

SHAPING THE ACTUAL TEACHER'S PROFILE: HOW ICT CAN INFLUENCE IT?

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ABSTRACT. In the actual context of massive technological development, the teacher training process - or even, the teacher self-training one - should be actually based on the acquisition of technical skills, mainly related to the use of Internet and multimedia resources, but also on the didactic skills focused on how to use those resources in order to make the teaching demarche more effective. Generally, in order to introduce ICT in the teaching process, the educators have to go through three distinguish stages of professional development: (a) acquiring the necessary technical skills and introducing ICT for projecting and operationalizing the lessons - even there is an amount of mistrust and fear concerning possible technical and pedagogical problems that may occur; (b) experiencing the ICT implementation in the projected lessons - where the teacher uses the technology to conduct the lessons and improves the teaching process; (c) assessing the ICT resources involved in the lessons or in the possible new ones - ready to be implemented -, and drawing related conclusions.

ICT can contribute to shape the nowadays teacher's profile, bringing crucial added-values to the sets of following competencies: (a) communication; (b) information; (c) pedagogical design; (d) production. By introducing ICT in education, it will be clearly reduced the time

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consumption and repeatability of tasks, offering to teachers the possibility to spend more time on designing lessons in a new and competitive format, performing and evaluating the training process.

Keywords: teacher's profile; ICT skills, initial training, professional development;

I. Introduction

During decades, two main versions of teacher training have been developed: (a) the first model covers the initial training, considered complete and sufficient for the entire career; (b) the second one represents practically the natural training model, consisting of a *survival kit*, designed to cover the initial years of the teaching career. It is subsequently supplemented with professional development programs and specialized assistance that bring a series of necessary updates.

But the pedagogical training – both, theoretical and practical - can take place, at the same time, as general training (*the simultaneous model*) or being designed one after another (*the consecutive model*). Both models are met across Europe in different proportions: the simultaneous model is provided to future lower secondary teachers in Belgium, Denmark, Germany, the Netherlands, Austria, Portugal, Norway, Sweden, and the consecutive model is organized as initial teacher education for future teachers in Greece, Spain, France, Ireland, Italy, Luxembourg, Scotland. For the upper secondary education, the consecutive model is more common. (Chivu, 2008). In the *simultaneous system*, the topics allocated to various specialties and those related to psycho-pedagogical training are studied in parallel. Students have the possibility to start their teaching career immediately after the graduation. Another advantage of this training model is represented by the systematization and consolidation of the psycho-pedagogical and methodical knowledge, while studying also specialized topics, as well as connecting theory and practice. Students can immediately check the functioning of the teaching-learning-evaluation process in terms of knowledge, skills, behaviors, attitudes, and values to be passed on to secondary education students, during their teaching

practice. In the *consecutive system*, the specialized topics are studied in the beginning, followed by the ones related to psycho-pedagogical module. This system has the advantage of proposing of a deepened and systematically learning of the specialty topics, but the beginning of the teaching career is delayed, taking into account the fact that the psycho-pedagogical subjects are studied after the graduation of the university.

In Romania, according to the *National Law of Education*, people who want to embrace a teaching career have at their disposal both systems. In this respect, all universities have *Teacher Training Departments*, offering a package of psycho-pedagogical subjects (level I) to be studied as a completion of the initial training, in the simultaneous system (for students who are enrolled in bachelor studies) or in the consecutive systems (for graduates). In addition, another package of psycho-pedagogical subjects (level II) can be studied in the simultaneous system (for students who are enrolled in master studies) or in the consecutive systems (for master graduates). Practically, studying psycho-pedagogical subjects offers the opportunity to start and develop a teaching career in any specialization. (Iucu, & Păcurari, 2001)

In the teachers' training process, the *knowledge triangle* - innovation, education, technology - should be considered and developed in order to enhance the creativity, capacity for innovation, trainability and technological skills, but also the abilities for accepting and introducing novelties in educational practice. Generally, in all educational systems, the *professional training* of the teaching staff is designed to develop (Enache, & Crişan, 2014): (a) wide cultural horizon (rich knowledge of literature and art, science and technology, social and political life); (b) deep knowledge in the field in which they were trained; (c) pedagogical knowledge; (d) didactical skills and abilities. In addition, teachers must acquire (e) new competencies related to the pedagogical use of ICT, mostly considering that learning is taking place in the actual context not just inside the school, but also outside the school, the nowadays students becoming more responsible for their own learning process and exploiting ICT with great ease. (Jager, & Lokman, 1999).

