

## ENHANCING STUDENTS' SOFT SKILLS THROUGH ENGLISH FOR SPECIFIC PURPOSES

**N. Yu. Drozdovych**

*Kyiv, National Technical University of Ukraine, "Kyiv Polytechnic Institute"  
drozdovych@gmail.com*

**Abstract:** The role of soft skills for technical students in today's global labor market and high-tech industry has been analyzed. Samples of soft skills' abilities have been exposed and their role in employment has been highlighted. Approaches to incorporate soft skills into study curricula undertaken in some Western universities have been discussed. As an example, the experience of the Faculty of Computer Science at the National University of "Kyiv-Mohyla Academy" in introducing soft skills into study curricula has been mentioned. The global multicultural and multilanguage environment issues specific challenges to technological education. Meeting these challenges a specific role and importance of foreign languages studies and especially English for special purposes in educational curricula of technological higher educational institutions has been emphasized. An approach of integrating soft skill elements into the course of English for special purposes has been stated, based on the author's experience at the faculty of aerospace systems of the National Technical University of Ukraine "Kyiv Polytechnic Institute". This appeared possible due to the introduction of modern e-learning technology in the study of English for special purposes. The advantage for students is easy 24/7 access to the content of the course, the advantage for teachers is a possibility to evaluate students' achievements just in time. The elements of soft skills included in the course are the skills necessary for preparing applications for future employment, internships and student exchanges.

**Keywords:** soft skills; employment; study curricula; challenges; English for special purposes; e-learning technology; internships; student exchanges

**Introduction.** Globalization and new technology achievements have completely changed the environment for business and industry development based on new economy solutions. A global market-centered society is raising both high expectations and demands for a new generation of high-educated professionals, especially in rapid developing high-tech industries. A challenge for higher educational institutions especially technological ones is to meet these expectations and demands by educating young people and fostering them in entering their business career in a sufficient way.

**Objectives.** It is well known that business challenges are expecting well-motivated, flexible, communicative, collaborative, and creative human resources. The well-motivated employee is someone who has sufficient incentive and desire to perform one's functions. That is a task for an employer to introduce work inspirational and to select applicants who accept this inspiration. But applicant also should be educated enough to produce one's motivation. Flexibility is another very important ability in continuously changing situation typically for high-tech industries. At the same time, the absence of a proper communication both between colleagues and employee towards employer may work catastrophically. Students should be constantly trained in developing their communicative abilities. Communication is a key factor for proper collaboration which also should be cultivated from the student bench. The university education should not only deliver professional skills and knowledge but also develop students' communication abilities. Thus, the objective of this paper is to demonstrate how the courses of English for special purposes can contribute to this development.

The list of four key skills may be extended to some others which also should be trained. Among them passion, adaptability, problem-solving, decision making, self-learning and knowledge discovery, empathy and teamwork, attitude and a spirit of enquiry and others mentioned in numerous available references (see for example [1]). These listed above are more or less traditional but new economy demands also more recently appeared ones, among which: knowledge of interacting with transnational cultures, business etiquette, expected and acceptable behavior in new geographies etc., which produce new vision and understanding of traditional business skills. This new vision is based on a multicultural behavior and communications.

**Soft skills.** Above mentioned qualifications have been recently united together into a concept of soft skills which are still waiting for their formal academic recognition. In spite of traditionally

conservative nature of higher education, the tendency looks very positive at least in the fields of social studies, science, and technology. In fact, dynamics of the scientific, technical and economic development in all spheres of activity in a modern information society make drastic challenges for a junction between higher education and industry. A traditional way of academically driven education is no more sufficient especially for technical universities. As soft skills should constitute a valuable part of competence for every professional, many leading universities all over the world are discussing a problem of integrating them into their study curricula.

