Teaching in English – how can the challenges of entering an MSc programme in nutrition taught exclusively in English be met?

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Introduction

In many European countries the courses at universities are increasingly taught in English. The reasons for the widespread use of English in universities include presence of students who do not speak the national language, availability of relevant, up-to-date course texts, use of foreign academics, competitive advantages on the job market and preparation of students for an academic world dominated by English (Airey 2010). The Faculty of Life Sciences (KU-LIFE) has had an international focus for many years, which also applies to its educational efforts. Fifteen per cent of all students come from abroad, and 75 % of the MSc courses are taught in English including a number of entire MSc programs. However, the question of language barriers in the university education is an inevitable consequence of globalisation. Surprisingly, there has been very little research into the relationship between student performance and the lecturing language at university level. However, in support of the general assumption that being taught in English may affect the academic level detrimentally, some researchers have found negative correlations between learning in a second language and undergraduate performance (Airey & Linder 2006, Klaassen 2001).

From 2009 the MSc programmes in Human Nutrition, Clinical Nutrition and Gastronomy & Health at Department of Human Nutrition has been taught primarily in English. Concurrent with this change in teaching language, we experienced a drop in Grade Point Average (GPA) on some of the courses when comparing 2008 and 2009 GPA's. However, it cannot be concluded that only language barriers resulted in this change in student performance. Nonetheless, in 2010 we introduced a two-day English Workshop for students enrolled in our MSc programmes aimed at providing the students with strategies and tools to meet these language barriers. The students entering the MSc programmes in nutrition come with different BSc's and include both University BSc's and college professionals, the latter being taught exclusively in Danish with the use of Danish text books. Thus, the students may experience being taught in English differently depending on their educational background as well as their English proficiency.

Problem definition

This KNUD project set out to evaluate the effect of an introductory English workshop for students enrolled in MSc programmes within nutritional sciences. Specifically, the following elements were included as aids in evaluating the effect of the workshop:

- Introductory questionnaire to students taking/not taking the workshop on proficiency in English and educational background
- Evaluation of the students' learning outcome by questionnaire immediately after the workshop
- Evaluation of examination results from one written exam in the light of participation in the English Workshop
- Block 2 course evaluation and plenum discussion where comments were made specifically to the use of English

About the students' workshop

The students' workshop ran over 2 days and was organised and taught by Centre of Internationalisation and Parallel Language Use (CIP). On the first workshop day the students were given a brief introduction to reading, writing and listening strategies. Also, tests in all three areas were carried out to asses the students' weaknesses and strengths. On the second workshop day, the students were given a more thorough insight into the strategies on reading, writing and listening in English medium courses based on their own experiences and test results.

A total of 52 students participated in the workshop. In the Nutrition MSc programmes, students from both University Colleges and Universities

enter, thus they have a broad range of educational backgrounds. Most students are either Professional Bachelors in Nutrition and Health or Clinical Dietitian or hold a BSc in Food Science. The majority of the students participating in the workshop had a background from the University Colleges, as they represented 40 of the 52 students.

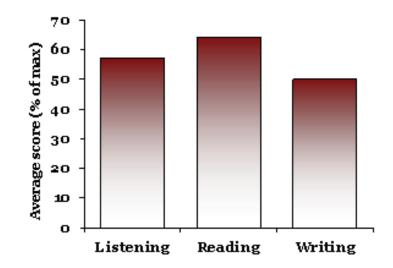


Fig. 23.1. Average score in listening, reading and writing tests during the English Workshop (n=52)

English proficiency of the students

Based on the test results, the students' weakest areas within English proficiency were writing and listening (Fig. 23.1), which was in accordance with their self-evaluation prior to the workshop (data not shown). From the writing test it was clear that academic writing (in English) was a great challenge for the far majority of students, and that this may or may not be linked to writing in English.

Students' evaluation of the workshop

On the last day of the workshop, the students were asked to evaluate the course using a questionnaire (See Appendix A for the questionnaire and

the summarised results). A total of 39 students filled in the questionnaire. Interestingly, they did not consider their English skills to a great extent before entering the MSc programme $(3.5\pm1.1 \text{ on a 5-point scale})$. This is likely related to the fact that Danes generally have a high proficiency in English and they did not take into consideration that scientific language is abstract and represents special communicative traditions.

