Rethinking Goals of Education in the Digital Era

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This article points out a few coordinates of the educational process analysis in the contemporary society, marked by global challenges and invaded by the information technology. Viewing education in terms of restructuring, for a better response to the individuals' and to the society' needs, raises the question of redefining learning outcomes in the light of general educational finalities, shaped by the specific traits of the digital era. It is not about a formal restructuring, regarding the phases of the process, but it is related to the effort of reframing the core values of approaching the personality development, taking in account a continuous perspective of permanent education in a digital environment.

Keywords: *educational goals, digital era, educational experiences, digital competence, effective teaching practices.*

As a process oriented towards the human personality development, in correspondence with the society needs, education accompanies the whole life-span of an individual fostering the gradual changes during developmental stages and intends to activate the given potential to the maximum of its growth. There are different viewpoints marking the process of educational goals formulation: the expectancies from the part of the society, the philosophical orientation of the educational institutions responsible with instruction and training, the available pedagogical means of action, and the formation needs of the beneficiaries. C.O. Houle (1974) sustains that the lifelong learning approach places learner's viewpoint regarding the formation needs above the educator's perspective. The global approach of the socioeconomic systems functioning adds the targets of access and quality as referring to education (Toukan, 2017). Facing global challenges, education provides specific responses entailing the societies changes related with a sustainable future (Agirreazkuenaga, 2019).

Educational experiences in a contextual perspective

The educational goals can be analyzed at a macrostructural level (pointing to the general orientation of the educational systems and to the

desired results in terms on personality development for a future social integration) or at a micro-structural level (in accordance with a specific educational path, viewed as a chain of educational experiences, generating specific learning results in terms of cognitive, attitudinal-affective and behavioral changes). In a methodological way, we can separately analyze the learning results, based on the types of changes that an individual undergoes, as consequences of the provided educational experiences, but, in fact, we can identify some composite structures that integrate different learning results in a potential matrix of a future action (problem-solving type), activated in specific contexts, and these structures are named *competences* (Clipa, Mihalache, Serdenciuc, 2016).

Linking educational goals to a list of learning results describing the expected behaviors for elementary and secondary learners, R.S. Brandt and N.C. Modrak (1980) mention the following set of *goal statements*: basic skills, self-conceptualization, understanding others, using the accumulated knowledge to interpret the world, continuous learning, mental and physical well-being, participation in the economic world of production and consumption, responsible societal membership, creativity and coping with change.

R.J. Krumsvik (2011) affirms that in the latest years of the 20th century and from the very beginning of the 21st century there is a change of power between the two analyzed concepts: *knowledge* and *competence*, in favor of the second one. The prevalence of competence in the educational policies agenda aims to change the educational discourse and the teaching practices. The need to act in a more efficient manner, using integrated structures of cognitions, attitudes and behaviors, in the context of a problem-solving process, generates a new competence-based approach in education. The competence perspective opens a two-sided view: on one hand we are interested in the types of competences that constitute educational aims and need to be developed in the potential beneficiaries, and, on the other hand, we are interested in preparing teachers in a way they could understand and adjust their teaching actions to the new characteristics of expected educational results, associating the psycho-pedagogical competencies to the scientific competences. There is also a new dimension added by the contemporary society to the above described coordinates of education process development. That is the digital approach that shapes differently the need for developing competencies, the type of competencies and the positioning of the information technology in the hierarchy of the curriculum variables. That means a reconsideration of the *learning culture* and becomes a guiding value in the initiatives of reforming education. Information and Communication Technology (ICT) and its implication on teachers education

is analyzed by R.J. Krumsvik (2011) in terms of a correspondence between «self-awareness» and «practical proficiency» generating certain levels of evolution between a low perception and a high achievement regarding digital competence. As the «self-awareness» and «practical proficiency» operate on following levels: *adoption*, *adaptation*, *appropriation* and *innovation*, the correspondent perspective between the two of them unfolds the four stages of the model of digital competence for teachers and teachers educators: *basic digital skills* (ICT is viewed as a tool that gives access to culture), *didactic ICT-competence* (related to the ability to use digital tools in the teaching process in order to achieve «competence-based aims»), *learning strategies* (involve the restructuring of learning in terms of planning, tutoring, differentiation strategies, combining «teachers' digital competence», digital resources and learner's «digital confidence») and *digital Bildung* (an acquired meta-perspective implying reflections on technologies' role in the development of society) (p.45). Even if the author argues on the difficulties raised by the efforts of transferring at the level of educational practices the intention of developing the digital competence of teachers and teachers educators, the proposed stage model is very useful in order to distinguish between the hypostases of tools and aims shapers of ICT and to underline that the users' perspective regarding digital opportunities is only a starting point in developing a much more elaborated educational approach of education and of its components in the digital era.

