

## **THE USE OF IT-TECHNOLOGIES IN STUDENT EMPLOYMENT USING A COMPETENCE BASED APPROACH**

**Sultan Ramazanov, Nataliya Kalinenko,  
Larisa Rakova**

*Volodymyr Dahl East-Ukrainian National University, Lugansk, Ukraine*

**Summary.** The main task of the present-day education is “the production of competent people who would be capable of applying their knowledge in a changing environment and whose primary competence is their ability to engage in constant self-education throughout their lives”.

**Key words:** information and communication technologies, educational process, competence, key competencies, professional activity.

### **INTRODUCTION**

The transfer from the industrial society and simple technological operations to the postindustrial type of economy requires a large number of people who can work with packages of modern technologies in a changing environment that makes a person assess the situation and take responsible decisions. A new type of economy makes new demands on graduates, among which an increasing priority is being given to demands of systematically organized intellectual, communicative moral principles that allow the successful organization of activities in broad social, economic and cultural contexts.

### **OBJECTS AND PROBLEMS**

Recently job placement of graduates has become more complicated. In the present-day labour-market there is a gap between the goals of the education system and the real needs of graduates, employers and society [Artemenko V, Nozdrina L, Rudnitsky O. 2002].

The effectiveness of the interaction between employers and young specialists in the labour-market depends on the match of young graduates' competencies to the requirements of the labour-market. The following three key periods are very significant in the formation and development of such competencies:

- before a higher school: when choosing a profession (choice of the profession for which demand exceeds supply);
- when studying at a higher school: formation and development of the personal skills for which demand exceeds supply (through additional courses, community work, work experience, etc.);
- after a higher school: creation of tools which enable graduates to better position themselves advantageously in the labour-market and employers – to find graduates with the required competencies [Rakova L.N. 2000].

**Competence** is defined as an educational result expressed as the preparedness of a graduate in terms of knowledge, abilities and skills which will allow them to reach a set goal. Competence is “knowledge in action”; readiness for performing a practical activity.

Competence is a “basic characteristic” of a person which is connected causally with the criteria of effective and successful actions in professional or work situations. The “basic characteristic” means that the competence is a deep and stable part of a personality so that it is possible to foresee the behavior of a person in a wide range of situations, both professional and everyday. The causal relationship means that the competence conditions behavior or action [Chernilevsky D.V. 2002].

While working with employers, every higher school faces a prioritized list of qualities which a graduate has to have to be successfully employed. Traditionally, employers have considered that a young specialist should have the potential for good personal skills and competencies and a good professional training. Employers want to see a young specialists’ active life, good motivation, self-development ability, efficiency, result focused, good communication skills, and a penchant for a healthy way of life. In fact employers list these as the main competencies which enhance the competitiveness of a graduate in the labour market.

Today educational establishments are gradually coming to the same point of view as employers – a graduate in demand is the one who wants, has the ability and knows how to work in their field. The quality of competence and knowledge is dependent on the higher school [Rakova L.N., Gass V. 2006].

Table 1. Graduate Competencies

Object and information competencies	Action and communication competencies	Value oriented competencies
<ul style="list-style-type: none"> <li>•Ability to work with taught information;</li> <li>•Critical perception of the information;</li> <li>•Conversion of information from conceptual to verbal and vice versa.</li> </ul>	<ul style="list-style-type: none"> <li>•Ability of the subjects of the education process to cooperate and to create specific tasks;</li> <li>•Ability to manage, analyze and organize activities;</li> <li>•Ability to make reasoned decisions.</li> </ul>	<ul style="list-style-type: none"> <li>•Knowledge of norms, values and cultural traditions;</li> <li>•Relationship with the world, themselves, and society based on the personal needs, motives, emotions and values.</li> </ul>

The maturity of these competencies is shown by the following personal characteristics:

- spirituality, humanism, tolerance;

- mobility, decision making independence, responsibility, and the ability to make a conscious choice

- communication, social activity, and the ability to cooperate;
- creativity and constructive thinking.

