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MULTIMEDIA DIDACTICS
- THE ART AND SCIENCE OF TEACHING HOST COUNTRY LANGUAGE -

2021-1-DE01-KA220-HED-000031184



PRACTICAL HANDBOOK

A didactic concept for intensive teaching
of a host-country language as a foreign language
through multimodal and blended learning approaches



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TEACH ME MULTIMEDIA DIDACTICS - THE ART AND SCIENCE OF TEACHING HOST COUNTRY LANGUAGE	
Action type	Erasmus+ KA220-HED - Cooperation partnerships in Higher Education, 2021
Priority	HE: Stimulating innovative learning and teaching practices
<p>Europe thrives on people meeting and understanding each other. Language is the key competence for this. We want to enable young Europeans to study in other European countries. In doing so, we focus on countries that are less in demand and languages that are less widely spoken. Learning these languages in a relatively short time requires sophisticated didactics and methodology. The process of getting to the foreign country for studies can be tricky. One barrier may be language skills. Comprehensive methodology and didactics for teaching languages as a second language for newcomers rapidly has not been developed yet. Insufficient or no support (both didactic and formal) has been found in any of the partner countries. In the process of looking for solutions for the above described challenges, the partnership of TeachME project decided to create neuro didactic based online tools not only for international students but also for teachers, educators and facilitators of such intensive language courses.</p> <p>The project brings significant learning outcomes to students who want to study in the host-country language since it offers innovative blending of synchronous and asynchronous learning. International students get authentic information about language structures, they learn vocabulary, culture and civilization, grammatical structures specific to each host country language and the mechanisms of their usage. They integrate appropriate grammatical structures in the oral and written discourse, in real-life communicative contexts. In contrast to students that spend their time in countries with minor languages and study English programmes, we want international students not only to choose countries less in demand but also to immerse into the host country language and culture. In this way, students are more connected to their learning and integrate knowledge and skills with other areas of their lives.</p> <p>Based on the innovative approach to learning, we expect that partner organizations will attract more foreign students to study at universities in partner countries with minor languages. The objectives of the TeachME project are:</p> <ul style="list-style-type: none">  To increase the number of young adults who want to learn minor European languages  To establish a European role model: a set of intensive language programs tailored to the needs of youth interested in the study at a foreign university in any of the partner countries.  To promote transnational cooperation and mutual learning between the partners who represent different sectors of education in order to improve education systems, structures and processes.  To support exchanges and make visible good practices, dialogue, mutual learning and cooperation among policymakers, practitioners and stakeholders from partner countries. 	

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1. Introduction to the Handbook

One key ability in the life of many young people is to master one or more foreign languages to be able to find good jobs, communicate in the globalised world and establish an identity (cf. Moravcová & Maďarová 2016: 634). Teaching languages is important all over the world and many educational institutes are responsible for supporting this learning process.

Neurodidactics is a rather new method for teaching languages. It is known since the 80s of the 20th century and combines the research of the brain and didactics (cf. Moravcová & Maďarová 2016: 635). It is an interdisciplinary method and combines furthermore findings from neuroscience, educational science, didactics and psychology (cf. Moravcová & Maďarová 2016: 635). Neurodidactics can be defined as a science that organises educational processes according to the current findings about the functions of the human brain (cf. Jazykové vzdelávanie qtd. in Moravcová & Maďarová 2016: 635).

Key areas are **education**, the **personality of the learner** and the **motivation to learn** the language (cf. Jazykové vzdelávanie qtd. in Moravcová & Maďarová 2016: 635).

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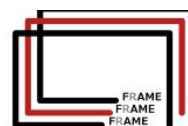
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2. Basic Principles of Learning

Two factors are highly relevant for learning: the brain (more precisely, the cortex) and neurons. From a neurobiological perspective, learning is the development of neural networks in the cortex through the building of connections between neurons (cf. Moravcová & Maďarová 2016: 636). Insights into brain processes are less complex than they sound and allow many conclusions to be drawn about how to make teaching effective, purposeful and brain-friendly. Neurological findings regarding the brain largely confirm what educators worldwide have been practising for several years on a scientific basis and combine and link traditional ways of teaching from a more current view (cf. Moravcová & Maďarová 2016: 635). For example, it has now been confirmed on a scientific level through the observation of processes in the brain that **stress hinders the transmission of information**, and that **encouragement and positive emotions favour it**. The reason for this is so-called neurotransmitters or messenger substances which occur more or less in the brain depending on the situation and in doing so, they make it more difficult or easier to store information in the brain (cf. Grein 2022: 7).

When it comes to an effective and sustainable way of learning, one can state that the goal of learning is not just to acquire knowledge, but to be able to use that knowledge in a variety of different settings. The rate of learning can vary within the same individual because it can be affected by motivation, emotional mood, degree of focus, and the context in which the learning occurs. The brain changes its own properties as a result of experiences. Before presenting modern techniques to support brain-friendly learning, it will first be described what happens in the brain while learning and which brain areas interact with each other for this purpose.

The Cortex

The Cortex is separated into two brain halves called the hemispheres. The hemispheres are connected to each other by nerve cords and they communicate with each other via a beam called Corpus callosum. For languages and also the learning of a language, all areas of the Cortex are activated, some more than others, but linguistic activity cannot be assigned to only one areal (cf. Grein 2022: 26). One special part of the brain, the limbic system, is even active before the actual speech processing.

The limbic system

The limbic system is located in the centre of the brain and every piece of information (*scientific term*: stimulus) passes through it. This system rates every incoming information unconsciously according to the categories **known – unknown, important – unimportant, and pleasant – unpleasant** (cf. Grein 2022: 27). It "decides" if it even wants to register and forward the information on an emotional basis (cf. Moravcová & Maďarová 2016: p. 637). When the limbic system passes on the information, the cortex evaluates the information consciously and with a comparison of information already stored (cf. Grein 2022: 28). If a piece of information is classified as unimportant it is not forwarded to the working memory and cannot be stored. That means that it is possible that learners seem to listen to a lesson but that no information actually reaches their brains (cf. Grein 2022: 28).

