each child separately, his experiences, his feelings and is based on the theory of social constructivism, the STEAM program with implementation of the mechanical design process that can be included in its schedule. The mechanical design process according Isabelle, Russo and Velazquez-Rojas (2021), for the ages of primary school children consists of five main phases: 1) I ask and identify the problem, 2) I imagine and suggest solutions, 3) I design and select the materials I will use, 4) I build and test, and 5) I improve. It is clear that priority is given to the students' participation, to the search and solution of possible problems that arise during the process and not so much to the achievement of the final result (Bagiati & Evangelou, 2018).

In addition, the specific learning plan takes into account the students' prior knowledge and its planned activities are directly related to real life situations. Its organization revolves around a central axis, that of the connection of four fields: science, engineering, technology and mathematics. It is worth mentioning that the activities in which the students participate give them the opportunity to learn from their mistakes and encourage them to be willing to redesign whenever necessary. They also contribute to innovation, creative solutions and the realization that there is often more than one solution to the same problem.

The specific learning plan is in the form of a work plan (Project) with parallel utilization of active and collaborative learning, and the method of problem solving. In addition, it has an interdisciplinary character since it extends to all the cognitive subjects of the Interdisciplinary Unified Curriculum Framework (D.E.P.S., A.P.S., 2003) for the Kindergarten. At the same time, it utilizes the "thinking routine" method proposed by Harvard University (Project Zero - see, think, wonder), (Project Zero, 2016) and the digital Active Presenter application. The learning objectives in the individual thematic areas are the following:

A) Child and communication: children become able to describe and narrate by participating in discussions with arguments and enriching their vocabulary

B) Child, body, creation & expression: to experience the construction plans experientially, to observe them and to implement them based on scientific criteria

C) Child, self & society: to experiment with constructions and to understand the role of technology in the various social challenges

D) Child & science: to develop technological design skills and those considered necessary for the execution of a scientific construction

E) Cultivating attitudes: to cultivate empathy, cooperation and their ability to adapt.

The work plan extends to three main phases: the planning of the action by exploring the children's prior knowledge and the formulation of research questions following the "thinking routine" methodology. Field research, which includes the search for answers to children's questions through the implementation of engineering design processes and integration activities, aimed at consolidating understanding, disseminating good practices and self-assessment-oriented evaluation.

Finally, it should be noted that the goal is not to introduce engineering in Kindergarten as a separate subject, but to act as a link that connects the fields of knowledge and encourages the active participation of children in them (Bagiati & Evangelou, 2016).

REFERENCES

Bagiati, A., & Evangelou, D. (2016). Practicing engineering while building with blocks: : identifying engineering thinking. *European Early Childhood Education Research Journal, 24(1),* 67-85.

Bagiati, A., & Evangelou, D. (2018). Identifying Engineering in a PreK Classroom: An Observation Protocol to Support Guided Project- Based Instruction. In L. English & T. Mooren (Eds.) *Early engineering learning* (pp. 83–111). Singapore.

Interdisciplinary Unified Curriculum Framework (D.E.P.P.S.) and Curricula (P.P.S), Kindergarten – Elementary – High School (2003). Y.PAI.TH. Retrieved from: http://www.pi-schools.gr/download/programs/depps/fek303.pdf.

Isabelle, A. D., Russo, L. & Velazquez-Rojas, A. (2021). Using the engineering design process (EDP)

to guide block play in the kindergarten classroom: exploring effects on learning outcomes. *International Journal of Play*, *10(1),* 43-62.
Project Zero (2016). Harvard. Available: http://www.pz.harvard.edu/.

PILOTING ROBOTICS & STEAM IN THE GREEK CURRICULUM

Konstantinos Vasileiou
Eduact
Thessaloniki, Greece
e-mail: info@eduact.org

Antonia Psallida
Eduact
Thessaloniki, Greece
e-mail: info@eduact.org

Anastasia Linda
Eduact
Thessaloniki, Greece
e-mail: info@eduact.org

Despoina Stoikou
Eduact
Thessaloniki, Greece
e-mail: info@eduact.org

Anastasios Kollias
Eduact
Thessaloniki, Greece
e-mail: info@eduact.org

Aikaterini Devrani
Eduact
Thessaloniki, Greece
e-mail: info@eduact.org

and

Marina Athanasaki
Eduact
Thessaloniki, Greece
e-mail: info@eduact.org

ABSTRACT

In modern educational contexts, an imminent need arises for the implementation of updated educational practices and programs that will be directly related to learning areas both from the field of exact and social sciences alike.

The present paper deals with the pilot introduction of Educational Robotics and STEAM in Primary and Secondary Education in the context of 'Skills Labs' (Ministry of Education and Institute of Educational Policy) which was facilitated during the academic year 2020-2021 in selected Elementary and Junior High schools across Greece. Eduact, a non profit organization, undertook the production of the educational material, the provision of the necessary equipment to the schools and the training of the participating teachers in collaboration with the Institute of Educational Policy.

The aim of the pilot implementation was to introduce workshops of experiential and exploratory learning and cultivation of life skills / soft skills, literacy and other modern skills in the organization and operation of the Primary and Secondary Education schools on a permanent basis, in the compulsory, hourly curriculum - which will enable students to make better use of knowledge acquired and meet the challenges of an increasingly dynamic and ever-changing environment.

The objectives of the pilot were fully harmonized with the framework and philosophy of the 'Skills Labs' and, in particular, with the objectives of the field "Create and Innovate - Creative Thinking and Innovation" and the field "STEM / Educational Robotics" as described in Government Gazette no. 2539 (24-07-2020) and in the decision of the Ministry of Education on "Curriculum Framework for Skills

Laboratories of all types of school units, Kindergartens, Primary and Secondary Schools" (no. Prot. 94236 / GD4, Athens, 29-07 -2021).

For the final, overall evaluation as well as extraction of research worthy findings from the pilot, tools were developed and utilised, based on the Teacher's Guide for Descriptive Assessment and the Assessment Scaffolding Tool of Students' Competencies and Skills for Teachers developed within the European Project ATS2020 (Assessment of Transversal Skills 2020 - Erasmus +). In brief, for the evaluation, the following were employed: Semi-structured interviews for the initial assessment from teachers before the implementation of the pilot, Semi-structured interviews for the final assessment from teachers after the implementation of the pilot, Teacher diary of initial assessment (first day of the pilot), Teacher diary for each day of implementation of the pilot, Teacher diary of final assessment (after the pilot), Observation and evaluation sheet of each student separately produced by the teacher.

Key Words: Robotics, STEAM, life/soft skills, curriculum

REFERENCES

Ατματζίδου, Σ. (2018). Η εκπαιδευτική ρομποτική ως μέσο ανάπτυξης της υπολογιστικής σκέψης και μεταγνώσης των μαθητών. http://thesis.ekt.gr/thesisBookReader/id/42916 #page/1/mode/2up (10/04/2020)

Bachelard, G. 1980. La formation de l'esprit scientifique. Vrin, Paris.

Benitti, F. B. V. (2012). Exploring the educational potential of robotics in schools: A systematic review. Computers & Education, 58(3), 978-988. doi:10.1016/ j.compedu.2011.10.006.

Bergquist, A. (2005). The robotic autonomy mobile robotics course: Robot design, curriculum de-sign and educational assessment. Autonomous Robots,18(1),103-127.

Black, P., Harrison, C., Lee, C., Marshall, B., & Wiliam, D.(2003). Assessment for learning: Putting it into practice. Buckingham, UK: Open University Press. Black, P., Harrison, C., Hodgen, J., Marshall, B., & Serret, N. (2010). Validity in teachers' summative assessments. Assessment in Education: Principles, Policy and Practice, 17(2):215–232.

Black, P., Harrison, C., Hodgen, J., Marshall B., & Serret N. (2011). Can teachers' summative assessments produce dependable results and also enhance classroom learning?. Assessment in Education: Principles Policy and Practice, 18 (4): 451–469.

Blanchard, S., Freiman, V., & Lirrete-Pitre, N. (2010). Strategies used by elementary schoolchildren solving robotics-based complex tasks: innovative potential of technology. Procedia Social and Behavioral Sciences 2 (2010). WCES-2010, 2851–2857.

Castledine, A. R. & Chalmers, C. (2011). LEGO Robotics: An authentic problem solving tool?. Design and Technology Education: An International Journal, 16(3), 19-27.

Doise, W. Mugny, G. (1987). Η κοινωνική ανάπτυξη της νοημοσύνης. Πατάκης, Αθήνα.

Donaldson, M. (1991). Η σκέψη των παιδιών. Gutenberg, Αθήνα.

Driver, R., Guesne, E., Tiberghien, A. (1985). Children's Ideas in Science, Open University Press, Milton Keynes, Philadelphia.

Eguchi, A. (2010). What is educational robotics? Theories behind it and practical implementation. Proceedings of Society for Information Technology & Teacher Education International Conference (σσ. 4006-4014). Chesapea: In D. Gibson & B. Dodge (eds.).

European Commission (2019). Key Competences for Lifelong Learning. Luxembourg: Publications Office of the European Union.

Harlen, W. (2005). Teachers' summative practices and assessment for learning–tensions and synergies. Curriculum Journal, 16 (2), 207-223.

Ινστιτούτο Εκπαιδευτικής Πολιτικής (2019). Οδηγός εκπαιδευτικού για την περιγραφική αξιολόγηση στο Δημοτικό, Τεύχη Α΄, Β΄, Γ΄. Αθήνα.

La Paglia, F., Rizzo, R., La Barbera, D., &Cardaci M. (2010). Using robotics construction kits as metacognitive tools: a research in an italian primary school. Annual Review of Cybertherapy and Telemedicine: Advanced Technologies in the Behavioral, Social, and Neurosciences, 154, 110-114.

Lee I., Martin F., Denner, J., Coulter B., Allan W., Erickson J., Malyn-Smith J., Werner L. (2011). Computational Thinking for Youth in Practice. ACM In Roads, σσ. 32-37.

Ματσαγγούρας, Η. (1994). Στρατηγικές διδασκαλίας : από την πληροφόρηση στην κριτική σκέψη. Αθήνα.

Moscovici, S. (1972). Introduction a la psychologie sociale. Larousse, Paris.

Νικολός, Δ. (2012). Υπολογιστική Σκέψη – Τι και Γιατί. Μετάφραση άρθρου της Jeanette Wing καθηγήτριας στο τμήμα Επιστήμης Υπολογιστών του Carnegie Melon. Ανάκτηση 8 Οκτωβρίου, 2021. Πρωτότυπο: https://people.cs.vt.edu/ ~kafura/CS6604/Papers/CT-What-And-Why.pdf

Norton, S. J., McRobbie, C. J., & Ginns, I. S. (2007). Problem Solving in a Middle School Robotics Design Classroom. Research in Science Education, 37 (3), 261-277.
Nourbakhsh, I. R., Crowley, K., Bhave, A., Hsium, T., Hammer, E., & Perez-
Petre, M., & Price, B. (2004). Using robotics to motivate 'back door' learning. Education and Information Technologies, 9(2), 147-158.
Perret-Clermont,A.N. (1986). La construction de l' intelligence dans l' interaction social. P. Lang, Berne.
Prensky, Marc (September 2001). "Digital Natives, Digital Immigrants Part 1". On the Horizon. 9 (5): 1–6.
Vygotsky, L. (1988). Σκέψη και γλώσσα. Γνώση, Αθήνα.
Wallon, H. (1984). Η ψυχική ανάπτυξη του παιδιού. Γλάρος, Αθήνα.
Williams, D. C., Ma, Y., Prejean, L., & Ford, M. J. (2007). Acquisition of physics content knowledge and scientific inquiry skills in a robotics summer camp. Journal of Research on Technology in Education, 40(2), 201-216.
Wing, J. (2006). Computational thinking. Ανάκτηση 6 Οκτωβρίου, 2021, από http://www.cs.cmu.edu/afs/cs/usr/wing/www/publications/Wing06.pdf
Yasar, O., & Landau, R. (2003). Elements of Computational Science & Engineering Education. SIAM Review , σσ. 787-805.

EDUCATION POLICY AND PRACTICES

INVESTIGATING GREEK EFL TEACHERS' VIEWS ON TEACHING MATERIALS AND DIGITAL TOOLS TOWARDS THE PROMOTION OF 21st CENTURY SKILLS

Anastasia Balla
Aristotle University of Thessaloniki
Thessaloniki, Greece
e-mail: anastasia94balla@gmail.com

ABSTRACT

The emergence of the multifaceted environment of the 21st century governed by advanced technology, and mostly characterized by multilayered realities and societal changes due to globalization necessitate a reconsideration of the educational process and the role of English in the EFL classroom (Black 2009; Lemke, 2003). The present dissertation aims to investigate the Greek in-service EFL state school teachers' views on the usefulness of the teaching materials and digital tools towards the promotion of 21st century skills. The objective is to explore whether the textbooks provided by the Ministry of Education for the subject of English in Greek state schools, and the digital teaching material selected by the EFL teachers are appropriate enough so as the 21st century skills to be developed and help learners be prepared for their thriving in the modern world.

The primary and secondary educational sector EFL teachers' beliefs are compared and contrasted so as to be found out whether the one outperforms the other when it comes to the promotion of 21st century skills. Data collection was carried out via an electronic questionnaire which was distributed and completed by 172 participants, and focus group discussions, with one group consisting of primary and another one of secondary EFL teachers. The data collection research method which was employed for the gathering of the research sample is the convenience non probability sampling method (Dörnyei, 2007). The SPSS statistical software has been employed in order for these data to be analyzed through statistical tests. A five percent significance level for all tests was considered ($p < .05$).

Table 4.5.2.4
Promoted Skills through Textbooks

Promoted Skills through Textbooks	Primary Group	Secondary Group
Critical thinking	• Not promoted in the first grades of primary school • Though in the last two grades, it could be developed, the textbooks are completely inadequate	• Mostly promoted by the new books • A recent change
Creativity	• Promoted mostly through short stories • The existence of handcrafts at the end of the book enhances creative engagement	• Only the textbooks used in lower secondary sector include creative projects • Completely excluded from the textbooks used in the upper secondary sector
Problem solving	• Not so much promoted • Only through a limited number of riddles	• Mainly enhanced through classroom constructive discussions • Topic-related homework assignments promote problem solving
Digital literacy	• Promoted through online activities but only for the last grade of primary school	• Developed in terms of online searching and processing of information

Findings of the study suggest that although most EFL teachers recognize the importance of 21st century skills, the textbooks and digital tools used in the classroom are not that contributory to the enhancement of these skills. Finally, it is worth mentioning that the primary sector outperforms the secondary one in the promotion of most of the 21st century skills and thus in the more adequate equipment of young learners with these valuable assets. The dissertation concludes with the implications regarding the need for EFL teachers' further training on educational approaches that can promote 21st century skills and suggests some recommendations for future research upon the topic.

Key Words: 21st century skills, in-service teachers' beliefs, ELT, English language classroom, Greek educational context

REFERENCES

Black, R. (2009). English-language learners, fan communities, and 21st century skills. *Journal of Adolescents & Adult Literacy, 52*(8), 688-697. Retrieved from http://www.jstor.org/stable27654331

Dörnyei, Z. (2007). *Research methods in applied linguistics*. New York: Oxford University Press.

Lemke, C. (2003). *EnGauge 21st century skills: Literacy in the digital age*. USA: North central regional educational laboratory. Retrieved from https://pict.sdsu-edu/engauge21st.pdf

INNOVATIVE AND INCLUSIVE PEDAGOGY IN ENGLISH LANGUAGE LEARNING

Vasiliki Zdoukopoulou
Larissa, Greece
e-mail: zdoukopoulou@gmail.com

and

Dimitrios Theocharis
International Hellenic University
Thessaloniki, Greece
e-mail: dim.theocharis@yahoo.gr

ABSTRACT

Inclusive pedagogy has concerned itself with the teachers taking the responsibility for the learning of all the children inside the classroom (Jordan, Schwartz & McGhie-Richmond, 2009; Florian & Spratt, 2013; Fedulova et al., 2019). The core idea of inclusive pedagogy is the rejection of ability labeling and of all the deterministic beliefs which support the idea that the progress of some people will be hindered by the presence of others (Black-Hawkins & Florian, 2012). For Swann, Peacock and Drummond (2012) judgement of fixed potential and fixed ability is dominant in our culture where labeling impedes hopes for the future. In democratic educational settings students are not expected to follow the teacher-leader but they engage in ongoing interactions and participate equally. In inclusive pedagogy student agency is promoted and valued but above all it does not reside only in the individual because it is an experience socially constructed (Lipponen & Kumpulainen, 2011; Lindner & Schwab, 2020). Within language and literature, the stories are the means by which children communicate and exchange experience with the readers, the writings, themselves and experience the things they have learnt (Armstrong, 2013). This means that art has the potential to open up new experiences for children. According to Davis (2013), it could 'dethrone' the hegemony of the normal and present alternative ways of picturing normal. It creates new conceptions of how to be inclusive in education by paying tribute to ways of participating that are other than what is assumed to be typical and usual (Allan, 2014; Ferm Almqvist & Christophersen, 2017). The purpose of the current study was to investigate the impact of an innovative teaching practice such as the use of art in the learning process, over several important variables that determine the positive outcome of a learning effort. Based on that, a quantitative experimental research was conducted, on a sample of 67 students (36 Greek native speakers and 31 foreign – no native English speakers). A non-probability purposive sampling method was used and the findings among others indicate that the use of art in the teaching process presents several positive changes during English classes, compared to the traditional learning process. Specifically, a significant increase was detected regarding the interest of students on the class topic ($p < 0.05$), their motivation to participate, on the interaction created between them and their attention on any class activity. Additionally, significant positive changes were found regarding inventiveness and creativity levels as well as on comprehension and learning capacity, while on the other hand there was a reduction on learner diversity and marginalization. Finally, no differences between the two groups in relation to their origins. Those findings can potentially lead to a more democratic approach in education while the introduction of more art related activities could improve students' performance and the overall learning experience.

Key Words: Innovation, innovative learning, Inclusive pedagogy

REFERENCES

Allan, J. (2014). Inclusive education and the arts. Cambridge Journal of Education, 44(4), 511-523
Armostrong, M. (2013). Education as reconstreuction: Another way of looking at primary education: Forum, 55(1), 9-30
Black-Hawkins, K. & Florian, L. (2012). Classroom teachers' craft knowledge of their inclusive practice. Teachers and Teaching: Theory and Practice, 18(5), 567-584
Davis, L. (2013). The disability studies reader. London: Routledge

Fedulova, I., Ivanova, V., Atyukova, O., & Nosov, V. (2019). Inclusive education as a basis for sustainable development of society. Journal of social studies education research, 10(3), 118-135.
Ferm Almqvist, C., & Christophersen, C. (2017). Inclusive arts education in two Scandinavian primary schools: a phenomenological case study. International Journal of Inclusive Education, 21(5), 463-474.
Florian L., & Spratt, J. (2013). Enacting inclusion: A framework for interrogating inclusive practice. European Journal of Special Needs Education, 28(2), 119-135
Jordan, A., Schwartz, E., & McGhie-Richmond D. (2009). Preparing teachers for inclusive classrooms. Teaching and Teacher Education, 25(4), 535-542
Lindner, K. T., & Schwab, S. (2020). Differentiation and individualisation in inclusive education: a systematic review and narrative synthesis. International Journal of Inclusive Education, 1-21. Lipponen, L. & Kumpulainen, K. (2011). Acting as accountable authors: Creating interactional spaces for agency work in teacher education. Teaching and Teacher Education, 27, 812-819
Swann, M., Peacock, A., Hart, S., & Drummond, M.J. (2012). Creating learning without limits. Open University Press

ORGANISATION AND MANAGEMENT OF SCHOOLS. FACTORS AND INCENTIVES FOR THE PARTICIPATION OF PRIMARY EDUCATION TEACHERS IN EUROPEAN PROGRAMMES AMID THE COVID-19 PANDEMIC

Ourania Gkouna
PhD, University College London, UK
International Hellenic University
Thessaloniki, Greece
e-mail: ouraniagouna@gmail.com

Martha Kougioumtzoglou
MA Institute of Education, London, UK
Teacher of English,
Ministry of Education
Naoussa, Imathia, Greece
e-mail: novem968@gmail.com

Stavroula Kouvela
Kindergarden school Teacher,
Ministry of Education
Larissa, Greece
e-mail: roulakouvela76@gmail.com

and

Zoi Pliari
Kindergarden school Teacher,
Ministry of Education
Larissa, Greece
e-mail: zoipliari3@gmail.com

ABSTRACT

The educational policy of the European Union started with the Article 128 of the Treaty of Rome in 1957, where the importance of vocational education was emphasized (Stamelos, 2015). European educational policy was strengthened with the establishment of the Socrates (1994) and Leonardo Da Vinci (1993) programmes (Zmas, 2007). The ERASMUS, Comenius and other programmes followed. In 2013, the Erasmus+ programme integrated and replaced all the previous ones (Dvir and Yemini, 2016). Nowadays, the European educational programmes are distinguished for their great variety of educational subjects. Although the importance of these programmes is a determining factor in the continuing professional development of teachers, low participation along with lack of motivation has been observed among Greek teachers (Aggelidou and Kritikou, 2006; Diamantopoulou, 2006; Bassiou and Kourentzi, 2014). Therefore, the motivation of Greek teachers to participate in European educational programmes is considered necessary.

There are international surveys which study the implementation of Herzberg's "Two Factor Theory" for the continuing professional development of people in various sections (Forte and Flores, 2014; Chu and Kuo, 2015; Pakdel et al. 2018; Singh and Bhattacharjee, 2020). These surveys research part or all of Herzberg's motivation and hygiene factors. Some other surveys research only one part of Herzberg's theory, that is the hygiene factors (Gorgichet et al. 2017; Ortega-DelaCruz, 2016).

Furthermore, there are some other motivational factors which have been studied and they are known as "Push and Pull Factors". The combination of these two categories of factors determines the form of the final decision of the motivation (Lesjak et al. 2015; Arredondo et al. 2017; Semiz and Salman, 2017; Nichifor and Ţimiraş, 2019; Chang and Chu, 2021).

In addition, it has been found that the concept of perceived risk and mobility are related to the behaviour of people in various sectors (Roselius, 1971; Bauer, 2000). More specifically, the risk in mobility refers

to the perception of people for possible negative consequences during their transportation to a destination (Tsaur et al. 1997; Reisinger and Mavondo, 2006).
Quantitative research method was detected. The research design was based on several theoretical models of motivation (Push, Pull and Herzberg's theory) and the questionnaire was administered to primary school teachers. The selection of the participants was made through snowball sambling.
The research of those particular classical theories of motivation, in combination with risk perception, could contribute to the question of the low participation of teachers in continuing professional development programmes. The present primary survey aims at the construction of a meaningful context so as to show the graduation of the factors that lead to the participation or not of teachers to European educational programmes (i.e. Erasmus+) during the Covid-19 pandemic. The final goal of this survey is the transformation of the results into a tool for ascertaining the motives and also their gravity for the augmentation of the participation of teachers in European educational programmes, along with their implementation in other sectors as well. Finally, this research will contribute to the gap in the survey by the collection of data from a sample of teachers working in Primary Education through a quantitative analysis of the survey object.

Key Words: Erasmus+, Motivations, Primary Education, EU programmes

REFERENCES

Aggelidou, E. &Kritikou, E. (2006). *Για ποιους λόγους συμμετέχουν και ποια εμπόδια συναντούν οι εκπαιδευτικοί που ασχολούνται συστηματικά με την περιβαλλοντική εκπαίδευση στη δ/νση Β/θμιαςεκπ/σης Αν. Αττικής.* Ανακοίνωση στο 2ºΣυνέδριο Σχολικών Προγραμμάτων Περιβαλλοντικής Εκπαίδευσης, Αθήνα.
Bassiou, M. &Kourentzi, A. (2014). Τα ευρωπαϊκά προγράμματα ως εργαλείο για τη διαπολιτισμική τάξη: Μελέτη περίπτωσης. Στο Δ. Μαλαφάντης κ. συν. (Επιμ.), Πρακτικά 9ου Πανελλήνιου Συνεδρίου Ελληνικής Παιδαγωγικής και ΕκπαιδευτικήςΈρευνας (σελ. 598 - 610). Κοζάνη: ΕκδόσειςΔιάδραση.
Bauer, R. (2000). *Consumer behavior as risk taking.* In M. Baker (Ed.), *Marketing: Critical Perspectives on Business and Management* (pp. 13-21). Routledge.
Chang, D. F., Chu, W. C. (2021). Detecting the Institutional Mediation of Push-Pull Factors on International Students' Satisfaction during the COVID-19 Pandemic. *Sustainability*,13, 1-14.
Chu, H. C. &Kuo, T. Y. (2015). Testing Herzberg's Two-Factor Theoryin Educational Settings in Taiwan.*The Journal of Human Resource and Adult Learning*, 11 (1), 54-65.
Diamantopoulou, A. (2006). The European Dimension in Greek Education in the context of the European Union. *Comparative Education,* 42(1), 131-151.
Dvir, Y& Yemini, M. (2016). Mobility as a continuum: European commission mobility policies for schools and higher education. *Journal of Education Policy*, 1-13.
Forte, A. M., & Flores, M. A. (2014). Teacher collaboration and professional development in the workplace: A study of Portuguese teachers. *European Journal of Teacher Education*, *37*(1), 91-105.
Gorgich, E., Arbabisarjou, A., Barfroshan, S.&Taji, F. (2017). Job Satisfaction and External Effective Factors in Operating Room Nurses Working Educational Hospitals in 2015: A Cross-Sectional Questionnaire Study. *Global Journal of Health Science*.9 (1), 74-81.
Lesjak, M., Juvan, E., Ineson, E. M., Yap, M. H. T., Axelsson, E. P. (2015). Erasmus Student Motivation: Why and Where to Go?.*High Educ*.
Nichifor, B. V. &Ţimiraş, L. C. (2019). Erasmus+ Programme Seen from the Eyes of Potential Beneficiaries-Direct Research Carried out with Students. *Studies and Scientific Researches. Economics Edition, Online first*, 1-11.
Ortega-Dela Cruz, R. (2016). Attrition of Private and Public School Teachers: A Comparative Analysis. *Advances in Social Research*. 2 (1), 29-32.
Pakdel, F., Khodadoust, K., Pakdel, S., Nosrati, S., Amaghani, F. A., Farokhnia, H. et al. (2018). Factors Affecting Job Motivation Among Faculty Members of Tabriz School of Dentistry Based on the Herzberg's 2-Factor Theory. *Avicenna Journal of Dental Research*, 10 (2), 57-62.
Reisinger, Y., &Mavondo, F. (2005). Travel anxiety and intentions to travel internationally: Implications of travel risk perception. *Journal of Travel Research*, *43*(3), 212-225.
Roselius, T. (1971). Consumer rankings of risk reduction methods. *Journal of Marketing*, *35*(1), 56-61.
Semiz, Ö. & Salman, Ö. (2017). The Factors Determining the Motivation to Participate in Erasmus Program for Turkish EFL Students. *International Journal of Curriculum and Instruction*,9(2), 125 136.
Singh. M. & Bhattacharjee, A. (2020). A Study to Measure Job Satisfaction Among Academicians Using Herzberg's Theory in the Context of Northeast India. *Global Business Review*, 21 (1), 197-218.
Stamelos, G., Vasilopoulos, A. &Kavasakalis, A. (2015). *ΕισαγωγήστιςΕκπαιδευτικέςΠολιτικές*.

Ελληνικά Ακαδημαϊκά Συγγράμματα και Βοηθήματα.
Tsaur, S. H., Tzeng, G. H., &Wang, K. C. (1997). Evaluating tourist risks from fuzzy perspectives. Annals of Tourism Research, 24(4), 796-812.
Zmas, A. (2007). Παγκοσμιοποίηση και εκπαιδευτική πολιτική. Αθήνα: Εκδόσεις Μεταίχμιο.

