Primary Language Learning and *Thinking*

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Judging by the promotional 'blurb' on the back of many new coursebooks for primary school learners, there is no doubt that the role of 'thinking' in language learning is now firmly recognised. Courses routinely claim to "improve memory and concentration", "develop thinking and creativity", and help children to "become smart", all the while building effective second language competence. It was not always this way, of course. For many years, language teaching emphasised 'habit formation' and mechanical, behaviourist approaches as the basis for an effective methodology. We can see the legacy of this in many classrooms around the world where drills, substitution tables, listen and repeat, patterned sentence writing and similar techniques are all still in active use. These exercise types can of course play an important and useful role in teaching but we now recognise that 'cognitive engagement' is not only absolutely necessary for sustained learning, but it is part of the educational *responsibility* of the teacher. In this article, I want to show how we can analyse classroom activities to reveal the amount of cognitive engagement involved so that teachers can design or adapt accordingly. In my next article, I will show some practical examples of how we can engage learners' cognitive ability more fully in language learning. But first we need to consider *why* we should do this.

Reasons for cognitively engaging work

There are many reasons why cognitive involvement is important in language learning, and why we need to distance ourselves from mechanical, repetitive methods of teaching, but here I will name just three key reasons. In the first place, we know that the more cognitively involved someone is, the more motivated and engaged they are. Many learners, of all ages, frequently complain that language classes are boring. Teachers often sense this and use 'fun' activities such as songs, games and such like to add excitement to the classroom. Yet, the effect of these is often temporary, and once completed, motivation levels drop back once again. Secondly, it is a long established principle in educational psychology that the more learners are required to *think* about something they are doing, the deeper and longer lasting their learning will be. Thirdly, although language teaching has traditionally been seen as outside 'mainstream teaching', and has not therefore been required to 'educate', current thinking has shifted to insist that language teaching does indeed have an educational role. The emergence of CLIL, for example, is very much part of this shift, with 'cognition', as one of the 'Four Cs' (along with communication, content and culture), a key requirement for classwork.

Analysing classroom work

If we want to engage children's cognitive abilities in a systematic way, we need to be able to analyse and categorise activities and tasks so we can identify the nature and level of challenge involved. This will enable us to select or adapt tasks, and perhaps sequence them so that we can develop a 'syllabus of cognitive work' in addition to our usual syllabuses of grammar, vocabulary, skills, etc. The following are some concepts I have found useful in my work in designing materials and tasks for children – although they can be equally applied to any age of learner.

Content: carrier or learning?

Often, language teaching tasks can seem very 'thin' in terms of content. Frequently, children are expected to forget (eventually) the topic or information that they are working with, and to simply remember the language used to talk about that topic or information. Examples of this are the storylines in dialogues, or reading texts about fictional characters, etc. Such storylines and characters can, of course, have an important role in providing child-friendly materials, but they show the distinction between 'carrier content' (i.e. topics, stories, etc) which are used to 'carry'

the 'learning content' (i.e. the content that the learners are expected to retain – in this case, the language). Ideally, in common with other mainstream subject areas, there should be no difference between carrier and learning content in what children are working on – everything that they do in the classroom should be worth knowing or doing in its own right. Once again, CLIL is based on removing this distinction, in that children are expected to learn – and be assessed on - both language and curricular content.

Mental operation

In addition to the role of content in learning, we can also look carefully at what the children are actually asked to *do* with that content. Littlejohn (2011) shows examples of analysing primary school language teaching materials, using a framework. Part of this framework tries to reveal the nature of the cognitive work involved in a task or activity, by examining what the child is expected to do in order to successfully accomplish it.

What is the learner required to do?
- Turn-take: initiate / respond
- Mental operation

Any activity or task, of course, asks children to 'respond', but the distinction drawn out by 'Turn-take' in the analytical framework is the extent to which the children are asked to supply their own ideas and use their own language ('initiate') or simply repeat ideas and language supplied to them ('respond'). The following, for example, could be categorised as a 'respond' task, in that the answers to all of the questions are likely to be in the reading text supplied to them:

Example 1

1 Which dinosaur was the tallest?

2 Which dinosaur was the fastest?

3 Which dinosaur was the heaviest?

4 Which dinosaur was smallest?

Similarly, a task such as the following is another 'respond' task as it contains all that is needed to complete it.

