Tracking Mechanism of Promising Students' Selection by Enterprises -Future Employers

Albina Rafisovna Shaidullina[1], Venera Gilmkhanovna Zakirova[2], Ekaterina Vladimirovna Mokeyeva[2], Boris Anatolyevich Karev[3], Elena Anatolyevna Burdukovskaya[3], Natalya Mikhailovna Polevaya[3]

[1.] Almetyevsk State Oil Institute, Russia, 423450, Almetyevsk, Lenin Street
[2.] Kazan (Volga region) Federal University, Russia, 420008, Kazan, Kremlyovskaya Street, 18
[3.] Amur State University, Russia, 675027, Blagoveschensk, Ignatyevskoe Shosse, 21
albina-plus@mail.ru

Abstract: The search of qualified staff is an up-to-date problem for all enterprises. In this regard the aim of the research is the development of tracking mechanism of promising students by the future employers. One of the sub-stages of the algorithm is the formation of the resource and reserve groups of students by the enterprise representatives and by tutors of the faculty of professional educational institutions. The formation of the resource and reserve groups of students with flexible system of transition from one group into another according to the results of their progress, according to participation in extracurricular life of the institute, participation in the international, All-Russian scientific and practical conferences, allow to intensify the process of their self-preparation by means of their competitive surroundings creation at the educational institution of professional education. It also helps to do the selection by employers and to distribute promising students taking into consideration their potential opportunities and professional interests.
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1. Introduction

There are chambers of commerce and industry in the majority of regions of Russia. They are carrying out a complex of various service, they solve problems of searching the staff. The departments, the recruitment agencies realizing projects on development of a labor market that solve the problems of shortage of qualified staff are created there. Also the informational bases of vacancies are created and supported. (Mukhametzyanova and Shaidullina, 2011). Mainly the staff recruitment agencies apply a wide range of searching workers methods: via mass media, via Internet, in their own database, with the help of the technology of direct search of experts with various techniques of candidates' selection: using all means from evaluating tests till procedures of the substantial analysis (Ivanov et al., 2010).

The top managers of the enterprises prefer to use external sources of the staff search where the big share is occupied by mass media. It proves once again that the heads of the enterprises do not trust specialists too much in the matter that actually is justified if one take into account the fact that the direction of the centers for search of the staff is generally reduced to such methods as at the Headhunting and Assessment center which essence is the passing of the participants through a series of various tests: business and role-playing games, professional and psychological tests, self-presentations, discussions, exercises, written works (Smirnov and Tkachenko, 2004). The usual duration of estimated session is one-two days. Then all the received information is studied attentively and each participant receives the conclusion with an assessment of his or her professional and personal qualities, the forecast of professional activity and recommendations about professional and personal development.

We agree that the expert has to be engaged in the selection and hiring of the staff. However these experts can lose work because there will be nobody to choose soon under modern demographic conditions and without close connection of educational institutions and production. Therefore, this error method of promising employees search should be replaced by more perfect one to minimize mistakes looking for good ones.

2. Materials and Methods

JSC Tatneft used testing system on each subject for selection of students. In our opinion, it didn't solve a problem of determination of their professional suitability as those means of single diagnostics didn't allow distinguishing of the student gifted by nature from "brought" ones because a number of professional and significant personal characteristics of the student were dropped out of consideration. Therefore the criteria of system

selection of students to resource group were developed by us in addition to those testing offered by JSC Tatneft.

The *motivational* criterion is characterized by the attitude to activity, by awareness of the personal and professional importance of acquired knowledge of future professional activity, by existence of positive motive to training, personal sense in future professional activity, by existence of constant informative interest to the solution of professional tasks, by satisfaction with the career choice. This criterion includes the following indicators: understanding of essence of future professional activity; awareness of the importance of gained knowledge, abilities and competences for effective professional activity; awareness of uninterrupted education necessity, self-education and self-development for successful professional activity.

The *cognitive* criterion is characterized by professional knowledge about object and subject of the work, by awareness of professional interests and abilities, by compliance to requirements of an acquired profession, and also by prospects of professional career growth. This criterion includes the following indicators: efficiency of knowledge use in practical activities; the volume of knowledge in comparison with the educational standard; application of knowledge in new situations; updating of knowledge at solving of informative and practical tasks.

