

Making Tasks for the English Medium Science Classroom (*Workshop*)

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ABSTRACT

One of the main ways of supporting learners learning in a second language is to use classroom tasks which combine subject-learning and language-learning. These tasks allow learners to do the task using the language which the task requires. In this workshop we will look at the kinds of learning activities which learners typically have to do in the science classroom and develop supportive tasks which help them to do these activities in English.

If you would like to attend this workshop, you are asked to bring with you some examples of typical classroom science activities which you would like to help your learners do in English.

1 Aim

The purpose of this workshop is:

- To examine the language demands of some typical classroom activities in science
- To review some of the task types which can be used to support learners learning science in English
- If time allows, to give participants an opportunity to outline or create language-supportive science activities

2 Language-supportive classroom environments

There are several sources of support which a teacher can use to help learners learn a subject through a second language. Here is one list. It was also referred to in some detail in the presentation which I gave on integrating language and subject knowledge at this conference.

- Use tasks which provide language and learning support as well as developing subject-matter knowledge
- Use a lot of visuals (pictures, diagrams, graphs etc)
- Teach some language
- Talk in a natural, interactive, comprehensible way
- Signal the organisation of your talk clearly and support understanding with all available means
- Vary the form of interaction (e.g. whole-class, small-group, teacher-student 1:1, individual work) according to fitness for purpose
- Teach key learning strategies
- Agree ground-rules for the use of students' L1
- Where appropriate, teach students to take a critical view of the risks involved in learning through a language of power
- Ensure the purpose of tasks is clear and the sequence of tasks is orderly

In this workshop, we will focus on only the first of these sources: task design. Of all these sources of support, it is one of the most powerful and flexible.

3 Analysing the language demands of tasks

Before using any form of language support, a subject teacher must know what language difficulties a learner may have in doing the work – in the second language – which the subject teacher wants him/her to do. This means that the teacher, when planning a lesson, must be able firstly to predict what these difficulties might be and secondly to choose a form of support which is appropriate to them.

We can describe language difficulties by using certain categories. Some of the most useful categories are:

Language skills: does the learner have difficulty in listening, speaking, reading or writing in English? Most subject teachers would not find it hard to establish this.

Textual organisation: does the learner find it difficult to see how the ideas in a text are organised (or hearing this organisation in a teacher-presentation)? Or is it that the learner has problems in organising his/her own ideas either in speech or in writing? Many subject teachers might be slightly alarmed at having to decide this, but it is actually a lot easier than it may seem for someone who is not a language teacher.

Vocabulary: does the learner have a problem because s/he does not know the vocabulary of the topic? Most subject teachers find it easy to say what these vocabulary issues might be.

Grammar: is the learner finding it difficult to express him/herself in accurate grammar in speech or writing? If this is the case, some subject teachers may not be able to say what grammatical problem the learner has. Indeed they may not feel it is part of

their job to help the learner with this. The same may be true of **pronunciation** and **spelling**. I have to say I would have some sympathy with those teachers. And in addition, these matters may not be always such a problem because they may not prevent the learner from learning science.

In the workshop, we will spend some time looking at language difficulties which learners may have in science lessons and categorising them according to the type of category above.

4 Language-supportive tasks

There is a range of language-supportive tasks which a subject teacher can use to help learners learn the subject in English. The chief supportive feature of these tasks is that they enable the learner to do two things at the same time: to learn the subject-matter knowledge and the language required by this learning, at the same time.

The tasks we are concerned with are listed in figure 1. We can describe these tasks by reference to:

- The response they require; this is the way they are described in figure 1.
- The kind of language use which they support; this means using the kind of category listed in section 3 above.

Figure 1: Language-supportive tasks

1. Fill gaps

- Fill short gaps
- Fill long gaps

2. Words/phrases

- Sentence starters
- Phrase bank
- Connector bank
- Word bank

3. Match

- word with description
- word with definition
- picture with sentence
- word with sentence
- 'heads' and 'tails'
- paragraph with heading

4. Fill in a chart

- Tree-diagram
- Venn diagram
- Matrix
- Columns

- Flow-chart

5. Pictures/diagrams/maps

- Make
- Label

6. Notes

- Linear
- Spidergram

7. Substitution table

- Simple
- Complex

8. Sequence

- pictures
- sentences
- words in sentence

9. Writing frame

- Headings
- Sentence starters
- Other items

10. Sort cards

- Classify
- Sequence
- Match

11. Texts

- Create
- Complete
- Mark (e.g.: underline, box, colour-code, etc)

12. Line

- Timeline
- Attitude scale
- Other relations

13. Activity organisers

- KWL grid
- Research grid



Whether they are easy to make; this is important since busy subject teachers will only use them if they are easy to make or put on the board.

5 Making language-supportive tasks

In the workshop we will aim to look at the kinds of task which the participants feel they might be able to use in their classrooms. If we have time, we will also try either to make or to outline some of the tasks listed in figure 1.