

INNOVATION AND CREATIVITY IN EDUCATIONAL MANAGERIAL PROCESS

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ABSTRACT: This paper approaches issues related to the need of creativity and innovation in education, in all its forms, as a vector generating sustainable development. In the knowledge-based society creativity and innovation play a key role, being a major strategic element that contributes to the long term economic growth. Education is key to the global integrated framework of sustainable development goals. Education is at the heart of the efforts both to adapt to change and to transform the world within which we live. Throughout the paper, following the scientific investigations in the specialty literature I realized an analysis of the educational innovation process in Europe and Romania. I highlighted an innovative management in the educational establishments with deep effects on the personal development of pupils and students. The case study emphasizes the extent of the capacity of the educational establishments' management to innovatively ensure the infrastructure, resources, effective leadership in order to achieve and improve the learning outcomes and the student well-being

KEYWORDS: innovation, creativity, knowledge, transformation.

1. INTRODUCTION

Creativity and innovation are getting more and more important for the development of the knowledge-based society, contributing both to the economic prosperity and to the improvement of life quality, of individual and social welfare. They are also essential factors for a more competitive and dynamic Europe. In this context, education plays a crucial role in promoting creative and innovative skills, requiring a rethinking of the management processes in this sphere of activity.

Thus, it is required to encourage the creative potential of pupils and students since [1]:

- The development of new information technologies that students use in everyday life can be exploited in creative and innovative ways of working to help improve formal and informal learning;
- Immersion in this information environment influences the way of learning and understanding and therefore, teachers should develop creative approaches and find new methods, solutions, techniques and practices for greater involvement of students in their own learning approach;
- Creativity is a form of creating knowledge and therefore, the stimulation of creativity has a positive contagious action on learning, supporting and strengthening the self-learning processes, on developing competences and specific skills for the lifelong learning.

Creativity is conceptualized as a skill for all that can be developed, but at the same time can be inhibited, too. Therefore, the stakeholders in education have the power to unlock the innovative and creative potential of young people, addressing creative learning and innovative teaching. Thus, creativity is defined both as a product and as a process that expresses the balance between originality and value. It is the ability to make unexpected and original connections, and generate new and relevant ideas. Creative learning is, therefore, any learning that involves understanding, awareness, logical and critical thinking, thus allowing students to focus on the thinking skills. [1]

Creative learning is based on an innovative teaching, which is regarded more as a process that involves implementing new methods, content and tools that would be benefits for students

and, implicitly, for their creative potential. Educational stakeholders must have a clear vision, awareness and proper understanding of the role of creativity, which lead to the identification of the ways to stimulate it and improve it.

Innovation and creativity in the educational area can take several different approaches, hypostases, shapes and from this perspective we can talk about creative learning, innovative teaching, innovative management, creative potential, etc.

The increase of the creative potential of educational organizations refers not only to their ability to be innovative regarding products or provided educational services, to always generate new ones, more or less apart from the existing ones, but also to the opportunity to be innovative in management, too, identifying practical ways and solutions for the problem solving that leave the usual track of the existing ones. "Managerial innovation distinguishes universities, in a sensitive manner, in what regards the performances achieved in similar conditions and at levels close to the consumption of resources." [2]

2. RESEARCH METHODOLOGY

The conducted research is based on documents and reform strategies and is founded on an analysis of numerous studies performed by European institutions in analysing the innovative-creative process in the current educational environment. The method of investigation used was the documentary analysis which included: works in specialty literature on the role of innovation and the increase of the creative potential; articles, studies, reports, dedicated to the educational policies in the country and the EU. Several questionnaires were applied to students (300), teachers (150), parents (130) and local community representatives (80), as well as interviews with the stakeholders in rural schools in Gorj County.

A comparative analysis was also realized in several schools regarding the management capacity of the educational institutions to innovatively provide the infrastructure, resources, effective leadership to obtain and improve learning outcomes and student welfare.

3. THE EUROPEAN APPROACH ON THE NEED OF INNOVATION IN EDUCATION

A brief overview on the innovation capacity of Romania, according to the European Innovative Scoreboard 2016 [5] reveals that Romania is a modest innovator. Innovative performances increased until 2010, and after that they suffered a significant decline. The innovative performance in 2015 is at a substantially lower level than in 2008. The relative performance worsened from nearly 50% in 2008 to 34.4% in 2015. Figure 1, is relevant.

