

Research Paper—Education



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ENABLING INNOVATIVE TEACHING AND CREATIVE LEARNING : A MAJOR NECESSITY IN MODERN PEDAGOGY



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A B S T R A C T

21st century is considered as the Knowledge Age when a teacher has to be innovative to open the doors of creativity and innovation to the students. For fostering creativity among teachers and the students, only policies will not be sufficient. Along with policies, practices among the teachers regarding furthering the development of creativity and innovation in the students must be motivated. To enable innovative teaching and creative learning, enablers like assessment, culture, curriculum, individual skills, teaching and learning format, teachers etc. must be developed in such a way as can meet the needs and necessities of the 21st century pedagogy. Assessment must have focus on understanding and not on evaluating.

There are a number of theories on creativity, which allow people to judge what is creative and innovative without being able to explain or define what creativity and innovations are (Runco, 1999). At the same time, there is a gap between policies and practices. If education department of state promotes the creativity and innovation in their educational policies, this does not guarantee that schools will show creativity and innovation in their day to day practices.

As many researchers found, one of the barriers to creativity and innovation in schools consists of teachers' overloaded schedules. The demand for creative learning and innovative teaching from policy-makers has to be matched with a support mechanism. Besides, policies for creativity and innovation in education need to be in line with other policies and with what is demanded from teachers and students, as contradictory messages will increase uncertainty and further obstruct the adoption of necessary measures for a creative learning environment. The promotion of creativity and innovation needs to be articulate and coherent, as the issue is complex and multi-faceted. Moreover, policies need to be mirrored

by practices. It becomes evident that looking for manifestations of creativity and innovation is challenging for several reasons:

›Creativity and innovation are processes which do not always result in tangible outcomes and as a result it can be difficult to find evidence of them;

›Creativity and innovation are exposed to subjectivity, arbitrariness and interpretation; thus making it challenging to compare data;

›Policies are not necessarily mirrored in practice: encouraging creativity and innovation in policies is not enough, as there is a need for a support mechanism. The fostering of creativity and innovation does not uniquely rely on the intention of educators and pupils, as there are several conditions to be met before a creative and innovative environment can be promoted. In this sense, policies and common practices may provide the circumstances for creative learning and innovative teaching or, on the contrary, obstruct them. It is therefore interesting and necessary to examine which conditions can trigger creative learning and innovative teaching in order to support and allow them to spread. Teachers need institutional support to be creative and innovative.

Nonetheless, an assessment of creativity and innovation in educational practices cannot rely on the accidental and incidental number of individuals with the will and the inspiration. It was hence interesting to know the basic conditions for fostering creative learning and innovative teaching.

By “enablers” we understand the circumstances or the support mechanisms that allow creative learning and innovative teaching to emerge or that facilitate creativity and innovation. As “multiple components must meet for creativity to occur” (Sternberg & Lubart, 1999), it is necessary to “prepare the ground” for creativity and allow for these components (or enablers), to call together. If all enablers are present, it is still not possible

to deduce that creativity and innovation are happening, as it ultimately relies on the teachers and students to actively engage in the creative and innovative process. At the same time, if several conditions do not call together, it is unlikely that creativity and innovation will flourish.

Assessment The generally conflicting interests come together on the issue of assessment. This is because students want to perform well, parents want their children to achieve, teachers may be judged on students’ performances and governments may take final scores as evidence of improvement or failure of educational systems. It has been noted that an assessment for creative learning will help students enhance the quality of their learning.

