

## QUALITY IN EDUCATION IN A KNOWLEDGE-BASED ECONOMY

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### ABSTRACT

*Knowledge has the greatest value, the most human contribution, the greatest relevance to decision processes and actions and the greatest impact on specific situations or contexts. In an organizational context, all new knowledge comes from people. Some knowledge is included in organizational processes, structures and technologies. Recently, knowledge management was remitted to the domain of organizations whose primary business was to sell knowledge-based goods and products. Now, it is rapidly becoming an integral business function for many organizations as they realize that competitiveness is based on effective management of intellectual resources.*

*We recognize school, education and learning as central subjects involved in present and future society development. If we are considering a quality transformation in Romanian education, several factors should be reminded: total quality management, equity, efficiency. These represent the three pillars of school reformation in Europe and around the world. Romania has already started the process of alignment to the European laws and rules in the domain of education. As a result, the educational organization has developed strategic systems in order to accumulate organizational performance, quality and competitiveness.*

*We aim to emphasize, in the methodological part, the features of primary and secondary educational systems in Romania, from the quality management point of view, and the possible improvements that can be made.*

**KEYWORDS:** *economy, education, knowledge, organization, quality management.*

**JEL CLASSIFICATION:** *E02, H75, D83, L44, L15, M54.*

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### 1. INTRODUCTION

“We don’t need more information; we need knowledge targeted on strategically important issues.”  
(Gen. Gordon Sullivan, Chief of US Army - retired)

Changes happen in the whole universe, including our private lives or organizations. Knowing this changing process, with the aim of possessing it, represents a feature of a performance management, which can provide the organization some competitiveness.

The knowledge revolution consists in the transition from an economy based on physical and attainable resources to the one based on knowledge.

Many authors distinguish between information and knowledge (Newell et al., 2002). Leonard and Sensiper (1998) define knowledge as “information that is relevant, actionable, and at least partially based on experience”.

We are now on the first stages of a knowledge revolution as the products and services are more and more regarded from the knowledge point of view, including here the educational area. The

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knowledge aims to become the main feature of all activities. Its impact becomes visible on the market's volatility, on the uncertainties regarding the economy's directions, on the lack of work places which are strongly felt by people. The result of the knowledge revolution makes up the knowledge-based economy. The idea of promoting a successful management in education expresses an essential aspect for this specific field, without limiting it only to the organization.

Quality in education is ensured through the formation of the future specialists, in their double hypostasis: beneficiary of their own formation and goods of society in which they work. The quality management provides teachers and educators with a conceptual framework and a set of instruments to understand what the educational systems is made of, what they are capable of doing and the reasons for which improvement should take place.

We will further try to answer some of the following questions: Do teachers and business people see each other as possible partners or they view one another as separate items? Do evaluators and teachers view one another as partners in pupils' improvement route? How do state laws affect the system of education? Is the economic environment a factor with great impact on primary and secondary educational system in our country?

## **2. KNOWLEDGE-BASED ECONOMY**

Most authors of the concept have considered that the terms used to define the predictable mutations nowadays: "digital economy", "electronical economy", "new economy", "knowledge-based economy", "knowledge-based society" don't cover up these deep formations, arguments which enforce the new concept, that of a knowledge-based economy.

In this field, Organisation for Economic Co-operation and Development (OECD) defines the knowledge-based economy as being "the economy directly based on production, delivery and usage of knowledge and information", and the receiver's capabilities related "to know who", "to know what", "to know how", "to know why".

Recently, Europe has faced considerable challenges. The development of all countries' economies and the demands of an increasingly competitive society continue to leave some members of society by the wayside. Today's knowledge-based society is increasingly separated into those who have adequate skills and qualifications and those who do not possess them. It is increasingly important, in this rapidly changing society, for individuals to be able to continue to update their knowledge and skills throughout their lives (European Report on the Quality of School Education, European Commission, 2000). Many consider that a minimum knowledge background is required in order for this to happen, and that those who finish compulsory education without certified qualifications are consequently less likely to be able to participate effectively in life-long learning.