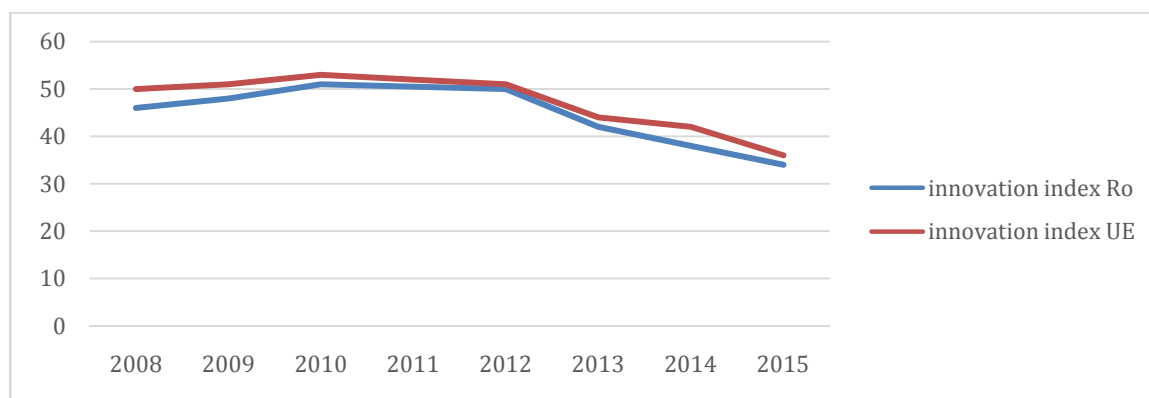


Figure 1. Innovation index [5]

In what regards innovation in the European Union, deep involvement in the development of the innovative capacity in educational organizations stands out, as a key factor of intelligent

and sustainable development of the society. European cooperation in education and training for the period up to 2020 should be established in the context of a strategic framework, which includes education and training systems as a whole, in the perspective of lifelong learning.

Thus, one of the objectives of the strategic framework at the EU level is to stimulate creativity and innovation, including entrepreneurship at all levels of education and training [4]. Europe seeks to be a dynamic and innovative knowledge-based economy [3].

Besides inducing personal fulfilment, creativity constitutes a prime source for innovation, which, in its turn, is recognized as one of the key-vectors of the sustainable economic development. Creativity and innovation are essential for the development of organizations and for Europe's ability to compete internationally. A first challenge is to promote the acquisition by all citizens of fundamental transversal competences, such as competences in the digital environment, "learning to learn", the spirit of initiative and the entrepreneurship spirit, as well as cultural knowledge.

A second challenge is to ensure a fully functioning of the knowledge triangle: education-research-innovation. Partnerships between the business community and different levels and sectors of education, training and research can contribute to ensuring a better focus on the skills and competences required in the labour market and on encouraging innovation and entrepreneurship spirit in all forms of education. Wider communities of learners, involving representatives of the civil society and other stakeholders, should be promoted in order to create a favourable climate for creativity and a better reconciliation of professional and social needs, as well as the welfare of individuals [4].

Thus, it is necessary to develop cooperation regarding the creation of some institutions favourable for innovation, promoting creativity and innovation by developing specific teaching and learning methods (including the use of new ICT tools and teacher training). Cooperation also means partnerships and, especially, the development of partnerships between education and training providers and businesses, research institutions, cultural actors and creative industries, and the promotion of a functional knowledge triangle. We live in the time when open and innovative education and training are needed, focusing on adapting to the digital age. To support this priority related to open and innovative education and training, as they are described at European level, a direction of approach could be the development of participatory governance by stimulating the involvement of learners, teachers, parents and the local community - civic groups, social partners and the private environment.

The success of innovation in education is to create and implement processes, services, methods and techniques that have resulted in significant improvements in what concerns efficiency, effectiveness and the quality of teaching, materialized in the creation and development of the man's profile, able to embrace the moral and ethical values, to use knowledge in their own lives and to continue learning throughout life, to participate responsibly in the community and to become involved in social issues, to develop leadership skills and teamwork, to take care of themselves and manage responsibly their emotional and physical needs, as a guarantee for a high quality of life.

4. ANALYSIS OF THE INNOVATION CAPACITY IN SCHOOLS MANAGEMENT. CASE STUDY

The ability of innovation in school management is a development factor and at the same time it provides the necessary conditions for stimulating creativity and innovation in all its forms in schools. In the case study we analysed, based on a sample of 12 rural schools in Gorj County, the management capacity of schools to provide innovatively the infrastructure, resources, effective leadership in order to achieve and improve the learning outcomes and the student welfare. I also watched how school management is able to improve its own management capacity to ensure the improvement of learning outcomes, student welfare, the professional capacity of teachers and institutional capacity.

