RAISING STAKEHOLDERS' AWARENESS OF THE NEED FOR SOFT SKILLS IN THE TERTIARY ENGINEERING EDUCATION CURRICULUM

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Abstract

Soft skills have become a priority of educational programmes all over the world. In Romania, it is only recently that they have started to be given attention to. In technical universities where the educational methods are still based on traditional principles, focused mainly on the teaching of hard/technical skills, the attempts are still timid. It is the purpose of this article, therefore, to advocate a fully systematic approach of the Content and Language Integrated Learning (CLIL) type to soft skills teaching, based on the real needs of the students, that should be included in the curriculum as specially designed modules, workshops, lectures etc.

Keywords: soft skills, engineering tertiary education, foreign language teaching, CLIL, personal development, curricular change

"Let man be happy, informed, skillful, well-behaved, and productive."
B. F. Skinner
Freedom and the control of men (1955/1956). American Scholar, 25(1), pp. 47-65

Why the need for soft skills in the tertiary engineering education?

Undeniably we live in a globalized world, raising both high expectations and demands in front of the technical universities graduates, resulting from the dynamics of the scientific, technical and economic development in most spheres of activity in a market-centred society. The contemporary trends have been anticipated, and programmes focused on providing support to the tertiary education students have, accordingly, been devised in most countries. They are recorded in the Bologna and further documents, and most universities have re-shaped their curricular policies in order to apply them.

At present the engineers' performance in the field of engineering and/or business requires not only sound professional knowledge, but also a range of other skills

that should help them to solve out critical situations, develop as professional and as persons, communicate, mostly in a foreign language of international circulation, which in many cases is English, managing time and effort efficiently and playing their part in team-based activities – to mention just a few of the most important requirements they have to face.

That this is true is confirmed by the fact that all over Western Europe and North America, but also on other continents, as well, the new trend has been present lately: the weighting of professional/technical skills, conducive to attaining technical excellence, has somehow decreased, thus allowing for newer skills to be included in the academe curriculum.

The literature (Sharatkumar, 2009) dealing with what is called 'soft skills' – an obvious metaphor based on the IT specific terminology – points out to the fact that the stakeholders' interest in the tertiary education area (students, university management, teachers, potential employers a.s.o.) is directed towards both 'traditional' soft skills, such as: adaptability, open-mindedness, problem solving, decision making, communication skills, self learning and knowledge discovery, empathy and team work, motivation, attitude and a spirit of enquiry, but also to more recently appeared ones, among which: knowledge of interacting with trans-national cultures, business etiquette, expected and acceptable behaviour in new geographies etc. This definitely represents a shift from the search for answers to the *what* type of questions, towards the *why* and even *what if* ones.
Although the current trend, which actually responds to the workplace globalization requirements, is to include the teaching of soft skills in most European and American universities, the effort being directed to identifying the optimal ways and means of incorporating such training in the traditional curricula, in our country, though, there are few universities that have created a regular adequate framework for the learning of these skills.

Moreover, disproportionate priority is still given to the development of hard skills (purely professional/technical competence), as it is considered that these are the most important criterion in deciding on employment success at the beginning of one's professional career.

We maintain, though, that, while observing the importance attached to professional knowledge/technical skills, what makes an applicant more eligible on the (inter)national market of technical jobs is their repertoire of soft skills – their presence has become a must for successful employment, as not many companies can afford hiring graduates and providing them in-service basic soft skills training.

What really matters, therefore, once the graduate has received a position with a technical/business organization, is the human touch; this is what actually makes the difference, leading young engineers with soft skills training to professional (and

personal) success, and the literature confirms this (Ziegler, 2007). The difference can be seen as a competition of competitiveness level among graduates, ever since their first position in the career. There are even chances that a person with excellent technical skills, but who lacks communication and other skills of the soft type, should be less successful in getting employment.

One possible reason why soft skills are not really integrated in the tuition provided to the future engineers in our country may be that the teaching of this area has multiple facets and a definite interdisciplinary character. Who are, then, the members of the teaching staff in universities that should possess both the training and the skills that could qualify and entitle them to approach such a complex domain?

