

English as a language of instruction from year one – why and how.

Rolf Larsson

Department of Water Resources Engineering, LTH/Lund University

Rolf.Larsson@tvrl.lth.se

Lotty Larson

Centre for Educational Development, Lund University

Lotty.Larson@ced.lu.se

Sara Håkansson

Centre for Languages and Literature, Lund University

Sara.Hakansson@englund.lu.se

Abstract

English has been introduced as the language of instruction in six courses during the first three years of the Environmental Engineering programme at LTH/Lund University. The main purpose of the language switch is to make the graduates more attractive in the job market. In order to support the students and the teachers in their learning /teaching a pedagogical support project has been initiated. During the project several web-based modules with language elements, but with a clear focus on student learning, have been developed. The project is still ongoing, but the aim is to make learning through English an integrated, sustainable part of the Environmental Engineering programme, which can function efficiently within the normal economical and pedagogical framework.

Introduction

The Environmental Engineering (W) programme at LTH/Lund University uses English as the language of instruction in six courses - corresponding to 71.5 ECTS credits – of the mandatory syllabus during its first three years. The main objective for using English is to make the graduates of the programme more competitive on the job market. The change from a completely Swedish-taught programme to a bilingual one started in the fall of 2006 and will be fully implemented in the spring of 2009.

The programme is five years long and during the final two years of the programme, which correspond to a Master's programme, the students choose their individual field of specialisation. In these two final years practically all students will have some courses given in English, while those who do Water Resources Management take all their courses in English in a class-room environment dominated by non-Swedish speaking students.

Motives for English

There are many reasons for making the programme more international in character:

1. **Swedish corporations** – and other organisations – are increasingly active in the international arena. Internationalisation is therefore a way of increasing our graduates' employability in Sweden.
2. Internationalisation also increases employability vis-a-vis **international corporations** and other international organisations.

3. **Knowledge and information** is generated globally. Engineers must be able to retrieve and make use of such information. Internationalisation is a way of improving these generic skills.
4. Internationalisation is **stimulating** in a general way. In the same way as a good physical environment promotes good learning and creativity, internationalisation promotes an inspiring setting. .
5. Most of the important **environmental issues** are international in character. Examples are: climate change, chemicals (cf. EU REACH), water (cf. EU Water Framework Directive). Internationalisation increases understanding of the international aspects of these issues.

Internationalisation is carried out by means of several different types of activities. However, offering courses in English is a prerequisite for many such activities, e.g. student exchange and teacher exchange. Furthermore, using English as a language of instruction is a way for students to practice using English as a tool for communication. It is also necessary to promote other languages than English but the main focus is on English.

Support

Already in the process leading up to the decision to ‘go English’ it became apparent that extra support was a necessary component for both students and teachers in order for the switch to have a chance of being successful. A lot of worries were expressed by the students who were already in the system and who would not be directly affected.

Most of the questions with regard to the change – both from students and from teachers – were focused specifically on the language as such. However, the programme management decided that it was absolutely essential to keep a steady focus on student learning and to integrate pedagogical support with language support.

The implementation of English as a language of instruction is therefore supported through an educational project called “Support for English in Education” (SEE) carried out by Centre for Educational Development (CED) in close collaboration with the Centre for Languages and Literature, both at Lund University.

All planning and development of the project is done in cooperation with teachers, students and the programme management. The purpose of SEE is to support both teachers and students in the process of switching their language of instruction/learning. The SEE contains different elements which are described in this paper.

Language policy

LTH, the Engineering Faculty of Lund University, is in the process of adopting a language policy. At the programme level, Environmental Engineering has recognised the need for a policy in order to establish a set of “common rules” for the classes given in English. One reason for doing so is that uncertainty regarding the rules has been one of the major causes of friction surrounding teaching/learning through English. Issues raised, concern, for example, when/if it is allowed to use Swedish in English-taught classes. The language policy is formulated so as to clarify these matters and in a way that ensures progression towards a more strict usage of English during the first three years of the programme.

The Modules

In a study on a number of physics students’ experiences of learning through English, John Airey and Cedric Linder (2006) show that, in comparison with Swedish-taught lectures, students asked and answered fewer questions in class and focused more on note-taking than

on actual content understanding. In effect their learning success in English-taught lectures depended on how much extra work they were willing and able to do outside class. Surprisingly, the students themselves experienced no difference of experiences between English- and Swedish taught lectures.

