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ARRANGING UNIVERSITY EDUCATIONAL PROCESS BASED ON THE REGIONAL COMPETENCE PROFILE

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Abstract. *To date, there are not enough tools by which the high school would target a graduate to work in a particular company. Moreover, various bodies, even public ones, periodically request educational establishments to submit proposals for improving the staff selection and training practices. This is the relevance of our research. This article deals with a tool that allows an employer to reasonably select a university graduate who most fully meets the requirements of a particular company. Such a tool should be a mechanism for integrating the regional competence profile for the graduates. This mechanism can be implemented through the upload of students' academic project (term theses, projects, design graphics and research works, graduate thesis, etc.) in an electronic information system. In addition to the student's study, the employer is offered access to abstracts, which contain a list of professional competences acquired by the student during the implementation of these studies. In addition, the employer is given the opportunity to write a comment regarding the relevance of the work and their final assessment, as well as suggest their own topic in the abstract. This will allow employers to track the professional growth of students they are interested in. In high school, this mechanism will affect the personal rating of the teacher - the head of the student's academic work. Thus, the teacher motivated to increase their rating will be forced to make contact with employers through the online information environment to obtain relevant topics offered by them, and to improve the quality of students' projects. The purpose of this study is to create a mechanism for integrating a regional competence profile of a graduate into a real educational process throughout the student's entire learning path. The result of the study is a mechanism for the teacher to continuously have in mind the requirements of the regional labor market and design an in-demand competence profile throughout the student's entire learning path. The study was carried out using the method of analysis, management in the chain "student-teacher-employer" on the basis of feedback, methods of observation and experiment.*
Keywords: *competence, employer, regional competence profile, feedback, rating.*

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Introduction

The aim of the research is to create a mechanism for integrating a regional competence profile of a graduate into a real educational process throughout the entire learning path taking into account the requirements of regional employers and future markets (Домнина, Козлов & Савоскина, 2017).

The relevance is determined by the need to adapt the developed competences of students to the requirements of employers, including regional ones as well as needs of regional companies in talent acquisition best practices (Беленов & Шилова, 2017).

It is obvious that the integration of the labor market and education at the university described in the research is impossible without the involvement of the faculty of the university and requires its substantial restructuring (Boymuradov & Hodjaeva, 2017). The authors add the role of an auditor in the development of competences to the teachers' job duties (Верзунова, Давыденко & Пересыпкин, 2012).

In the same way that a classical auditor (in economics) is evaluated by its track record, it is proposed to create a mechanism for assessing the profile of a university teacher as a mediator between the labor market and students. This provides an independent, objective and comprehensive assessment of the teacher's reputation by all participants in the educational process with the competence-based approach: student-teacher-business. The student is invited to focus not only on the training program, but also on the teacher's track record. The research describes the mechanism of this process and put forward a proposal for the administration of the university on its use in the selection of truly passionate and qualified teachers.

The authors deals with an approach to reveal the teacher's role during development of professional competences of graduates as well as to motivate teachers for enhancing their track records that will identify them as a "creator" of students' professional competences. Therefore, the implementation of the educational process in the university on the basis of the regional competence profile will become a real communication tool between education, science, practice and the labor market (Zhestkova, Gubanichina, Oparina, Sidorskaya & Gusev, 2017).

Competency-based training approach

When training a specialist, a university should be guided not only by the federal state educational standard, but also by the requirements of the labor market defined in the form of professional competences on the basis of professional standards (Журавлева, 2014). According to the specificity

(specialization) of the training program, self-stated competences are in development as well. The self-stated competences mean such learning outcomes of a training program that allow successfully solving professional tasks based on the knowledge and skills captured in the process of learning in a university.

Any formal development of a graduate's regional competence model through the mechanical matching of competences from the educational standard and the model basic training program without taking into account professional standards and the views of leading specialists of the modern labor market does not provide a real link between the learning process and the needs of the regional economy. So, the idea of a competence-based approach to train specialists in universities implies the obligatory participation of employers in its formation. The scope of the competences of a graduate and the assessment of how well they are formed should be carried out jointly by the faculty of the university and employers (Домнина et al., 2017).