We maintain that the teachers of communication in foreign languages in the specialized departments of most non-philological universities do have the background and potential to embark upon the teaching of soft skills. They have already included some of them in their language for specific purposes/professional communication etc. type of courses, thus proposing some useful paths to be further explored. Furthermore, we have to accept that most communication that takes place in engineering/business companies relies on the use of a foreign language. Generally, the international *lingua franca* of communication is English, with German, French, Spanish and Russian coming next, at least as far as European countries and the North-American ones. This is a real challenge to the tertiary education in foreign languages, as the courses should incorporate besides the linguistic component, the teaching of a range of soft skills to answer the students' identified needs for each particular educational context.

Teachers of foreign languages must accept this challenge, taking advantage of the fact that the students' level of language proficiency at the moment they enrol in the academia is relatively high (around the B1+, in CEFR terms). This permits the foreign language teachers in the university to allow more time to focus on other soft skills in the foreign language.

Thus, they have a role to play as a real interface connecting the changing engineering practices, the employers' expectations and the tertiary engineering education curriculum. More important, the teachers of foreign languages should identify the ways of receiving acceptance from all the main stakeholders in the academic curriculum amendment at all three levels – bachelor, master, doctoral. The approach to the teaching of soft skills we advocate should be of the interdisciplinary type, which should actually mean a combination of complementarity and fusion. The former is characterized by the fact that two or more disciplines take a convergent direction towards a common goal, while the latter implies the blend of training specific to different fields. The result should be an approach of the modular flexible kind to the teaching of both the foreign

language skills proper, and of the soft skills based content, in an integrated course with twofold aim – one can easily recognize the features specific to the CLIL type of teaching (Content and Language Integrated Learning). The inclusion of soft skills in the curriculum as part of the language courses, with the necessary amendments and changes of focus, would also be a manner of reducing the time constraint/pressure on the curriculum, as the two could take place simultaneously.

Going one step deeper in identifying the answer to this section question, we should also point out that there is a tendency in our globalized market that the demand for hard skills will decrease in comparison with the demand for soft skills. This is due to the fact that hard skills can be outsourced relatively easily, while the lack of soft skills demands more intense effort/time/qualifications etc. to be compensated.

To conclude at this point, in order to ensure the workforce mobility and give graduates a chance to perform optimally in their positions, our tertiary education system should be re-shaped in order to deliver the skills able to provide support to the trainees who will explore more globally oriented career prospects.

Soft skills – an overview

The literature (Woods et al., 2000, Pauw et al. 2006, Campbell and Giles, 2006) defines soft skills in various ways – the notion is not easy to grasp semantically, it is an open construct, with focus on various entries in function of the criteria used in depicting them. Thus they are labelled as:

- process skills,
- social skills,
- generic skills.

If we analyze these attempts at defining soft skills, we can assemble some of the pieces of this puzzle, pointing out to the fact that they can be tackled from the social perspective, as they are focused on shaping up human beings' skills and/or personality, in process, as they are developed/used throughout the human activity, and they have a heterogeneous character, including under the same generous 'umbrella' a multitude of components: qualities, knowledge, abilities and traits that, according to some authors (Nor, 2008 and Khairi Izwan, 2006), a person should possess in order to attain success in one's studies and/or career. This multiple-perspective approach is interesting, as it leaves scope for a high amount of flexibility in designing the complete image of the field – it remains open and has the possibility to cover more skills**.**

Reflecting on the best manner in which such skills can be optimally implemented in the curriculum, we can note that there are several points of view in this respect. There are voices (Nor, 2008) that maintain that soft skills can be taught based on

two models, which generate two distinct paradigms of practical approaches. The first is called the 'diffusion' model – skills are taught in an explicit manner as individual courses which teach these skills intrinsically, while in the second, labelled the 'infusion' model, the skills are actually injected in an academic course of another discipline (not necessarily an adjoining/related one, we should add).

The way the explicit teaching of such skills can be embedded in other courses (in an explicit or implicit manner) is discussed by some other authors (Pulko and Parikh, 2003), who present the advantages of both approaches, supporting a combined type, which should start from some explicit teaching as a sort of 'start up' for the learners, followed by implicit forms of teaching. It is explained that this mixed perspective is preferable for the teaching of soft skills to engineers, as the field can still be considered as a relatively newly emergent one, that has not have had time enough to get mature enough for efficient embedding.

From a qualitative perspective, the literature (Sharatkumar, 2009) shows that there cannot be one single method of implementation that should meet the requirements of all particular situations, but that the process of teaching soft skills in an efficient way depends on the fact that the trainers should possess competencies in three major areas: communication skills, psychology and subject matter knowledge - one more reason why we consider that the 'umbrella' of the soft skills notion should be left quite generous, thus allowing for further skills to be included and for new approaches at teaching them to be identified, should the dynamics of societal and economic change require it, in different contexts.

