

## **Challenges to consider in the planning of cross-cultural and interdisciplinary courses integrated at Danish Universities: Diversity, Learning Style and Culture**

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The *Erasmus Mundus Programme 2009-2013* is an incentive initiated by the European Commission to enhance and promote European higher education throughout the world (Executive Agency of Education, Audiovisual & Culture; 2010). This should be achieved by the establishment of joint programmes of “outstanding academic quality” which are designed and implemented by a consortium of European universities from at least three different countries. However, such consortia may also include universities from other parts of the world and the fellowships are open to higher education students and academics from all over the world. The programmes include study and research periods, in at least two universities and the students will be awarded their degrees by at least two universities in form of double, multiple or joint degrees. *Food of Life* is a new *Erasmus Mundus* course, which was recently established at the Faculty of Life Science in collaboration with the universities of Helsinki, Barcelona, and Uppsala. The admission criteria for the students include a good first university within one of the following disciplines: animal science, food science or technology or other biological sciences as well as a high proficiency in English (KU-LIFE; 2010).

From a teacher’s perspective, it is already very challenging to run successfully an international course and/or interdisciplinary course. However, in this case, the situation is getting even more complicated as the students will be integrated in already existing course and be taught together with Danish students, which are neither participating in the *Erasmus Mundus* Programme nor being probably aware of the existing programme. Already

in the past, a number of Danish students have been complaining about their international fellow students based on the allegation that the international students would decrease the academic level of the courses. In the extreme, they refused to work in groups with international students, because the international students would decrease their chances to achieve high grades during the examination. It is well known, among students and teachers, that the high pass rate is lower for international students. Nevertheless, from former interviews with international students, we know that they enjoyed their stay in the Danish education system. Many of them did not consider their performance as lower or regarded the academic level as higher. Obviously, there are large differences in the learning styles culture, and these may not only exist between different nationalities but also between different study areas. In the past the foreign students had a status as guest students at the Faculty of Life Science and their experiences with a different learning culture was also an intended learning outcome of their stay (EU, 2010). In case of the *Erasmus Mundus* programme, the courses are by definition cross-cultural and inter disciplinary courses and are supposed to result in an outstanding academic quality. Though the *Erasmus Mundus* programme also allows for international staff exchange, currently the majority of the teachers involved are Danish and have neither had a former training in cross cultural communication and education nor have they been studying abroad.

Against this background, the project is aiming to explore the main cultural components in learning and/ or teaching style used in the Food Science education at the Faculty of Life Science, University of Copenhagen.

## Methodology

In a first step, interviews with master and PhD students of different cultural backgrounds were performed about their points of view concerning differences in teaching and learning concepts between their home countries and Denmark. None of them has a former degree from the University of Copenhagen. A total of 7 students, of Chinese, Ethiopian, French, Belgium, Polish and German background, were interviewed in individual or group interviews. The interviews took place in block III and IV. The students have been chosen from different courses taught by the Department of Food Science. The form of the interviews was an open dialogue around the following central questions:

- “What characterises a *good* student?”

- “What is *good* teaching? What makes a teacher a *good* teacher?”
- “What types of examinations are used in your home countries?”
- “What are the major differences in teaching between your home country and Denmark?”
- “How do you get on the Danish system? How would you evaluate your own performance?”
- “How is the interaction with the other students?”

In addition to the students, three Danish teachers, one Swedish teacher and one German teacher were interviewed during block and III and IV about their experiences in teaching an international classroom. Also in this case the interviews were performed as an open dialogue around the following questions:

- “What characterises a good student?”
- “What are the major differences between Danish students and international students?”
- “How is the expected performance of the international students?”
- “What is unique in Danish Way of teaching?”
- “What are the major challenges in a cross cultural classroom?”

After the examinations another enquiry about possible new insights gained by the teachers due to differences in the expected and real performance of Danish and international students did find place.

As each of the interviews lasted several hours, only a summary of the answers will be given.

## **The students’ view**

The evaluation of a student performance is strongly influenced by cultural differences. While in Western European countries the ability of critical thinking is very important, it was not mentioned by the Polish, Ethiopian or Chinese students. All students were in accord that a *good* student has profound knowledge of the subject matter. An interesting discussion arose during one interview around the attribute “hard-working”. While the Chinese student considered the term as “a must” for a good students, it was strongly pointed out by the French and Belgium student that a “good student” is the one, who does not have to be “hard-working” as he or she is bright enough to filter the important information from the unimportant and

can consequently achieve a high pass examination with less effort. The European students point out that there might be a large difference between the recognition through the fellow students and the actually achieved grades during the examinations.

