The high industrial Education 4.0 soft skills and hard skills

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Abstract. The industrial high education is done as multi-layer preparation, which includes the professional and over professional competences development necessary to work in a production. The worker individual base is done as soft skills and hard skills, which are successfully implemented in work groups. The Hard skills education influences the student professional knowledge. The Soft skills education forms the worker emotional stability to make their career boost. The isolated education environment does not provide the full and simultaneous student soft skills and hard skills development that why the preparation system has some career centers resources organized in a production. The joint tutor methods form the student all types of knowledge and skills who are capable to demonstrate their abilities in looking for an industry job. There is high school and production interaction format described for student soft skills and hard skills being developed with different poles. The tutor technics have a significance based on non-auditory practical lections. It is clear that the industrial high education specifics could be the education plan elective courses dominating number to cover up the student interests in maximum who want to make their own education route and influence their career development in education environment.

1. Introduction
The industry revolutionary changes revealed a colossal personnel lack having the production specialty special knowledge [1]. The specialist preparation foreign experience current achievements is only to form career important competences combined with soft skills and hard skills which development the student youth in the education segment [2]. To solve the personnel lack problem they require to search for new education technologies to provide the future worker increased productivity employed in the industry [3].

To solve the current situation means to saturate the education content and high school tutor practices with production education elements with a positive effect on the human professional qualities [4]. The student education and production activity grasping the educative courses is an important factor of the subsequent job employment, which makes any graduated person succeed in the professional field [5].

The production environment education knowledge usage social establishment is the education materials special demonstration way by the tutor where the courses are given in the production activity context. When a student reaches their life goals it is an important argument to motivate each student in result gaining in education process [6]. The person professional establishment perspectives are an effective psychological stimulus to make each student participate actively to make their own trajectory
in academic environment [7, 8].

The student individual responsibility for their education result forms the human thinking features, which let them with maximum comfort adapt the new production environment conditions, which the graduated person faces in their employment [9]. The person psychological component is tight to the worker communication interaction efficiency in the working group and justifies the specialist career perspectives in company. Inter persons communication makes the person emotionally stable to rise up the worker productivity to solve the production tasks [10, 11].

To choose the education strategy to reflect the student future professional activity specialty where it is necessary to correspond the education standards and the request, which are formed to prepare the specialist industry [12, 13]. The new generation education format is an organic combination academic ways to report the education materials after which students must receive the deeper knowledge and application ways to fix in practice the specialist production activity skills in the company career centers [14].

2. Soft skills in the closed loop education environment

The over professional skills (soft skills) correspond the human personal characteristics and responsible for their social adaptation in the work group. The soft skills development in the industrial education is done in the high school and in industrial companies, which use together or separately tutor practices and material equipment. Soft skills define the worker behavior tendencies, which describe their way of thinking, time to process the information, the education material and production data grasping speed and other or simply the human abilities which as much as professional competences are important for their employment and career development.

Technologies to develop soft skills are from innovations of education process management adapted for the Education 4.0. The necessary production behavior patterns student formation is provided with the dialogue education methods, which work out the personal characteristics necessary for the team activity. The soft skills education approach requires to translate the knowledge to the students with means to provoke the education content target auditory interest. The soft skills education isolated from the production problem let students develop their communication skills of general human values.

The soft skills education tutorial methods are based on education tasks team solution strategies, which simultaneously develop inside the student the self-identification and their collective responsibility for the general result. The student emotional contacts with the studying group and with the tutor may help to complete the training tasks successfully to activate in maximum the student cognitive abilities. The student sane competition atmosphere for education results let students enhance their behavior unique models, which correspond each person personal skills.

The education with soft skills in a closed education environment has a clear humanitarian color after some specific tutorial techniques specialized for the education facility format. The tutorial dis-balance for soft skills are critical for left knowledge, which a graduated person has in their production employment. The student professional competences who are too deep in general education content discussions technologies with team methods can be forgotten too fast with un-repairable damage to the future specialist career.

3. The corporative industrial environment soft skills

The educational environment and industrial segment corporative efforts for soft skills education gives the student full support to receive knowledge to apply them in practice in production. The industry participation in such a non-profile activity is explained with competence chasm of the graduated persons qualification who want to receive today the necessary production jobs. The adequate industry response for the job market saturation with non-qualified personnel is to create in companies the career centers, which use tutorial practices and education technologies to develop constantly student over professional competences.

The career production centers participate in soft skills education to orient the students professionally providing positive influence to select the human education routes. The production soft skills education
is combined with student education activity and is done with career supervision methods. To sharpen
the behavior skills in industry is an effective practice with positive effect in the Industry 3.0 when the
production education supervisor showed the young specialist some production technologies private
questions. Today the students are united in micro-groups and a staff production worker is responsible
for them to give them the full support in the social control mechanisms level.

The production supervisor is the production process facilitator to help students in grasping the
company and receive all the answers from the professional sphere. The production soft skills education
is done with communication when the supervisor and his personal example demonstrate the students the
technical tasks completion techniques. The tutorial examples of soft skills education are based widely
on formed in industry for a long time traditions, which provides the social acceptability for young
specialists into working forces.