| <i>Enablers</i> | <i>Description and references</i> |
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| | Assessment |
| Assessing for creativity in formal tests | If we support the teaching of creativity, we shall also assess it. Teaching and learning are often shaped around what is required from examinations. |
| Assessing creativity in day-to-day practices | This will entail adapting the concepts of creativity and innovation to age-group. Also, a framework to assess creativity will bring it to a central stage for both students and learners |
| Valuing creativity | Making learners understand that creativity is welcome. Reward curiosity and exploration. |
| Formative assessment | Focus on understanding, not on evaluating. Allow for a variety of assessment methods (self-assessment, peer-assessment, portfolios). Assessment is not to judge the students but to help them to understand better. |
| Making assessment interesting | Assessment does not need to be a stressful situation for the learner. It can also trigger students’ imagination and needs to express their creativity. Use of several media to assess pupils – e-portfolios, video-making, projects, etc.; unusual assignments and tasks. |
| Minimize social comparison | Students do not have to compete against each-other, but each pupil will benefit from trying to improve his/her previous performances. Need to establish a culture where what matters is the learning and not the grade. This will allow a focus on enjoyment of learning and fosters creative learning. |
| Appreciating creative expression | Overcome the “paradox of desirability”. Welcome originality in students’ performances, contributions and ideas. Find a balance between originality and relevance. |

Culture

Creativity and innovation are certainly characterized by a culture of risk-taking rather than one of mistake avoidance. Research shows that there should be a shared belief in creativity as an asset for teachers and students and this belief has to be recognized by all educational stakeholders. The

main challenge lies in the values that characterize creativity and innovation (risk-taking, exploration beyond the rules, non-conformity), which are in sharp contrast with school values (standardization, obedience, relevance and correctness). There is also a need to engage in the creation of a democratic culture, where students' ideas, interests and opinions are welcome.

| <i>Enablers</i> | <i>Description and references</i> |
|------------------------------|---|
| | Culture |
| Fostering Environment | An environment that recognizes creativity in the individual. A tolerant environment, where teachers are the key but students are at the centre of the stage. Fostering a culture that allows students to be able to know when to be original and when to conform. |
| Engagement | Giving a good reason to engage in tasks. Recognize students' interest. Culture that rewards hard work but allows fun. Creativity as an asset Culture that recognizes and welcomes creativity as a source of deep knowledge and as a thinking skill. Awareness of what creative learning and innovative teaching mean and entail Risk-taking culture A culture that welcomes risk-taking, that gives the possibility to try before getting it right. A culture that does not seek for avoiding mistakes. |
| A democratic culture | Learners have their say. Everyone takes part in the learning process. Co-construction of knowledge and negotiation of meaning. Ownership of learning from learners. |
| Open-mindedness | From teachers and students alike. Open communication at all levels (including building of trust). Encourage divergence (to broaden the horizon). Understanding of relationship between people, ideas, subject domains, cultures (Scoping workshop). |

Curriculum

Changes in the curriculum are very often at the centre of a delicate debate. Our interest here is on the recognition of a curriculum that is both effective and facilitates creative learning and innovative teaching

| <i>Enablers</i> | <i>Description and references</i> |
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| Curriculum | Balance different areas of knowledge Give the same importance to core and foundation subjects. Address creative learning in all subjects (and not just "the arts"). Teach skills as well as subjects. Allow for cross-curricular work. |
| Avoid competing curricular demand | Emphasis on the need for creativity without making it an extra task in a busy schedule, allowing time. |
| Creativity along the curriculum | Creativity is not just for primary school. The frame and conceptualisation of creativity shall be coherent from primary to secondary school curricula. |
| Balance between prescription and freedom | A prescriptive curriculum hinders creativity. Overloading the curriculum with too much information/knowledge leads to stressful and tight schedules and to a frontal format where the teacher is at the centre of the stage instead of the learner . |
| Addressing students' interests | Motivation is a main trigger for creativity. Students learn best when they see the relevance of what they are doing and when they are intrinsically interested in the activity or task. A good curriculum that promotes creativity needs to consider, among other things, also students interests. |

Individual Skills

Trans-disciplinary research and the literature on creativity and innovation for education emphasize the importance of individual skills. Students can develop certain attitudes, abilities and knowledge in order to perform in creative ways. Teachers will also need to widen their experience and expertise to become advocates and practitioners of creativity and innovation in schools.