Triggers of change in education

The metamorphoses generated by the integration of the information technologies in education are placed by theoreticians under the sign of a «revolution» (A. Collins, R. Halversont, 2010), influencing learners' needs, interests and decisions. Comparing the evolution of educational systems in close relation with the transformation of society generated by the economic changes, authors conclude that digital era triggers «the second educational revolution» (the first one representing the industrial revolution). The amplitude of changes is due to numerous consequences regarding structural, functional and operational dimensions that characterize the educational space. Collins and Halversont associate the first revolution with a creation process regarding schooling and the second revolution is placed under the sign of restructuring. Consequently, an extended approach is proposed, education being developed during and beyond schooling, in a lifelong approach, and a few coordinates are added as direct implications of the technological potential manifested in education, as shifted versions from the traditional perspective to a contemporary, modern, digital approach:

changing the focus from an «uniform learning» to a much more «customized approach» (responding to different learning needs), viewing teacher not as an exclusive knowledge source but sustaining the need of accessing various learning sources, introducing new perspectives for assessment in a more specialized manner, different from the standardized approaches, an increased reliability on external resources, beside the internalized knowledge, the need for a proper balance between «coverage and knowledge explosion», prioritizing an active approach in learning, based on «doing» versus passive assimilation. The authors also think that the second educational revolution helps redefine the whole schooling and learning by accessing different options which contribute to a more permissive perspective of learning: home schooling, work learning, adult education, learning centers, computer games, web communities, technical certification (obtained apart from a school specialized learning path), internet cafes. Education outside school gains in importance as much as technology opens new gateways for exploring the real or the virtual environment and simplifies the access procedures in a complex interdependent perspective, connecting people and things.

Considering competences as integrative structures that combine knowledge, skills and attitudes, European structures sustain a framework of key competences that help individuals meet different challenges in a lifelong learning approach of personal development, social and professional integration: communication in the mother tongue, communication in foreign languages, mathematical competence and basic competences in science and technology, digital competence, learning to learn, social and civic competences, sense of initiative and entrepreneurship, cultural awareness and expression (European Commission, 2006).

The humanity builds a whole different view related to the intention of dealing with the current challenges in terms of big data processing and fostering the «machine learning approach». A.J. Means (2018) points out that the educational process is crucial in building the future of humanity based on «values, cooperation, technical capacity, ethical commitment and social imagination». Redirecting educational experiences from achieving objectives to developing competences is based on a different type of engagement of learners, following a competence-oriented approach in teaching practices (European Commission, 2019).

Digitally-oriented approaches of educational experiences

Within the formal educational process, we can distinguish three phases. The visible phase for everyone is the direct interaction of the teacher

with beneficiaries during specific activities. There is well known that an important phase precedes it- the lesson design phase – during which teachers focus on establishing the scenario of the educational activity, deciding what are the learning process expected results, the specificity of contents involved, the appropriate methodology and the necessary assessment tools. The third phase develops after finishing the educational activity and is focused on appreciating the quality of educational process, functioning as a regulation tool. In a traditional approach the teacher is involved in all the three phases and he stimulates the participation of students during the second phase, sustaining the transfer of learning after the educational activity is complete, by encouraging the student's independent work beyond the classroom. The digital era changes the weight of students' involvement in the educational activity and gives them opportunities to explore learning content before the actual interaction with a teacher using online resources and pre-recorded video materials. This perspective is possible due to a current concept of *flipped classrooms*, that allows focusing face-to-face interaction on active student involvement (T. Green, 2015). The instruction is a result of a blended learning and the focus on different types of interactions (teacher- students, student- student, student- teacher), during the educational activity, becomes a priority valuing the benefits of social learning. In conclusion, the goals of education undergo a change of emphasis from cognitive-type targets to attitudinal- affective aims, causing, at the same time, behavioral changes.

There is another dimension added to the world by the development of information technology: *the digital environment*. That is why humanity has to restructure its resources in order to cope with the new challenges. The process of social integration must be articulated to the necessity of responding properly to the specificity of the digital environment. Y. Eshet-Alkalai (2004) pleads for the necessity of the digital literacy which is not limited to some skills associated with a user profile, but involves «a variety of complex cognitive, motor, sociological and emotional skills» (p.93) activated during the process of solving different problems in a digital environment. These types of acquisitions are not acquired automatically as a result of the individual-digital environment interaction but should be developed in a systematic way through specific educational activity. This generates the need for restructuring educational goals and re-signifies the learning process in correspondence with digital coordinates. Instruction shifts from the delivery mode to an exploring approach extended beyond classroom, sometimes preceding the teacher's intervention.

