

The Possibilities and Type of the Collaboration Universities and Praxis and in the Europe

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Abstract: The collaboration between Universities and praxis is one of the important point in the education cycle. The students have opportunity to find new solution of their problems. In the light of future involvement of students in work at the industrial companies it seems almost inevitable for them to become familiarized with a daily work at these companies, not only through visits or through specialized lectures. In many cases, the students have a rather vague idea of "an usual working day" of employees at an industrial enterprise and the students ideas may greatly differ from the reality.

Moreover, based on our experience the utilization of measuring equipment used in a daily practice, not only at the University's laboratories seems very important and it offers our students to carry out the measurements on real power generation units. However, this fact brings problems in the connection with the organisation of the course of studies and employment at the industrial company.

However, the advantage for both sides was explained (the Department of Energetics and the other Departments of the Mechanical Faculty was successful with its efforts at several industrial companies) and the problem with safety of students at the enterprises has been solved and it is clearly shown that such preparations have contributed to a better involvement of students in practice, the period of acquirement of necessary training has required a shorter time even in situations when students have acquired a managerial post at a company.

The support of such collaboration art is very important for both – the Universities and praxis. There are a few possibilities to support this collaboration:

- support of praxis side
- support of universities side
- support of other organisation (national or international scholarship)

The presented paper will describe the possibilities and advantages and disadvantages for both partners.

Keywords: collaboration, support of student exchange, praxis

An option for prospective university co-operation is represented by students' study stays, students' practical placements and staff mobilities. Our Faculty of Mechanical Engineering, VSB-Technical University of Ostrava, has participated in a number of programmes in this area.

The collaboration between Universities and praxis is one of the important point in the education cycle. The students have to praxis week at their start on the Universities, but still is there problem, that all the praxis places are only at the national level and the students have no opportunity to speak foreign languages and get to know the other worktechniques.

There are a few possibilities to support this collaboration:

- support of praxis side

The people from the praxis offer for the students the stay at their firm. The praxis has the chance to choose the best students and follow their future study-activity. For the university is disadvantage that we don't know how many people would be by the praxis taken. On the other sides it is necessary to find the support money.

- support of universities side

The people from the universities find the contact to the praxis, offer for the students the stay at various firms. The praxis has the chance to choose the best students and follow their future study-activity. For the university is disadvantage that we don't know how many people would be by the praxis taken and their is necessary some coordinations partner. It is also necessary to find the support money.

- support of other organisation (national or international scholarship)

This is the best alternate. The praxis and the universities can plan their future collaboration by the project preparation.

One of the collaboration possibilities is the EU Project - Maria Curie Fellowships. This type of students stay at the praxis can have a different ways.

One way is to create the Maria Curie Training cities, which mean, the researcher team build a fixed stays for student from various countries and the student need to accept the call for this Centres. It is necessary, that the student write the intimate stay-plan on this centre. One disadvantages of this fellowshipstype is that this type of centres are only at 3 countries in the Europe.

At the time is in the evaluation the project for national research centre on the Technical university of Ostrava. In the whole Czech Republic should be 10 to 20 such research centres. Except the normally research work, should the centre work as the training centre for young researchers and students, but mainly at the national level.

In the future will be create a separate section of this centre for collaboration with the foreign countries and students.

The centre work at the various fields, e.g. energetics, sludge, environment, etc. Very important for the student is that at this centre work specialists, who speak foreign languages (German, English, Spanish, etc.), the communication with the others researchers and students will be very easy.

Very good experience are with the "between countries collaboration". At this type of stays will be supported the exchange of student at the specialised regions, e.g. Austria-Czech Republic, Germany-Czech Republic, etc. Our university has so art contact to various countries and the students came regular to the industry in the surrounding of the university and directly on the university.

And at the last we can not forgot the IAST worldwide student stays. This is the possibility for big among of students to go outside their homecountry. Our university has a lot experience with this type of stays, also the praxis. The students after their 6 to 8 week stay abroad return with a lot of experience and knowledge.

We find very interesting also the preparation of diplomawork abroad.

Concrete examples:

This part of paper would like to offer some comment on two of these, namely TEMPUS-EUC, M-JEP 11596, and SOCRATES/ERASMUS programmes.

It is the objective of the programme, TEMPUS-EUC, M-JEP 11596, to demonstrate compatibility of the credit systems developed by the Czech machine engineering Faculties with credit systems of EU countries, and also establish the fact of curricula compatibility. Last but not least, the objective of the enterprise was to provide evidence that the quality level of technical education in the Czech Republic is on a par with universities abroad.

In the framework of the TEMPUS-EUC, M-JEP 11596, 10 our students participated in ISV's in foreign countries and 2 students came from abroad to visit our University. One of these students worked here, in collaboration with BORCAD Inc., on his diploma thesis concerning the theme of information flow. The other student implemented the project on Finite Element Method utilisation.

An integral part of the whole initiative was staff mobilities.

Currently our Faculty of Mechanical Engineering, VSB-TUO, has been taking part in the programme SOCRATES/ERASMUS that facilitates mainly student and some staff inter-university exchange programmes. Within this programme, staff visits are short, usually a week, and they comprise about 8 lecture periods. By this date, 12 students went abroad on SOCRATES/ERASMUS programme. We assume 16 students will leave on this programme next year.

Both these projects have enabled mutual exchange of students and staff. Our experience with the implementation of them is as follows:

- The level of education of students from the Faculty of Mechanical Engineering, VSB-TUO, is on a par with universities of the analogical province. In some cases, their profundity is even superior. On the other hand, it is to be acknowledged that our students lack in some abilities, like team-work, reference and IT research, and have little experience with solving practical problems. They also have some difficulty with foreign language communication,
- Concerning the credit system evaluation, the full applicability of foreign study results at home institution has been demonstrated,
- These visits abroad develop not only technical but also social abilities of young people. The stays add to the development of their personalities.
- Staff mobilities made the expansion of R&D contacts possible. This mainly concerns the Fifth Framework Programme of EU.

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