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POWERFUL EMPOWERMENT FOR ENGLISH-SPEAKING ENGINEERS IN RUSSIA

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The role of the English language in the modern world

The fact, that English is the major international language, is already a matter of fact. The explanation is rooted in the history of England, its vast number of colonies spread all over the world several centuries ago. The US expands its national and international usage. This is one of the dominating nations with a vast territory whose population number reaches 315 million people. America has a great influence on the global industry as one of the major industrial center on a global scale. If you refer to any engineering manual whichever kind of it, either a specification for a machine-tool made in Germany, or a manual with instructions of a Chinese equipment, - we will be able to read them both in English. The international etiquette standards in the civil airlines suggest the ability to speak English as the essential and absolutely necessary requirement. If you are going to take part in any prestigious conference, you are bound to translate your presentation into English to make it clear and informative not only for one nation but also for many other nations. So, we can draw a conclusion that currently English is an international communication basis and will probably remain as such for a long while.

The situation in Engineering in Russia

In the time period until 2020 the strategy in the development of innovations in Russia is targeted at the support of the position Russia on the high technology and intellectual service markets. However, technological modernization in Russia can not be realized without the development and perfection of the training in engineering which should be based on the best

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traditions of Russian engineering school. The analysis of the training and the level of training of engineers in Russia has become the hotspot in the survey held by the Russian Engineer Training Association. According to the results more than the half of the experts consider the general state of engineering in Russia as critical or undergoing a deep systematic crisis (28% and 30% respectively). Moreover, 27% admit that it is in stagnation and only 15% recognize it as satisfactory.

Among the main signs, taken into consideration to assess the real situation in engineering in Russia are the following:

Russian engineering production competitiveness and even the production of industrial branches that would be competitive on a global market

A share in export of high technology production and the production of deep processing of raw materials

A share of domestic development in technology and machine-building

A status of engineer in the society

Cut down on a number of domestic factories and manufactures

At present the universities are facing the issue of training competent professionals who will be able to solve problems in design, technology, operating and management. Also these professionals will be able to find revolutionary solutions in engineering that would result in dominating the global market. Competent specialists will allow to solve real problems if they have been trained to do it.

Taking into consideration the level of the training of an average Russian engineer and the requirements and standards it has to fit, it's clear that if an engineer doesn't speak English, he won't be able to meet the demands he is facing nor can he solve the problems to beat the rivals. There is no point in inventing a bike when everybody already drives a car.

Unfortunately, I am forced to admit that we are left far behind in engineering and technology. If you don't take into account the achievements of Germany, Japan, America, China and France, you are running a risk of remaining where you are with no step further. The countries mentioned above hold leadership in automotive industry, food industry, machine-tool industry, electronics and manufacturing in general.

In engineering it is especially important to keep in mind the experience of previous development. This is the first point you have to consider when you design any device no matter what it is: a common bush or the most sophisticated assembly machine. Since all the advanced technologies are now in the other countries, it means reading manuals and books in a foreign language. And it is English[as a rule. Only if we base on the existing counterparts and we are

shrewd, and intelligent, and we have engineering feeling then we might be able to catch up with the other countries on the technology market.

English is already helpful for future engineers

The most remarkable example of what opportunities the students who know English have, is the activity of BEST Organization (Board of European Students of Technology). It is a bond between different companies, high schools and students. What kind of events they run I'll mention further on. What is important is that the main requirement to take part in any event means having fluent English. Otherwise, there is no way to understand instructions, to read tasks, to interact with the activists of this organization.

94 technical universities spread in 32 countries are taking a very active part in BEST. They develop and host different events. For example, they offer an opportunity to study or to promote students' careers, they also implement international curricula. And all these programs are available for all students in our high school and activists.

All of this is made possible thanks to voluntary work of more than 3500 activist members. All in all, the organization activities involve as many as roughly 1.000.000 students all over Europe.

Within a year BEST runs different events where students from universities that hold a membership get an opportunity to enrich their international experience, set up bonds, improve their English and have fun. Each BEST event is attended by 20-30 engineering students like you, who have something in common: they want to go through a unique experience, different from every-day school life!

BEST Courses give you an opportunity:

To visit companies, industrial plants and research centers

To take part in specialized research

To attend interesting lectures covering many different technology fields, economics, marketing and management

At these events, participants attend lectures given by the university's teaching staff or by experts from companies. At the end of each course students take an exam, which is aimed at assessment of the participants' progress.

