



# Task Types and Cognitive Engagement

## Andrew Littlejohn

In a previous article in C&TS Digital (Issue 2, 2015, 'Primary Language Learning and Thinking') I argued that language learning needs to be cognitively challenging in order to stimulate motivation, to make learning more enduring and to meet the educational responsibilities of language teaching. I also showed how we can analyze tasks to see how they engage learners and, in a subsequent article (Issue 3, 2015, 'The Role of Content in Cognitive Engagement'), how we can use 'rich content' in classroom work so that we can address both language aims and curriculum aims. In this article, the final part of the series, I will outline some different types of tasks that can be used to engage learners in thinking about 'rich content'.

There are many different sources for ideas on how we can integrate a strong cognitive challenge into language learning work. All of these derive from thinking in wider educational approaches, rather than within the traditional confines of language teaching. Here, I will just focus on three sources which I have found useful: Bloom's taxonomy (also discussed briefly in my first article in this series), school curriculum plans for 'thinking skills', and work in the area of 'philosophy for children'.

### Bloom's taxonomy

As I discussed in the first article, Bloom's taxonomy (2000 revision) offers a free-standing classification of different 'levels' of cognitive work, in which we can differentiate between 'lower order' and 'higher order' thinking skills (so called 'LOTS' and 'HOTS'). These can quite easily mapped onto work in language teaching, as this diagram shows.




For guidance on devising tasks which engage these different levels, there are numerous lists of 'Bloom's Taxonomy Action Verbs' available, as an internet search will readily reveal. These lists can suggest different types of tasks that can be developed. At beginner levels of language learning, for example, 'understanding' is often taken to refer to basic comprehension of the meaning of vocabulary or simple sentences. Anderson and Krathwohl's (2001) list of action verbs, however, shows that we can relate 'understanding' to different ways of asking learners to demonstrate their comprehension:

**Understanding** Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas.

- Classify
- Demonstrate
- Illustrate
- Outline
- Show
- Compare
- Explain
- Infer
- Relate
- Summarize
- Contrast
- Extend
- Interpret
- Rephrase
- Translate

The following example tasks, taken from materials for primary learners (Littlejohn and Hicks, 2002-2008), show how practice in ‘understanding’ at a low language level can be combined with work that is more cognitively challenging by engaging relate, explain, infer and compare.

**2** Welcome to Jungle Park! Read the sentences. Write the names of the animals in the correct place.



crocodiles   birds   frogs   snakes   monkeys   zebras   tigers

- 1** They're dangerous and they eat animals.  
snakes   tigers
- 2** They eat grass.
- 3** They live in trees.
- 4** They live in or near water.

**2** Circle. Say why.

- 1** red yellow orange Tuesday green
- 2** Monday Wednesday Thursday purple Friday
- 3** Lee blue Bella Anna Eddie
- 4** jump swim slide Friday dive
- 5** book pencil yellow marker ruler
- 6** living room kitchen bathroom Monday bedroom

**3** Think. Look at Exercise 2. Where can you put the animals?

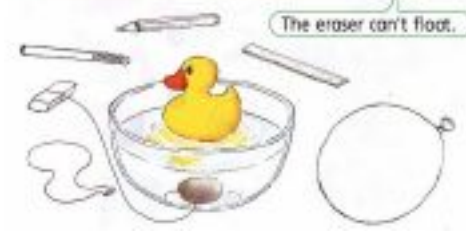


**4** Write about each place. What animal can you put there? Why?

**A** We can put the birds here. They live in trees.

**B** \_\_\_\_\_







**3** Color, think, join, and say.



The eraser can't float.

**2** Think. Choose two things. What are the differences? Ask a friend.

What's the difference between the Adventure Car and coral?  
The Adventure Car has wheels. It can move. Coral can't move.

 the Adventure Car	 an octopus	 a sea horse	wheels arms eyes a tail a mouth
 a fish	 a plant	 coral	move swim fly eat swim fast
			has got can can't

### School curriculum plans for 'thinking skills'

Many school systems around the world outline approaches to developing learners' cognitive abilities and provide very useful checklists and examples for classroom work. The National Curriculum in the UK, for example, now emphasises the development of 'thinking skills' as an integral part of all school learning, taken to include the following five categories:

- Information-processing skills (locating information, classifying, comparing, analysing part/whole relationships)
- Reasoning skills (giving reasons for opinions and actions, drawing inferences, using precise language to explain thinking, and making judgements informed by reasons or evidence)
- Enquiry skills (asking relevant questions, posing problems, planning research)
- Creative thinking skills (generating and extending ideas, hypotheses, imagination)
- Evaluation skills (evaluating information, judging the value a text, developing criteria)

(QCA, 2000)

Lists such as these offer good resources for the design of project work in language learning. The QCA list, above, is obviously intended for quite a high language level, but aspects of the list can be implemented at much lower levels, as the examples below show. Here we see examples of stages from larger tasks, beyond a simple self-contained exercise, which will involve the children in various steps of work. These include learning how to represent information graphically, identifying aspects to collect data about, developing means of evaluating, and using their imagination for creative poem writing.