LANGUAGE SKILLS REQUIRED FOR THE STUDENTS' SUCCESSFUL INVOLVEMENT IN THE SCHOOL OF THE DIGITAL AGE

Georgios Linaroudis
International Hellenic University
Thessaloniki, Greece
e-mail: gio.lin@yahoo.gr

Chryssoula Chatzigeorgiou
International Hellenic University
Thessaloniki, Greece
e-mail: cchatzigeorgiou@ihu.gr

Evangelos Christou
International Hellenic University
Thessaloniki, Greece
e-mail: echristou@ihu.gr

and

Fotis Kilipiris
International Hellenic University
Thessaloniki, Greece
e-mail: fkili@ihu.gr

ABSTRACT

The purpose is to specify the language skills that students need to possess so as to be able to actively participate in the educational process within the modern schooling system, which has lately been significantly digitalized.

The issue seems to be a digital inclusion gap. This fact seems to lead steadily to thready engagement rates for students, especially those of lower socioeconomic statuses (Lake & Makora, 2016). Language skills are considered crucial to tackle such lack of involvement.

This research examines a particular group of factors, namely, the digital age, the schooling system in this specific period, the involvement aspect as well as the binding factor; language skills. The tool utilized for this study is secondary research to define the subject in a more meaningful way and allow further exploration.

Firstly, there must be an attempt to define the digital age. According to the Cambridge Dictionary, the digital age is the time that many procedures are done exclusively with the help of a computer and vast amounts of information are being shared thanks to this kind of technology (Cambridge Dictionary, n.d.). It is defined as the present, with new institutional structures in the majority of industries. Of course, the sector of education has adapted to this new reality.

Lately, schools of all levels have taken several steps towards modern technologies, better equipment and more accurate policies. However, students today are distanced from the traditional training methods and have established a subtle role in the school (Williams, 2008). School, as one of the primary agents of socialization (Davis, 2021), requires the students' involvement.

The subject of involvement is neither new nor undisturbed. On the contrary, its severity has been brought frequently as it refers to the degree of physical as well as psychological force that the students decide to provide - or invest, more accurately- in their educational experience (Astin, 1984). Involvement is about concentration, participation, understanding, engaging etc. Besides that, the environment is crucial as it provides the mean of expression. Furthermore, involvement is correlated with performance (Malloy & Gambrell, 2010). Concerning language skills, engagement is a key factor that can contribute to a successful outcome (Mercer, 2019).

About skill creation, firstly it needs to be said is that now the focal point is the 21st century skills. These are considered to be 12 and they form three different categories; learning, literacy and life skills (Stauffer, 2020). Literacy skills include information, media and technology, three main factors applied in schools.

There are four basic language skills: listening, speaking, reading and writing. These constitute stages of foreign language learning from the beginning to the end (ProLiteracy America, 2012). The connection between 21st century and language skills is inevitable.

The major cause is to implement language skills to technological activities that take place keeping always in mind the orientation of skills during the 21st century as well as the peculiarities of current affairs. This could be done by many ways, like updating the language of schoolbooks, enabling students to partake in modern language exercises or encouraging more creative interactions between students, such as apps (Simuforosa, 2013).

Key Words: language skills, involvement, digital-age school

REFERENCES

Astin, A. W. (1984). Student Involvement: A Developmental Theory. *Journal of college student personnel, 25(4)*, pp. 297 - 308.

Cambridge Dictionary. (n.d.). *Meaning of digital age in English*. Retrieved 10 16, 2021, from Cambridge Dictionary - English Dictionary: https://dictionary.cambridge.org/dictionary/english/digital-age

Davis, B. (2021, 05 01). *How does school act as an agent of socialization?* Retrieved 10 11, 2021, from MV Organising: https://www.mvorganizing.org/how-does-school-act-as-an-agent-of-socialization/#How_does_school_act_as_an_agent_of_socialization

Lake, R., & Makora, A. (2016, 06). Lake, R., & Makora, A. (2020). The digital divide among students during COVID-19: who has access? Who doesn't? *he Lens, Center on Reinventing Public Education*.

Malloy, J. A., & Gambrell, L. B. (2010). *Essential Readings on Motivation.* Newark: International Reading Association.

Mercer, S. (2019). *Language Learner Engagement: Setting the Scene In: Gao X. (eds) Second Handbook of English Language Teaching. Springer International Handbooks of Education.* Springer.

ProLiteracy America. (2012). *Teaching adults: An Esl Resource Book* . Syracuse: New Readers Press. Retrieved from Columbia George Community College.

Simuforosa, M. (2013). The impact of modern technology on the educational attainment of adolescents. *International Journal of Education and Research, 1(9)*, pp. 1 - 8.

Stauffer, B. (2020, 03 19). *What Are 21st Century Skills?* Retrieved from Applied Educational Systems: https://www.aeseducation.com/blog/what-are-21st-century-skills

Williams, P. (2008, 07). Leading schools in the digital age: A clash of cultures. *School Leadership and Management*, pp. 213 - 228.

ORGANIZATIONAL CULTURE AND INNOVATIVE LEARNING INTRODUCTION IN HIGHER EDUCATION

Dimitrios Theocharis
International Hellenic University
Thessaloniki, Greece
e-mail: dim.theocharis@yahoo.gr

and

Dr. Georgios Tsekouropoulos
International Hellenic University
Thessaloniki, Greece
e-mail: geotsek@bua.teithe.gr

ABSTRACT

Organizational culture is an essential element of an educational organization determining its success and effectiveness in the long run (Shahzad, Xiu & Shahbaz, 2017). In particular, in the school unit, the culture has the ability to connect its members with each other, a fact necessary for their cooperation and the smooth operation of the organization. Still, the culture of an organization can be said to be the element that keeps the organization united, giving it a specific identity through the characteristics that are accepted by its members. In this way, each educational organization is differentiated and distinguished from the others (Lægreid, Roness & Verhoest, 2011; Sánchez-Báez, Fernández-Serrano & Romero, 2020). In addition, the organizational culture is the basis for the existence of a collaborative attitude, for the way of thinking of individuals, contributing to the promotion of good practices and innovative applications. Although organizational culture and innovation have been extensively researched, their combination in higher education is an ever-changing field, with the evolution of technologies and their willingness to adopt to determine the level of innovation in an organization. In Greek higher education, the relationship between organizational culture and innovation has received little research attention. In some research efforts, culture has been linked to the effectiveness of the school unit, to the role that its members play in learning process but also to the administrative level. Contrastingly, the connection to innovation remains dim. The aim of the current study is to investigate the connection of organizational culture with the acceptance of functional and educational innovations and the adoption of an innovative way of thinking and culture. A primary quantitative research was conducted on a sample of 159 higher education teachers, with the use of an electronic questionnaire. Particularly, the findings indicate a strong relationship between organizational culture and innovation adoption ($r = .892, p < .01$) as well as the organizational culture found to be positively related with the perceived need for educational innovations ($r = .741, p < .01$) and the level of their implementation ($r = .662, p < .01$). However, organizational culture presents a negative weak relationship with resistance to change ($r = -.407, p < .05$). Moreover, organizational culture also found to be connected with the personnel's' responsiveness to any type of innovation ($r = .808, p < .01$). Finally, those findings regarding higher education could lead on the awareness of the importance that a strong organizational culture has for an educational unit and its multiple impact on the development of any type of practices through innovation adoption.

Key Words: Organizational culture, Innovation, Innovative practices Higher education

REFERENCES

Gürlek, M., & Tuna, M. (2018). Reinforcing competitive advantage through green organizational culture and green innovation. *The service industries journal*, *38*(7-8), 467-491.
Harel, R., Schwartz, D., & Kaufmann, D. (2020). Organizational culture processes for promoting innovation in small businesses. *EuroMed Journal of Business*, 16(2), 218-240.
Lægreid, P., Roness, P. G., & Verhoest, K. (2011). Explaining the innovative culture and activities of state agencies. *Organization Studies*, *32*(10), 1321-1347.
Mehmet, S., & Sipola, S. (2021). Effect of Organizational Culture on Innovation in Finnish Companies. *International Business Management*
Sánchez-Báez, E. A., Fernández-Serrano, J., & Romero, I. (2020). Organizational culture and

innovation in small businesses in Paraguay. *Regional Science Policy & Practice*, *12*(2), 233-247.
Shahzad, F., Xiu, G., & Shahbaz, M. (2017). Organizational culture and innovation performance in Pakistan's software industry. *Technology in Society*, *51*, 66-73.
Škerlavaj, M., Song, J. H., & Lee, Y. (2010). Organizational learning culture, innovative culture and innovations in South Korean firms. *Expert systems with applications*, *37*(9), 6390-6403.
Szczepańska-Woszczyna, K. (2014, September). The importance of organizational culture for innovation in the company. In *Forum scientiae oeconomia* (Vol. 2, No. 3, pp. 27-39).
Zhu, C., & Engels, N. (2014). Organizational culture and instructional innovations in higher education: Perceptions and reactions of teachers and students. *Educational Management Administration & Leadership*, *42*(1), 136-158.

TEACHERS EDUCATION PRACTICES

TEACHERS PERCEPTION IN SCHOOL EFFECTIVENESS: A MULTILEVEL STUDY OF PRIMARY SCHOOL IN THESSALONIKI

Msc Eleni Vlachoudi
Teacher, Primary Education of Western Thessaloniki
Thessaloniki, Greece
e-mail: elenaki282008@hotmail.com

Dr. Georgios Tsekouropoulos
Assistant Professor, International Hellenic University
Department of Organization Management, Marketing & Tourism,
e-mail: geotsek@bua.teithe.gr

and

Dr. Nikolaos Katsonis
Director of Public Experimental I.E.K. Patras
e-mail: nikoskatsonis@gmail.com

ABSTRACT

In a society that is constantly changing and evolving, the school is called to play a very important role through the educational work provided, which should be quality and at the same time effective. However, nowadays the effectiveness of an educational unit is not only determined by the high learning performance but is determined by the totality of the educational results produced.

The purpose of this study is to investigate whether the administrative operation of a school unit can affect its effectiveness, according to the views of teachers working in primary schools in the Prefecture of Thessaloniki. For the implementation of this research, a quantitative method of collecting empirical data was used and an electronic questionnaire was compiled, which was distributed via the e-mail of the Primary schools to all teachers working in schools of the Prefecture of Thessaloniki during the period from 1/5/2021 to 30/5/2021. After collecting the answers of the participants, the descriptive and inductive statistical analysis of the data followed.

The results of the study showed that the role of the leader-director is particularly important for the following reasons:

- Takes care of the coordination of all actions in the school context (Reynolds et al., 2015)
- Promotes the commitment of teaching staff and implements educational policies (Reynolds et al., 2015)
- Facilitates the training of teaching staff (Reynolds et al., 2015)
- Affects the organizational structure (Hallinger and Heck, 1998) and strengthens organizational commitment (Leithwood, et & al., 1993)
- Provides motivation to teachers (Brewer, 1993), (Leithwood, 1994)
- Sets educational goals and manages the human resources (Hallinger and Heck, 1998), (Leithwood, 1994)
- Creates a vision (Hallinger, Bickman & Davis, 1996)
- Ensures the involvement of all stakeholders in school activities (Hallinger and Heck, 1998)
- Provides personalized support to teaching staff (Leithwood, 1994). (Pasiardis, 1994)
- Manages conflicts (Hallinger and Heck, 1998)
- Plays an important role in shaping school culture (Leithwood et al., 1993)
- Improves the learning environment (Heck, Larson & Marcoulides, 1990)
- Contributes to the creation of professional learning communities and fosters teacher self-efficacy (Reynolds & Teddlie, 2000)
- Maintains a healthy relationship with parents (Reynolds & Teddlie, 2000)
- Encourages teachers and students to adopt values such as cooperation and social justice (Ehrich et al., 2015)

- Provides for the equipment of the school with the necessary material and technical infrastructure (Pasiardis, 1994)
- Takes care of the lifelong training and professional development of the teaching staff (Pasiardis, 1994)

Regarding the role played by the teaching staff of the school unit, it should be noted that the majority of teachers consider that the teaching staff follows the internal regulations of the school, that it is necessary to participate in decision-making changes, (Reynolds et al., 2015) and that there is cooperation in pedagogical and didactic issues.
Regarding the management of materials, resources and infrastructure, the teachers for the most part consider a) that the school principal cooperates effectively with the school committee and that he takes care of the maintenance and cleanliness of the building, b) that the school utilizes the Information Technologies and Communication in its operation and c) that all the necessary actions are taken to find the necessary resources. The data in this section could not be compared with the findings of other studies due to their lack.
It is worth noting that regarding the section concerning the school and the community in which the educational unit is located, the teachers' responses are moderately satisfactory in several actions concerning the school's cooperation with the local community, although at the same time they consider that the educational unit has a great influence on it. It is worth commenting that the lack of data from relevant research does not allow us to draw safe conclusions.
Proceeding to the inductive statistical analysis, it was investigated whether the views of the participants differ depending on a) the position they hold in their school unit, b) the years of work experience and c) their educational level. It was found that teachers who hold a position of responsibility and have at least 30 years of work experience scored statistically significantly higher average scores compared to the rest of the teaching staff of the school. Regarding their educational level, their views did not seem to differ.

Key Words: effectiveness, attitudes and perceptions of teachers, primary education, organizational culture, behavior

REFERENCES

Ehrich, L.C., Harris, J., Klenowski, V., Smeed, J. & Spina, N. (2015). “The centrality of ethical leadership”. *Journal of Educational Administration*, 53, 197-214. DOI:10.1108/JEA-10-2013-0110
Hallinger, P., Bickman, L. & Davis, K. (1996). “School context, principal leadership, and student reading achievement”. *The Elementary School Journal*, 96(5), 527-549. Retrieved from https://doi.org/10.1086/461843
Hallinger, P. & Heck, R. (1998). “Exploring the Principal's Contribution to School Effectiveness: 1980-1995*”. School Effectiveness and School Improvement*. 9. 157-191. 10.1080/0924345980090203.
Heck, R., Larson, T., & Marcoulides, G. (1990). “Principal instructional leadership and school achievement: Validation of a causal model”. *Educational Administration Quarterly, 26,* 94-125. https://doi.org/10.1177/0013161X90026002002
Leithwood, K., Jantzi, D., Silins, H., & Dart, B., (1993). “Using the appraisal of school leaders as an instrument for school restructuring”. *Peabody Journal of Education*, 68, 85-109. https://doi.org/10.1080/01619569309538721
Leithwood, K. (1994). “Leadership for school restructuring”. *Educational Administration Quarterly,* 30, 498-518. https://doi.org/10.1177/0013161X94030004006
Pasiardis, P. (1994). "Effective principal: Self-assessment of the needs of primary school principals in Cyprus". *Pedagogical review*, issue 20-21, pp. 171-205. Retrieved from: https://ojs.lib.uom.gr/index.php/paidagogiki/article/view/6701 (2/6/21)
Reynolds, D. & Teddlie, C. (2000). The processes of school effectiveness. In C. Teddlie & D. Reynolds (Eds.), The international handbook of school effectiveness research. 134–159. London: Falmer Press. Retrieved from: https://doi.org/10.4324/9780203454404 (2/6/21)
Reynolds, D., Teddlie, C., Chapman, C., Stringfield, S. (2015) *Effective school processes. Retrieved from:* The Routledge International Handbook of Educational Effectiveness and Improvement, Research, policy, and practice Routledge. Ανακτήθηκε από: https://www.routledgehandbooks.com/doi/10.4324/9781315679488.ch3 (12/7/21)

INNOVATIVE IN-COMPANY TRAINIG PROGRAMS IN LARGE LISTED COMPANIES: AN ASSESSMENT OF THE "LEADING THE TITAN WAY" PROJECT

Marouso Spetsioti
Social Worker, TITAN.S.A., Greece
e-mail: msp@titan.gr

and

Theodore Koutroukis
Associate Professor of Department of Economics,
Democritus University of Thrace, Greece
e-mail: tkoutro@econ.duth.gr

ABSTRACT

One significant side of organisational functions is in-company training. Modern organisations that wish maintain competitive advantage should train and re-train their employees according to the current trends in production and management. That is why in-company training may facilitate the development of each company and its organizational and economic targets.

Thus, the planning and implementation of tailor-made training programs by the HR department, may contribute to the company efficiency and the promotion of its leading role in a sector of production.

The main aim of this paper is to explore the aspects of the TITAN employees about their participation in training programs within its undertakings concerning the design and the implementation as well as to highlight proposals which will help in the design of future training programs.

As case study, training programs of the «Leading the TITAN way» platform, were examined. Those programs might be distinguished in four fields: a) inspire and develop people, b) promote and facilitate co-operation, c) provide solutions and bring about outcomes, d) have a vision and foster change.

The paper has used a quantitative approach to collect evidence. In particular, this survey tries to present the aspects and perceptions of the employees who have participated in the pertinent programs as far as the context, the methodology, and the way the programs were organised are concerned, and to what extent their participation in those learning activities influenced their performance and productivity.

For this study, the quantitative research was selected, and 42 employees, who had attended that educational program throughout the year 2020, were the sample. For the selection of the quantitative data as a survey tool, a questionnaire, was used. The evidence that was collected by the survey, has been analysed and reported.

The results showed that the employees are very satisfied with the programs of the «Leading the TITAN way» platform as far as the context and the methodology are concerned. At the same time, it is proven that, the offered training provides to the employees knowledge, attitudes and skills, which are essential for the better performance, quality of work and productivity and highlights the importance of social skills as a major factor for evolution and development. Furthermore, the participants focused on the need for longer duration and repetition of the training programs, as well as the need for practice so that they become more self-confident to apply what they have learnt. It also has to be stressed that educational level, years of work experience and role in labour process have been key factors that positively contribute to the learners' satisfaction. Finally, this study adds additional evidence, as far as in-company training is concerned and various improvement actions are proposed for future use..

Key Words: Adult education, in- company training, human resources, abilities- skills, effectiveness, company

REFERENCES

Bryman, A. (2017). Μέθοδοι Κοινωνικής Έρευνας. Αθήνα: Gutenberg

Shek, D. T., & Chak, Y. L. (2012). Evaluation of the training program of the project P.A.T.H.S.: findings based on the perspective of the participants from different cohorts. The Scientific World Journal, 687198.

Shek, D., & Sun, R. (2012). Subjective outcome evaluation of the Project P.A.T.H.S :Qualitative findings based on the Experiences of program participants. The Scientific Word Journal, 7, 686-697

Swain-Campell, N.R., Surgenor, L.J., and Snell, D.L. (2001). An analysis of consumer perspectives following contact with an eating-disorders service. Aust. N.Z.J Psychiatry 35, 99-103
Diamantidis, A., & Chatzoglou, P. (2012). Evaluation of formal training programmes in Greek organisations. European Journal of Training and Development, 36, 888-910
Riiskjaer, E., Ammentorp, J., and Kofoed, P. (2012). The value of open-ended questions in surveys on patient experience: number of comments and perceived usefulness from a hospital perspective. International Journal for Quality in Health Care, 24, 509-516
Nassazi, A. (2013). Effects of training on employee performance. Evidence from Uganda. Finland: University of Applied Sciences
Παπαστεφανάκη-Παππά, Σ, (2006).Ενδοεπιχειρησιακή Εκπαίδευση- Η περίπτωση των τραπεζών (Διδακτορική διατριβή, Αριστοτέλειο Πανεπιστήμιο. Διαθέσιμο από τη βάση δεδομένων του Εθνικού Αρχείου Διδακτορικών Διατριβών
Schmidt, S. W. (2007). The relationship between satisfaction with workplace training and overall job satisfaction. Human Resource Development Quarterly 18(4), 481-498.
Antonakopoulou E. (2001). 'The paradoxical nature of the relationship between training and learning', Journal of Management Studies, 38(3), . 327-350
Creswell, J. W. (2016). Η έρευνα στην εκπαίδευση. Σχεδιασμός, διεξαγωγή και αξιολόγηση της ποσοτικής και ποιοτικής έρευνας. Αθήνα: Ίων.
Fragoulis, I & Phillips, N. (2011). Social skills for successful career development. Review of European Studies. 3, 85-93
Arthuw, Jr., Bennett, Jr., Edens, S,. & Bell, T. (2003). Effectiveness of training in organizations: A meta-analysis of design and evaluation features. Journal of Applied Psychology, 88, 234-245
Stankova, M. & Drdla, M. (2011). Company training from the efficiency and effectiveness point of view. Journal on Efficiency and Responsibility in Education and Science, 5, 10-24
Otuco, A. , Chege, K. & Douglas, M. (2013). Effect of training dimensions on employee;s work performance: A case of Mumias sugar company in Kakamega County. International Journal of Business and Management Invention, 2, 138-149
Glaveli, N. & Karassavidou, E (2011). Exploring a possible route through which training affects organizational performance: the case of a Greek bank. The International Journal of Human Resource Management, 14, 2892-2923
Gidey, A (2016). The effect of training and development on employee performance: the case of Commercial Bank of Ethiopia. Human Resource Management.
Roberts, A. (2006). Seventeenth-Century Science Fiction. In *The History of Science Fiction* (pp. 36 63). Palgrave Macmillan, London.
Wallén, J. (2008). *The history of the industrial robot*. Linköping University Electronic Press.
Xinogalos, S., Malliarakis, C., Tsompanoudi, D., & Satratzemi, M. (2015, September). Microworlds, games and collaboration: Three effective approaches to support novices in learning programming. In *Proceedings of the 7th Balkan Conference on Informatics Conference* (pp. 1-8).
Xinogalos, S., Satratzemi, M., & Dagdilelis, V. (2006). An introduction to object-oriented programming with a didactic microworld: objectKarel. *Computers & Education*, *47*(2), 148-171.
Yoon, I., Kim, J., & Lee, W. (2016). The analysis and application of an educational programming language (RUR-PLE) for a pre-introductory computer science course. Cluster Computing, 19(1), 529 546.

4 th INDUSTRIAL REVOLUTION: EXPLORING THE KNOWLEDGE AND READINESS OF SECONDARY SCHOOL TEACHERS

Zoe Karanikola
University of Patras
Pyrgos, Greece
e-mail: zoekar@upatras.gr

Konstantinos Zogopoulos
University of Patras
Pyrgos, Greece
e-mail: kzogopoulos@upatras.gr

Georgios Panagiotopoulos
University of Patras
Pyrgos, Greece
e-mail: pangiorgos@upatras.gr

and

Eleni Makri
University of Patras
Pyrgos, Greece
e-mail: elmakthe@gmail.com

ABSTRACT

The term "Teacher 4.0" comes to meet the current requirements that the teacher is required to manage in the environment of the 4th industrial revolution (Aly, 2019). The purpose of this research is to investigate the perceptions of secondary school teachers of the Region of Western Greece regarding the 4th Industrial Revolution (4IR) and the knowledge they have in order to handle it. The research was conducted by following the quantitative methodology and by using a questionnaire as a tool. The first part of the questionnaire included questions about the demographics of the respondents, and the second part includes five dimensions: a) Knowledge of the 4IR, b) Use of devices in personal life, c) Use of devices at the workplace, d) Familiarity with software and programs and e) Familiarity with emerging technologies (. In total, all five dimensions consist of 52 questions. Participants were asked to answer on a five-point Likert scale. The random sampling procedure was followed by the researchers in order to ensure the representativeness of the sample. 422 teachers responded out of the 2,328 teachers who served during the school year 2020-2021, with a response rate of 18.12%. The reliability check of the questionnaire ranged from 0.777 to 0.951 for the five dimensions. For the whole scale the reliability index also showed very satisfactory results (Cronbach´s alpha = 0.953).

The data were encoded and analyzed with the statistical software SPSS 28.0 for Windows. A univariate frequency distribution analysis was performed individually and as a whole. Mean values (MV) and standard deviations (SD) were used for the descriptive analysis of the quantitative variables regarding the perceptions of the participating teachers about the 4th Industrial Revolution and knowledge. The regularity test (One-Sample Kolmogorov-Smirnov Test) of the variables showed that there was no normal distribution ($p = 0.000 > 0.05$). Spearman non-parametric double-sided correlation control was used to test the correlation of the variables.

The findings of the present study show that the participating teachers are moderately (sufficiently) aware of the 4IR and the new roles emerging in the workplace, the new skills (social, cognitive) required to adapt and manage upcoming changes. They use moderately in their personal life devices (Desktop computer, Laptop computer, Tablet, Smartphone, E-book, Mp3 Player, Interactive whiteboard, Projector). The level of use of devices in the workplace is similarly moderate. They are also satisfactorily (a lot) familiar with the use of software and programs (Skype, Google drive, Dropbox, Facebook, Twitter, Youtube video, Word, Excel, Power point, Blog, Wiki). However, they are a little unfamiliar with emerging technologies (Artificial Intelligence, Robotics, Nanotechnology, Quantum Computing

Biotechnology, Internet of Things, Wearable Devices, Augmented Reality, Virtual Reality, Tactile Technology, Simulation, Distributed Accounting Systems and large data processing, Mobile computing, Cloud computing, Autonomous vehicles and robots, Prosthetics) related to the 4IR. There are also statistically significant positive correlations among the dimensions (Knowledge of the 4IR, Use of devices in personal life, Use of devices in the workplace, Familiarity with software and programs, Familiarity with emerging technologies) regarding the 4IR and knowledge. The findings of the present study agree with those of the European Commission (2019), Panagiotopoulos and Karanikola (2020) and Abukhattala (2016).

Key Words: 4th Industrial Revolution, secondary education teachers, readiness, knowledge, quantitative methodology

REFERENCES

Aly, M. (2019). Competency Profile of the Digital and Online Teacher in Future Education. *International Review of Research in Open and Distributed Learning*, 20 (2): 303-318.

European Commission. (2019). *Final Report. 2nd Survey of Schools: ICT in Education Objective 1: Benchmark progress in ICT in schools*. Luxembourg: Publications Office of the European Union.

Panagiotopoulos, G. & Karanikola Z. (2020). Education 4.0 and teachers: Challenges, risks and benefits. *European Scientific Journal,* 16(34): 108-122.

THE IMPACT OF THE TECHNOLOGY OF THE 4th INDUSTRIAL REVOLUTION ON STUDENTS, EDUCATION AND SOCIETY

Konstantinos Zogopoulos
University of Patras
Pyrgos, Greece
e-mail: kzogopoulos@upatras.gr

Zoe Karanikola
University of Patras
Pyrgos, Greece
e-mail: zoekar@upatras.gr

Georgios Panagiotopoulos
University of Patras
Pyrgos, Greece
e-mail: pangiorgos@upatras.gr

and

Eleni Makri
University of Patras
Pyrgos, Greece
e-mail: elmakthe@gmail.com

ABSTRACT

Since the beginning of the fourth industrial revolution (4IR), technology has been restructuring and transforming teaching and learning methods through digital technology. However, the availability and prerequisites required for the transition of the learning process to the 4th industrial revolution have not been sufficiently studied (Oke & Fernandes, 2020). The purpose of this research is to investigate the perceptions of secondary school teachers of the Region of Western Greece regarding the 4th Industrial Revolution (4IR) and the impact of technology on students, education and society. The research questions, based on the aforementioned purpose of the research, are: a) What are the perceptions of the secondary school teachers of the Region of Western Greece regarding the impact of Technology on school children in the light of the 4th Industrial Revolution? b) What are the perceptions of the secondary school teachers of the Region of Western Greece regarding the impact of Technology on Education and Society in the light of the 4th Industrial Revolution? c) Is there a correlation between the demographic characteristics (gender, years of service, level of study, level of ICT knowledge) and the perceptions of the secondary school teachers of the Region of Western Greece regarding the impact of Technology on students, Education and Society? The quantitative research approach was followed, and a self-report questionnaire was used.

