EDUCATION STAFF WORKING IN ELEARNING ENVIRONMENTS: SKILLS AND COMPETENCES

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Abstract: The big challenge for the education practitioners acting in virtual environments is to surpass the novelty not only through adequately use of the technologies, but also through knowledge and use of adapted virtual education practices. The present paper looks towards the characteristics of an efficient elearning activity, trying to identify the set of skills and competences associated to the new staff which an institution need to adequately prepare when undertaking online or blended learning.

Keywords: elearning environment, skills of personnel, efficient virtual education.

I. EFFICIENT ELEARNING DESIGN AND DEVELOPMENT

Most of the modern educational environments are designed and developed to incorporate new education strategies and practices, able to provide the educational process with adapted, improved, significant, and efficient learning experiences. The transformation implies several lines of action and activity types:

- Quality assurance of the process of education/training, based on the relevant elements for efficient education strategies.
- Transposition of the curriculum, based on proven, strong pedagogical principles.
- Assurance of the technical instrumental needed for appropriate support of intended didactic strategies, of communication between the actors involved, of administrative management and so on.
- Assurance of the quality of education staff involved.

The profile of an efficient elearning activity rise a serie of challenges for both the institution – in terms of capacity and readiness – and for the staff involved – in terms of preparedness, knowledge, skills and specific competences to cope with wide range of issues from communication and technical type to pedagogical and managerial ones. Usually, the new technologies are seen as having a great potential to surmount a set of limitations which caracterise conventional instruction; therefore, when we are talking about quality and efficiency in education, it is expected that the learning experience and outcomes to be higher in the education situation assisted by ICT, being they offline, online, self tutored, in fully integrated virtual campuses and so on. In this view, a complete elearning experience has several attributes which rely on a proper design and implementation:

- the intended learning objectives and the assessment modalities have to be described very clear and precise; they should include transversal/ key competences;
- from the design phase, there must be specified some alternative specific ways to support participants with different learning rhythms and to include/ encourage learners with different cognitive capacities;
- motivation of participants must be sustained through special methods and techniques;
- the learning rhythm must be constant, without long interruptions; accent should be put on variated, sufficient learning tasks, with clear deadlines;
the learning sessions with digital support, especially the long ones, must be as interactive as possible and must emotionally involve the participants into learning;

- the learning support and the feedback offered to participants must be in-time and on-topic; the tutor must monitor each learner’ activity and to guide its learning towards achieving the education goals, as much as possible in the cognitive and socio-affective “zone of proximal development”;

- cooperation between participants (to collaboratively solve various tasks) must be encouraged and supported; equally, the autonomy in learning must be promoted;

- the new elements in the learning path, together with the innovative interaction ways have to be gradually introduced, and described based on the traditional, known experiences.

Summarising, the following general scheme should be brought into attention of developers and instructional designers, but as well to the attention of course authors and support personnel involved in the elearning activities. The scheme is built on the pentagonal curriculum model:

**Figure 1.** Added value of ICT in education and training: a view upon the curriculum components

The education sciences domain provides many research reports concerning the quality of education and the efficiency of teaching-learning process. At questions of whom?, which facts?, which moment, approach or instrument we owe the efficiency of teaching learning process?, literature reveals different factors which in certain conditions increase the efficiency of instruction. These studies reveal some elements, principles, stakes which has to be taken in account for an efficient instruction design. These principles represent a sort of conditions, attributes or instructional standards (of the largest generality) for the designing and evaluation of activities from educational process. The research reports’ conclusions are repeatedly reconfirmed and are congruent with what practice imposed as valid in the last decade:

1. **The instruction based on a design for an reflective/reflexive learning.** During instruction, the possibility to reflect about learning has to be offered to the student. The reflexive learning represents an active process of cognition construction, through which the memory content (mediated by thinking processes) is transformed, enlarged, connected, is structurated or is created.
2. **Multiple support in cognitive, motivational and emotional plans.** A good instruction not only helps students in thinking and learning, but also offers a motivation and an emotional adequate context. The instruction produces cogniscible effects if the objectives are well defined, if the anterior aknowledgements are activated, if a stimulative content is presented, if the learning process is guided, if the feedback for task is given, if the learning progress is evaluated and the knowledge transfer is guaranted.

3. **Taken in account of individual particularities of the students.** The instruction and aquisition evaluation are very efficacy if students are assisted in individual particularities reveal; more, when they are helped to remove their minuses. Students are more performance in learning if the instruction is adapted ti their needs and individual features.

4. **The knowledge aquisition and application in varied contexts.** The instruction is focalized from the very begining on assimilation of fundamentals: declarative knowledgements (concepts, facts) and procedural (rules) which has to became a part of memory in correct, structurated,interconnected patterns. For the flexible use of this knowledge, a repeated practical application and evaluation is necessary. Such situations has to vary in difficulty, in their correspondence with real cases and in the guiding level.

5. **The development and evaluation of fundamental knowledgements but also the stimulation of higher-order skills.** The analysical thinking processes are stimulated when student is sollicitated to decompound elements (of discipline content) , to compare them, to evaluate and to explain. The creative thinking can be sustaied when student task is ti imagine elements of knowledge and to develop own products. Analitical and creative thinking can be trained using stages of problem solving. Aknowledgements, thinking and the capacity to solve problems has to represent an integrated part of acquisition evaluation.