Example 2

Picture of a room

1 The _____ is next to the wall.

2 The _____ is on the table.

3 The _____ is in the bag.

4 The _____ is under the picture.

On the other hand, the following task can be labelled as an 'initiate' task as it requires a lot more from the children, in that they need to supply both the ideas and the language to talk about those ideas. Interestingly, the task simply involves an inversion of the standard 'comprehension questions' pattern.

Example 3

1 Look at these elephants. What questions can you ask about them?

Picture of elephants in India

2 Read the text. Does it answer your questions?

Short text about Indian elephants

Similarly, these kinds of questions cannot be answered by simply repeating the content of the story text.

Example 4

1 Do you think Raad is a nice person? Say why.

2 What do you think Susi thinks about Raad's idea?

3 Do you think Susi is brave?

4 What can Susi say to her friend?

Analysing the mental operation required by a task involves working out what the children need to do cognitively in order to complete the task. In some cases, this may involve several different mental processes. Looking back at the examples, we might say the following about them:

Example 1
- find and repeat information from the text

Example 2
- recall vocabulary item

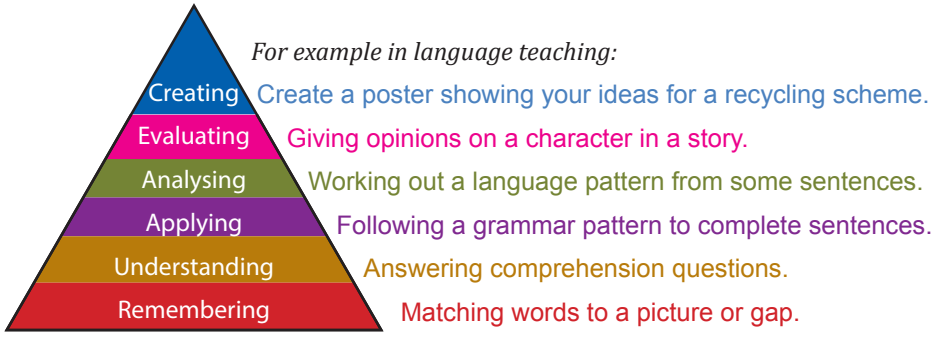
Example 3
- use background knowledge
- use language to express own questions
- match supplied information to own questions

Example 4
- make value judgements
- express own opinions using own language
- hypothesize

This kind of analysis shows the clear differences between the limited cognitive engagement required by Examples 1 and 2, compared with Examples 3 and 4.

Bloom's Taxonomy

There are many different ways to classify cognitive work in education, but one of the most well known of them is Bloom's Taxonomy (originally from 1956, but here shown from the 2000 revision). This arranges cognition into different levels, as a free-standing analysis, enabling us to talk about 'lower order' and 'higher order' thinking in the abstract. It is not difficult, however, to see how this can map onto different kinds of classroom work in language teaching.



Bloom's Taxonomy is intended to be cumulative, in that the higher levels necessarily entail the lower levels (for example, 'evaluating' obviously entails 'understanding'), but in language teaching we have the advantage that learners always have at least two languages at their disposal (their first language and the second language they are learning). Using this fact allows us to enrich language tasks by compensating for limitations in the children's second language by drawing on their abilities in their first language. For example, even almost complete beginners can be asked to 'notice' aspects of the language and try to work out a pattern. In this case, 'analysing' can be done in the first language to work out a pattern, before 'applying' it in the second language, making us free of the implied hierarchy in Bloom's Taxonomy.

Practical ideas for cognitive engagement

By using the concepts I have set out, we can take practical steps to design classroom work so that it is consistently more cognitively engaging. The *carrier content / learning content* distinction can help us select worthwhile topics as content for language tasks. The analysis of *mental operation* can help us move beyond simple recall and reproduction, while an application of Bloom's Taxonomy can enable us to sequence cognitive development and make use of mental abilities which we know the children will have from their first language. In the next article, I will show how these principles can be applied in practice, to produce cognitively engaging and enriching tasks for primary school learners.

References

Anderson, Lorin W., Krathwohl, David R., eds. 2000. *A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives*. Allyn and Bacon.

Littlejohn, Andrew. 2011. In Tomlinson, B. (Ed.) *Materials Development in Language Teaching*, 2nd Edition. Cambridge University Press. Available at www.AndrewLittlejohn.net

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