Overall, the students considered the workshop to be highly relevant. They found content of the first day of the workshop and the tools introduced useful as these were highly rated $(4.6\pm0.7 \text{ and } 4.6\pm0.6 \text{ out of } 5, \text{respectively})$. Also, the writing, reading and listening tests performed were considered by the students as useful (4.6 ± 0.8) . Not surprisingly, they did not feel that the workshop resulted in an improvement of their English skills $(3.0\pm0.8 \text{ out of } 5)$, but this was also not the intention with the workshop. The two main comments that were made as part of the evaluation were that the workshop and the tests in particular gave them a valuable insight into own strengths and weaknesses and that the strategies they were introduced to, particularly reading strategies and vocabulary learning strategies, were helpful; the latter also relates to getting acquainted with the academic word list.

Nutrition Physiology – a formal knowledge course

For this course in the first block on the MSc programme, the students had a regular 4h written exam. Here, a total of 85 students took the exam, of which 50 had participated in the English workshop (Fig. 23.2); two thirds of the PROF BSc students participated in the English Workshop, whereas only one third of the UNI BSc students did. Among those who participated in the English Workshop, the average grade was 5.3 ± 3.1 , where it was 5.0 ± 3.5 among those who did not. Thus, a slightly higher grade point average was obtained among those who participated in the English Workshop. When looking at their educational backgrounds, there was no difference in average grades between PROF BSc and UNI BSc students, but in category "Others" which includes nurses, teachers and foreign students, a lower average grade was obtained (Fig. 23.3).

Based on the above, there seem to be no immediate effect on student performance of participation in the students' workshop in terms of grades for the exam. However, it is difficult to know, if they would have performed differently if they had not attended the workshop. As this is there first theoretical course taught in English, this was a first take on whether there would

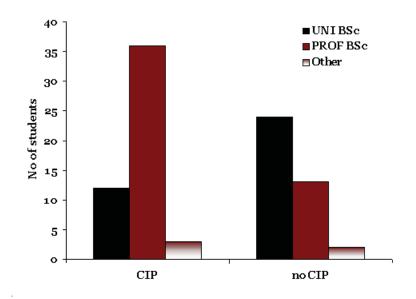


Fig. 23.2. Number students enrolled in the course Nutrition Physiology taking /not participating in the CIP Workshop from different educational background (UNI BSc: University BSc; PROF: University college professional BSc: Other: Other)

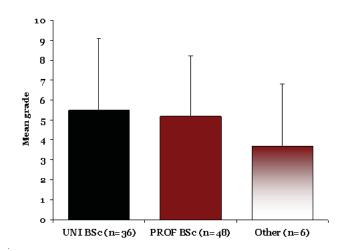


Fig. 23.3. Average grade among students enrolled in the course Nutrition Physiology according to educational background (UNI BSc: University BSc; PROF: University college professional BSc; Other: Other)

be differences early on in the MSc programme. Unfortunately, I do not have access to the course evaluation for this course.

Evidence, Diet and Health – a tacit knowledge course

In this course in the second block, the overall aim is to train the students in reading scientific literature, building an argument and evaluating the overall evidence for a nutrient-health relationship, all of which can be regarded as tacit knowledge. Tacit knowledge is not easily shared; it involves learning and skill, but not in a way that can be written down. Of the 84 students enrolled in the course, a total of 71 students took the 48h take home exam, in which they were provided with two scientific papers, for which they were asked to describe, explain and discuss specific topics.

Based on the written tests during the students' workshop, academic writing (in English) was identified as a major difficulty for the students. Therefore, we covered some of the things covered in the workshop on writing and vocabulary as part of the course introduction and encouraged them to start their own word list and become acquainted with the academic word list. We also introduced a sum-up exercise on nutrition-specific terminologies towards the end of the course. This was held as a test in number of words which they could explain the meaning of, however this was less than successful as only few students were active during this session.

