



## Brain-Friendly Classrooms

**Smile ☺ We are teachers of DaF: *Deutsch als Fremdsprache*.**

We know the joy of being able to speak more than one language. Some of our colleagues, our students and their family members may not have had a positive learning experience in language classrooms.

The old saying *Deutsche Sprache – schwere Sprache* is not helpful – and not true. Greater levels of proficiency can be reached in German in a shorter time. Of course that is if there is a will to learn, as well as skills in learning how to learn languages. For many, including those who have learnt German and become teachers, it is: *Deutsche Sprache – schöne Sprache*. Our personal attitudes impact on others.

Convincing others of the benefits and opportunities of learning languages, and in our case German, is (regrettably) a constant battle in many schools. It relies on the language teacher providing a positive learning environment, actively looking for ways to connect to students, and demonstrating to students, families and colleagues how enjoyable learning languages can be, and the progress students are making. It certainly involves being vigilant of what is happening in the school and knowing who makes the decisions about curriculum, and in secondary schools, timetabling and subject-blockings, and the effect these have on retention of students. We need to be politically savvy in the school, but a quality learning program where students experience success helps keep German being offered in the curriculum and elected by students.

### Tips for Creating Brain-Friendly Language Classrooms

Some of the tips here relate to all teachers, as we all share the same challenges and goals of developing the skills and attitudes for life and learning in school and beyond. Others are specific to learning German. There are multiple links on the AGTV website for why to learn German.

#### Tip 1: Be an Empathetic Learning Coach

One of the hardest things for students is overcoming the feeling of frustration and a sense of incompetence if they can't say and do everything they want to immediately. Patience and persistence are qualities we need to foster in language classrooms.

For teachers, this means being mindful of the risk-taking required. It means welcoming all attempted use of the language no matter how limited or how grammatically incorrect. We must believe that all students can learn and all students can learn languages. The students have already done it once in at least one language and that took years, as does learning another.

Strategies to learn languages need to be explicitly taught to students to give them the tools they need to learn languages now and in the future. How to use a dictionary, electronic or otherwise is one of them.

We are the guide by their side helping them move them from dependence to independence, from modelling and repetition to personal creativity, from inexperience to competence.

We encourage them on their personal learning journey, which for some will start with learning how to learn productively with others. We share the role with all teachers of promoting positive learning behaviours.

We connect to the world of the students and open doors to the world they don't know about and the alternate world views within their own classroom and in different cultures.

We set meaningful tasks to challenge their thinking, and consolidate and improve their skills.

We show how much fun it can be to learn German and the opportunities now and in the future for speakers of the German language. We look for a WIFFM (*What's in it for me?*) for students in every lesson.



## Tip 2: Understand how the Brain Learns

Certain basic tenets about the brain can be applied to all classrooms. Some of these include:

- The brain needs multifaceted experiences: *Variety is the spice of life! Learning styles and MIs*
- The brain seeks patterns: *Have I seen something like this before? What connections can I make?*
- The brain searches for meaning: *Why? What's this got to do with me? Do I need this?*
- Stress inhibits learning: *Do I stay and fight or flee in fright? It's hot in here!*
- Learning is developmental: *Age, environment and experience change the structure of the brain.*
- The brain is social: *Working in groups is brain-friendly.*

Recommended resource: *br@in-based teaching :) in the digital age*, Marilee Sprenger, ASCD 2010

### RAS Filters

The Reticular Activating System (RAS) is responsible for screening the sensory information coming into the brain and sorts the important from the unimportant. The RAS has three priorities.

- Physical need: If the brain detects that I am hungry or dehydrated or tired or in pain, its ability to pay attention to other stimuli is limited. Physical need overrides other priorities and prevents paying attention to other more cerebral tasks.
- Novelty: The brain seeks out new things. Something novel or new or out of the norm will always catch your attention. Students who are new to German in Year 7 listen closely and often remember the first things they learnt years later (a rhyme, a song). Sometime after that, some students lose interest if novelty is missing or things become too predictable and – well - boring. It is a challenge to keep connecting to their personal worlds to get their attention.
- Self-made choice: This is our conscious mind deciding, for whatever reason, that we want to pay attention to something. How many students come into the classroom and make a conscious decision that “German is important to me. I’m going to ignore all the other things going on around me today and pay close attention to the teacher because I’ve always wanted to learn how to conjugate German verbs.”

### Chemical Reactions

The brain not only filters information, but chemicals can activate or block the pathway to different parts of the brain, especially the areas for higher order thinking.

Chemicals in the brain act as neurotransmitters, such as Dopamine and Endorphins.

Dopamine: neurotransmitter most associated with satisfaction, pleasure, and intrinsic reward-stimulated learning. Neuro imaging has found that dopamine release increases in response to humour, movement, choice, positive interaction, music, and listening to stories read aloud.

Endorphins: neurotransmitter associated with learning, memory and pleasure. The level of endorphins is raised through positive experiences and interactions, and exercise.

