HERBERT PUCHTA

JS: When I interviewed you in March 2000 for **New Routes®** # 9, my last question was about what major changes you foresaw for the future of English Language Teaching. You said, and I quote, "I think brain research is going to come up with further interesting insights into the workings of the human brain and somehow this will further influence what will be going on in the classroom." So, what interesting insights has brain research come up with in the last eight years?

HP: There are so many new insights that I'm afraid just naming them all would fill more than one issue of your wonderful magazine! Here are just two examples: first, the fascinating insights found by Domasio and Sadoski & Paivo into how language and images work together in our brain to create what we call thought. Second, the very recent discovery of mirror neurons in our brain offers insights into how children learn language and behaviour through watching and imitating other people. This explains why Total Physical Response (TPR) works so well as a language teaching method, especially for young learners.

JS: Could you tell us about Howard Gardner's pioneering research into human intelligence and his theory of Multiple Intelligences (MI)?

HP: Howard Gardner has clearly shown beyond any doubt that there is no single mental capability that can be called 'intelligence' but that we humans have multiple intelligences. Gardner argues very convincingly that IQ tests and schooling usually draw on only the linguistic and the logical–mathematical

intelligences. He provides evidence that we are not born with a certain IQ that decides our life, but that our varying intelligences can be developed, and that our brain is like a muscle: use it or lose it!

JS: What are these intelligences and what is the relevance of his findings to the language classroom?

HP: Apart from the two intelligences mentioned above, Gardner proposes another six that our thinking skills draw on. There are the intra-personal and the inter-personal (whether someone is predominantly self-smart or people-smart); there is the visual–spatial (that an architect, for example, would require); the naturalistic (the ability to notice and understand the natural world); the kinaesthetic (the wisdom of the body); and last but not least, our musical intelligence.

JS: Howard Gardner's first book on the subject, *Frames of Mind*, was published in 1983 and followed by *Intelligence Reframed* in 1999. Recently Gardner stated how disappointed he is with the fact that traditional education worldwide still continues to draw on two of the human intelligences, the linguistic and the logical–mathematical. Do you share his disappointment in terms of the practical application of MI to language teaching and learning?

HP: We know that educational systems are slow-moving animals, so I understand and share Howard Gardner's concern. However, while it seems so difficult to change schools in general, foreign language teachers seem to be more open to innovation than other teachers; I notice an enormous amount of interest from language teachers worldwide.

JS: Howard Gardner himself had this to say about your work: "It represents one of the most original applications of Multiple Intelligence Theory that I've seen." That's quite a compliment! What exactly is so original about the way you have tried to enrich teaching and stimulate and help students who are learning English?

HP: I'd like to return the compliment; the ideas that Mario Rinvolucri and I created for our book *Multiple Intelligences in EFL* have only become possible because of Gardner's work! Teachers see that the activities create an enormous amount of interest from their students, that they are fun, and that they are pedagogically valuable, as they combine two important aims: the development of cognitive skills with sharply focussed language learning.

JS: For the vast majority of teachers of adolescents, work on MI is not part of existing syllabuses and many teachers need to concentrate on helping their students to pass exams, so would it not be better for these teachers to just continue doing what they've always done?

HP: I am not advocating a radical change; we are well advised to continuously evaluate what we do in our classrooms, and when what we've been doing is successful, to keep doing it. But *If you always do what you've always done, you'll always get what you always got!* Where we notice areas where we can improve, we can combine the proven with the new. The concept of Multiple Intelligences can be of enormous help with teenagers. Adolescents often doubt their own capabilities. They need a lot of support and the creation of a CAN DO spirit. So my advice to teachers of adolescents is to try a few Multiple Intelligences activities, and see how they work. And, of course, the choice of content can really make a difference in the teaching of adolescents.

JS: Work in ELT primary classrooms has, to a certain extent, always involved MI by activating various intelligences in the classroom with pictures, songs, TPR etc. Why should these teachers be careful not to mix up multi-sensory teaching with MI teaching? What is the difference?

HP: Using pictures in a foreign language class is not necessarily about teaching from the visual spatial intelligence, and singing a song with your children will not automatically activate their musical intelligence. As Howard Gardner once said on the US radio show *Edutopia*, "I remember seeing a movie about multiple intelligences and there were kids crawling on the floor and the legend said 'bodily kinaesthetic intelligence'. I said, 'That's not bodily kinaesthetic intelligence, that's kids crawling on the floor. This is making me crawl up the wall!' […] to have kids crawl or exercise their vocal cords, that's not intelligence." In the same interview Gardner stressed the importance of deciding what our educational goals are, and – when we know that – considering how we can help our children achieve them better. 'Multiple intelligences' itself cannot be a goal – nor is singing a song, using pictures, getting students to move around the classroom etc. – but the knowledge of MI can help us achieve our goals better.