Besides fundamental, scientific and professional training, the following skills are required from higher school graduates:

- to find their bearings in related fields of knowledge;- to use unconventional approaches to solving different problems and to find competitive solutions of problems;- to have a command of modern communication methodologies, approaches to economic analysis and organization of marketing activities;- to promote the results of professional activities in relevant markets;- to maintain their professional competitiveness throughout their career.

Generally employers consider young higher school graduates as a source of action, dynamism and modern knowledge for the enterprise and as a dislocating combination of reduced responsibility and high ambitions. When making a decision about employment they basically take into account one of the two market advantages that the graduate has:

- specific expertise which is in high demand in the market and which cannot be replaced by any personal qualities; this specific knowledge makes graduates of certain specialties a priori competitive;
- special personal qualities needed in the market economy and which distinguish one graduate among many of his fellows; these qualities can make their owners competitive even if their specialty is not in demand in the market.

There is no universal model of competencies; competencies are always contextual. The gap (imbalance) between the content of the education and the application of that content can be problematic. In order to avoid this issue and to create effective higher schools activities which will assist in the development of students personalities and to develop their professional skills the formation of students professional self-dependence should be supported by the use of modern information educational technologies as a basis of professional training.

The growth of social media opens up hundreds of new communication channels allowing higher schools and organizations to cooperate in matters concerning the coordination of graduate competencies and to promote the effective employment of graduates by cultivating the networks of talent during their training.

An example of an application of a virtual environment is WebEx which allows web conferences, presentation viewing, video resume recording and playback and video lectures, etc.

WebEx is an implementation of a Web conference, the general name for the technology and tools for online meetings and in real time collaboration. Web conferences allow online presentations, collaborative work on documents and applications and the ability to view sites, videos and pictures [Kalinenko N.A. 2009, 2010].

Web conferences are as a rule internet services that require installation of a client program on each participant's computer. Some services provide access to web conferencing through a browser using flash, java or special plug-in.

Services for web conferencing can include the following features and tools: - Screen sharing - sharing the screen or individual applications; - Whiteboard - interactive whiteboard; - Web presentations; - Co-browsing - the possibility of simultaneous browsing;- annotation tools;- monitoring of participants' presence;- text chat;- integrated VoIP communication;- video communication;- Leadership management and delegation;- Shared mouse and keyboard management;- meeting moderation tools tools for collection of feedback (e.g. surveys);- tools for meeting planning and invitation of participants;- recording of web conferences.

A Whiteboard is an interactive board available to all the participants of the online meeting. This is a workspace where participants can draw diagrams, type text, make notes – this allows the meeting participants to understand one another better and not to spend their intellectual resources on understanding and memorizing what was said. An Interactive Video Lecture with synchronous slides (IBCC) simultaneously displays on the computer (or projector) window both the video of a lecturer and the slides of the presentation changing synchronously during the video playback.

The above platforms are an effective mechanism in the process of learning and allow us to solve the urgent issue of networking of students, higher schools and employers during a students' job seeking;, video interviewing and video resume organizing. The effective use of the above platforms by both higher schools and employers with an agreed upon model of competencies of specialists provides more employable graduates which will be in greater demand by employers.

Recently job seeking through the World Wide Web has become more and more popular and higher schools should respond to this challenge by active implementation and use of appropriate technologies. This we based networking of all the interested parties should be based on the innovations of these virtual environments.

Firstly it is information about the demand for specialists. The most appropriate resources for students are:- specialty job websites, - portals designed specifically for graduates, - industry portals with sections "Work" and "Employment", - Web pages of specialized periodicals, - social communities, - sections of available vacancies on sites of companies-employers, etc. To minimize costs and to optimize processes in recruitment, recruiters and internal HR services are already using modern digital technologies and Internet communications. The use of the following modern technologies in the employment process will help the educational services market meet business requirements.