When learners attend a course voluntarily, more information reaches their brains because of positive emotions. The opposite is the case when courses are compulsory and when learners do not understand their meaning and purpose. The limbic system reacts positively to voice modulation and dual coding, meaning it uses several senses for teaching and learning (cf. Moravcová & Maďarová 2016: 636; Grein 2022: 29). Additionally, it is helpful to make the benefits of the knowledge stocks clear to keep the learners curious.

Motivated and credible teachers also need to provide positive emotional outcomes because these positive emotions convince the learners that the knowledge they are presented with is meaningful and profitable.

2.1. Memory and learning

Three forms of memory can be distinguished:

1. The sensory register
2. The short-term memory (or working memory)
3. The long-term memory (implicit and explicit memory)

In order to be retrievable for a longer period of time, what is learned should be stored in the long-term memory. In the sensory register, however, information is first recorded for a short time and passed on to the short-term (or working memory) if the emotional classification is positive. In order to reach the long-term memory, the information must be repeated, preferably in different contexts and in variable ways (cf. Grein 2022: 52-56).

Every piece of information that reaches the brain triggers connections between neurons. Repetition triggers the same neurons and thereby leads to stronger connections between them (cf. Grein 2022: 30). If you do not repeat anything for one week, the neural structures created will be gone soon. Repetition of the same information thus leads to the storage of knowledge in the long-term memory (cf. Grein 2022: 33-35). The same applies to foreign language teaching. If you teach something on a Monday and your students do not rehearse the content for one week, they will have forgotten most of it. Therefore, homework can be very useful (cf. Grein 2022: 34). More precisely, only working in a classroom is not enough so it is important to point out to the students that they are supposed to work at home on their own in order to strengthen their neural paths. In doing so, they repeat and systemise the newly acquired information.

2.2. Learning languages

"Learning languages and acquiring languages are two different things" (Böttgers 2016: 69). This difference is also based on the differentiation between mother tongue and foreign language. The mother tongue is acquired rather subconsciously during appropriation processes while a foreign language is learned consciously during learning processes. Age and input are then determining variables concerning the process of learning a language (cf. Riedinger 2022: 41). It is assumed that after a so-called critical period, acquisition processes in language learning are no longer possible (cf. Riedinger 2022: 41). In this regard, both Eric Lenneberg and Noam Chomsky are famous representatives of the presumption that the human language is innate and that there are inherent, universal mechanisms when it comes to first language acquisition that fades away later in life. The end of the critical phase is estimated by researchers to be approximately between six and twelve years, depending on the individual learner (cf. Riedinger 2022: 40). Young adults and adults, therefore, need **concrete learning situations** that trigger active learning processes in order to learn a specific language.

Neurodidactics as a whole suggests that every learner learns in a different way and that education is successful if learning is organised in a brain-friendly way as the only condition. Learners differ from each other by several cognitive, affective and social factors that are innate or acquired (cf. Grein 2022: 63). Affective factors are

defined by the emotions towards the teacher and the new language as well as their own motivation and certain aspects of the learner's personality (cf. Grein 2022: 63). Social factors are instead experiences that the learners made in their sociocultural surroundings (cf. Grein 2022: 63). Cognitive factors are for example learning styles and learning traditions. Learning styles describe how learners typically act in situations to solve a learning task (cf. Grein 2022: 6). Oxford and Anderson describe the relevance of learning styles for learning processes: "Learning style is the biologically and developmentally imposed set of characteristics that make the same teaching method wonderful for some and terrible for others" (qtd. in Grein 2022: 64). Learning traditions which are mainly based on personal school experiences influence how comfortable learners feel in certain classroom situations. Grein stresses that "known methods provide security" (2022: 73). Depending on the heterogeneity of the learners concerning their learning traditions, there are more or fewer preferences for specific methods and behaviours in class (cf. Grein 2022: 73).

2.3. Factors that promote learning

Using novelty means using a varied teaching approach that involves more student activity. Here are a few suggestions for incorporating novelty into your lessons.

2.3.1. Humour and laughter

Firstly, there are many positive benefits that come from using **humour in the classroom** at all grade levels. Some beneficial reasons for using humour will be presented in the following (cf. Sousa 2022: 58-59).

Laughing in general provides more oxygen for the body to use. When we laugh, we get more oxygen into the bloodstream, so the brain is better fuelled. In addition, laughing causes an endorphin surge by evoking the release of endorphins in the blood. Endorphins are the body's natural painkillers and they also give us a feeling of euphoria. In other words, one enjoys the moment with both body and mind. Endorphins also stimulate the brain's frontal lobes, thereby increasing the degree of focus and amount of attention time. Another benefit is that laughter moderates body functions. Scientists have found that **humour decreases stress, modulates pain, decreases blood pressure, relaxes muscle tension and boosts immune defences** as well. These are all desirable outcomes, triggering psychological, sociological and educational benefits.

Humour gets the learners' attention. The first thing a teacher has to do when starting a lesson is to win the students' attention or focus. Since the human brain is wired to love laughing, starting with a humorous tale (such as a joke, pun, or story) is always a good idea. Self-deprecating humour (such as '*you won't believe what happened to me this weekend!*') is particularly effective with teens. Another desirable effect is that **humour creates a positive climate**. Students spend a lot of their everyday time together as a group and thus need to find ways to help these increasingly diverse student classes get along. When people laugh together, they bond and a community spirit emerges. Those are all positive forces for a climate conducive to learning. Laughing also helps to increase retention and recall. We know that emotions enhance retention, so the positive feelings that result from laughter increase the probability that students will remember what they learned and that they will be able to recall it later on (cf. Saraa-Zawyah et al.: 2013). Psychologically speaking, laughter improves everyone's mental health.

Schools and all their occupants are under more stress than ever. Taking time to laugh can relieve that stress and give the staff and students a better mental attitude with which to accomplish their tasks. Let's take our work seriously but ourselves lightly! Although laughing is casual and light-hearted, it provides an effective

discipline tool. Good-natured humour (not teasing or sarcasm) can be an effective way of reminding students of the rules without raising tension in the classroom. Laughter also dampens hostility and aggression. Teachers who use appropriate humour are more likeable, and students have a more positive feeling towards them. Therefore, discipline problems are less likely to occur.

