

The impact of language on teaching content: Views from the content teacher^{*}

Robert Wilkinson

Maastricht University Language Centre
Netherlands

b.wilkinson@languages.unimaas.nl

This order of this version differs somewhat from that of the paper presented at the “Bi- and Multilingual Universities – Challenges and Future Prospects” Conference at Helsinki on 2 September 2005.

Abstract

Survey studies (e.g. Tella, Räsänen, & Vähäpassi, 1999; Hellekjaer & Westergaard, 2001) suggest that the effectiveness of English-medium content teaching is influenced by language problems, in that the language seems to constrain teaching and instructional methods. In contrast, both staff and students often rate English-medium content teaching as ‘good’ or ‘very good’ (Hellekjaer & Westergaard, 2002). Hence, there is an apparent contradiction between the linguistic deficiencies of programmes and their overall rating.

This paper reports findings from a qualitative survey of 29 highly experienced content teachers from 3 Dutch universities (across 11 disciplines) in how language affected the teaching of content in English-medium programmes. None of the respondents was a native speaker of English. Results show that adaptations to programmes due to language are constantly necessary and that more time is required both for staff and students, compared to teaching in the mother tongue. Content teachers make changes to instructional methods, allowing in some cases code-switching. However, they view English-medium education as helping to develop ‘global citizens’. In conclusion, the findings are broadly in line with earlier results from a study of content teachers in three disciplines by Vinke (1995).

1. Introduction

Foreign-language taught programmes in higher education seem to be subject to contradictions. Language problems are reported to constrain teaching and instructional methods (Tella, Räsänen, & Vähäpassi, 1999; Hellekjaer & Westergaard, 2003). Yet, in the case of English-taught degree programmes, students and staff rate these highly (Hellekjaer & Westergaard, 2003; Hellekjaer & Wilkinson, 2003). It seems that any language deficiencies in programmes are not reflected in overall ratings.

In the Netherlands the results of research into English-medium programmes have been inconclusive. Some studies have shown that training and testing through English has resulted in poorer student achievement than comparable students who were trained and tested in the L1 (see work by Jochems and colleagues, for example Jochems, 1991; Jochems, Smid, Snippe, & Verweij, 1996; Vinke, Snippe, & Jochems, 1998). Other studies have shown no difference in

^{*} Wilkinson, R. (2005). The impact of language on teaching content: views from the content teacher. Available from: <http://www.palmenia.helsinki.fi/congress/bilingual2005/presentations/wilkinson.pdf>

achievement between near-identical Dutch-medium and English-medium programmes (Hellekjaer & Wilkinson, 2003). In a study of writing performance, researchers reported better performance on content and organization in writing in an English-medium programme than in the near-identical Dutch-medium one (Hommes & Muysken, 2001). However, English-medium instruction does seem to lead to a reduction in expressiveness among both academic staff and students: this is reported to frustrate content teachers (Vinke, 1995). To counter this tendency, it has been argued that better training in instructional methods is likely to be more effective than language instruction (Klaassen, 2001).

We may draw a number of possible conclusions from the findings. Overall ratings of programmes, and perhaps the results, may not take account of the linguistic abilities of either students or staff. Assessment may be performed irrespective of linguistic abilities. Because programmes do not explicitly develop linguistic abilities, there is no measurement of such abilities. There is likely to be a difference in teaching and instructional methods since L1 contexts are not the same as L2 contexts. Hence, teaching staff (and students) may well adjust the teaching and the learning. To investigate the last point, a qualitative study among content teachers on English-taught degree programmes was conducted.

This paper presents the method and results of the qualitative study, then a comparison with questionnaire results from a current medical programme, before concluding with some comments on the effectiveness of these programmes.

2. Qualitative study

The aim of the study was to investigate the impact on instructional methods of teaching through English among content teachers. The hypothesis was that experienced, effective content teachers (non-native speakers of English) adjust instructional methods when teaching through English.

