

The generation gap

Chris Payne refutes the idea that two wrongs don't make a right.



Take a moment to answer this question:

How do you say the Italian word 'gomito' in English?

Now, unless you have some knowledge of Italian, you will probably consider this to be a pointless question. Without prior knowledge of Italian, your answer can only ever be a wild guess, and because the question is devoid of any context and meaningful co-text, you might even think that trying to come up with an answer is a complete waste of time.

But you'd be wrong.

However implausible it may sound, research has shown that generating a *wrong* answer by guessing, and receiving corrective feedback, can increase the likelihood of remembering and learning the *right* answer.

The research

Rosalind Potts and David Shanks conducted a study in which the participants learnt definitions for obscure English words and English translations of words from the Basque language of northern Spain. It is the latter which is of particular interest to us here, for its potential application to the ELT classroom.

In the Basque language study, the participants were placed in three groups:

- One group was given Basque words to read, with their English translation.

- Another group was given multiple-choice questions, with Basque words for which they had to pick the correct English meaning.
- The third group was asked to guess the meaning of Basque words by generating their own response – which uses the same principle as my example above with Italian.

Each group was given corrective feedback on their answers, before taking a final test.

The results of the study revealed that the participants from the group who generated their own answers consistently scored higher in the final test than those from the other two groups.

The generation

The main aim of Potts and Shanks's study was to ascertain whether vocabulary learning can benefit from 'errorful generation' – that is, making an *incorrect* guess at novel vocabulary items which have not been studied previously. The research suggests that guessing at answers, even when students generate errors, can result in enhanced retention, provided that corrective feedback is given.

But if the students have never learnt something in the first place, how can being 'tested' possibly be beneficial?

The gap

One explanation offered – for why errorful generation can lead to better memory performance than multiple-

choice questions or simply reading the correct answer – is that the act of generating a wrong answer creates a gap in our knowledge.

Alerted to our own ignorance, our curiosity is piqued about the correct answer, so we tend to pay more attention to feedback that is given on an incorrect answer which we have produced ourselves.

When we read or study, there is no gap to notice because the information is always visible. This is also the case with multiple-choice questions – although, of course, we still have to select the right word. But it is still one of a number of visible options, so when we find out the correct answer, it rarely comes as a complete surprise.

It's the thought that counts

Reading and answering multiple-choice questions are less effective ways of strengthening storage in the long-term memory because they require less thought. The more we think about something – in this case, our incorrect response and the subsequent correct feedback – the greater the possibility we have of remembering it. Or, to quote Daniel Willingham, '*Your memory is not a product of what you remember or what you try to remember; it's a product of what you think about*'.

But what are the implications for the classroom of the 'generation effect'? Although Potts and Shanks were fully aware of the benefits to memory of errorful generation and found it to be a powerful learning tool, the *participants* in their study were oblivious to its advantages. After each vocabulary item, they were asked to predict how likely they were to remember what they had learnt, by making what the researchers call a 'judgement of learning' (JOL).

The JOL was a number from 0 (= No chance I'll remember it) to 100 (= I'll definitely remember it). The participants gave lower JOLs to their own generated responses because their perception was that they made vocabulary learning more difficult than when reading or answering multiple-choice questions, even though the research convincingly suggests the converse is true and that self-generated responses lead to a higher final test performance.

It's the students that count

For errorful generation to have a positive effect on learning, we need to encourage our students to guess more at the meaning of unknown vocabulary, even though they are likely to give a wrong answer.

But don't all teachers do this already? Orally, we probably do, but I propose an increased use of written 'pre-tests' – in the sense that you test something that you haven't taught before – and in which teachers should insist that the learners guess at an answer in order to ensure student generation, rather than accepting the default response of 'I don't know'. Here are some examples of question stems that can be used to pre-test new words:

- *What do we call the thing we _____?*
(eg sit on in a park)
- *What verb is used to say _____?*
(eg jump up and down on one leg)
- *What word describes a person who _____?*
(eg doesn't eat meat)
- *What is another word to say that _____?*
(eg a plane is late)
- *Where do we go to _____?*
(eg play tennis)

If your class speak the same L1 and you are able to use their language in the classroom, you can also ask the students to guess at the *translation* of lexis – like the participants in the Potts and Shanks study.

It's the guesswork that counts

But isn't asking the students questions like those above just time-honoured 'eliciting' by another name?

No. In fact, it could be argued that encouraging errorful generation flies in the face of elicitation – in that you can't elicit from students what they don't know. Eliciting seeks to draw out knowledge that the students already have but which may lie latent, so it does not usually involve simply guessing, whereas, with errorful generation, the teacher is reasonably confident that the vocabulary in question is unknown to the class.

Obviously, guesswork ought to be used in moderation, and I'm certainly not implying that we should eschew teacher-led instruction in favour of constant stabs in the dark. If errorful generation is overused in the classroom, the generation effect could be a negative one, with the danger that our students will become frustrated and perhaps experience feelings of inadequacy at frequently not knowing the answer.

That said, the research on errorful generation is pedagogically relevant to any situation in which new information is to be learnt, and it may have a role to play in facilitating vocabulary learning. The active process of generating our own *incorrect* responses can help us to notice the gaps in our knowledge and, consequently, can aid our retention of the *correct* language – more so than when we passively read the correct information. ■

In case you were wondering, the English for 'gomito' is *elbow*.

Didau, D *What if everything you knew about education was wrong?* Crown House Publishing 2015

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It really worked for me!

Did you get inspired by something you read in *ETP*? Did you do something similar with your students?

Did it really work in practice?

Do share it with us ...

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