

## **Enhancing the 'Internationalization at Home' Experience by organizing an International Week**

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## **INTRODUCTION**

Due to globalization of the world and European integration, an international aspect is indispensable when educating technical students [1]. The students must understand the international context of their profession and they must be prepared to work in an increasingly international society [2]. Therefore, the KHBO (Katholieke Hogeschool Brugge – Oostende; Catholic University College Bruges-Ostend) aims to introduce these international aspects to all its students.

Based on international exchange programs for academic teaching staff (outgoing and incoming teaching staff) and for students (outgoing and incoming Erasmus students) the international dimension is visible in the educational process. However, it is hard to motivate technical students to study abroad. Some students staying in Belgium have contacts with incoming Erasmus students and teaching staff coming from abroad. However, this is not the case for all the students.

From a financial point of view, offering an Erasmus exchange to all students is not realistic. The present economical and financial crisis in Europe and in the entire world limits the financial resources available to include international aspects in the educational process.

In order to provide *all* students with an international experience, the department has been organizing an annual international day since the academic year 2008-2009. This international day is organized for the professionally oriented technical bachelors

and for the engineering students. This international day mainly encourages students to go abroad within the scope of an Erasmus program during the last year of study.

The experiences built up with these international days activated teaching staff at KHBO to organize an international week in March 2012, and this for the first time. This international week had two main goals: to encourage students to go abroad as Erasmus students and to provide *all* students with an international experience, especially those students not going abroad as Erasmus students [3].

Motivated by the positive results of this event in March 2012, teaching staff decided to organize such an international week every two to three years. This implies that all the students following the regular curriculum will take part in at least one international week during their student days.

## **1 INTERNATIONALIZATION AS A DAILY CONCERN**

Probably the most well-known and applied approach to provide students with the opportunity to study abroad, and to give them an advanced international experience, is the Erasmus exchange program. However, it is quite difficult to motivate technical Flemish students to study abroad. On average only 9 % of the technical students of KHBO is going abroad whereas approximately 20 % of the students studying aviation technology leaves for abroad. This higher number is linked with the very international aviation sector. However, when considering students studying electronics-ICT, energy, electro-mechanics, chemistry, plastics and construction technology only 7 % of the students is going abroad.

Therefore, it is important to provide an international experience to the large number of students staying at home. To obtain this goal, an integrative approach consisting of several initiatives has been developed:

- Incoming foreign Erasmus students are following a number of regular courses (given in English) together with the local Belgian students. These courses include theoretical courses, practical laboratory sessions and even project work. The human interactions during the courses are often the foundation for private multicultural friendships between Belgian and foreign students.
- Foreign professors visiting KHBO give a course or presentation to the local students. These presentations can be purely technical but can also cover more general topics (e.g. provide first hand information about their country).
- Course material originating from international curriculums [4] are integrated in the regular curriculum of the local Belgian students.
- If possible, the local students realize a technical project work in collaboration with a foreign partner (e.g. second year engineering students realizing a small scale hydro project in Tanus – region Midi-Pyrénées in France).
- Sometimes students realize an internship in a multinational company in a foreign country as a part of their final project. Similarly, the Flemish engineering association (VIK) gives information to the students concerning international internships once they finished their study program.

Although these initiatives provide an international experience to a number of students beyond that of the outgoing Erasmus students, still not all the students are reached. Based on this finding, the department has decided to organize an international day each year.

## 2 A YEARLY BASED INTERNATIONAL DAY

Since the academic year 2008-2009, an annual international day has been organized mid March. Hereby, the involved teaching staff focused on two main objectives: to provide an international experience to *all* the students, to increase the number of outgoing Erasmus students by informing them about the possibilities to go abroad.

In reality, this second goal is very important. Since KHBO students are realizing their Erasmus exchange program in the last year of their study, the international day is organized in the penultimate year of their study which is just in time to stimulate an Erasmus exchange. The international day contains a number of activities:

- Information concerning all the aspects related to an Erasmus exchange is provided to the students.
- In the practical sessions, supervised by a member of the teaching staff, the students discuss the advantages – and possible disadvantages – of an Erasmus exchange.
- A plenary session with the local Belgian students, some incoming Erasmus students, some graduated students who performed an Erasmus exchange before and the KHBO students studying abroad (using Skype connections) is organized. All the participants of this plenary session reflect on the ideas and the statements emerging from the practical sessions.
- During a reception event, the teaching staff – familiar with the international partners of KHBO – gives information about these international partners to the interested students.

These international days profoundly inform all students implying that every student in the last year of his or her study knows about the possibilities to study abroad. An examination of the effect of this intervention reveals an increased number of outgoing Erasmus students as demonstrated by the data in Table 1.