2.3.2. Movement

When it comes to our bodies in connection with learning, movement is crucial. When we sit for more than 20 minutes, our blood starts to pool in our seats and in our feet. By getting up and moving, we recirculate that blood. Within a minute, there is about 15 per cent more blood in our brain. We actually do think better on our feet than on our seats! In general, students sit too much in classrooms, especially in secondary schools. So look for ways to **get students up and moving**, especially when they are verbally rehearsing what they have learned.

2.3.3. Visuals and games

Including all of our senses or the so-called multisensory instruction is also an effective way to boost learning. Today's students are acclimated to a multisensory environment. This means that they are more likely to pay attention if there are interesting, colourful visuals; if they can interact with appropriate technology; and if they can walk around and talk about their learning. Another way to focus attention is to turn your lesson into a quiz game. Have students develop a quiz game or another similar activity to test each other on their knowledge of the concepts taught. This is a common strategy in elementary classrooms but is unfortunately underused in secondary schools. Besides being fun, it adds the value of making students rehearse and understand the concepts in order to create quiz questions and answers.

2.4. Teaching techniques for implementing learning boosters into classes

In this section, are listed some examples of block activities that can be used for the lesson segments:

- | | |
|--|--|
|  Teacher talk |  Reflection time |
|  Guest speakers |  Student peer coaching |
|  Research videos |  Laboratory experiences |
|  Movies |  Discussion groups |
|  Webinars |  Internet exercises |
|  Academic teams |  Role-playing and simulations |
|  Audio recordings |  Journal writing |
|  Reading |  Instructional games or puzzles |







Concerning assessment techniques, here are a few worth considering: written tests (keeping it to a minimum is recommended), interviews, questionnaires, journals, portfolios, presentations, exhibitions, video demonstrations, modelling, music and dance. To make the writing exercises more interesting and, above all, to make the learners see the meaning of teaching them, you can embed them in a natural, everyday context (e.g. a birthday card can be practised on the students' birthday). To sum it up, one can state that the attitude towards a learning situation determines the amount of attention devoted to it.

2.5. Classroom climate

Students must feel physically safe and emotionally secure in order to focus on the curriculum. Teachers can then promote emotional security in the classroom by establishing a positive climate that encourages students to take appropriate risks. Students must sense that the teacher wants to help them be right rather than catch them being wrong (cf. Sousa 2022, 43). Since the amygdala of the limbic area is heavily involved in processing emotional learning and memory, when students feel positive about their learning environment, endorphins ("feel good" chemicals) are released in the brain. They produce a feeling of euphoria and stimulate the frontal lobes, thereby making the learning experience more pleasurable and successful. Conversely, if students are stressed and have

a negative feeling about the learning environment, cortisol is released, thereby activating defence behaviours such as flight (absence), fight (argue), freeze or fear. That is why helping students to make connections between subject areas by integrating the curriculum increases meaning and retention, especially when students recognise a future use for the new learning content (cf. Sousa 2022, 48).

There are several initiatives teachers can undertake to put the presented aspects into practice. This will be explained in greater detail with the following guidelines (cf. Sousa 2022: 105):

-  Ensure a positive classroom climate by:
 - (1) promoting positive relationships among the students so they are kind to each other, listen to each other, and respect different viewpoints;
 - (2) cultivating a positive relationship with all your students so they feel you not only care about their academic success but also care about them as individuals;
 - (3) developing and reinforcing classroom norms and rules that are simple, clear, and provide a physically and emotionally safe learning environment.
-  Occasionally you may interview students individually and ask questions such as whether they feel safe in class if everyone is kind to each other, and if they feel welcomed and included in the class. Use the students' feedback to make any necessary adjustments to improve the overall climate.
-  Use metacognitive activities that ask students to reflect on the motivations of people they encounter in their curricula, such as famous scientists, explorers, writers, artists, and mathematicians. Encourage them to talk about their own feelings regarding these people and to listen to the feelings of their classmates.
-  Consider using statements with emotional connections when asking students to reflect on what they have learned. For instance, ask "How did you feel about this topic when we . . ." and "How do you feel about it now? Why?" After the emotional brain has had its say, move into discussing the cognitive or rational elements of the lesson.
-  *Why*-questions tend to lead a discussion more towards emotions and motivation rather than bare facts and data. "Why did the French people rise up against King Louis XVI's reign?" is for example an emotionally loaded question that evokes much more about people's motivation than a "when"- or "where"-question.
-  Since memories are usually contextual, instructional strategies that draw out emotions, provide important cues that will help students recall the information when faced with very similar events in the real world. Such strategies include role-playing, simulations, and cooperative projects.

2.6. Mindsets

Dweck (2017) has been studying mindsets for years and states that they fall into these two basic types: fixed and growth. Individuals with a fixed mindset believe that success comes from one's innate ability. They think that a person either has that ability in a certain domain or does not and that not much can be done about it. Students with a fixed mindset avoid challenges due to fear of failing and they give up easily because they do not believe that effort pays off. Students with a growth mindset believe that their success comes from their efforts and persistence. They accept that there may be certain genetic influences, but they rely more on hard work and resilience than on ability when it comes to their achievement. These students tend to be more intrinsically motivated to study and learn (cf. Sousa 2022: 50).

People will continue participating in learning activities that have yielded success for them and avoid those that have produced failure. When a student encounters a new learning situation and when past experience signals the sensory register with successful previous information, then the information is very likely to pass along to the working memory. If past experiences are connected to failure, then the sensory register is likely to block the incoming data so that the learner resists being part of the unwanted learning experience and resorts to some other cerebral activity, whether it is internal or external, in order to avoid the situation (e.g. folding their arms, losing themselves in other work, attending to a digital device or causing distraction).