Therefore, the scientific community, but also the teachers who put on the researcher's 'hat', are expected to offer guideposts to the academic, industrial/business and governmental environments on the manner the higher education curriculum should be re-designed in order to integrate the newly emerged topics innovatively.

As far as the tertiary non-philological education is concerned, with a focus on the engineering one, which is the authors' context, this should become more aware and responsive to the needs of the market for engineering and technology services.

New models of inter- and cross-disciplinary training must be introduced in order to incorporate the teaching of non-technical skills, which have been lately termed 'soft skills', in a more coherent way. It should be our purpose as trainers to form a generation that should be very confident in operating in a global environment. The soft skills we should include in the tertiary education curriculum widely range from language and communication abilities, through personal development and managerial one, and up to cultural sensitivity and work ethics.

A review of the kinds of programs, workshops, in-service training forms, courses provided by (inter)national training centres a.s.o. will reveal, as emphasized in the literature (Cambridge International Training Centres Sudan, 2007 and Technical Communication, online), that their common features refer to:

- providing the trainees with the enduring theory and principles that can enable them to understand the permanent changes they will most probably have to face throughout their careers,
- setting the course in a context of social/political/economic issues and specific human needs,
- ensuring a goal-oriented character to the course, in order to enable people to achieve their aims of increasing efficiency and improving personal performance.

- In the authors' experience so far, the teaching of soft skills, such as scientific and technical communication (written and oral), as well as components of professional communication (performing in teams, participating in meetings and playing various roles in them etc.) have already been included. What we really consider we should also include in our language courses, in a manner or another, are skills revolving around the idea of personality development. We have confirmation from our students' feedback that this direction may be relevant and useful to our students.

Personality development under focus

If the concept of personality development is to be defined, one can say that it refers to the sum total of ways in which an individual reacts/interacts with others or to the deeply ingrained pattern of thinking, feeling and behaviour. According to Rychman (Rychman, 2004), it is a dynamic and organized set of characteristics possessed by a person that uniquely influences his/her cognitions, motivations and behaviour in various situations. To put it simply, personality is the picture of whatever is unique about an individual and his psychological processes.

Personality development is the process of developing the organized patterns mentioned above through the interaction of temperament, character and environment. The present day world is becoming more aware of the insufficiency of academic knowledge in order to grow and excel as a person.

Therefore, the postmodern personality development appears, according to some authors (in Personal Development Planning for Engineering Students, an Engineering Subject Engineering Guide, online), to be an integrated system that includes new items such as improving self-awareness, increasing satisfaction and

self fulfilment, releasing psychological blocks limiting the personal potential, releasing stress etc

Nowadays, the development of personality has become an ideal of education. It has to be acknowledged, though, that mechanical, artificial educational methods are still being used by educators who, most of the times, need to improve their own personality in the first place. A thorough development of personality cannot be assured by dead conventions and mechanisms that can only reach the routine and never the creativity of life.

Jung (Jung, 2006) used to say that what we call "personality" is a great and mysterious thing, so vaguely and differently defined that there are no two minds with an identical representation of this concept. He personally refrained from giving a definition, calling it "a certain strong and powerful wholeness of the soul", "the supreme achievement of the inborn features possessed by a living being" and also "the result of the supreme courage of life, of the absolute assertion of the individual and of the fully successful adaptation to the universal context under the conditions of maximum freedom". As a complete achievement of our wholeness, it still remains an inaccessible ideal where the ideal is to be understood as an infallible law of necessity governing the human soul.

However, human personality is terribly conservative because it will not obey orders or desires but only needs, i.e. the motivating restrictions imposed by man's inner and outer destiny. Personality cannot develop in the absence of total freedom to consciously choose one's own way. Thus, not only need but also conscious moral decisions are required in this process. However, the overwhelming majority of people do not choose their own way but the expedient of conventions, artificial products of mind that stifle the creative energy of life. Actually, what determines a person to search for his/her personality is the drive coming from the depths of his/her psyche, namely from the collective unconscious.

What is remarkable about personal development is that people innately possess an inner ability for growth. Thus, they are basically "set-up" for self-fulfilment and programmed for success and happiness, a fact which, in opposition to other educational plans aiming at enforcing "hard skills" exclusively, makes the soft skill component easily adopted and even attractive.