All these types of knowledge are involved in the innovation process, which generates new knowledge, of different types, which can be marketed directly as they are, or indirectly with the help of the new products and services, which get a new value within the organizations.

We underline the demands of the organizations which become obvious simply by reading the features:

- the deep identification of these features and people trying to understand that if they are not yet present, they are imminent;
- the shaping of the organization towards assimilating, implementing and transforming them as a competitive advantage;

- re-evaluating all the personnel and motivating them in order to transform all these existent values in competitive advantage;
- re-thinking and re-shaping all these strategies and objectives towards goals.

Overall, they offer a perfectly shaped image to identify the specifics of a knowledge-based economy and the differences of nowadays economy.

### **3. KNOWLEDGE-BASED ORGANIZATION**

The learning organization which defines itself as “learning the changes”, “learn to learn” and “continuous learning” modifies the potential actions field in a certain given context. The learning rhythm towards anticipating and adapting to the new progress becomes a competitive advantage resource, from the first stages of creating a new organization that focuses on efficient activities. This is defined by the organization’s specific results.

Gary Johns & Allan M. Saks (1998) think that the organizations are “nothing but social inventions meant to achieve goals by group efforts”.

The main feature is the twists within the transition from the actual economy to that based on knowledge, such as: the main organization’s functions become the coordination, protection and integration of knowledge; the transactions and activities which involve high levels of specialties and knowledge become internal matters; the organization’s abilities and management which become convergent; the liasons between education, economical activities and personal development redefine themselves.

As a result, the knowledge-based organization is going to be simple, with less structural levels, more flexible and intelligent. Instead of the conventional corporation’s artificial discipline, there is a more dynamic world, filled with challenges and disappointments which, in fact, define the real world.

### **4. QUALITY IN EDUCATIONAL ORGANIZATIONS – THE ECONOMIC MANAGEMENT’S PERSPECTIVE**

The quality and quality management has an important place within the organization’s management. These two aspects are extended to all organizations’ levels.

Thousands of schools and communities are now trying to explore ways of adopting total quality management as an operational norm (Bonstingl, 1996). The people of these schools and communities are in the process of transforming their thoughts and life-styles to mirror the crucial decisions they have made to devote their efforts to continuous self-improvement and to the continuous improvement of people with whom they live, work and study.

Peter Senge (1990) points out in *The Fifth Discipline: The Art and Practice of the Learning Organizations* that “as the world becomes more complex and dynamic, work must become more learningful. It’s no longer sufficient to have one person learning for the organization, figuring it out from the top, with everyone else following the orders of the strategist. To truly succeed in the future, organizations will have to get to the commitment and capacity to learn of people at all levels in an organization”.

In a market economy in which competition is fierce, educational services (state and private education) are forced to consider the needs of society and increasingly more of beneficiaries’ needs.

The quality of education means to provide every learner the best conditions for a complete and useful development. The values of quality in education could be: democracy, humanism, justice, moral and professional autonomy.

Dictionaries and literature of the domain offer other definitions of quality, like: "Quality is the customer's satisfaction", "quality represents the totality of features and characteristics of a product or service that bears its ability to satisfy stated or implied needs" (Business Dictionary).

The quality of an educational institution is determined by the quality of the processes and the quality of the educational services provided. School should be seen as an organization that operates education and training in a competitive market of services offer.

Its competitiveness consists in the capacity and the speed of adaptation to environmental or socio-economic needs.

The products offered by this market are skills and knowledge, intangible products provided to society in various forms:

- training of specialists in specific areas - skills transfer through graduates;
- basic and applied scientific research, consultancy, expertise, broadening the horizon of human knowledge, skills transfer by socio-economic organizations;
- participation of the academic community in society - skills transfer achieved through direct involvement in local, regional, national and international community.