The student behavior skills development for their education the young specialist competence in
communication and their ability to argument their point of view based on professional knowledge. The
production soft skills education specifics are a group collective unity where the people of all ages are
presented at the same time with necessary for employer deep knowledge and individual personal traits.
To grasp soft skills by students is done when the specialist team passed through some obstacles to solve
a production task to support the company functionality.

The production soft skills education technologies means to translate knowledge and experience from
the mentor to the student which forms the human behavior model who dominates professional and over
professional competences with authority. To train the student thinking step by step with education and
production tasks provides the personality harmonic development which in time prepares some work in
industry. The young specialist production motivation for their work results is a unique type of soft skills
which sharpening is possible only with the industry career centers conditions.

4. The Industry education hard skills
The competent specialist professional skills are formed in the education period with education system
useful knowledge and industrial career centers additional knowledge. The hard skills education
combined technology defines the human social mobility adapted to work in different production teams.
The hard skills education tutorial practices use different tools to rise student competences continuously
who solves significantly future worker professional realization. The Hard skills education is based on
the student active life position, which means to participate personally in their career. The soft skills and
hard skills Education 4.0 industry education combining principle is illustrated in figure 1.

The hard skills active education is concluded as education program grasping composed by the student
according to their personal development trajectory related to the desire to work seriously in the industry.
The hard skills education plan is full of non-auditory practical lections in the industry career center. The
hard skills education specifics combines the mandatory courses and electronic disciplines studied by the
student and elective disciplines according to their career plan in a particular company or in a particular
industry segment. Electronic disciplines are relevant according to the application knowledge received
by the student in a studying facility.

The hard skills education standards are based on modular and rating education system, which
combines the traditional lections and innovation forms when the student is out to a production company
with corporative partner status. The production environment atmosphere concentrates student attention
on the young specialists activity peculiar things applying their knowledge in industry with experienced
and senior workers.

To make the hard skills education individual is the education plan super flexibility where the student
development career trajectory reflecting some desires and unique abilities of each person. So a group of
students from higher courses which in tide grasped natural and science disciplines in lower courses could
be transformed in smaller number sub groups which specialty is according to the profile of a separate
industrial company. The hard skills production education displaces the classical synchronous education
aspects to a context education which time limits are done according to the production time table of each
company, which of course influences the time table.
Figure 1. The soft skills and hard skills Education 4.0 industry education combining principle.

The step by step education system transformation to the hard skills industrial education requires to design a huge number of different profile elective disciplines to cover up in maximum the student society expected necessities and the industry requests for competitive personnel. To implement module and rating system and elective disciplines in lower courses may operatively correct the student education trajectory, which yet does not know their desired occupation in first levels of the education content grasping.

5. Conclusion
The person development for its professional independence in the production environment is the parallel forming of soft skills and hard skills with company corporative efforts and education facilities. The hard skills traditional education practices which of the current educative model are today sample solutions, which influence the students from one side. The social and psychological skills counter weight to the hard skills created a professional person deformation concentrated on a super narrow field of knowledge which is of clearly application meaning.

The person individual base establishment of its high meaning is the sum of skills being grasped to guarantee the worker success in his career. The soft skills student importance makes them to be target educational tasks, which are solved in an education facility with behavior personal attributes. The
traditional soft skills background meaning today is being transformed the personnel preparation system into life values related to the worker safe social connections into the professional environment.

The Industry 4.0 worker personal efficiency defines their reasonable selection to establish the prioritized soft skills and hard skills education on reciprocal base. The Hard skills education provides the student knowledge to determine his work in different companies within a particular industry segment. The Soft skills education provides the student universal skills related to non-verbal personality characteristics, which are clear in the working company and his relatives social communication.

The production environment graduated person successful behavior model is the specialist preparation necessary result oriented for the industry. The soft skills settings educative plans changing justify the new tutorial methods search to realize the non-formal knowledge mechanisms. Unlike the hard skills associated with professional knowledge the soft skills are grasped with personal emotional experience which accompanies humans through their life. To add professional skills to the soft skills elements help the worker to show their ambitions with their personal achievements of his human career growth.

The parallel forming of students soft skills and hard skills is a time consuming process influencing the personality traits and student thinking peculiars. The current staff of tutorial workers was never practiced before to translate the student soft skills without any professional psychologist having the necessary techniques and they cannot provide the student full development to work in industry with necessary fervor. The irrational thinking factor with specialist technical experience is of decisive importance for the human professional career success who studied in industrial specialty.

The soft skills and hard skills education combining influences the humans of the education facility cultural environment. The majority of hard skills is a fundamental professional activity without education process region dependence. Soft skills have the generation experience of the student people traditions (personality).

The worker hard skills domination let them rise in industrial environment career in any part of the world. Soft skills international meaning is of application character with national color. The education facility cultural code influences each student behavior qualities.

The professional society of unified hard skills is of significant advantage for popular today world skills movement in comparison to non-commercial partnerships they apply the national soft skills. The soft skills international perspectives unification may be successful for general human values, which are equally important for all Earth inhabitants.

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