## **Editorial**

## Teaching and Learning through Art

This special issue of the CEPS Journal focuses on specific approaches related to teaching and learning about content and objectives from all school subject areas by transferring artistic expressive activities at the primary and secondary school levels, as well as in teacher training education. The aim of the issue is to present research examples of the resolution of didactic questions through the implementation of methods, activities and approaches that are characteristic of the arts, in order to improve teaching and learning in other educational areas with various goals.

Especially noteworthy in today's school is the fact that the majority of students are in daily contact with television, video and video games, with their colourful, fast-moving sequences of images, and, of course, with computers, which provide a wide range of possible uses and experiences. Scanning and combining images and experimenting with the tools offered by different programmes, as well as exploring the possibility of multiple printings and the divergence between printed and screen images, are just a few possible areas to consider. These experiences not only imply an increasing speed of changing images, mechanical simplicity and broad possibilities in the resolution of different technical processes, but above all a specific experience of space perception and representation, which every pupil brings to the classroom, and which is essential to the different school subjects and to education in general.

We are referring to a group of competencies that a human being can develop by seeing, as well as by having and integrating other sensory experiences. The development of these competencies is fundamental to normal human learning. When developed, they enable a person to discriminate and interpret the visible actions, objects and symbols – whether natural or man-made – encountered in the environment. Through the creative use of these competencies, the individual is also able to communicate with others. The ability to analyse and interpret images and other visual material, although critical, is not sufficient in itself; it must be accompanied by an ability to create visual material, in order to use a specific language that allows the individual to consider synthesised images that stimulate hybrid sensitive experiences and operative experiences in a holistic way.

The described spatial experiences are important not only in the case of art education but for other school subjects, as most of them deal with visual representations of all kinds. This proposition is important when talking about the development of the capacity to imagine spatial relationships in the fields of geometry, geography, biology, physics, chemistry or sports; not to mention visualisation within history, literature or learning a foreign language. On the other hand, refined means of visual and auditory perception – along with all of the content this concept involves and supposes – are required in almost all activities, and school must therefore offer students proper operative experiences and must develop specific competencies.

The need for individualisation of the educational process demands creating flexible, alternative and dynamic teaching and learning strategies. Art expression in all of its variants offers a path to deep insight into and reflection on a range of content from different points of view, fostering integrative and multisensory experiences. In this way, the artistic experience accumulated through various modalities of transfer becomes a connection issue between different content and objectives, a support and point of departure in the design of didactic materials for different subjects, and a source of motivation to improve teaching and learning in other educational areas. However, this is based on the recognition that new media and digital technologies deal mostly with visual images of all kinds and their combination with other expressive instruments, as well as with auditory, kinaesthetic and verbal experiences, as an essential element in the interpretation and comprehension of data within different school subject areas.

Transferring perceptual experiences that have a starting point in artistic subjects allows a kind of complementary relation between "the world of art" and "the world of science". This is particularly important due to the increasingly necessary individualisation of teaching and learning, addressing the different styles of teachers and students and their previous experience in the field, as well as the individual development of spatial representation, motor abilities, etc. It becomes even more important if we consider the individuality of each student, his/her needs, affinities, cultural background, gender, etc. In this context, the role of teacher guidance using artistic approaches in relation to the pupil's performance at school, and the support of teachers in developing appropriate teaching and learning strategies through the arts, are questions that remain open. Much more research is needed to clarify elemental issues within this problem.

The creation of new knowledge has the potential to change the way we see and think, communicating new insights into the ways that content bears meaning about ideas, themes and issues. Historical research provides an array of ways that images can bear meaning, whether by means of description, representation, expression or symbolisation. More recent cultural discourse provides

much more scope in the potential for meaning-making that might result from an encounter with a work of art.

This fact inevitably opens a number of very interesting and highly significant inquiries applied to the various fields of art education and of education in general; for example: How can perceptual experiences be stable and continuous in the presence of other interpretations? The barriers that once separated the various fields of art no longer exist. Dynamic sociocultural changes have affected artistic expression of all kinds; debates about the cultural identity of minority groups, issues of national identity, rapid changes in technology, and the advent of the postmodern philosophy of fragmentation and plurality have reshaped the assumptions underlying art and education. These transformations affect the way we approach, learn and transfer experiences that originate in the arts.

On the other hand, it is important to approach art education from critical perspectives regarding the complexity of experiences deeply integrated in current, everyday life. Not only are we all bombarded with visual, auditory and verbal images – by way of multimedia technologies, amongst other sources – but we must respond to them at every step, making decisions that involve creativity, originality, spatial visualisation, motivation and imagination.