#### **4.1. The Quality in Primary and Secondary Educational Institutions in Romania**

After 1990, reformation of education in Romania has been declared a major priority of all governments that have succeeded. At the same time, education was one of the areas in which we have undertaken a number of legislative, institutional, content and organizational changes. Soon after the revolution of 1989, the Romanian education reform focused on decentralization and repositioning of educational institutions towards the Ministry of Education (Brătianu, 2002).

All educational systems require evaluation. At national, local and school level, evaluation supports a number of major purposes. First of all, it measures whether the educational system corresponds to the objectives set. It offers diagnostic and useful information for managers of institutions, heads of departments, teachers and public. It creates an open dialogue and provides the basis for development planning and school improvement. Benchmarks allow schools to measure themselves against other comparable institutions. They can be used by inspectors or other external staff to compare the individual schools' outcomes. They help focus on processes intended to achieve those outcomes.

The evaluation of educational institutions, along with their cumulative results, will provide information and comprehension on institutional quality assurance systems and will ensure knowledge about the intensity used in the evaluation process (Brătianu & Atanasiu, 2002).

Evaluation may be either internal (self) or external, or a combination of the two. Both forms of evaluation carry resource and training implications. In Romania, primary, secondary and high schools are periodically evaluated by ARACIP. ARACIP (Romanian Agency of Quality Assurance for Preuniversity Education) is a public institution of national interest, subordinated to the Ministry of Education and Research, with legal personality and its own budget of income and expenses established by Government Ordinance no. 75/2005 (<http://administrasite.edu.ro/index.php/articles/c5> - accessed on 12th of October, 2012). The mission of ARACIP is to perform external evaluation of the quality of education provided by the

educational institutions and other education providers; authorization, accreditation and evaluation of school education.

At regional level, these educational institutions are evaluated by school inspectors, internal and external auditors and other internal staff.

Actually, most European countries are seeking the best and most productive combination of the two forms of evaluation. Ideally, external and self-evaluation complement each other as vital sources of information.

#### **4.2. The Methodological Part**

To continue the theoretical part, we chose as subject in the case-study for our research primary and secondary schools in Romania.

The method is needs analysis, an indispensable tool for the educational management, at both the educational process and institution and the educational system, with reference to the financial needs of the school.

School and, in general, educational system, can not assume needs that no one feels they are not directly addressed to or whose satisfaction nobody is interested in. Hence, the formula:

$$\textit{The situation required} - \textit{Current state} = \textit{Needs}$$

We can apply this model's objectives based on the needs of education. This method expresses general purposes which are then taken in every educational system, every school, every discipline, tailored to the specific needs and possibilities of the educational process, to the variety of needs and group interests which are involved. The need for education is not equally distributed and, in the same way, neither needs nor resources are not in the same measure anywhere and anytime. Ensuring optimal ratio between financial resources and needs is one of the central issues of quality of education in Romania.

##### **4.2.2. Analysis of the Financial Documents**

The analysis of the report of World Bank expert, Jan Herczynski, in 2006, shows that the right to enter a financing formula per student in Romania has to respect several general principles, so that formula can serve as a tool for linking policy priorities and budget allocation. To start the process of decentralization in the Romanian education, a target of education decentralization should be set. The decision should be decentralized to the school or to the local authority? Fund allocation to schools is associated to school autonomy and competition between educational institutions. Formula per student for a certain school must be appropriate to its specific needs and difficulties. The local authority allocation is associated with the transformation of the Local Council in local school network owner and manager. Thus, it is encouraged cooperation between schools and other educational institutions, rather than competition. Formula per pupil for local authorities is usually much simpler. Number of factors included in the formula is small, since those factors describe average conditions and not every school individually considered.

##### **4.2.3. Methodology for Assigning Budgetary Allocations**

It has been established that the central purpose of introducing a funding mechanism for each pupil is to increase the efficiency of public budget in education.