The first part of the questionnaire included questions about the demographics of the respondents, and the second part was based on the research questionnaire, "Panagiotopoulos (2021)", which includes two dimensions regarding Technology and attitudes in the light of the 4th Industrial Revolution: a) Technology and students (8 questions) and b) Technology, Education and Society (23 questions). In total, both dimensions consist of 31 questions. Participants were asked to respond to a Likert five-point scale (1 = Not at all, 2 = A little, 3 = Enough, 4 = A lot, 5 = Too much). The data collection took place in the period May-June 2021 with an electronic questionnaire (google form) which was sent to the Directorates of 44 Gymnasiums, 17 Vocational High Schools and 73 General High Schools of the Region of Western Greece. The random sampling procedure was followed by the researchers in order to ensure the representativeness of the sample. 422 teachers responded out of the 2,328 teachers who served during the school year 2020-2021, with a response rate of 18.12%. The reliability test of the questionnaire for the two dimensions, Technology and students - Technology education and society, were 0.881 and 0.805, respectively. Overall for both dimensions the reliability test showed a Cronbach´s alpha index = 0.856, which is considered to be satisfactory (Cronbach´s alpha> 0.70).The data were encoded and analyzed with the statistical software SPSS 28.0 for Windows. Spearman non-parametric double-sided correlation

control was used to test the correlation of the variables. Mann-Whitney U and Kruskal-Wallis non-parametric control was used to test the correlation of variables with demographic characteristics.
According to the results of the present research, the participants, regarding the impact of Technology, believe (a lot) that students will have greater learning opportunities, according to their capabilities and with individualized programs. Learning will increasingly be based on projects and the teacher will gain an increasingly guiding role. Regarding the impact of Technology on education and society, its use will greatly benefit students, parents and principals. In addition, it will greatly assist the learning process and improve communication with students and educators. They also strongly agree that the use of technology can exacerbate inequalities, raise ethical issues, widen the social divide, and threaten individuality and the private sphere of life. In addition, many agree that the use of technology in education and society is associated with job losses, feelings of insecurity and danger, cyberbullying and hate speech, as well as the homogenization of people's views and polarization of societies. The correlation of demographic characteristics with participants' perceptions of the impact of Technology on students, education and society showed that women agree more than men that Technology has a positive effect on students. Those with a higher level of education agree more about the positive impact of Technology on students. Finally, those with a higher level of knowledge of technology agree to a greater extent on the effects of Technology on education and society.

Key Words: 4th Industrial Revolution, technology, students, education

REFERENCES

Alakrash, H. M., & Razak, N. A. (2021). Education and the Fourth Industrial Revolution: Lessons from COVID-19. Computers, Materials & Continua, 70(1), 951–962.
Alakrash, H. M., & Razak, N. A. (2020). Towards the education 4. 0, readiness level of EFL students in utilizing technology-enhanced classroom. International Journal of Innovation, Creativity and Change, 13(10), 161–182.
Alakrash, H. M., Razak, N. A., & Krish, P. (2021). Social network sites in learning English; An investigation on attitudes, digital literacy and usage. Linguistica Antverpiensia, 1, 26–43.
Al Lily, A. E., Elayyan, S. R., Alhazmi, A. A., Alzahrani, S. (2018). Understanding the public temper through an evaluation of rumours: an ethnographical method using educational technology. Palgrave Communications, 4, 141.
Ally, M. (2019). Competency profile of the digital and online teacher in future education. International Review of Research in Open and Distributed Learning, 20(2), 302–318.
Aprianti, V., & Sahid, S. (2020). The relationship between teachers' competency and fourth industrial revolution (4IR) Learning among economics teachers. Universal Journal of Educational Research, 8, 63-70.
Babbie, E. (2011). Εισαγωγή στην Κοινωνική Έρευνα. Αθήνα: Πολιτεία.
Battashi, N. A., Al Omari, O., Sawalha, M., Al Maktoumi, S., Alsuleitini, A., Al Qadire, M. (2021). The Relationship Between Smartphone Use, Insomnia, Stress, and Anxiety Among University Students: A Cross-Sectional Study. Clinical Nursing Research, 30, 734–740.
Hamat, A, & Hassan,H. A. (2019). Use of social media for informal language learning by Malaysian University students. 3L: Language, Linguistics, Literature, 25(4), 68–83.
Heriyando, H., Satori, D., Komariah, A., & Suryana A. (2019). Character education in the era of industrial revolution 4.0 and its relevance to the high school learning transformation process. Utopía y Praxis Latinoamericana, 24(1), 327-340.
Jamaludin, R., Mckay, E., & Ledger, S. (2020). Are we ready for Educ4within ASEAN higher education institutions? Thriving for knowledge, industry and humanity in a dynamic higher education ecosystem? Journal of Applied Research in Higher Education, 12 (5), 1161-1173.
Kane, D. A. (2016). The role of chatbots in teaching and learning. In S. Rice & M.N. Gregor (Eds.) E-learning and the academic library: Essays on innovative initiatives (131–147). McFarland, Jefferson, North Carolina.
Καπίρης, Π. (2021). Εξ αποστάσεως επιμόρφωση εκπαιδευτικών πρωτοβάθμιας εκπαίδευσης. Απόψεις επιμορφούμενων και επιμορφωτών του 2ου ΠΕ.Κ.Ε.Σ. Νοτίου Αιγαίου. Αδημοσίευτη διπλωματική εργασία. Ελληνικό Ανοικτό Πανεπιστήμιο, Πάτρα.
Kuswandi, D. (2019). Effect of a flipped mastery classroom strategy assisted by social media on learning outcomes of electrical engineering education students. World Transactions on Engineering and Technology Education, 17(2), 192-196.
Kuswandi, D. (2009). Bangunan keilmuan pendidikan tamansiswa. Journal Ilmu Pendidikan., 36(2), 154-161.

Lapada, A. A., Miguel, F. F., Robledo, D. A. R., & Alam, Z. F. (2020). Teachers' Covid-19 Awareness, Distance Learning Education Experiences and Perceptions towards Institutional Readiness and Challenges. International Journal of Learning, Teaching and Educational Research, 19(6), 127–144.
Le, Q. T. (2020). Orientation for an Education 4.0: A New Vision for Future Education in Vietnam. International Journal of Innovation, Creativity and Change, 11(3), 513-526.
Liljaniemi, A., Paavilainen, H. (2020). Using Digital Twin Technology in Engineering Education–Course Concept to Explore Benefits and Barriers. Open Engineering, 10, 377–385.
Oke, A. & Fernandes, F. A. P. (2020). Innovations in Teaching and Learning: Exploring the Perceptions of the Education Sector on the 4th Industrial Revolution (4IR). *Journal of Open Innovation: Technology, Market, and Complexity*. 6(2), 1-22.
World Economic Forum (2018). The Future of Jobs Reports. Geneva: World Economic Forum.
Schafer, M. (2018). The fourth industrial revolution: How the EU Can Lead It. European View, 17, 5-12.
Salmon, G. (2019). May the fourth be with you: Creating education 4.0. Journal of Learning for Development, 6(1), 95–115.
Schwap, K. (2016). The Fourth Industrial Revolution. Geneva: World Economic Forum.
Sung, T. K. (2018). Industry 4.0: a Korea perspective. Technological forecasting and social change, 132, 40-45.
Τάχα, Ο. (2020). 4η Βιομηχανική Επανάσταση. ΤΠΕ και Εκπαίδευση-Εξ Αποστάσεως Εκπαίδευση. Αδημοσίευτη διπλωματική εργασία. Τμήμα Διοικητικής Επιστήμης & Τεχνολογίας Πανεπιστημίου Πατρών, Πάτρα.
Toka, A. & Gioti, L. (2021). Teaching in Higher Education: Theories, Realities and Future Controversies. Journal of Education and Training Studies, 9(6), 1-15.
Tymon, A. (2013). The student perspective on employability. Studies in Higher Education, 38, 841–856.
Venkatesh, V., & Bala, H. (2008). Technology acceptance model 3 and a research agenda on interventions. Decision Sciences, 39, 273-315.
Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four Longitudinal Field Studies. Management Science, 46, 186-204.

EUROPEAN ERASMUS+ PROGRAMS AND PROFESSIONAL DEVELOPMENT OF SECONDARY EDUCATION TEACHERS

Ioannis A. Kakaras
MSc International Hellenic University
Kavala, Greece
e-mail: ioanniskakaras@gmail.com

and

Ourania Gkouna
PhD, University College London
International Hellenic University
Thessaloniki, Greece
e-mail: ouraniagouna@gmail.com

ABSTRACT

Organizational challenges regarding staff training can be considered as regular occurrence in the management of educational organizations. The great interest in, as well as debate on, teachers' professional development during the 21st century is closely linked to the "new" approach to education and learning, which inevitably affects the present and the future of the entire educational system. The continuous changes on social and educational level render teachers' professional development necessary (European Commission, 2012). The opening of schools to society requires organizational changes in terms of objectives as well as the attitude of teachers, who ought to increase their competence and teaching efficiency (Eraut, 1995; Renyi, 1996; Duncombe & Armour, 2004). Continuous acquisition of knowledge in different areas of education and the fast pace of social development mandate the upgrade of professional development methods through training, as well as an increase in the efficiency and the quality of the learning process (Andris, 2016). The launch of European education programmes in the context of a European education policy aims at creating a new reality in reference to the education of the European Union Members. The purpose of this study is to investigate the efficiency of European education programmes, in particular Erasmus/Erasmus+, in the professional development of teachers Desimone (2009) in Kavala Prefecture, by taking into account the impact of Covid 19. The survey was carried out on a sample of 240 teachers serving in secondary schools of Kavala prefecture that have been involved in an Erasmus/Erasmus+ programme. According to the research findings, their participation positively affected improving their skills with regard to Information and Communication Technologies and foreign languages, while at the same time promoting cooperation and strengthening relations within the school environment. Finally, individual advancement was found to be higher among younger respondents (<30 years) and those with less than 5 years of professional experience.

Key Words: Erasmus+, professional development, Covid 19, Secondary Education

REFERENCES

Andris, E. (2016). Επιμόρφωση και επαγγελματική ανάπτυξη του εκπαιδευτικού. Πανελλήνιο Συνέδριο Επιστημών Εκπαίδευσης, 2015(1), σσ. 156-160.

Desimone, L. (2009). Improving impact studies of teachers' professional development: Toward better conceptualizations and measures. *Educational Researcher, 38*(3), pp. 181-199.

Duncombe, R., &Armour, K. (2004). Collaborative Professional Learning: From Theory to Practice. *Journal of In-Service Education*, 30 (1), pp. 141-166.

Eraut, M. (1995). *In Service Teacher Education*. In L. Anderson (Ed.), International Encyclopedia of Teaching and Teacher. Oxford: Pergamon Press.

European Commission. (2012). Study of the impact of Comenius School partnerships on participating schools: Institutional Change and the European Dimension. Executive Summary. Luxembourg: CIEP.

Renyi, J. (1996). Teachers Take Charge of Their Learning. Transforming Professional Development for Student Success [and] Executive Summary.

INVESTIGATING THE RELATIONSHIP BETWEEN PROFESSIONAL LEARNING COMMUNITIES AND PROFESSIONAL DEVELOPMENT. PRIMARY SCHOOL TEACHERS'VIEWS AND PERCEPTIONS

Kerasia Dikoglou
M.Ed Hellenic Open University
Serres, Greece
e-mail: dikoglou@gmail.com

and

Pavlos Bosnakidis
M.Sc. International Hellenic University
Serres, Greece
e-mail: paulbosn@gmail.com

ABSTRACT

In recent years, various theories related to the field of organizational learning and culture stimulate more and more often in educational research interest. A great number of studies indicate that creating a supportive and collaborating learning environment is nowadays necessary to improve school outcomes and teachers' effectiveness (Little, 2006). In this context effective Professional Learning Communities (PLCs) is a key factor for enhancing teachers' professional competence through a continuous, collaborative and reflective learning process (DuFour 2004 · Williams, Brien & LeBlanc, 2012). Professional Learning Communities (PLCs) is also considered as an auspicious practice that can renew the educational process, solve chronic problems and enhance the effectiveness of the school team (DuFour, DuFour, Eaker, & Many, 2013).A substantial body of research on this field also argues that this strategy is closely linked to the concept of their professional development (Darling-Hammond, 2012). However, Professional Learning Communities (PLCs) require collective commitment, activation and ongoing learning orientation (DuFour, 2004).

Although in many countries Professional Learning Communities (PLCs) is a widespread educational model, in Greek context there is no significant number of surveys, which reflect the prevailing situation in primary schools. The purpose of this study was to delve into Primary Education teachers viewpoints about the presence of Professional Learning Communities (PLCs) and its potential connection with teachers Professional Development (PD). More specifically, the research questions of the study were:

a) What is the level of Primary Education schools development as "Professional Learning Communities" in the Municipality of Serres?

b) What are the perceptions of the Primary Education teachers of the Municipality of Serres regarding their professional development experiences?

c) Is the demographic and professional profile of Primary Education teachers of the Municipality of Serres related to their perceptions of the "Professional Learning Communities" and their professional development?

d) Is there a significant correlation between "Professional Learning Communities" and primary education teachers' "Professional Development"?

A quantitative research approach was conducted from April to May 2021, based on an anonymous *ad hoc* structured questionnaire (Cronbach's alpha= .901) in Google Forms online platform. The sample consisted of a total of 171 teachers of various specializations working in 42 public primary schools in the Municipality of Serres and was selected using the random sampling method. Teachers' perceptions were assessed using three questionnaires of 78 items in a 5-point Likert scale: 1) Questionnaire of individual-demographic characteristics, which includes closed-ended questions to determine gender, age, years of service, their employment relationship and level of education (8 items), 2) the Professional Learning Communities Assessment-Revised (PLCA-R) questionnaire, to measure the dimensions of the Professional Learning Communities (35 items) (Olivier, Antoine, Cormier, Lewis, Minckler & Stadaalis, 2009) and 3) the Standards Assessment Instrument (SAI) (35 items), to measure the professional development experiences of the sample (Giwa, 2012). The sample was asked to answer on a five-point Likert scale. A pilot research was carried out before the main study to establish the validity of the research instruments, in which participated 27 teachers (DeVellis, 2017), whose responses were not taken

into account when processing the data. Data were analyzed using IBM Statistical Package for the Social Sciences (SPSSv24).
According to the participants' perceptions results revealed that Professional Learning Communities (PLCs) are implemented in the second-developing level in primary schools (MV=3.07), as they have developed two of the dimensions of Professional Learning Communities (PLCs) to a significant degree. However, they are not yet mature PLCs. In particular, it was found that Supportive and Shared leadership (MV=3.58) and Shared Values and Vision (MV= 3.37) are the dimensions with the highest average, while Shared Personal Practice is the one with the lowest (MV= 2,91). Additionally, research findings confirmed that teachers' professional development is supported through many practices, while a positive correlation was observed between the three dimensions of Professional Development (PD) and the five dimensions of the Professional Learning Community (PLC). Regarding the demographics of the sample, statistically significant differences were found for the gender, level of education and years of service. Finally, research results confirmed the significant role of the school leader in Professional Learning Communities (PLCs) development. Taking into account the findings and limitations of the research, further research should be conducted to enrich the relevant research literature. Proposals for further research are suggested.

Key Words: Professional Learning Community, primary school education, teachers' Professional Development

REFERENCES

Aylsworth, A.J. (2012). *Professional learning communities: An analysis of teacher participation in a PLC and the relationship with student academic achievement* (Doctoral Dissertation). University of Iowa State).
Brodie, K. (2013). The power of professional learning communities. Education as Change, 17(1), 5-18. https://doi.org/10.1080/16823206.2013.773929
Collinson, V. & Cook, T. F. (2013). Organizational learning: Leading innovations. *International Journal of Educational Leadership and Management, 1*(1), 69-98. http://dx.doi.org/10.4471/ijelm.2013.03
Darling-Hammond, L. (2012). Soaring Systems. *Education Review 24* (1), 24-33.
DeVellis, R. F. (2017). Scale development: Theory and applications (Vol. 26). Sage publication.
Dogan, S., Pringle, R. & Mesa, J. (2016). The impacts of professional learning communities on science teachers' knowledge, practice and student learning: a review. *Professional Development in Education, 42*(4),569-588.
DuFour, R. (2004). What is a professional learning community? *Educational Leadership*, *61*(8), 6-11. http://www.siprep.org/uploaded/ProfessionalDevelopment/Readings/PLC.pdf
Dufour, R., Dufour, R., Eaker, R. & Many, T. (2013). Learning by Doing. A Handbook for Professional Learning Communities at Work (2nd ed.). Bloomington:. Solution Tree Press. Retrieved from: https://books.google.gr/books?id=9mQXBwAAQBAJ&printsec=frontcover&dq=professional+learnin+communities&hl=en&sa=X&ei=P8o3VbeoI6KjyAPkwoHACg&ved=0CEcQ6AEwBg#v=onepage q=professional%20learning%20communities&f=true .
Giwa, S. A. (2012). *Perceptions of Middle School Teachers on the Quality of Professional Development (*Doctoral dissertation). Chicago: Loyola University.
Guskey, T. R. (2014). Planning Professional Learning. *Educational, School, and Counseling Psychology Faculty Publications, 15*,10-16.
Harris, A. & Jones, M. (2010). Professional learning communities and system improvement. Improving Schools, 13(2), 172-181.
Hunzicker, J. (2011). Effective professional development for teachers: A checklist. *Professional Development in Education, 37*(2), 177-179.
Kennedy, A. (2014). Models of Continuing Professional Development: a framework for analysis. *Professional Development in Education, 40*(3), 336-351.
Leclerc, M., Moreau, A. C., Dumouchel, C. & Sallafranque-St-Louis, F. (2012). Factors that promote progression in schools functioning as professional learning community*. International Journal of Education Policy and Leadership, 7*(7), 1-14
Little, J. W. (2006). *Professional community and professional development in the learningcentered school* . Washington, DC: National Education Association.
McLaughlin, M. W. & Talbert, J. E. (2010). Professional learning communities: Building blocks for school culture and student learning. *Voices in Urban Education, 27*(1), 35-45.
Olivier, D. F., Antoine, S., Cormier, R., Lewis, V., Minckler, C. & Stadalis, M. (2009*). Assessing*

schools as professional learning communities' symposium (Paper presented at the annual meeting of the Louisiana Education Research Association). Lafayette, United States of America.
Williams, R.B., K. Brien, & J. LeBlanc (2012). Transforming Schools into Learning Organizations: Supports and Barriers to Educational Reform. *Canadian Journal of Educational Administration and Policy, 134*, 1-32.

HUMAN RESOURCES DURING PANDEMIC

STRESS GENERATING FACTORS FOR ELEMENTARY UNITS

Traiani Rentaki
International Hellenic University
e-mail: tsalmap@gmail.com

and

Spyros Avdimiotis
Associate Professor,
International Hellenic University
e-mail: avdimiotis@outlook.com

ABSTRACT

The present piece of research studies the contribution of self-knowledge and coherence in the management of stress-generating factors that teachers have to deal with. In order to examine the above topic, a some qualitative research was set up in which ten principals and deputy principals of primary schools of the Regional Unit of Pella participated. Results that emerge from the qualitative research indicate that stressors are correlated with principals' self-knowledge and consistency. In addition to this, the structure of the educational system is highlighted as the main factor that causes stress to the principals. Although there have been a quite lot studies focusing on stress management and burnout, few of them shed their spotlight on stress generating factor and more specifically of stress factorin pre-school and elementary units. The results gained from the qualitative research indicate that stress generating factors are closely aligned with the organizational structure of the unit and the multiple tasks of the educators. Reformation of structure and the need for secretarial supports are indicated as tools to confront the constraints of stress and burnout.

It is true that people nowadays experience intense stress more and more frequently. The main source of stress is most of the times the working environment as well as the conditions dominating in it, which are either unpleasant or they cause tension and psychological pressure. One of the areas where stress is often manifested is the workplace because stress sources are inevitable and people tend to react to that. Some jobs are by definition more stress-generating than others. Such jobs are those that are associated with contacting and serving people as well as those that involve decision-making, like teachers' job (Gustems et al, 2019).

Intense and extended stress can deteriorate each person's adjustability, which can negatively affect their mood, lessen enjoyment and even damage the person physically. Moreover, extended exposure to situations of intense tension may lead to the emergence of professional exhaustion syndrome that causes various unpleasant consequences both for the employee as well as for the people in their environment (Kassymova, et al 2019, Maslach & Jackson, 1981).

As far as the field of teachers in Greece and especially those holding a managerial position is concerned, it seems that there is an additional factor that contributes to the development of work stress and exhaustion. In particular, it is the very educational system itself that affects the emergence of the phenomenon as extreme centralization is to be found in the decision-making processes and this is due to the fact that even the most unimportant details are often entailed in bureaucracy when it comes to meeting a ministerial decision. Consequently, the schools of the country are run under the responsibility of the state, which plays a major role in education (Ravalier and Walsh, 2018, Diplari, 2011, Baka, 2011, Bilali, 2008, Brinia, 2009).

Regarding school principals, studies on work stress that have been carried out indicate that these people have to deal with stress-generating factors on a daily basis, and this results in the increase of work stress. Particularly, the increase of responsibilities and duties assigned to them by the central authorities could possibly lead to a voluntary extension of their working hours, which in turn results in an increase of their work stress.

In view of these, the present piece of research studies the contribution of self-awareness and coherence in the management of stress-generating factors that teachers have to deal with in every single school. Other aims of the study were to indicate the most significant stress-generating factors, to define their

relationship with the management and the factor of time, and also to point out the techniques used by school principals so that they can manage the stress-generating situations arising in their working environment in the most successful manner.
In particular, a qualitative study was carried out so as to investigate the opinions and perceptions of people who possess managerial positions (principals and assistant principals) in elementary schools of the District of Pella. The aim was to study the causes of work stress among principals and to pinpoint the main stress-generating factors of their work. Moreover, an attempt was made to study their correlation with management and time as a factor and draw conclusions about the way in which principals and assistant principals manage their work stress in their daily routine so that they can efficiently cope with all the stress-generating factors they encounter.
Qualitative research was conducted for the investigation of this phenomenon during the time period of May - June 2020. 10 principals and assistant principals of elementary schools of the District of Pella participated in the study. The method of semi-structured interview was employed for the collection of the data.
Results indicated that school principals acknowledge, several sources of stress-generating situations in their field, but and these time such situations do not provoke working stress to them. They do cause some kind of unpleasant feelings, yet the satisfaction emerging from their role compensates for any negative consequences these situations bring about. Lack of time in combination with increased bureaucracy makes it hard for the participants of the study to develop and maintain close healthy relationships in the workplace, but it does not prevent them from being effective in their managerial tasks because of right programming, assignment of responsibilities and creation of a positive atmosphere in the school. The vast majority declared that the manner in which they react to a stress-generating situation is associated with their personality and their experience, while their self-awareness, a quality mentioned by most of them, helps them acknowledge and rank the situations causing stress to them so that they are able to focus on the most important stress-generating situation and deal with it.
A conclusion drawn based on the results of the study is that bad organisation and the structure of the system make work stress an inevitable phenomenon in all principals' life. However, they are not able to perceive it because they manifest it physically and get used to living with that. As a result, they find it difficult to perceive the tension and the extension of their work stress as well as its detrimental effects on themselves and their school environment. As far as the individual and in this case a principal is concerned, the management of a stress-generating situation is linked to their personality and to the way in which each person chooses to manage it hence, it would not be wise to propose a stress management model. Taking every time the stress-generating situation, the time of its appearance and the alternative solutions into consideration, is what is going to indicate the most appropriate model of management for the particular situation that couses stress.

Key Words: Stress Management, Stress Generating Factors, Educational Units

REFERENCES

Διπλάρη, Χ. (2011). Εκπαιδευτικές μεταρρυθμίσεις στην οργάνωση, τη διοίκηση και την εποπτεία της πρωτοβάθμιας και δευτεροβάθμιας εκπαίδευσης στο παράδειγμα της Ελλάδας, της Ισπανίας και της Γαλλίας (δεκαετία 1980 έως 2010): μια ιστορικό-συγκριτική προσέγγιση. Αδημοσίευτη διδακτορική διατριβή, Πανεπιστήμιο Πατρών, Παιδαγωγικό Τμήμα Δημοτικής Εκπαίδευσης, Πάτρα.
Gustems-Carnicer, J., Calderón, C., & Calderón-Garrido, D. (2019). Stress, coping strategies and academic achievement in teacher education students. European Journal of Teacher Education, 42(3), 375-390.Maslach, C., Jackson, S.E. (1981). The measurement of experienced burnout. *Journal of Occupational Behavior, 2*, 99-113.
Kassymova, G. K., Tokar, O. V., Tashcheva, A. I., Slepukhina, G. V., Gridneva, S. V., Bazhenova, N. G., ... & Arpentieva, M. R. (2019). Impact of stress on creative human resources and psychological counseling in crises. International journal of education and information technologies, 13(1), 26-32.
Ravalier, J. M., & Walsh, J. (2018). Working conditions and stress in the English education system. Occupational Medicine, 68(2), 129-134.
Μπάκα, Ε. (2011). Αρμοδιότητες και λήψη αποφάσεων των διευθυντών της Διεύθυνσης εκπαίδευσης και των προϊσταμένων των γραφείων της Διεύθυνσης εκπαίδευσης. Αδημοσίευτη μεταπτυχιακή εργασία, Πανεπιστήμιο Θεσσαλίας, Παιδαγωγικό Τμήμα Δημοτικής Εκπαίδευσης, Βόλος.
Μπιλάλη, Α. (2008). «Συγκριτική Προσέγγιση των Εκπαιδευτικών Συστημάτων Ελλάδας – Ουγγαρίας – Σουηδίας, στο παράδειγμα της Εκπαιδευτικής Αξιολόγησης, στην Πρωτοβάθμια Εκπαίδευση». Μεταπτυχιακή εργασία. Πανεπιστήμιο Πατρών. Πάτρα
Μπρίνια, Β. (2009). Βασικά στοιχεία σχεδιασμού της οργανωτικής δομής του ελληνικού εκπαιδευτικού συστήματος. SPOUDAI - Journal of Economics and Business, 59(1-2), 314323.

NEW TRENDS AND ORGANIZATIONAL CHALLENGES OF HUMAN RESOURCE IN THE POST-COVID-19 ERA: A LITERATURE REVIEW

Petridis Dimitrios
University of of Western Macedonia
e-mail: dipetrid@gmail.com

ABSTRACT

Over the two years the pandemic has redefined key work trends that human resource managers are being called upon to rethink their strategies for planning, managing and managing the performance of their human resources. In order to understand the future challenges of employment, it considered critical to examine the job changes that were caused to companies worldwide by the Covid-19 pandemic, as they have drastically and long-term the decisions that were taken from companies for future strategies of in many different ways. Some of these trends were pre-existing, some are completely new, while others had begun to emerge, but grew with the pandemic. This paper will analyse these trends and analyse the elements on which human resources managers should focus when making organizational decisions. These trends are considered quite important for the viability and competitiveness of the company as they affect its operation, planning and strategic goals. An important trend is desperation of roles and critical skills and the emphasis on resilience. In order to build the human resources, they need in the post-Covid-19 era, HR management needs to focus less on the job roles and more on the skills needed to achieve the workflows that will benefit the business. Moreover, they should encourage employees to develop critical skills that give them more career options instead of preparing them for a specific role. The key word that emerged from the pandemic is the flexibility of the business and the work system. Roles, structures and processes need to be built with flexibility in mind and employees, of all levels or backgrounds, receiving interdepartmental training. Furthermore, the uncertain economic climate created by the pandemic has led to the widespread adoption of new employment models for a large number of workers. Businesses will maintain and enhance the use of temporary, flexible forms of employment (hired staff, outside partners, etc.) and in several cases seek to replace full-time employees with freelancers, in order to reduce costs (Belzunegui-Eraso & Erro-Garcés, 2020; Chanana & Sangeeta, 2020). Flexible work is a very strong trend and HR leaders will need to consider how they will implement performance management systems on these employees, as well as determine whether they will enjoy the same benefits as their full-time colleagues. In addition, during the pandemic, some practices that could be widely adopted were tested, such as paying 80% of salary for 80% of work or talent sharing (Guillaume, Herchin, Neveu & Noël, 2018). Cooperation between companies for the temporary "transfer" of workers who lost their job due to the pandemic (for example from the tourism or air transport industry) to companies that had an increased need for human resources during the same period (such as the health sector or logistics) was a successful practice that in the future could be a new innovative practice for employees to gain new skills and experience, while limiting the blow to the reputation of the company that had to make redundancies. Finally, changes in the size and activity of companies increase the complexity of their management and require new operating models, posing additional challenges to their leaders, but also to the HR departments, which must properly prepare the company's human resources in order to respond successfully in this new environment (Sembiring et al., 2020).

Key-Words: HR innovations, Organizational changes, Covid-19

REFERENCES

Belzunegui-Eraso, A., & Erro-Garcés, A. (2020). Teleworking in the Context of the Covid-19 Crisis. *Sustainability, 12,* doi:10.3390/su12093662.