| <i>Enablers</i> | <i>Description and references</i> |
|-------------------------------|---|
| | Individual Skills |
| Intellectual abilities | Students and teachers: develop synthetic, analytic and practical-contextual abilities. |
| Knowledge | There is a minimum threshold of knowledge needed to be creative in any field. Moreover, learners and teachers will have to know how to think, how to make connections, how to seek for problems and how to solve them. |
| Experience | Being an expert or having some expertise in a given field is a requirement for being creative. |
| Cognitive abilities | Divergent thinking, tendency to practice with alternative solutions, sensitivity to problems, evaluative ability. |
| Personality | Certain personality traits shall be welcomed and fostered in class: tolerance of ambiguity, openness to experience, independence of judgment, unconventional values, curiosity, preference for challenges and complexity, self-confidence, risk-taking. |
| Motivation | Intrinsic interest in the topic (from students and teachers). Work slightly ahead of learners' current functioning. |
| Hard Work | Creativity is not just fun but requires hard work. |

Teaching and learning format

A change in content and perspective also demands a change in pedagogy. Current educational systems need to adopt new methods that are suitable for present and future learners. In line with this, fostering creativity also requires an active mode of learning, and consequently a new teaching format, where the teacher is a coach and supporter and learners are empowered to take ownership of their own learning process.

| <i>Enablers</i> | <i>Description and references</i> |
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| | Teaching / Learning Format |
| Teaching for creativity | Teachers to tell the students that they value creativity. Making creativity explicit by supporting teachers to teach it. |
| Co-production of knowledge | A democratic classroom, where everyone has a say. Learners have an active role in the production and negotiation of meaning. Their ideas are welcome. Ownership of learning, operative work (Scoping workshop; Craft, 2005; Jeffrey, 2005; Runco, 2003). |
| Positive involvement | Fostering passionate involvement in tasks, affective fantasy in play, tolerance of anxiety. |
| Adapting format to the changing needs of students | Today's learners learn in a different way. They are surrounded by technologies. They understand differently. There is a need to change the format at greater pace than in the past. |

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| Adapting creativity to age group | Being creative means different things at different stages/ages. When planning for innovative teaching, there is a need to tailor content and method to students' interest, current level of functioning and current or proximal abilities. |
| Focus on creative processes rather than products | Creativity can be understood both as a product and a process. Focusing on the process allows for the development of thinking skills and for cultivating the right climate for creative learning and innovative teaching. |
| Intrinsic motivation | Intrinsic motivation, i.e. the pleasure of being involved in a given task, is a booster of creativity. It also enhances effective learning. |
| High-expectation of creative potential | Have high expectation from students, for both their learning and their creative potential. This will help students' self-esteem and trigger their motivation. Belief that everyone has the potential to be or become creative. |
| Learners as thinkers | Learners are treated as thinkers. Provocative methods to stimulate responses and interest. Learners think about the matter in between classes. |
| Pupil-centeredness | Need of a learner-centered pedagogy, personalization and individualization of learning, allowing pupils to have a say in the fashioning of tasks. |

Teachers

Teachers play a very important role in the encouraging or stimulating of creativity and innovation in education. They need to be made aware of the opportunities offered by creative learning and innovative teaching. Most of all, they need support.

| <i>Enabler</i> | <i>Description and references</i> Teachers |
|-------------------------------------|---|
| Training on creativity | Training is fundamental to acquire new skills, techniques and method to be innovative and creative, support professional development. |
| Understanding of what creativity is | Need to tackle myths, implicit theories and common assumptions on creativity. Need to understand what creativity is and how to look for and foster it. |
| Valuing creativity in students | Teachers need to welcome creativity, acknowledging the balance between originality and value. They need to make it clear for students that creativity is well received. |
| Be creative | Teachers need to be creative, to implement creativity in their practice if they want to teach in an innovative and creative way. |
| Support from technical personnel | Teachers require technical support, extra time and supporting material to integrate technologies in their teaching. |
| Time | Time away from curriculum, to innovate, assimilate, try and explore (Scoping workshop). |

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