The aesthetic dimension is a unique process of cognition that can be developed by art education and exploited by other fields. In effect, a global understanding of our past as well as our contemporary world demands this set of complex elements and rich connecting experiences, which should be one of the principal objectives of education at all levels, and a key to personal and social growth, and to emancipation from the various forms of "cultural slavery" that are imposed at every step of our "globalised world".

At this point, we can argue that education would be more readily served by embracing far-reaching holistic forms and practices that can be critically examined through the interdisciplinary, multidisciplinary and transdisciplinary methods associated with the different scope of studies. Education should be approached from critical views regarding the complexity of actual experiences. An efficient critical attitude encourages the education of critical perceivers of the world as a whole, who are able to deal with eventual dissonances in a constructive way.

The aim of this issue of the CEPS Journal is to present research examples of the resolution of questions through the implementation of methods and approaches that are characteristic of artistic expression in order to improve teaching and learning in other educational areas. The first article, entitled The Benefits of Fine Art Integration into Mathematics in Primary School, written by Anja Brezovnik, who is currently completing her PhD on art and mathematics

at the University of Ljubljana, Slovenia, is a presentation of research demonstrating the positive effects of fine art integration into mathematics on students, proving that long-term participation in fine art offers advantages related to mathematical reasoning, such as intrinsic motivation, visual imagination and the generation of creative ideas. Three researchers – Tomaž Zupančič from the University of Maribor in Slovenia, Annely Köster from the Department of Art Education of the Estonian Academy of Arts, and Teresa Torres de Eça from the Universities of Évora and Minho in Portugal and president of InSEA (International Society for Education through Art) - join forces to present a comparison of the attitude of grammar school students towards the art curriculum. Through their research, it was established that students place the highest value on developing creativity, as well as on the use of new media and digital technologies, which are competencies that promote interdisciplinary approaches to content. The third contribution was made by another international team: Sonja Vuk from the Academy of Fine Arts in Zagreb, Croatia, and Tonka Tacol and Janez Vogrinc, both from the University of Ljubljana. The title of the article is Adoption of the Creative Process According to the Immersive Method. This method transfers creative processes from art to processes of creation elaborated by the students themselves. It should be implemented in a critical manner through analysis, aesthetic interventions, and ecologically and socially aware inclusion in the life of the community. In this way, students gain crucial metacompetences, starting by implementing a connective creative thinking process in all learning situations. Zlata Tomljenović from the Faculty of Teacher Education of the University of Rijeka, Croatia, focuses mainly on the professional development of teachers. Her research results can help shape an optimised model for the planning and performance of visual arts education, and provide guidelines for planning the further professional education of teachers, with the aim of establishing more efficient learning and teaching processes. Another very interesting contribution is from Romania. In her article Teaching Literature through the Arts - A Few Notes on Teaching Aldous Huxley's Point Counter Point through Beethoven's Music, Dana Bădulescu, from the Alexandru Ioan Cuza University of Iași, examines different artistic languages, pointing out not only the importance of the arts and aesthetics, but also their limitations. The author also argues that, despite these limitations, the spirit of the arts opens us up to freedom and flexibility. At the end of the first part of the publication, Irena Lesar from the Faculty of Education and the Academy of Music, University of Ljubljana, Slovenia, discusses The Role of the Arts in Tagore's Concept of Schooling. She recalls Tagore's idea that the arts should be an essential part of life and education, as it is only through the arts that it is possible to express one's experience and recognition of the harmonious connection between the universe, the individual reality and immortality, in addition to their being a source of pleasure. Only the arts and nature as a teacher enable the development of the entire personality, as well as the perception of reality and truth, the final objective of every research project, and certainly of education as well.

The Varia section of the present issue contains two articles that raise questions about teacher competencies from different points of view. With her contribution entitled Forms of Cooperative Learning in Language Teaching in Slovenian Language Classes at the Primary School Level, Alenka Rot Vrhovec, from the Faculty of Education, University of Ljubljana, Slovenia, reports on her research attempting to determine the extent of the use of cooperative learning in language classes. Cooperative learning is essential when the objective of the teaching-learning process is to develop communicative competences in students. The last contribution, written by Cirila Peklaj from the Faculty of Arts, University of Ljubljana, Slovenia, and entitled Teacher Competencies through the Prism of Educational Research, focuses on teacher competencies as an important factor impacting student learning. The teacher manages the class, structures the learning environment, chooses working methods and shows his/her communicative competencies at each step of the educational process. The author presents a model of teacher competencies that serves as a framework for understanding their effects on students' cognitive, affective and social processes.

Finally, in the third part of the journal, there is a review of the monograph *A Treatise on Detail in Architecture* (2015) (Brezar, V., Ljubljana: Faculty of Architecture, University of Ljubljana, ISBN 978-961-6823-56-2). With this book review, in which the author reflects on the nature of different teaching methods through artistic means such as drawing, we conclude this issue of our journal.

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