



INCLUSIVE EDUCATION AND CREATIVE LEARNING STYLES. INTERNATIONAL OPPORTUNITIES AND CHALLENGES

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Abstract:

“Creative thinking skills can be considered one of the key competencies for the twenty-first century—they allow us to remain flexible and provide us with the capacity to deal with the opportunities and challenges that are part of our complex and fast-changing world” (Ritter & Mostert, 2017). This paper concerns the research area of "Inclusive Education" and focuses on a combined approach regarding inclusivity and creativity through interdisciplinary connections. Three creative abilities that can be exercised are the ability to produce a large number of ideas, the ability to produce diverse ideas with an emphasis on solving a real or hypothetical problem and the ability to produce innovative ideas (Paraskevopoulos & Paraskevopoulou, 2009). This paper aims through a review of literature sources to highlight creative learning styles as a contemporary sustainable dynamic of inclusive education (Ioannidi & Malafantis, 2022a) and school improvement for all learning differences (Ioannidi & Malafantis, 2022b) according to WEF 2023 “Defining Education 4.0: A taxonomy for the Future of Learning”.

Keywords: creativity, inclusion, inclusive education, creative learning styles, creative literacy practices, innovation and creativity skills

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1. Introduction

Education is the key to achieving sustainable development (UNESCO, 1996, 2009) and a human right that was eventually substantiated by international law with the UN Disability Convention (CRPD) in 2006 (Gordon, 2013). On this basis, inclusive education takes place, which refers to the right of all people to education, ensuring the presence, participation and progress of all students and above all ensuring equal opportunities (Medina-García et al., 2020). Since the implementation of Inclusive Education creates challenges for classroom teachers who must meet the learning needs of all students, the majority of training programs focus on the knowledge, attitude, abilities and skills of the teacher (Kurniawati, 2014). In the light of the abilities and skills of the teacher lies the development of the creativity of all students, as creativity is a modern inclusive dynamic in various educational contexts, according to WEF 2023 “Defining Education 4.0: A taxonomy for the Future of Learning” (2023).

The philosophy behind Education 4.0 presents a comprehensive set of skills, attitudes, and values to prepare young learners for well-being in the future. It is the specific taxonomy structure of skills, attitudes and values, e.g. *“Innovation and creativity skills: to include content that fosters skills required for innovation, including complex problem solving, analytical thinking, creativity and system analysis”* and *“Accessible and inclusive learning: From a system where learning is confined to those with access to school buildings to one in which everyone has access”*. In this context, the taxonomy aims to create an organizing principle by which best practices can be exchanged on how to incorporate workplace-relevant skills and skills of the future into education (WEF, 2023). So, this article constitutes a brief literature review with the aim of highlighting creative abilities, practices and styles as a modern dynamic of inclusive education (Ioannidi, 2023/ Ioannidi & Malafantis, 2022a) and school improvement for all learning differences (Ioannidi & Malafantis, 2022b). The originality of the work lies in highlighting creative styles as a dynamic component of literacy practices with a focus on inclusive learning in all educational contexts. It is worth mentioning that the types of learning projects will affect literacy in all subjects, e.g. language literacy, mathematical literacy, natural sciences, new technologies and literacy, etc. Most children need support to cultivate the quality of literacy associated with learning (O'Donnell et al., 2021, p. 449) and indeed a learning with inclusiveness and acceptance of diversity (http://prosvasimo.iep.edu.gr/docs/pdf/odhgos_paramythia_apodoxh_diaforetikothtas/Odigos_Apodoxi_Diaforetikotitas.pdf). Here, precisely a creative way of thinking and expression by all students can have an effect in the direction of an inclusive culture of class, students, teachers and school.

We emphasize the development of creative abilities in combination with the production of written and spoken language through the subjects of the Analytical Program (e.g. Language, Literature, Natural Sciences, Mathematics, etc.), as language is a key tool for conducting many and varied communication situations in education and life.

2. Literature Review

The review of literature is done to highlight key pedagogical dimensions and to identify pedagogical principles that improve learning in the inclusive classroom. Such reviews can be useful in the theory and action of teachers as well as in updating their knowledge and skills (Creswell, 2016/ Avramidis & Kalyva, 2006) about inclusive education.