Chanana, N., & Sangeeta (2020). Employee engagement practices during COVID-19 lockdown. *Journal of Public Affairs*, doi: 10.1002/pa.2508

Guillaume, O., Herchin, N., Neveu, C., & Noël, P. (2018). An Industrial View on Safety Culture and Safety Models. In: Gilbert, C., Journé, B., Laroche, H., & Bieder, C (Eds.), *Safety Cultures, Safety Models: Taking Stock And Moving Forward* (pp. 1-15). Berlin: Springer.

Sembiring M. J., Fatihudin, D., Mochklas, M., & Holisin, I. (2020). Banking Employee Performance During Pandemic Covid-19: Remuneration And Motivation. *Journal of Xi'an University of Architecture & Technology, XII*(VII), 64-71.

LEADERSHIP AND HUMAN RESOURCES AS INDICATORS OF QUALITY AND SELF-EFFICACY IN SPECIAL EDUCATION SCHOOL UNITS

Zoi D. Kaleli
International Hellenic University
Department of Business Administration, Marketing and Tourism
Thessaloniki, Greece
e-mail: z.kaleli1983@gmail.com

and

Pavlos V. Kilintzis
University of Western Macedonia
Department of Mechanical Engineering
Kozani, Greece
e-mail: pkilintzis@uowm.gr

ABSTRACT

Total Quality Management (TQM) composes a management framework which has as its ulterior goal the improvement through a continuous and dynamic process that spots the positive points, the weaknesses and the needs connected with the work of the school unit. In this process the majority of the school community is involved, and it is considered the foundation of the proper scheduling and planning of educational work, as well as the implementation of activities that contribute to the total improvement of the educational organization. Education communities and organizations are characterized by complexity, containing people with different priorities, needs and attitudes, which do not always converge (Saiti, 2012). In this framework, TQM may be the right basis for the improvement of educational practices and quality (Kalpana, 2014).

Quality is considered as an essential element for the improvement of a school unit. Nawelwa et al. (2015) claim that many of the principles referred to TQM have been applied to higher education and this context has started to be implemented in mainstream high schools, in spite the fact that its users are not familiar with the term "Total Quality Management".

However it seems that literature on the subject remains limited in special education school units. The majority of publications focuses on TQM implementation at mainstream school units while its application at special education level appears to be very limited.

This research therefore aims to examine TQM applications in special education school units exclusively. This study focuses on leadership and human resources which are fundamental principles for the achievement of quality processes as defined in TQM.

The literature review in combination with the current conditions for the provision of quality education led to the formulation of the following research questions, regarding the criteria of leadership and human resources:

•What is the correlation between the leader's personality and his contribution to the quality and self-efficacy in a special education school unit?

•To what extent are human resources both as individuals and as groups encouraged to be developed as active teachers and support the strategic plan of the educational organization?

The analysis conducted for this paper aims at investigating the degree of adoption of the TQM principles in Special Education School Units. This takes place through the evaluation of the two key TQM criteria which are Leadership, and Human Resources, as they are quoted in the European Excellence Model EFQM.

The Excellence Model developed by the European Foundation for Quality Management (EFQM) was applied within higher education. This original questionnaire which is a guide to self-assessment was adapted to Greek data by Professor Petridou Eugenia (Koltsakis and Petridou, 2008).

The questionnaire is based on the above original questionnaire of TQM in education. It was distributed to 30 teachers on a pilot basis, in order to ensure content and face validity. The final version of the questionnaire consists of 41 questions, 22 of them contain the TQM principles in terms of the variable "leadership" and 19 of them include the TQM principles in terms of the variable "human resources". The answers range from "not at all" (1) to "very much" (5), implementing a normal Likert scale.

Descriptive statistics accrued from the collected quantitative such as frequencies and percentages were used to describe the data and Chi-Square ($\chi 2$) Statistic was implemented for the investigation of the statistical significance and correlation between the examined variables.
The analyses were carried out through (SPSS) statistics software. The value of 0.05 was used as the level of statistical significance.
The sample consisted of 148 special education teachers, 74.7% of whom work in primary and high special education schools and 25.3% work in inclusion context of primary and high general education school units.
The main finding of this research is that if the director achieves awareness of the approaches of excellence and quality standards, he/she will correspondingly be able to instill in human resources the need for participatory administration as a fundamental principle of the school's self-efficacy. The teachers also argued that the role of the principal in motivating and inspiring the members of the school unit is a person-centered process. As far as the human resources are concerned it has been demonstrated that the special education teachers' self-action and initiative, are not connected with their educational experience. On the contrary, if the director's perceptions are aligned with teachers' beliefs, then they will be actively involved in the strategic planning of the school unit.
Finally ,the findings of the research revealed that if the teachers attend trainings in issues of administration and evaluation of educational units, they may adopt a more positive attitude towards TQM and self-evaluation of the school unit.
The research findings attribute the significance of the two quality criteria (leadership, resource management) as fundamental principles for the achievement of quality processes according to TQM. It is highly recommended as a next research step the extension of this study to the investigation of the other quality indicators such as (Strategy, Partnership and Resources, Products and Processes) and how they affect the Greek Special Education Units.

REFERENCES

Κολτσάκης, Ε. και Πετρίδου, Ε. (2008). Δυνατότητες και περιορισμοί στην αξιοποίηση του μοντέλου EFQM σε σχολικές μονάδες δευτεροβάθμιας εκπαίδευσης. Στο *3^O Πανελλήνιο Συνέδριο για την Τυποποίηση, τα Πρότυπα και την Ποιότητα.* Θεσσαλονίκη: ΕΝΕΠΠΡΟΤ. https://www.researchgate.net/publication/330811164_DYNATOTETES_KAI_PERIORISMOI_STEN_AXIOPOIESE_TOU_MONTELOU_EFQM_SE_SCHOLIKES_MONADES_DEUTEROBATHMIAS_EKPAIDEUSES [Ανακτήθηκε την 10η Μαΐου 2021]

Kalpana, G. (2014). Developing a Model of Total Quality Management for Primary School Education in India http://dx.doi.org/10.2139/ssrn.2409888 [Accessed the 9th of May 2021]

Nawelwa, J., Sichinsambwe, C. & Mwanza, B.G. (2015).An analysis of total quality management (TQM) practices in Zambian secondary schools. *The TQM Journal*, 27 (6): 716–731.

Saiti, A. (2012). Leadership and quality management. *Quality Assurance in Education*, 20 (2): 110–138.

EDUCATIONAL LEADERSHIP AND LARGE-SCALE CRISES MANAGEMENT DURING THE PANDEMIC

Evangelia Kouskouli
Principal of the Lefkopigi Junior High School ,Kozani
MEd Educational Science
MSc Educational Psychology
Kozani, Greece
e-mail:geliekou@gmail.com

and

Stamatia Kotroni
Med Educational Science
MSc Educational Psychology
PhD School Counselling
Thessaloniki, Greece
e-mail:stakot08@gmail.com

ABSTRACT

In the context of unexpected, adverse and stressful evolution that disrupt the defined and normal operating procedures of organizations, such as school units, immediate intervention is required to prevent potential harm to persons, which are directly or indirectly involved in the operation of the organization, in its property or in its environment (Katsaros,2008) aiming prudent management in order to control the crisis after its onset, to minimize its potential negative effects and to prevent the emergence of secondary crises in the organization (Yukl & Mahsud, 2010). The unpredictable nature of seizures has a catalytic effect on the organization's climate or performance as well as the individual's performance who shape and are responsible for its proper functioning and may, in some cases, threaten its viability as well (Filolia, Papageorgiou &Stefanatos,2005). The leader of the school unit is called upon to manage complex events, which can affect the individuals or the organizational structure of the school organization and at the same time satisfy the needs of the individuals involved in the operation of the school community for guidance and direction.

The COVID-19 pandemic has created an unprecedented global crisis and an out of the ordinary educational crisis. Unusual data challenged the school leader's flexibility, ingenuity and adaptability to new situations and created an opportunity for changes in the usual school management strategies followed to ensure the smooth educational process and to affect as little as possible the efficiency and survival of the organization and the individuals (Smith & Riley, 2012).

This article first introduces the concept of crisis management in an educational organization, the role of the school leader and the shaping of the school climate in a period of crisis. Then, the new challenges that the leadership of the school units were called upon to face and its role in the pandemic crisis are redefined, as a different school environment was formed through distance education and new forms of learning and communication emerged. An attempt was made, through a small-scale survey, to capture the views of Secondary School principals regarding their experience during the pandemic crisis.

The aim of the research was to investigate the factors that influenced the effectiveness of leadership exercise in this period. In particular, the research was conducted using a structured questionnaire, in a sample of 30 principals in Northern Greece and the results of the research show that School Principals needed to reshape their management practices by adopting collaborative methods, becoming more flexible and adaptable, expanding their forms of communication with school community members and other Principals, using many different forms of decision-making while it became obvious that crisis management skills should systematically be cultivated by educational leaders while at the same time the need for serious training regarding the new data concerning large-scale crises was highlighted.

The results of the research provide important and useful data for conducting further research on the adequacy of school principals in the field of crisis management or the teachers', as co-responsible members of the school community. Of particular interest would be the reflection of the views of parents

and students - as equal members of the school community - on how the crisis was managed by all members of the community.

Key Words: Crisis, crisis management, role of school leader in crisis management, distance education, communication

REFERENCES

Κατσαρός, Ι. (2008). Οργάνωση και Διοίκηση της Εκπαίδευσης. Αθήνα: Υπουργείο Εθνικής Παιδείας και Θρησκευμάτων – Παιδαγωγικό Ινστιτούτο.
Φιλολία, Α., Παπαγεωργίου Η. & Στεφανάτος Σ. (2005). Ολοκληρωμένο σύστημα διαχείρισης κρίσεων και ανθρώπινος παράγοντας: Παραδείγματα εφαρμογής. Αθήνα: Νομική Βιβλιοθήκη.
Yukl, G., & Mahsud, R. (2010). Why flexible and adaptive leadership is essential. Consulting Psychology Journal: Practice and Research, 62 (2), 81-93. doi:https://doi.org/10.1037/a0019835
Smith, L. & Riley, D. (2012). School leadership in times of crisis. School Leadership & Management: Formerly School Organisation. 32 (1), 57-71. doi:10.1080/13632434.2011.614941

GENDER GAPS: WOMEN IN LEADERSHIP IN EDUCATION AND THE BARRIERS

Chrysoula Rakoviti
International Hellenic University
Thessaloniki, Greece
e-mail: chrysoularakoviti@gmail.com

ABSTRACT

Gender gap in school principalship is, according to studies, a global phenomenon. As women make up the majority of teachers in schools, they are under-represented for managerial positions (Gutierrez, 2016, Martínez, Molina-López, & de Cabo, 2021, Robinson et al., 2017, Zhao & Jones, 2017). This, according to studies, raises questions about the evolution and value of women compared to their male counterparts (Murakami & Törnsen, 2017). Although in the Western world, and more specifically in the United States, there is a general drive for equal employment opportunities in leadership positions in education for both men and women, unfortunately recent findings show that men have more opportunities to serve in these positions. More specifically, women are employed more in middle management positions, while men are employed in senior management positions (Robinson et al., 2017).

The phenomenon of the glass Ceiling in the field of education is intense especially in areas where the culture of patriarchy prevails. In these areas the problem of gender inequality is linked to the society and culture of these areas, which are unable to free themselves from the patriarchal perception that prevails for leadership positions (Ndebele, 2018). The phenomenon of the glass Ceiling is a phenomenon created not only by the behavior and attitude of men, but also by female colleagues (Murakami & Törnsen, 2017, Ndebele, 2018). According to research, although women leaders are beginning to have a lot in common with men leaders, the existence of a variety of conditions that create opportunities for senior leadership positions in women is also pointed out (Robinson et al., 2017). Society plays an important role in shaping a woman's identity (Gutierrez, 2016, Zhao & Jones, 2017). The traditions and culture of a society can create strong perceptions regarding the role of citizens. In a country like China, women in senior leadership positions in education deny the leader identity, bringing the identity of the teacher to a higher position (Zhao & Jones, 2017). Discrimination and prejudice are a challenge for modern humanity. The results of a study in two democratic countries are related to the perpetuation of prejudices. Women who possess leading positions, held mainly by men have realized that there are social roles and expectations that govern the role of women in culture. A situation that prevents them from evolving and acting in the field of educational leadership (Murakami & Törnsen, 2017). On the other hand, research in a European country shows that under-representation of women is related to demand rather than supply (Martínez, Molina-López & de Cabo, 2021). Studies from Israel on educational leadership have shown that there is no question of the value of women, as female principals have two skills in relation to male principals (a) instructional expertise, (b) attention to relationships (Massry-Herzallah & Arar, 2019, Shaked, Gross & Glanz, 2017).

In addition, it is noteworthy to refer to the findings of a study in New South Wales, Australia. According to the research, some progress has been made in the representation of women in leading positions in education. While, at the same time, male representatives tend to be reduced from both teaching positions in the classroom and from managerial positions, despite the favorable promotion rates for male staff (McGrath, 2019). All in all, in order to deal with the phenomenon of the glass Ceiling, a proposal is made for the creation of awareness-raising workshops to inform parents and teachers on issues of gender equality. In addition, the operation of guidance and networking workshops is considered necessary, in order to encourage and boost the self-confidence of women teachers in leadership positions (Ndebele, 2018). The objective of this review is to identify, as shown by resent journals, the barriers and challenges women educators face in school principalship.

Key Words: gender gap, women leaders, education

REFERENCES

Gutierrez, E. (2016). Female Principals in Education: Breaking the Glass Ceiling in Spain. *Paidéia (Ribeirão Preto)*, 26(65), 343-350. https://doi.org/10.1590/1982-43272665201611

Martínez, M. M., Molina-López, M. M., & de Cabo, R. M. (2021). Explaining the gender gap in school principalship: A tale of two sides. *Educational Management Administration & Leadership*, 49(6), 863–882. https://doi.org/10.1177/1741143220918258

Massry-Herzallah, A., & Arar, K. (2019). Gender, school leadership and teachers' motivations. International Journal Of Educational Management, 33(6), 1395-1410. https://doi.org/10.1108/ijem-02-2019-0054

McGrath, K. (2019). When female leaders outnumber men: the decline of male school principals in Australia. Journal Of Gender Studies, 29(5), 604-612. https://doi.org/10.1080/09589236.2019.1642739

Murakami, E., & Törnsen, M. (2017). Female secondary school principals: Equity in the development of professional identities. *Educational Management Administration & Leadership*, 45(5), 806-824. https://doi.org/10.1177/1741143217717273

Ndebele, C. (2018). Gender and School Leadership: Breaking the Glass Ceiling in South Africa. *Multidisciplinary Journal Of Gender Studies*, 7(2), 1582-1605. https://doi.org/10.17583/generos.2018.2438

Robinson, K., Shakeshaft, C., Grogan, M., & Newcomb, W. (2017). Necessary but Not Sufficient: The Continuing Inequality between Men and Women in Educational Leadership, Findings from the American Association of School Administrators Mid-Decade Survey. *Frontiers In Education*, 2(12), 1-12. https://doi.org/10.3389/feduc.2017.00012

Shaked, H., Gross, Z., & Glanz, J. (2017). Between Venus and Mars: Sources of gender differences in instructional leadership. *Educational Management Administration & Leadership*, 47(2), 291-309. https://doi.org/10.1177/1741143217728086

Zhao, J., & Jones, K. (2017). Women and Leadership in Higher Education in China: Discourse and the Discursive Construction of Identity. *Administrative Sciences*, 7(3), 21. https://doi.org/10.3390/admsci7030021

FROM THE PANDEMIC CRISIS TO EDUCATIONAL CRISIS: THE PSYCHOSOCIAL EFFECTS ON THE UNIVERSITY EDUCATION COMMUNITY

Efthimia Papagianni
Aegean University
Chios, Greece
e-mail: papagiannieuthu@gmail.com

ABSTRACT

The pandemic is reaching a climax and threatens the welfare of people worldwide. One out of five students has experienced one or more mental disorders worldwide. In the aftermath of the pandemic Covid-19, its psychological consequences can give a rise to that number, aggravate the mental health problems, or create new ones (Cao et al. 2020). The purpose of this essay is to describe certain situations that the student community experiences in various sectors, to present psycho-social situations that have emerged due to the circumstances, to track down and evaluate the pandemic Covid-19 implications on students' mental health.

The validation of the research was based on a critical bibliographical review. Moreover, the collection, evaluation, and synthesis of all available sources-data concern the psycho-social impact of students. The selection of scientific articles-publications was made with regard to the beginning of the pandemic (March 2020) until February 2021 in the English language. Published articles in PubMed, EMBASE, Google Scholar, Elsevier, WHO were also reviewed. Taking into consideration the risk factors, such as the application of provisional and inspectional measures, the inspection in the place of work/studies, loss of family members and friends, and the massive rush in hospitals, the research focuses on the impact of the pandemic, in politics, the society, the economy, the culture, the environment and, mainly, in education (Husky et al 2020).

The pandemic has influenced the students at various levels. The most regularly mentioned issues concern academic studies, such as difficulties with online learning, decreasing ability of focus on academic responsibilities, even difficulties of access to computers and the internet (Reynolds, & Hancock, 2010). In their everyday life, they also expressed concern about having access to personal care items and medication and displayed stress about the loss of occupation, fear, and concern about their own and dear ones' health (Rothstein, 2020). According to research 4 out of 5 students face financial difficulties due to the pandemic Covid-19, especially those who earn a living from sectors seriously influenced by the long term lock-downs, such as retail sales or services, while many of them expressed their concerns about their family's financial situation (Al-Samarrai et al. 2020).

All these situations lead to increased stress levels, isolation from the family and social environment, fear and concern, concentration difficulty, violence. It is a fact that the pandemic Covid-19 has negative consequences on academic education (Mishra et al. 2020). Cooperation, flexibility, ceaseless effort for a positive attitude and the successful outcome of the online education attempt as well as the everyday life of students are the main concern of the state.

Universities play a leading role in supporting students and handling the needs for health, education and safety. The findings stress the urgency of developing interventions, applying provisional strategies and dealing with the student's mental health problems. Crisis and changes management constitutes an extremely important skill for governments and universities.

Key Words: COVID-19, university, students, crisis, effects, psychosocial

REFERENCES

Al-Samarrai, S., M. Gangwar and P. Gala (2020),.The Impact of the COVID-19 Pandemic on Education Financing, World Bank, Washington, DC, https://openknowledge.worldbank.org/handle/10986/33739 [Accessed on 22 November 2021]

Cao, W., Fang, Z., Hou, G., Han, M., Xu, X., Dong, J., & Zheng, J. (2020). The psychological impact of the COVID-19 epidemic on college students in China. Psychiatry research.

Husky, M. M., Kovess-Masfety, V., & Swendsen, J. D. (2020). Stress and anxiety among university students in France during Covid-19 mandatory confinement. Comprehensive Psychiatry, 102, 152191.

Mishra, L., Gupta, T., & Shree, A. (2020). Online teaching-learning in higher education during lockdown period of COVID-19 pandemic. International Journal of Educational Research Open, 1, 100012.
Reynolds, J. & Hancock, D. R. (2010). Problem? based learning in a higher education environmental biotechnology course. *Innovations in Education and Teaching International* 47(2): 175-186.
Rothstein, J. (2020). *The Lost Generation?* Labor Market Outcomes for Post Great Recession Entrants.

EDUCATION POLICY AND PRACTICES

QUALITY ASSURANCE IN SCHOOL EDUCATION: THE SIX THINKING HATS OF EDWARD DE BONO APPROACH

Despoina Kyriakidou
M.A. in Special Educational Needs, John Moores University, Liverpool, UK
e-mail: despoinakyr@gmail.com

Vaia Papanikolaou
University of Thessaly, Dept. of Special Education
Volos, Greece
e-mail: vayapap@uth.gr

and

Panagiotis Tzionas
International Hellenic University
Dept. of Production Engineering and Management
Thessaloniki, Greece
e-mail: ptzionas@ihu.gr

ABSTRACT

Education constitutes a key pillar of the state, accountable for its development and prosperity. Undoubtedly, it is a factor that contributes to individual evolution and growth, entailing the empowerment of human resources in the context of an organized society. In this light, governments are trying to strengthen human capital so as to ensure greater citizen participation in the educational reality. In consequence, programs and educational reforms aiming to enhance the quality of education provided are designed and implemented (Brennan & Teichler, 2008; Rahman & Uddin, 2009). But which aspects of education demonstrate its quality?

Quality in education needs to be approached as a general framework that addresses all stakeholders, the entire school community and those involved in education, such as students, teachers, parents, the society and even businesses (the educational policy decision makers and practitioners). With the introduction of technology in education in the past few years, discussions about quality in education are also geared towards virtual learning environments (Barbera, 2004). The concept of quality can also be affected by the standpoint it is being viewed from, either in terms of educational outcomes or educational processes (UNESCO, 2008).

The quality of education has also been a distinct focus for international bodies and organizations, which, by setting some indicators, attempt to assist states to achieve both the provision of high quality lifelong learning and contribute to individuals' personal development that will, in turn, assist society's economic development and the strengthening of its cohesion (Woodward, 2009).

The report published by the OECD in 2020 on Greece provides an analysis of the educational framework, opportunities, challenges and policies pursued by the country while the research conducted by the Authority for Quality Assurance Authority in Primary and Secondary Education (2018) was also launched within the same context.

The aim of the present research is to delve deeper into the views and experiences of teachers concerning the quality of the Greek school education from an alternative and quite innovative point of view, adopting De Bono's Six Thinking Hats approach. The latter refers to a technique that examines a situation or an issue from a different perspective, so that a holistic approach can be achieved in the end, leading to the solution that best addresses the issue under consideration (Siouta et al., 2008; Yiang & Zheng, 2020). Each type of thinking is symbolized through a hat, the color of which indicates the approach taken each time. The use of all hats indicates the path that thinking follows until it reaches the solution of the issue. Put differently, the color of each hat indicates and defines the way of thinking (De Bono, 1985).

To best serve the aim of the present research and facilitate the data collection process, the qualitative research design was selected, realized through semi-structured interviews. Specifically, 10 interviews were conducted with the interviewees being primary and secondary school teachers in Greece. Thematic analysis was employed for the analysis of the interviews' transcripts. Coding was conducted and themes were generated in accordance with De Bono's Six Thinking Hats approach. The research findings indicate teachers' increased effort to improve their performance in line with the educational goals set and enhance the quality of education provided. Problems, principally related to the organization and structure of the educational system are identified while ambiguous feelings are expressed regarding the roles assumed. In addition, the aspects of education acting as tools that facilitate quality assurance are pinpointed; the latter are primarily associated with human resources and the implementation of innovative programs. Participant teachers' proposals are put forward to empower their active participation in the optimal organization and operation of the educational system while the significance of evaluation as a control mechanism for maximizing the quality of the education provided is underscored. The findings deriving from the present research are in line with the proposed Six Thinking Hats approach which essentially constitutes a decision-making strategy, the contribution of which to ameliorating the quality of the education offered is worth studying further.

Key Words: Education quality, Six Thinking Hats, De Bono

REFERENCES

Authority for Quality Assurance Authority in Primary and Secondary Education (2018). Re-evaluation of the First Generalized Application of Self-evaluation of the Educational Project. Recommendations for the Training Policies of the Teaching Staff, Athens

Sioutas, N., Zimianitis, K., Koutaleli, E. & Panagopoulou, E. (2008). Creative Thinking - Producing Innovative and Original Ideas. Athens: Ministry of Education and Religious Affairs/ General Secretariat for Adult Education, Institute of Adult Continuing Education.

Barbera, E. (2004). Quality in virtual education environments, British Journal of Educational Technology, 35(1), 13-20

Brennan, John and Teichler, Ulrich (2008). The future of higher education and of higher education research. Higher Education, 56(3) pp. 259–264.

De Bono, Ed. (1985). Six Thinking Hats: An Essential Approach to Business Management. Little, Brown, & Company.

OECD. (2020). Education Policy Outlook in Greece. OECD Education Policy Perspectives, No. 17. Paris: OECD

Rahman, A. U., & Uddin, S. (2009). Statistical analysis of different socio economic factors affecting education of NW. FP (Pakistan). Journal of Applied Quantitative Methods, 4(1), 88–94. UNESCO (2008) Overcoming inequality: Why governance matters, Education for All Global Monitoring Report 2009. Oxford/Paris: UNESCO/ Oxford University Press.

Woodward et al. (2009). Psychological Trauma: Theory, Research, Practice, and Policy, 2(2), 96.

Yiang, Y. & Zheng, C. (2020). New Methods to Support Effective Collaborative Reflection Among Kindergarten Teachers: An Action Research Approach. Early Childhood Education Journal.

QUALITY AS A TOOL FOR DEMOCRATIC CITIZENSHIP IN SCHOOLS

Andreas Grigoriadis
International Hellenic University
Master of Science in Management & Organization of Educational Units
Thessaloniki, Greece
e-mail: andreas92gr@gmail.com

Vaia Papanikolaou
University of Thessaly, Dept. of Special Education
Volos, Greece
e-mail: vayapap@uth.gr

and

Panagiotis Tzionas
International Hellenic University
Dept. of Production Engineering and Management
Thessaloniki, Greece
e-mail: ptzionas@ihu.gr

ABSTRACT

Quality assurance in schools encompasses the notion of accountability and a set of accreditation standards, self-evaluation, external evaluation, evaluation of teachers and school leaders and student assessments. It involves an ongoing review of educational procedures maintain and improve their quality, equity and efficiency (European Commission, 2021).

The aim of this paper is to exam how quality assurance approaches in schools, can have a positive effect in the democratic citizenship of students. It is argued that the role of educational quality focused on democratic organization and function, is strongly related to the enhancement of education as well as the cultivation of democratic principles and values in students (Barrett, 2020; Yavuz & Karip, 2021). Quality assurance mechanisms can serve the democratic framework of schools while a necessary policy development, concerning curricula design, co-operation of decision-makers with school leaders and teachers, provides equal opportunities, justice, meritocracy and the transparency of education systems (Darling-Hammond, 2010; Levinson, 2011; Mrnjaus, 2012).

We can’t ignore the fact the establishment of quality indicators in school education, rises questions and sometimes practical difficulties, when schools are trying to connect evaluation processes with democratic citizenship (Karaba, 2016; Missira, 2019). Concerns have been raised about the adoption of entrepreneurial and economic practices in education due to threats on its one of its principal characteristics, the pedagogy (Collins, Hess, & Lowery, 2019; Noula, 2018; Tampio, 2017). Further, there is a risk of intensifying competition both between schools as identities and among school teachers, in their effort to ensure that schools are meeting standards, set out in national quality assurance policies (Atkinson, 2017; Biesta, 2019; Smith & Benavot, 2019).

In this research it was examined the degree to which democratic orientation, values and quality characteristics appear in the sectors of teaching and learning, school climate and ethos, administration and management. The perceptions of 179 primary school teachers, working at state schools in Greece provided survey data, using anonymously filled-in questionnaires during the school year 2020-2021. The questionnaire was based on “Adaptation of the Tool for Quality Assurance of Education for Democratic Citizenship in Schools” (Poznyak, 2009). Data was analyzed with the statistical software package SPSS 26.0. Specifically, an analysis of the frequency distribution of the variables was performed individually and as a whole for each sector of the questionnaire. The correlation of the sectors was performed with the non-parametric Spearman correlation coefficient test. Multiple regression analysis (Manova) was used for the total variance of the four-sectors correlation and non-parametric control Kruskal–Wallis H and Mann-Whitney U for the correlations of the four-sectors with demographic and professional characteristics of teachers.

Data analysis revealed that primary school teachers make sufficient use of the features of democratic education in their teaching, while also acknowledging that a democratic type of teaching could contribute to the quality of the course and vice-versa. At the same time, a correlation was found between the school and classroom culture and climate with the school administration that can influence directly and indirectly quality and democratic citizenship. Nonetheless, findings suggest that school management demonstrates a particularly reduced involvement of both students and parents; with the administration, consequently, abstaining from characterized as cooperative and democratic. Following correlations between demographic and occupational characteristics, strongly recommend connections among gender, employment relationship years of service with teaching, school climate and administration. The findings of the survey confirmed that quality in school education, and the improvement of education system could be recognize as one of the most important factors for democratic citizenship.