II. The Teacher's Profile

A generic teacher's profile must list a series of abilities and skills, but in any case, the teacher's personality should be included in the first place. The *personality* was defined by Allport (1961) as "the dynamic organization within the individual of those psycho-physical systems that determine particular thinking and behavior". In fact, the personality represents a universal phenomenon, but it is manifested in individual forms. For a modern person, the personality requires two conditions - to have the awareness that represent something valuable (the *status* - what an individual expects from others according to his/her social position), and to be recognized as a value, as a remarkable individuality (the *social role* - the set of behaviors that others expect from an individual). The personality involves three dimensions: temperament, aptitude and character. When discussing the fully developed personality, it is also considered the ability to react positively to changes, failures, conflicts, but also the ability to adapt and accommodate, to use the new information technologies, to communicate in a foreign language etc. (Chivu, 2008)

But related to teacher training, the personal *skills* prove to have a great importance in the process of development of didactic activities. Here it comes the discussion about the *pedagogical competence* that involves - according to Mitrofan (1988) - three basic skills: *scientific, psycho-pedagogic* and *psycho-social*. The *psycho-pedagogical* component is given by the ability to adopt a different role, to easily and appropriately establish relationships with others, to influence teachers in several leadership contexts, to communicate easily and efficiently with a group, to use power and authority adequately, to easily adopt different styles of leadership and creativity. (Chivu, 2008). It is manifested itself more easily when it comes to mastering and using *new information technologies*, as it streamlines relationships, communication and, implicitly, their results. (BECTa, 2000)

Anyway, the teacher must prove a warm personality, energy and vitality, a real desire to help others, interpersonal skills and abilities (to be able to motivate, encourage, identify the learning potential in any situation, smile, be open and polite, show tact and empathy, value all the participants' contributions), flexibility, sensitivity and responsibility, ability to identify and solve students' problems. A valuable training process - led by the teacher - involves the continuous adaptation of plans

and materials to integrate students' ideas and skills, knowledge and enthusiasm in relation to taught topics, credibility in the eyes of students, confidence in one's own strengths. (Chivu, 2008)

The teacher's moral profile is given by the *personal dignity*, together with *personal qualities* - energy, firmness, perseverance on fulfilling the tasks, independence and steadfastness on defending the pedagogical opinions, promptness of his/her decisions, and *character features* - spirit of initiative, self-mastery, discipline, honor and modesty, work dedication, self-exigency etc.

Mitrofan (1988) expressed that a teacher must have near *psycho-pedagogical competence* (ability to determine the difficulty of a learning material for students, ability to render learning material more accessible, ability to understand students, to penetrate their inner world, to understand the difficulties faced by students in learning and assimilation, continuously reforming of his/her teaching program and manifesting creativity in their psycho-pedagogical work), *psycho-social capacities* (assuming and playing different roles, easily and appropriately establishing relationships with students, easily influencing group of students, communicating easily and efficiently with the group, easily adopting different styles of leadership). Other important issues are also noted: qualities pertaining to senses, language, attention, intellect, emotion, personality (openness to student's issues, warmth, understanding of the problems of those with whom they work, cooperative style, lively intelligence, capacity of abstraction, balanced approach to problems, balanced, lucid character. Along with those features, authority, prudence, conscientiousness, seriousness, sense of duty, courtesy, sociability, delicacy, sensitivity, ability, sincerity etc., have been also mentioned.