2.7. Factors affecting retention of learning (cf. Sousa 2022: 79)



2.7.1. Retention

Retention refers to the process whereby long-term memory preserves learning in such a way that it can locate, identify, and retrieve it accurately in the future. In this context, rehearsal means repetition and processing of information while chunking (dividing a larger challenging task into small and more manageable separate components or 'chunks') is an effective way of enlarging the working memory's capacity and helping the learner make associations that establish meaning.

In general, new information or a new skill should be taught first during class, meaning the first 15-20 minutes, because it is most likely to be remembered that way. The new lesson material should be followed by practice or reviewed during the *down-time* (15-30 minutes minimum). At this point, the information is no longer new and exercises help the learner organise it for further processing. There is a higher probability of higher retention and effective learning if we can keep the learning episodes short, e.g., two 20-minute lessons instead of one 40-minute lesson.

2.7.2. Rote rehearsal strategies






The fact that items are remembered exactly as presented leads to the following teaching suggestions:

-  *Simple Repetition:* For remembering short items such as telephone numbers, names, and dates, simply say aloud a set of items repeatedly until they can be recalled in the correct sequence.
-  *Cumulative Repetition:* For longer sets of items such as songs, poems or lists of battles, the learner usually rehearses the first few items. Then the next set of items in the sequence is added to the first set and rehearsed and so on. For example, to remember a poem of four stanzas, the learner starts by rehearsing the first stanza and then rehearses the second stanza alone, followed by the first two

stanzas together. With those in place, the learner rehearses the third stanza and then the three stanzas together. The process is repeated by rehearsing the fourth stanza alone and, finally, all four stanzas together.









2.7.3. Elaborative rehearsal strategies

Information may need to be reprocessed several times as new links are found and there are several techniques to help with this process:








-  *Paraphrasing*: Students orally restate ideas in their own words, which then become familiar cues for later storage. Using auditory modality helps the learner attach sense, making retention more likely.
-  *Selecting and Note-Taking*: Students review texts, illustrations, and lectures, deciding which portions are critical and important. They make these decisions based on criteria from the teacher, authors, or other students. Students then paraphrase the idea and write it into their notes. Adding the kinaesthetic exercise of writing furthers retention.
-  *Predicting*: After studying a section of content, the students predict the material to follow or what questions the teacher might ask about that content. Prediction keeps students focused on the new content, adds interest, and helps them apply prior learnings to new situations, thus aiding retention.
-  *Questioning*: After studying content, students generate questions about the content. To be effective, the questions should range from lower-level thinking of recall, comprehension, and application to higher-level thinking of analysis, evaluation, and synthesis. When designing questions of varying complexity, students engage in deeper cognitive processing, clarify concepts, and predict meaning and associations - all contributors to retention.
-  *Summarizing*: Students reflect on and combine the important material or skills learned in the lesson. Sequentially, this is often the last strategy and also a critical stage where there is a possibility to attach sense and meaning to the new content.

2.7.4 Strategies for teaching the whole brain

Teachers can provide brain-friendly lessons by taking into account the following anchor points (cf. Sousa 2022: 172):

-  Organise your classroom efficiently. Have an efficient work area. Distribute the "talkers" around the room, as they will spark discussions when needed.
-  Make relevant bulletin boards. Organise bulletin boards that are relevant to the current content and can easily be understood. Encourage students to bring in their own appropriate additions to the board.
-  Clean the board properly. This reduces the chance that previous and unrelated word cues will become inadvertently associated with the new topic under discussion.
-  Use a multisensory approach. Let your students read, write, draw, act out, and compute often in all subject areas.
-  Use metaphors. Create and analyse metaphors to enhance meaning and encourage higher-order thinking.
-  Encourage punctuality. Stress the importance of being on time. Encourage your students to carry agendas.
-  Encourage goal setting. Teach your students to set study goals for themselves, stick to their goals, and reward themselves when they have achieved them.
-  Stimulate logical thinking. Ask "what-if"-questions to encourage logical thinking as students consider all possibilities for solving problems. Suggest websites where they can find challenging problems related to

what they are studying, so that during the lesson, when new information is introduced, they may build definitions based on the analysis of examples provided.

-  Give students some options to choose from. For example, allow them to do oral or written reports. Oral reports help students to organise concepts in their heads while requiring fewer mechanics than written work. Some students may prefer to present a short play or sketch.
-  Use visual representations. Use the board and video screens to show illustrations, cartoons, charts, timelines and graphs that encourage students to visually organise information and connections. Have students use appropriate websites to create or collect their own visual representations of new concepts.
-  Help students make connections. Tying lessons together and using proper closure allows the brain to compare new information to what has already been learned.
-  Encourage direct experiences. Facilitate direct experiences with new learning by solving authentic problems and involvement in real-world situations.
-  Allow for student-to-student interaction. Students need time to interact with each other as they discuss new learnings. Remember, whoever explains, learns.
-  Teach for transfer. Teach students to use generalities and perceptions. Have them use metaphors and similes to make connections between unlike items. This is an important function for the future transfer of learning.
-  Incorporate hands-on learning. Provide frequent opportunities for experiential and hands-on learning. Students need to realise that they must discover and organise relations in the real world.

To sum it up, it is important to state that there is not only one particular way of teaching or learning a foreign language successfully. One can identify highly individual behaviours of learners concerning their styles, strategies and choices (cf. Moravcová & Maďarová 2016: 637). Combining suitable and various brain-based teaching methods, as well as the selection of authentic material, will lead to goal-oriented and sustainable teaching (cf. Moravcová & Maďarová 2016: 638). When choosing methods, you need to remember to choose those that are good for students, their needs and capabilities, but also that the teacher feels confident and comfortable with. At last, positive emotions are necessary to ensure that the learners are able to absorb and process information as well as to practice repetition in order to allow knowledge to reach their long-term memory (cf. Grein 2022: 35).

3. From the Big Methods to the Modern Principles of Foreign Language Learning

Until the first half of the 20th century, foreign language teaching was defined by a fixed perception regarding language structures. To be more precise, teaching concepts revolved around grammar rules, translations and standard written language (cf. Hallet et al.: 2020). Here, successive approaches such as the *grammar-translation method* or the *direct method* were predominantly used although not overlapping chronologically.