Key Words: Democratic citizenship, quality assurance, schools, education policy

REFERENCES

Atkinson, J. C. (2017). Countering the Neos: Dewey and a Democratic Ethos in Teacher Education. *Democracy and Education, 25*(2), 1-11.
Barrett, M. (2020). The Council of Europe's Reference Framework of Competences for Democratic Culture: Policy context, content and impact. *London Review of Education, 18*(1), 1-17.
Biesta, G. (2019). What kind of society does the school need? Redefining the democratic work of education in impatient times. *Studies in Philosophy and Education, 38*(6), 657-668.
Collins, J., Hess, M.E., & Lowery, C.L. (2019). Democratic spaces: How teachers establish and sustain democracy and education in their classrooms. *Democracy and Education, 27*(1), 1-12.
Darling-Hammond, L. (2010). *The flat world and education: How America's commitment to equity will determine our future*. New York: Teachers College Press.
European Commission. *Education and Training* https://ec.europa.eu/education/policies/school/quality-assurance_en. Accessed November 23rd, 2021.
Karaba, R. (2016). Challenging freedom neoliberalism and the erosion of democratic education. *Democracy & Education, 24*(1), 1-10.
Levinson, M. (2011). Democracy, accountability, and education. *Theory and Research in Education, 9*(2), 125-144.
Missira, V. (2019). Strengthening European citizenship education. *Journal of Social Science Education, 18*(3), 55-68.
Mrnjaus, K. (2012). Teacher competences for education for democratic citizenship: Training and Classification Challenges. In *Schools, Curriculum and Civic Education for Building Democratic Citizens* (pp. 79-97). Brill Sense.
Noula, I. (2018). Critical Thinking and Challenges for Education for Democratic Citizenship: an ethnographic study in primary schools in Greece. *Educação & Realidade, 43*(3), 865-886.
Poznyak, S. (2009). Adaptation of the" Tool for Quality Assurance of Education for Democratic Citizenship in Schools"-Two years of experience in Ukraine. *Trends in Bildung international,* (21), 1-25.
Smith, W.C., & Benavot, A. (2019). Improving accountability in education: The importance of structured democratic voice. *Asia Pacific Education Review, 20*(2), 193-205.
Tampio, N. (2017). Democracy and national education standards. *The Journal of Politics, 79*(1), 33-44.
Yavuz Tabak, B., & Karip, E. (2021). Democratic School Culture: Investigating An Educational Practice of Democracy in Schools A Study on Democratic Citizenship and Human Rights Education Project in Turkey. *Leadership and Policy in Schools*, 1-20.

COMPARATIVE STUDY ON THE STRUCTURE OF EUROPEAN EDUCATIONAL EVALUATION SYSTEMS

Anastasia Paliatsou
M.Ed., Greek Philology Teacher in Secondary Education
Preveza, Greece
e-mail: natassapal@gmail.com

and

Fani Biskanaki
Educational Operation Coordinator
Epirus Prefecture, Greece
e-mail: fani.biskan@gmail.com

ABSTRACT

In the context of challenges of modern Knowledge Society for individual and social development, the issue of educational evaluation is critical in global educational policies, making imperative the request for upgrading quality in education. In this perspective, national and supranational organizations have focused their research programs on the evaluation of educational institutions and educational work, since on the one hand it is directly related to many problems of educational changes and reforms, both at European and international level, and on the other is a necessary valuation measure of the effectiveness's fluctuations of any institution or organization.

The above findings, in relation to the increasing interest regarding evaluation in Greece as an autonomous educational problem and the continuous unsuccessful attempts to regulate it, were the starting point of the research reflection of this comparative study, which explores the structure of twelve European educational evaluation systems. Hence, the main purpose of the present study is to identify and highlight the differences between centralized and decentralized educational systems and also to capture comparatively the international convergence and divergence trends on educational policy and evaluation applied in twelve European countries (Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Italy, Norway, Sweden, United Kingdom and Greece) with a different educational culture and a heterogeneous historical, social, economic and cultural background compared to Greece. The obtained data allow to draw conclusions and formulate suggestions and good practices for an applicable model of educational evaluation, harmonized with the requirements of the Greek educational system and social environment, in order to upgrade teachers' evaluation procedure and their professional development.

In the methodological framework of the present study, a comparative content analysis based on an extensive literature review is carried out in order to systematically approach the thematic units of analysis regarding the characteristics of educational evaluation systems and to identify the following categories of analysis: educational management, quality assurance, evaluation methods, evaluation bodies, evaluation frequency and criteria, individual evaluation process as well as the utilization of educational evaluation's results.

The comparative study's findings showed that in most European countries school evaluation procedure is obligatory and decentralized. It usually comprises both internal and external evaluation, while standards differ across educational units. The educational evaluation system in Greece is particularly centralized and bureaucratic, with almost no flexibility for schools, since both the procedures and the evaluation criteria are indicated by the State. Additionally, the Greek educational evaluation system compared to the other European countries is the most ineffective and inconsistent in terms of structure and objectives, as it does not aim at the real improvement of educational practices, nor at the evaluation of the achievement of national goals, as is the case for example in Germany or Nordic countries. Moreover, it has been found out that the main reasons for the current situation in Greek education are: a) Distrust of the state evaluation system manifested mainly by the educational trade unions, b) Cultural issues or lack of negotiation culture, and c) The evaluation depending on how it is applied can function as a powerful technology, which is largely based on the principles of management and performance, producing docile teachers and undermining their professional identity. Finally, proposals for further research are suggested, in order to activate the appropriate safety valves, so that the educational evaluation brings the desired results.

Key Words: educational evaluation, centralized-decentralized systems, Europe, Greece

REFERENCES

Eurydice (2004). *Evaluation of Schools providing Compulsory Education in Europe*. Brussels: Directorate-General for Education and Culture. https://www.sel-gipes.com/uploads/1/2/3/3/12332890/2004_eurydice_-_evaluation_of_schools_providing_compulsory_education.pdf [Accessed the 14th of March, 2021]

Hanberger, A., Carlbaum, S., Hult, A., Lindgren, L. & Lundstrom, U. (2016). School evaluation in Sweden in a local perspective: A synthesis. *Education Inquiry*, *7* (3), pp. 349-371.

Hendrickson, K.A. (2012). Assessment in Finland: A Scholarly Reflection on One Country's Use of Formative, Summative, and Evaluative Practices. *Mid-Western Educational Researcher*, 25 (1/2), pp. 33-43.

Hopes, C. (1997). *Assessing, evaluating and assuring quality in schools in the European Union*. Frankfurt am Main: DIPF.

MacBeath, J. (2001). *Schools Must Speak for Themselves: The Case for School Self-Evaluation*. London: Routledge.

OECD (2009). Teacher Evaluation. A Conceptual Framework and examples of Country Practices. https://www.oecd.org/education/school/44568106.pdf [Accessed the 17th of April, 2021].

Piezunka, A. (2019). Struggle for Acceptance-Maintaining External School Evaluation as an Institution in Germany. *Historical Social Research*, *44* (2), pp. 270-287.

Sverre, T. (2014). Educational Assessment in Norway. *Assessment in Education: Principles, Policy & Practice*, *21* (2), pp. 221-237.

EXPERIENTAL TEACHING METHOD USING ICT

Ekaterini Markopoulou
Thessaloniki, Greece
e-mail: katesagimark@gmail.com

ABSTRACT

The experiential teaching method is an active teaching method, in which learners experience the subject under investigation as they explore it through their experiences (ASPAITE, 2016). The purpose of the experiential method is to develop the communication skills of students through interactive activities, which also give impetus to the emergence of individual skills (Parker, 2008). This teaching proposal is an example of an experiential teaching method with the parallel utilization of new technologies. It is addressed to students of the 3rd grade of Vocational High School (EPAL) in the subject of construction and more specifically in the didactic unit of the composition of scales.

The main purpose of this experiential teaching process is through a state of reflection for the students to be activated to explore the construction criteria of the scales and their composition elements. Sub-objectives are the trainees completing the course to be able to:

- clearly define the meaning of scale
- to classify the types of scales according to their destination and form
- to distinguish scales depending on their construction material
- clearly identify the requirements and the importance of their construction

This experiential teaching plan is structured in six main phases with parallel utilization of new technologies, in order to cultivate digital literacy in classroom.

In more detail, in the first phase, the phase of the reflection of personal experiences, students are given some visual material - snapshots from the movie "Joker" - a condition of reflection in order to recall previous experiences related to the subject, which reproduces the initial specific experience. In addition, students are encouraged to study interactive digital text in the form of comics, which is constructed with the help of the digital application “Story Board That”. In the second phase of the contemplative reflection, students are divided into random groups using the “Wheel of Names” application and present their experiences, which after processing are announced in the plenary of the class. This is followed by the abstract classification phase, during which the recorded group views of the students are presented grouped along a common axis and a Power Point presentation is created. At the same time, the teacher records in the class diary his/her personal remarks, which are the subject of a semi-structured dialogue in plenary and self-observation material. In the fourth phase of active experimentation, each group is assigned the same hypothetical scenario in order to apply the new knowledge in real situations of reflection for the purpose of action that has not only a plan but also a method of predicting possible consequences (ASPAITE, 2016). The evaluation phase is carried out using a questionnaire with open-ended questions and closed-ended questions using the “Kahoot” application. The last phase of the teaching process includes the verbal recapitulation, which is carried out with the method of brainstorming and the creation of a concept map with the digital application “X-mind”.

The results of the whole effort are discussed in the plenary of the class where conditions are created for hetero-evaluation but also for the cultivation of metacognitive skills through a collective effort while maintaining personal autonomy (Matsagouras, 2004).

REFERENCES

A.S.PAI.T.E. (2016). Curriculum of Practical Teaching Exercises I (PAD I) (edited by K. Kasimati & N. Mavrovounioti). Under suspension.

Matsagouras, H. (2004). Collaborative Teaching and Learning. Athens: Grigoris.

Parker, G. (2008). Team Players and Teamwork: New Strategies for Developing Successful Collaboration. San Francisco: Jossey-Bass Publications.

THE IMPORTANCE OF DISASTER SAFETY EDUCATION IN ADULTS. A SYSTEMATIC REVIEW

Georgios Faflioras
Glyfada,Greece
e-mail: faflioras@yahoo.gr

Georgia Koufioti
e-mail: faflioras@yahoo.gr

Athanasios Kounios
e-mail: faflioras@yahoo.gr

Stylianos Lozios
e-mail: faflioras@yahoo.gr

Athanasios Nikolopoulos
e-mail: faflioras@yahoo.gr

Olga Koumoutsakou
e-mail: faflioras@yahoo.gr

Efthymios Lekkas
e-mail: faflioras@yahoo.gr

and

Assimina Antonarakou
e-mail: faflioras@yahoo.gr

ABSTRACT

According to the Aristotelian viewpoint, education may be viewed as an "ornament in prosperity and a refuge in adversity", referring to the challenging decades before the necessity of education and specialization in dealing with natural and man-made crises (Hitz 2013). Despite the fact that the issue is vital to humanity's existence as a whole, most educational strategies do not address it in order to be meaningful, avoiding the conventional combination of information, scientific areas, and educational courses (Chou, Yang, and Ren 2015). Multidisciplinary knowledge versus specialized knowledge could become a crucial consideration in specific fields and leadership roles. The preponderance of the implications in terms of mortality, morbidity, financial, and logistical effects are at stake once it concerns to crisis and disaster strategic planning (Chou and Wu 2014).

Disaster safety education should be designed for everyone and thus should be included in the relevant educational objectives in either the formal or non-formal education processes. The aim of this systematic review was to determine the significance of disaster safety education in adults and to present, in accordance with the articles of the systematic review, the lifelong educative programs.

It was conducted a thorough evaluation of the literature as well as a systematic review under the keyword framework. A PICO analysis was conducted, in order to evaluate the research area, specifically the description of the population, the identification of the intervention, the alternative or traditional educational procedures, and the results according to the manner of completion, improvement or influence (Palaskar 2017; Satya-Murti 2000). Criteria for the inclusion of the researches include parameters such as focus on the subject, method of primary research, and quality of research (G. D. Thomas 2012). The main eligibility criteria of the systematic review concern:

i. The research approach used in the publications included experimental, quantitative, and qualitative research.
ii. Original and primary publishing were included.
iii. Publications were written in English, and were available in their entirety.
iv. Publications can be found in reputable scientific journals.
v. Publication date identified: January 2010-December 2020.

vi. Primary search terms were “Disaster”, “Education”, “Adulthood”, “Safety” and “Information”.
vii. Adults, notably disaster-vulnerable populations such as the elderly and disabled, were the recipients of education. Moreover, women due to their nature concerned maturity and social position in several countries are discussed as a sub-category of the population.

The systematic review was carried out through the bibliographic databases Pubmed, Science Direct, Web of Science using the logical AND and OR operators that allowed the search criteria to be combined in a clearly defined way. A total of 558 publications and papers were retrieved and narrowed down to 13, in accordance with the Prisma Flow Chart criteria (Liberati et al. 2009).

Disaster safety education is fundamental to disaster risk reduction, disaster management, and disaster safety (Bhandari 2014). Disaster safety education is being researched within a multidisciplinary approach, and an emphasis on disaster mitigation. The primary research methodologies were qualitative, particularly case studies that included narration, and risk scenario creation. All the 13 publications indicate the importance and necessity of disaster safety education (Annear et al. 2016; Chou and Wu 2014; Chou et al. 2015; Cooper et al. 2020; Drzewiecki et al. 2020; Feng, Hossain, and Paton 2018; Guo, Sim, and Ho 2020; Ho and Dzeng 2010; Kitagawa 2016; Rogayan and Dollete 2020; Teo et al. 2019; Thayaparan et al. 2015; Tsai et al. 2020).

A disaster may produce a wide range of global implications. Each individual's response is unique, and the reasons behind it might involve a number of educational, religious, and social criteria (Godin et al. 2009; Guo et al. 2020; Hidalgo and Baez 2019). Internationally, disaster education initiatives have been shown to promote disaster preparedness and resilience (Aghaei, Seyedin, and Sanaeinasab 2018; Lin et al. 2018). Women are generally perceived as vulnerable and suffer numerous challenges during a disaster due to their different societal responsibilities (Fernandez et al. 2002; Fox and Timm 2008). According to researchers, elderly individuals require specialized training due to their physical state and cognitive decline. Furthermore, psychological assistance from the young to the elderly is critical in catastrophes, and this should be included as one of the essential educational objectives (Bell et al. 2020; Fernandez et al. 2002; Timalsina and Songwathana 2020). Research has shown that training the elderly and individuals with disabilities on how to deal with danger and disasters is closely associated to their survival (Thomas et al. 2015).

As a result, understanding catastrophe prevention and risk reduction approaches from childhood, with special emphasis on education in adulthood, becomes extremely beneficial.

Key Words: Disaster, Education, Adulthood, Safety, Information

REFERENCES

Aghaei, Nahid, Hesam Seyedin, and Hormoz Sanaeinasab. 2018. “Strategies for Disaster Risk Reduction Education: A Systematic Review.” Journal of Education and Health Promotion 7(1):98–98. doi: 10.4103/jehp.jehp_31_18.

Annear, Michael J., Junko Otani, Xin Gao, and Sally Keeling. 2016. “Japanese Perceptions of Societal Vulnerability to Disasters during Population Ageing: Constitution of a New Scale and Initial Findings.” International Journal of Disaster Risk Reduction 18:32–40. doi: 10.1016/j.ijdrr.2016.06.001.

Bell, Sue Anne, Jennifer Horowitz, Theodore J. Iwashyna, and Patricia C. Heyn. 2020. “Health Outcomes after Disaster for Older Adults with Chronic Disease: A Systematic Review.” Gerontologist 60(7):E535–47.

Bhandari, Rajendra Kumar. 2014. Disaster Education and Management. Springer India.

Chou, Jui Sheng, and Jia Huei Wu. 2014. “Success Factors of Enhanced Disaster Resilience in Urban Community.” Natural Hazards 74(2):661–86. doi: 10.1007/s11069-014-1206-4.

Chou, Jui Sheng, Kuo Hsin Yang, and Ting Cheng Ren. 2015. “Ex-Post Evaluation of Preparedness Education in Disaster Prevention, Mitigation and Response.” International Journal of Disaster Risk Reduction 12:188–201. doi: 10.1016/j.ijdrr.2015.01.002.

Cooper, Vanessa A., Giuseppe Forino, Sittimont Kanjanabootra, and Jason von Meding. 2020. “Leveraging the Community of Inquiry Framework to Support Web-Based Simulations in Disaster Studies.” Internet and Higher Education 47:100757. doi: 10.1016/j.iheduc.2020.100757.

Drzewiecki, Daniel M., Hannah M. Wavering, Gwyneth R. Milbrath, Vincent L. Freeman, and Janet Y. Lin. 2020. “The Association between Educational Attainment and Resilience to Natural Hazard-Induced Disasters in the West Indies: St. Kitts & Nevis.” International Journal of Disaster Risk Reduction 47:101637. doi: 10.1016/j.ijdrr.2020.101637.

Feng, Shihui, Liaquat Hossain, and Douglas Paton. 2018. “Harnessing Informal Education for Community Resilience.” Disaster Prevention and Management: An International Journal 27(1):43–59. doi: 10.1108/DPM-07-2017-0157.

Fernandez, Lauren S., Deana Byard, Chien Chih Lin, Samuel Benson, and Joseph A. Barbera. 2002. “Frail Elderly as Disaster Victims: Emergency Management Strategies.” Prehospital and Disaster Medicine 17(2):67–74. doi: 10.1017/S1049023X00000200.
Fox, Lori, and Nathan Timm. 2008. “Pediatric Issues in Disaster Preparedness: Meeting the Educational Needs of Nurses-Are We There Yet?” Journal of Pediatric Nursing 23(2):145–52. doi: 10.1016/j.pedn.2007.12.008.
Godin, O. A., V. G. Irisov, R. R. Leben, B. D. Hamlington, and G. A. Wick. 2009. “Variations in Sea Surface Roughness Induced by the 2004 Sumatra-Andaman Tsunami.” Natural Hazards and Earth System Science 9(4):1135–47. doi: 10.5194/nhess-9-1135-2009.
Gough D Thomas J, Oliver S. 2012. An Introduction to Systematic Reviews, SAGE Publications Inc.
Guo, Chunlan, Timothy Sim, and Hung Chak Ho. 2020. “Impact of Information Seeking, Disaster Preparedness and Typhoon Emergency Response on Perceived Community Resilience in Hong Kong.” International Journal of Disaster Risk Reduction 50:101744. doi: 10.1016/j.ijdrr.2020.101744.
Hidalgo, Jorge, and Amado Alejandro Baez. 2019. “Natural Disasters.” Critical Care Clinics 35(4):591–607.
Hitz, Zena. 2013. “Aristotle on Law and Moral Education.” in Oxford Studies in Ancient Philosophy. Vol. 42. Oxford University Press.
Ho, Chun Ling, and Ren Jye Dzeng. 2010. “Construction Safety Training via E-Learning: Learning Effectiveness and User Satisfaction.” Computers and Education 55(2):858–67. doi: 10.1016/j.compedu.2010.03.017.
Kitagawa, Kaori. 2016. “Disaster Preparedness, Adaptive Politics and Lifelong Learning: A Case of Japan.” International Journal of Lifelong Education 35(6):629–47. doi: 10.1080/02601370.2016.1231230.
Liberati, Alessandro, Douglas G. Altman, Jennifer Tetzlaff, Cynthia Mulrow, Peter C. Gøtzsche, John P. A. Ioannidis, Mike Clarke, P. J. Devereaux, Jos Kleijnen, and David Moher. 2009. “The PRISMA Statement for Reporting Systematic Reviews and Meta-Analyses of Studies That Evaluate Healthcare Interventions: Explanation and Elaboration.” BMJ (Clinical Research Ed.) 339. doi: 10.1136/bmj.b2700.
Lin, Chong Khai, Faizatul Akmar Abdul Nifa, Suria Musa, Syairah Aimi Shahron, and Nur Anisah Anuar. 2018. “Challenges and Opportunities of Disaster Education Program among UUM Student.” P. 20006 in AIP Conference Proceedings. Vol. 2016.
Palaskar, JayantN. 2017. “Framing the Research Question Using PICO Strategy.” Journal of Dental and Allied Sciences 6(2):55. doi: 10.4103/jdas.jdas_46_17.
Rogayan, Danilo V., and Lea F. Dollete. 2020. “Disaster Awareness and Preparedness of Barrio Community in Zambales, Philippines: Creating a Baseline for Curricular Integration and Extension Program.” Review of International Geographical Education Online 10(2):92–114. doi: 10.33403/rigeo.634564.
Satya-Murti, S. 2000. “Evidence-Based Medicine: How to Practice and Teach EBM.” JAMA: The Journal of the American Medical Association 284(18):2382–83. doi: 10.1001/jama.284.18.2382.
Teo, Melissa, Ashantha Goonetilleke, Kaveh Deilami, Alireza Ahankoob, and Marion Lawie. 2019. “Engaging Residents from Different Ethnic and Language Backgrounds in Disaster Preparedness.” International Journal of Disaster Risk Reduction 39:101245. doi: 10.1016/j.ijdrr.2019.101245.
Thayaparan, Menaha, Mohan Siriwardena, Chamindi Ishara Malalgoda, Dilanthi Amaratunga, Irene Lill, and Arturas Kaklauskas. 2015. “Enhancing Post-Disaster Reconstruction Capacity through Lifelong Learning in Higher Education.” Disaster Prevention and Management: An International Journal 24(3):338–54. doi: 10.1108/DPM-11-2014-0239.
Thomas, Tracy N., Michelle Leander-Griffith, Victoria Harp, and Joan P. Cioffi. 2015. “Influences of Preparedness Knowledge and Beliefs on Household Disaster Preparedness.” MMWR. Morbidity and Mortality Weekly Report 64(35):965–71. doi: 10.15585/mmwr.mm6435a2.
Timalsina, Rekha, and Praneed Songwathana. 2020. “Factors Enhancing Resilience among Older Adults Experiencing Disaster: A Systematic Review.” Australasian Emergency Care 23(1):11–22.
Tsai, Meng Han, Yu Lien Chang, Jen Shiuan Shiau, and Shun Mei Wang. 2020. “Exploring the Effects of a Serious Game-Based Learning Package for Disaster Prevention Education: The Case of Battle of Flooding Protection.” International Journal of Disaster Risk Reduction 43:101393. doi: 10.1016/j.ijdrr.2019.101393.

LEADERSHIP

THE TRANSFORMATION LEADERSHIP AS A COMPONENT OF EFFICIENCY OF THE MODERN SCHOOL. THE OPINIONS OF THE SECONDARY EDUCATION TEACHERS OF DRAMA

Anastasia Patia
Drama, Greece
e-mail: natashapat1312@gmail.com

ABSTRACT

In the modern times, the education system is evolving thanks to technology. In that case, schools should be upgraded to open learning organizations sharing the vision of improving the quality of human resources and levels of learning through participatory management systems which handle the educational issues in a flexible, collective and cooperative way. Transformational leadership has become a widely used management system. Therefore, exploring the functioning of a collaborative school in regard to transformational leadership is one of the most topical issues. In this diploma thesis, it is found that there is a relevancy between transformational leadership, collaborative culture and school improvement based on the bibliographic review. However, regarding to the Greek bibliography there is a lack of relevant empirical research, as well as the study of the contribution of leadership behavior in the functioning of a school as a learning organization is limited to a theoretical level. The purpose of this diploma thesis is to investigate the relationship between the transformational leadership and the collaborative school effectiveness in accordance with the model of a learning organization within the centralized Greek educational system. For this purpose, a quantitative survey was conducted on a sample of 248 secondary school teachers in the prefecture of Drama using the Dimensions of the Learning Organization Questionnaire (DLOQ) and Principal Leadership Questionnaire (PLQ) tools. According to the results of the survey, there is a moderate collaborative culture prevailing, while the strategies of transformational leadership are adopted to a satisfactory extent. Furthermore, there was a high correlation of all the transformational leadership dimensions with the school collaborative climate. Finally, the differentiation of the teachers' perceptions with specific demographic characteristics concerning the existing collaborative culture and the transformational leadership behavior of their school units was verified.

Key Words: Transformational leadership, effectiveness, learning organization, school collaboration culture, high learning performance, improvement of human resources quality

REFERENCES

LEADERSHIP AND SCHOOL CLIMATE

Andreas S. Stafylidis
Aristotle University of Thessaloniki, D.P.E.S.S. in Serres
Serres, Greece
e-mail: stafylid@phed-sr.auth.gr

Ioanna C. Karagkiozi
School of Industrial Studies of Thessaloniki, University of Macedonia, Greece
Thessaloniki, Greece
e-mail: 2ioannakara@gmail.com

Savvas A. Stafylidis
Aristotle University of Thessaloniki, D.P.E.S.S.
Thessaloniki, Greece
e-mail: savvasstafilidis@acadimia.com

and

Charalampos S. Stafylidis
Democritus University of Thrace, D.P.E.S.S
Komotini, Greece
e-mail: thes2.charalamposstafylidis@acadimia.com

ABSTRACT

The school climate promotes a quality education, while shaping the correct behavior of students, serving the goals of education. The purpose of this research is the literature review of Leadership and School Climate. School principals have the most influence in shaping the school climate, while the most important form of communication is developed to the appropriate degree through collaboration and teamwork. In order for the teacher to perform his/her work properly, it will be good to work in a good school climate (Cohen, 2013; Handy, 2007), with a positive environment (Orpinas & Horne, 2009). The school climate, self-efficacy and the role of teachers have been analyzed by several researchers (Darling-Hammond & Cook-Harvey, 2018; Dipaola & Tschannen-Moran, 2001; López et al., 2021). There are also different types of school climate (Odunlami et al., 2017) and several studies refer to their investigation (Mischel & Kitsantas, 2020). Furthermore, a supportive school climate has a particularly positive effect on young teachers (Meristo & Eisenschmidt, 2014). In order to achieve a positive school climate, it is necessary to have communication between the principal and the teachers, in order to create a positive, open atmosphere in the school unit, which may be able to prevent some conflicts, while encouraging constructive exchanges of views (Hoy & Miskel, 2003). Regarding the shaping factors of the school climate can be the administration (Σαΐτης, 2002), the teacher-student relations (Deci & Ryan 2004), the school-family relations (Antonopoulou et al., 2011; Darling-Hammond & Cook-Harvey, 2018), the feeling of security (Μαριδάκη - Κασσωτάκη, 2009), the expectations of the academic performance and the relations between the students (Daily et al., 2019). Schools designated as schools with a positive reporting climate have low crime rates, with notified rules where students feel they are being treated fairly and no bullying is detected (Mischel & Kitsantas, 2020). An important factor in shaping the school climate is the size of the school unit (Handy, 2007). Leadership style also plays an important role in shaping the school climate with a direct impact on the cooperation, innovation and professional interest of teachers (Tajasom & Ahmad, 2011). It should be emphasized that teachers' aspirations also play an important role in shaping the school climate, as they are shaped according to their age, gender, education, interests and years of service. of individual differences of teachers, while supporting their individual autonomy and shows interest in meeting their needs, then the working climate may be more pleasant and more efficient (Darling-Hammond & Cook-Harvey, 2018; Thapa, et al., 2013). Therefore, it would be good to seek the cooperation and cultivation with all the members of the school unit (Πασιαρδής, 2001) and emphasizes the development of interpersonal relationships (Haibach & Collier, 2011; Ματσαγγούρας, 2003) and to take into account the individual differences of teachers (Thapa et al., 2013). In conclusion, it is important to create a safe and positive school climate, to develop social competence and an effective and equal learning environment for the teachers and the students.

REFERENCES

Antonopoulou, K., Koutrouba, K., & Babalis, T., (2011). Parental involvement in secondary education schools: the views of parents in Greece. Educational Studies 37 (3), 333-344.

Cohen, J. (2013). Creating a positive school climate: A foundation for resilience. In Handbook of resilience in children (pp. 411-423). Springer, Boston, MA.