In addition, at present, teacher's *ICT skills* become compulsory, being required in concrete educational and managerial settings, facilitating also the practice and development of other skills. (Gray, 1999). However, relations between school of the future and teachers of future are illustrated in Table 1 (adapted after Chivu, 2008), having as basis several concepts expressed by visionary figures of Education and Psychology:

Table 1.

School of future and related teachers' skills

Characteristics of education considering the school of future	Teacher's skills in the school of future
1. Unity of sciences and plurality of cultures (Bourdieu, 1985); international education (Văideanu, 1988)	1. Knowledge, attitudes and values, skills within international education (Văideanu, 1988)
2. On-going education, alternating between school study and working in labs or enterprises (Bourdieu, 1985); permanent education (Văideanu, 1988); initial and continuous training (De Landsheere, 1991)	2. Professionalization - subject of self-education (Todoran, 1974)
3. Cognitive/socio-emotional balance (De Landsheere, 1991)	3. Paying more attention to students' emotional development (Văideanu, 1988)
4. Using of modern teaching methods and techniques (Bourdieu, 1985); computer assisted learning (Văideanu, 1988)	4. Knowing how to program a computer, setting it up so as to turn it into an every-day instrument of action (De Landsheere, 1991); using computers to enable constant dialogue with students (OECD, 2008)
5. Openness towards and by autonomy (Bourdieu, 1985)	5. High scientific competence in the field of the taught topics, but also the way of teaching (NRC, 1997)
6. Switching from a knowledge-based education to an education that articulates knowledge, skills and attitudes and framing in self-education service (Văideanu, 1988)	6. Socio-emotional, cognitive, methodological and material factors for cooperation and development (De Landsheere, 1991)
7. Individualization (Todoran, 1974); individual treatment according to the students' skills and personality (De Landsheere, 1991)	7. Individualized teaching (De Landsheere, 1991); teachers organize teaching so as their methods make appeal to each student and to the entire class (OECD, 2008)
8. Switching from subject-centred	8. Diagnosing students' learning

Characteristics of education considering the school of future	Teacher's skills in the school of future
programs to student-centred programs (White-Cheatham, 2014); switching from "apprendre á être" to "apprendre á entreprendre" (Văideanu, 1988)	difficulties (OECD); collaborating with parents (De Landsheere, 1991)
9. Promoting inter-disciplinarity (Văideanu, 1988)	9. Sharing experiences and responsibilities (De Landsheere, 1991)
10. Fully open teaching-educational system (De Landsheere, 1991)	10. Knowledge, imagination, calm, team spirit, enthusiasm, courage, determination, ability of synthesis, selection, flexibility, prospective vision (Văideanu, 1988)

III. The Teacher's ICT Skills

It can be noticed that concerning both the characteristics of the school and the education of the future, as well as teacher's competences, the prospective character of education lists *ICT skills* as being important in the didactic process: *knowing how to program a computer, setting it up so as to turn it into an every-day instrument of action* (De Landsheere, 1991); *using computers to enable constant dialogue with students* (OECD, 2008). Future cultural revolutions will stimulate institutions offering initial and continuous training programs to incorporate and develop new technology courses and exploit their educational valences (personalized, attractive, dynamic, active and conscious learning, effective communication, developing team work skills, facilitating the accomplishment of tasks through the Internet etc.). (Haddad, & Draxler, 2002)

The education system needs to be transformed in order to answer to new individual and social needs, being able to cope with changes and innovations. Those economic, political, and social transformations determine the need to reorganize the educational system, to enhance its efficiency and performance, make it more economical so as to meet the new economic and social requirements. But progress made by Information and Communication Technologies allow to provide new solutions to those

problems. The appropriate use of new ICTs makes the education system *more efficient and more powerful, if there is a willingness to accept and make some necessary changes*. In this respect, it is expected that *the first segment to be reformed should be the teacher training*. Given that technological innovation stimulates economic transformation and that it also causes the necessary social adaptations, it represents also the key to the reorganization that the education system must accept. The wider use and integration of micro-informatics, multimedia, the Internet and other telematics innovations can be a starting point for reforming learning methods and rationalizing the learning process. (Enache, & Crişan, 2014)

