Council conclusions on the role of early childhood education and primary education in fostering creativity, innovation and digital competence

(2015/C 172/05)

THE COUNCIL OF THE EUROPEAN UNION,

IN THE CONTEXT OF THE UNION'S EFFORTS TO BUILD A DIGITAL ECONOMY ([1]),

HAVING REGARD TO:

1. The Recommendation of the European Parliament and of the Council of 18 December 2006 on key competences for lifelong learning, which defines the knowledge, skills and attitudes required to develop digital competence ([2]) as one of the key competences which all individuals need for personal fulfilment and development, active citizenship, social inclusion and employment ([3]), and which highlights the key role played by education and training in ensuring that all young people have the opportunity to develop and improve such competence.

2. The conclusions of the Council and of the Representatives of the Governments of the Member States, meeting within the Council, of 22 May 2008 on promoting creativity and innovation through education and training, which highlighted in particular the crucial role played by teachers and the learning environment in nurturing and supporting each child's creative potential ([4]).

3. The Council conclusions of 12 May 2009 on a strategic framework for European cooperation in education and training ([5]), which set enhancing creativity and innovation at all levels of education and training as one of the framework's four strategic objectives and identified the acquisition of transversal key competences such as digital competence as a key challenge in this regard.

4. The Council conclusions of 27 November 2009 on media literacy in the digital environment, which stressed the need to promote not only greater access to, but also the responsible use of, new technologies ([6]).

5. The Council conclusions of 20 May 2011 on early childhood education and care (ECEC) ([7]), which recognised that high quality early childhood education and care complements the central role of the family and lays the essential foundations for language acquisition, successful lifelong learning, social integration, personal development and employability, whilst fostering the acquisition of both cognitive and non-cognitive skills.

6. The Council conclusions of 29 November 2011 on cultural and creative competences and their role in building the intellectual capital of Europe ([8]), which recognised such competences as sources of sustainable and inclusive growth in Europe, particularly through the development of innovative products and services.

7. The Council conclusions of 29 November 2011 on the protection of children in the digital world ([9]), which emphasised the importance of raising awareness among children of the potential risks encountered in the digital world and called for consistency in promoting online safety and media literacy in schools as well as in early childhood education and care institutions.

8. The Council conclusions of 26 November 2012 on literacy, which pointed out that the impact on literacy of new technologies has not been fully exploited by education systems and that reviewing learning materials and methods in the light of increasing digitisation and supporting teachers in the use of new pedagogies can reinforce the motivation of learners ([10]).

([1]) European Council conclusions, 24-25 October 2013 (EUCO 169/13, Section I, in particular paragraphs 1 to 12).
([2]) 'Digital competence involves the confident and critical use of Information Society Technology (IST) for work, leisure and communication. It is underpinned by basic skills in ICT: the use of computers to retrieve, assess, store, produce, present and exchange information, and to communicate and participate in collaborative networks via the internet' etc.
([3]) OJ L 394, 30.12.2006, p. 10.
([4]) OJ C 141, 7.6.2008, p. 17.
([5]) OJ C 119, 28.5.2009, p. 2.
([6]) Doc. 15441/09.
([7]) OJ C 175, 15.6.2011, p. 8.
([8]) OJ C 372, 20.12.2011, p. 19.
([9]) OJ C 372, 20.12.2011, p. 15.
([10]) OJ C 393, 19.12.2012, p. 1.

9. The Council conclusions of 26 November 2012 on the European Strategy for a Better Internet for Children ([1]), which stressed the important role played by the education sector and parents in helping children to make use of the opportunities provided by the internet in a safe and beneficial way, as well as the need for teachers and parents to keep up with constantly evolving technological changes.

10. The Council conclusions of 20 May 2014 on effective teacher education, which emphasised the importance for teachers of acquiring sufficient understanding themselves of digital learning tools and Open Educational Resources in order to make effective use of these in their teaching and enable learners to develop their digital competence ([2]).

AND IN THE LIGHT OF OTHER BACKGROUND ELEMENTS, AS SET OUT IN THE ANNEX TO THESE CONCLUSIONS,

RECOGNISES THAT:

1. Promoting creativity, innovation and digital competence through education during the early years ([3]) can produce benefits later on, by laying the foundations for further learning, by enabling knowledge to be developed to a much higher level and by generally improving each child's ability to develop creative and critical thinking skills and to become responsible citizens for the Europe of tomorrow, capable of meeting the challenges of an increasingly interconnected and globalised world.