Generally, *“inclusive education is the most effective way to give all children a fair chance to go to school, learn and develop the skills they need to thrive. Inclusive education means all children in the same classrooms, in the same schools. It means real learning opportunities for groups who have traditionally been excluded – not only children with disabilities, but speakers of minority languages too. Inclusive systems value the unique contributions students of all backgrounds bring to the classroom and allow diverse groups to grow side by side, to the benefit of all. Inclusive education allows students of all backgrounds to learn and grow side by side, to the benefit of all”* (<https://www.unicef.org/education/inclusive-education>).

Especially, given that in the international literature, theoretical and empirical data show the adoption of innovative and group creative teaching practices, but also the development of inclusive thinking in various countries and in various fields of knowledge (Arrazola & Bozalongo, 2014/ Musneckienė, 2020), our work presents basic creative skills and presents indicative educational examples that can be adopted by teachers in all educational subjects. According to UNESCO (2013), *“critical thinking is «good thinking»”*. So, *“at the foundation of the new theoretical framework lies the definition of creativity itself, which is turned from static to dynamic through the introduction of the concept of potential originality and effectiveness”* (Corazza, 2016).

3. Creativity in an Inclusive Classroom

According to Li (2022), *“Inclusive education has become a new global agenda in educational reform since Salamanca Statement in 1994. However, inclusion in education cannot be realized unless inclusive education teachers enable them to implement inclusive teaching strategies to meet all students’ diverse needs”*. Here, creativity and creative teaching strategies are important in an inclusive classroom. A positive classroom environment can lead to increased academic achievement, success and belonging in the school (Bucholz, & Sheffler, 2009). More specifically, the literature has summarized key-dimensions regarding inclusive education and creative learning styles regardless of learning differences:

3.1 Defining Creative Competencies for Inclusive Learning

According to Paraskevopoulos & Paraskevopoulou (2009), three individual creative abilities that can be exercised and to have an inclusive effect in the classroom are: (a) Intellectual fluency, which concerns the ability to generate a large number of ideas, e.g. synonyms, referring to things that are square in shape, blue in color, etc. (b) Intellectual flexibility, which is associated with the ability to generate different ideas, e.g. to investigate an object from a different point of view, solving a real or hypothetical problem. (c) Originality, which relates to the ability to generate innovative ideas, e.g. ideas for dealing with spelling ideas, etc.

However, six other individual creative abilities that can be cultivated throughout the school group are (Paraskevopoulos & Paraskevopoulou, 2009/ Gumula, 2020): (a) Imagination, e.g. the ability to discover new relationships and unprecedented compositions, to complete and transform images into new prototypes. (b) Visualization, e.g. the ability to represent experiences and ideas. (c) Insight, e.g. the ability to predict possible outcomes for given or future situations. (d) Analogical thinking, e.g. the ability to find relationships between concepts, e.g. relationships of cause and effect, external similarity, use, succession, etc. (e) Analysis, e.g. the ability to identify objects, persons and situations with their distinctive characteristics. (f) Synthesis, e.g. the ability to restructure the parts of a whole or connect parts from different wholes or produce new wholes.

Below, indicative examples are described for cultivating creative abilities in learning projects and educational activities of subjects in the inclusive school: We encourage the students to imagine, describe, observe, collect, assemble, mix, create, combine, fill in a blank sketch, analyze and compose a story with details, modify the use in an object, show unusual uses of an object, construct, trace, disassemble, organize, revise, plan, modify, compare, form, integrate, resolve, present, revise, specialize, propose, distinguish, etc.

Furthermore, teachers can teach skills but also contribute to the development of communication and effectiveness for the success of everyone in the classroom (Schunk (2009). Frameworks for such authentic communication in terms of equal access and participatory education are ensured by cooperative teaching (Matsangouras, 2000), because such an educational approach to teaching and learning involves groups of students working together to solve a problem, complete a task or create a product (Laal & Laal, 2012). Overall, the teacher's role is increasingly related to the design and arrangement of cooperative learning situations, in the implementation of which creative work can arise. The prerequisite for designing and orchestrating these kinds of learning situations is the analysis and understanding of creative and collaborative processes and their activation in all educational contexts (Haemaelainen & Vaehaesantanen, 2011).

3.2 Enabling Creative Thinking

The development of creative thinking skills refers to the learning of various techniques, with the aim of creatively producing many, original and alternative ideas and applying them to solving practical problems in school and society. Specifically, in the context of activating creative thinking, there are indicative ways of exercising specific mental function, such as questions and exercises that activate creative thinking. Such questions as well as exercises are the ones that cause you to find many ways of thinking, dealing with and solving problems, situations, etc.