**The problem of integrating soft and hard skills.** Soft skills, in fact, a kind of special engineering soft skills for engineers differ from hard skills, which belong quite to another area. Though businesses suppose that every graduate from a technical university should possess the whole amount of hard skills necessary for a future profession, a particular job applicant should be able to demonstrate these skills and convince one's potential employer in one's abilities to fulfill job requirements. Entry interview is now transforming into a kind of negotiation where a job applicant finds oneself against much more qualified and experienced counter partner. Even if employers take it for granted that professional skills of job applicants are on the required level, soft skills can make the difference in their chances to get a job as they are more difficult to be acquired. In fact, human resource managers often suspect that in the case if technological skills need some correction, technical knowledge of future employees are easier to acquire than to change their behavior patterns that have been developed and maintained for many years. Applicants may be asked in a job interview to give examples of their behavior against colleagues, clients, bosses etc. Inadequate answers are the most typical case. That is why these behavior patterns should be fostered and cultivated at the earliest stage.

According to Prof. Christoph Meinel, Head of the famous Hasso-Plattner-Institute (HPI) in Potsdam [2], "soft skills are a magic word" for technological professionals. Soft skills are important on a job entry phase but they are even more important on every stage of successful career course. Who can better communicate gets easier the opportunity to achieve one's objectives. Classic German saying is "Tue Gutes und rede darüber!" (*Do good and talk about it*). The main issue is what is a proper way to do this? Hasso-Plattner-Institute has proved its ability to find this proper way for its students and faculties at the national level as it has been approved by numerous voices of public and political figures [4], e.g. according to the opinion expressed by Dr. Angela Merkel, Chancellor: "The HPI plays an important role not only in the field of science. It acts as an intermediary between science, business, and politics." Thus, a valuable example of an education society junction exists.

The list of soft skills courses and events at HPI comprises courses in entrepreneurship, management essentials, conflict and communication management, leadership competence, personality and self-management, business etiquette, speech and presentation training, and others. Besides them, there are three courses in technical English which also belong to soft skills cycle.

The problem with soft skills is that jobs have been considerably changed in the last decades. Instead of manufacturing the bigger and bigger part of businesses may be described as services. A standalone employee is no more a model of behavior. The main challenge is to work in a heterogeneous staff which consists of representatives of different cultures, nations, races, gender and social spheres often distributed all over the world. Under this condition, all above-mentioned skills and abilities should be demonstrated using foreign languages. HPI is not alone on the way of integrating hard and soft skills within study curricula. Many leading world higher educational institutions have already realized the necessity of special soft skills courses and modules in their curricula. A detailed description of the effort undertaken in top 10 American technological universities may be found in [5]. The undertaken research has shown that these schools of engineering especially highlight leader soft skills in technological entrepreneurship which assume effective communication, teamwork, multicultural cooperation, flexibility, creativity, respect and courtesy, comparison for others, and patience [5]. Some of them offer even special minor degree programs in soft skills. As a by-result of this research is a conclusion that e-learning and mostly blended learning has been selected as the most suitable tool for soft skills education.

In fact, e-learning promotes active engagement of an individual in a learning process. This assumes self-directing of students, possibilities of guiding one's own development, and navigating to the most suitable content. Coursera [6] may be mentioned as one of the best sources of valuable

content in soft skills. Analyzing existing status quo in proportion between hard (technical) and soft skills in education it makes it obvious that the paradigm shift in the real business world should be reflected in educational programs. As an example of a real paradigm shift, the University Of Applied Sciences Of Southern Switzerland may be mentioned. Soft skills comprise 70 credits from the total amount of 180 ECTS [3]. One of the peculiarities of their approach is an emphasizing the importance of learning new languages as a part of soft skills study. “We also consider languages as an important element to get along with managers, customers, and co-workers, as well as being an element of a higher education, which should distinguish an engineer” has been stated in [3].