*Good* teaching was in general considered as well structured and prepared lecturing. Also the access to presentations and other teaching material is highly appreciated. In most countries, the teaching is solely build upon around available books or a compendium. All students want their teachers to listen more carefully and be more open to the student comments. The Chinese student pointed out that a *good* teacher should also be friendly. No student mentioned any deeper levels of learning as a requirement for *good* teaching, but the Chinese student points out that it is important that the teacher is scientifically up to date. The evaluation of the teacher by the students at the end of the course is not used in any other country and the Danish system is highly appreciated by all students.

In most countries written examination are used for student evaluations. This can be in form of an individual written project or a catalogue of different questions and calculations. The students prepare themselves by a list of problems mostly handed out by their teachers or older fellow students. No international student had any former experience with group work being included in an evaluation.

When the students were asked to compare the Danish education with the education in their respective home countries, almost all students find that at home

- more emphasis is placed on listening than speaking in learning
- less interaction occur between teachers and students
- while interacting, the communication from the student to the teacher is much more carefully due to the more hierarchically society
- repetition are used much stronger as means of learning
- but also more unity between knowing and doing
- the internet is rarely used in teaching
- less group work and never group work under evaluation

Large differences existed between the interviewed students with respect to their experience in group work, laboratory practise and report writing depending on their cultural or professional origin. For example students, which had a more technical oriented background, have more practise in laboratory work than students with a background in animal sciences. However, all students agreed that in their home countries only little emphasis is placed on the formal requirements in reporting: “Content is more important

than form". In general, the students felt that they had no problems to follow the Danish courses, though some thought that the Danish students had a better specific knowledge of the different food production systems.

The international students have very good contact between almost all cultural backgrounds - but miss contact to Danish students. They perceive the Danish students as not open and helpful. Cross cultural group work are normally formed only between international students. The teacher's initiative is required, if Danish and international students should work together. However, two students pointed out that in case of such group, the teacher should be aware of creating groups with more than one international student or more than one Danish student as they only work successfully, when no one is representing a minority.

## The teachers view

The Danish teachers characterise a good student as a student who can think individually - while the German and Swedish teacher also request profound knowledge of the subject. "*Danish students are raised in thinking*" said one of the Danish teacher in the interview. The same skill is often missed in foreign students.

It can be summarized that teachers perceive Danish students in comparison to the majority of the foreign guest students as

- are more active in classes
- better in working in the laboratory
- better in thinking towards projects
- have less problems in "problem specification"
- write formally better reports
- are much more willing to discuss
- have less theoretical knowledge

The Danish Food Science education is unique in the strong use of group work and the strong training in thinking in forms of projects. Almost all courses include project work, which seems to play only a minor role in most foreign education. Also teacher agree, that the students experience in working in pilot plants and laboratories vary a lot, depending on their cultural and disciplinary background. A major problem is the disability to specify problems in project work. Regardless of the cultural origin, they expect that the teacher will define the problem for the project work.

With respect to the expected academic performance of the international students, the Danish teachers view is in accordance with the Danish students. Also they feel that the learning outcome in international courses is reduced compared to Danish courses. Almost the opposite view is taken by the international faculty members, which perceive the presence of the international students as a gain. Their argument is that international students are more open and more interested in learning compared to the Danish students. They also appreciated the background knowledge in basic sciences of the international students. All teachers agree that the students cannot be put in boxes according to their cultural background as in all cultures *good* individual students and *bad* students can be found. However, they also feel that Western European students from Nordic Countries, Germany, Holland and France easier adjust to the Danish teaching style than students from Eastern European countries, Africa or Asia.

Courses with international students are looked at as being much more demanding for the teachers as many more rules have to be explained. More effort has to be placed in making up for the differences in background knowledge and practical as well as theoretical skills of the different students.

All courses considered in this project were evaluated in form of a portfolio examination based on a project report and an oral examination related the project and general course content. The interview after the examination confirmed the expectation that in case of the Danish teachers the foreign students performed worse than the Danish students. Some of the foreign students protested against their assessments as they felt unfairly treated by the teachers. The opposite was the case in the course where the two international teachers were teaching and participating in the examination. Here, all students independently of the cultural background achieved the same level, however, based on different arguments. Interestingly, this result led to heavy protest from the Danish students who perceived their evaluation as to low when the foreign students could achieve the same results. However, in the following dialogues between the students and the teacher each student could agree to the grade given them, when their individual strength and weakness were discussed.