Method

A semi-structured questionnaire was used to identify changes in instructional techniques used by 29 experienced content teachers from three Dutch universities. Thirty-one academic staff were approached via e-mail or telephone; of these 14 agreed to participate. These 14 were supplemented by 15 'captive' content teachers who were approached while on a training course: all 15 agreed to participate. Experience was defined as having at least five years of experience teaching through English, although data are not available from all of the 15 'captive' teachers. The 29 respondents represented 11 academic disciplines: politics, history, philosophy, economics, business, intercultural relations, comparative law, taxation, statistics/mathematics, sociology, and education. None of the respondents had English as their L1; most but not all were Dutch.

A semi-structured questionnaire comprised five open questions, asking about the influence of teaching through English on the content, about adjustments that were made to the content as a consequence, about any modification of the timing or order of the content, about the techniques deployed to enhance content learning, and about the impact on students' attitudes towards the content. This paper reports on the fourth question, with some explanations gleaned from the responses to the other questions.

Results

Respondents reported that, essentially, they felt the instructional techniques used for English-medium education did not differ in nature from those used in L1 teaching, but there was a difference in emphasis. In particular, they reported creating more time for student participation and discussion; this helped students build self-confidence. In addition, they made less use of lectures, which in general they considered ineffective; during the lectures they did give, they reduced the density of new information, and made extensive use of support systems (for example, by providing the slides and specialist terms in advance through electronic learning systems).

Greater use was made of small group work than in L1 teaching, allowing teachers to monitor student contributions more efficiently. Regarding the language itself, respondents reported adjusting the language they used to the students: as one teacher put it, 'It's a matter of being very conscious of actual language you use'. Some respondents found allowing code-switching was effective: students (and staff) could switch temporarily to an L2 or L3, particularly for explanation, exemplification, or clarification. Some of the respondents would suggest background reading in variety of languages (e.g. multilingual input to case studies), so that students could access information in the library or via the internet in various languages although reporting back to the group would be in English. A few respondents found requiring student summaries of previous learning was an effective way of consolidating learning and correcting misunderstandings: usually the technique involved selected students giving short prepared presentations at start of sessions.

The questionnaire respondents also gave some reasons why they made changes to their instructional approaches. First, teaching through English does have an impact on content. The quality of education may be lowered because of inadequate productive skills of both teachers and students. Respondents felt that communication becomes 'poorer' because of a weaker ability to use colloquial or familiar language, make digressions, recount anecdotes, use humour, or give spontaneous examples. With regard to lectures in English in particular, they reported them as becoming 'dry', 'technical', and lacking 'spark'.

Second, teaching through English demands more time so that terms and concepts can be explained; more time is needed to compare concepts in the students' different domestic contexts. Further, it takes more time to conduct tasks and activities, and to complete tests and exams. Students too need more time to speak out and intervene in lectures or discussions; discussions become less lively as a consequence. Some respondents reported that it takes students more time to become enthusiastic about the subject or domain.

Third, teaching through English implied a greater need to adapt and reorder tasks and assignments in response to ongoing feedback from students than would be the case in the L1. It was necessary to repeat or re-examine a topic from different perspectives, because of the students' different national backgrounds, entailing more time. Furthermore, it was necessary to clarify and regularly review connections between topics.

Changing instructional techniques was also partly due to cultural factors. Students' previous educational cultures may affect their willingness to take the initiative especially during tutorials. Partly for this reasons, teachers reported that they had to be more pro-active and intervene in student discussions more, thus taking a role as discussion leader, rather than monitor or counsellor. It was necessary to allow students time to be 'socialized' in the particular institutional educational cultures. From a cultural viewpoint, respondents signalled a particular problem they had observed with English native speakers in their programmes: such students' accents, speaking speed, and the subtle nuances they could make seemed to increase the problems for both peers and the teachers (perceived by some as increased anxiety).