BEST Courses should meet the following criteria: advanced knowledge or skills for participants and training by professional people. It is normally an optimized event. Subdivision is as follows BEST Courses on Technology, BEST Courses on Career Related Skills and BEST Courses on Applied Engineering and many others.

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BEST Course on Technology is a BEST Course aimed at enriching and broadening the professional knowledge in a certain field of technology, especially concerning modern applications of technology and the latest research achievements.

BEST Course on Career Related Skills is a BEST Course focused on non-technological subjects in order to develop personal skills in whatever linked with effective methods at work, communication techniques, marketing, economics, project and organization management and other such soft skills, in particular, the emphasis is on practical training.

BEST Course on Applied Engineering is a BEST course where participants put theoretical knowledge into practice. They have to work in different teams and solve specific tasks under conditions where timing is taken to extremes, resources are limited and as a results they have to make a presentation about the solutions they came up with at the end of the course.

BEST Events on Education

BEST Events on Education are seminars that last about 6 days. Engineering students and professors from Europe get together with the purpose of evaluating and finding new paths and approaches for higher engineering education in Europe.

BEST Academics and Companies Forum and BEST Symposium on Education - BACo are events where students, university representatives and companies have a meeting to discuss current issues related to engineering education.

BEST Engineering Competitions are events where teams of students use their engineering, soft, social and communicative skills to compete in different categories: Team Design, Case Studies, Negotiation and Debates.

The most challenging events are: Local BEST Engineering Competitions, National and Regional Engineering Competitions, European BEST Engineering Competition (EBEC) final.

So, the engineering competitions are held in 3 phases. At first, it is you home town, than on a larger scale and finally they are held internationally where only the winners of the second phase can take part in. Usually there are 10 teams from different European cities.

BEST also organizes non-academic activities such as sailing weeks, ski-weeks, extreme sports. These events have a higher fee and have no academic part. Only fun, fun and fun!

Students, whose knowledge of English has been assessed and classified as sufficient are entitled to participate in all activities, paying only transportation costs. Imagine the opportunities the students can ever have!

Personally, I have been involved in engineering competitions and our team in autumn 2012 won the first place. It gives us a chance to take part in the second phase, which this year takes place in St. Petersburg in May. We will have an opportunity to demonstrate team

engineering brainstorming work to glorify our university, to visit the city on the Neva, to meet people from Latvia, Lithuania, Poland, Estonia and Ukraine.

The way English helps engineers in employment.

The BEST organization activity is an example of empowering for future engineers, and I have shown that this is impressive. And now about those specialists who already have a degree. They are facing the issue of finding a good job. If you survey the process of search, you'll find a very interesting regularity. Here is an example. In an announcement offering a vacancy in one of the Moscow Machine-Building Plant, the salary ranges from 12 to 30 000 rubles per month. At the same time, employers at Employment and Recruiting exhibition said that if you pass an interview and becoming a trainee you would receive at least 65 000 per month, excluding bonuses for longer hours. It should be noted that the requirement for a candidate is Upper-intermediate English.

This situation in the employment market means that the specialists who know English, are in demand. Once again it confirms the idea that we must take into account the experience of the other countries seriously. Moreover, all the presentations or thesis or any final product is always made in English. So, this language is necessary for professional engineers.

In my article I tried to prove with a lot of arguments that an engineer who can speak English, has a great potential to be in a much better position than those who do not know the language. This engineer is able to take into account the experience of countries advanced in technology, and to make competitive solutions. For Russia, this is the only way to achieve decent level of engineering. The article also shows the empowerment for future engineers who know English at a decent level, the students of the Bauman University. The BEST organization work is described in detail. For those who are looking for a job it also increases the chance. The employer gives preference to candidates who speak English, and the wages of such employees are generally higher.

In conclusion, I can claim that English is required for everybody who wants to achieve significant professional success in their career, sufficient income and recognition.

References

1. Voronova E.M. THE ROLE OF LANGUAGE IN TRAINING ENGINEERS of XXI century. Journal Article, Journal: Journal of Kharkov National Automobile and Highway University, 2005
2. Aghabekyan I.P., Kovalenko P.I. English for Engineers, Publisher: Phoenix, 2002, 320 pp.

3. Y.P. Pokholkov, S.V. Rozhkov, K.K. Tolkacheva THE LEVEL OF TRAINING ENGINEERS IN RUSSIA. EVALUATION PROBLEMS AND SOLUTIONS. Scientific article, Tomsk Polytechnic University
4. Electronic publishing. Official website of the organization BEST URL.<http://www.best.eu.org> (25.09.2013).