2. The ability to innovate and to develop new products and services relies to a large extent on harnessing the benefits of the digital revolution which is transforming economies and societies at an astonishing speed, meaning that in future decades economic success will depend, amongst other things, on citizens who display creative and innovative capacities and who possess high-level digital competence.

3. In order to meet the growing demand for digitally competent users and ICT professionals, Europe needs to respond to the challenge of providing opportunities for every citizen to unlock their creative or innovative potential and to develop their digital competence through lifelong learning.

ACCORDINGLY AGREES THAT:

with regard to creativity and innovation:

1. Education and training systems, together with non-formal and informal learning, have a fundamental role to play in developing creative and innovative capacities from an early age as key factors not only in enhancing future economic competitiveness and employability, but equally importantly in promoting personal fulfilment and development, social inclusion and active citizenship.

2. Teachers and ECEC professionals have a fundamental role to play in stimulating children's curiosity, imagination and willingness to experiment and in helping them to develop not only basic skills and specific knowledge, but also the transversal competences required for creativity and innovation, such as critical thinking, problem-solving and initiative-taking.

3. Learning through play, which may include games and digital tools with pedagogical value, not only fosters the imagination, intuition and an inquiring mind, but also the ability to cooperate and solve problems, and is therefore important for each child's development and learning, especially in the early years.

4. All of this has important implications in terms of modernising pedagogical approaches, teaching resources and the learning environment, as well as in terms of teachers' and ECEC professionals' initial training and continuous professional development, which need to ensure that they are able to nurture creativity and innovation in children by exemplifying these aspects in their own teaching.

and with regard to digital competence:

5. While digital tools cannot be used to replace essential classroom activities, experiences and materials, the provision of such tools and their integration into the teaching and learning processes, where appropriate, can contribute to enhancing the latter's quality and effectiveness, as well as to increasing pupils' motivation, understanding and learning outcomes.

([1]) OJ C 393, 19.12.2012, p. 11.
([2]) OJ C 183, 14.6.2014, p. 22.
([3]) The periods of education referred to in these conclusions correspond broadly to:
— ISCED level 0.2 (Pre-primary education): 'Education designed to support early development in preparation for participation in school and society. Programmes designed for children from age 3 to the start of primary education.',
— ISCED level 1 (Primary education): 'Programmes typically designed to provide students with fundamental skills in reading, writing and mathematics and to establish a solid foundation for learning.'.

6. Developing digital competence effectively and age-appropriately in ECEC and primary education has important implications in terms of pedagogical approaches, assessment, pedagogical resources and learning environments, as well as in terms of helping to reduce the digital gap.

7. Equally importantly, this has implications for the initial education and continuous professional development of both teachers and ECEC professionals, with a view to ensuring that they develop the capacity, methodology and skills to promote the effective and responsible use of new technologies for pedagogical purposes and to support children in developing digital competence.

8. In a world where many children tend to be quite comfortable with digital media, education and training also have an important role to play in promoting the safe and responsible use of digital tools and in developing media literacy, i.e. the ability not only to access digitally created content, but more importantly to interpret, use, share, create and critically assess such content.

INVITES THE MEMBER STATES, TAKING DUE ACCOUNT OF SUBSIDIARITY AND INSTITUTIONAL AUTONOMY,

with regard to creativity and innovation, to:

1. Encourage teacher education institutions, ECEC professionals' training institutions and in-service training providers to adapt their programmes with a view to accommodating new learning tools and developing appropriate pedagogies aimed at fostering creativity and innovation from an early age.

2. Encourage education providers or the relevant authorities, as appropriate, to equip schools and ECEC facilities to a suitable level in order to nurture creative and innovative capacities.

3. Encourage the providers of initial and continuous professional development programmes for both teachers and ECEC professionals to give consideration to effective methods for fostering curiosity, experimentation, creative and critical thinking and cultural understanding — for instance through art, music and theatre — and to explore the potential of creative partnerships.

4. Promote the development of formal, non-formal and informal learning activities for children which are aimed at fostering creativity and innovation, whilst also recognising the important role of parents and families.

and, with regard to digital competence, to:

5. Facilitate access to and the promotion of ICT and the development of digital competence through age-appropriate exposure to, and the integration of, digital tools throughout early childhood education and primary education, whilst recognising the important role of parents and families, as well as the different learning needs at different ages.