The students' engagement in learning is founded on specific learning needs. The learning needs are developed in close connection with the living

environment. The so called *Gen-Z* learners, born in an interconnected, global world, are much more sensitive to the «fast delivery of content» associated with «complex graphics», have a «need for speed», are expecting «instant gratification», are more flexible related to the task switching and integrate their gaming experience into solving problems situations (focusing on developing different strategies of learning before moving to the next level) and their learning disposition is close related to a challenge-type approach, points out H. Harwati (2018), based on a literature review. Taking in account that the curricular perspective focuses on developing the educational experiences oriented towards meeting the learning needs, that implies an effort of restructuring the curriculum components rethinking goals, contents, methodologies and assessment in accordance with the above mentioned specificity. The author discusses the various hypostases of technologies manifestation and their possible extensions in learning contexts: cloud computing can be used for expanding access to shared resources, mobile technology adds the flexibility of time and of the geographical coordinates to learning, Massive Open Online Courses (MOOCs) meet, in a free way, the formation needs of the potential beneficiaries around the world, *games and gamification* help «simulating real world experience», augmented reality adds a new dimension to materials and objects, virtual reality shift users in an «non-physical world» which they can perceive as a real one, experiencing sounds, images and other stimuli that give the impression of reality.

Beside an active development of the individuals' potential, education is concerned with preparing future society members for pursuing a professional career. Digital era brings not only a few coordinates in terms of a specific content delivery and the technologies presence in the classroom is not enough for responding today's challenges as long as there are also changes in the world of work, placed under the incidence of segmentation and automation and affected by the «changing communication, collaboration and knowledge creation» (P. Altass and S. Wiebe, 2017). Authors emphasize that the knowledge-based economy and the integration of the information technologies in all sectors of the social life open the way for a *digital economy*, in a perspective where digital tools lead not only to consumerism but, properly used, can sustain the «meaningful engagement, creative expression and critical thinking».

A redefined perspective on the educational finalities

Analyzing the expected results of the educational process requires some specific answers to many *why* questions. When these questions refer to

a long duration path in education we have in mind goals, but when we look at the specific instructional situations we think about objectives (N. Noddings, 2005). The presence of competencies links the different type of changes, achieved through an integrated effort and during various learning experiences, in the perspective of complex outcomes as potential structures that can help an individual in his attempt of solving problems in a particular context of action. N. Noddings (2005) emphasize on a particular hypostasis of educational finalities placed under the significance of *aims*. The author considers that this concept covers a deeper meaning related to a philosophic significance of the educational action. This approach leads us to a certain vision on education developed in accordance with cultural values at a given time in the evolution of the society. If the educational vision points out to a prospective direction of personality development and formation, educational aims allow us a functional approach that can be segmented at the different levels of generality, in terms of specific goals and objectives.

The interconnected, globalized world should propose a flexible, de-centered perspective on educational aims, transcending a specific local reality, as a result of global educational policy networks (F. Rizvi, 2007).

The *smart* approach, associated with a specificity of different devices designed to «improve users experience in common operations» in a more sustainable, friendly and flexible way, leads to the perspective of a *smart education*: as a process of personality development and formation supported by ubiquitous smart technologies (M. Coccoli et al., 2014). It is very important to make a distinction between aims and tools even if sometimes a context generates some reflections that can be transferred in a plan of expectancies, becoming finalities. Education develops itself as a permeable area in this direction. As an example, we can discuss the axiological hypostases, in the context of personality development. The value is the same time a context of formation because it provides benchmarks for content selection and its pedagogical processing for obtaining an understandable view on reality, in a perspective suitable for different learners. But education expresses its formation expectations in terms of values with the intention to sustain the internalization of axiological coordinates, as future bases of reasoning, attitudes and action. We can explore in a same perspective the presence of the digital environment in the educational process: the teaching-learning process can be managed in a more efficient way using the qualities of technological devices but we should value more the possibilities of considering technology as a vector in designing educational aims, taking in account that the whole world goes through reshaping according to smart, digital, global coordinates. S. N. Katz (2001) discusses the process of «reinvention» of educational institutions in terms of «virtual institutions» but

also points out the questions that arise together with this new approach, many of them being left without a satisfying answer. The author pleads for a reconsideration of the role and responsibilities of educational actors in the given situation, suggests a reevaluation of the opportunities and needs created by technology «in terms of intellectual and educational priorities» and emphasize on the position of humanity towards technology, the same time as a user and as a powerful creator, having the possibility to make technology serve its goals of evolution.

Conclusion

Humanity begins with engaging in the process of bringing world close to its needs and expectations, having as mediator the informational technology, and ends being itself a subject of change, at least referring to the communication process and to the significances associated with learning. The digital environment, as a context, reshapes cognitive, social, emotional needs of people. Shifting focus in education from objectives to competencies, raises the self-awareness in terms of available resources and activates the certain dimensions in the potential of action. The vision on education is developed as a gateway connecting the real and the virtual world, expanding knowledge sources, responding and, at the same time, creating learning needs, integrating learning outcomes, dealing on a larger scale with data packages and with learning approaches, engaging in a different manner the potential beneficiaries, preparing them for the integration in an interconnected, globalised world, where technology acts like a powerful tool, but a manageable one, because the humanity should not only exercise the users skills but also remember to act from the position of a creator.

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