3. A medical comparison

To supplement the questionnaire survey reported above, it is instructive to compare the results of the evaluation of two medical courses given in English in 2005 at Maastricht University (Dolmans, 2005a, b). The medical programme is basically in Dutch, but two courses (equivalent to nearly a semester) in 2nd year are given in English to allow exchange students to participate. The first course was obligatorily in English for all medical students (total number: ca. 300). The second course was optional, with 97 students participating, presumably the most motivated students. At the end of each course an evaluation questionnaire was circulated to 50% of the groups following the obligatory course and all the groups on the optional course (response 70% and 71% respectively).

Results showed that students and tutors found their own and each other's level of English adequate for the courses, with the students holding a slightly less positive opinion of the English of lecturers (see appendix, figure 1). However, the English-medium was perceived by both students and tutors to have a slightly negative effect on content learning, but a positive effect on learning English (see appendix, figure 2). These results are in line with the apparently contradictory findings indicated earlier (Jochems, 1991; Jochems et al., 1996; Hellekjaer & Westergaard, 2003). In the report by Dolmans (2005a, b), it is revealing to note that in the obligatory course, if students had had the choice, 75% would have chosen Dutch-medium course, while in the optional course which allowed students to write their two assignments in either Dutch or English, only 10% wrote both in English. Contrariwise, both students and, slightly more strongly, staff reported that they were in favour of English-medium course. An earlier study (Dijcks, Dolmans, & Glatz, 2001) also reflected this contradiction: about 50% of students in a questionnaire survey believed that English has a negative effect on quality of discussions (35% disagree, 15% neutral), but 70% were in favour of Medical English.

4. Discussion and conclusions

The respondents in the qualitative study reported that it was beneficial to adapt instructional techniques in English-medium teaching. Lectures were seen as not very effective and required supplementary support (cf. Airey & Linder, 2005). Most noticeably, it was necessary to expect more time to be needed, to avoid information overload (cf. Hellekjaer & Wilkinson, 2003). The content teachers in the study reported that their inability to speak spontaneously and to express nuances was frustrating. The students' cultural background also plays a role, but it is probable that cultural differences play a greater role in some disciplines (e.g. history, law) than in others (e.g. economics, mathematics).

The results from the Medical courses reveal the findings that one might expect from previous research when only a small part of a course is offered through another language. While L2-taught courses may be perceived as beneficial for the L2 itself, the results may be slightly negative for content learning: isolated English-medium courses in an otherwise L1 programme may have negative effect on content learning. Indeed, the findings show that when offered the opportunity to use other languages (L1 in this case), most students seem to make that choice. However, with special respect to bilingual contexts, the opposite may also be the case when isolated courses are offered in an L1 as part of programmes provided in a dominant L2: students may be reluctant to follow them (cf. Thomas, 2004) if they perceive a negative effect on content learning.

Although not the focus of this particular investigation, it is valuable to mention that the academic staff in this study also commented on what sort of training they felt they needed. Regarding language, they felt training in ensuring clarity of their speech was foremost, coupled with training

in strengthening their linguistic competences, such as speeding up their reaction time to student enquiries, and expanding their vocabulary range by enabling them to differentiate and clarify nuances in the discipline. Several respondents felt that more language training was not the answer, but rather acquiring extensive professional practice (cf. Vinke, 1995). However, they did feel it was necessary to learn how to keep going in English for long periods. On the other hand, most of the respondents thought it was important to be trained in how to develop students' language abilities in the discipline, in particular how to assess the students' linguistic abilities in both speaking and writing and provide effective feedback.

Content learning can be effective in the English-medium, however, if the whole programme or most of it is in that language, if the instructional techniques are adapted (notably allowing code-switching, access to sources in L3s, and accepting and engaging in language adjustment), and if more time is allotted. Thus, multilingual learning may be beneficial for English-medium programmes. Moreover, the same may also be true for programmes with isolated courses in an L2. In such courses, students and teachers may be willing to trade a little content quality to make gains in language competence. But allowing greater use of multilingual sources here and code-switching where necessary may in fact enhance content quality.