Referring to the aspects that concern the management capacity of schools to provide innovatively the infrastructure, resources and effective leadership to support the teachers in obtaining and improving learning outcomes and the student welfare, it is found to have been fulfilled in average by five schools (41.66%) and to a lesser extent by seven schools (58.34%).

Strategic planning documents developed by the school management team partly meet the needs because they are not a real support to sustain teachers in order to achieve and improve the learning outcomes and the student welfare. Thus, 58.33% of schools were evaluated as satisfactory, which expresses the fact that the Institutional Development Plan does not harmonize effectively the goals with the strategic options, resources in order to accomplish the school's mission. It is required that the objectives and targets resulting from the European strategies and policies (e.g. The Europe 2020 Strategy, The Strategic Framework for European Cooperation in Education and Training "ET 2020") be included in PDI and aim at reducing the school dropout, the formation of key skills, etc.

Due to an external environment, which is more and more unpredictable and with major and fast changes, it is better for the management team to have a prospective and projective thinking, to think in the future and develop a strategy for schools well-articulated, taking into account the requirements of all direct and indirect beneficiaries. Regarding the internal and external communication system, a percentage of 58.33% of schools were evaluated as well and very well, which shows the managerial capacity to use the information resources to communicate effectively with all the beneficiaries in order to improve the educational achievements. Most schools have an updated web page, which is an effective tool in communication.

The existence and use of school areas, regarded as a major educational resource does not contribute to improving the educational achievement, as laboratories and offices are not equipped accordingly, and in some schools they do not exist. The school management does not ensure, therefore, an overwhelming infrastructure which is necessary for an efficient use of offices and laboratories in order to modernize the teaching approach. A percentage of 66.67% of the assessed schools got the score satisfactory. The promotion of a leadership in schools could facilitate the involvement of all teachers and stakeholders in developing European projects that could help schools acquire modern equipment for an effective European education.

All the assessed schools got the score satisfactory with regard to the indicator "Existence, characteristics and functionality of auxiliary areas", which shows the fact that school management does not provide the necessary infrastructure for developing the guidance and counselling services, medical services and in what concerns the activity at the library.

Management teams should be more involved and formulate clear objectives to modernize the library, both through equipping with a new book fund, and also through providing information and audio-video material, so necessary for a more attractive learning. Schools are not generally susceptible to digital learning and newspecific pedagogies. Schools do not attract accordingly the necessary computing resources to achieve strategic goals set in the IDP and, especially, in improving the educational achievements. Thus 75% of schools were evaluated as satisfactory on this indicator.

At 61.66% of schools, there is not a major and very deep attention on the most important resource within the organization, namely the human resource. The strategies of human resources, as well as the policies are not harmonized and, the activities specific for the functioning of human resources within schools do not contribute to staff development, to its motivation, to a greater satisfaction, to career development with beneficial effects throughout the whole organization regarding all its performance indicators.

The positioning of schools regarding the fact that the school management is able to provide the infrastructure, resources, effective leadership to support teachers to achieve and improve the learning outcomes and the student welfare in Gorj County, is illustrated in the figure 2.