The boom of personality development programs all over the world during the last decade is symptomatic of a shift in consciousness which, according to Carl Gustav Jung (op. cit.), signifies a reorientation of the individual back into the center of his/her personality- the very source of authentic psychic reality. The peculiarity of our time is the metamorphosis of man in search of new meanings and symbols. He called this process the "Becoming of Personality" which consists in the

discovery of the deep innate potential – essential to the well-being of the individual.

Jung found out that the major components of Personality are the Ego, the Personal Unconscious and the Collective Unconscious. Dis-alliance with the Collective Unconscious is equal to a total loss of balance and rootlessness. Harmony can only be reached through reactivating the connection with the unconscious as the repository of creativity, intuition and true sense of collectivity. Just as the individual is not only a unique being but also a social being so the human psyche is also collective and manifests collective patterns and tendencies based on the uniform organization of brains and the universal functioning of the mind.

All these elements contain the wisdom and experience of uncounted centuries laid down in the depths of the unconscious. Although forgotten and overlooked by the modern man, they represent possibilities which have a tremendous power of action to serve the present and the future. Being markedly superior to the conscious combinations of the logical mind, the unconscious is extremely active and productive – a truly irreplaceable, unique guide.

Moreover, personal development, in this light, is not for the exclusive advantage of a few chosen individuals meaning that a brilliant intellect or talent is irrelevant for undergoing psychological progress. It is in this respect that moral qualities for example, can make up for a less developed IQ.

Therefore, the becoming of personality is a journey where everyone can take as much as he/she can take and in his/her own way. Here, one can no longer set up the limitations of the scientific, restrictive intellectual position but has to include everything that the psyche contains: feeling, insight, desire etc. The totality of the psyche can never be grasped by the mind/intellect that only partially reflects human nature. And this is exactly what personal development is about – the attempt of the entire psyche to find full expression. The ever broadening of abilities to include the more subtle soft skills very closely reflects this naturally human movement toward wholeness.

Surprisingly enough, educators are still in the position of underestimating the psyche and its laws and of considering the unconscious to be pure fantasy. They seem to have forgotten the fact that the psyche is only partially identical to consciousness and that its largest part is the unconscious with its power of bringing balance and healing. The collective unconscious continuously sends out messages to the conscious mind through its contents that cannot be managed by the latter. Stress, anxiety, boredom, sense of futility etc. are contents that demand solutions and force the conscious ego to broaden its scope and accept formerly ignored parts of the living whole.

Thus, new elements like intuition, openness towards the others' culture and psychic realities, sensitivity towards one's own and the others' thoughts, feelings and emotions, introspecting skills, stress management, etc. demand acceptance within the conscious realm which, thereby becomes richer, and more powerful. Unless such contents are effectively nurtured through education, totality will suffer. And personality ultimately signifies Totality and Perfection as the only possible manifestation of man's destiny.

Sensitizing the students to soft skills – a questionnaire

In order to obtain feedback from the main stakeholder in such an enterprise – the students, we have devised an instrument of data collection – a *Soft Skills - Student Questionnaire*. We intended to obtain data referring to the following:

1) whether the respondents have been exposed to previous training in soft skills (a list of nine items has been provided, encompassing the most important soft skills we envisage as useful to our students) – question 1c; in case they received a form of training, we inquired about the context, duration, trainer type and language in which that training was delivered – question 1d; how useful/relevant that training was for them – question 1e, with 4 variants, in order to detect the general trend in each case;
2) the training approach/tool the students would prefer – question 2, with 8 items and an open rubric for other approaches to be completed by the students;
3) the soft skills perceived as needed, in prioritized order of relevance, with the possibility of adding more soft skills to the list provided (the same as for question 1).

The questionnaire is given below, but it has been reformatted for reasons of space, while the original one allows space enough for the open questions:

SOFT SKILLS – STUDENT QUESTIONAIRE

Dear student,

This questionnaire is meant to provide data for a research study on the engineering students' curriculum changes. The questions are focused on 'soft skills', as it is becoming apparent that personal skills, in addition to our professional knowledge ('hard skills'), are vital to having more choice and attaining success in our personal and professional life.

It is not easy, to define soft skills; however, most authors agree on the fact that they are general skills, qualities, knowledge, abilities and traits that a person should possess to succeed in one's studies, in getting employed and in becoming an efficient and effective employee at the work-place.

All answers will be kept confidential. Please answer as completely and sincerely as you can. Thank you!