Daily, S. M., Mann, M. J., Kristjansson, A. L., Smith, M. L., & Zullig, K. J. (2019). School climate and academic achievement in middle and high school students. Journal of School Health, 89(3), 173-180.

Darling-Hammond, L., & Cook-Harvey, C. M. (2018). Educating the Whole Child: Improving School Climate to Support Student Success. Learning Policy Institute.

Deci, E. L., & Ryan, R. M. (Eds.). (2004). Handbook of self-determination research. University Rochester Press.

Dipaola, M., & Tschannen-Moran, M. (2001). Organizational citizenship behavior in schools and its relationship to school climate. Journal of school Leadership, 11(5), 424-447.

Haibach, R. G., & Collier, D.(2011). Motor learning and development.

Handy, C. (2007). Understanding organizations. Penguin Uk.

Hoy, W. & Miskel, C. (2005). Educational Administration Theory, Research and Practice. New York: Mc Graw -Hill, Inc.

López, V., Sisto, V., Baleriola, E., García, A., Carrasco, C., Núñez, C. G. & Valdés, R. (2021). A struggle for translation: An actor-network analysis of Chilean school violence and school climate policies. Educational Management Administration & Leadership, 49(1), 164-187.

Meristo, M. & Eisenschmidt, E. (2014). Novice teachers' perceptions of school climate and self-efficacy. International Journal of Educational Research, 67, 1-10.

Mischel, J., & Kitsantas, A. (2020). Middle school students' perceptions of school climate, bullying prevalence, and social support and coping. Social Psychology of Education, 23(1), 51-72.

Odunlami, J. O., Ali, H., & bin Ishak, S. (2017). Impact Of Principal Leadership Style And Teacher Quality On Teacher's Productivity: A Conceptual Paper. Asian Journal of Multidisciplinary Studies, 5, 10.

Orpinas, P., & Horne, A. M. (2009). Creating a positive school climate and developing social competence. In Handbook of Bullying in Schools (pp. 59-70). Routledge.

Tajasom, A. & Ahmad, Z. A. (2011). Principals' leadership style and school climate: teachers' perspectives from Malaysia. International Journal of Leadership in Public Services.

Thapa, A., Cohen, J., Guffey, S., & Higgins-D'Alessandro, A. (2013). A review of school climate research. Review of educational research, 83(3), 357-385.

Μαριδάκη - Κασσωτάκη, Α. (2009). Εισαγωγή στην Παιδαγωγική Ψυχολογία, Αθήνα: Ατραπός.

Ματσαγγούρας, Η. (2003). Η σχολική τάξη: Χώρος, ομάδα, πειθαρχία, μέθοδος. Τόμος Α. Αθήνα.

Πασιαρδής, Γ. (2001). Το σχολικό κλίμα. Θεωρητική ανάλυση και εμπειρική διερεύνηση των βασικών παραμέτρων του. Αθήνα: Τυπωθήτω - Γιώργος Δαρδανός.

Σαΐτης, Χ. (2002) Ο διευθυντής στο σύγχρονο σχολείο, Από τη θεωρία στην πράξη. Αθήνα: Αυτοέκδοση.

LEADERSHIP AND CHANGE IN THE GREEK SYSTEM OF PRIMARY AND SECONDARY EDUCATION

Eleni Tziava
International Hellenic University
Thessaloniki, Greece
e-mail: helentziava@yahoo.gr

and

Konstantopoulos Nikolaos
International Hellenic University
Thessaloniki, Greece
e-mail: nkonsta@gmail.com

ABSTRACT

The present research is an attempt to capture the reality of changes in the school units, regarding the relationship between the principal and the teacher. We wanted to check in the Greek system of Primary and Secondary Education, whether the "individualized consideration"(Bass, Avolio, Leithwood) that employees receive, in periods of change, is appropriate, to lead to feelings of satisfaction for the leadership provided and to facilitate the adoption of change. And finally, if the whole process is influenced by the perceptions and attitudes of the employees about their manager (Fullan 2002, Day et al 2000).

We sent our electronic questionnaire to the schools of the 13 administrative districts of the country and asked the people (N=499 persons) working for the educational system to:

•Evaluate the skills and effectiveness of their manager, and rate their satisfaction with the manager's contribution to the operation of the unit as a whole and to their own effectiveness in particular.

•At the same time, we requested the evaluation of the functionality of the actions and skills of the manager and we investigated its connection with the perception, acceptance, and coexistence of the employees with the changes.

•Finally, we asked them to rate the detection rate of some variables that are desirable leadership behaviors in times of impending change, and their presence or absence, reflects the leadership profile of the manager, informing us about the organizational context in which change occurs. We formulated the research hypotheses for which we tested the multivariate analysis of variance MANOVA and came to important conclusions.

Not only teachers but also principals and deputy principals of school units took part in this process in order to have a whole picture of the leadership phenomenon and the relationships that are formed within the unit in a 360-degree evaluation attempt. In other words, the questionnaire functions as a tool for feedback and measurement of interpersonal influence and promotes administrative awareness and planning interventions to improve the interactions that develop in the organization.

This way we evaluated the relationship between the teachers and the director and these two dimensions that concern: The "perceived leader effectiveness" and the "job satisfaction" of the employees in the school unit (Bass &Avolio).

To test the relationship between teachers' personal characteristics and their perceptions of the principal's abilities, we used the test of independence x chi-square test.

Regularity of the dependent variables (the evaluation of the managerial practices) was checked with Shapiro-Wilk and visual examination of the histograms of each variable was found and the distributions were found to deviate significantly from the normal one. Therefore, the descriptive index that best represents the data of the variables is the median, and to examine the relationships of these variables with the characteristics of teachers, non-parametric statistical tests were used, namely the Mann-Whitney test.

To investigate the consistency of the participants' answers to the questions about the subordinate-boss relationship and the questions about the reality of the change, a calculation of the Spearman correlation coefficients (non-parametric control) was performed.

Key Words: relations-oriented change management, transformational leadership, employees' satisfaction, school units, directors' effectiveness

REFERENCES

Cameron E., Green M. (2004). Making Sense of Change Management, London: Kogan Page.
Elliot- Johns S. (2015). *Leadership for Change in Teacher Education Voices of Canadian Deans of Education. Ontario,* Canada: Sense Publishers
Frieder R., Hochwarter W., DeOrtentiis P. (2015). Attenuating the negative effects of abusive supervision: The role of proactive voice behavior and resource management ability. The Leadership Quarterly. 26, 821-837
Frohman D., Howard R. (2008). *Leadership the Hard Way*, San Fransisco California: Jossey -Bass
Johansen B. (2009). *Leaders make the future*, San Fransisco, California: Berrett -Koehler Publishers, Inc
Schaubroeck J., Walumbwa F., Ganster D., Kepes S. (2007). Destructive leader traits and the neutralizing influence of an enriched job. The Leadership Quarterly. (18), 236-251.
Thoroughgood C., Tate B., Sawyer K. et al. (2012). Bad to the bone: Empirically defining and measuring destructive leader behavior. Journal of Leadership& Organizational Studies 19(2) 230-235.
Xu a., Loi R., Lam L. (2015). The bad boss takes it all: How abusive supervision and leader-member exchange interact to influence employee silence. The Leadership Quarterly. (26), 763-774.

THE CONTRIBUTION OF THE SCHOOL UNIT DIRECTOR TO THE FORMATION OF A LEARNING ENVIRONMENT CONDUCIVE TO SCHOOL

Alexandros J. Mokias
Graduate of the Postgraduate Studies Program Administration and Organization of Educational Units,
Alexandrio TEI Thessaloniki
Tyrnavos of Larissa, Greece
e-mail: mok-al_@hotmail.com

ABSTRACT

The formation of an ideal school climate within the school is crucial both for the school performance of the children and for the effectiveness of the school. The school is essentially the second home of both students and teachers because it is where they spend most of the school day. Thus, it is necessary to create a climate of trust, security, empathy and respect within the school in order for it to fulfill its goals (Koula, 2011). Creating relationships of cooperation and constructive communication is a key goal of a principal who wants to build his school with values offered by a positive climate (Donaldson, 2007).
The most basic good of life is education. It is offered through the school. School is a social good that gives people the opportunity to acquire knowledge and socialize properly. The existence of a positive atmosphere in a school enables it to function effectively, to create proper communication between parents-principal-teachers-students and to fulfill all the goals it has set (Saitis, 2002).
By listening to the word climate we can acquire a pleasant or repulsive predisposition, a feeling to create and respect everyone or to be indifferent by showing stagnation. It is influenced by values, expectations, interests and beliefs (Athanasoula-Reppa, 1999). The school climate is what gives character to the school unit. In other words, it is the face of the school, its personality and the aspect that it reflects in society (Hoy and Miskel, 2005).
The type of school climate that favors and promotes the learning process is one that relies on the cooperation of all stakeholders in the learning process and is promoted through relationships of trust, mutual understanding, mutual respect. Such a type of school climate could make a school effective because it would enable it to meet all the needs of students (Pasiardis, 2004). It is the duty of teachers to provide equal learning opportunities for all children and to give them the right to express themselves freely within a framework of healthy communication free from discrimination, marginalization, stereotypes, prejudices and exclusion (Kythreotis et al., 2010).
There must be a balance between the school principal and the other teachers. Teachers to recognize their principal as superior hierarchically and to respect him and the principal to see in the faces of the educators people who after working harmoniously with them will be able to achieve a positive school climate and create a school effective in terms of goals and its purposes (Pasiardis 2004). All decisions on school matters must be discussed within the teachers' association and taken jointly (Saitis, 2002).
Therefore, creating a positive climate presupposes effective communication from all those involved in the educational process (Nasser, 2009). In a school unit that cultivates a climate of trust and intimacy, excellent cooperation, good interpersonal relationships and mutual respect are achieved (Koula, 2011). Thus the school climate is a conceptual tool, because it is directly intertwined with concepts such as communication, school structure, goals and objectives of the school, school effectiveness, teaching leadership, teaching staff and students (Geraki, 2013).

Key Words: school climate, school, school unit director, teachers

REFERENCES

Athanasoula-Reppa, A. (1999). Communication in the educational organization. In: A. Athanasoula-Reppa, S.-S. Anthopoulou, S. Katsoulakis, & G. Mavrogiorgos (Ed.), *Human Resources Management.* Volume V. Patra: E.A.P.
Donaldson, G. (2007). Do Teachers Bring to Leadership?, *Educational Leadership, 65(1),* 26-29.
Geraki, A. (2013). *Contribution of school principals to individual variables of effectiveness.* Doctoral thesis. Thessaloniki: Aristotle University of Thessaloniki.
Halpin A. and Groft D. (1963). *The organization climate of schools.* U.S. Office of Education Research project.
Hoy, W. & Miskel, C. (2005). *Education administration: Theory, Research and Practice.* New York: McGraw-Hill.

Kavouri, P. (1998). The school climate in Primary Education: an important factor in the evaluation and effectiveness of the school unit, *Pedagogical Review, 27,* 181-201.
Koula, B. (2011). *The interpersonal relationships of school principals and teachers: Contributing to the effective operation of the school.* Doctoral thesis. Thessaloniki: Aristotle University of Thessaloniki.
Kythreotis, A., Pashiardis, P., & Kyriakides, L. (2010). The influence of school leadership styles and culture on students' achievement in Cyprus primary schools. Journal of educational Administration, 48(2), 218-240.
Morgan, G. (1996). Empowering human resources. In C. Riches & C. Morgan (Eds), *Human Resource Management in Education* (pp. 32-37). London: The Open University.
Nasser, A.M. (2009). Effectiveness of Institutional Performance of Public Schools in the Eastern Region of Saudi Arabia from the Perspective of School Administrators, *College Student Journal, 43(4),* 1228-37.
Pasiardis P. (2004). *Educational Leadership - From the Period of Favorable Indifference to the Modern Age.* Athens: Metaichmio.
Saitis Ch. (2002). *Organization & Administration of Education*. Athens: Atrapos
Stivaktakis, E. (2006). *The school principal as a body and object of evaluation. Comparative study of the views of Primary and Secondary schools.* Doctoral thesis. University of the Aegean.

THE EFFECT OF THE LEADERSHIP MODEL OF THE DIRECTOR OF THE EDUCATION UNIT ON THE SPECIAL EDUCATION TEACHERS' BURN-OUT

Thomai M. Andreopoulou
International Hellenic University
Larissa, Greece
e-mail: thomais_an@sch.gr

ABSTRACT

The aim of the present paper is to investigate the effect of the leadership model of the managers of the educational units on the burnout of special education teachers. Specifically, three research questions were asked and it was investigated the degree to which special education teachers exhibit symptoms of burnout, the existence of a link between special education teachers' burnout and the leadership model of the principal of the educational unit and the existence of differentiation on the degree of the special educational teachers' burnout in relation to their individual demographic characteristics.

The quantitative research was conducted by distributing a questionnaire to 136 special education teachers of primary and secondary education who serve in educational organizations in the prefectures of Attica, Viotia, Thessaloniki, Ioannina, Cyclades, Larissa, Pieria and Rethymnon. The questionnaire was shared with teachers via email and their responses were entered and collected via the "Google Forms" online platform. The questionnaire used the Bass and Avolio (2004) Multifactor Leadership Questionnaire (Form 5x), that measures the transformational, the transactional and the passive-avoidant leadership styles (Bass, Avolio & Atwater, 1996) and the Maslach burnout scale (MBI) - Maslach & Jackson (1986), which has been translated into Greek by Kokkinos (2006) and measures the emotions and work ethic of special education teachers, which are divided into three subscales according to the three keystones of Maslach burnout, namely emotional exhaustion, personal achievement and depersonalization (Kokkinos, 2006).

The collected data were analyzed with the statistical software package IBM SPSS Statistics, Version 20 and descriptive statistical analysis was applied. In the first research question about the degree of occurrence of symptoms of burnout in special education teachers, the mean value was used. In the second research question regarding to the existence of a connection between the burnout of special education teachers and the leadership model of the director of the educational unit, the Pearson correlation coefficient r was used. In the third research question about the existence of differentiation of the degree of burnout of special education teachers in relation to their individual demographic characteristics, the mean value was used.

The results of the research showed that special education teachers do not show severe symptoms of burnout. Regarding to the link between special education teachers' burnout and the leadership model of the managers of the educational unit seems to have a correlation with specific dimensions and behaviors of the leadership, such as the strict and thorough supervision of the managers towards the teachers during their educational work. About the differentiation of the demographic characteristics of the teachers in terms of their professional exhaustion, those who belong to the age group of 22-30 show low rates of emotional exhaustion but higher rates of depersonalization in contrast to the older teachers. Substitute and part-time teachers are at higher levels of emotional exhaustion than full-time teachers. Higher depersonalization rates are presented by permanent and part-time teachers, with the latter showing high levels of satisfaction with their professional achievements. Teachers with 1 to 10 and 31 and more years of previous work experience, scored high rates of depersonalization, with the latter having high levels of satisfaction with their professional achievements. Finally, holders of postgraduate degrees show higher levels of depersonalization than holders of the basic degree.

The importance of research lies both in informing and alerting special education teachers about the existence of burnout syndrome and in raising the awareness of the managers of these educational organizations for the correlation of this syndrome with the leadership style they adopt and its impact to the psychology of the employees.

Key Words: special education, burnout, leadership style

REFERENCES

Andris, E. (2015). Management and leadership: The role of the school principal. In G. Papadatos, A. Bastea & G. Koumentos (Eds.), *9th Panhellenic Conference of Educational Sciences* (pp. 150-155). Athens: National and Kapodistrian University of Athens.

Capone, V., & Petrillo, G. (2018). Mental health in teachers: Relationships with job satisfaction, efficacy beliefs, burnout and depression. *Current Psychology, 39*(6).
Chytiris, L.S., & Anninos, L.N. (2015). *Administration and quality of services*. Athens: Association of Greek Academic Libraries.
Gogola, A., & Katsis, A. (2017). Roles and decision-making procedures at the level of the school organization: an investigation of the views of secondary education teachers in Argolida Prefecture. *Research in Education*, (6), 237-254.
Creswell, J. W. (2016). *Research in education. Design, conduct and evaluation of quantitative and qualitative research.* Athens: Ion.
Grigoropoulos, H. & Kapaltsidou, D. (2020). Occupational burnout in employees of kindergartens in the prefecture of Thessaloniki. The predictive role of demographic characteristics. *Exploring the Child's World, 16*, 58-71.
Hytiris, L. S., & Anninos, L. N. (2015). *Administration and quality of services.* Athens: Association of Greek Academic Libraries.
Ioannidou, K. (2018). The role of the school leader in eliminating professional stress and burnout. *Pedagogical Review, 34* (64), 13-29.
Lalou, P., Manolesou, A., & Halikias, M. (2015). *Research methodology and introduction to statistical data analysis with IBM SPSS STATISTICS.* Athens: Association of Greek Academic Libraries.
Leiter, M. P., Maslach, C., & Frame, K. (2015). Burnout. In R. L. Cautin & S. O. Lilienfeld (Ed.), *The Encyclopedia of Clinical Psychology* (p.1–7).
Öztürk, M., Bulut, M. B., & Yildiz, M. (2021). Predictors of teacher burnout in middle education: School culture and self-efficacy. *Studia Psychologica*, *63*(1), 5-23.
Papanastasiou, E. K., & Papanastasiou, K. (2014). *Educational research methodology*. Nicosia.
Sidiropoulou, M. (2015). The *functions of the educational administration*. Kavala: Saita.
Spanos, A. (2014). Ways of Administration and leadership of school units. *Erkyna, Review of Educational-Scientific Issues,* (2), 40-50.
Spyromitros, A., & Iordanidis, G. (2017). Syndrome of burnout and professional stress of secondary school teachers: the case of the region of western Thessaloniki. *Scientific Yearbook of the Pedagogical Department of Kindergarten Teachers of the University of Ioannina, 10*(1), 142-186.
Sun, J., Wang, Y., Wan, Q., & Huang, Z. (2019). Mindfulness and special education teachers' burnout: The serial multiple mediation effects of self-acceptance and perceived stress. *Social Behavior and Personality: An international journal, 47*(11).
Tektonopoulou, M. (2018). Recording styles and types - leadership models of primary school principals. *Educational cycle, 6*(2), 137-215.
Višnjić- Jevtić, A., & Halavuk, A. (2018). Early childhood teachers burn-out syndrome –perception of Croatian teachers. *Early Years,* 1–12.

THE VIEWS OF HEADTEACHERS OF SECONDARY EDUCATION SCHOOLS IN WEST THESSALONIKI ABOUT ADMINISTRATIVE FUNCTIONS IN EDUCATIONS

Georgios Bismpos
Headteacher of a School of Secondary Education
Thessaloniki, Grecee
e-mail: geobis@sch.gr

and

Evangelos Bismpos
Philologist
Thessaloniki, Grecee
e-mail: vagbis4@gmail.com

ABSTRACT

There is not a commonly accepted definition for administration and that is why we mention as an example that administration is: «the coordination of people and activities to achieve common goals» (Κουτούζης, 1999:35) and it covers all the activities of an organization (Σαΐτης, 2008: 132). Researchers of administrative science spent a lot of time on the issue of administration in education and whether administration principles can be applied in it. This is because the purpose of education as it is defined in article 16 of the written Constitution says that education «aims at a moral, intellectual, professional and physical education of Greeks».

These goals can be achieved by a school administration which is based on scientific principles. It can considerably increase the performance and efficiency of factors engaged in the educational process like human resources (teachers, students), logistic infrastructure (buildings, laboratories etc.), funding, parents, the local community, etc. (Κατσαρός, 2008: 16. Μάρδας & Βαλκάνος, 2002). This is, also, stressed in definitions about administration in education. Thus, according to Katsaros (2008: 16), administration in education is: «the specialized human activity which takes place in all kinds of educational organizations or the entire education system and aims at the actualization of education purposes, through functions, with the exploitation of available resources -human or material».

Administration is carried out by the headteacher, the deputy headteachers and the board of teachers. The headteacher has the main role as according to the law 1566/85, article 11, they are responsible for «the smooth operation of the school, the coordination of school life, the obedience to the law, bulletins and service commands as well as the application of the decisions of the board of teachers». The law 4823/3-8-2021 (GG 136, i. A) increases the headteacher's responsibilities.

The headteacher has to live up to the expectations of their role as a leader of a modern and effective school (Σαΐτης, 2002), since they continually interact with the members of the school community and they coordinate them, in order for the school to be able to adjust to the changing conditions of society (Θεοφιλίδης, 2012). Modern school administration requires the headteacher to have administration knowledge, human resources management skills, leadership skills and mainly social and communication skills.

The functions of school administration are the same as the basic principles of general administration and there are some functions which are related specifically to education (Κατσαρός, 2008: 16). The main functions of school administration are: 1. planning, 2. organization, 3. direction-leadership, 4. control (Μπουραντάς, 2002), 5. coordination, 6. crisis management, 7. human resources management, 8. creation of a good climate, 9 interaction between parents and school, 10. building visions, 11. forming culture, 12. communication.

A quantitative approach and the method of survey were applied in order to carry out the research. Survey is a preferable method for the exploration of attitudes, views and stances (Δημητρόπουλος, 2004). It collects a lot of information and it gives the researcher the opportunity to describe a situation and find the constants for comparisons and associations (Bell, 2001).

A 58,3% of the headteachers of secondary education schools in West Thessaloniki view organization and human resources management as the most important administration functions and 41,7% of them view planning as the most important one. They think that participation of the board of teachers is important in almost all school functions, mostly in planning and vision building (83,3% and 75% respectively). The function which is the headteachers' exclusive responsibility is direction-leadership

(50%). As for the studies in administration in education, 75%, of the headteachers think that they contribute considerably to their work.

Key Words: administration in education, headteacher, administration functions

REFERENCES

Δημητρόπουλος, Ε., (2004). *Εισαγωγή στη μεθοδολογία της επιστημονικής έρευνας: προς ένα συστηματικό δυναμικό μοντέλο μεθοδολογίας επιστημονικής έρευνας*. Αθήνα: Έλλην. Θεοφιλίδης, Χ., (2012*). Σχολική ηγεσία και διοίκηση. Από τη Γραφειοκρατία στη Μετασχηματιστική Ηγεσία.* Αθήνα: Γρηγόρης. Κατσαρός, Ι., (2008). *Οργάνωση και διοίκηση της εκπαίδευσης*. Αθήνα: Παιδαγωγικό Ινστιτούτο.Κουτούζης, Μ., (1999). Γενικές αρχές μάνατζμεντ, τουριστική νομοθεσία και οργάνωση εργοδοτικών και συλλογικών φορέων. *Γενικές αρχές μάνατζμεντ*, τ. Α΄. Πάτρα: Ε.Α.Π. Μάρδας, Γ., & Βαλκάνος, Ε., (2002). *Οργάνωση, διοίκηση και Οικονομία του συστήματος της Δια βίου εκπαίδευσης.* Αθήνα: Παπαζήση. Μπουραντάς, Δ., (2005). *Ηγεσία*. Αθήνα: Κριτική. Μπουραντάς, Δ., (2002). *Μάνατζμεντ. Θεωρητικό υπόβαθρο. Σύγχρονες πρακτικές*. Αθήνα: Μπένος. Σαΐτη, Α., & Σαΐτης, Χ., (2011). *Εισαγωγή στη Διοίκηση της Εκπαίδευσης (θεωρία και μελέτη περιπτώσεων),* τόμος Α΄. Αθήνα, Αυτοέκδοση. Σαΐτη, Α., & Σαΐτης, Χ., (2011). *Εισαγωγή στη Διοίκηση της Εκπαίδευσης (Εκπαιδευτική Νομοθεσία και Ερμηνεία – Ανάλυση Περιπτώσεων*), τόμος Β΄. Αθήνα: Αυτοέκδοση. Σαΐτης, Χ., (2008). *Ο διευθυντής στο δημόσιο σχολείο*. Αθήνα: ΥΠΕΠΘ, Παιδαγωγικό Ινστιτούτο.Σαΐτης, Χ., (2002). *Ο Διευθυντής στο σύγχρονο σχολείο*. Αθήνα: Αυτοέκδοση. Bell, J., (2001). *Μεθοδολογικός Σχεδιασμός Παιδαγωγικής και Κοινωνικής Έρευνας*. Αθήνα: Gutenberg. Harris, A., (2005). Leading from the chalk-face: an overview of school leadership. *Leadership,* 1 (1), 73-87. Hoy, W. K., & Miskel, C. G., (2008). *Educational Administration. Theory, Research, and Practice*. New York: Mac Craw-Hill. Stone-Johnson, C., (2014). Responsible Leadership. *Educational Administration Quarterly*, 50(4): 645-674. Yuki, G. A., (2002). *Leadership in Organizations*, (5th Ed.). NJ: Prentice Hall.

CREATING EDUCATIONAL "SOFTWARE" – GAMES THROUGH WIX

Panagiotis N. Alexopoulos
University of Peloponnese
Kalamata, Greece
e-mail: panagiotialexopoulos@gmail.com

and

Dr. Panagiotis G. Gakis
University of Peloponnese
Kalamata, Greece
e-mail: gakis@sch.gr

ABSTRACT

Computer Assisted Language Learning is a modern scientific discipline which has gained an active role in language teaching and has generated ideas for its complete incorporation in it (Crystal, 2001). New hardware and software related to language courses are constantly being added to such an extent that teaching is freed from the traditional learning model and offers the teacher the opportunity to integrate innovatively into his teaching. Through these technologies, there is an increasing involvement of students in them and a need arises for enjoyable and attractive digital software that will upgrade their way of learning and teaching (Brierley et al., 1991). Wix is a platform that provides the ability to build HTML5 websites, which can be transformed into innovative educational "software" through a user-friendly digital environment. The application of the possibilities offered by the platform in the field of education is also interesting, as the process of building "software" becomes quite accessible for the teacher. With just a hyperlink, the student can be introduced to the already built by the teacher website - software and can be pleasantly involved in the learning process (Nikolaidou et al., 2001). Some of the innovative and unlimited possibilities offered by Wix are presented through two games - software, which were made and addressed to heterolingual students with the aim of teaching Greek as a second foreign language.

The interactive game; "DIFFICULT MISSION: ACTIVE - PASSIVE PENSION" (https://pan-alexopoulos.wixsite.com/thegame), with its vehicle, among others, the theory of digital narration, invites heterolingual students to recognize the active from the passive pension through an adventurous story. A different utilization of the tools and implementation of the applications offered by the Wix platform in education is given through the game; "LEARNING GREEK: FURNITURE - VEGETABLES - CLOTHES" (https://pan-alexopoulos.wixsite.com/thecategorygame). In this case, the novice students are asked to place different words in the correct column. Any mistakes (in both games) are dealt with in such a way as to promote the student's self-action through encouragement and return for corrections, following relevant suggestions. How to build such educational software through Wix is described in detail.

REFERENCES

Brierley, B. and Kemble, I. (1991). *Computers as a Tool in Language Teaching*. New York: Ellis Horwood.

Crystal, D. (2001). *Language and the Internet*. Cambridge: Cambridge University Press.

Nikolaidou, S. & Giakoumatou, T. (2001). *Internet and teaching*, Athens, Kedros.

STEAM TRAINING IN SPECIAL EDUCATION

Louiza Novatsidou
e-mail: novalou@hotmail.gr

ABSTRACT

The curriculum in Special Education is based on the cultivation of children's individual skills and the experiential approach. This project entitled: "I make my own footprints" refers to the STEAM approach for Special Education and Training for children attending primary school education (Kindergarten and Primary School). This approach utilizing the principles of active learning encourages children to experiment with materials taken from nature and helps them to enrich their learning experiences with activities that make sense to them. In this way they are given the opportunity to ask questions about the natural world and to experiment with the elements that surround it.

In applying the STEAM approach to Science, Technology, Engineering, Act and Mathematics, children are encouraged to communicate with each other, to interact and utilize the exploratory teaching method with the ultimate goal of cultivating their critical thinking (Moore, Tank & English, 2018). In fact, the combination of the STEAM approach with the project method encourages them to participate by utilizing their prior knowledge, taking part in scientific experiments, increasing their self-confidence and enhancing cooperation and the capacity for self-evaluation and metacognition.