In this way, creative abilities are cultivated and the subject taught is consolidated more effectively. Such creative educational ways of creative questions and exercises, which can be included in all lessons, aiming at the participation and strengthening of all students' learning profiles, are:

I. Suggested questions: (a) "What would happen if...", e.g. if there were no seasons? etc. (b) "Investigate and identify many original, alternative and new ideas for...", e.g. to form a perfect residential environment and an environmental park, to improve traffic management, etc. (c) "To

ask and record many ways to...", e.g. to protect our cultural heritage, to respect the natural and social environment, to deal with addictive habits such as smoking through healthy lifestyles, to learn more efficiently, to have fewer absences of some students, to solve problems of violence, to consolidate peace and solidarity towards everyone, to connect a personal way of thinking in a sustainable perspective to every issue and problem of social life, etc. (Paraskevopoulos, 2008/ Paraskevopoulos & Paraskevopoulos, 2009).

II. Suggested exercises: (a) "Other uses: new ways of using, modification", e.g. How else could this item be used? What would you change to make this storage space more functional? etc. (b) "Adjustments", e.g. What else does the painting look like? What else does this object resemble? What other angle can be used? How can this be leveraged in combination? etc. (c) "Magnifications: addition, multiplication", e.g. What to add? bigger? wider? more often? of greater value? How do we maximize the result? etc. (d) "Reductions: subtraction, division", e.g. What to remove? smaller? thinner? shorter? How can there be a division, a contraction? etc. (e) "Amendments", e.g. What change of color, movement, sound, shape, rhythm, time, etc. Could there be? Change in meaning? What other change would you suggest? etc. (f) "Substitutions", e.g. Other materials, ingredients, another way, another process you would use? Another place, another time, another procedure that is appropriate? Did you suggest another approach? etc. (g) "Rearrangements", e.g. Another formation? other layout? another class? another exchange? another recipe, another schedule? etc. (h) "Reversals", e.g. The opposite; The opposite; Role reversal? etc. (i) "Combinations", e.g. Combination of elements, parts, ideas, parts, methods, goals, materials, other composition, fusion? etc. (Paraskevopoulos, 2008/ Paraskevopoulos & Paraskevopoulos, 2009). Finally, the philosophy of the creative use of school time can be contributed by all the subjects, the principles of which are: (a) the synthesis of individual knowledge into wholes, (b) the importance of student involvement in the production process knowledge and the creation of a framework for collective action, cross-curricular communication and formation of cognitive and soft skills and strategies, (c) the value of the child's personality and the choice of methodological approaches that promote students cognitively, emotionally and socially in the investigation of issues and the multimodal expression of them (Matsangouras, 2003).

Finally, *"creativity is known today as an ability that can be developed and improved. The substantial research in the field of creative studies showed that creative thinking abilities can be enhanced through intervention and training"* (Doron, 2017). Also, *"creativity is the driving force behind technological, scientific, and cultural innovation and generating creative ideas in a brainstorm session is a crucial part of innovation"* (De Buissonjé et al., 2017).

3.3 Creative Problem Solving

Creative problem solving requires specific actions, such as (Bransford & Stein, 1994 as cited in: Schunk, 2009, p. 214): (1) identifying the problem, (2) clarifying and representing the problem, (3) exploring possible strategies, (4) selecting actions according to the above strategies, and (5) evaluating the results of the actions. In the same context, a process of Cooperative Learning with Creative Problem Solving consists of five corresponding stages (Laisema & Wannapiroon, 2014): (1) identification of tasks/problems, (2) planning for the project/task, (3) creation of

project/assignment, (4) presentation of the project and (5) evaluation of the project. The goal is always to develop creative thinking skills through the production of spoken and written language in all subjects of the Analytical Program (Syllabus). In this place, we formulate heuristic methods with didactic advantages and strengthening of communication towards our students in school life, in order for them to become systematic problem solvers and to create alternative options for achieving goals. In addition, the students are able to: (1) understand a problem, (2) devise a plan and (3) implement it and (4) reflect (Schunk, 2009, pp. 213-214) and even participative, inclusive, promoting collaborative problem solving.

Furthermore, given the importance of creativity in contemporary business settings, reflection has also been cast as a useful strategy to facilitate creative problem-solving (Rosseel & Anseel, 2022). Finally, it is important to mention that *“although organizations have expressed an increasing interest in creativity training to help their employees become more creative and innovative, recent research indicates effective creativity training is still lacking”* (Gumula, 2020).