Currently, this paradigm is most fully implemented in further vocational education. Thus, within the framework of the priority project “Modern Digital Educational Environment in the Russian Federation” in Russia, ten Regional Competence Centers in the field of online learning (RCCOL) were created (Яновская, 2011). This mechanism is set out, in sufficient detail, in the documents regulating the procedure for secondary vocational education in the context of the dual training. In “classical” higher educational institutions, the integrating process to train specialists for the regional economy is not developed at all.

In the Samara region, the legal basis to implement the regional competence profile of a graduate is the approved regulations:

- Governmental program of the Samara region "Development of education and improving the implementation of youth policy in the Samara region" for 2014-2020;
- Development Program of the federal state budgetary educational institution of higher education "Samara State Technical University" until 2020.

Upgrade of the Educational Process

We analyze the task on creating the regional competence profile of the graduate within the Samara State Polytechnic University (Samara State Technical University) as a reference university of the Samara region, whose goal is to ensure the stable development of the region by training highly qualified specialists, primarily those focused on the region's economy (Алонцева & Хорина, 2010).

The development of a regional competence profile should be based on the specific labor functions required by an employee within the framework of professional standards, which should not contradict Articles 195.1-208 of the Labor Code of the Russian Federation. Professional regional competences developed at Samara State Technical University (graduate competency card) should include a clear description and be linked with the qualifications necessary for an employee to carry out a certain type of professional activity, and also comply with the requirements of the educational standard corresponding to the training program.

The idea of organizing the training process based on the regional competence profile is to provide employees with access to students' projects (term theses, projects, design graphics and researches, graduate theses etc.) in the online information educational system of the university (Козлов & Никерова, 2015). Not all the students' projects are uploaded to this online information educational system, but only those that have a high rating ("good" and "excellent" if converting into a five-point system). An abstract is attached to every student's project, which includes a list of professional competences developed during completion of that project and the level of their development. In this case, the competences must be specific, contain the name of the product or technology and must not be ambiguous or obscure that allows arbitrary interpretation. Table 1 shows an example abstract written by the teacher for Operating System training program for two students. The table contains skills that those students acquired for the PK-5 professional competence when making up the project. There is a student's rating justification. For Petrov A.V., there is a comment about the RK-1 regional competence aimed to be experienced with free software being in demand in the Samara labor market. The summary of such regional competences makes the regional competence profile.

Table 1 ***Abstract to student's project***

Project date	Teacher, department	Student, training program	Topic and link to text	Subject, year, rating
26/12/2018	Kozlov V.V., IROST Department	Ivanov I.I.	RR scheduling algorithm simulation	Operating system, 1st year, good
	PK-5: skill to simulate processes and systems	The project deals with the simulation of distributing CPU time between processes using the RR algorithm. The student mastered the RR algorithm and showed his skill in simulating one of the key algorithms used in operating systems. The "good" mark is set for completing the task in full, but with the study on a small simulation interval.		

26.12.2018	Kozlov V.V., IROST Department	Petrov A.V.	FCFS scheduling algorithm simulation	Operating system, 1st year, excellent
	PK-5: skill to simulate processes and systems	The project deals with the simulation of distributing CPU time between processes using the FCFS algorithm. The "excellent" mark is set for completing the task in full, the study on a long simulation interval. The comparative analysis between FCFS and SJF is made.		
	RK-1: Knowing how to use free software	This study was made using MS Windows & Linux OS. This student's showed his competence in using the free software, in particular OS Linux arcitecture.		

Table 2 shows the employers' verifications.

Table 2 ***Verifications by employers of how the teacher evaluated the student's***

Student	Subject	Project	Teacher	Rating	Checked by employer	
Ivanov I.I.	Operating systems	RR scheduling algorithm simulation	Kozlov V.V.	good	CQG	YES
					Netcracker	NO
Petrov A.V.	Operating systems	FCFS scheduling algorithm simulation	Kozlov V.V.	excellent	CQG	YES
					Netcracker	YES

The teacher's assessment, as table 2 states, was fully confirmed for student Petrov but partially for Ivanov. Thus, the credibility rating for the teacher will be 75%.

As a result, having access to the list of professional competences acquired by the student, the employer can make up the choice of the specialist he/she needs (table 3).