In view of Airey's and Linder's research and taking some of their advice on board, the first line of action regarding language support on this programme was to create student awareness as to the differences and challenges which may be constituted by learning through a foreign language. Therefore, the first year students were required to fill in a questionnaire which asked them to reflect on their own learning in relation to the language of instruction.

The results of the questionnaire showed that while students were generally fairly confident about reading and listening comprehension, a majority listed writing proficiencies, vocabulary and speaking English in front of an audience as particularly challenging. The results of the questionnaire constitute the basis for the design of the language support. However, it was important to not only focus on linguistic support but to persistently keep this support firmly connected to students' awareness and understanding of their own learning. The combined importance of these two areas resulted in a number of support modules listed below. Inspired by the concepts of learning networks and networked learning (Goodyear et al., 2005) where IT is used to support learning interaction between students and their tutors, the modules are a combination of instructions, feedback and IT-facilities.

Module 1. Study skills

It is important that students have an awareness of their own study skills as well as how study skills and techniques may have to adjust to altered teaching and learning circumstances. A platform which discusses study skills and learning styles was therefore designed so that students not only could identify their own way of learning, but also opened their eyes to alternative learning styles. Additionally, the students were shown the results of the Challenge Analysis questionnaire and got the opportunity to see an online lecture on teaching and learning through a foreign language.

Module 2. Academic Writing and Feedback

Several students in year one come straight from upper-secondary school and have little or no training in writing university level papers or project reports, let alone writing them in English. A majority listed writing proficiency to be an area by which they felt intimidated, for which reason it seemed reasonable to focus on giving students some basic tools and guidelines for writing in English as well as providing support in the process of writing. The students were therefore offered a lecture on academic writing before entering onto writing their first major project report. This project report was then submitted in its draft stages to a linguistic surveyor who provided them with feedback on language as well as pointed them in the right direction regarding further linguistic support in the form of text resources.

Module 3. WikiW

The idea for a *wiki* for words and concepts grew out of meetings with student representatives and teachers in the first two groups, as a way of dealing with the experiences they had of words, phrases and key concepts in course literature and in lectures being practically irretrievable in dictionaries and impossible to translate into Swedish corresponding words. Also 96,7% of this year's freshmen expressed a worry in their initial questionnaire as to the challenge which they believed vocabulary would constitute. Inspired by Lally and Barret (1999) who claims that learning develops through online communication in a net-based community of practise and by the concepts *learning networks* and *networked learning*

(Goodyear et al., 2005) where IT is used to support learning interaction between students, we developed *wikiW*.

The purpose of the *wikiW* is an interactive and flexible learning resource through which the students can formulate their questions and interpretations of words/concepts, reflect on what peers and teachers have written and to offer their own commentary. The interaction formed in this *wikiW* is focused on content, subject and tasks which according to Du and Li (2005) is of great value for the development of student learning. Therefore, *wikiW* has the potential of serving as a repository for student contributions on understanding and meaning on course concepts and words. As a *wiki* keeps all versions of submitted texts, students can access contents which reflect how understanding and meaning has gradually emerged. Accordingly, the students create some common *tertiary courseware* (Fowler & Mayes, 1999) to facilitate understanding and learning where they are exposed to a *multitude of voices* (Dysthe, 2002)) discussing, arguing and reflecting which according to Dysthe qualitatively contributes to student learning and development.

Discussion

Student response

In the autumn of 2008 English has been a language of instruction on the programme for two years, which means that students who started the programme when the language switch was first implemented in 2006 are now in their third year of studies. As we have not come full circle with these students quite yet it is still a bit early to say what the results of studying through English have been for them.

However, an initial and very unscientific understanding tells us that students find learning through English gradually easier the more exposure they get. This understanding is verified by Renate Klaassen's study (2001) on Dutch engineering students which noticed negative effects on learning when the medium of instruction was in English, but that these effects gradually disappeared after approximately six months' exposure. Although expressing dissatisfaction with aspects pertaining to the language of instruction, such as inconsistencies in application, the second-year students expressed a feeling of having become considerably better at understanding and working through English medium instruction when asked.

Hiccups and discontent seemed to focus on questions regarding language policy and consistency rather than individual learning. Indeed the students themselves seemed more comfortable with listening to and speaking English in an all-Swedish environment than many teachers were. In commentary students emphasised the importance of sticking to a stringent policy when implementing English and expressed irritation when teachers reflected inconsistent attitudes and expectations regarding language usage.