Source: *A Student's Brain: The Parent/Teacher Manual*, Kathie F. Nunley, Brains.org, 2003

Chemicals relate to emotions and learning is an emotional experience, especially for young learners. Information about the relationship between learning and the emotions is explained on this link:

[http://wik.ed.uiuc.edu/index.php/Learning\\_and\\_Emotion](http://wik.ed.uiuc.edu/index.php/Learning_and_Emotion)

We know that the brain will block pathways to more cognitive sections if it is feeling threatened. Developing trusting, personal relationships with students opens the brain to learning opportunities.



### Tip 3: Understand how Memory Works

All learning relies on memory. Understanding how to promote the conditions to move information from the short-term to the long-term memory informs teaching and learning programs.

According to some research, students may need to be engaged with a new concept 28 times over a three-week period to get the information stored permanently. (Marzaon, Pickering, & Pollack, 2001)

#### Strategies to trigger memory systems include:

**Semantic:** Mnemonic devices, Summaries, Mind maps, Pictures

**Episodic:** Change in seating arrangement - Use of coloured paper, pens or markers - Excursions- Accessories - Objects

**Procedural:** Puppet shows - Action figures – Dance – Manipulatives

**Conditional Response** (automatic): Flash cards – Limericks – Metaphors – Songs

**Emotional:** Humour – Stories – Music - Celebrations

See: *Basic Principles of Learning* link under **Teaching: Teaching Resources** – Memory and languages  
*Brain Basics* link under **Students: Tips for Learning**

### Tip 3: Design Curriculum Programs with the Brain in Mind

Brain research informs our teaching. It not only explains behaviours, it provides tips on what to do to create the environment in which learning can occur.

#### What makes the best learning experiences?

- Actually doing something
- Doing it with others
- Having support from a teacher /coach /parent
- Having an audience for the learning
- A sense of having learnt something
- A sense that the task was tough
- Having some sense of personal progression
- Some passion about the whole activity

Source: Andrew Hiskens – <http://www.kbng.net/community/>

### Tip 4: Basic Formula for Maximising Learning: 7Rs x 2 + 3Cs

- **Relationships:** create a safe learning environment to encourage risk-taking
- **Reduction:** reduce the content to core skills and concepts and be creative to practise these often
- **Relevance:** relate the learning to the students' personal worlds
- **Rigour:** stretch the students' thinking but with achievable challenges
- **Responsibility:** promote responsibility by providing choice within topics
- **Reflection:** provide strategies for students to know what and how they learn
- **Rapture:** celebrate success by acknowledging progress in personal or language learning
- **Chuckling – Colour - Creativity:** use humour, colour and images to attract the attention and relax the brain to do what brains do best – making meaning, thinking, being creative.



### **Tip 5: Establish the Right to Make Mistakes**

Creating a supportive learning environment is crucial for all learning situations and we can sometimes forget that students can feel threatened by not understanding everything and so the thinking brain shuts down and the reptilian brain kicks in with a fight or flight response.

All students need to know that their contributions will be welcomed and respected by the teacher and the students. We need to develop a learning community with room for all.

Fostering positive and supportive attitudes to languages education requires constant attention. Praise students for their efforts. Welcome all comers. It is risky business in unfamiliar territory.

### **Tip 6: Set a Good Example and Speak German Often**

Use German in the classroom as often as possible from the first day. Students are expecting the German teacher to speak German.

Expect increasing contributions from students in German as their skills develop.

If we understand how memory works, we need to find creative ways to go over vocabulary and concepts – and not be disillusioned when it takes a long time for students to get it – or when they forget it. It is our job to help them learn what they need to know to make progress, including strategies to use when they are stuck.

### **Tip 7: Begin with the End in Mind**

Know what you want to achieve and be flexible in how you get there. No two classes are the same and programs need to adapt to the learners needs and priorities.

At both primary and secondary level, the aim is for as many students as possible to choose to learn another language through to the end of Years 12, whatever that language might be.

Our teachers in Primary lay the foundation for the future learning of languages at secondary schools. They foster positive learning attitudes to learning about languages and cultures, and reinforce learning in the general classroom. Teachers scaffold the learning to match the stage of development of the students' brain, something primary teachers usually understand better than many secondary teachers. Why are we so surprised adolescent hormones kick in and they become 'difficult'. Look on it as a challenge.

At Secondary level, all teachers need to understand the types of skills and knowledge that students need to develop to be able to confidently enter the external exams at the end of Year 12. We need to scaffold the learning in earlier years to work towards this goal and now we are providing steps up the ladder.

This is not to say we start teaching the VCE in Primary School or Year 7. However, there are certain skills students need to practise over time that can be nurtured in earlier years. And the more general knowledge and vocabulary and structures students have about German-speakers and their cultures in D-A-CH-L and Australia will stand them in good stead for thinking more deeply about topics in later years.

Knowledge of the assessment criteria for VCE will highlight the fact that communication and content is worth as much or more than the accuracy of the grammar, and that being able to listen or read for specific details, and spontaneously express ideas and opinions in appropriate text-types and situations are key skills that begin in Year 7 – starting with greetings and numbers.

### **Tip 8: Use Graphic Organisers**

Thinking is not linear, mind maps are more like our brains. Graphic organisers are excellent ways to help the brain make connections, organise thinking and require less language e.g. comparisons with Venn diagrams  
Link to Graphic Organisers <http://vels.vcaa.vic.edu.au/support/graphic/index.html>