Other researches show that not every higher educational institution has enough power and admission to restructure their curricula towards introducing special training in soft skills. In fact, even in the case of prescribed curricula, there might be found a place for real-world training of students in soft skills [7]. Developing well-rounded graduate through the integration of soft skills in the teaching of engineering courses is one of the possible ways to achieve this objective. A successful experience of combining soft and hard skills within an engineering course has been described in [8]. A course developed by the authors has combined achievement of such soft skills as teamwork, leadership, responsibility, self-directed learning, honesty, management, planning, negotiation with capacity to identify and solve information management problems in companies, applying tools to model information systems, development of an information system (planning, analysis, design, development, testing, and so on), development of technical documentation and manuals of the system which definitely belong to hard skills.

**Developing technical students’ of soft skills.** Higher educational institutions of our country have not yet become aware of the problem of studies in soft skills. The program of a recent Third International Conference “Synergy: IT education and IT industry” contains a presentation with a meaningful title “Terra incognita Ukrainian IT education: the development of soft-skills of technicians” delivered by Yulia Sulimova. This is a timid movement towards a revision of curricula at least in IT education. As a positive domestic example of such experience an introduction of project teamwork in the Faculty of Informatics at the National University of Kyiv-Mohyla Academy may be mentioned [9, 10]. One of the most important results of this experience was a possibility given to students to review and evaluate each other’s achievements. Student opinion poll after finishing the course showed their extremely positive attitude both to team development and reviewing.

Another place for integrating soft skills into the study is foreign languages courses, first of all, English for special purposes. That is the fact that English is a language of communication not only in IT but in science and technology, too. The author’s experience in embedding soft skills in existing curriculum for avionic students at the National Technical University of Ukraine “Kyiv Polytechnic Institute” is based on a concept of an advanced e-learning approach to study technical English [11]. Besides traditional content for technical English in avionics, the course contains a special unit aimed at the development of soft skills. The objectives of this unit are to prepare students for searching suitable announcements taking special attention to analyzing and understanding their requirements and to assist students in developing their writing abilities preparing a comprehensive application package. Students will distinguish types of announcements: internship, studying abroad, job offers and will be able to select ones, suitable for their purpose. As internship is concerned it should be cleared if it is based on a part-time basis which may be combined with the study, or it is a summer internship, which may be attended during the vacation period, or it is semester/year internship, which presumes a break in the study. Studying abroad usually has three options: exchange programs, public or private scholarship, as well as university own program, or self-paid study. Each of them possesses special and sometimes contractive requirements.

**Students’ job placement.** The most attractive way is starting with internship and then turning it into a future full-time job. According to [13] there are some behavior rules to succeed in internship which may be used for a role play in English classes: be polite with everyone in the office; work researching the subject and close area; always select personal goals and do not idle; keep reading professional periodicals; do not avoid any unpleasant work; ask questions and do not let them remain unanswered; find a qualified and good minded mentor; be professional; develop professional relationships; be enthusiastic.

Another very important subject is a letter accompanying the application. The wrong art of this document may cause a complete refusal of an application by referee even without reading the rest of the package. Students will distinguish between motivation and cover letter. The main reason for selecting the art of the letter is the demand of the addressee. An announcement should be properly examined in order to reveal this demand. The motivation letter is usually used when applying for educational or social purposes, for example for acceptance to a university, to a student exchange program, to a non-profit organization for voluntary work etc. An applicant has to explain one's interest in the specific activity, give satisfactory motivation, why one wants to study or attend the program, why the specific university or program have been chosen etc. The cover letter is mostly used for a job application. The letter will be accompanied by a detailed CV which should clear the reasons for the application. In the cover letter, the applicant must state clearly the position he/she is applying for and explain why one's profile matches the position.

**Preparing applicant profile.** Though an applicant remains the same irrespective of the position one applies for, the profile should be clearly focused on the position. In any case, the profile should reflect objectives, background, abilities, education, special training, language skills, social abilities, achievements, hobbies. Anything not mentioned in the profile does not exist or even will be substituted with an opposite quality.