Teacher response

Before any decisions were taken on the implementation of English language instruction on the programme, discussions were held with all teachers. These discussions, which spanned an extended period of time, resulted in resolving to make the programme bilingual in the sense that half of the credits for the first three years of the programme would be through English and the other half would be through Swedish. This was a compromise which captured the enthusiasm of those teachers who were positive towards the language switch, but at the same time prevented those teachers who felt uncomfortable or negative towards such a change from being forced to teach through English. The courses which would be held in English were, thus, simply selected on the basis of which teachers were positively inclined to the change.

Although enthusiastic about the language switch, several teachers expressed concern with regard to the quality of teaching and learning. The greatest worry concerned student participation, where teachers feared that students would be more passive in class than compared to when taught through Swedish. Indeed, research shows that decreased active participation in class in fact is one of the effects of courses taught through a foreign language, but that this effect diminishes with time (Klaassen, 2001). However, after two years of teaching on the programme, teachers claim that student participation in class rather depends on the dynamics of the different student groups as they can detect no direct correlation between language of instruction and student participation in class.

With regard to the linguistic support offered to students it has been important to be clear on the fact that this does not constitute an added dimension of assessment, but that the support is offered as a resource. Thus, the leading principle is to facilitate student learning by gradually filing smooth the possible barrier that English as a medium of instructions can constitute. In Jude Carroll's words the aim is 'to lighten students' language load' and to 'free up thinking space' for subject content (2005).

Next step

At the end of the spring semester in 2009 the change to English will be fully implemented. What is then the next step – what remains to be done? The main challenge is to switch to a fixed situation, i.e. the programme and the courses given in English must be able to support the special needs of students learning in an English language environment without the support from the educational project. The development and implementation of various web-based modules within the project is clearly an important part of this move towards sustainability. It is also already obvious that from the point of view of the teachers involved, the ability to handle courses given in English increases with experience. Therefore the need for general support diminishes with time and becomes more and more related to the individual student.

With the introduction of the web-based modules the need for direct support by language teachers is reduced but it still remains. A necessary decision will have to be made with regard to the level of that support. This is partly an economic issue, but also a pedagogical one in the sense that English must not take the attention away from the subjects.

Another important aspect for the coming years is the follow-up of the results of the use of English. It is essential to check whether the learning outcomes fulfil the objectives that motivated the language switch. In its first stage this evaluation will take the form of surveys among the student group with a focus on the development of skills and self-assurance with respect to using English as a tool for communication. At a later stage, the evaluation will take a further step by assessing the impact of the switch on the employability of the graduated engineers. The design of this type of evaluation is not straightforward, but it is envisaged that it will include a sampling of the views of both graduates and employers.

References

- Airey, J., and Linder, C., (2006). Language and the experience of learning university physics in Sweden. Institute of Physics Publishing. Vol. 27, pp. 553-560.
- Carroll, J. and Ryan J., (eds), (2005) *Teaching International Students: Improving Learning for All*, London, Routledge.
- Du, J. Harvard, B and Li, H. (2005). Dynamic online discussion: Task-oriented interaction for deep learning. Educational Media International, Vol.42, 3, pp.207-218.

- Dyste, O., (2002), The Learning Potential of a Web-mediated Discussion in an University Course, *Studies in Higher Education*, Vol., 27, No., 3, pp. 339-353
- Goodyear, P., Jones, C., Asensio, M., Hogson, V. and Steeples, C. (2005) Networked learning in higher education: Students expectations and experiences. *Higher Education*, Vol.,50. pp., 403-508.
- Klaassen, R., (2001) *The International University Curriculum: Challenges in English-Medium Engineering Education* (Delft: Department of Communication and Education, Delft University of Technology).
- Lally, V. & Barrett, E. (1999). Building a Learning Community On-Line: Towards Socio-Academic Interaction. *Research Papers in Education: policy and Practice*, Vol.,14, No.4,pp. 47-63.
- Lave, J. & Wenger, E. (1991). *Situated Learning: Legitimate peripheral participation*. Cambridge: Cambridge University Press.
- Mayes, J. T and Fowler, C. J. (1999). Learning technology and usability: a framework for understanding courseware. *Interacting with Computers* 11, 485-497.