All teachers, independent of their cultural or disciplinary background, felt that the situation was very unsatisfactory and that the diversity in learning and teaching culture is creating much larger problems than anticipated. Despite of international students, which fail courses due to a lack of interest

in academic learning abroad, also *good* students, which are thought to be intelligent and knowledgeable, do not achieve the high grades.

## Conclusions

In a time, where economic markets and political systems are increasingly affected by globalisation and internalisation, cross cultural and multidisciplinary education approaches become highly demanded by the authorities in order to ensure successful collaboration and communication between individuals and societies. This need is reflected in the *Erasmus Mundus* Programme 2009-2013. However, while the theoretical demand for a cross-cultural education can be easily seen, the practical implementation is rather challenging. Already the presence of international guest students is disturbing the routine in teaching and can create an environment, where students and teachers might not be satisfied with the learning outcomes. Those difficulties are manifested in the results of the student examinations. Running cross-cultural courses of an “outstanding academic quality” might require a very thorough preparation and in depth awareness of national peculiarities.

If a teacher is to facilitate successful learning opportunities for all students, he or she must know the students. This includes knowing about the innate personality and also learned cultural values that affect behavior. The learner is a product of “nature and nurture”. The cultural background also affects the way individuals of different cultures interact. It became clear from the interviews that also the evaluation of the student performance is not free of cultural beliefs, attitudes and values. As it seems impossible to me to know all the cultural characteristics, I find it important that teacher of intercultural courses develop a critical awareness of themselves and their values, as well as those of other people in order to improve their teaching. This is necessary as the knowledge of the student’s culture and learning style can help teachers to examine their own teaching practices and to become sensitive to providing diverse learning experiences. Intentional instructional diversity will be good for students from all backgrounds as all students at the end benefit from instructions given to certain students. With respect to the examinations of cross-cultural students, teachers need to be conscientiously of the fact that they tend to teach the way they way they were taught to learn. Considering that culture shapes learning style, there is a considerable risk that students who share a teacher’s ethnic background will be favored.

## Some practical suggestions for improvements

International students, which come from learning environments with very little emphasis on student activities and encouragement of critical thinking, will need some time to adjust to the Danish learning environment and to understand what is expected of them in Denmark. Especially, here group assignments with Danish students could theoretically be very helpful – if not the Danish students would be as unhappy about the collaboration with international students as they are. This might be explained by the fact that group work under those circumstances is challenging Danish students on many different levels as the majority of international students has had little experience with group work and do therefore not know how to work successfully in group assignments. This is where teachers really have to step in and to help the groups to recognize, develop, and apply critical teamwork skills.

In all newly formed groups with members which have no prior experience together, the largest problem is to begin to orchestrate work. This process may require considerably more structure and guidance about group processes than many teacher anticipate. By providing students with structure, teachers can help them to recognize, develop, and apply critical teamwork skills. This might include

- require students to submit a project proposal and timeline
- assign roles within groups or require students to
- set interim deadlines
- suggest ways for students to coordinate their schedules
- provide ways for group members to communicate with one another and the supervisor

Though assignments should always be clearly communicated, in a cross cultural context it becomes even more important that the objectives of the assignment are without a doubt communicated. The tasks have to be explicitly defined, the expectations have to be clarified, the performance criteria have to be communicated and even a model for high-quality work could be given. The same is true for the examination situation and might not only help the students to understand what is expected from them, but also remind the teacher what his/her own expectations of the students are. Therefore, I would suggest that examiners write down their evaluation criteria before the actual examinations. This might provide some protection for cultural bias.

All contributions to this volume can be found at:

[http://www.ind.ku.dk/publikationer/up\\_projekter/2009-2-1/](http://www.ind.ku.dk/publikationer/up_projekter/2009-2-1/)

The bibliography can be found at:

[http://www.ind.ku.dk/publikationer/up\\_projekter/kapitler/2009\\_vol2\\_nr1\\_bibliography.pdf/](http://www.ind.ku.dk/publikationer/up_projekter/kapitler/2009_vol2_nr1_bibliography.pdf/)