Since the second half of the 20th century, the progressive understanding of language as a dynamic system as well as of learning processes has gradually led to more extensive and simultaneously inclusive methods in foreign language teaching. Similarly, other developments in the outside world such as globalisation, the growth of technology and new media also caused a further professionalisation and differentiation of our work and private lives. As a result, new teaching approaches gained importance, for example, the *communicative method*, the *project method* or the *intercultural method* (see Hallet et al. 2020). It is therefore relevant to note that today, the individual use of multiple teaching methods rather than sticking to one particular didactical model is prevalent (cf. Hallet et al. 2020). This is due to an increasing learner orientation and flexibility in learning goals that are themselves included in the following principles: Focus on competence, communication, speech acts and finally, on tasks. Generally, the goal of modern foreign language teaching is described as enabling learners to express themselves adequately in any given communication situation they find themselves in. When it comes to brain-friendly (language) teaching, the evolving scientific field of neurodidactics finally provides suggestions and guidelines, suggesting that teachers should integrate aspects such as movement, humour and positive feedback into their classes to increase motivation and therefore success in learning (see Grein 2022). More of these principles will be presented in the next chapter.

4. Principles of Modern Foreign Language Teaching

Didactic methodical principles are guidelines that result from the idea of good teaching. They serve the teachers as a basis for decisions on the planning and implementation of lessons, for example, they influence the exercise design, the structure of a lesson, the amount of repetition, evaluation, feedback and the like.

In language education, there is not just one method that is suitable for structuring lessons. There are rather various didactic methodological principles that serve as a basis for good language teaching. These principles have a serving character and teachers must know them to be able to structure their lessons accordingly and to be able to evaluate (and/or adjust) existing material or tasks and exercises with regard to whether they live up to the principles.

Essential didactic methodological principles for structuring learning goals, and lessons and for planning exercises and activities according to Funk (2014) are:

- 1) Competence orientation
- 2) Success orientation
- 3) Action orientation
- 4) Task orientation
- 5) Interaction orientation
- 6) Contextualisation / Authenticity
- 7) Personalisation
- 8) Learner activation




Additional principles:

- 9) Content orientation
- 10) Promotion of learner autonomy

4.1. Competence orientation

In the rapid development of the information society and knowledge-based economy, we all face the need to constantly raise and develop our competencies and acquire new ones. The European Parliament established 8 key competencies that every person needs for self-realisation and personal development, such as communication in foreign languages. Competencies are described as "the cognitive abilities and skills that people possess to solve tasks, as well as the readiness to cope with problems in different situations" (European Commission 2018). They consist of three elements: knowledge, skills and attitude. To be more precise, *knowledge* is a foundation, *skills* are determinants of action and *attitude* is a willingness to do something new.

What characterises competence-oriented teaching?

-  Learners know the learning goals they are expected to achieve (= transparency)
-  They know what they are learning for or they have helped decide on the learning objectives
-  The learning objectives are formulated as *can-do* descriptions and the learners are encouraged to check their learning progress or their knowledge and skills themselves.

There are 4 steps of the learning process:

- 1) Unconscious competence – *I don't know that I don't know*
- 2) Conscious incompetence – *I know that I don't know*
- 3) Conscious competence – *I know that I know*
- 4) Unconscious competence – *I don't know that I know*

4.2. Success orientation

Success refers to the learners' reaching goals that they have set for themselves. It is counterproductive when the demands of teaching grow faster than the skills of a learner, which may trigger a failure (due to tasks that become too difficult too fast) and may lead to stress and demotivation as well as impaired learning processes.

As a result, learners feel happy when they realise that their skills are growing as fast as the demands of the classroom. Successful action, therefore, means that you have achieved, accomplished or learned something and that you can see your own progress. This promotes the learners' motivation and self-confidence.

Additionally, student achievement is affected by the teachers' expectations of success. Teachers must hold high expectations and communicate them clearly to all their students, which will motivate them to perform at a high level. In addition, language learning is difficult and takes a long time to achieve significant improvements, thus learners may not see the benefits of spending time and energy in learning the language if the effort does not have an early payoff or if it feels outside their own comfort zone.

We know that motivation is an important condition for language learners, so teachers need to engage their learners and motivate them to work persistently at learning the new language (TESOL, 2017).

In order to be successful, you need to set very specific and precisely formulated goals and create a list of individual tasks that must be performed. Success and tasks may mean different things to people, that is why the method of small steps is so crucial - for it ensures that tasks are achievable. To check if your goals are set well, you can use the SMART method, which means that your goal has to be Specific, Measurable, Achievable, Realistic and Timely.

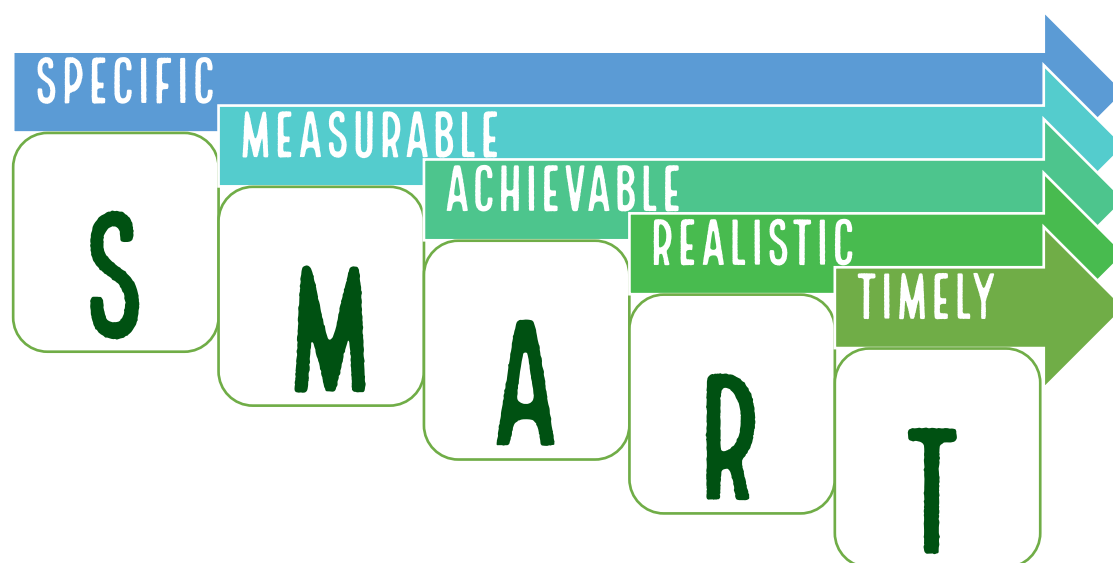









Figure 1: The SMART-method

4.3. Action orientation

Learners should be able to use the language that they learn to:

-  understand others and make themselves understood
-  negotiate the meaning of words and gestures
-  argue
-  summarise content
-  take a stand
-  express opinions
-  respond to opinions

The aims of action-oriented tasks and exercises are to get the learners to act with the language they are learning in a linguistically and culturally appropriate manner.






Furthermore, competence in communicating in foreign languages requires knowledge of *vocabulary* and *functional grammar* as well as awareness of the existence of various *registers of language*. It is also important to know *social conventions* and *cultural aspects*. The necessary skills in the field of communication in foreign languages include the ability to understand verbal and written messages, initiate, maintain and end a conversation (either speaking or writing) as well as write texts according to the needs of a given interlocutor. Therefore, it is crucial that action-oriented lessons should offer situations and topics that could happen to them similarly in **real life**. One of the ways to conduct such lessons is the role play technique, practising dialogues in pairs or small groups and activities in the urban space like shopping, buying tickets or ordering food.

In other words, it is not enough for students to know word meanings and structure rules. Students need to be able to apply this knowledge quickly, even automatically, to express themselves smoothly, read competently, and comprehend spoken English rapidly. To build these skills, practice is necessary - study alone will not suffice (TESOL, 2017).

4.4. Task orientation

Task orientation means that learners should be able to cope with tasks that relate to their own world and prepare them for linguistic activities outside of the classroom.

The quality of tasks and exercises determines:

-  the quality of the outcome of the lesson
-  how people in the classroom interact with each other
-  whether they feel good about themselves
-  what they concentrate on in the classroom
-  whether they experience success or failure.

Working on many tasks does not automatically lead to task-oriented lessons and tasks without clear goals can be demotivating. As already mentioned, learning a language is a process that is neither easy nor fast. However, failures and mistakes are nothing bad, they are rather a natural part of learning. The *Change Curve* is a great illustration of this concept. Small steps are important to achieve your goals. When you face a problem, think

about what you already know, what you still do not know and what you have done. Take a step back and rethink.

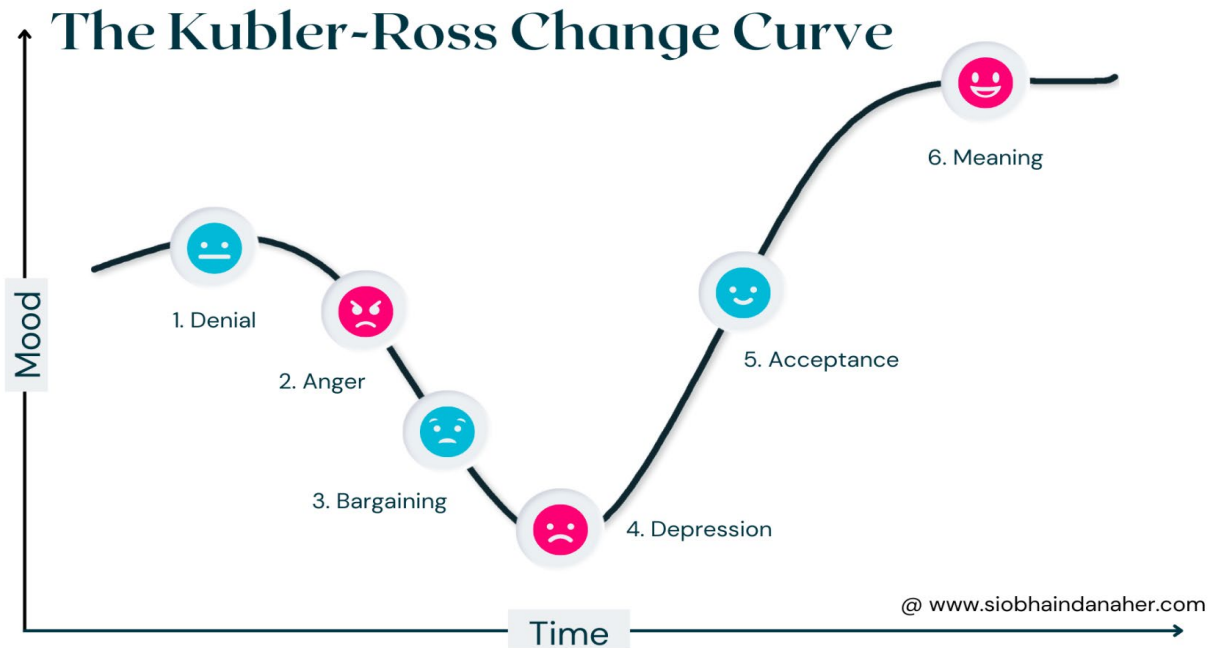


Figure 2: The Kubler-Ross Change Curve

To set adequate tasks that lead students straight to their goals. The *Eisenhower Matrix* might be helpful since it allows you to increase productivity and eliminate redundant tasks. The only thing you have to do is to put your tasks in one of the four categories. The first one includes tasks you have to do it immediately; the second one - tasks you may schedule for later; the third one - tasks you may delegate because they are someone else's priorities; and the fourth one - tasks you may eliminate it.

