CEDEFOP
European Centre for the Development of Vocational Training

Education and Culture DG
Lifelong Learning Programme

Summary Paper from Workshop I:

Innovation and Creativity in Education and Training

Knowledge-sharing Seminar for Study Visits Organisers

Thessaloniki, 14-15 September 2009

1 INTRODUCTION

The purpose of this document is to report on workshop I: Innovation and Creativity in Education and Training. In doing so an overview of the two presentations is provided before moving into a summary of the key points made during the discussions in response to the three questions around which the debate was structured. These are:

Question 1: How can pupils' creativity and their capacity for innovation be better developed in education and vocational training settings? Refer to concrete examples from your own working experiences that are successfully implemented in your own institutions?

Question 2: Which obstacles prevent a culture of creativity and innovation from being promoted in education and vocational training institutions? How can these be overcome?

Question 3: Suggestions for study visits

2 RE-IMAGINING THE SCHOOL CURRICULUM

In the first presentation, Irene Psifidou[1] discussed the current debates and trends in Europe around outcome-oriented curriculum policies and how these are reflected in national practices and initiatives of the Member States to promote innovation and creativity.

Today in a globalised economy and increasingly diverse societies, young people need a wider range of competences than ever before. Many will work in jobs that do not exist yet. Many will need advanced linguistic, intercultural and entrepreneurial capacities. Technology will continue to change the world in ways we can not imagine. Challenges such as climate change will require radical adaptation. In this increasingly complex world, creativity and the ability to continue to learn and to innovate will be the norm.

As a consequence, education and training is emerging with a new strategic aim: to equip students with those skills, aptitudes, values, knowledge and experiences needed to be prepared for the constantly emerging changes throughout their lives. Curricula should undergo a continuous process of change necessary to ensure that the education and training systems are well equipped to respond to new society needs and challenges.

[1] Dr Irene Pifidou is Cedefop expert and project manager working on national and European policy analysis and research on qualifications and learning outcomes.

Obviously, focusing on the development of skills, competences and attitudes of students and not only in transmitting them mere knowledge requires a completely different approach from the part of teachers. Teachers should function as counsellors and supporters of students during the learning processes. They should be adequately qualified, have good pedagogical skills and innovative and creative competences to be able to organise stimulating and appropriate learning environments. If core/key competences are to be acquired by every individual, teachers themselves should also acquire these competences and be able to display them. Today there is a clear link between the quality of teaching and the acquisition by students of the key competences they need for life.

Three main categories of factors were identified as the main reasons behind curriculum reform and renewal responding to the changing needs of learners and the changing role of teachers:

Internal factors: Developments due to the internal dynamic of the system. The interrelation of curriculum with the other elements of the education and training system explains why curriculum affects or is being affected by developments undertaken in other parts of the system: teachers training, students assessment, textbook policy, National Qualifications Frameworks, etc.

External factors going beyond the system: Strengthened ties between education and employment (increase quality and relevance) is often a drive behind outcome-oriented curriculum reforms; the new research on the brain and the learning sciences also brings new evidence to policy-makers and influences learning and teaching processes; and finally scientific and technological developments, as well as the climate change, move governments to renew curricula as these require the inclusion of new knowledge and emerging skill needs.

European – International factors: European influences/developments shaping curriculum reforms. Various initiatives implemented within the EU framework of cooperation promote competence-based education and training and lead or inspire curriculum reforms (the European Qualifications framework, the European framework on key competences, and so on).

The national responses to these drivers are different from one country to another, reflecting the different contexts and traditions, however there is today – quite clearly – a trend to competence or learning outcomes based approaches in curriculum reforms. There is also a great variety within the terminology used across different countries and even subject areas (i.e. for example the concepts of key skills, competences, capacity and standards may be understood and used differently between member states and different education and trainings sectors). Furthermore, the implementation of learning outcome -oriented curriculum policy is more pronounced where there is a clear objective of helping with employability (and this is why for

instance it is more developed and pronounced in curricula of vocational education and training rather than in general education where the focus is more on competence-based curricula often inspired by the European framework on key competences). For all these reasons, national policies and practices may differ to a great extend but common trends giving increasing emphasis on outcome-oriented curriculum development may be observed across countries. These trends give the following characteristics to reformed curricula promoting innovative approaches in teaching and learning:

- From being input based (i.e. establishing the number of hours to be spent on a topic), to becoming outcome-related (i.e. establishing the knowledge, skills and competences that should be achieved by the end of the education/training process);

- From lacking flexibility, to promoting inter-disciplinarily and leaving a more autonomy to teachers and trainers;

- From assuming that static knowledge has to be passed down to learners, to encouraging active and experiential learning;

- From assuming that there is only one teaching model, to try different methods and approaches based on individual learners needs;

- From teachers working in isolation, to schools being open to work with the local community, business associations and other stakeholders.