The *activity* criterion assumes existence of the professional abilities, skills and competences of solving professional tasks, existence of abilities to plan and realize their own professional activity. This criterion includes the following indicators: formation of professional abilities; the positive attitude to professional activity at work practice; orientation toward creativity in educational professional activity (creativity), aspiration to creative self-expression, originality, development of new technologies and ways of educational professional activity; aspiration to self-improvement (to introspection, a self-assessment, self-education, self-realization); academic success and progress; readiness for research activity; ability to use methods of controlling group of people.

The *emotional and determined* criterion assumes enthusiasm for the professional activity, positive emotional spirit in the course of work. This criterion includes the following indicators: responsibility for obvious and hidden consequences of the actions; confidence of achievement success in professional activity; ability of self-control in the course of professional activity; persistence in vocational training, educational activity and independence; readiness for doing work of no prestige; readiness for starting work from scratch and to develop the new direction; readiness for working irregular hours.

The *reflex* criterion assumes ability to introspection, an objective self-assessment, self-criticism, readiness for overcoming of difficulties, identification and elimination of their reasons. This criterion includes the following indicators: efficiency, self-organization; professional mobility, readiness for work changing; ability to reconsider habitual stereotypes, to change them; ecological well-breeding.

Each of the listed criteria is presented both quantitative (an objective assessment), and qualitative (value judgment) by indicators. The quantitative assessment is defined by a number of accurately developed indicators characterizing the level of the students' readiness for professional activity. Quality standard is carried out by means of various questionnaires, professional and role-playing games, discussions, debates, which allow estimating of students' personal and professional qualities. Estimation of cognitive criterion was carried out by a method of computer testing. Motivational, activity, emotional and determined and reflex criteria was carried out by a method of supervision, complex quiz, questioning, interviewing, discussions, professional and role-playing games of experimental and control groups respondents.

3. Results

The following content of activity was offered for selection of promising students by employers: creation of experts' commission for work with students of Almetyevsk State Oil Institute testing students since the first year; doing selection of students in number of 50% of total number of students, who will be worked with after a third year, according to their results of progress and testing; distribution of the selected students to production and professional practice, structural divisions of JSC Tatneft, and also to the enterprises of oil service of JSC Tatneft after finishing their fourth year; distribution of students to structural divisions of JSC Tatneft and to the enterprises of oil service for externship passing with simultaneous employment and money compensation. The top managers of structural divisions of these enterprises come as the heads of degree projects. There is also a competitive selection for employment of students for permanent job to structural divisions of JSC Tatneft and other enterprises of oil service according to the developed criteria. There were some requirements of the enterprises to professional knowledge and abilities of the graduates of Almetyevsk State Oil Institute revealed by us.

Table. 1. Gradual content of activity of Almetyevsk State Oil Institute and JSC " Tatneft" in selection and preparing of future experts for the oil branch of industry

Stages	The content of Tatneft activity	The content of Almetyevsk State Oil Institute activity
Primary selection of students	- forms the forecast of vacant workplaces; - creates a commission of experts for work with students of Almetyevsk state oil institute; - acquaintances with specifics of educational activity of higher educational institution (advanced training courses); - carries out a choice of techniques of diagnostics of students' professional readiness for the future professional activity. - organizes excursions to the enterprises and professional consultations for students on the chosen specialty; - organizes training of teachers at the enterprise and informs about innovations in production, etc.	- organizes advanced training courses for specialists of the enterprise for acquaintance with specifics of educational activity; - develops the training and extracurricular events focused on formation of competences of graduates; - develops techniques of diagnostics of students' professional readiness for the future professional activity. - passes training at the enterprise to get acquainted with innovations at the production; - involves employers in teaching and educational process of higher educational institution; - introduces amendments in working programs for subjects according to innovations at the production.
Primary selection of students	- carries out testing of students in each subject and is present at examinations, since the first course; - is present at students conferences, seminars to assess students scientific works; - invites students, who distinguished themselves at the conferences held at the enterprise; - organizes resource and reserve groups of students.	- creates conditions for employers to carry out computer testing of students in each subject; - invites employers to examinations, students conferences, seminars to assess their works and to identify the most distinguished students; - organizes training of students on the conference held at the enterprise.
Second selection of students	- carries out reorganization of resource and reserve groups of students according to results of progress in educational and extracurricular activities; - organizes distribution of the selected students to production and to professional and before-diploma practice; - forms the list of heads of degree projects from the enterprise; - creates base with personal data of the selected students.	- organizes distribution of students to resource and reserve groups; - reveals students potential for work in the system of professional education to preserve the continuity of generations at scientific and technical educational institution; - reveals the students who are capable to implement the research activity for study continuation at postgraduate course to provide potential branch research institutes with staff; - forms the list of scientific supervisors among teachers of higher educational institution (consultants).
Second selection of students	- opens an access to information department of the enterprise; - organizes on-line practical work with the supervisors of degree projects and top managers of the enterprise; - participates in the protecting of degree projects; - introduces amendments in the further solution of joint tasks.	- gives employers opportunity to use an educational and methodical complex for effective consultation and the degree projects management; - organizes protection of degree projects with the invitation of enterprise representatives; - introduces amendments in the further solving of joint tasks.