So, if a language teacher uses multi-sensory activities, their goals might be to make language more memorable, and involve their students in a holistic way; valuable indeed. But MI activities are aimed at different goals; giving students the realisation that their teacher is addressing their individual needs, and helping them develop their thinking skills while becoming more efficient language learners. This approach can also be extremely important for producing better exam results – because its aim is to help students make more of their brain potential!

JS: How does using MI work with primary-age children offer opportunities to develop their thinking skills alongside language learning?

HP: If your goal was to revise the lexical set 'pets' with 6–7-year-olds, instead of holding up a picture of a rabbit and asking 'What's this?', you could get them to complete a picture sequence and read it out: 'cat – dog – rabbit – cat – dog – rabbit – cat – dog – RABBIT!'. This is not only interesting and highly motivating for those kids with strong mathematical–logical intelligence, but is useful for all learners. It helps to revise vocabulary in a much more interesting and challenging way, and in addition helps develop pattern recognition, a skill that becomes extremely important for the noticing of language patterns!

JS: What are some of the main advantages of MI work in the language classroom?

HP: In a conventional language class, it is usually the linguistically sharp students who are regarded as intelligent by the teacher and therefore get a lot more attention and positive feedback. However, as soon as the teacher starts using MI activities, the students who otherwise feel that the language lessons have very little to offer them might well become more interested.

Teachers using MI activities also often discover that language teaching can facilitate the development of thinking skills alongside linguistic skills. From the students' point of view, this will give added value to the time spent in the language classroom.

And applying the MI concept to language teaching also means helping students, especially young or teenage ones, to acquire social skills that are important for living together in harmony with others, and for using another language more efficiently and communicatively.

JS: Changing subject slightly, what are some of the practical applications of the latest findings from research about the teaching and learning of grammar and the human brain?

HP: Recent findings stress that 'noticing' is a very important step towards getting the grammar right. Many students do not mind whether they use, for example, the present simple or the present continuous because they have not noticed the difference in meaning between them. Scott Thornbury talks about 'leading the students up the garden path' – occasionally using activities where they will get it wrong at first, and then, through noticing the difference made by the use of a certain structure, begin to understand why that structure matters.

This accords with the latest brain research showing that a learning process is more efficient if students initially make wrong predictions, rather than getting it right from the start as in a drill-like activity. And which of us as a teacher hasn't noticed that our students get it perfectly right in a drill, but get it terribly wrong when communicating freely?

JS: How can we teach grammar in a more creative way?

HP: I suggest that after helping students to notice – no more than that at first – the meaning of a certain grammar structure in context, the teacher presents some appealing and emotionally powerful model texts and invites the students to create their own texts based on them. So students practise the structure in a condensed form, and at the same time personalise it, which is enormously helpful in anchoring the structure in their long-term memory.

JS: You have recently explored new ways to enliven the classroom by using visualization, mental imagery and students' inner resources. What is the importance of this for cognitive processes in general and for better language learning in particular?

HP: Mental imagery processes help students relax and focus their attention. They turn the students' attention inwards, and provide effective stimuli for speaking and writing. They facilitate reading and listening, and they help create direct associations between the students' thoughts and their foreign language – to facilitate the ability to act and react spontaneously in the foreign language, without having to continuously translate between L1 and L2.

JS: Okay, Herbert. Thank you very much indeed. I will not finish, this time, by asking you to gaze into your crystal ball again, but I do hope to have the pleasure of interviewing you again in the future and allowing you to share with us the findings from your research and the practical applications to the teaching of languages.

HP: Thank you so much, Jack! ⬡
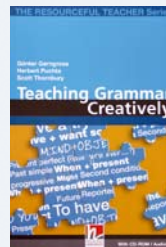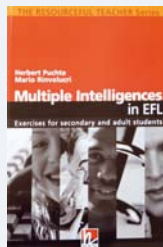
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The interviewee

Dr Herbert Puchta is a writer and international teacher trainer. Herbert is a master practitioner in neurolinguistic programming. For more than two decades, he has done research into the practical application in EFL teaching of findings from cognitive psychology. Herbert has co-authored numerous course books and resource books. His latest resource books are *Multiple Intelligences in EFL* (with M. Rinvolucri), *Teaching Grammar Creatively* (with S. Thornbury and G. Gerngross) and *Imagine That!* (with J. Arnold and M. Rinvolucri). His latest course books are *English in Mind* (for teens) and *MORE!* (for Juniors), co-written with Jeff Stranks and others.