6. Encourage the development and use of digital tools for teaching purposes, and of pedagogical approaches which can contribute to improving competences in all areas — including especially literacy, numeracy, mathematics, science, technology and foreign languages — with a view to addressing some of the challenges highlighted in recent international surveys ([1]).

7. Encourage education providers or the relevant authorities, as appropriate, to equip schools and institutions providing early childhood education to a suitable level in order to promote the age-appropriate development of digital competence, in particular by expanding the provision of various digital tools and infrastructure.

8. Encourage teacher and ECEC educators, teachers, ECEC professionals and school leaders — through both initial and continuous professional development — to themselves develop a sufficient level of digital competence, including the ability to use ICT for teaching purposes, as well as to develop effective methods for promoting media literacy from an early age.

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([1]) The PISA 2012 results (testing 15-year-old pupils in reading, mathematics, and science) reveal progress towards the 2020 benchmark of at most 15 % low achievers in basic skills, although the EU as a whole is significantly behind in the area of mathematics. Sustained efforts in all areas are recommended, in particular concerning pupils of low socioeconomic status. The results of the First European Survey on Language Competences (2012) show an overall low level of competences in both first and second foreign languages tested, although there are variations across the Member States.

9. Explore the potential of digital tools to support learning in different settings and provide more personalised approaches to learning, which can cater for a wide range of abilities — from the highly talented to the low-skilled — as well as for children with disadvantaged backgrounds and those with special needs.

10. Promote communication and collaboration between schools and between teachers at regional, national and European and international level, including by means of *eTwinning*.

11. Explore the potential for cooperation with the open source community on innovative educational tools and digital creativity.

12. Make efforts to promote media education and literacy, in particular, safe and responsible use of digital technologies in early childhood education and primary education.

INVITES THE MEMBER STATES AND THE COMMISSION TO:

1. Take appropriate measures and initiatives aimed at fostering creativity, innovation and digital competences in early childhood education and primary education, making effective use of European resources such as the Erasmus+ Programme and the European Structural and Investment Fund to support such measures and initiatives.

2. Promote and develop cooperation, the exchange of good practice and mutual learning on the subject of fostering creativity, innovation and digital competences in early childhood education and primary education, as well as through non-formal and informal learning.

3. Identify, through research, examples of the most effective methods and practices for teachers and ECEC professionals at each stage of ECEC and primary education to help children to develop creative and innovative capacities, as well as to develop digital competence. In this context, consider implementing the key principles of the Quality Framework for ECEC, where appropriate.

AND INVITES THE COMMISSION TO:

1. Continue the ongoing work of the 'ET2020' Working Groups on Transversal Skills and on Digital and Online Learning to foster creativity, innovation and digital competence, where appropriate, from an early age.

2. Promote cooperation and mutual learning at European level, both in the context of the 'ET2020' Strategic Framework and through the Erasmus+ programme.

3. Continue monitoring the areas covered by these conclusions within the scope of existing tools and reports and whilst avoiding any additional administrative burden.

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ANNEX

Other background elements

1. The final report of the EU High Level Group of experts on Literacy, September 2012 ([1]).

2. The Commission communication of 25 September 2013 on 'Opening Up Education: Innovative teaching and learning for all through new technologies and open educational resources' ([2]).

3. The 2013 European Commission publication: 'Comenius — Examples of good practices' ([3]).

4. The 2013 publication by the European Commission, the European Schoolnet and the University of Liège: 'Survey of Schools — ICT in Education' ([4]).

5. The 2013 OECD publication: 'Innovative Learning Environments' ([5]).

6. The European High Level Conference on 'Education in the Digital Era' held in Brussels on 11 December 2014.

7. The 2014 report of the Thematic Working Group on ECEC 'Proposal for key principles of a Quality Framework for early childhood education and care' ([6]).

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([1]) See http://ec.europa.eu/education/policy/school/doc/literacy-report_en.pdf
([2]) 14116/13 + ADD 1.
([3]) See http://ec.europa.eu/education/library/publications/2013/comenius_en.pdf
([4]) See https://ec.europa.eu/digital-agenda/sites/digital-agenda/files/KK-31-13-401-EN-N.pdf
([5]) See http://www.oecd-ilibrary.org/education/innovative-learning-environments_9789264203488-en
([6]) http://ec.europa.eu/education/policy/strategic-framework/archive/documents/ecec-quality-framework_en.pdf