

TO CHALLENGE OR NOT? LEV VYGOTSKY AND PRIMARY GEOGRAPHY

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In this article, Susan explores the ideas of educational psychologist, Lev Vygotsky (1896–1934), and his influence on today's geography classrooms.

Born in Russia in 1896, Lev Vygotsky came to educational psychology after a career as a literature teacher. Today his work remains very influential in education. Vygotsky died of tuberculosis at the age of 38, so there is much we do not know about how his theories may have developed. Despite this, many of Vygotsky's publications are still being translated from the Russian, thus enabling us to apply his ideas to our geography lessons today.

Vygotsky's key ideas revolved around learning as part of pupils' development and so should lead, not follow, development. Indeed, he stated 'learning is development' (1978, p. 80). Vygotsky believed teachers should challenge pupils rather than simply responding to how pupils worked. He wrote extensively about the role of teachers and classrooms in developing pupils' thinking and language across school subjects.

Vygotsky's key ideas about teachers and classrooms

According to Vygotsky (1978), learning in children occurs through social interaction with others. He discusses the role of the 'more knowledgeable other' (MKO), who he viewed as a 'skilful tutor' that would challenge pupils. Vygotsky acknowledged that the MKO were generally teachers, but pointed out they could also be peers or other adults – although his work came before the presence of other adults became common in primary classrooms. The role of the MKO was to challenge a pupil beyond their current development through a 'zone of proximal development' (ZPD) (Figure 1). To Vygotsky, guiding a pupil through their ZPD related to: 'the distance between actual development level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or collaboration with more capable peers' (1978, p. 86).

He argued these types of activity should not simply involve 'direct teaching', describing such an activity as fruitless: 'a teacher who tries to do this usually: accomplishes nothing but empty verbalism, parrot-like repetition of words... covering up a vacuum' (1986, p. 150).

In today's context, teachers provide resources to support pupils' learning, such as thinking-type activities, fiction and non-fiction books, maps or images. Examples of challenging a pupil through their ZPD include:

- Giving pupils, in pairs, two maps of the world – one showing the location of earthquakes and volcanic eruptions and the other with the continental plates and their boundaries marked on. As pupils look at the two they should begin to realise, if they do not already know, that the earthquakes and eruptions generally occur at plate boundaries.
- Provide pupils with a printed grid on which to record data on where a butterfly would like to live in the school grounds. They carry out the data recording after a discussion, with images, of what butterflies may need (e.g. shelter, sunshine, stones for basking). Pupils visit different points in the school grounds and think about what butterflies would like or not like.

This enables pupils to understand that some aspects of the environment are important for butterflies and encourage them to specific areas. As the pupils do this, they are likely to realise that butterflies and pupils have similar needs of the environment.

- Asking pupils to work together to think about life in a different place (e.g. France) using photographs of a variety of places in that country, rather than photographs of just one place. (Although the pupils could then look at one locality (e.g. Paris) in more detail too.) Both of these ways of looking at 'different' places work well.

These are very much everyday activities in geography lessons; however, without the teacher (or MKO), the resources have little use. It is how the teacher mediates the use of resources through specific activities that is essential to challenging all pupils – supporting some within and stretching others beyond their ZPD.

Thinking and language

Vygotsky argued that educators should use a range of ways to assess and make judgements about pupils' learning. Through his work directly with children, Vygotsky concluded that it was important for us as teachers to observe pupils at play and work

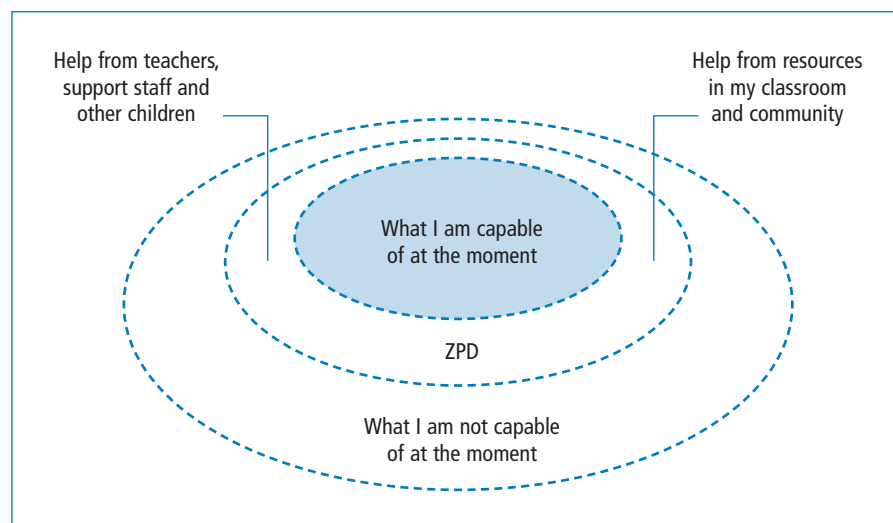


Figure 1: Vygotsky's Zone of Proximal Development.