……
……

Faculty: … … ….. … … **Year/group: … … …** **Date: … … ….**

1. Below there is a list of **soft skills**. Provide (detailed) answers for each of them.

Soft skill |No.	**Soft skill**	**Training already received** *(Yes/No)*	**Form of training received – details** *(where, how long, by whom, in what language)*	**Previous training usefulness/relevance for academic study/career** *(1 – not useful; 4- very useful)*
1a.	1b.	1c.	1d.	1e.
1	***foreign language skills***			
2	***stress management***			
3	***pro-active motivated approach to academic study / extra-curricular activities / career planning & development***			
4	***(self)organization and time management***			
5	***personality development (creativity, intuition, confidence, assertiveness)***			
6	***technical/business written/oral communication (presentations, meetings, reports etc.)***			
7	***cultural sensitivity***			
8	***team-working***			
9	***planning and prioritizing learning/professional activity***			

2. Circle the soft skills training approach/tools you would go for. You may circle more than one item.

A	lectures & applications under teacher/expert guidance	**F**	based on printed information
B	independent study	**G**	based on mechanisms to support reflection (e.g. printed/electronic portfolio, blog, learning diary, progress file)
C	tutor guided (e-)learning	**H**	individual/group projects
D	workshops, special events	**I**	based on progress reviews and plans
E	based on electronic information	**J**	other (*please specify*) … … ….

3. What soft skills do you feel you would need (more) training in, for attaining success in your academic study and professional career? Refer to the list above (under question 1) and/or add other soft skills. List them in a prioritized order, with no. 1 – most useful/relevant for **you**. Use the overleaf of this questionnaire to provide the answer to this question.

The questions were preceded by an explanatory letter to the respondents, in which we considered useful to introduce a brief definition of the soft skills concept, by contrasting it with that of hard skills. The tabular form with items to be circled/ticked was favoured for brevity, but there were also three open questions, therefore we processed the data both statistically and by (sub)grouping the qualitative data from the open answers into common categories and calculated their frequency as such.

Confidentiality of data was ensured, and the 200 students who answered the questionnaire – from the faculties of Transports and Computer Science, first and second years of study, randomly sampled from our groups of students – mentioned only three identification data: faculty, year/group and date of questionnaire completion. Their answers were then coded for processing, to facilitate later references to the open answers.

The questionnaires were administered during the English seminar, with some preparation, but which was kept very low. In general, we observed the same duration of administration – about 20-25 minutes.

We present below some of the main data we could obtain. Thus, for question 1c, we discovered that the training previously received by the students, in secondary

school and by extracurricular forms, was not really spectacular. It concentrated mainly in the following:

- *foreign language skills* (which was not actually our main point of interest, but we had decided to include them in the soft skills list, as we wanted to make the students realize that the context for this feedback was precisely the language class);
- relatively good scores were recorded for *pro-active motivated approach*, but the examples given under 1d range loosely from discussions with parents and other persons, through participation in contests of various types and other extra-curricular activities in high school (theatre club, sports, student organizations), and up to the psychology class in high school, in-service training/preparation for getting a job/being admitted to faculty etc.;
- for *personal development*, they listed their involvement in various types of activities, mostly outside the school (e.g. photography, building sites) or participating in technical projects; therefore, it was mainly experience derived from other activities, and not specially designed courses or any other form of focused learning;
- they did not mention any previous training in skills nos. 4 and 9.

The answers to question 2 place on the first three places:

(1) *individual/group projects* - 68%;
(2) *independent study* – 62 %;
(3) lectures under teacher/expert guidance – 56 %.

The lowest scores were those for: *tutor-guided learning* – 18% and *based on progress reviews and plans* – 12%. There were almost no relevant proposals under 2 J – other, except perhaps one definite "no need at all", one "online quizzes" and one "specialized films".

We provide below (see Table No. 1) the results for question 3, presenting the rank obtained by each of the nine soft skills listed and, in brackets, the percentage of respondents that voted for them as needed further on:

Table No. 1 *Answers to Question 3 - rank//percent of respondents*

SKILL NO.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
RANK // % OF SAMPLE	6//24%	5//28%	7//12%	**3//42%**	**2//44%**	5//28%	8//2%	**1//50%**	4//34%

There was only one proposal for another soft skill than those in the table, viz. "social skills& public speaking" [sic!] with first year students, while the second year ones suggested:

- leadership skills - 1 answer;
- negotiation skills – 2 answers;
- practical real life applications – 1 answer;
- project management skills – 3 answers;
- social studies – etiquette and workplace behaviour – 2 answers;
- development of personal culture – 1 answer.