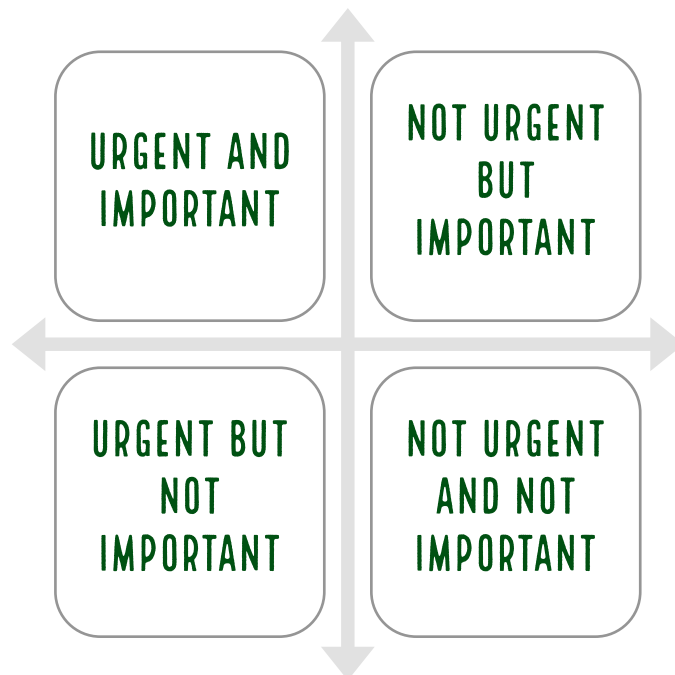


Figure 3: The Eisenhower Matrix

4.5. Interaction orientation

According to this principle, learners should be encouraged to communicate and interact in a social context through tasks and exercises in the class (i.e., by role play, partner exercises etc.) In this way, learners will be able to communicate successfully beyond the classroom if they have practised verbally, in writing and through body language (e.g., through facial expressions and gestures) to use the language in a variety of situations. Decisive for the quality of the results of the lessons is the quality of the interaction which means the social relationship and communication between learners and teachers as well as between the learners themselves. Whenever learners are actively involved in the preparation, execution and control of tasks and exercises, the interaction between all those involved in the classroom is particularly intense. Hohwiller (120-121) argues that interaction is healthy and that two-way natural conversations about meaningful relationships are even more effective in language learning. Hallet, Königs and Martínéz (2020: 143) summarise it as follows: "To achieve functional communication skills is at the heart of language learning."

4.6. Contextualisation

Language is used in different contexts outside of the classroom. These situations are to be prepared and trained in the classroom. Meaningful practice in application-related and, as far as possible, authentic situations is essential. Consequently, exercises and tasks should be related to reality and enable the learning of content and relevant authentic language. Sentences produced in the classroom are very likely to be applicable in similar situations outside the course (cf. Hohwiller 2016: 119).

It becomes clear that the mere knowledge of vocabulary and grammar is not enough to be fluent in the language. It is also absolutely necessary to know the context in which given words and phrases appear and how their meaning changes depending on the context in which they are used. Only such knowledge allows you to feel confident in a foreign language, and thus to increase your self-confidence as a learner.

Relation of language to social context:

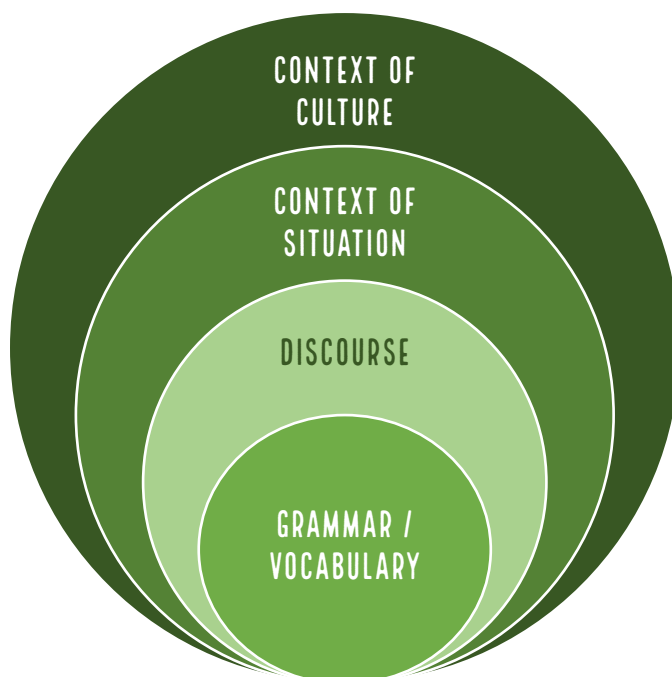









Figure 4: Language and social context

4.7. Personalisation

Personalisation refers to creating a personal relationship between the learners and the content they are learning. The personal reference can consist of interests, age, origin, school context and much more. This is important because sentences and information that do not seem relevant are processed only superficially or not at all by the brain. For this reason, tasks and exercises always need a personal relation to the learners (cf. Hohwiller 2016: 119). The primary role of a teacher, especially a teacher of foreign languages, is to recognise the students' needs and adjust not only the subject but also the methods and forms of work. Learners should also be asked: *Why are you studying? What do you want to achieve? What do you need it for?* Answering these questions will help in the organisation of effective learning for both the teacher and the student.

4.8. Learner activation

This means that learners can actively participate in the lesson by:

-  bringing in their previous knowledge
-  asking questions
-  choosing learning objectives and teaching topics
-  engaging with the language
-  finding and checking rules for themselves
-  independently monitoring and evaluating their own and others' learning
-  and also taking over organisational and learning management tasks up to teaching activities

Learners who actively participate in the teaching process generally achieve better learning outcomes. They not only work more motivated and concentrated but also develop a better awareness of the best way to learn a language when appropriate exercises and tasks are provided. The student must know the rules, understand them and be able to use them in practice. This is illustrated by Kolb's *Learning Cycle* (e.g., University of Florida: n.d.), whose model shows that the learning process consists of four steps: experience, observation, theory-making, and practice-testing. It is not recommended for a good teacher to skip any of these steps.