Each application usually includes a special document which contains the whole autobiography of an applicant. There are two kinds of this document, namely resume and curriculum vitae (CV). There are some key differences between these two parts of one's autobiography. The main distinction between them is a purpose or a special explicit expressed demand of an addressee. Thus, they differ both in length and content. There are no formal restrictions concerning the size, but normally resume consists of no more than two pages, on the other hand, CV should contain at least two pages. The description of applicant's experience and achievements in CV is more detailed. As far as a student's CV or resume is concerned the most important items are educational background, personal achievements, and acquired skills, etc. A detailed explanation can be found on a number of specialized Web pages e.g. one of International Hellenic University [12].

The soft skills unit of the course of technical English contains a set of CV writing tips which will be explained to the students and used in a special role play. A student prepares a package of application documents and another one with the assistance of the teacher tries to evaluate them. During the play every student consequently plays both roles: an applicant and an interviewer. An option is to invite a real recruiter to review at least some of applications to find out typical misses and mistakes.

The last but not the least is a student presence in social networks. Some of them are extremely useful for evaluation of network member skills by one's colleagues, schoolmates or even teachers.

**Conclusions.** The state of the art in technical higher education today leaves not much place for soft skills in the study curricula. That is a gap of opportunity for courses of English for special purposes. According to the author's experience, these courses are a proper place where soft skills will be covered. At the same time, soft skills unit in technical English makes the classes more attractive and close to the real professional life. The motivation of students for English language acquisition increases their chances to attract possible employers in much better way. Consequently, the suggested approach will contribute to enhancing the overall quality of education.

## REFERENCES

1. Boublik V., Afonin, A. & Borozennyi, S. (2008). Some peculiarities in implementing educational team development of software systems. *NaUKMA Academic Records, Computer Science*, 86, 73-77.
2. Boublik V., Afonin, A. & Borozennyi, S. (2007). Some issues of studying team software development at the faculty of informatics. *NaUKMA Academic Records, Computer Science*, 73, 32-37.
3. Computer scientists are also service providers. *Interview mit Christoph Meinel, HPI*. Retrieved from <https://www.staufenbiel.de/it/soft-skills/interview-christoph-meinel.html>
4. Coursera. Retrieved February 2, 2016 <https://www.coursera.org/>
5. CV & Cover Letter. Retrieved February 2, 2016 <http://ecs.ihu.edu.gr/co/employment-cvletter/cv-cover-letter>
6. Drozdovych, N. J. & Vadaska, S. V. (2010). The terminology trainer glossary for 5-th Year Students of Faculty of Aerospace Systems of the specialties 6.051103-Avionics 6.051101 Aircraft and Rocket Construction. Kyiv, Ukraine: NTUU "KPI". Retrieved from <http://moodle.udec.ntu-kpi.kiev.ua/moodle/course/view.php?id=294>

7. Loretto, P. (2015). Top 10 Tips for Interns. Retrieved February 2, 2016 <http://internships.about.com/od/internshipsuccess/tp/TipsforSuccess.htm>
8. Murphy, S.E., Putter S., & Johnson, S. K. (2013). Soft Skills Training: Best Practices in Industry and Higher Education In *Leader Interpersonal and Influence Skills: The Soft Skills of Leadership*, Routledge, 276-310.
9. Noguez, J. & Espinosa, E. (2002) Improving learning and soft skills using Project Oriented Learning in software engineering courses. Retrieved from [http://www.researchgate.net/publication/242265038\\_Improving\\_learning\\_and\\_soft\\_skills\\_using\\_Project\\_Oriented\\_Learning\\_in\\_software\\_engineering\\_courses](http://www.researchgate.net/publication/242265038_Improving_learning_and_soft_skills_using_Project_Oriented_Learning_in_software_engineering_courses)
10. Panthalookaran, V. (2009) Cultivation of Engineering Soft Skills Within the Constraints of a Prescribed Curriculum, ASME 2009. *International Mechanical Engineering Congress and Exposition*, (Volume 7, pp. 13-19). Engineering Education and Professional Development: Lake Buena Vista, Florida, USA.
11. Pedrazzini, S. (2012). Emphasizing Soft Skill Learning and Training as Part of an Engineering Curriculum Revision. *SEFI 40th annual conference* (pp. 23-36). Thessaloniki, Greece
12. Urs, D.S., Cately, Y.-M. (2010). Raising stakeholders' awareness of the need for soft skills in the tertiary engineering education curriculum. *Synergy*, 6(1), 41-56.
13. Votes for Hasso-Plattner-Institut. Retrieved February 2, 2016 <http://hpi.de/personen/stimmen-zum-hasso-plattner-institut.html>