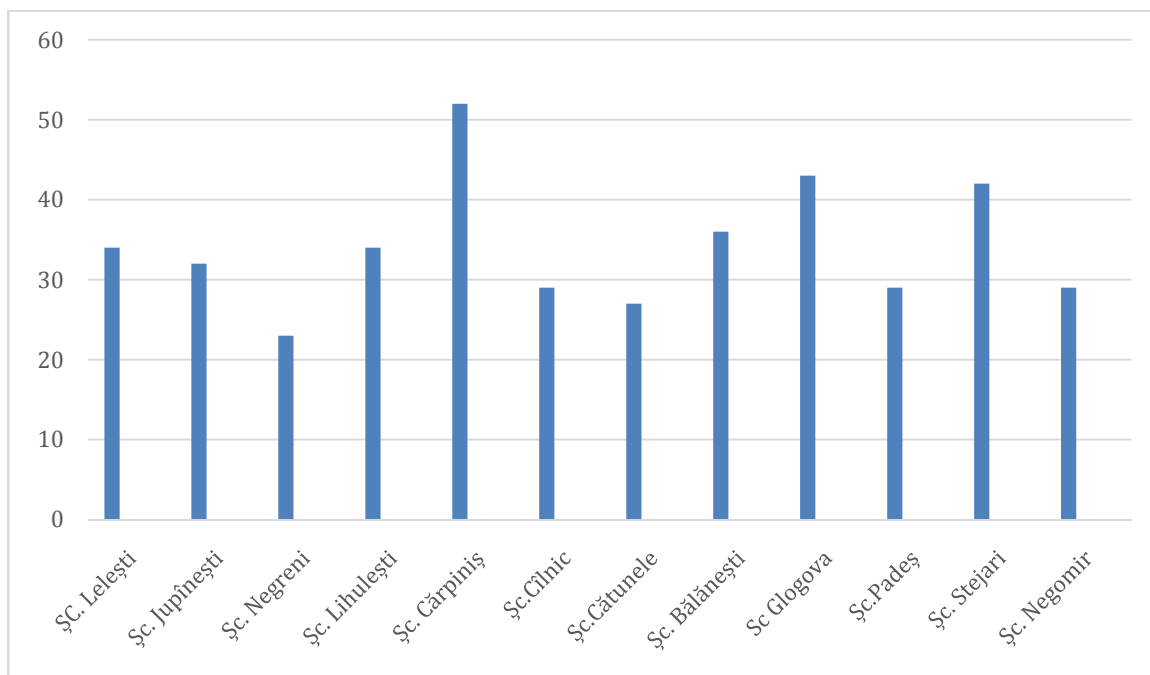


Figure 2. Positioning of schools

It can be noticed that at this question, schools are differentiated on a range between 23 and 52 points which shows that the management team provides resources, leadership and infrastructure differently, and promotes a specific management to support teachers in achieving and improving learning outcomes and student welfare. It is, therefore, noticed a poor concern for practising a good management based on innovation, on the desire to use new management methods and techniques.

Therefore, a better strategic planning is required, in consonance with spectacular and fast developments within the educational environment by setting the goals and objectives of the school organization so that to cope with major changes in education and society as a whole. The operational plans should be more detailed and provide solutions that capitalizes the potential of all stakeholders. Schools' aims and objectives are not fully met because there is a decrease of the exam passing rate to 66.67% of the analysed schools. I have not surprised qualitative indicators which have a positive development.

The management team of the schools should promote a stronger participatory management by involving all stakeholders in decision making and in their differentiated implementation according to the local specific. For some schools, the use of modern communication technologies is required, as a relatively small percentage of schools (25%) have a website or it is updated. Most schools (66.67%) have not designed in their strategic documents operational targets referring to the development of an organizational culture oriented towards stimulating innovation and creative learning of innovation in teaching. In the current context, the stakeholders' involvement is essential to the most schools assessed and this would lead to a better design of the curriculum that responds to the educational needs of students and to the development of some skills and abilities to make new connections and generate new ideas.

Concerning school infrastructure, this does not allow the development of specific and transversal skills, it does not favour learning through experiments, play and it does not develop creative learning because in most of the schools assessed there are no laboratories and offices specific for the teaching process. Libraries should be adapted to the new conditions specific for learning by equipping with computers and other computing devices through rearranging them to allow teamwork in developing certain projects that encourage the generation of new ideas and solutions by using appropriate information technologies.

A more intense communication and collaboration with all the school stakeholders in developing and implementing some school projects or in the approach of using more

efficiently the financial resources should constitute prerequisites for a real progress in this area.

A significant percentage of 91,66% of schools have not shown any concern for the procurement of curricular resources and the purchase of new teaching aids regarded as a resource, but also as tools to promote the development of a modern educational process, student-centred, flexible, oriented towards the facilitation of learning and that contributes to the improvement of students' performances. Schools are generally not susceptible to digital learning and to the new specific pedagogies. Digital learning is not a major concern for all teachers, and expanding computer use and other curricular areas outside the curricular area "technologies" would be absolutely necessary to increase the attractiveness of the teaching process. Schools do not attract the appropriate computer resources needed to achieve the strategic goals set in the IDP and, especially, in the improvement of the educational achievements. Thus, 75% of schools were evaluated as satisfactory on this indicator.

A percentage of 83.33% of schools got the score satisfactory regarding the staff management. The management policies in the field of employment should be clearly defined in the managerial documents and systematically followed because the quality of the human resource regarded as an enormous creative potential, capable of generating a transformational thinking at students, adaptive to new challenges of the present and future society.

The educational offer expresses very well the image of the school, the desire for change and innovation and it is a development vector for any school. Therefore, the management team must integrate into the educational offer all the requirements of the stakeholders regarding the school. The educational offer does not capture the educational needs as a whole. Thus, at most schools, besides the computer science optional, other options were not designed, that, if promoted through the school offer, would have a positive impact on all the beneficiaries of education. Not all schools develop a marketing plan which is a useful tool for promoting the educational offer, so as to provide the necessary means and techniques for the impact of the offer to be an optimal one for all stakeholders.