It would be valuable to conduct prospective, experimental studies which could test the effect of different manipulations of instructional techniques, for example code-switching and use of L1 and L3 sources, within same programme.

References

- Airey, J., & Linder, C. (2005). Looking for links between learning and the discursive practices of university science. Paper presented at 11th EARLI Conference, Nicosia, Cyprus. August.
- Dijcks, R., Dolmans, D., & Glatz, J. (2001). Het gebruik van Engels als voertaal in het medisch onderwijs. *Tijdschrift voor Medisch Onderwijs*, 20, 4: 134-139.
- Dolmans, D. (2005a). Resultaten programma-evaluatie Engels in blok 2.3 04-05. Internal report. Maastricht University, Department of Educational Development and Research.
- Dolmans, D. (2005b). Resultaten programma-evaluatie Engels in blok 2.5 04-05. Internal report. Maastricht University, Department of Educational Development and Research.
- Hellekjaer, G.O. & Westergaard, M.R. (2003). An exploratory survey of content learning through English at Nordic universities. In: Van Leeuwen, C., & Wilkinson, R. (eds.). *Multilingual Approaches in University Education: Challenges and Practices*. Nijmegen: Valkhof Pers. pp. 65-80.
- Hellekjaer, G.O. & Wilkinson, R. (2003). Trends in content learning through English at universities: a critical reflection. In: Van Leeuwen, C., & Wilkinson, R. (eds.). *Multilingual Approaches in University Education: Challenges and Practices*. Nijmegen: Valkhof Pers. pp. 81-102.
- Hommel, J., & Muysken, J. (2001). Structured peer review in writing skills in economics. Paper given at 8th EDINEB Congress, Nice, June 20-22.
- Jochems, W. (1991). Effects of learning and teaching in a foreign language. *European Journal of Engineering Education* 4, 4, 309-316.
- Jochems, W., Snippe, J., Smid, H.J., & Verweij, A. (1996). The academic progress of foreign students: study achievement and study behaviour. *Higher Education* 31, 325-340.
- Klaassen, R. (2001). *The International University Curriculum. Challenges in English-Medium Engineering Education*. Diss. Delft: Delft University of Technology.

- Tella, S., Räsänen, A., & Vähäpassi, A., (eds.). (1999). *Teaching through a Foreign Language- From Tool to Empowering Mediator*. Helsinki: Publications of Higher Education Evaluation Council 5.
- Thomas, E.M. (2004). Addysgu trwy gyfrwng y Gymraeg mewn seicoleg. [Welsh-medium teaching in psychology]. *Psychology Learning and Teaching*, 4(1): 11-14.
- Vinke, A.A. (1995). *English as the medium of instruction in Dutch engineering education*. Diss. Delft: Delft University of Technology.
- Vinke, A.A., Snippe, J., and Jochems, W. (1998). English-medium content courses in non-English higher education: a study of lecturer experiences and teaching behaviours. *Teaching in Higher Education* 3. 383-394.

Appendix: Figures.

