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UDC 378

AXIOLOGICAL ASPECT OF TEACHING FOREIGN LANGUAGES TO IT-SPECIALISTS IN THE HIGHER EDUCATIONAL INSTITUTION IN THE CONTEXT OF PROFESSIONAL STANDARD

SUMMARY. The authors of the article have analyzed the professional standard "IT Specialist" and have come to the conclusion about the increasing role of social and communicative component of the IT bachelors' and masters' expertise. As the result, an axiological aspect of teaching foreign languages to IT-students has become especially important, though this fact is not taken into account in the professional standard. Having analyzed the requirements and expertise of IT-companies that work with foreign customers, the authors point out that a graduate of the engineering university has to have well-developed communicative skills for professional communication in foreign languages. Meanwhile, most standardized professional knowledge in the IT field might be developed by means of foreign language teaching. The authors have concluded that it is necessary to involve top IT specialists (employer's representatives) in order to provide and carry out students' language education. This will increase the practical impact of teaching foreign languages in order to guarantee high professional level of the graduates. In their opinion the foreign language is a means to store and pass information, while the foreign language competence is formed alongside professional competences.

KEY WORDS. Higher professional education, professional standard, foreign language, IT, axiological aspect.

General informatization of the society has recently increased the rates of the production development. In IT, the most dynamic and innovative field today, technologies tend to get outdated quickly; so, IT specialists are meant to be knowledgeable in the field as well as to have permanent professional training, good team-work skills and other competences. Thus, it becomes relevant that state educational standards for higher professional education require graduates to be competent in the definite field of studies as the result of education. Meanwhile, employers consider the competence-based model to be an effective tool for staff management that forms an integrated system easily understood by both managers and workers [1].

However, when it comes to a graduate turning into an efficient worker, there is a gap between the higher educational institution and the employer. One of the main problems of the higher professional education is that while the universities know "how" to teach, they often don't have access to the modern professional experience. At the same time, companies and organizations know "what" to teach, but are not competent in methodology of teaching [2]. The level of professional training of the graduates is quite low; sometimes only 30% of graduates actually meet the qualifying standards [3]. It proves that it is hardly possible to train a qualified specialist unless an employer has a say in the development of the educational programs.

Consequently, we are in need of such a professional standard that would be a regulatory document describing employee's functions, necessary work experience and major professional requirements demanded by IT-employers.

We focus here on the professional standard "IT specialist" [4]. To make it clear we have compiled all the data on kinds of work activities and requirements to the professional training on all qualification levels of the professional standard in one table (Table 1).

Table 1

Educational standard and functional duties on different qualification levels		
Qualification Level	*Generalized Description of Fulfilled Work Activities*	*Educational Requirements*
1	Installation, testing, encoding of information system (IS), technical support, parameters adjustment, technical paperwork	Vocational secondary education 230205 "Information Systems"
2	Participation in paperwork on IS, data acquisition for the project's field and customer's requirements formalization	Bachelor 230200 "Information Systems", engineer 230201 "Information Systems and Technologies"
3	IS maintenance, hardware and software complex support, coordination; team-work management	
4	Finding out customer's demands, IS choice, project management, IS integration with customer's hardware and software complex	Master 230200 "Information Systems", engineer 230201 "Information Systems and Technologies"
5	Activities monitoring, projects' and backlogs of projects' management, strategic management	

Comparison of functional duties of "Bachelors" and "Masters" makes it evident that besides more complicated and broad professional competences a Master is expected to show better self-sufficiency and responsibility and to fulfill a number of social and communicative activities.

Consequently, it is necessary to develop and form common cultural competences that are "educationally appropriate tools for better employment and didactics" [5; 19]. On the whole, common (common cultural) and professional competences are complementary [6]. Common competences in the contemporary labor market are

shown as "a definite level of functional literacy" [7] and allow professionals to change and assimilate.

Because of this, teaching foreign languages to IT students in the university becomes especially important as far as it is communicatively, professionally and practically oriented. Lexical component of foreign language (FL) teaching, as far as being interdisciplinary, may vary from common topics to peculiarities of programming languages.

To find out FL potential in the professional standard "IT specialist" we will consider given detailed description of the components of professional competence: knowledge, abilities and skills necessary for an efficient professional (Table 2). In the table the components demanding proficient knowledge of FL are *italicized*. The components connected to the foreign language teaching in the standard itself are presented in ***bold cursive***.