The curriculum viewed as a strategic resource is not always adapted to new requirements of the knowledge-based society starting from the identified needs and the national, county and local policies, so that to find again, besides the items related to local, cultural, historical and geographical specific, also elements determined by major changes in society. Students will be, thus, better prepared to adapt to the dynamic of changes, to find new solutions and to integrate better into the active life. Also, through the operational plans, the management may develop short-term measures applied to develop the applicative, practical side of competences. The design of some actions to work in team within departments, but also of some curricular areas to develop the inter and intra-disciplinary side would lead to achieving new value-added and, implicitly, high educational effectiveness. It is required that the teaching-learning-assessment strategies be subjected periodically to the analysis of the methodical commissions members, the students council and the representative council of parents.

For a professional development of the staff, the management teams should substantiate the managerial documents regarding the human resource on the feed-back received from relevant beneficiaries and the school staff. Drawing up a plan of development of career for each employee that is based on a clear analysis of possibilities and development opportunities of each teacher, is a way to increase the performances of the entire organization and proof of the measure that the management has the ability to effectively manage the human resource as a basic resource. The evaluation of the teaching staff should be a priority for the school management, because only through a proper assessment it can be led to a further professional development of each teacher. An assessment is required from the perspective of all stakeholders (e.g. feed-back method 360*).

The school management is able to improve their own management capacity (of planning, organizing, monitoring and assessment) to ensure the improvement of the learning outcomes, student welfare, the professional capacity of teachers and the institutional capacity to *an average extent* at eight schools (66.67%) and to *a small extent* at four schools (33.33%). Nevertheless, school management at most schools has no clear evidence in

exercising the managerial functions. Although there is planning in schools, though, the assessment and the improvement activity is not highlighted. The PECA cycle (plan-execute-check-act) does not apply fully and we have no clear evidence of the activity improvement and, implicitly, of school learning outcomes (most schools do not prove academic progress 66.67%). There has not been, at all schools, a procedure regarding the organizational culture, and therefore, values, norms, behaviours, mentalities, attitudes that characterize the organizational culture in school is not the support to enable institutional development and represent a driving force in its efforts towards results and, especially, to create the emotional, psychological support of the student. The fundamental values are not shared by all the members of the organization and are not vectors of development. It is recommended to develop and implement some procedures for systematic assessment of satisfaction. The stakeholder's involvement should generate a kind of relationships to substantially improve the activity and students achievements.

Generally, some knowledge of the management techniques, of the benchmarks for various indicators is not found and it does not compare the results of each school with the best in the field, which would be both an incentive element, and a way to find solutions to review the educational offer and the development project. Concerning the indicator on optimizing the learning outcomes, the review of the assessment procedures of learning outcomes is noticed, based on the analysis of the progress in school and making remedial plans. However, not all schools show real progress. Also most schools do not use assessment procedures and records of the learning outcomes for students with special educational needs, through planning and conducting programs for remedial education and of plans of personalized intervention to improve school performance and contribute to ensuring the student welfare. Also for the students capable of education, it is recommended the development and use of some assessment and guidance procedures to boost more and more the school results. In most assessed schools (83.33%) students do not have access to current educational resources, and the management team do not plan, organize, coordinate and appropriately assess the process of ensuring with necessary resources to improve the educational achievements.

5. CONCLUSIONS

The need for creativity and innovation in education in the knowledge-based society is a necessity and should develop into a lifestyle, in an approach which favours a healthy development, both of each and every individual, and at the level of the entire society. The challenges of the contemporary world materialized in unprecedented developments of information and communication technologies, in the role of knowledge in the current context generator of development, leads us to rethink the management processes in education, giving them a deep innovative accent, which in turn, favours the increase of creativity and innovation in learning and teaching, so that our students have the skills and abilities that are necessary for a fast and efficient integration into active life, with effects on the quality of life. The study case reflects a low potential for innovation of the management processes at schools in rural areas and hence, the need for change, innovation so that we can talk about an effective leadership that generates new value from the perspective of the student welfare in all aspects that this concept offers. Creativity and innovation are certainly characterized by a culture of risk-taking rather than an avoidance of error. The main challenge is in the values that characterize creativity and innovation (taking risks, exploring beyond the rules, non-compliance), which are in sharp contrast with values (standardization, obedience, significance and fairness).

Creativity, enhanced in all stages and forms of education, activates the innovation-based entrepreneurship. The examples of entrepreneurial success generate credible models that support the formation of a culture of innovation and, ultimately, the development of a society

where innovation is the main factor of increasing competitiveness, transforming into a lifestyle.

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