The use of new ICTs in the educational process can develop and enrich the skills and abilities of the teaching staff. However, in order to make the best of their educational potential, teachers need to know them very well and use them effectively. Teacher training should include ICT courses, computer assisted instruction training, but also related issues, in which teachers acquire knowledge, but, above all, they form and develop their ICT skills. In order to become an effective mediator in the learning relationship, the use of computer, its applications, and especially Internet services, also require specialized training. At the same time, making an optimum combination between new technologies and effective pedagogy represents a daunting task for both initial teacher training and in-service training institutions. (Jung, 2005)

IV. How ICT Skills Can Enrich the Education Manager's Profile

For organizations, leaders' skills represent the most valuable characteristics of the leadership. Of course, those differ by levels and managerial types. As general skills, required by an ideal manager profile, *the conceptual, human and technical skills* are strongly needed. Among those ones, *ICT skills* (mainly related to the use of the new information technologies) are also taken into consideration. In this respect, the technical skills have to include: knowledge of methods, techniques, equipment involved in managerial, financial or marketing activities, skills necessary for carrying out specific tasks (designing computer application, filling-in accounting documents, statistical analysis, writing official documents, designing plans, programs or even strategies). (OECD, 2001)

The abovementioned general skills are very important for all managers, but the conceptual ones are more important for top managers (in education: inspectors, researchers, educational actors directly involved in educational policy making, Ministry of Education staff etc.); the human and technical ones have greater importance for lower-level managers (teachers as class managers) and medium-level managers (school principals). For the actual profile of education managers, the *computer skills* are clearly required considering the fact that the managerial activity is more complex and is visibly more efficient through the use of new information technologies. In education management, certain functions and activities involve, in addition to communication and relating and planning, also organization, control and evaluation, at a much more complex and superior level compared to the teaching activity itself. Anyway, a good profile of the nowadays education manager must include skills which exploit ICT in a great measure:

- *Communication and networking skills* (specific skills - choice of appropriate ways and means of communication to streamline the managerial profile, adapting to different situations/ contingencies to operatively solve problems in education; resolving conflict situations, after investigation, through mediation and negotiation with the view to ensure a climate of trust and responsibility; adequate using of concepts - communication, didactic communication, communication blocks, emitter, receiver, conflict, negotiation, priorities, innovation, educational marketing, educational needs, needs analysis, market, clients, offers, services, educational demand; applying those concepts in planning and carrying out educational management activities; adequate organization of managerial activities according to the principles of priority management, tensions and change; optimal using of spatial and temporal factors in order to make education management more efficient, taking into account the principles of priority management, tensions, and change; manifesting a creative methodological behavior at the level of management; offering an innovative conduct at professional level; valorizing personal qualities and assuming principles of professional conduct, accessing various sources of information for documentation purposes, providing empathic relationships with students, parents, other teachers, other educational partners, designing and developing proper school management, promoting joint projects between school, family and community).

- *Related skills in order to properly use of ICT* (specific skills - synthesizing information for creating a useful database for the managerial act; capitalizing information in the database in order to make decisions according to the realities of the educational environment; using computerized informational techniques and technologies for rendering the activity, more effective and qualitative).

There are also a series of skills that nowadays education manager must acquire, with more or less involvement of ICT (Chivu, 2008):

- *Valuing personal qualities and assuming professional deontological principles*; accessing various sources of information for documentation purposes; manifesting empathy in the relationships with students, parents, other teachers, other education partners; designing and carrying out a good management of the school organization, communicating with the external environment; designing and developing proper school management, promoting joint projects between school, family and community).