One of the major problems with teaching this course in English is the lack of student participation. As part of our course, some of the lectures are given by external lecturers, which furthermore make the students hold back with discussions. This is a commonly recognized problem with second language courses. For example, in the Netherlands, Klaassen (2001) studied the shift to English-medium instruction and found that the teaching becomes relatively more monologic and less interactive when the language switches to English. Also, the Dutch students became more passive in the classroom, although this did not necessarily lead to poorer learning outcomes, at least after the first transitional year. In order to make it easier for the students to take part in discussions and better grasp the main points of the different lectures, we introduced "post-discussion", i.e. after a lecture on a specific topic, for instance health implications of alcohol consumption, me and my co-course-responsible led a discussion with the students on what to take home from the lecture. They thought it very useful in terms

of grasping the main points; however, we did not accomplish to get a more active group of students during lectures by this.

The course was evaluated both electronically and as a plenum session. On the question on whether their own English skills were adequate to benefit from the teaching, 11% answered that they were not (ratings <3, with 3 being neutral on a 5-point scale), and another 12% gave a neutral answer. Thus, it appears that 25% of the students do not positively consider their own English skills to be sufficient. Whether these participated in the workshop is not known. During the plenum course evaluation, it was mentioned that a two-day English workshop, although useful in providing tools and increasing awareness of the challenges with courses taught in English, will not improve their English proficiency considerably. However, there was a general agreement that it is important to continuously talk about the problems which English-medium teaching gives rise to, and that the workshop is an ideal starting point for this. Comments were also made on how the teachers' English skills affect the students ability to understand, for instance that wrong pronunciation of words disturbs the students' learning. This is a difficult thing to deal with, as teachers' English skills do differ and likely depend on whether they have been part of an academic environment outside Denmark. Also, it was suggested to give more attention to the tools during the course and make them part of the exercises, such as vocabulary and academic word list exercises, and discuss the purpose of reading the different texts before classes. Although not directly linked to teaching in second language, these general pedagogical focus points and tools become increasingly important when there is a language barrier as well.

A general problem with student activation, and particularly when teaching in the students second language, may be the large group of students (approximately 80), which does not facilitate taking part in a plenum discussion. Tärnvik & Stenberg (2010) studied how different group sizes of medical students discuss clinical cases, and how this affects the students' learning experience. They found that the larger the discussion group size the more students stated that they would have preferred a smaller discussion group. Comments were made that they "felt less open" and "less active since many students feel worried about their answers". This is in line with some of the comments made in the electronic evaluation, where some students suggested that we reduce the class size for some of the discussion exercises in order to activate a larger proportion of the students. This will be taken into consideration when planning the course for next year, where an equally large number of students is anticipated to enroll.

Concluding comments

Overall, the CIP English workshop should be offered to future students. Although not all students participate in the workshop, the students who do, seem to benefit from it, mainly in terms of increased awareness of strengths and weaknesses and tools to accommodate the language barriers. For the future, more emphasis should be placed on actively using the different tools as part of teaching, as the students need reminding to be able to actively use them. A two-day workshop only offers a starting point. Furthermore, the challenges should be discussed with the students continuously as this will make them more comfortable expressing their difficulties. I believe that reducing class size during some exercises will create a safer learning environment and thereby enable the students to take part in the discussions as these are very important for there academic training but also for them to become better at spoken English.

Acknowledgements

I would like to thank Sophie Swerts Knudsen from CIP, who helped plan the workshop and did the actual teaching during the workshop.

A Evaluation questionnaire for the Students' workshop

YOUR BACKGROUND

1)	What is your academic background (Bachelor)?					
2	2)]	Did you consider your English skills before applying for the MSc in Human / Clinical					
]	Nutrition or Gastronomy & Health?					
		(not at all)	1 2	3	4	5 (very much)	
3		Which skills English?	s did you (before	taking the test) consider the n	nost challenging with regard to	
			writing	listening	reading		
4)	Which skills	s did you (after ta	king the test) f	find the most ch	nallenging with regard to English?	
			writing	listening	reading		
EVALUAT	ГЮ	ON OF THE	E ENGLISH WO	ORKSHOP (C	IP)		
5	5)	How would	you rate the intr	oductory lect	ure on day 1 in	terms of	
	5) How would you rate the introductory lecture on day 1 in terms ofa. Relevance of content?						
		(very poor)	1 2	3	4	5 (very good)	
	b. Teaching pace?						
		(very slow)) 1 2	3	4	5 (very fast)	
	c. Usefulness of the tools presented?						
		(not useful)	1 2	3	4	5 (very useful)	
6	5) I	Do you thin	k it was useful to	have the Eng	lish tests?		
		(not useful)	1 2	3	4	5 (very useful)	
7	') I	In which of	the following are	eas were your I	English skills po	porest?	
			writing	listening	reading		

8)	How would you rate	the second	workshop	day in	terms	of?
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a. Relevance of content?