The main of them were: abilities in production and technological activity; abilities in organizational and administrative activity; knowledge in professional activity; professional qualities. Also it should be noted that the students who haven't distinguished themselves by results of testing can successfully realize themselves in the research activity which allows defining their professionally significant qualities better on the basis of which their competences are subsequently defined and the complete professional and psychological portrait of the expert is created.

Such approach to process of training of the competitive expert induces the teacher to act as a "promoter" of the students and at the same time to maintain the students' interest to the subject by attraction of the representative from the enterprise to estimate their work.

The employers realize the necessity of this procedure and mention that in this case the teacher as the research supervisor arms the trained student with necessary cogitative means useful for their degree project. They will have to face them while working at the project. Teachers also note that this approach helps them to prepare conceptual structure of the subject contents mastered by students according to their psycho-physiological opportunities.

Thus, the teacher as the promoter makes students' activity informative and also optimizes it and the assessment of the employer "has the finger on the pulse" of educational process in order to focus on requirements of production. Especially it should be noted that compliance of functional modules of the professional and directed structured subject contents and the teaching and educational means which are used for purposeful formation of key competences, which provides the advancing nature of vocational training is discussed here.

The necessity of students' early involving in research activity is caused also by the formation of the above-named competences assumes the development of abilities to solve problems among students as well, to find right ways in non-standard situations of real professional activity. The former system of selection offered by employers was directed to systematic testing which with all the advantages was limited with the standard solution of the offered tasks and checked only mechanical memory (Masalimova, 2012).

The employers offered to make selection of students in number of 50% of total number of students for further work after a third year according to their results of progress and testing in former official registration of the standards. The procedure of selection was improved according to our offer and there was a decision to organize resource and also reserve groups of such students. That allowed keeping them "in suspense" of the competition not only in educational, but also in extracurricular activities, independent work and additional self-education. The additional self-education at a course of additional education faculty which allowed them taking part in the conferences using a foreign language made them increase the number of hours in the subject "Foreign language" for practical application by the students was also recommended by the employers.

Existence of reserve group didn't allow relaxing those who were involved in the resource group as a total stage was competitive selection. They also formed the portfolio and employers were aware of everything from the very beginning as it contained results noted by them.

The choice of resource and reserve groups with flexible system of students' transition from one group to another is caused by the fact that now there is no system of distribution of graduates of educational institutions which in former times guaranteed them employment according to their profession line. The situation for graduates became aggravated by the circumstance that now distribution is limited. It puts young specialists in the system of rigid competition with experienced experts. Therefore procedure of formation of reserve group served as the certain stimulating factor bringing them to reality that can expect them in the future if they aren't able to find work right after the higher educational institution where the main task of representatives of production and educational institutions of professional education is teaching them various ways of survival. That means the formation throughout study at higher educational institution and passing of production and externships necessary for mobility, for independent creation in their educational way.

Level of knowledge and practical skills of the students who have passed selection in resource group, according to employers, was low. The selected 50% of the best students during testing showed the best result – 75% of the correct answers. 35% of all students coped with tasks at good level (from 60% to 75%), 17% performed a half of test tasks (from 45% to 60%). These students were organized in resource group who had passed work practice according to distribution specially developed on JSC Tatneft.

