



INFORMATION-COMMUNICATIVE COMPETENCY IN TEACHERS' QUALIFICATION

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ABSTRACT

The digital competency is one of the eight key competencies, defined in European Union's standards and is compulsory for everyone, who is working in modern IT (information technology) times. This article presents an attempt at sketching the frame of information-communicative competency of teachers as the basics of improving new qualifications.

Key words: key competencies, computer skills, information technologies (IT)

INTRODUCTION

The concept of learning during your whole life, perceived in The National Strategy for the period 2008-2013, is founded on two distinct groups of competencies, which interact and can be acquired simultaneously or separately (1):

- Professional competencies
- Key competencies

While professional competencies, including knowledge, skills and abilities are the basic training, which people need to poses in order to work in a specific field, key competencies as conveyable, are object of learning in one's entire life. Key competencies include communicative skills, skills in working with IT, teamwork, self-training, etc. Acquiring such skills requires methodology, spare time and place to acquire them, grading system, etc. The digital competency is one of the eight key competencies, defined in European Union's standards and is compulsory for everyone, who is working in modern IT (information technology) times. Education in all its forms and qualification of teachers are essential in both acquiring key competencies and preparing to live and succeed in European communities.

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PURPOSE OF RESEARCH

This article presents an attempt at sketching the frame of information-communicative competency of teachers as the basics of improving new qualifications.

RESEARCH METHODS

Comparative theoretical analysis, polling, observation, pedagogical experiment

RESULTS AND DISCUSSION

Information-communicative competency model

Information-communicative (digital) competency as defined most commonly in EU papers is skillful and correct use of electronic means in work, spare time and communication. This competency is based on logical, accurate thinking and high-level skills in using IT (computer skills, multimedia skills, Internet, ATM's, cell phones, etc.)

Organizing and carrying out in different long and short termed training of teachers in the IT sphere come as a result of researching motivation as well as the need of qualification. In preliminary research (2) for determining the level of existing computer knowledge and skills of the trainees, the following results were perceived: 32% of the inquired teachers define their skills at the time as 'good', 54% as basic and 14% as 'none'. A very small part of the acquired skills are acquired in school or in university (4%). The greater part have selftaught themselves:

- By “trial and error”;
- while performing different tasks.

The research's result show that the need of computer education for teachers form three distinct groups:

1. Need of fundamental theoretical and practical preparation
2. Need of filling essential gaps in theoretical and practical preparation
3. Need of systemizing and improving theoretical and practical preparation.

Researches of existing experience and pedagogical research in the field of computer education (incl. qualifications of teachers) show that computer skills are most commonly taught as an object, e.g. skills at a certain level are formed. It is a compulsory part, but it represents only a single part of the digital competency. The other side suggest forming of common habits in thinking like searching, comprehending, grading, systemizing and using information in different environments like coping with professional, personal or global problems. Possessing computer skills are subject to formalizing and impartial grading. For example, ECDL (The European Computer Driving License, *извън Европа се нарича ICDL*) is the most common certificate for computer skills acquired by over 3.5 million people in recent years. For acquiring it a network of representatives in 135 countries (Bulgaria is still not among them, but it is used in a number of projects in certificating municipal administration). The questions in ECDL are

organizes to check the level of certain skills, which or not dependant of the computer platform the user is using. Every single question covers a unit of skill in a certain field, which is a part of category of seven modules which represent the most commonly used IT. In other words, grading the results of training in acquiring computer skills is realizable and every tutor does it. Such certificating is grading only technical skills, not competencies.

In order to create a frame model of information-communicative competency in qualification of teachers, these directions are defined:

- Transition from forming skills (and their grading) in working with a certain information technology to summarizing skills as a base of transition from a skill to a competency;
- Forming of summarized skills is bound with teacher's profession and their primary activity - teaching students.

Qualification forms of computer skills are based on modules. Modules are comparatively independent courses whose purpose is acquiring different IT skills. These modules are updated in order to fulfil the needs of the trainees. Every module's content is based on object concept, where in its basis is situated an object - a certain information process and technology, in which this process is presented as an information model, for example:

Information object	Technology	Information model
text information	word processor	document file format
table information	spreadsheet	data sheet
visual information	computer graphics	computer image

In order to conduct the transition of learning computer skills to acquiring information-communicative competency a content frame of needed skills is sketched:

1. **Defining information problem** – A task which suggests performing essential tasks – gathering, editing, saving and spreading information.
2. **Access to information resources:**
 - Searching, grading and using available resources;
 - Creating own resources.
3. **Choosing technology to solve the problem:**
 - Knowing the capabilities and the restrictions of information technologies in a certain situation;
 - Choosing and combining appropriate technologies
4. **Creating information model:**

- skilful use of means for creating and editing different computer documents
- Creating integrated computer documents.

5. **Grading the information model:**

- grading the strong and the weak points of the information model;
- Self-reflection on every step and improving of the model

Every competency includes cognitive skills, knowledge, skills, adjustment, will and skill to learn. The specifics of teacher's profession demand constant readiness to learn and form compulsory skills for communication, tolerance, empathy, etc, which make acquiring key competencies easier. **Table 1** represents some prerequisites for successful learning in the qualification forms for teachers and the connected specific skills (3):

Table. Prerequisites for successful learning in the qualification forms for teachers

Successful learning is achieved, if the teachers:	Skills needed (existing or recently acquired during training) facilitating the learning process:
<ul style="list-style-type: none"> - Are motivated - Define their own priorities related to: <ul style="list-style-type: none"> • changing the educational policy; • globalization of knowledge; • need for new skills; • mobility of work force; • unemployment; • specify their own objects for: <ul style="list-style-type: none"> • acquiring new qualification; • improving one's career in order to acquire professional qualification degrees; • improving new skills and knowledge; - Develop their own learning strategy; - Acquire new knowledge on the basis of existing experience and newly acquired ideas. 	<ul style="list-style-type: none"> - Impartial judgment of own position in society and professional field; - Taking responsibility for own improvement; - Organizing time and choosing tasks; - Written expressing and presenting ideas in certain forms: report, notes, didactic material on learning content, theses, formulating tasks; - Transferring knowledge in certain practical situations: <ul style="list-style-type: none"> • while studying; • while tutoring. - Learning skills (as a vast range of skills) or recovering and improving learning skills; - Self-reflection on achievements during the qualification forms of education.

The model of information-communicative competency, which is reached in qualification forms for teachers includes cognitive skills,

related to certain IT, personal virtues and social skills. (Table 2)

Table 2. Model of information-communicative competency

Cognitive Skills	IT means	Personal virtues	Social Skills
Description of the information problem	Computer text editing web e-communication	<ul style="list-style-type: none"> - identifying personal needs and priorities; - defining goals; - planning; - learning from past experience; - self-reflection; - forming arguments ; - impartial judgement; - interactive use of knowledge and information. 	<ul style="list-style-type: none"> - teamwork; - sharing and cooperating; - presenting ideas; - perceiving another's ideas; - empathy; - effective emotion management
Access to resources	Google, Yahoo, Rambler, etc. web, FTP electronic resources – CD, servers, etc. Computer text editing Computer graphics Information systems		
Choosing technology	Computer text editing		
Creating information model	Computer graphics Electronic tables databases HTML web design computer presentations		
Grading the information model	web e-communication		

CONCLUSION

In qualification forms for teachers a transition from learning and forming of certain computer skills to forming information-communicative competency as a complex of cognitive skills, personal virtues and social skills, is needed.

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