(very poor) 1 2	3	4	5 (very good)		
b. Teaching pace?					
(very slow) 1 2	3	4	5 (very fast)		
c. Usefulness of the tools presented?					
(not useful) 1 2	3	4	5 (very useful)		
9) Do you feel more prepared to start the MSc programme now with regard to your English skills?					
(not at all) 1 2	3	4	5 (much more)		
10) Which aspects (tools, strategies, other) from the workshop will you take with you?					
11) Has your opinion on your English skills changed during the workshop?					

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(not at all) 1 2	3	4	5(much	improved)
12) Would you recommend	this workshop	to others (stud	lents, other facu	lties)?
(I don't agree) 1	2	3	4	5 (I totally agree)
Why? / Why not?				

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Questio	Mean rating ± SD (n=39) / No of students						
1	10 Clinical Dietician, 15 PBCs in Nutrition & Health, 6 BSc in Food Science, 1 BSc,						
	in Sports Sciences, 1 BCs in Biotechnology; 1 BSc in Molecular Biology, 1 nurse, 1						
	physiotherapist; 1 teacher, 1 BSc in Pharmacy						
2	3.5±1.1						
2 3 4	25 Writing 5 Listening 5 Reading						
4	18 Writing 15 Listening 3 Reading						
5 a	4.6 ± 0.6						
1	$3.3{\pm}0.7$						
($4.6{\pm}0.6$						
6	4.6 ± 0.8						
7	14 Writing 17 Listening 5 Reading						
8 8	4.6 ± 0.6						
1	$3.4{\pm}0.8$						
(4.6±0.6						
9	4.3±0.7						
10	academic word list, glossary/word list, summary, speaking out loud						
	academic word list, reading strategies						
	academic word list, reading strsategies						
	academic word list, word list						
	glossary, reading strategies						
	glosseries, academic worrd list, sttructure,						
	good to be prepared						
	process writing, structure, purpose to read						
	purpose to read, structure						
	purpose to read, structure in writing, academic word list						
	reading strategies, structure						
	reading strategies, structure, prupose to read, signposting						
	reading with a purpose, structure						
	skills on reading and writing						
	structure						
	structure, glossary						
	structure, purpose to read						
	structure, reading strategies						
	structure, reading strategies						
	structure, reading strategies						
	structure, reading strategies						
	structure, reading strategies						
	structure, reading strategies, vocabulary exercises						
	structure, vocabulary, reading with a purpose						
	structure, word cards, academic word list						
	vocabulary exercises						
	vocabulary exercises, structure, reading strategies						
	vocabulary, academic word list, structure, how to handle an assignment						
	will use input on structure, word list, hand outs						
	•						
	word cards, process writing word cards, writing tools						
	word cards, writing tools word list, word cards, summary						
11	3±0.8						
11	<u> </u>						

Results of the questionnaire

Comments	because Improving weathranging and strengths are important
Comments	because knowing weaknesses and strenghts are important
	because you got very good tools and strategies
	brilliant teacher
	eye opening experience
	found it very useful
	good brush up and good picture of own skills
	good motivation to want to improve
	good to get into the language again
	good to know your own skills
	good to know your own skills and good with tools
	good to test your skills and get some useful tools
	insight to own skills
	know strengths and weaknesses
	know what the challenges are
	learned a lot
	little tricks make a huge difference
	make it mandatory
	make it mandatory
	really good and useful
	Sophie was a fantastic role model
	sophie was brilliant
	sophie was excellent
	very useful tools
	•
	yes, but only to those who do not regularly use their english

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