The Potential of ICT for Creative Learning & Innovative Teaching

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**IPTS**: Research Institute supporting EU policy-making on socio-economic, scientific and/or technological issues
If you look for creativity in schools in Europe, will you find it?
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<th>Phase</th>
<th>Objective</th>
<th>Method</th>
<th>Timing</th>
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<td><strong>How are creativity and innovation conceptualized in the educational context?</strong></td>
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<td>Literature review</td>
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<td>To validate methodological framework, focus and operation of the study</td>
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<td><strong>How creativity and innovation are explicitly dealt with in the Member States’ learning objectives?</strong></td>
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<td>To assess the role and relevance of <em>creativity</em> and <em>innovation</em> in the national learning objectives (curricula) of Member States</td>
<td>Analysis of the Curricula</td>
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<td><strong>What is the level of creative learning and innovative teaching taking place in school?</strong></td>
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<td><strong>What is the link between educational policies on creativity and innovation and the practices?</strong></td>
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<td>To assess teachers’ opinions and practices on creativity and innovation in each country at school level</td>
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<td><strong>What are good practices of creative learning and innovative teaching in Europe?</strong></td>
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<td>To identify good practices of creativity and innovation in education in Europe</td>
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<td><strong>What are the main results and policy options?</strong></td>
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<td>8</td>
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Creative Learning and Innovative Teaching
Final Report on the Study on Creativity and Innovation in Education in the EU Member States

Authors: Romina Cachia, Anusca Ferrari, Kirsti Ala-Mutka and Yves Punie

The potential **role of ICT** as a driver which can enable educational change in public policy in developing a **creative & innovative school environment**
Respondents:
- 7,650 from EU 27
- Obligatory schooling:
  - (ISCED levels 1 and 2)
- Other biases

Instrument:
- Collaboration with EUN Schoolnet & Ministries
- Online questionnaires:
  - 22 languages
- eTwinning:
  - from mid-Sept to mid-Oct 2009
- 28 close-ended questions
Do teachers perceive creativity as an important characteristic of education?
Almost nine out of ten teachers endorse a democratic view of creativity sustaining that everyone can be creative (88%).

Creativity can be applied to every domain of knowledge (98%) and to every school subject (96%)

Less agreement to the statement: “creativity is not restricted to visual arts, music, drama and artistic performance” (86%).
Teachers’ perception on creativity are positive but some ambivalence may be observed.

- Creativity is a skill that can be applied to every domain of knowledge
- Creativity is a skill that can be applied to every school subject
- Everyone can be creative
- Creativity is an inborn talent
- Creativity is only relevant to visual arts, music, drama and artistic performance
- Creativity is a characteristic of eminent people only

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<th>Strongly Agree &amp; Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree &amp; Strongly Disagree</th>
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</table>
Most teachers have received ITT training

Only 23% of respondents deem to have learnt how to teach during initial teacher training

Positive correlation between teachers who have received training and their opinions and practices of creativity training.
Do teachers perceive ICT as an enabler of creativity?
The vast majority of European teachers (85%) claim that technology has improved their teaching.

An impressive high agreement (91%) amongst teachers that ICT can be used to enhance creativity.
Technologies important for learning

High expectations “classical” ICT solutions

Lower awareness of the potential of web 2.0 for learning

Note: For the online collaborative tool item Wikipedia was given as an example
More than half of European teachers (54%) disagree and strongly disagree that mobile phones could be important for learning.
How is ICT used in schools in Europe?
Internet has become an important source of information

- I use a computer to prepare handouts and material: 80%
- I use the Internet to access information to update my own knowledge for use in my lessons: 70%
- I use the Internet to search for teaching material: 70%
- I use the Internet to develop my teaching skills by being in contact with other teachers: 60%
- I use teaching software for which the school has a license: 50%
- I let my students use a wide range of technologies to learn (videos, mobiles, cameras, educational software, etc.): 50%
- I use software which is freely available online: 40%
- I use the computer to access students' results and keep track of their progress: 40%
- Using a computer in class to present or demonstrate: 30%
- Using the computer room: 30%
- Asking pupils to use computers for their homework / outside school time: 20%
- I use the computer to send assignments to students and to receive their completed assignments: 20%
- I use digital games (including video games, online games, games that run on consoles, computers or mobile phones) in class: 20%

Options: always, often, sometimes, rarely, never
Less than half of the respondents (47%) agree that digital games are important for learning.

However, only 17% of the respondents use them as resources in their teaching.

Primary teachers use digital games as a teaching resource much more than secondary school
Above half of the teachers lament a lack of resources (57%).

Teachers (78%) claim to need more technical support (78%).

More than half the respondents (59%) maintain to have found relevant support and examples to combine Information Communication Technology (ICT) and creativity through contact with other teachers/colleagues.
Major conclusions & policy suggestions
Teachers believe that everyone can be creative but are less convinced on statement related that creative is not restricted to art.

Teachers are in agreement that ICT can be used to enhance creativity and to improve teaching and learning.

Teachers' opinions on creativity in education are much stronger than their practices.
The Internet is mainly used as a resource tool for teachers’ own profession and in some cases, for collaboration with other teachers.

Teachers’ lack of ICT proficiency is a major issue.

Although ICT may be used as an extension of other teaching tools, it also has the potential to develop new ways of doing things, thus developing creative attitudes in learning.
Major policies related to ICT – focused more on access to technology

Notwithstanding access – only a quarter of respondents believe that the quality of ICT in their schools was excellent.

Good quality ICT, continuous maintenance and technical support are extremely important

Research to assess the status and level of technology use by teachers and whether it is used for creative learning and innovative teaching
Teacher training makes a difference in teacher’s claims on creativity and their practices

Training is needed focusing on enabling teachers to:

- eradicate recurrent myths about creativity
- to get familiar with new technologies
- to equip young generations with new skills
- to encourage students to engage in more exploratory & creative interaction with ICT
- to reflect and discern which activities which take place in the classroom are more likely to encourage creativity and how to assess them adequately
Major Areas for Improvement

Creative Learning
Curriculum
Assessment & Pedagogy
Teachers’ Skills Development
ICT & Digital Media
Culture and Leadership

Innovative Teaching
Questions?

Thank you for your attention

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