In a changing society and economy, reforming and renewing curriculum should be an on-going and continuous process. As the focus in curriculum development policy shifts towards learning outcomes and competences, there are a number of important questions which emerge and remain open for further debate: How to reconcile in one set of competences what is considered essential for the development of the individual and what is required by employers? What are the appropriate teaching methods and media to promote creativity and innovation? How should teachers' education and training be designed to cope with their changing role and equip them with new teaching methods and tools?

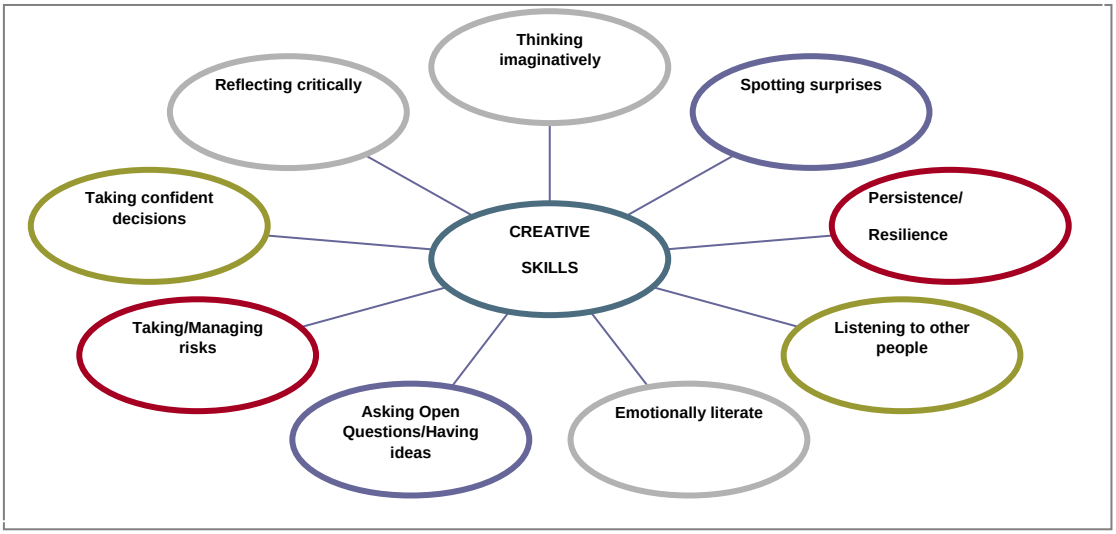
3 UNLOCKING STUDENTS' CREATIVE SKILLS

In the second presentation, Mr Paul Collard[2] discussed the notion of creative skills and how creativity can improve learning and teaching outcomes.

The core school curriculum has changed only a little in the last centuries, despite the fact that modern society has changed enormously and people have to deal with a highly complex environment. To this end, creativity can help students to deal with a new fast-moving society.

Creativity is based upon a set of skills that the education system should aim to develop in young people. Examples of creative skills are provided in the box below.

Box 1: Example of creative skills



It is not sufficient to identify creative skills. It is also important to understand how the process of learning creative skills takes place. Students learn from behaviour and thus creative skills can be developed only when teachers are creative themselves and when the learning environment is creative. Thus, it is fundamental to develop creative skills in teachers and turn schools into spaces in which creativity can thrive.

Creative skills should not be considered just as an 'add on' but a pre-condition for the successful delivering of the curriculum. It has become clear that creative skills, such as critical thinking, having lots of ideas and asking questions, are fully transferable skills which underpin the entire process of learning, including the learning of core subjects. For example, in a school

[2] Educational expert from CCE (Creativity, Culture and Education) an independent agency funded by the government for promoting creativity in English schools http://www.creativitycultureeducation.org/

pupils had to come up with the lines of a theatrical play as a way to increase their level of literacy and language confidence amongst pupils.

There is now some evidence that creativity in school has been proved to be successful in reducing truancy rates, engaging and empowering students, improving pupils' motivation to learn, enhancing their communication skills, as well as increasing the overall quality of teaching.

4 HOW TO IMPROVE STUDENT'S CREATIVITY

Several examples where provided during the debate on how pupil's creative skills can be improved in education and vocational training setting. The key points made are summarised here:

- **Bringing artists to schools**: Arts-based projects have been used in English schools to teach pupils to reflect upon reality with the help of artists. For example, pupils had to learn how to draw under the supervision of an artist. Through drawing, pupils learn to observe reality, to see, to pay attention to details. These are the same skills that are essential to learn core subjects such as biology, chemistry and physics.