The methodology for allocating funds for primary and secondary education in Romania has to take into consideration quality standards and laws governing wages and auxiliary teaching staff, the

regulations on the amount and structure of non-teaching staff, education requirements, curricular changes etc. The concept of standard cost per student (at the national level) expresses, in concrete financial terms, the average amount necessary to cover basic expenses of a student during a whole year, at least at the minimum quality standards.

We presented and analyzed the different factors associated to standard costs, by level of education. The main value regarding formula per pupil is that it allows the Ministry of Education and Research to express their policy priorities in terms of budgetary allocations. By choosing the coefficients used in the formula and their numerical values, the ministry directs funds so that policy priorities should be respected by all educational stakeholders.

#### **4.2.4. Economic-financial Calculation Methods**

In 2006, the World Bank expert, Jan Herczynski, came with a new cost allocation formula for education:

- Bottom-up formula is based on an assessment of the resources used in education. It occurs when the Ministry of Education and Research calculates costs of providing educational services by adding costs for teachers, administrative costs and other personnel and maintenance costs.
- Top-down formula is based on relative educational assessment tasks faced by local agencies (schools or local authorities). It is assumed that the Ministry of Finance assigns a fixed number of funds in the budget for education and the role of the Ministry of Education and Research is to allocate those funds to local authorities or schools.

The safest approach is to use a top-down formula, formula for allocating funds to local authorities. The aim is to discuss the structure of the formula and its coefficients' significance, not choosing coefficients or their numerical values.

Romania has chosen to use the formula per pupil for local authorities which is a much simpler formula.

Standard cost per pupil is calculated using the following relation (Methodology of Funds Allocation for Preuniversity Institutions):

$$C_s = \frac{C_p + C_{ms} + C_{perf}}{No.ofpupils}$$

where:

Cs is standard cost per pupil,

Cp - costs for personnel,

Cms - costs for materials and services,

Cperf - costs for and staff training.

The analysis of financial needs shows that the standards cost per pupil is composed of the costs for personnel, costs for materials and services and costs for and staff training, all divided to the number of pupils.

We conclude that an economy is efficient if it is organized so as to provide consumers with goods and services they want, using the existing resources.

Building performances in a school or educational institution is based on developing a strategic plan that refers to its goals, quality management, performance areas and priorities.

Quality has become a crucial asset in the competitive context and also the survival condition. A strategic orientation, including financial support, towards quality will generate growth, will lead to competitive advantage and will contribute to the profitability of the institution.



## 5. CONCLUSIONS

Starting with the theoretical background and continuing with the methodological part, we can conclude that no system is entirely successful in achieving maximum quality in educational organizations' management and all countries recognize the growing magnitude of this task. It is becoming more and more challenging because school structures, curricula and the learning environment are seen by many young people irrelevant to their lives.

All Member States, including Romania, are realizing that the future brings an enormous challenge to traditional structures of educational organizations and institutions. This means finding methods of educating people beyond school and outside the classroom, helping them acquire the qualifications and the skills which will make them less vulnerable in the global economy.

Services provided by a school can be considered "of quality" only to the extent that its products and processes meet customers' requirements and expectations (companies, organizations) and partners (state, community, local government, parents).

The standard defines the assurance of quality as: part of the management of quality focused on providing confidence that the requirements will be fulfilled. Strategies focused on quality are considered competitive strategies because the mission of quality is to face the competitors.

Romanian education, although it has been and continues to be a sober, charged education, succeeded in producing elites. Not everything old should be discarded. We must preserve and make a brand from elite education taking over and developing mass education. We need to take into account the supply and demand on the labor market.

All in all, we don't have to learn in order to have school, but to learn to cope with demands of today's society. The analysis of school, from a socio-organizational perspective, might be considered, at first glance, an unusual approach considering its specific, its fundamental human dimension. But there is no human activity developed in time without terms like leadership, effective and efficient management, a total quality management.

At present, in the era of globalization, the knowledge-based economy and the efficient functioning of schools and educational institutions requires periodical evaluation, preservation of their institutional integrity as well as promotion of a diversity of arrangements with firms and other economic agents.

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