4. Conclusion

In total, *“creative thinking skills can be considered one of the key competencies for the twenty-first century—they allow us to remain flexible and provide us with the capacity to deal with the opportunities and challenges that are part of our complex and fast-changing world”* (Ritter & Mostert, 2017). We must not forget that modern education cannot be understood on the one hand without the cultivation of *“higher mental functions: critical thinking and creative thinking”* (Paraskevopoulos, 2008), on the other hand what is good for students with educational needs is good for all students. In this direction, Inclusive Education recommends a new approach to increase achievement for all students (https://www.european-agency.org/sites/default/files/Five_Key_Messages_for_Inclusive_Education_EN.pdf), where creativity will play a decisive role for the dynamic participation of everyone in the classroom and educational community. Because *“every child has the right to quality education and learning”* (<https://www.unicef.org/education/inclusive-education>).

Conflict of Interest Statement

The author declares no conflicts of interest.

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References

Arrazola B V, Bozalongo J S, 2014. Teaching practices and teachers' perceptions of group creative practices in inclusive rural schools. *Ethnography and Education*, vol. 9:3, pp. 253-269, DOI: [10.1080/17457823.2014.881721](https://doi.org/10.1080/17457823.2014.881721)

Avramidis H, Kalyva E, 2006. *Research Methods in Special Education. Theory and Applications*. Athens: Papazisi [in Greek].

Bucholz J L, Sheffler J L, 2009. Creating a Warm and Inclusive Classroom Environment: Planning for All Children to Feel Welcome, *Electronic Journal for Inclusive Education*, 2 (4). Available at: <https://corescholar.libraries.wright.edu/cgi/viewcontent.cgi?article=1102&context=ejie>

Creswell J, 2016. *Research in Education*. Athens: Ion [in Greek].

De Buissonjé B R, Ritter S M, De Bruin S, Ter Horst J M-L, Meeldijk A, 2017. Facilitating Creative Idea Selection: The Combined Effects of Self-Affirmation, Promotion Focus and Positive Affect, *Creativity Research Journal*, 29:2, pp. 174-181, DOI: [10.1080/10400419.2017.1303308](https://doi.org/10.1080/10400419.2017.1303308)

- "Defining Education 4.0: A taxonomy for the Future of Learning", 2023. White Paper. World Economic Forum (WEF January 2023). Available at: <https://www.weforum.org/whitepapers/defining-education-4-0-a-taxonomy-for-the-future-of-learning/> [Assessed 3/5/2023].
- Doron E, 2017. Fostering creativity in school aged children through perspective taking and visual media based short term intervention program. *Thinking Skills and Creativity*, *23*, pp. 150-160.
- Corazza G E, 2016. Potential Originality and Effectiveness: The Dynamic Definition of Creativity, *Creativity Research Journal*, *28:3*, pp. 258-267. DOI: [10.1080/10400419.2016.1195627](https://doi.org/10.1080/10400419.2016.1195627)
- Gordon J, 2013. Is Inclusive Education a Human Right? *Journal of Law, Medicine & Ethics*, *41(4)*, pp. 754-767. doi:10.1111/jlme.12087
- Gumula J, 2020. Creativity training in organizations: a ready-to-implement concept. *Gr Interakt Org* *51*, pp. 95–102. <https://doi.org/10.1007/s11612-020-00501-5>
- Haemaelainen, R. & Vaehaesantanen, K. (2011). Theoretical and pedagogical perspectives on orchestrating creativity and collaborative learning. *Educational Research Review*, vol. 6 (3), pp. 169- 184.
- Ioannidi V, Malafantis K D, 2022a. Inclusive Education and Pedagogy: a practice for all students. *European Journal of Education Studies*. *European Journal of Education Studies*, vol. 9 (10), pp. 1-13. Available from: <https://oapub.org/edu/index.php/ejes/article/view/4476/7111>
- Ioannidi V, Malafantis K D, 2022b. Inclusive Education and Inclusive School Development: a key-area for sustainability and teacher skills. *European Journal of Social Sciences Studies*, vol. 8 (1), pp. 87-97. Available from: <https://oapub.org/soc/index.php/EJSSS/article/view/1335/1918>
- Ioannidi V, 2023. The development of creative abilities as a modern dynamic of Inclusive education. [Poster], 1st Pedagogical Conference, Kilkis. Greece [in greek].
- Kurniawati F, 2014. Teachers' attitudes, knowledge, and teaching strategies towards students with special educational needs in primary inclusive education in Indonesia [Thesis fully internal (DIV), University of Groningen].
- Laab M, Laab M, 2012. Collaborative learning: what is it? *Procedia - Social and Behavioral Sciences*, vol. *31*, pp. 491-495.
- Laisema S, Wannapiroon P, 2014. Design of Collaborative Learning with Creative Problem-solving Process Learning Activities in a Ubiquitous Learning Environment to Develop Creative Thinking Skills. *Procedia - Social and Behavioral Sciences*, vol. *116*, pp. 3921-3926.
- Li D, Gavaldà J M S, Badia Martín M, 2022. Listening to students' voices on inclusive teaching strategies in Chinese primary schools. *International Journal of Chinese Education*, *11 (2)*. <https://doi.org/10.1177/2212585X221120971>
- Matsangouras H, 2000. Cooperative teaching: "Why", "How", "When" and "for Whom". Available at: <https://users.sch.gr/kliapis/matsF.pdf> [Assessed 25/3/2023] [in Greek].