*Table 1.* Evolution of the number of outgoing Erasmus students

	Number of outgoing Erasmus students	Total number of last year students	Participation ratio to the Erasmus program
2007-2008	15	174	8.6 %
2008-2009	11	163	6.8 %
2009-2010	18	164	11.0 %
2010-2011	18	178	10.1 %
2011-2012	10	150	6.7 %
2012-2013	15	167	9.0 %

As Table 1 indicates, the international day indeed increases the number of outgoing Erasmus students. This implies that it is useful to organize such annual international days in the future. However, there are two important considerations:

- The positive effect of an international day - although yearly organized – on the number of outgoing students is not sustainable. This means that new initiatives are continuously needed.
- The participation ratio of the students remains rather small. This finding confirms existing research results [1]. Motivating technical students, mainly male students, to go abroad is much more difficult than motivating students studying humanities and social science (including languages or arts). This

underlines the importance and necessity of the internationalization at home concept.

The conclusions from these findings are applied immediately and further monitored by means of a mixed-method action research. Both the teaching staff and the students were involved in the new interventions described below.

### **3 INTERNATIONAL WEEK ORGANIZED BY THE TEACHING STAFF**

For the first time, an international week was organized in March 2012 “at home” i.e. the Department of Industrial Sciences and Technology of the KHBO. Similar to the annual international days mentioned before, the two main goals of this week are: to provide an international experience to all the students and to increase the number of outgoing Erasmus students by informing them about the possibilities to go abroad.

The aspect of giving information about the possibilities to go abroad and about the Erasmus program, was worked out in the same way as it was in the previous international days. This information is mainly oriented to the students in the penultimate year of their study. However, the aspect of reaching all the students (even the students which are not yet in the penultimate year of their study and the students who are not interested in studying abroad) is very essential. To reach this goal, quite a large number of Belgian and foreign speakers has been invited. This allowed the organization of a wide range of sessions which are all given in English:

- A Belgian external expert in political sciences and European policy has been invited to talk about the European integration and initiate the students into this non-familiar topic. The present students all have different technical specialties and/or are still in an early stage of their educational process.
- A number of speakers gave technical sessions appealing to a broad technical public without requiring specialized technical knowledge (e.g. the Solar Impulse which is an airplane fed by photovoltaic cells, the Bloodhound SuperSonic Car). These speakers addressed large audiences of students.
- Quite a few speakers gave technical sessions which were semi-specialized (e.g. the use of electrical cars and their impact on the electrical grid) or which were really specialized and were attended by smaller groups of students in the last year of their study (e.g. paper production in Finland, simulation of fluted mixers in extrusion technology).
- Some sessions are offered by KHBO teaching staff, based on their own international experiences (e.g. experiences within the scope of the exchange programs with China being an important future partner).
- A number of speakers, employed by multinational companies, did not have an academic but an industrial background.

The conscious choice for a broad diversity of topics allows this program to cover the four main missions of the career competency profile of an engineer [5]:

- technical competence (empirical engineering),
- scientific competence (science being a part of technology),
- managerial experience,
- social perception and international vision (global financial, commercial and production activities in combination with familiarity with foreign cultures).

Moreover, the broad diversity of the sessions also allows all the student groups to attend a few sessions which are adapted to their prior knowledge and their (technical) interests. By this approach, the students reach the following goals:

- Being aware of the importance of international contacts and international collaboration and being prepared to work in an international context.
- Improving the English language skills required to communicate in an international context.
- Getting in touch with technical challenges and increasing the motivation to study technology.
- Getting in touch with specialized technical subjects relevant in the specialty of the student group.

#### **4 INTERNATIONAL PROJECT WEEK ORGANIZED BY THE STUDENTS**

In collaboration with the KHBO teaching staff organizing the international week, EUROAVIA students (European Association of Aerospace Students) simultaneously organized an international project week on their own. About 20 students from all over Europe joined the aviation students of the KHBO.

This international project week organized by the students has several goals: to meet new people studying aviation technology, to discover European cities and learn more about European culture, to obtain a solid technical training. In order to obtain the technical goals, the students integrated a range of activities:

- The students partially joined the international week organized by the teaching staff (e.g. the presentations about the Solar Impulse and the Bloodhound SuperSonic Car).
- The students attended a lecture, given by the local head of aviation technology, concerning the flying wings of an airplane. This lecture was an introduction to the project work realized by the students during the week.
- The participating students were divided into two groups who develop, design and build their own flying wing UAV. These student groups were supported by two experienced engineers.
- The designs allowed the two teams to compete with each other. The student group constructing the flying wing UAV with the longest range won the competition. Finally, the experiences and know-how of both teams were joined by power-point presentations.

By combining these technical activities with a number of gastronomic, cultural and touristic activities, all participating students created several opportunities to cooperate in the future. Moreover, by organizing this international week, the organizing students also gained a number of additional skills:

- They cooperated with the teaching staff of KHBO to combine their own international project week with the activities organized by the teaching staff.
- They organized and scheduled their own program requiring international contacts within the EUROAVIA organization.
- They managed technical, gastronomic and cultural activities including catering and accommodation for the incoming students.

- In order to finance the international project week, they had to contact industrial and academic partners for sponsorship.