More specifically, before the implementation of the work plan, the teacher has made preparations such as the familiarization of the children with the Autumn season, learning to work in groups and comprehent the colors. Also, the children should have known the natural numbers from 1 to 5 and have come in contact with various artistic styles (watercolor painting, crayons, pastels, relief painting, etc.). The objectives of the work plan in each thematic area for children are the following:

Child and communication:

- use the basic vocabulary for colors with confidence
- verbally list and count objects (sheets)
- make descriptions following the basic textual structure (beginning - middle - end)

Child and science:

- recognize the morphological characteristics of the leaves
- perform simple mathematical operations with natural numbers
- to collect and sort sheets based on given criteria

Child, self and society:

- to use autumn leaves for the purpose of art

Child, body, creation and expression:

- to get acquainted with the art of leaf imprinting
- to know the properties of crayons and watercolors
- to be able to express themselves through art (painting, music)

Cultivation of postures:

- to cultivate relationships with their classmates
- to develop feelings of love for nature by observing the changes of the seasons
- to develop feelings of love for the various art forms

The work plan is structured in five main phases. The first takes advantage of the Harvard University's "see, "think", "wonder" approach (Project Zero, 2016). Histograms are created that compare the initial but later knowledge of the children on the subject. The second refers to field research in which children are presented with information material, media and resources and are given the impetus for experimentation and testing. The third phase includes activities for the completion of the whole educational process, the evaluation (fourth phase) of the work plan is done with a questionnaire that utilizes the Likert method and at the end proposals are submitted for the extension of the specific work plan.

REFERENCES

Moore, T. J., Tank, K. M. & English, L. (2018). Engineering in the Early Grades: Harnessing Children's Natural Ways of Thinking. In L. English και T. Moore (Eds.), *Early Engineering Learning* (pp. 9-18). Singapore: Springer.

Project Zero (2016). Harvard. Available: http://www.pz.harvard.edu/.

STEAMING: AN ERASMUS+ PROGRAMME. THE PARTICIPATION OF THE DIRECTORATE OF PRIMARY EDUCATION OF WESTERN THESSALONIKI

Akritidis Charalampos
Directorate of Primary Education of Western Thessaloniki
Thessaloniki, Greece
e-mail: babgiot@hotmail.com

Christidis Periklis
Directorate of Primary Education of Western Thessaloniki
Thessaloniki, Greece
e-mail: chperik@gmail.com

Galanos Dimitrios
Directorate of Primary Education of Western Thessaloniki
Thessaloniki, Greece
e-mail: digalanos@gmail.com

Georgiou Christos
Directorate of Primary Education of Western Thessaloniki
Thessaloniki, Greece
e-mail: georgiouchris18@gmail.com

Mallou Anastasia
Directorate of Primary Education of Western Thessaloniki
Thessaloniki, Greece
e-mail: anastasiamallou@yahoo.gr

and

Vasileiou Kostas
Directorate of Primary Education of Western Thessaloniki
Thessaloniki, Greece
e-mail: vasileiouk@gmail.com

ABSTRACT

"In an ever-changing, increasingly complex world, it's more important than ever that youth are prepared to bring knowledge and skills to solve problems, make sense of information, and know how to gather and evaluate evidence to make decisions. These are the kinds of skills that students develop in science, technology, engineering and math—disciplines collectively known as STEM or STEAM when arts is a basic part."(U.S. Department of Education, ιστοσελίδα).

In this context, the Directorate of Primary Education of Western Thessaloniki highlighting the importance of steam education, participates among other European programmes in a three year Erasmus+ KA2 Project entitled STEAMING, which has STEAM and its educational and pedagogical use as exclusive object (Steaming Project Europe, ιστοσελίδα).

STEAMING commenced in September 2019 and has a completion date of August 2022 with the aim of engaging students in the creation of their own STEAM learning. The project is a Research and Development programme in STEAM education and training and is implemented by six educational institutions in five European countries: Ireland, Croatia, Greece, Norway and Portugal (Steaming Project Europe, ιστοσελίδα).

The Greek participation in the programme coincided with the beginning of a promising period for STEAM in Greece, as – striving to be aligned with the European and international standards concerning Education in general – Ministry of Education announced in cooperation with IEP the drafting of the new curricula, creating a climate of optimism for the promotion of STEAM education in our country (ΙΕΠ, Προγράμματα Σπουδών, ιστοσελίδα).

Apart from the apparent intention of the state to strengthen steam education in Greece, a large part of the academic and research community in our country - in conjunction with the ever-increasing interest of the Greek society - supports STEAM education, while, according to the related literature, we find ourselves at the beginning of the Fourth Industrial Revolution. The need to incorporate STEAM practices at all levels of education is now vitally important (Σουλιώτου, ιστοσελίδα).
Over the three year duration of the project, it is expected that many students and teachers will participate and contribute to the development of teaching and learning resources for STEAM. It is further anticipated that the experiences and resources developed will benefit schools across all the partner countries (Steaming Project Europe, ιστοσελίδα).
The Greek participation in the programme, among other assignments, includes the elaboration of a case study with STEAM content.
Hence, Greek team decided, using Arduino platform, to deal with the issue of noise reduction in schools (The project is being processed by 1st Primary School of Diavata).
During the school year 2020-2021 students and teachers dealt with the issue of noise reduction in their school. In particular, they attempted to examine which is the effect on students' behavior from the visualization of noise and the use of music. They also dealt with the issue of air quality in the classroom. In particular, they were interested in studying the air quality of the classroom during the winter months after a continuous two-hour lesson and the air quality in small classrooms with a large concentration of students.

- From the educational point of view, during the implementation of the Greek case study, students:
- learn to create and program advanced software
- understand the effects of sound and noise
- work interdisciplinary and exploratory
- work together
- create noise reduction constructions
- practice argumentation and the ability to publish their findings
- express themselves artistically, creating music instruments and playing music with them (Steaming Project Europe, ιστοσελίδα).

In other participating countries, too, students are expected to reap similar benefits through the implementation of interesting steam programmes as well as through the exchange of experiences and good practices.
In addition, all participating teachers benefit from the interesting exchanges among the partners on a philosophy of STEAM education and on opportunities for developing active engagement in collaborative STEAM learning and problem solving (Steaming Project Europe, ιστοσελίδα).

REFERENCES

STEAMING PROJECT EUROPE,
https://steamingproject.eu/ [Accessed the 20th of January 2022, 19:00]
U.S. Department of Education,. Science, Technology, Engineering, and Math, including Computer Science,
https://www.ed.gov/stem [Accessed the 21th of January 2022, 20:15]
Ι.Ε.Π., Προγράμματα Σπουδών
http://iep.edu.gr/el/nea-programmata-spoudon-arxiki-selida[Accessed the 24th of January 2022, 23:00]
Σουλιώτου, Α.Ζ. Η σημασία της προσθήκης των τεχνών στην εκπαίδευση STEM.
https://www.researchgate.net/publication/322203989 [Accessed the 19th of November 2021, 21:10]
EUROPEAN COMMISSION, The Digital Economy and Society Index (DESI),
https://digital-strategy.ec.europa.eu/en/policies/desi[Accessed the 19th of November 2021, 20:50]
EUROPEAN SCHOOLNET, Transforming Education in Europe,
http://www.eun.org/el/focus-areas/stem[Accessed the 20th of November 2021, 24:00]
SCIENTIX, The community for science education in Europe,
http://www.scientix.eu/observatory[Accessed the 20th of November 2021, 21:35]
Stolton, S., The future for STEM in Europe,
https://www.euractiv.com/section/digital/linksdossier/the-future-for-stem-in-europe/ [Accessed the 25th of November 2021, 22:55]

TEACHING PYTHON VIA RUR-PLE(RUR-PYTHON LEARNING ENVIROMENT) PLATFORM

Venetis Kanakaris
Adjunct Lecturer of Department of Economics,
Democritus University of Thrace, Greece
e-mail: venetis.kanakaris@econ.duth.gr

George Velonis
Teacher of Technical High School in Katerini, Greece
e-mail: geovel@sch.gr

and

Theodoros Koutroukis
Associate Professor of Department of Economics,
Democritus University of Thrace, Greece
e-mail: tkoutro@econ.duth.gr

ABSTRACT

The main goal of programming education is to instruct students how to answer real-world problems via programming, after creating an algorithm based on their knowledge of essential programming notions. Furthermore, programming teaching can ameliorate students' capability of knowledgeable problem-solving through debugging and optimizing an executed program. Specifically, the primary target of programming instruction is not only to anyone to acquire the knowledge of programming but to productively meliorate the students' programming adequacy. A choice of Educational Programming Language (EPL) takes into consideration the students' level of knowledge is needed to best fulfil this. The use of programming microcosms is suitable for learning programming at early ages, such as high school students. However, entering Python into education, either as a specialty course in the IT sector, or as a general education course in all types of high schools, makes RUR-PLE a valuable tool to the teacher not only to teach the Python programming language but also to stimulate the indifferent students. In this paper will be presented the RUR-PLE a Python based programming learning environment, based on the virtual robot which is called "Reeborg". The RUR-PLE has all the features of the programming microcosm, such as visualization of the solution, limited set of basic commands with simple syntax and step-by-step execution. Moreover, provides advanced lineaments of programming, through the robot environment, such as the ability to use variables, a feature which usually absents from other programming languages (Papadopoulos, Y. & Tegos S, 2012). All the above mentioned features allow the educators not only to use the RUR-PLE not only for beginners but also for advanced users.

Key Words: RUR-PLE, Reeborg, Karel, Python, Programming

REFERENCES

André Roberge. (2015). *Learning Python: Child's Play with RUR-PLE*. Retrieved February 10, 2021, from http://www.ling.helsinki.fi/kit/2009s/clt230/RUR-PLE/html/en/rur.htm

Bergin, J., Roberts, J., Pattis, R., & Stehlik, M. (1996). *Karel++ A gentle introduction to the art of object-oriented programming*. John Wiley & Sons, Inc.

Čapek, K. (1990). *Toward the Radical Center: A Karel Čapek Reader*. Catbird Press.

Crane, L., Davies, R., Johnson, C., Kinsella, D., Marshall, D., Wright, E., & Efford, N. (2009). *Computer Programming in Key Stage 3*

Elkner, J. (2004). *The Guido van robot programming language.*

Freund, S. N., & Roberts, E. S. (1996). THETIS: An ANSI C programming environment designed for introductory use. *ACM SIGCSE Bulletin*, *28*(1), 300-304.

Oliphant, T. E. (2007). Python for scientific computing. *Computing in Science & Engineering*, *9*(3), 10-20.

Papadopoulos, Y., & Tegos, S. (2012). Using microworlds to introduce programming to novices. In *2012 16th Panhellenic Conference on Informatics* (pp. 180-185). IEEE.

Roberts, A. (2006). Seventeenth-Century Science Fiction. In *The History of Science Fiction* (pp. 36-63). Palgrave Macmillan, London.

Wallén, J. (2008). *The history of the industrial robot*. Linköping University Electronic Press.

Xinogalos, S., Malliarakis, C., Tsompanoudi, D., & Satratzemi, M. (2015, September). Microworlds, games and collaboration: Three effective approaches to support novices in learning programming. In *Proceedings of the 7th Balkan Conference on Informatics Conference* (pp. 1-8).

Xinogalos, S., Satratzemi, M., & Dagdilelis, V. (2006). An introduction to object-oriented programming with a didactic microworld: objectKarel. *Computers & Education*, *47*(2), 148-171.

Yoon, I., Kim, J., & Lee, W. (2016). The analysis and application of an educational programming language (RUR-PLE) for a pre-introductory computer science course. Cluster Computing, 19(1), 529-546.

EDUCATION-HISTORY

THE ESTABLISHMENT OF PLAY AREAS FOR CHILDREN AND ADOLESCENTS THROUGHOUT VOLOS DURING THE DICTATORSHIP OF I. METAXAS 1936-1940

Dimitrios K. Spanopoulos
International Hellenic University
Thessaloniki, Greece
e-mail: gimnastis@yahoo.com

ABSTRACT

The purpose of this paper is to research on the role of physical education teachers in exercising social control over children and adolescents in the city of Volos during the dictatorship of I. Metaxas 1936-1940. For the approach of this issue, the method of historical research will be used, utilizing as direct sources: laws, decrees, minutes of the Parliament, explanatory reports of directors of physical education of the Ministry of Education, archival documents found in the general archives of the state of Magnesia, the Municipal Center of history and documentation of the city, the archive of the technical service of the Municipality of Volos, the archive of I. Metaxas, the archive of the Magnesia Physical Education Office, the archive of the National Academy of Physical Education of Athens, as well as press and magazine articles. Also, material from the Popular Library of Volos, the library of the Association of the Three Hierarchs - which was founded in 1907 and has in its library about 35000 non-digitized books - the library of the University of Thessaly as well as any bibliographic reference from the Greek and foreign bibliography related to this subject (Cohen, Manion, 1997) will be used. The research questions that are: Has childhood and adolescence been "discovered" in the city of Volos during the dictatorship of I. Metaxas 1936-1940? Do children and adolescents have the opportunities and rights to "live" their age? Are games common to all or are they separated according to social class and the financial standing of children and adolescents? How does the death of a loved one of children and adolescents affect their participation in the game world? What is the place of the game in the daily life of children and adolescents of the city of Volos during the period of the dictatorship of I. Metaxas 1936-1940? Is there the "protective wall" of family and school, or have most of the city's children and teenagers joined the productive and social life and the adult world? Were playgrounds founded, organized and established by the Municipality of Volos with a clear position and boundaries within the urban fabric for the use of children's free time during the dictatorship of I. Metaxas 1936-1940? What are the existing play areas for children and teenagers in the city of Volos at that time? How are they shaped and what are their characteristics? What is their pedagogical quality, that is, the characteristics that are capable of highlighting them as places of education for children and adolescents? Had the E.O.N. penetrated the athletic events of the city of Volos? What difficulties have had to be overcome? Were there any objections of some families that prevented their children from organizing in it? Did the E.O.N. on the pretext of its interest in the physical education of the young people of Volos manage to control their social opinions? In what ways is the play and free time of the children and adolescents of Volos connected with the aspirations of the Metaxas regime? Were "open-air schools" founded and operated in the city of Volos during the dictatorship of I. Metaxas 1936-1940? Were "children's camps" and "children's countryside" organized in Volos at that time? What was the equipment used in them? What was the logic of using specific equipment in playgrounds (such as airlifters)? What role did gymnasts play in exercising social control over the children and adolescents of the "dangerous" classes during the dictatorship of I. Metaxas 1936-1940? What is the way in which the trainers tried to shape and discipline the behavior of the students? What did the national academy of physical education's training programs and the school gymnastics curricula include? What is the position and role of gymnastics in the educational system during the dictatorship of I. Metaxas 1936-1940? What changes and additions were attempted in the timetable? What kind of games are played in Volos during the dictatorship of I. Metaxas 1936-1940? What is their relationship with the economic and social environment of the city? In what ways are they related to the games of the ancient Greeks? What role do gymnasts play in the revival and dissemination of ancient Greek games and how do they relate to antiquarianism and the doctrine of continuity?

Fascism as it appears in Greece during the dictatorship of I. Metaxas 1936-1940 proclaims the omnipotence of the nation and the complete subordination of man to the state, which undertakes to lead the nation to its "rebirth" and ultimately to its "destiny". Personality cult is the main feature of the dictatorship of I. Metaxas 1936-1940, which often reaches one step before deification. The most basic and supreme concept of the dictatorship of I. Metaxas 1936-1940 is that the nation is the only accepted cohesive link of the Greeks, who unite on the basis of race, blood, origin, and common cultural elements such as religion, language and the subject of this research proposal, sports, leisure and play. The research on the establishment and establishment of play areas for children and adolescents in Volos is likely to contribute to a deeper understanding of the multifactorial role of play in shaping the social reality in the city, as well as the role played by gymnasts in its formation during the dictatorship of I. Metaxas 1936-1940.

Key Words: Game, dictatorship, city, Volos, playgrounds, education, gymnasts, physical education teachers, National Youth Organization, sports, free time

REFERENCES

Aries, P.(1962), Centuries of childhood, A social history of family life, New York: Alfred A. Knopf.
Cavallo, D.(1981), Muscles and Morals, Pensylvania: University of Pensylvania Press.
Cagen, E., Playing the part, Performing gender in America's playground
Chudacoff, H.(2007), Children at play, An American History, New York: New York University Press.
Davis, K.(2005), Creating Outdoor Environments for Learning and Fun, Early Childhood Centre- Indiana institute on disability and Community.
Heseltine, Holborn, & Wenger(1988), Playground planning for Local Communities, New Castle: National playing fields association.
Frost, J.(2010), A History of Children's Play and Play Environments, New York: Routledge.
Mergen(1980), Playgrounds and playground equipment
Pascoe, C., A history of play spaces
Schwartzman, H.(1979), Transformations, The Anthropology of children's play, New York: Plenum press.
Sutton-Smith, B.(1997), The Ambiguity of play, London: Harvard University Press.
Sutton-Smith, B., Mechling, J., Johnson, T., McMahon, F.(1999), Children's Folklore, A Source Book, Logan, Utah: Utah State University Press.

THE GOOD PERSON IN PETER JARVIS: PHILOSOPHICAL PREDISPOSITIONS OF ETHICS IN THE FIELD OF ADULT EDUCATION

Dr Konstantinos Mantzanaris
Thessaloniki, Greece
e-mail: mantzanaris@gmail.com

and

Dr Susana Antonakoudi
Thessaloniki, Greece
e-mail: mantzanaris@gmail.com

ABSTRACT

Holistic education and interdisciplinary approaches form a space for dialogue in the field of education, which is confronted with individual ethical dilemmas and questions that arise during the individual formative entrenchments of the above approaches. The emergence of individual questions on the necessity or not of ethical codes in the field of education is a critical issue in terms of the preservation of values and how they are managed by teachers. In particular, in the context of the relationship between education and ethics, we will try to promote the concept of ethics in Peter Jarvis by highlighting its individual aspects in the field of adult education.

With this in mind, the role of the educator and the approach to learning will be key dimensions of our approach. More specifically, the question we raise concerns the philosophy of adult education and in particular the philosophical interpretation on the ethics of the educator. In other words, how is the moral dimension attributed to the role of the educator and what is its philosophical reference.

More specifically, the moral dimension of the good person, as Jarvis portrays it in the face of the trainer, is a constant focus on the other. In other words, the way in which the other is the center of the trainer also defines the moral dimensions of Jarvis' vision, shaping the terms and limits of his approach. The way, for example, the instructor identifies the gap between the learner's biography and his / her experience in order to shift his / her thinking and mental orientation towards a learning condition, forms an ethical clause of meeting the whole person.

The instructor therefore creates an ethical relationship with the learner, which goes through his conscious choice to be in the same field of interactive reciprocity with the learner, in order to form a common space of experience of the world. Freire promotes the same conscious perception of the world by discovering the political self-consciousness of man, which is promoted by emancipatory knowledge and praxis.

But it is not an act of humanity but an internal process of the self in order to meet as a person and not as a role in a process of discovering the world. The person is therefore a universal being available to the other accompanying them on their contemplative joints. It is, in other words, about the way the instructor stands towards the other, who goes through his existential care to receive the other in terms of experiential encounter. In contrast, an educator who is cold towards their students discourages them from participating in the learning process. But what are the philosophical foundations of the above attitude?

In attempting to approach Jarvis' view in philosophical terms, we would note that this is not a Kantian ethic (in terms of categorical imperative) in the performance of one task towards another, nor an aristocratic mediocre Aristotelian reading in the context of a blissful ethic and ethos. Ethics in these versions is autonomous in a rationalization of relations with Cartesian coordinates to define the areas of Hobbesian determinism and free will.

Jarvis's moral view, however, is close to Levitical intersubjectivity, giving substance to the externality of the relationship through ethics. Levinas in particular considers morality to be the first philosophy in which the subject is connected to the other through morality. The Ego, that is, is the place in which the other is internalized.

In the same way, Buber understands the I-Thou relationship as a relationship that opens freely as an interactive reciprocity, in which the Ego authentically possesses the Thou within a mutual theory. On the other hand, the I-It relationship forms an objectification of the other in the utilitarian necessity and its autonomy as a unit. A unit that is in perfection, unfolding its individuality according to the correct knowledge within the projects of German idealism. Leibniz's approach, embracing their self-sufficiency, also emerged in these Units.

Jarvis's trainer is beyond Mezirow's rational dialogue, subject to an authentic encounter with the other. The face of the trainer highlights new meanings on the relationship, determining how it relates to the

world. The trainer therefore forms a common field of intersubjective path to the world by reading the terms of the relationship within it.

Key Words: Jarvis, ethics, philosophy, knowledge, relation

REFERENCES

Aristotle, (1987). *Nicomachean ethics*. New York, London: Garland Pub.
Brockett, RG (1990). Adult education: are we doing it ethically?. *Journal of Adult Education*. *1* (1), 5–12.
Buber, M. (1970). *I and thou*. (W. Kaufmann, Trans.). New York: Scribner. (Original work published 1922).
Burge, J. (2009). Doing "good work": Negotiating possibilities in ethical challenges. In E. J. Burge (Ed.), *Negotiating ethical practice in adult education (New Directions for Adult and Continuing Education*, (pp. 87-91). San Francisco, CA: Jossey-Bass.
Cunningham, PM (1992). Adult and continuing education does not need a code of ethics. In MW Galbraith and BR Sisco (Eds.), *Confronting controversies in challenging times: a call for action* (pp. 107–113). Jossey-Bass: San Francisco, CA.
Diane E. Oliver1 and Barbara Hioco, An Ethical Decision Making Framework for Community College Administrators, *Community College Review* 40(3) 240–254.
Edwin, G. Ralph (2001). Motivating Instruction in University Continuing Education: A Fresh Look at the Key Principles. *Canadian Journal of University Continuing Education*, *27* (1), 61-76.
Holford, John, Hodge, Steven, Milana, Marcella, Waller, Richard, Webb, Susan (2018). An authentic and generous adult educator: Peter Jarvis, 1937-2018. *International Journal of Lifelong Education*, *37* (6), 637-658.
Ianinska, Silvana, Garcia-Zamor, Jean-Claude (2006). Morals, Ethics, and Integrity: How Codes of Conduct Contribute to Ethical Adult Education Practice. *Public Organization Review*, *6* (1), 3–20.
Jarvis, P. (2005). Towards a philosophy of human learning: an existentialist perspective. In P. Jarvis & S. Parker (eds.). Human Learning: an holistic approach (1-15). London: Routledge.
Jarvis, P. (1995). *Adult and Continuing Education*. London: Routledge.
Jarvis, P. (2004). *Adult education & Lifelong Learning*. London: Routledge Falmer.
Lawson, K. H. (1979). *Philosophical Concepts and Values in Adult Education*. UK: Open University Press.
Le Cornu, Al. (2017). Learning is an ontological process: Jarvis and theories of Christian Religious Education in dialogue. *International Journal of Lifelong Education*, *36* (1-2), 95–111.
Malach, J. (2019). Ethical codes in adult education as subjects of comparative analysis. *European Journal for Research on the Education and Learning of Adults*, *11* (1), 1-19.
Morin, L. (1983). Values Education, Adult Ethics and Logic. *Laval théologique et philosophique*, *39* (3), 327–332.
Olvitt, L. (2017). Education in the Anthropocene: Ethicomoral dimensions and critical realist openings. *Journal of Moral Education*, *46* (4), 396-409.
Roberts, P. (2003). Epistemology, Ethics and Education: Addressing dilemmas of difference in the work of Paulo Freire, *Studies in Philosophy and Education*, *22* (2), 157–173.
Singarella, T. A., Sork, Th. (1983). Questions of Value and Conduct: Ethical Issues for Adult Education. *Adult Education Quarterly*, *33* (4), 244–251.
Sork, Th. (2009). Applied Ethics in Adult and Continuing Education Literature. *New directions for adult and continuing education*, *123* (2), 19-32.
Standish, P. (2007). Education for grown-ups, a religion for adults: scepticism and alterity in Cavell and Levinas. *Ethics and Education*, *2* (1), 73-91.
Takaki, H. N. (2021). Critical Literacy with (Freire) and for the Other (Levinas): Ethics/Social Justice as Enigmatic Becoming, *Revista Brasileira de Linguística Aplicada*, *21* (2), 627-655.
Freire, P. & Shor, I. (1987). *A pedagogy for liberation: Dialogues on transforming education*. New York: Bergin & Garvey.

THE IMAGE OF THE ARMATOLI AND THE THIEVES IN THE MEMOIRS OF NIKOLAOS KASOMOULIS

Georgios Alevras
Kozani, Greece
e-mail: alevraskozani@yahoo.gr

ABSTRACT

The memoirs of the independence fighters, considered as mediated texts, have been used by Greek historians as one of the most important sources for the study of modern Greek history. These texts provide a variety of information for the study of the social and economic situation of Hellenism during the last phase of Ottoman rule in Greece, but also during the Revolution. The Memoirs would be worth mentioning as a supplementary material by the history teachers in the secondary education, with the ultimate goal of the correct documentation of the modern Greek History. Also, these sources offer, with brilliance, rich folklore elements of the Armatolian tradition and popular mythological ideas.

The proposed study is part of the social history of Greece during the pre-revolutionary and revolutionary period. Its aim is to investigate the image of boatmen and thieves, as presented in the work of Nikolaos Kasomoulis._The study of the Memoirs of the fighters of 1821 contributes to the correct understanding and learning of the aspects of modern Greek History by the students, as a supplementary study material in the history lesson.

The present study is based on the Memoirs of the fighter, Nikolaos Kasomoulis, as well as on relevant literature. First, we give a general picture of rural society, as it developed during the Ottoman period, as well as the Greek gunmen and thieves, who formed the army of the revolution. The research is based on scientific documentation of historical and folklore elements of the Greek tradition, as presented by Kasomoulis. For the most comprehensive and comprehensive study of the subject, we examine the individual issues related to the role of gunsmiths and thieves, before and during the revolution of 1821. Therefore, the study of the Memoirs of the fighters of 1821 by the students, brings important results in the understanding and interpretation of Greek history.

Nikolaos Kasomoulis describes the events in an objective and impartial manner. Initially, his work presents the oppressive image of the Ottoman power, which led some brave men to flee en masse to the mountains of Greece. He also analyzes the gradual increase of thieves in the pre-revolutionary period, who were the main military corps of the Greeks in the revolution of 1821. These predatory groups, in collaboration with the armatoloi, were the "yeast of freedom".

Key Words: Thieves, Armatoli, Greek Revolution, Memoirs, Nikolaos Kasomoulis

REFERENCES

THE SYNERGY OF FINE ARTS TO THE ENGAGEMENT AND PROMOTION OF A LITERATURE PIECE OF WORK

Valentini Ch. Kampatza
Deputy Professor
International University of Greece
Thessaloniki, Greece
e-mail: vkambatza@gmail.com

ABSTRACT

The present piece of work constitutes a literature review regarding the contribution of Fine Arts (painting, engraving, sculpture, literature, music, theatre, cinema, photography, etc.) to the engagement and promotion of a literature piece of work, via their long historical course. At the same time, an analysis of the various roles of the above takes place.

The study aims to the presentation of determinant factors that have contributed to the excellent cooperation of Fine Arts through a relationship of interaction, having reality itself as a central axis-point of reference. In parallel, the ways through which a piece of art functions complimentarily to the engagement and promotion of its various parts are also located. In modern times, the rapid evolutions of Technology offer a series of means for the best apprehension of literature work. The image, in combination with music, has a revealing impact on the representation of the work.

With the term "*Art*" there is a reference to ancient, Greek art. Its Indian-European root is *«teks-neh2»* < *«teks-»* [= work as a carpenter]. In Latin, the term is transferred as *«ars»*, whereas in modern languages as *«art»* (English and French), *«arte»* (Spanish, Italian and Portuguese), *«kunst»* (German and Dutch), *«taide»* (Finnish), etc. (Τριανταφυλλίδης, 1998). Art reflects a human activity of special nature, which leads to the creation of aesthetically remarkable and premium pieces of work, framed by imagination and elegance. Certainly, a piece of art adds up to the magical result of the creators' inspiration and the dominant artistic streams. As a result, the spectator lets his imagination free, in order to discover hidden secrets. Otherwise, the communication of creator, work and spectator will be impossible, without the existence of feedback.

