

Learning while using an additional language

I am writing in response to the recent article ‘What if English is not my students’ mother tongue?’ (Ross and Gardenier, 2017), an article that rings many bells with my own area of work, content and language integrated learning (CLIL). I was particularly taken with the suggestions for ‘reformulation’ and the provision of ‘private time’ for English as an additional language (EAL) learners so that they are able to take in new ideas and begin to think about these ideas in their mother tongue while considering how to express them in English as an additional language. This is something I have written about for CLIL learners of science and other subjects, most recently and significantly in *Putting CLIL into Practice* (Ball, Kelly and Clegg, 2015).

I was invited to attend the recent (2018) Association for Science Education (ASE) Annual Conference in Liverpool to do a presentation on the topic of language in science education and am extremely happy to find this important article in a UK science education publication and to see that language is on the radar for the ASE more widely. Indeed, not only did many of the 400 or so delegates at the International Day of the Conference speak to me about language, expressing an interest and desire to find ideas and resources to help their work, but I met many other educators during the other days of the Conference who came to my exhibition on TrashedWorld, a programme of international communication on waste through the medium of English (www.trashedworld.com). I left the Conference with a clear idea in my head that language in science education will stay on the agenda for ASE for the near future and in fact joined ASE for this reason as an e-member.

I would like to offer some areas of follow-up to the article to colleagues and readers of *School Science Review*. CLIL undoubtedly offers many strategies and resources that would be of interest to any science teacher interested in supporting language in their classrooms.

One particular area I think colleagues could easily investigate is CLIL networks, where they will find many colleagues teaching science subjects through the medium of English. *FACTWorld* (www.factworld.info; factworld@yahoo.com) is a network of over 3500 teachers all around the world, and the largest group of teachers in this group is made up of

science teachers working in English, although there are representatives from other languages too. At the site, which I help to coordinate, visitors will read reports on many CLIL projects related to science education, and find links to resources that can be of use and support to science teachers with an interest in EAL learning. Additionally, there are smaller networks of CLIL teachers of science in Austria (*CEBS* and *GoogleGroup*) and Germany (*BiliHessen* – German-medium though plenty of posts in English).

In terms of published resources, much of what is available in CLIL is small scale, although Cambridge University Press and Oxford University Press are now showing interest, with subject-content textbooks being written in a language-supportive way and so including communicative tasks and ‘useful language’ sections embedded within science book pages. National publishers such as KLETT and Cornelsen also produce English-medium textbooks for German-speaking students and are available for science subjects.

I have written contributions for books for a number of country projects, including for Lithuania, Poland, Bulgaria and Spain, as well as a section on Macmillan’s *onestopenglish* website, where visitors will find a lot of free resources for general academic language within science subjects. Incidentally, this is an area I think it would be valuable to discuss for EAL learners, as general academic language is largely ‘invisible’ in the curriculum, I talk to CLIL teachers about how to make this language more salient on the page, or through tasks, and I think that ‘visualising’ this language, for example through language appearing within *PowerPoint* slides and then being made available to EAL students during tasks, not only exemplifies this hidden language of the ‘profession’ but also supports their own production. Chapter 4 of *Putting CLIL into Practice*, ‘Principles and practice of language in CLIL’, deals with making general academic language salient, along with many other issues to do with language on foreign language-medium subject teaching (Ball, Kelly and Clegg, 2015).

Mind maps are mentioned in the article too as a useful tool for students to ‘manage’ the weight of terminology they have to deal with. ‘Concept

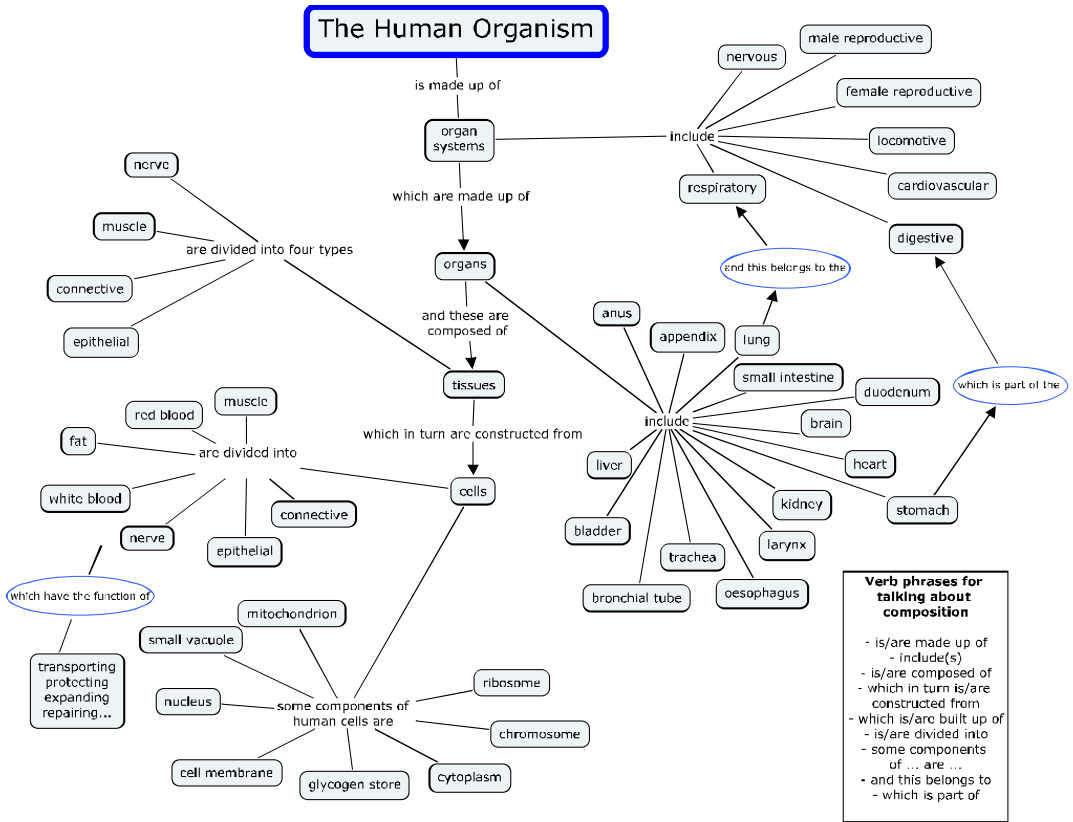


Figure 1 A concept map on 'The Human Organism' created with Cmap

maps' can also be helpful, precisely because they can be used to make visible much of the general academic language, which appears on the branches of maps as opposed to subject-specific language that is placed within cells at the end of map branches. Cmap (<https://cmap.ihmc.us/>) is an excellent free tool that allows teachers of science to produce maps of language (Figure 1).

I will stop here with my references to networking and visualisation of language, but there is a host of overlap between language support for EAL students and CLIL students that I would be delighted to discuss with colleagues in future here or through other channels.

Lastly, one of my local universities is offering a course, 'Putting CLIL into Practice',

for which I am the course tutor. We would be delighted to have any science colleagues with an interest in language join us! The course will be held in Plovdiv, Bulgaria, on 9–13 July 2018 (<https://erasmus.mu-plovdiv.bg/en/putting-clil-into-practice-course/>).

References

Ball, P., Kelly, K. and Clegg, J. (2015) *Putting CLIL into Practice*. Oxford University Press.
 Ross, K. and Gardenier, A. (2017) What if English is not my students' mother tongue? *School Science Review*, 99(367), 105–109.

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