As it was told above, the place in resource group wasn't assigned "for life" to a student. This selection gave the advantage in practical training, participation in production affairs only before the following round of selection. Thus, the student of resource group should confirm constantly the right for staying in this group and led to essential change in level of assimilation of knowledge and abilities

increase the readiness for knowledge application or for formation of competences.

The selection of students' procedure documenting of estimation of students' participation by employers was introduced into resource group by us at the conferences parallel to introduction of the advanced mechanism of it. The paper of an assessment of the report at a conference was filled in triplicate (to the employer, to the student into portfolio and into archive of graduating department) which students showed while employing.

Process of formation of a subject of the degree project, choice of the head and participation in competition to apply for a vacant workplace shows interaction which gives them the following opportunities:

- for students – to elect the head of the degree project independently, to chose the organization for passing externship, to apply for a vacant workplace of the expert, to contact with project managers and top specialists of JSC Tatneft directly;

- for the enterprise – to choose qualitative experts themselves and to train them according to the requirements;

- for the higher educational institution – to raise level of training of specialists, to diversify the directions of degree projects and to provide studying of the chosen subject deeper.

The advantages of this mechanism are the following:

- 1. It prevents realization of measures for transformation of vocational training from discrepancy that subjects really do, and what they can potentially make as activity isn't imposed from the outside and everybody realizes the participation and feels responsibility for the solving common problems due to the provided measures of feedback;

- 2. It allows anticipating of changes at the production which can happen soon probably;

- 3. It creates conditions for systematic transfer of professional skills and working methods from the senior generations to youth, due to direct contacts with the best experts of production;

- 4. It involves students and teachers in basic and applied researches and allows keeping continuity of scientific and technical education as it promotes growth of new generation of the researchers focused on requirements of innovative economy;

- 5. It provides with the developed surroundings "generation of knowledge" that support the competitiveness of the research industrial sector;

- 6. It promotes the students choice of their educational and career way.

4. Discussions

The problem of selection is characterized by a considerable variety of the estimating quality parameters of previous preparation, characterizing experience, opportunities, abilities and knowledge which gained by the students for the previous period of training in higher educational institution. It should be noted that now there are no researches directed to solving the problem of joint tracking and selection of promising students by higher educational institutions and the employers. The selection of students at a post-graduate department using analytical methods for its realization were studied by the leading scientists: Zakirova and Stolbov (2014), Kuznetsova and Pakhomov (2009), Petrov, Stolbov and Gitman (2008), Bedny, Gurbatov and Mironos (2010), Matushkin and Stolbova (2009), Gitman and Gitman (2010), Biryuk (2013).

Future specialists' professional competence forming aspects are revealed in the researches of G.V.Mukhametzyanova (2005), G.I. Gaisina (2000), N.S. Asenova et al. (2013), G.P.Meirbekova et al. (2013), etc.

The problem of formation of creative and researching competences as the most necessary in professional activity was carried out by: A.R. Shaidullina and A.R. Masalimova (2006), B.A. Ospanova et al. (2013), S.A. Uzakbaeva etc. (2013).

Modern enterprises shouldn't be interested only in receiving the competent young specialist. At the present time there is the gap between getting professional education at a higher educational institution and intensively developing enterprises, therefore, there is a necessity in joint efforts of institutions of higher education and enterprises in "growing" and selection of promising students for future professional activity

5. Conclusion

The mechanism of the continuous "involved" selection of students offered by us, by the representatives of the basic enterprises favorably differs from the foreign analogs, such as Headhunting, Assessment as it is based not on the strategy of "removal of cream", and on cultivation and selection of promising staff as a procedure of selection of promising students can be reduced not only to identification and selection, but to cultivation and assistance in self-determination of students due to development of steady motivation and installations on continuous self-education, self-determination, self-development, self-presentation at a labor market that considerably promotes increase of competitiveness of university graduates.

Creation of conditions of the natural competitive surroundings, in this case, makes active

adaptive abilities of students due to their inclusion in the system of relations of production which are close to real conditions. It makes stimulating impact on all the subjects of the integrated system.

Corresponding Author:
Dr., Prof. Albina Rafisovna Shaidullina
Head of the Department of foreign languages
Almetyevsk State Oil Institute
Almetyevsk, 423450, Russia
E-mail: albina-plus@mail.ru

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