On a piece of art, image and language are also used. According to the principles of Semiotics of images, a second communicative system is activated, which functions in assistance with the linguistic one. Although language itself makes concepts more clear, image possesses great power, by communicating directly with the recipient, through the senses. For Roland Barthes, the words complete the image and contribute to the articulate definition of concepts (Barthes, 2005). Besides, both Literature and Art move towards parallel orbits, which may lead even to the fusion of two artistic idioms (Αγγελάτος, 2017). This becomes especially obvious in children's books where the little reader better understands concepts through images. This procedure is depicted in the primitive ages, via virtual representation of rituals and hunting scenes into the sidewalls of the caves (Φωρ, 1993; Γεωργιτσογιάννη, 2011). Moreover, the Faiyum portraits (with the amazing liveliness of colors, owing to the encaustic technique) reveal the attitudes of Egyptians for the connection of life and death (Janson & Janson, 2009).

A piece of art depicts the free creation of the subject (without the stereotypes of strict methodology), causing at the same time genuine feeling to the spectator. A literature text, often, employs the powers of art to be intelligible. Particularly, in modern poetry, the poetic collection is framed by related images. Even, the cinematic attribution of a play (text, image, music, technological effects) makes it more attractive. The *Murderess* of Alexandros Papadiamantis forms a characteristic example because the heroine performs murders under the sounds of emblematic music. Thus, the magic combination of text, image and music makes all the concepts clear.

Moreover, a literature piece of work undertakes identical roles with an artistic one (social, historical, political, informative, recreational, psychoanalytic, ethical, cultural roles), provided that Literature and Fine Arts have reality as a basic source for inspiration and creation (Φωρ, 1993). As a consequence, the synergy of Fine Arts contributes to the projection of crucial socio-political and ideological matters of a literature piece of work (Κούντερα, 1993; Γεωργιτσογιάννη, 2011), whereas at the same time, the aesthetic delight of the recipient also exists. In addition, this magical communion of Literature and Fine Arts bears as basic objective the speculation , the critical analysis of the pieces of work from the recipient, and, finally, the assertion for the change of social structure. That is to say, there is the refresher and the subversive element in their relationship.

Key Words: Fine Arts, Literature, Technology, Civilization, Society

REFERENCES

Αγγελάτος, Δ. (2017). *Λογοτεχνία και Ζωγραφική*. Αθήνα: Gutenberg.

Barthes, R. (2005). *Απόλαυση – Γραφή – Ανάγνωση*, (μτφρ.: Α. Κόρκα), (επιμ.: Τ. Μπέτζελος). Αθήνα: Πλέθρον.

Γεωργιτσογιάννη, Ε. (2011). *Εισαγωγή στην Ιστορία του Πολιτισμού*. Αθήνα: Διάδραση.

Κούντερα, Μ. (1993). *Οι προδομένες διαθήκες*, (μτφρ.: Γ. Χάρης). Αθήνα: Εστία.

Τριανταφυλλίδης, Μ. (1998). *Λεξικό της Κοινής Νεοελληνικής. Η Πύλη για την ελληνική γλώσσα*. Θεσσαλονίκη: Κέντρο Ελληνικής Γλώσσας.

Φωρ, Ε. (1993). *Ιστορία της Τέχνης. Η αρχαία τέχνη*, (μτφρ.: Β. Τομανάς και Ι. Βιγγοπούλου). Αθήνα: Εξάντας, Εκδοτική Α.Ε.

EDUCATION POLICY

SCHOOL ATTENDANCE IN DEVELOPING AMIDST THE PANDEMICS

Dr.Polyxeni Kechagia
Volos, Greece
e-mail: kechagia@uth.gr

and

Theodore Metaxas
e-mail: kechagia@uth.gr

ABSTRACT

Health crises and pandemics in developing economies have a significant impact on the household income and well-being. Additionally, they increase unemployment, influence family members' responsibilities and have a negative impact on school attendance rates and the quality of education. Health crises create conditions under which the maltreatment, abuse and neglect of children are enabled and increase drop-out rates. The recent pandemic is expected to increase poverty, unemployment rates in both developed and developing countries and reduce household income.

The study focuses on low- and middle- income economies (for brevity developing countries) arguing that they present overpopulation and inadequate health systems which renders these economies more vulnerable to economic and social shocks, such as the recent health crisis (Bong et al. 2020). In particular, less developed countries have insufficient health care services, including limited health personnel and protection equipment (Bong et al. 2020; Sharfuddin 2020), high poverty rates and limited public expenditure on health and access to social amenities (Ataguba and Ataguba 2020). Furthermore, population density in developing countries rendered social distancing impossible during pandemics (Bong et al. 2020; Bortz et al. 2020).

In addition, the study focuses on children, arguing that according to Sserwanja et al. (2021) limited attention has been paid to children's health during the COVID-19 pandemic, mainly in developing economies. Therefore, the welfare of children during the recent pandemic should be a subject of research interest, as COVID-19 could lead to an increase in the abuse, exploitation and maltreatment of children and violent incidents (Kechagia and Metaxas 2018; Brown et al. 2020; Fong and Iarocci 2020; Raman et al. 2020; Sserwanja et al. 2021). Therefore, drop-out rates are more likely to increase due to the exploitation and maltreatment.

The impact of previous pandemics on the well-being of minors has been the subject of previous studies (Holmberg 2017; Shelley-Egan and Dratwa 2019). Nevertheless, the economic exploitation of children during health crises, including the COVID-19 pandemic, remains under investigated. The present paper represents the first effort to conduct an extended literature review on empirical papers that have studied the association between pandemics and child la-bour in developing countries, including the COVID-19 pandemic. The literature review is conducted in scientific papers publishes in international journals and reports from international organizations, such as the ILO, the UNICEF etc. The present research concludes that previous studies turned their orientation on different geographic regions, on the children's characteristics, such as the gender, and used different methodological approaches. Policy implications and suggestions for future research are presented.

REFERENCES

Ataguba, O., & Ataguba, J. (2020). Social determinants of health: The role of effective communication in the COVID-19 pandemic in developing countries. Global Health Action 31.

Bong, C., Brasher, C., Chikumba, E., et. Al (2020). The COVID-19 pandemic: Effects on low and middle-income countries. Anesthesia and Analgesia 131: 86–92.

Bortz, P., Michelena, G. & Toledo, F. (2020). A gathering of storms: The impact of COVID-19 pandemic on the balance of payments of emerging markets and developing economies (EMDEs). International Journal of Political Economy 49: 318–35.

Brown, S., Doom, J., Lechuga-Peña, S. et al. (2020). Stress and parenting during the global COVID-19 pandemic. Child Abuse and Neglect 110.
Fong, V., & Iarocci, G. (2020). Child and family outcomes following pandemics: A systematic review and recommendation on COVID-19 policies. Journal of Pediatric Psychology 45: 1124–43.
Holmberg, M. (2017). The ghost of pandemics past: revisiting two centuries of influenza in Sweden. Medical Humanities 43: 141–47.
Kechagia, P. & Metaxas, T. (2018). Sixty Years of FDI Empirical Research: Review, Comparison and Critique. The Journal of Developing Areas 52: 169–81.
Raman, S., Harries, M., Nathawad, R. et al (2020). Where do we go from here? A child rights-based response to COVID-19. BMJ Paediatrics Open 4.
Sharfuddin, S. (2020). The world after COVID-19. The Round Table 109: 247–57.
Shelley-Egan, C., and Dratwa, J. (2019). Marginalization, Ebola and Health for All: From outbreak to lessons learned. International Journal of Environmental Research and Public Health 16: 3023.
Sserwanja, Q., J. Kawuki, & Kim, J. (2021). Increased child abuse in Uganda amidst COVID-19 pandemic. Journal of Paediatrics and Child Health 57: 188–91

EVENING SCHOOLS IN GREECE. THEIR DIACHRONIC PRESENCE AND CONTRIBUTION IN SOCIAL AND VOCATIONAL DEVELOPMENT OF GRADUATES

Eleni D. Zisi
MBA International Hellenic University
Professor UE 80
1st Laboratory Centre of Kavala
Kavala, Greece
e-mail: helen2zissi@g.mail.com

and

Christos Georgiou
Dr. of Educational Sciences
Professor at the International Hellenic University
Thessaloniki, Greece
e-mail: georgiouchris18@g.mail.com

ABSTRACT

Education in Evening schools has a long-lasting history as a component of the Greek state educational system. It first appeared in 1872 and has contributed to the development of the educational level and the reinforcement of literacy for generations of pupils, mainly adults and working people, playing an important role over time in their social integration.

The purpose of this communication is to point out the offer of knowledge and the contribution of Evening Lyceums, mainly the Vocational ones (EPAL), to vocational development and integration of graduates during the recent years both in the labour market and to the upgrade of the quality of their life. It is the product of a research conducted within the framework of the postgraduate programme "Management and Organisation of Educational Units" of the International Hellenic University and consists of two parts. The theoretical part includes i) Introduction, ii) bibliographic review, iii) Historical review, iv) Necessity - reasons for existence of Evening Lyceums, v) Structure - departments of Evening Vocational Lyceums, vi) Study difficulties in the Evening Vocational Lyceums (EPAL), vii) Learning Theories, viii) Counterbalancing Education. The research part includes the research methodology through the method of quantitative analysis. In particular, i) research issues, ii) research tool description - SPSS, iii) conclusions - discussion, iv) the restrictions of the research and v) questionnaire.

The research focuses on the study of aspects and ideas of 120 graduates of Evening Vocational Vocational Lyceums of Kavala and Thessaloniki and the chosen research tool was a questionnaire. Method of quantitative analysis.

Research issues mainly concerned:

The differentiation of men and women concerning the expectations they had before and after the study period and the impact of the place of residence on the choice of school.

To what extent nationality, age and family status factors are significant differentiation factors during the study period and if ant to what extent there is a differentiation of different aged graduates concerning their aspects on the contribution of the Evening Vocational Lyceum (EPAL) in various areas of their life. In addition, if the Vocational status significantly differentiates the weight they gave to the reasons for their participation in said school and finally if today's vocational status of graduates significantly affects their aspect on contribution of Vocational Lyceums (EPAL).

The conclusions that emerged were as follows:

In comparison to women, men choose more frequently to stop their studies for vocational or family reasons.

Moving is a significant reason for cessation of work, mainly for foreigners.

The final image of the two sexes is almost the same, as far as the benefits they received by studying in the Evening Vocational Lyceums (EPAL) are concerned.

In addition, foreign graduates are more often forced to interrupt their studies, while the specialisation degree has greater affinity to the occupation they exercise.

Degree attainment has offered greater economic benefits to Greek graduates.

As far as gender is concerned, men exercise the occupation of their choice in larger percentage, in comparison to women.
A satisfactory percentage of 34% continued in former Technological Educational Institutes (T.E.I.) and a 30.4% in the Higher Education Institutions (A.E.I.); among them also people of more than 60 years old.
The younger ones believe in establishing a career while the older ones believe in enrichment and securement of more knowledge.
The choice of an Evening Vocational Lyceum (EPAL) for continuance of their studies seems to satisfy the graduates more than their expectations.
However, regardless of their demographic traits, graduates appear satisfied to a great extend from the function of said educational structure and from the benefits they enjoy after this period of study.
Compared to earlier researches, the Evening Vocational Lyceum (EPAL) is chosen for different reasons by different groups of people concerning age, occupation and other traits.
There is a large drain of pupils, which is due to family, work and financial reasons (Papavasileiou 2014).
Responsible for the increase in drain of pupils is the cancellation of their expectations, concerning their access in Tertiary Education, due to reduction of percentage of admitted students in the recent years (Galitis 2005).
Like in every research, restrictions appeared; in short, these were:
Large sample diversity.
Questions concerning work were not answered by graduates because they were unemployed, pensioners.
Very few did not answer (concerning interruption and resume of study, because they did not interrupt the study, began attending courses in the General Lyceum and, usually, at the 2nd Grade, changed over to the Evening Lyceum).
As for the future of the research, its extension to all Evening Vocational Lyceums (EPAL) in Greece is proposed.

Key Words: Evening Education, Evening Vocational Lyceums (EPAL), Social exclusion

REFERENCES

Γαλίτης Π. (2005) *Η Εκπαίδευση στα Εσπερινά Σχολεία ως Παράγοντας Άμβλυνσης του Κοινωνικού Αποκλεισμού,* Θεσσαλονίκη
Καγιαβή Μ. (2016) *Η Πολυδιάστατη Μάθηση ως Παράγοντας Μετασχηματισμού στους Ενήλικους*, Πάτρα
Παπαβασιλείου Β. (2014) *Λόγοι φοίτησης στην Εσπερινή Εκπαίδευση: Η περίπτωση του Εσπερινού σχολείου στον Αρχάγγελο Ρόδου*, Ρόδος
Legislation, L.4997/1929, L.576/1977
Legislative Decree 4379/1964
L.2525/1997
L. 4368/2016 - GG 21/A/21-2-20
https://www.minedu.gov.gr access 25 April 2021
https://schoolpress.sch.gr access 2 May 2021

THE SCHOOL DROPOUT AT THE TIME OF THE COVID-19 PANDEMIC

Fani A. Fotiadi
International Hellenic University
Thessaloniki, Greece
e-mail: fanifotiadi@gmail.com

ABSTRACT

The phenomenon of school dropout, in other words early school leaving, is of alarming proportions throughout the world. The need to prevent school dropout is therefore highlighted, as its consequences are adverse and are found in many areas, such as employment, the employee's financial earnings, but also health. However, in order to develop intervention strategies to prevent school dropout, it is necessary to find the factors that lead to it. Various studies have shown that the reasons for frequent school absences are related to substance use (Valkov, 2018). , students' negative attitude towards school, internalization and externalization problems, but also the lack of cooperation between parents and the school. On the other hand, the reasons for dropping out are low IQ, learning disabilities and consequently poor school performance (Gubbels et al., 2019).

In the last two years, covid-19 disease, which plagues the whole world, has been added to the factors that enhance school dropout, as it has affected education on an unprecedented scale (Conto et al., 2021). The decision of most governments to close schools and adopt the distance education method in developed as well as developing countries to reduce the spread of the virus will affect children's ability to learn and increase dropout rates school, especially for marginalized children, especially in countries with limited distance education infrastructure. So the social cost of keeping schools closed during the pandemic is high (Khan and Ahmed, 2021).

For example, research in Southeast Asia has revealed that covid 19 has severely restricted formal schooling because, although the most vulnerable socio-economic groups have the opportunity to participate, there is not a sufficiently positive climate in schools to prevent students belonging to them from dropping out of school. In Pakistan, a simulation shows that an estimated 7.2 million children will drop out of school due to a 50% reduction in family expenses, which mainly affects girls (Saito, 2021).. The risk of dropping out of school increased by 365% in Brazil and Latin America in general, because of distance education (Lichand et al.,2021). In fact, it turns out that learning losses do not increase systematically due to disease, but are the result of distance learning. Finally, in sub-Saharan Africa, a vulnerable region due to the poor performance of its education systems, the closure of existing Catholic schools may lead students to drop out of school (Wodon, 2020).

So, as school dropout can have long-term effects on employment, productivity and poverty levels, it is necessary to find solutions to reduce it. Data from 174 countries show that the level of education and learning will decrease significantly. Nearly 11 million students are likely to drop out of school due to the income shock from the pandemic. There will be exclusions and inequalities that will worsen for already marginalized and vulnerable groups, such as girls, ethnic minorities and people with disabilities. There is therefore a need for governments to develop long-term social protection and distance education strategies to mitigate the negative effects of school closures. It is also necessary to make individualized interventions on students who show tendencies to drop out of school. In fact, in the pre-Koronai era, such interventions of primary school students, who lived in a large urban area of high poverty, showed that the students who received them, showed a half chance of dropping out of school, compared to students who did not accept them (Lee-St. John et al., 2018) . Today, there is a need to identify people who are likely to drop out of school, which is already happening in countries with strong administrative data, in order to be the target of interventions, which can be done with specific behavioral impulses (Adelman et al., 2018). In fact, in the Brazilian province of Goias, they are already being sent directly to students' phones, which has resulted in a 26% reduction in dropout risk by 2020 (Lichand, and Christen, 2021).

Finally, ways need to be found to boost school satisfaction for young people (Bussu and Pulina, 2020) . Research conducted in a socio-economically disadvantaged area of the European Union shows that it depends on interpersonal relationships, the learning process, the role of the teacher, school management and the use of new technologies. Therefore, drastic measures must be taken not to verify the ominous prediction that by 2030 the world will be facing a global drop in the rate of learning (Azevedo et al.,2021).

Key Words: school dropout, covid – 19

REFERENCES

Adelman, M., Haimovich, F., Ham, A., & Vazquez, E. (2018). Predicting school dropout with administrative data: New evidence from Guatemala and Honduras. *Education Economics*, *26*(4), 356-372.

Azevedo, J. P., Hasan, A., Goldemberg, D., Geven, K., & Iqbal, S. A. (2021). Simulating the potential impacts of COVID-19 school closures on schooling and learning outcomes: A set of global estimates. *The World Bank Research Observer*, *36*(1), 1-40.

Bussu, A., & Pulina, M. (2020). Exploring young people's perceptions about secondary school: Critical issues and improvements to prevent dropout risk in disadvantaged contexts. *Improving Schools*, *23*(3), 223-244.

Conto, C. A., Akseer, S., Dreesen, T., Kamei, A., Mizunoya, S., & Rigole, A. (2021). Potential effects of COVID-19 school closures on foundational skills and Country responses for mitigating learning loss. *International Journal of Educational Development*, *87*, 102434.

Dupéré, V., Dion, E., Leventhal, T., Archambault, I., Crosnoe, R., & Janosz, M. (2018). High school dropout in proximal context: The triggering role of stressful life events. *Child development*, *89*(2), e107-e122.

Gubbels, J., van der Put, C. E., & Assink, M. (2019). Risk factors for school absenteeism and dropout: a meta-analytic review. *Journal of youth and adolescence*, *48*(9), 1637-1667.

Khan, M. J., & Ahmed, J. (2021). Child education in the time of pandemic: Learning loss and dropout. *Children and Youth Services Review*, *127*, 106065.

Lee-St. John, T. J., Walsh, M. E., Raczek, A. E., Vuilleumier, C. E., Foley, C., Heberle, A., ... & Dearing, E. (2018). The long-term impact of systemic student support in elementary school: Reducing high school dropout. *AERA Open*, *4*(4), 2332858418799085.

Lichand, G., Dória, C. A., Neto, O. L., & Cossi, J. (2021). The Impacts of Remote Learning in Secondary Education: Evidence from Brazil during the Pandemic.

Lichand, G., & Christen, J. (2021). Behavioral nudges prevent student dropouts in the pandemic. *University of Zurich, Department of Economics, Working Paper*, (363).

Saito, E. (2021). Collateral damage in education: implications for the time of COVID-19. *Discourse: Studies in the Cultural Politics of Education*, 1-16.

Valkov, P. (2018). School dropout and substance use: Consequence or predictor. *Trakia Journal of Sciences*, *16*(2), 95.

Wodon, Q. (2020). COVID-19 crisis, impacts on catholic schools, and potential responses| part II: developing countries with focus on sub-Saharan Africa. *Journal of Catholic Education*, *23*(1), 51-86.

EVALUATION AND ASSESSMENT POLICIES IN PRIMARY EDUCATION. A COMPARATIVE APPROACH THROUGH EURYDICE NETWORK REPORTS

Eleftheria Alexandri
Kindergarten of Glafki
Xanthi, Greece
e-mail: aleleftheria@yahoo.gr

Vaia Papanikolaou
University of Thessaly, Dept. of Special Education
Volos, Greece
e-mail: vayapap@uth.gr

and

Panagiotis Tzionas
International Hellenic University
Dept. of Production Engineering and Management
Thessaloniki, Greece
e-mail: ptzionas@ihu.gr

ABSTRACT

In recent decades, the quality of Early Childhood Education and Care (ECEC) has been the focal point of European countries' educational reforms as its role in shaping a learning base for children of preschool age has been recognized (European Commission, 2018). The Eurydice Network aims to provide data and information regarding the educational systems of the 38 countries that are part of it for the design and formation of new educational policies aiming at the improvement of their quality.

The national frameworks for Early Childhood Education and Care (concerning ages 0 to 6) of European countries are very diverse in terms of the factors, procedures, and tools they use. The European Commission has established the *EU Quality Framework* for ECEC, which is divided into five (5) chapters: *1) the access, 2) the governance-funding, 3) the staff, 4) the curriculum and 5) the monitoring-evaluation*. These five chapters in combination can bring about an improvement in quality (European Commission, 2014; 2018; 2019; Eurydice, 2014; 2019)

The aim of the present study is the presentation of a comparative analysis of the data of the quality indicators regarding the Early Childhood Education and Care of the members of the Eurydice Network. For the purposes of this study, data were collected from reports of the Eurydice Network (from 2014 to 2019), and studies of the European Commission (from 2014 to 2020). The aim is, through the comparative analysis of the bibliographic data, to provide an assessment of the quality of ECEC in the countries of the Network.

The data analysis revealed the strengths and weaknesses of the educational systems at this level of education. It was found that for 2/3 of the educational systems, the ECEC is divided into separate settings for children (0-3 years old it is the Children Care type setting, 3-6years old it is the education-type setting), which has a direct effect on the quality of the provided education.

The findings of the study are presented based on the 5 chapters of quality. In particular, the following:

1. *Access*

   Various factors influence the access in ECEC such as the age of access, the children gap, the availability, as well as the cost. It was ascertained that in half of the EU countries achieved the European benchmark on ECEC participation. However, only in a few countries a place in ECEC is guaranteed from an early age.

2. *The governance and funding*

   Regarding quality assurance, it was found that there is a need for the authority of education to have the main responsibility for the entire ECEC phase, as well as an increase of funding.

3. *Staff*

   Thirteen educational systems are requiring a degree of higher education for at least one of the members of the staff. The need for an increase of required qualifications was also found. Greece is one of the 6 educational systems of Europe whereas the teachers and the assistants are required to at

least have a degree of higher education (ISCED 4). However, it was discovered that there is a need for a reduction of the ratio between children and teachers.

4. *Curriculum*

Twenty nine education systems have curriculums for the entire ECEC. In 14 educational systems, including Greece, no curriculum has been established for the structures where younger children attend (nurseries).

5. *Monitoring and evaluation*

The need to adopt external evaluation of both dimensions (Structural and Process) in all structures of the ECEC was indicated. The internal evaluation that is applied in the educational systems demonstrates a variety of characteristics. Two-thirds of the educational systems are using the results of the evaluations for educational policymaking. Greece is following a model of external structural evaluation in the nurseries and internal in the kindergarten. A need for evaluation and observation for the entire ECEC phase was detected, as well as a need for the participation of all the stakeholders and the publication of the results.

The results of this comparative analysis are strongly highlighting the need for targeted reforms in the education systems of the countries to achieve the continuous improvement of the quality in the ECEC. We believe that this research can make a significant contribution to the active discourse recorded at European level as an additional source of information on preschool education and care and seeks the establishment of quality improvement measures.

Key Words: Eurydice Network, Early Childhood Education and Care (ECEC), Quality Framework, evaluation

REFERENCES

European Commission. (2014). Proposal for key principles of a Quality Framework for Early Childhood Education and Care. Report of the Working Group on Early Childhood Education and Care under the auspices of the European Commission. Brussels. European Union. https://ec.europa.eu/assets/eac/education/policy/strategic-framework/archive/documents/ecec-quality-framework_en.pdf

European Commission. (2018). *Commission staff working document accompanying the document: Proposal for a Council Recommendation on High Quality Early Childhood Education and Care Systems*. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52018SC0173

European Commission. (2019). *Education and Training Monitor 2019 Greece Report.* https://ec.europa.eu/education/resources-and-tools/document-library/education-and-training-monitor-2019-greece-report_en

European Commission. (2019). *Council Recommendation of 22 May 2019 on high-quality early childhood education and care systems*. https://op.europa.eu/en/publication-detail/-/publication/38e20eca-876b-11e9-9f05-01aa75ed71a1/language-el/format-HTML/source-117738764

Eurydice, (2014). *Key data on Early Childhood and Care Education and Training in Europe 2014. Brussels: Education, Audiovisual and Culture Executive Agency*. https://eacea.ec.europa.eu/national-policies/eurydice/content/key-data-early-childhood-education-and-care-europe-%E2%80%93-2014-edition_en

Eurydice, (2014). Proposal for key principles of a Quality Framework for Early Childhood Education and Care: Report of the Working Group on Early Childhood Education and Care (ECEC). Brussels: European Commission. https://ec.europa.eu/assets/eac/education/policy/strategic-framework/archive/documents/ecec-quality-framework_en.pdf

Eurydice, (2019). Key data on Early Childhood Education and Care in Europe. Brussels: Eurydice. Αντλήθηκε από: https://eacea.ec.europa.eu/national-policies/eurydice/content/key-data-early-childhood-education-and-care-europe-%E2%80%93-2019-edition_en

THE IMPACT OF THE PANDEMIC ON HIGH SCHOOL STUDENTS & THE NEED FOR COUNSELING SUPPORT

Evangelia Kouskouli
Principal of the Lefkopigi Junior High School ,Kozani
MEd Educational Science
MSc Educational Psychology
Kozani, Greece
e-mail: geliekou@gmail.com

and

Stamatia Kotroni
Med Educational Science
MSc Educational Psychology
PhD School Counselling
Thessaloniki, Greece
e-mail: stakot08@gmail.com

ABSTRACT

The spread of the Covid 19 pandemic from January 2020 until today has affected all areas of social life, including education, after removing teachers and students from their natural environment, the classroom, for many months. In a very short period, students were forced to change the way they participated in the educational process, the way they were taught and learned and encountered new learning environments (OECD, 2020b). Emergency digital education has been seen either as a challenge for the educational community that signals opportunities for wider educational change or even for a rapid digital transformation of school functions or with skepticism focusing on the negative effects of expanding digital education on the school community. issues of social justice, digital divide, and inequality (Flores & Gago 2020).

In this time of crisis, in which people and especially students are in a state of stress, tension, psychological stress and possibly trauma, the educational process should not be limited to content issues, such as the coverage of the curriculum but extend in matters of cooperation, support and encouragement of students and the creation of a climate of empathy and care that will help participants to continue working and as far as possible to enjoy the educational experience (Bozkurt & Sharma 2020). Due to the above, the introduction of counseling in schools is considered imperative.

Counseling at school aims to promote the mental health of students. When the teacher possesses counseling skills, the students' stress is reduced, any problems are dealt with realistically, their self-confidence is strengthened and finally they are helped to acquire a positive attitude both for themselves and towards the people they meet (Chatzichristou, 2011).

In the present research, an attempt is made to record the views of adolescent students regarding the effects of this difficult situation on their thoughts, feelings, and daily life, and on the other hand, to highlight the advisory role that teachers are called upon to undertake through programs that they can implement. on the school premises. The research concerns a case study and specifically the Lefkopigi High School of the prefecture of Kozani, in the framework of the Health Education program, during the school year 2020-21 with the theme: 'I express and communicate my feelings during the pandemic', enabled a group of 30 High school students to investigate their feelings and record some of their views on video. The results are revealing of the impact that the period of inclusion and social distancing had on the students' school and social life and can be a starting point for further study.

Key Words: pandemic, distance education, inclusion, social distancing, counseling, teacher role

REFERENCES

Bozkurt, A., and R. C. Sharma. 2020. “Emergency Remote Teaching in a Time of Global Crisis Due to CoronaVirus Pandemic.” Asian Journal of Distance Education 15 (1): i–vi.

Flores M.A & Marília G. (2020): Teacher education in times of COVID-19 pandemic in Portugal: national, institutional and pedagogical responses, Journal of Education for Teaching, 46 (4): 507-516.

OECD (2020b). School education during COVID-19: Were teachers and students ready? (Country notes). Retrieved on May 20, 2020 from http://www.oecd.org/education/coronavirus-education-countrynotes.htm
Χατζηχρήστου , Χ. (2011) Κοινωνική και Συναισθηματική Αγωγή στο σχολείο Αθήνα: Gutenberg.