**Step 4 A poem**  
Listen to these poems on the cassette.

Write a poem. In a rainforest or the rainforest speaks. Read your poem and make changes as you write. For more ideas, show your poem to your neighbour. Write your poem in a shape.

**The rainforest speaks**  
I give you plants for your engine  
and I got you rubber for your Toyota's car  
There are apples in my tree.  
2001  
Millions of years passed before you arrived.  
Trees died.  
Animals died.  
New trees arrived.  
You animals arrived.

**1 Make a chart about your class.**  
Write about your chart.

How many children go to school by bus?  
How many children go to school by bike?  
How many children go to school by car?  
How many children go to school on feet?

**Step 1 What do you need for a good life?**  
Brainstorm the things that you need for a good life. Make an outline of the word. Why is each part important? How many points can you think of?

**Step 2 Work in a small group**  
Your group choose two or three points each. Decide what you need for your points.

**3 Do it yourself! Write your own test**  
Work in small groups. Look back at Units 29 to 32 and write part of a test for your class. Look at Exercise 2 for ideas. Tell your teacher which section you are doing.

A 'news/news' B New words C Past tense verbs D Write about the Past tense

Give the test to your teacher to check and put together for your class.

## Philosophy for children

Much of the work in the area of 'philosophy for children' has been inspired by Matthew Lipman (1980) who used texts to stimulate children to think philosophically about real-life issues and to problem-pose, just as Freire (1970) had done with the use of pictures as a means to develop literacy in adults. 'Philosophy for children' is now practiced in many primary classrooms worldwide, and there exists a substantial bank of materials available (See, for example, [www.teachingchildrenphilosophy.org](http://www.teachingchildrenphilosophy.org), [www.sapere.org.uk](http://www.sapere.org.uk) and Robert Fisher's [www.teachingthinking.net](http://www.teachingthinking.net)). Most of this work is, of course, intended for first language use, given the obvious linguistic demands of 'talking philosophically'. However, as both text (in the form of stories, dialogues, etc.) and pictures are mainstays of second language teaching, it is not difficult to see that we can use questions as a way of stimulating learners' engagement with philosophical, ethical and moral issues. This example (from Littlejohn and Hicks, 1992-98) is for secondary learners, but it shows how a recorded dialogue can be used to raise moral dilemmas for discussion, appropriate for a teenage audience, with limited language abilities. In this case, the issue is the ownership of things that you find.

**1 What do you think?**

Discuss these questions with your class.

If you find something, does it belong to you? Does it depend on what it is? Does it depend on where you find it?

What do you think you should do if you find:

- a a cheap watch in the street?
- b a pen on the floor in your classroom?
- c a bag full of school books in the park?
- d a coin in the street?
- e an expensive camera in a restaurant?
- f some money on the floor at home?

**2 Lost property**

**2.1 It's mine!**

☞ Listen to Blake and Samantha. What did Samantha find? Why does she think it is hers now? What do you think?

BLAKE: Hi, Samantha. You look happy.  
*(Listening text)*

**2.2 With a teacher**

☞ Listen again. What does Rebecca think about the money? What should Samantha tell Mrs Wilson? What do you think Mrs Wilson should do?

REBECCA: Hi, you two. What are you arguing about?  
*(Listening text)*

In addition to the gains in cognitive engagement with the use of language in discussing philosophical, ethical and moral issues, researchers working on projects in philosophy for children claim improved levels of child motivation and attention, better behaviour and more interpersonal respect. There is certainly a challenge in making this kind of work available in second language contexts, but careful task design, matched to the language level of the learners, could potentially make 'philosophy for children' an enriching addition to the YL syllabus.

### Other possibilities

In this short article, I have only identified three main sources of ideas: Bloom's taxonomy, curriculum plans for thinking skills, and philosophy for children. Another source immediately comes to mind, however, which is the cognitive engagement that comes from what is known as metacognition in language learning, that is, thinking about learning or thinking about language. 'Learning to learn', as it is known, is now an established part of many primary courses. In some cases, this simply amounts to asking children to draw smiley faces to show how far they liked or disliked a particular activity. However, there is lot of potential available in engaging children in a much deeper way – for example, by making exercises for each other, by drawing up rules for classroom activities, by making tests for each other, by planning classroom work and so on. All of these can engage children more fully in their learning, and simultaneously draw in all levels of Bloom's taxonomy.

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