Video resume: A video of approximately 30 seconds during which the applicant give a presentation about himself. After recording the video is digitized and attached to the applicant's CV in the Resume Bank and becomes available for viewing by employers, HR managers and recruiters.

A high quality Video resume allows the applicant:- to take a premier position among other applicants;- to attract more interest from potential employers;- to avoid trial interview and to open the door to the direct employer;- to show their personal and professional qualities to the potential employer;- to save time for job seeking and to explain the reason for their high salary expectations;- to present much more information than a traditional resume can contain;- to present themselves simultaneously as both a personality and a professional.

For some specialties (sales manager, salesman, secretary) experience and skills are not so important as personal qualities and communication skills which can be demonstrated by applicants in their video resume. The use of text resumes and video resumes combined allows the employer to get better acquainted with the personal and professional qualities of applicants. The use of video resumes reduces the number of applicants' interviews.

The innovative format of the video resume use in companies is most applicable when it comes to recruitment in different cities and countries. Employers invite applicants to be interviewed online and use specific software and equipment (web camera, headset) that allow interviewers and interviewees to see and hear each other. There is no need to go to another city and to go through multiple stages to be interviewed for employment. It is possible to present yourself and your professionalism in a comfortable environment sitting at your computer. The recruiting manager can ask to submit documents, references, resume and photo. It is necessary to prepare the complete package of required documents in electronic form as well as originals.

It is advisable to record your online video interview yourself. The advantages of undertaking this recording are as follows: a) managers will be able to view the video interview (if they were not present during the interview) at any time and to make a decision about the employment; b) the applicants will be able to analyze their interview again to evaluate the advantages and objectives of the company that may become their employer in the near future [Sumtsov V.G., Rakova L.N. 2000].

Before the interview the interviewee must study the interview questions that the employer may ask.

Any company that is looking to hire personnel from other cities and countries and all recruitment agencies greatly increase their choices by using video interviews, overcoming distance and time limitations and reducing financial costs. Video interviewing is the know-how in the recruiting of personnel based on the use of the online format of the Internet.

Interactive broadcasting programs can be used to connect video, voice, online chat, online surveys, case studies, psychological and professional techniques, virtual whiteboard and video recording. Using these tools the interview is interesting, fast and efficient.

Key features and benefits of video interviews:

- A virtual interview is connected globally in less than one minute;
- Multiple representatives from one company located in different places (an office, a house, vacation, business trip, a car) can be connected each with the ability to ask questions by voice and by online chat and to see and hear the applicant;
- the ability to use test cases, tests, online surveys, live feedback;
- resumes, references, copies of diplomas and other documents submitted during the interview can be viewed by recruiters, HR-managers, company managers during the interview;
- A video record of the interview is available for further viewing, interpretation and analysis by recruiters, HR-managers, and the managers who have to make a decision about meeting the applicant in person;
- Only the following are needed: the rent of a virtual class, web-camera, headset with a microphone.

A Webinar or web seminar is an online event where one or more moderators can conduct presentations on behalf of an employer or an applicant with meetings for groups from several to thousands of participants on the Internet or a corporate network. During the webinar each of the participants is at his computer and the contact between them is supported by the Internet using a web application. To join the conference you simply enter the address of a particular webinar [Kalinenko NA, Kharkovskiy TO, 2010].

The following moderator facilities area available: to broadcast using a web-camera and a microphone (webinar participants both can hear and see the moderator); to show presentations or to draw on the whiteboard; to download and play video and audio files; to chat; to conduct surveys; to allow webinar participants to present (audio and video).

The following facilities are available for the participants: to see and hear the moderator in real time; to watch presentations; to ask questions to the moderator and to communicate with other webinar participants using chat; to take part in surveys; to present using audio and video with the moderator's permission.