**Н.Ю. Дроздович. Усовершенствование «мягких умений» студентов средствами курса английского языка профессионального направления.** В статье рассматриваются проблематика так называемых «мягких умений» (soft skills) студентов технических специальностей. Анализируется их роль в условиях современного глобального рынка труда и, в частности, потребностей промышленности высоких технологий. Представлен примерный состав умений, подразумеваемых под понятием «мягких умений» и выделяется их роль при устройстве на работу. Отмечаются особенности подготовки специалистов в условиях межкультурной многоязыковой среды. Подчеркивается роль и значение английского языка профессионального направления при подготовке специалистов технического профиля. Делается вывод о необходимости включения мягких умений в учебную программу курса английского языка профессионального назначения, читаемого автором на авиакосмическом факультете Национального технического университета Украины «Киевский политехнический институт». Особая роль при изучении английского языка профессионального назначения на факультете отводится средствам электронного образования, что делает возможным как предоставление студентам необходимой информации, так и проверку качества выполняемых ими заданий. Элементами мягких умений, включаемых в курс, служат умения, необходимые для правильной организации, как будущего трудоустройства, так и стажировок и студенческих обменов.

**Ключевые слова:** «мягкие умения»; устройство на работу; подготовки специалистов; английский язык профессионального направления; средства электронного образования; стажировка и студенческие обмены.

**Н.Ю. Дроздович. Вдосконалення м'яких умінь студентів засобами курсу англійської мови професійного спрямування.** У статті розглядається проблематика так званих «м'яких умінь» (soft skills) студентів технічних спеціальностей. Анализується їх роль в умовах сучасного глобального ринку праці і, зокрема, потреб промисловості високих технологій. Представлений приблизний склад умінь, що мають місце на увазі під поняттям «м'яких умінь», і виділяється їх роль при влаштуванні на роботу. Дається характеристика підходів, прийнятих в деяких західних університетах, зокрема німецькому Інституті Хассо Платнера, по включенню м'яких умінь в навчальні плани у вигляді окремих дисциплін з виділенням частки навчальних кредитів в їх загальній шкалі. Відзначаються особливості підготовки фахівців в умовах міжкультурного багатомовного середовища. Підкреслюється роль і значення англійської мови професійного призначення при підготовці фахівців технічного профілю. На прикладі факультету інформатики Національного університету «Києво-Могилянська академія» наводяться відомості про перші кроки по впровадженню м'яких умінь в навчальні плани вітчизняних університетів. Робиться висновок про необхідність включення м'яких умінь в навчальну програму курсу англійської мови професійного спрямування, що читається автором на Факультеті авіаційних і космічних систем Національного технічного університету України «Київський політехнічний інститут». Особлива роль при вивченні англійської мови професійного спрямування на факультеті відводиться засобам електронної освіти, що зробило можливим як надання студентам необхідної навчальної інформації, так і перевірку якості виконуваних ними завдань. Елементами м'яких умінь, що включаються в курс, служать вміння, необхідні для правильної організації як майбутнього працевлаштування, так і стажувань та студентських обмінів.

**Ключові слова:** «м'які вміння»; влаштування на роботу; підготовка фахівців; роль і значення англійської мови професійного спрямування; засоби електронної освіти; стажування, студентські обміни.