6. **The stimulation of reasoning capacities.** For a succesfull reasoning the identification, construction and evaluation of reasons is neccessary. The education methods which sustain reasoning are: group activities with structured procedures, pro/against listings, questionnaires concerning aknowledgements, synthetisations, work cards for thinking stimulation, debates on a given subject,problematised learning, graphics organizers.

7. **The design and guiding od self-controlled learning.** The notion of self controlled learning means that students controls /regulates this process according to given objectives and selects activities to improve the results.

8. **The increasing of learning efficacy.** The learning efficacy represents the ratio between resources/invested efforts and obtained results. The high efficacy learning appears when students work with challenging tasks, without overloaded; such tasks depend on previous knowledge, but neccesitis new aknowledgements or skills.

9. **The interest awakening and maintening.** The students are interested when they believe that they represent an important part of the group or when they can prove competence in a field, when they can define their own objectives or can work protected against the compatration with other students. About the discipline content, should be reinforced the importance for their life and aims.

10. **The positive feelings intensification.** The symphathy between teacher and student can be incresed by differnt strategies such as: the relationship intensification, interactions promoting, establish of cooperative learning structures, implementation of collaboration programmes.

11. **The diminish of negative feelings.** To diminish fear, envy and anger appeared during learning, diverse strategies can be used: the assuring of succes in learning, mistakes acceptance, relaxing moments using, encouraging the comparisons concerning to biographic or criterial frame, not to social standards.

12. **The respect and responsability setting up.** The education has the mission to form general social skills instudents, based on respeect and responsability for/faced to others, environment, society in general. Such values and correlated attitudes can be obtained if certain conditions are created: a community creaton where members take care each other, use democratic rules in decision taking, responding to questions concerning the own personality development and integrating controversial subjects in teaching.

13. **Self instruction materials using.**
To sustain a self controlled learning, special materials are necessary, provided with a rationale reasoning for which they have to be studied, a description of previous achieved pre-knowledge required to understand the new content and the way in which this content will be achieved. A consistent orientation toward learning objectives, a clear structure of content, a guided learning, clear working tasks which allow student to check his acknowledgements, pre and post thematic organizers, a varied difficulty background of exercises together with their solutions (complete, uncomplete or multiple), illustrations which contribute to content understanding and text attributes which facility searching, organization and integration of knowledge are required, too.

From the specificity of presented elements, some important conclusions can be drawn, regarding to efficient education characteristics:

a. first, the instruction can be conceptualised in pedagogical (educational sciences) reference frame, its attributes can be creatively promoted/uptaken in educational practice;

b. second, an efficient instruction represents not only the result of teacher aknowledge, but his art/ability to use a strategy, method, procedure in proper moment and in agiven situation (N.L. Gage. The scientific basis of the art of teaching. New York: Teachers College Press, 1978; Birzea, Cezar. Arta si stiinta educatiei. Bucuresti: E.D.P., R.A., 1998.);

c. third, the instruction approach neccesits decision making from teacher, an objective situation analyse and turning to account the professional competence and avaible resources;

d. fourth, the educator has to consider/see the student as an autonomous person, with individual features with makes him different.

II. NEW CHALLENGES AND NEW COMPETENCES FOR STAFF

As many studies are indicating, the performance of the staff involed in elearning activities is highly correlated with the level of support received from the management, including the extent to which the procedures are regulated in specific documents and institutional policy papers. It is desirable that within the institution would exist a collaborative, stimulative environment, in which the personnel cooperate towards a better understanding of the nature of the tasks implied by the new technologies, as well as towards a more efficient practice within virtual educational platform. Motivation, implication, involvement – these are the dimensions supporting a high quality work, which are occuring in time, in a both constant and dynamic socio-professional medium, online or offline.

Main categories of competences necessary for dealing with the elearning situations are four:

- academic – knowledge, abilities and attitudes specific to the study domain;
- pedagogical – knowledge and capacities to design, develop and evaluate a learning situation;
- managerial – skills necessary to organise learners, resources, time and tasks;
- technical – ICT skills.

The big challenge for the education practitioners acting in virtual environments is to surpass the novelty not only through adequately use of the technologies, but also through knowledge and use of adapted virtual education practices. The technical aspects consist in appropriate use of some instruments such as forum, blog, wiki, bookmarking tools, collaborative documents – which suppose some hours of hands-on training. The pedagogical dimension is much more complicated, regarding development of some specific competences towards: a learner-centred approach, collaborative learning, continuous support and counseling, online assessment, motivational techniques and so on.

Here is a list of tasks and roles associated with education staff in the virtual environments:

- design of educational activities;
- organisation of the instructional process and context;
- analysis of resources and instruments available;
- choose of didactic strategies and methods;
- design of instructional alternatives;
- prevention of interruption and distractions;
- facilitation of learning;
- ensuring good conditions for learning and communicating;
- provoking thinking, challenging previous knowledge/prerequisites;
- formulating answers;
- stimulating debates;
- encouraging students, motivating them to keep going;
- suggestion of new paths for deep learning and alternative solution searching;
- assistance, monitoring, assessment;
- animating discussions, giving hints;
- guidance, counselling;
- prevention, management and capitalising upon education crisis situations;
- decision and asking for opinion, proposal of themes and tasks;
- coordination, organising groups and learning teams;
- learning support;
- moderation, communication.

Figure 2. Today’s educator: integrated profile of competence

A complete vision of the transformation in the set of skills necessary to education staff working on the virtual environments would include pedagogical and academic competences, filtered and refined through the present technological context, projected in a “know how” which makes today the difference between good educators and the others.

References