## **5 EVALUATION OF THE INTERNATIONAL WEEK BY THE TEACHING STAFF**

At the end of the international week, a semi-structured interview has been organized that allowed the incoming teaching staff the time to talk about their opinions on different aspects of the international week. The main conclusions of the answered open-ended questions are:

- The week has been well organized; the welcome was appreciated.
- The incoming teaching staff is more familiar with the Department of Industrial Sciences and Technology of KHBO. This increases the opportunities for future collaboration (exchanging Erasmus students, developing joint curriculum programs, performing research activities).
- The incoming teaching staff enjoyed the easily accessible contact with the local KHBO students, KHBO teaching staff and other incoming teaching staff.

Based on a focus group, the opinions of the local organizing teaching staff have been investigated. The main conclusions are:

- The contacts with the incoming teaching staff encourages collaboration rather on research activities than on education activities.
- It is certainly useful to organize similar international weeks in the future and it might be useful to involve a larger number of local colleagues.

## **6 EVALUATION OF THE INTERNATIONAL WEEK BY THE STUDENTS**

A self-designed online questionnaire has been offered to all the participating students. Three variables of data, i.e. the respondent's point of view, the type of education and the year of study, were collected. In particular, based on six short opinion statements, the appreciation of the international week and the attitude towards internationalization has been investigated. The statements are:

- 1: The international week convinced me of the usefulness of an Erasmus exchange.
- 2: The week provided relevant information concerning Erasmus exchanges.
- 3: The week was an added value in my educational process from a technical point of view.
- 4: The week was an added value in my educational process from a linguistic point of view (to learn English).
- 5: The week learned me international collaboration is important.
- 6: It is useful to organize similar international weeks in the future.

In order to obtain an adequate dispersion of the data, a bipolar seven-point Likert scale was used in the online questionnaire. At the end, an open-ended question asking for proposals to improve the concept, was added.

### **6.1 Feedback from Erasmus students**

A number of outgoing professional and academic Erasmus students (roughly 25%) indicates that they are really triggered by the international week to go abroad. Indeed, particular initiatives like an international day or an international week boost the number of outgoing students. Although the international week provides the students some practical information concerning an outgoing Erasmus exchange, other sources of information remain necessary:

- information sessions during the first and the second semester of the penultimate year of their study,
- personal contacts with the local teaching staff coaching the outgoing exchanges and the students,
- especially the outgoing professional Erasmus students ask to provide additional information concerning the Erasmus exchanges itself and the bilateral contacts of KHBO.

The academic Erasmus students do not emphasize the contribution of the international week to their technical and linguistic knowledge but especially the professional Erasmus students experience the international week as an opportunity to gain additional technical knowledge and to become (more) familiar with the use of English as a “lingua franca”.

The great majority of the outgoing Erasmus students (professional as well as academic) indicate that the international week underlines the need for international collaboration. Moreover, they find it useful to organize similar international weeks in the future (especially the professional Erasmus students are very enthusiastic).

## 6.2 Feedback from students staying at home

The results of the inquiry among students who do not study abroad differ from group to group. There are differences between professional and academic students but also the year of study has a large impact on the student opinions. Table 2 visualizes the student ratio (in terms of percentage) which agrees with the statements (124 of approximately 350 participating students filled in the questionnaire).

*Table 2. Appreciation of the international week among students staying at home*

	1 <sup>st</sup> prof. bach.	2 <sup>nd</sup> prof. bach.	3 <sup>rd</sup> prof. bach.	2 <sup>nd</sup> acad. bach.	3 <sup>rd</sup> acad. bach.
Statement 1	47%	70%	46%	41%	47%
Statement 2	42%	65%	46%	50%	55%
Statement 3	21%	35%	15%	15%	31%
Statement 4	33%	30%	62%	36%	36%
Statement 5	50%	80%	54%	77%	73%
Statement 6	56%	85%	54%	65%	59%

As is the case with the Erasmus students, especially the professional bachelor students are positive towards the international week. Taking group loyalty into account, it is important to convince a large number of the students (also the students who do not want to study abroad) of the usefulness of an Erasmus exchange. The group loyalty might encourage or discourage internationally interested students to go abroad or not.

The general information concerning Erasmus exchanges, already provided during the international week, might be supplemented with additional information concerning Erasmus exchanges and the bilateral contacts of the KHBO. In the future, this will be an additional initiative parallel with the reception event which will be open to all interested students (during the international days/weeks).

In general, students have the impression the added value of the international week to their technical knowledge and linguistic experience is rather limited. The statement of a student “Give more international companies a chance.” in mind, it can be useful to

look for a larger number of sessions which are closely related to the regular technical program and which can be integrated in the regular courses.

It is an encouraging finding that the vast majority of the students states that: the international week learned them international collaboration is important, it is useful to organize similar international weeks in the future.

## 7 SUMMARY AND ACKNOWLEDGMENTS

Internationalization of the higher educational system is generally based on international mobility, multi-culturalism and networking [6] which are integrated in an international week. By organizing an international week, *all* technical students of the Catholic University College Bruges-Ostend experienced the benefits of international collaboration from a scientific, technical and social point of view. This international experience at home – partially organized by the teaching staff and partially organized by the students themselves – activated the student and teaching staff mobility. Moreover, the initiative increases trust, personal contacts and knowledge sharing inside the European Union and even further abroad.

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