and to use such observations to plan learning activities. Such thinking runs parallel to ideas around learning through enquiry in geography education (Roberts, 2013; Pike, 2016). Vygotsky also places an emphasis on the role of language in cognitive development. He discusses how cognitive development in children arises from 'an internalization of language, the most significant moment in the course of intellectual development... occurs when speech and practical activity, two previously completely independent lines of development, converge' (1978, p. 24). Vygotsky also wrote extensively about the importance of children's internal and external speech in enabling children to understand new concepts – an essential aspect of geographical learning (Vygotsky, 1978, 1986). Vygotsky referred to this as co-operative or collaborative dialogue (1986): the child seeks to understand the actions or instructions provided by the tutor then internalises the information, using their understanding of it to guide what they do next; i.e. learning is essential to language and learning needs language.

Vygotsky's ideas in today's classrooms

Classrooms have changed somewhat since Vygotsky's time. We now have more resources that we can use to scaffold pupils' learning. Examples of visual and thinking resources are discussed below.

Example 1: Visual resources

We know that using all types of visual material, including video, still images, maps, schematic diagrams, paintings and

sculptures, enhances pupils' understanding in geography. This usage is an example of teachers scaffolding pupils to develop through their ZPD. The choices teachers make about the images pupils use can have a huge impact on the pupils' thoughts about distant people and places, and of the more familiar. Using technology, pupils can easily select and manipulate images for themselves.

Example 2: Thinking resources

We know that geographical activities such as mysteries and dilemmas as well as sorting and ranking activities are popular for challenging pupils to think more deeply about an issue. These types of resources were clearly inspired by thinkers such as Vygotsky, and are a perfect example of scaffolding pupils' learning of concepts. The use of such resources can also:

- inspire geographical enquiry questions from pupils
- embed large amounts of information within the cards of writing or images
- help pupils think of ways to categorise information, with or without the support of an adult.

A number of benefits accrue from using these resources, which only become evident as the pupils carry out the activities. First, the weaker readers can access text because it is broken up into short phrases and thus easy to manipulate. Second, they encourage pupils to work together to think and problem solve. Third, they give pupils opportunities to think about and articulate their thinking processes.

Visual and thinking resources are just two of the many ways teachers can scaffold pupils' learning in geography. It is the selection and use of these resources by teachers that enable pupils' learning to flourish.

Vygotsky in lessons: trees and forests

Figure 2 provides examples of the ways we (unwittingly, perhaps) draw on Vygotsky's ideas in geography lessons and in fieldwork. Many actions that come naturally to teachers, such as knowing exactly when to intervene or to let a pupil persevere at a task, are all about working within pupils' ZPD. This includes the resources we use as well as the ways in which we support pupils through working with them. In fact, Figure 2 cannot hope to capture all the ways this could happen – but key questions and examples are shown in bold.

Research shows us that pupils like geography because they learn to do things they did not know or could not do before. It provides us with effective ways to teach geography, such as through enquiry, with challenges and always with fieldwork. Part of the reasons we teach geography like this is because of the many influences of educationalists such as Lev Vygotsky.

References

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Stages of enquiry	Younger classes	Older classes
Generating ideas	Walk in school grounds to generate ideas about trees through teacher supported discussions.	Using photographs to talk about the rainforests.
Possible enquiry question	What trees grown in our school? What lives around in and around our trees? How does a habitat work?	Where are the rainforests found? Why are rainforests found there?
Collecting data	Observing trees, tree activities* , collecting leaves, working out tree types from leaves and or buds using a key .	Using a range of images and video on rainforests. Looking up the location of tropical biomes in atlases. Marking the location of rainforests on a world map . (Pupils may choose a map with outline of location on or not.)
Presenting data	Drawing different trees for display. Mapping trees in the school grounds using a base map .	Pupils, supported by teacher input explain why rainforest are located as they are in the world.
Making sense of data	Pupils verbally describe, with the support of the teacher , the patterns they have observed.	Pupils complete a living graph activity to relate information about rainforests to their everyday life.
Answering enquiry questions	Pupils produce a class map of the trees in the school.	Pupils complete a diary entry from the rainforest, supported by reading other accounts from a variety of sources.

Figure 2: Examples of resources for scaffolding learning about trees. (*Tree hugging, climbing, investigating, aging trees, naming trees, finding stories in trees, etc.)

WEB RESOURCES

Examples of locality-based topics, such as the Young Geographer project:
www.geography.org.uk
Keys and spotting guides for trees:
www.woodlandtrust.org.uk/naturedetectives.

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