Table 3 ***Presentation of information on the formation of competences***

Student, training program	Competence	Subjects and projects to give competence	Teacher & Confidence rating
Ivanov I.I.	PK-5: skill to simulate processes and systems	Operating systems: RR scheduling algorithm simulation	Kozlov V.V.: 75%
Petrov A.V.	PK-5: skill to simulate processes and systems	Operating systems: FCFS scheduling algorithm simulation	Kozlov V.V.: 75%
	RK-1: Knowing how to use free software	Operating systems: FCFS scheduling algorithm simulation	Kozlov V.V.: 75%

Then the full text of the project and the abstract shall be available in search engine databases and be included in the student's portfolio that is accessible in the university's online educational system. It is assumed that the search engine will allow the employer to make a request, as a result of which he will be given a ranked list of potential employees (Козлов, 2015).

The student must be conscious that it is prestigious to get on the list given to the employer. So, the students will do their best to complete any project well. The teacher, at the risk of losing the confidence of employers and the management of the university, will not allow the student to get shortlisted with a low-rank project, and will not attribute the professional competences that do not exist in this project. If there some shortcomings in the student's project, the student will have to complete it in order to convince the teacher to include it in the list given to the employer. All abstracts to the student's projects represent a kind of the list of professional regional competences acquired. This list (table 3) should be available to each graduate for quite a long time after graduation and should help him or her not only in finding a job, but also in building his career.

A mechanism to integrate the regional competence profile of a graduate into a real educational process is therefore launched taking into account the requirements of regional employers (Балабашина & Козлов, 2016).

Due to the integration mechanism implemented in the university, there is another tool to enhance the quality level of teachers' jobs – the personal rating of the teacher. This rating is formed with assessments of students, graduates and employers (by giving +1 / -1). Any student may evaluate an abstract uploaded by the teacher if the comments to it (with professional competences specified) comply with the real content of the project. Graduates will assess the teacher's work by obtaining some experience in a specific company and rate the projects of other students. The teacher's opinion about the competences acquired by the student is given in table 2.

The teacher's personal rating is an average of votes and can be both positive and negative. Teachers can be divided into three conditional groups: active and authoritative, active and "overrating" and without a rating. When a negative threshold is reached, the teacher is deprived of the right to upload students' projects and information about the development of their professional competences. Thus, such a teacher may lose capable and competent students and will cease to be an authoritative expert on the labor market in the niche concerned.

In this way, the so-called public control will be carried out and the active core of teachers whose opinion the employer trust will be created.

The personal rating of the teacher can be used by the university management for appropriate promotion (the ideal teacher will upload 100% of the projects with a personal rating of confidence in his/her grade +1). Then the

ratings of the departments are established. If we go further, the ratings of educational establishments may be built in this way. For projects performed by a student outside the university, in third-party companies, and having material evidence (completed project text), it is possible (in the future) to make abstracts to them reflecting the student's professional competences developed during that project.

The possible access to the base of the developed professional competences of students at a particular university must also be provided to recruitment agencies that will offer worthy graduates to employers. The reliability of the information provided to employers and recruitment agencies is supported by the university's rating and the personal rating of the teacher who made the abstract.

Conclusions

The result of the study is the creation of a mechanism for the continuous accounting of the requirements of the labor market by the teacher and the design of training the competence profile of a graduate adapted to the needs of employers in the region, by the teacher throughout the entire training path of the student. This approach will help a graduate to acquire knowledge, skills, and abilities according to unique individual competences that will allow him or her to have advantages in the labor market (Давыдова, Козлов, & Шешунова, 2015). The employers will have a tool that allows them to reasonably select any specialist who best meets their prerequisites, remotely assess the level of competence developed by analyzing the source materials and the ability to order specialists with the necessary set of knowledge and skills that best meet the requirements of their companies. As a result, Samara State Technical University gets a tool for ranking teaching staff on the basis of their involvement in the process of forming specialists who are in demand in the regional labor market. The teachers of the Samara State Technical University receive their personal ratings, which are formed by graduates and employers through voting for how well the level of their work requirements complies with the existing qualifications. As a result, the university carries out public control over the job of the teacher, which should be reflected in a performance-based contract of employment by 2020, and a mechanism for updating the scientific and teaching activities of the faculty is being formed. Thus, in order to guarantee that any student developed the professional regional competences, the teacher, acting as a knowledge auditor, becomes a link between the student and the in-demand job market.

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