There are many technical platforms and services available for organizing webinars. The minimum set of functions is audio broadcasting by voice and getting feedback in writing using chat. The maximum is the use of voice and video for the moderator, presentation using drawing and shared work, surveys of users and the possibility of presenting at the meeting by several participants simultaneously.

Webinars are the most convenient form of networking when it comes to virtual teams. Besides physical and financial convenience (you don't have to go anywhere), webinars provides the participants with psychological support.

This multimedia approach is much more effective than traditional uses of technology in employment. Webinars allows the use of all types of perception: visual, auditory and kinesthetic, so the participants understand information faster and remember the knowledge in their memory for a long time.

A virtual job fair is a unique event which enables companies and employers to establish direct contacts with applicants using modern Internet technologies with mediation by higher schools [Tikhomirov V., Rubin J., Samoilov V. 1999].

The advantages of job searching through the Internet are:

- simple and free access to thousands of vacancies (applicants don't have to spend time, money and energy visiting different personnel departments and agencies);
- the ability to create an advertisement with resume about the applicants availability on a number of sites (employers visit these resources and so the applicant's advertisement will be seen by many people who are interested in recruiting).

Some sites provide guaranteed privacy to individuals.

Notification about open vacancies through e-mail (an email, unlike a phone call does not require an immediate answer from the employer). The virtual job fair enables applicants:- to place their video resumes on the site;- to have access to "conference halls" where video presentations about companies and master-classes by leading specialists take place in real time;- to get the desired job;- to get full review of information about employing companies.

The virtual job fair enables employers:- to conduct video interviews and to save time and money;- to choose qualified personnel;- to promote the company's brand

amongst applicants;- to receive immediate feedback;- to search for specialists over a wider geography.

The reasons for conducting virtual job market using mediation of higher schools:

-young people are the main part of the Internet users; they are the most vulnerable part of the labor market in Ukraine and so need additional support;

-the trust in higher schools websites among employing companies is greater than the trust in an individual person; leading companies are interested in attracting young specialists with a good education which is guaranteed by the higher schools.

The functions of higher schools in organizing a virtual fair of vacancies:

- involving employing companies in participation;

- involving highly-qualified and competent business trainers to conduct master-classes and lectures online;

- notification of higher school students and alumni about the requirements and terms of the virtual fair of vacancies.

## CONCLUSIONS

For the effective implementation of the virtual fair of vacancies it is necessary: to find sponsors to conduct the event; to decide about the date and to place advertisements in mass media; to determine the exact conditions for participation in the fair; to create the base of resumes and vacancies; to create a web portal to show the process and results of the fair. The problem of adding personnel at enterprises is complicated by poor contacts between enterprises and higher schools, but regardless of this both business and education understand the advantages of interaction with one another which is why they consider it is necessary to expand and strengthen all forms of cooperation by creating and implementing effective models of cooperation using modern IT technologies.

Promising areas for improving the virtual fair of vacancies concept the creation of a system of assessment of resumes and notification of the applicant about areas for improvement (This will give the applicant ideas about the reasons for their denial of employment and about the direction of their self-improvement); enabling employers to create their advertising stand on the site of the virtual fair of vacancies; implementation of mailing of "hot" vacancies and information; expansion of the geography of the involved employing companies into a network.

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### **ИСПОЛЬЗОВАНИЕ ИТ-ТЕХНОЛОГИЙ В КОМПЕТЕНТНОСТНОМ ПОДХОДЕ К ТРУДОУСТРОЙСТВУ СТУДЕНТОВ**

**Султан Рамазанов, Наталья Калининко, Лариса Ракова**

Аннотация. Главной задачей современного образования является «производство компетентных людей, которые были бы способны применять свои знания в изменяющихся условиях, и чья основная компетенция заключалась бы в умении включиться в постоянное самообучение на протяжении всей своей жизни».

Ключевые слова: информационные и коммуникационные технологии, образовательный процесс, компетенция, ключевые компетентности, профессиональная деятельность.