A discussion of data and preliminary conclusions

In the last section of our article we will analyze the feedback obtained from the processing of the questionnaire data and the draw some preliminary conclusions, as we consider that the stage described here is only one first step in our effort of implementing the teaching of soft skills in the curriculum of engineering universities.

There are two big trends that have become apparent: numerous respondents who answered NO to Q1c either:

- 34% list almost all the nine skills in the list under 1b as priorities they would like to get training in – which could be explained by an increased awareness of their need,
- or, in other cases, less numerous, though, 6% mention only 1 or 2 options under Q3, obviously as they do not perceive their need, which some of them mark by answers such as "not at all".

Another group, not so numerous, is represented by those already exposed to quite many soft skill training forms, and who answer Q3 as follows:

- 75% of those that considered them useful (on the scale indicated they pointed out mainly to values 3 and 4), opt for more or less the same skills – we believe this is due to the fact that their level of awareness of the importance of such skills has developed through the previous training,
- conversely, the remaining ones in this category, 25% of the respondents, estimate that their previous training was enough for them – we should perhaps go into details with some of them and discuss the training already received by them from a qualitative perspective, to check if that was influential on their answer.

As far as Q2 is concerned, it is interesting to note that top one in their favourite approaches/tools to soft skills training (a quite heterogeneous mixed list, we admit, but it was essential to keep the questionnaire short and respondent-friendly while

collecting as much information as we could!) was definitely a preference for independent/individual study. It is true, however, that the more familiar form of study under the guidance of a teacher/expert ranks second, but the not so familiar to the students 2C – "tutor-guided learning" got a surprisingly low score, not as low, though, as the one for 2G – "based on mechanisms of reflection", thus confirming the preference for a loose approach to developing one's soft skills repertoire. There were no marked differences in the answers of first (freshman) versus second (sophomore) year students; the latter merely added some, quite few in fact, experiences they had had during the first year, but the extremely low number of entries is one more illustration of the fact that they really did/do not get such professional training in the first year.

If we analyze the list of sources of soft skills training mentioned by the respondents, we can get confirmation of the fact that in our country in the previous years, i.e. after 2000 mainly, the students did not receive soft skills training, except for some counselling classes under the Psychology teacher's guidance or their participation in extra-curricular activities which gave them the opportunity to indirectly reflect on some soft skills connected aspects. None of these lasted longer than some sporadic hours, and the only mentions they make about some regular training extending over a longer period (one month/term) are related to foreign language skills in both secondary school and during the first faculty year (for sophomores)/term of the first year (for freshmen). We should note a possible correlation between a longer training form and a higher relevance value estimated for it (1d - 1e). Hence, we believe, the preference of quite many students (56%) for teacher-led training, which, though on the second place in the respondents' options, ranked well.

As to the support for the training, the results for 2E (32%) and 2F (22%) are quite close in rank, in a technical university where exposure to electronic based teaching is naturally high. It would be advisable, we think, to maintain the same proportion in terms of the tools used in delivering training, as far as the design and general principles we will base our soft skills teaching on in the future are concerned.

Some open conclusions can be drawn on the basis of the questionnaire results, which should be seen only as preliminary points we can make upon concluding this first stage, of investigating the students' viewpoints concerning their soft skills training needs.

Firstly, we believe that our students are open and interested in receiving such training, as many of them have not had (almost) any exposure to organized regular training in soft skills perceived as necessary, such as *personal development* or *stress management*, to name only some of the most relevant ones. They do not seem to be reluctant to making the effort of giving some of their study time to such an activity.

Secondly, we believe that the foreign language teachers in engineering universities, who can incorporate such training in the language class, with double benefit for the trainees, are those who should assume carrying out various forms of soft skills training, on the basis of a sound needs analysis. The training can be included at all three levels of organization in the university: bachelor, master and doctoral studies, with the necessary adjustments and shifts of focus. It is mandatory that they receive specialized training themselves, and an initial interest and personal study in the soft skills area chosen by each of them are requested. Teachers should harmonize their own preferences with the epoch and students' needs and accordingly design modular flexible courses and other forms of training, as well.

In the third place, the university management and curriculum developers should understand the pressing need for such training and identify the best solutions of integrating this type of interdisciplinary complex approach into the curriculum.

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