Table 2

Cognitive and functioning components of the professional competence for the qualification levels of the professional standard "IT Specialist" for the Bachelor's degree
1. Cognitive Component of IT Field
To know network protocols; to know databases, IS; to know programming languages; to know factory automation standards; to know optimization methods; *to know the field regulatory engineering data, to analyze contemporary national and international experience of professional activities, to understand special IT literature*
2. Functioning Component of IT Field
Readiness to master new technologies in IS; ability to read professional and special literature on IT
3. Cognitive Component of the Field of Economics and Business Management
To know basics of market economy, quality management, enterprise accounting; to understand methodology of business management; to know technologies of complex examination of an enterprise, to understand the point of re-engineering
4. Cognitive Component of IT-Projects Management
To know technologies of project management in IT; *to analyze legal and project documentation on the project; to understand terminology of the special literature on project management in IT*
5. Cognitive Component of Interprofessional Field
To know business communicative techniques, basics of conflict management; to know *presentation-making techniques; to know Russian language and speech culture; to know* ***foreign language (reading and understanding of technical literature)***
6. Functioning Component of Interprofessional Field
To be able to collect, process and analyze information; ***to apply foreign language while working with engineering data;*** *to have experience in paperwork according to the requirements of the book-keeping; to be able to efficiently communicate with business partners, customers, to work as a member of a project task group or team; to be able to carry on business correspondence;* to be able to organize one's own work; to know how to be a mentor.

The Master should possess all the Bachelor's skills from the standard (Table 2) as well as some additional skills. These new skills in comparison with the first three levels are connected with organizing team work of the developers and IT-projects management, like;

a) knowledge of the hardware platforms, the principles of IT enterprises infrastructure organization (cognitive component of IT field);

b) understanding of the processes of company assets management; and strategic planning (cognitive component of the field of economics and business management);

c) understanding of the mechanisms of IT-project management; management of portfolio of projects (cognitive component of it-projects management);

d) ability to create conditions for projects' teams' professional development (functioning component referred to common industrial culture).

The analysis of the requirements given in the professional standard shows that there are only two units connected with application of FL: "Foreign language (reading and understanding of technical literature)" and "To apply foreign language while working with engineering data" [4].

These components are undoubtedly valuable for an IT specialist, as far as most new professional information is in English, the international language of IT, and IT specialist should be able to use authentic sources at least where professional standard is concerned. That is for reading special regulatory engineering data and for processing different kinds of information.

However, it not the only way FL might be applied in training this kind of specialists. And professional standard, developed with the help of the representatives of the business community, doesn't fully acknowledge the possibilities of FL competence, while it is considered vital for training skilful specialist by both academic community and employers.

The requirements for the results of mastering FL given in the current federal state educational standard are rather vague as well: "necessary knowledge of foreign language (good English) (EC-11)" [8].

In fact, an appropriate level of FL for an IT specialist depends on the line of business of the company. In case of off-shore programming, for instance, English is necessary for working at mutual projects and communication with foreign customers. Sometimes even a job interview is carried out in English, so skills of oral and written communication are in demand.

Foreign language may be used for training presentation making techniques; for carrying on business correspondence. Moreover, some points of the professional standard like "to be able to efficiently communicate with business partners" and "technologies of interpersonal and group communication in business interaction" fit in exactly with the topics of the dialogues, business games in FL and case-study. Cognitive component of the IT professional competence may be included in the syllabus when studying nonlocalized software interface, development frameworks, other tools of the engineer and etc.

To work successfully in an international company an IT specialist needs to develop all the basic communicative skills:

speaking and *listening* skills while communicating with foreign partners over the telephone and in person, for making presentations and having a job interview;

reading skills in order to be able to work with different kinds of professional and special information and business correspondence;

writing skills for composing business letters and engineering data.

While considering the professional standard at such an angle, we imply the possibilities of the development of the professional competence by means of foreign language professionalization. Its theoretical base was being developed by O.V. Varnikova, O.Y. Iskanderova, A.K. Krupchenko and others.

Foreign language is a means of storing and sharing information. Foreign language competence is formed alongside professional competences. This is a tool that a student has to master for his/her professional actualization. Foreign language is no longer a profession, but is gradually turning into a language *for* a profession [9]. Consequently, as a subject "Foreign language" should be considered together with major subjects. Thus, foreign language will emphasize professional competence personal component including motivational aspect as well.

"An integral image of the highly productive professional activity" [10] is being formed as the result of an integrated professional foreign language competence being a purpose of studying FL in the field of professional communication. In many IT companies professional competences and common foreign language communicative competence are necessary to solve the same job-related tasks, so they blend to form a unified professional foreign language competence.

Consequently, the main purpose of FL teaching in the engineering university in the frameworks of the professional standard "IT specialist" is to teach professional and practical communication in FL. As the result, it becomes vital to:

— to form and develop speaking abilities and skills as the base of professional communication in the foreign language;

— to focus on practical application of FL, first in the modeled simplified informational (educational) environment that is created in the university on all the levels, including graduates' interaction with the real informational environment;

— to actively involve leading IT specialists (employer's representatives) for creating and implementing linguistic educational trajectory.

Thus, while supplementing professional and special competences with common cultural ones (foreign language communicative competence in particular), it is possible to motivate IT specialists to study by means of FL, and as the result to increase practical value and dominant role of FL teaching for providing graduate's proficiency.

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