- *Psychosocial competencies* (specific competencies - valorizing the individual and group peculiarities of the interlocutors, in order to achieve effective communication; adopting an appropriate behavior in the relations with interlocutors, in order to achieve a collaborative climate; forming abilities for fast adapting to social changes; developing effective strategies of the partnership between principal-teachers, principal-students, principal-parents, principal-inspectors, teachers, parents; collaborating among parents/community to achieve a genuine partnership in education; identifying the dynamics and trends of the labor market and correlating it with the teaching-learning process; solving conflicting situations in order to ensure a climate of confidence and responsibility within the educational unit; using of psycho-behavioral self-control methods and techniques; adopting effective leadership in order to overcome crisis situations).

- *Managerial and coordination skills* (specific competencies - designing activities to achieve a qualitative education; organizing activities to achieve the objectives of the managerial plan; coordinating the instructional-educational process in order to achieve school progress).

- *Assessment competencies* (specific competencies - establishing the objectives and evaluation criteria in accordance to the principles of total quality management; using of assessment techniques and tools specific to the educational process; assessing the educational approaches in order to identify the training needs).

- *Resource management competencies* (specific competencies - managing material and financial resources according to the priorities of the managerial plan with respect to the general and specific legislation; managing the decisional act by taking responsibility or delegating responsibilities within the working groups in the educational unit; selecting human resources according to the specificity of the unit; valorizing the information from the legislative, curricular, and evaluation documents, in order to make the appropriate decisions; efficient using of the existing human resources and selecting the personnel according to the specificity of the unit and strategy of its development in the coming years; efficient using of time resources and prioritization).
- *Skills related to institutional development* (specific competencies - analyzing the educational context in which the institution operates in order to design an adequate institutional development strategy; designing the institutional development strategy; promoting national and European values in education, through programs and partnerships).
- *Competencies related to self-management* (specific competencies - evaluating of own activity in order to increase the quality of the managerial act; selecting the training path for career development in accordance with the personal aspirations and specifics of the institution; manifesting openness to the innovative trends, necessary for professional development).

V. Conclusions

In the classroom, teachers must prove deeper understanding of a topic, using a great variety of teaching methods, ensuring support for students by creating projects that can enhance learning, offering support for groups and individuals, orienting students towards key-concepts and problems raised by the gathering, processing and using of information, and adapting it in flexible frames of formative and summative evaluation.

Apart from the basic roles of a teacher (as instructor/tutor) - *shaper, coach and support provider* -, under the impact of ICT use in education teachers are expected to become more effective in the following additional roles:

- *collaborator* - many of the activities based on ICT take the format of project-oriented ones. In those cases, the teacher participates as team member in the students' groups, solving the proposed tasks and interacting with them.
- *developer* - for reaching a qualitative didactic process, the teacher *develops* teaching materials, most of them embracing the form of digital materials.
- *researcher* - it should be the natural status of a teacher, considering his/her implication and innovation in the didactic projection of the lesson. Innovating with the help of ICT offers to students the possibility to obtain and interpret the results and design conclusions.
- *self-educated in ICT* - practically, basic ICT constitutes the first step which must be fulfilled in the teacher training process. But teachers can continue their work on self-instruction in ICT, for moving forward the educational benefits, in both pedagogically and technically senses.
- *member of teachers' team* - activities that use ICT require often team activities, due to the fact that related knowledge, abilities and skills play a crucial role on accomplishing the work tasks (especially in collaborative projects).

The professional development of teachers represents an essential key for introducing efficiently use of ICT in school. Thus, it is important for teachers to extend their techno-pedagogical skills, mostly insisting on four important competencies: (a) using ICT for *communication* and *collaboration* contexts; (b) processing, interpreting and using *information*; (c) *pedagogical designing* of formal and non-formal activities, by including ICT in such demarches; (d) creating ICT-based *learning resources* as educational support for students. In this respect, proposed programs for teachers' professional development must support and train teachers to positively integrate ICT into their classroom, but also must shape their attitudes related to ICT as being a successful factor for increasing students' motivation and understanding and enhancing students' learning nowadays. (Gorghiu, et al., 2012).

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