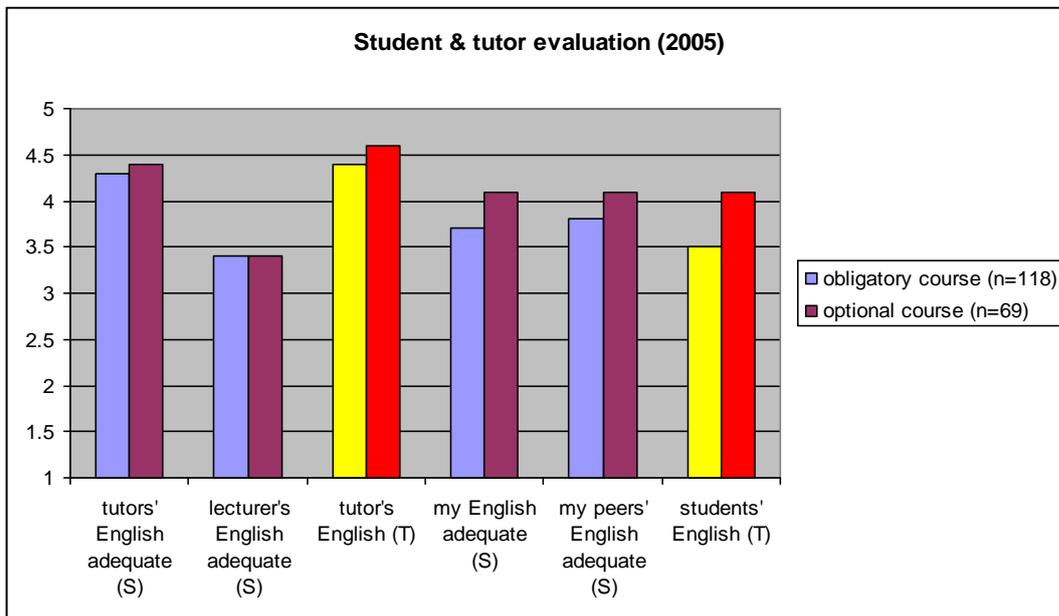


Figure 1: Students and tutors evaluation of the adequacy of their English during two English-taught courses in medicine in 2005. Items comprised statements (e.g. “My tutor’s English was adequate”) rated on a five-point scale (5 = strongly agree; 1 = strongly disagree). S = students’ response; T = tutors’ response. (Source: Dolmans, 2005a, b)

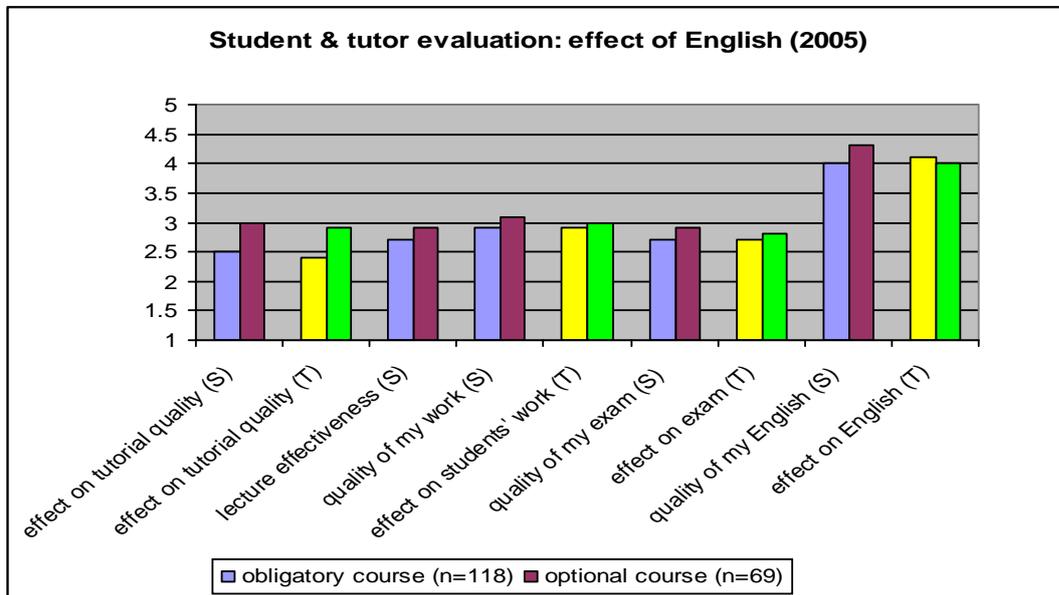


Figure 2: Students’ and tutors’ evaluation of the effect of English on the quality of content during two English-taught courses in medicine in 2005. Items comprised statements (e.g. “The use of English had a beneficial effect on discussions in the tutorials”) rated on a five-point scale (5 = strongly agree; 1 = strongly disagree). S = students’ response; T = tutors’ response. (Source: Dolmans, 2005a, b)