- Enabling students and teachers to become **co-creators and implement creative changes** in their own learning space. For example, in a Hungarian university joint working groups were created between professors and students on how to improve the learning environment. In England, pupils from a deprived area were put in charge of creating a new learning environment in their schools. The pupils came up with the idea of turning an old aircraft into a class room. They had to present and discuss their idea and to think about how to re-arrange the space to make it fully functional. Eventually the old aircraft was turned into a learning space sitting in the school garden. Pupils were very enthusiastic about their new learning environment and became more interested in going to school and engaging in learning activities.

- Stimulating **group creativity** as well as individual creativity. Creativity takes place in a very powerful way through group dynamics and interactions. It is thus important to encourage students' brainstorming and to encourage interactions through group activities and team working.

- Encouraging **'learn by doing' and project based activities** to show the practical application of knowledge. Taking a practical approach is a good way to increase students' interest and commitment in the

learning process. For example, a foreign language should be taught to enable pupils to communicate with other young people.

- Supporting pupils' **involvement with the environment in which they live**. For example, a Polish school implemented a project for teaching pupils active citizenship and past history by engaging in community activities such as restoring an old Church and undertaking other activities to overcome community' conflicts with neighbouring countries dating back to the past. In Hungary, there is a focus on taking pupils into the natural environment to make theoretical knowledge more meaningful.

- Let pupils come up with **solutions to problems**: the teachers should act as knowledge facilitators by presenting problems and issues to pupils and let them think autonomously about possible solutions.

- **Mainstreaming the development of new skills in the curriculum**. For example, in Norway, entrepreneurial skills have been mainstreamed in the curriculum since an early age. In lower grade entrepreneurship is taught in a playful way, in higher grade students interacts with entrepreneurs and deal with real business cases scenario. In vocational education, such a practical approach, based on school-business cooperation, had contributed to reduce the drop-out rate.

- **Engaging with students and families**. For example, the Netherlands introduced a programme called 'peaceful schools' to help schools to deal with antisocial behaviour. The schools decided to introduce a module on how to deal with conflicts and violence; the module engaged teachers, students and their families thought workshops aiming at increasing the emotional intelligence of all the participants.

- **Using arts classes** to develop skills in pupils that have difficulties with learning core subjects in the more traditional way. For example, in France, pupils that have difficulties in learning core subjects are given the opportunities since an early age to develop useful skills in other ways, such as by participating at arts or music classes.

5 WHAT ARE THE MAIN OBSTACLES TO DEVELOP CREATIVE SKILLS?

Several obstacles for developing creativity in schools and creative skills in students were mentioned during the workshop discussion. The key points made are presented here:

- **Practical implementation of 'creative agenda' is still lagging behind**. To date, there is an intense and well-articulated theoretical debate on creativity in education, however, the practical implementation of tools for developing creative skills in education and vocational learning is still lagging behind. It is thus necessary to start a discussion and to spend more effort on making things happen.

- **Teachers are not trained to promote creativity**. Teachers are not equipped to teach creativity and to take up a new role of 'knowledge facilitators'. To this end, it is necessary to invest more in teachers training, in bringing external experts such as artists and business people into the classroom, as well as to learn from other contexts and experiences.

- **Teachers' resistance**. There is sometimes some diffidence amongst teachers to give pupils what is perceived to be as 'too much autonomy' in the classroom and learning process. It is also difficult for teachers to radically change the way they have approached teaching in their work experience. To overcome this, it is important to fully explain and communicate the positive outcome of having a more flexible curriculum and developing creative skills.

- **Sometimes creative approaches are perceived as too 'soft'.** In countries where the development of creativity was introduced long time ago there seems to be a reversing trend. Developing creative skills is perceived as a too 'soft' approach whereas the priority is back to traditional teaching and core subjects such as literacy and numeracy. To this respect, a reflection is needed on how to balance the development of creative skills and the teaching of core subjects.

- **Institutional and administrative requirements**. Teachers still have to deal with rigid curricula and non-flexible learning environment. To this end, it is important to try to find some practical solutions to by-pass the obstacles: for example reorganising the timetable and the learning space in the school as a way to increase teaching flexibility and autonomy.

- **It is still unclear how to capitalise on students' creative potential**. Pupils display a great deal of creativity in outside schools activities however teachers do not always know how to channel this great creative potential into learning activities.

6 SUGGESTIONS FOR STUDY VISITS

During the workshop suggestions were made on ways to increase the creativity and the effectiveness of study visits. These suggestions are:

- **Let young people speak**: besides being a learning activity in itself, pupils are likely to give the most highly accurate and lively account of their learning experience;

- **Show findings from research and assessment of the project**: it is very important to provide evidence of the benefits and implications of the projects/programmes shown during the study visit;

- **Involve external stakeholders**: it is very important to include in the visit programme external stakeholders such as the community, parents, businesses associations, social partners, etc.

- **Be open and honest**: it is important to provide feedback on what went wrong in the implementation of the project as well as on its shortcomings and weaknesses. The visiting partners are likely to learn a lot from an open and honest account.