- Matsangouras H, 2009. Introduction to the Sciences of Education. Alternative approaches, teaching extensions. Pedagogical-Didactic 1. Athens: Gutenberg [in Greek].
- Medina-García M, Doña-Toledo L, Higuera-Rodríguez L, 2020. Equal Opportunities in an Inclusive and Sustainable Education System: An Explanatory Model. Sustainability, vol. 12, pp. 4626; doi:10.3390/su12114626. Available at: https://mdpi-res.com/d_attachment/sustainability/sustainability-12-04626/article_deploy/sustainability-12-04626-v2.pdf?version=1591977697 [Assessed 20/7/2022]
- Musneckienė E, 2020. Inclusive education in the arts: challenges, practices and experiences in Lithuania. Journal of the European teacher education network, vol. 15, pp. 18-29.
- O' Donnell A M, Reeve J, Smith J K, 2021. Educational psychology. Reflection for Action. (G. Manolitsis & F. Antoniou, eds.) Athens: Gutenberg.
- Paraskevopoulos I N, 2008. Creative Thinking at School and in the Family. Athens: Grigoris [in greek].
- Paraskevopoulos I N, Paraskevopoulos P I, 2009. Daedalus. Creative Thinking Exercise Program at school and in the family. Creativity and innovation. European year 2009. Athens: Grigori. [in Greek].
- Ritter S M, Mostert N, 2017. Enhancement of Creative Thinking Skills Using a Cognitive-Based Creativity Training. J Cogn Enhanc, vol. 1, pp. 243–253. <https://doi.org/10.1007/s41465-016-0002-3>
- Rosseel J, Anseel F, 2022. When Reflection Hinders Creative Problem-Solving: a Test of Alternative Reflection Strategies. J Bus Psychol, vol. 37, pp. 429–441. <https://doi.org/10.1007/s10869-021-09741-8>
- Schunk D H, 2009. Theories of learning. An educational view. Athens: Metaixmio [in Greek].
- UNESCO, 1996. Rapport à l' UNESCO de la Commission Internationale sur l' éducation pour le vingt et unième siècle, présidée par Jacques Delors, L'education, Un Tresor Est Cashe Dedans. Paris: Editions Unesco.
- UNESCO, 2009. Policy Guidelines on Inclusion in education. Paris: UNESCO. Available at: http://sinche.uom.gr/sites/default/files/policy_guidelines_on_inclusion_eu.pdf [Assessed 25/7/2022].
- UNESCO. International Bureau of Education, 2013. Guiding Principles for Learning in the Twenty First Century. Available at: www.ecolint.ch/file/621/download?token=zhQH7qg [Assessed 4/5/2023].
- http://prosvasimo.iep.edu.gr/docs/pdf/odhgos_paramythia_apodoxh_diaforetikothtas/Odigos_Apodoxi_Diaforetikotitas.pdf [Assessed 25/3/2023] [in Greek].
- https://www.european-agency.org/sites/default/files/Five_Key_Messages_for_Inclusive_Education_EL.pdf [Assessed 25/3/2023] [in Greek].
- <https://www.unicef.org/education/inclusive-education> [Accessed 3/5/2023].

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