THE EXPERIENTIAL LEARNING CYCLE

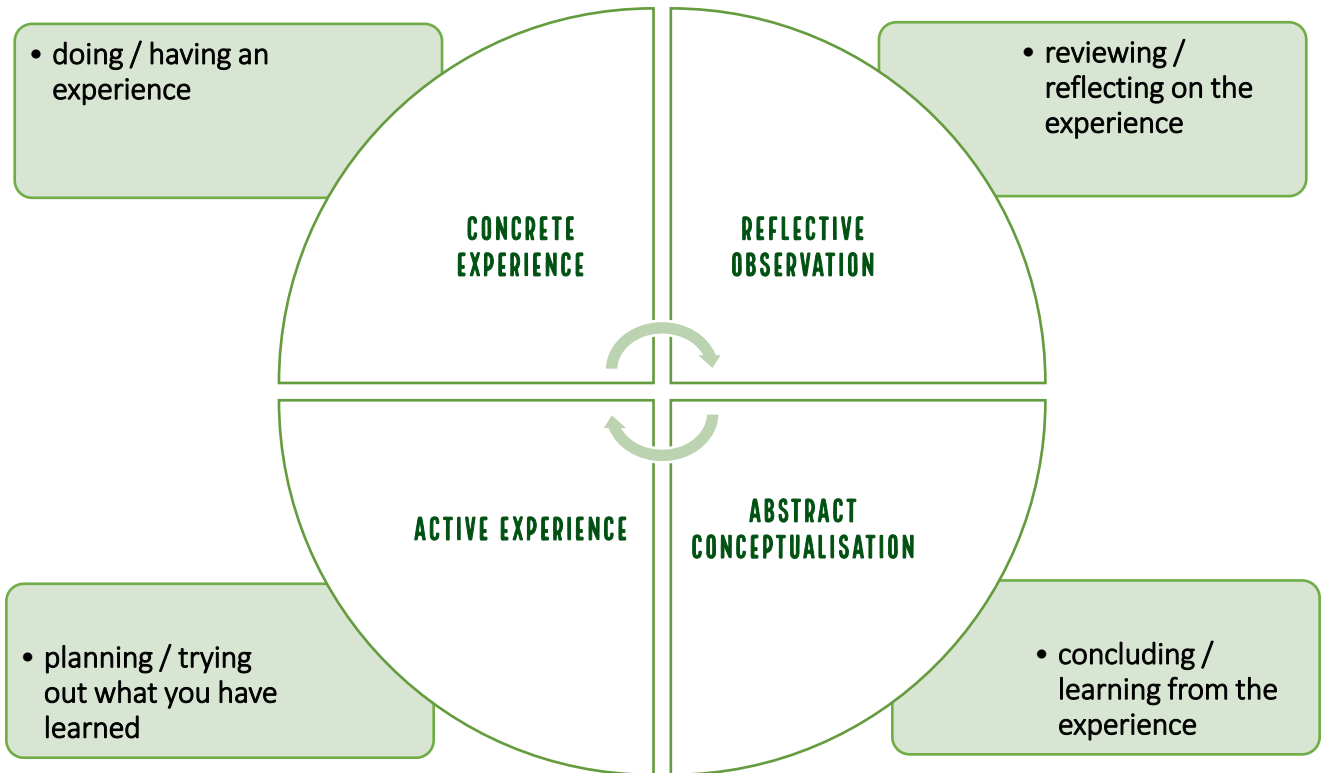


Figure 5: The Experimental Learning Cycle

4.9. Content orientation

Content that is dealt with in the classroom must be meaningful for the learners. Otherwise, they can and will not participate. Furthermore, the content must relate to the students' needs, ages, interests and backgrounds. In general, students must experience language as communication as early as possible in their learning if they are to see language as a communication tool and if they are to taste the thrill that the mastery of a new language can entail. In an English class, this means using speaking or writing practice as an opportunity for students to share what they really think, feel, or believe. It also means that when students say or write something, you should respond to the ideas expressed rather than only to the accuracy of the language (see TESOL, 2017).






4.10. Promotion of learner autonomy

The principle of *competence orientation* is closely linked to that of learner autonomy, which means that learners are able to and also encouraged to reflect on their learning process and to search purposefully for individual, promising learning paths.

Furthermore, the concept of frontal teaching, where the teacher is the centre of the classroom, should not be how most of the time in class is spent. The new role of the teacher is the one of a moderator of lessons, initiator of learning processes and counsellor (only if necessary). Learners ought to reach their goals in their individual way, in their own pace and style. All in all, learners should be encouraged to work in an autonomous way. In other words, Hallet, Königs and Martínéz (2020: 142 ff) stress that all language learning has to allow for **individual approaches, paths and strategies**.

In conclusion, giving ready-made answers and carefully guiding students is not very effective because it does not teach them how to think for themselves. The role of the teacher should be to **support, accompany, inspire and lead** to the right path.

Here, the perfect way for students to solve problems by themselves is the *5Q-method* where they have to answer the five following questions:

-  What can we do more?
-  What can we do less?
-  What can we do differently?
-  What can we stop doing?
-  What can we start doing?

5. Language Learning in Digital Formats

5.1. Teachers and technology









Quoting Stickler (2022), *teaching in the future will not be possible without the involvement or help of technology in order for it to stay modern*. Thus, instead of interdicting it all together in class, teachers should find a way to incorporate it within their teaching and make the best of what it can offer, being ready to adjust their practices to the world of online communication. Starting from the well-established and researched idea that teaching a foreign language comes along with imparting knowledge about that language's culture and views (cf. Nechifor & Dimulescu: 2021), Stickler (2022: 58-59) considers the teachers of today as belonging to 5 categories, depending on their openness to embrace technology in their process:

1. **The first type or vignette is the Visionary.** A language teacher embracing technology with enthusiasm, they welcome the opportunity to experiment not only with new tools and media but also with pedagogic innovation. This teacher talks about the future with curiosity and openness, enhanced by knowledge rooted in current developments. Learning from the learners is an integral part of their role, and change is part of their life.
2. **The Traditionalist.** A different type of language teacher, they value the tried and tested methods for language teaching, and emphasise traditional skills, such as expertise in the target language or accuracy in grammatical forms. This teacher is particularly looking forward to a return to face-to-face teaching, [...] very often recognising that teaching also requires emotional support, this teacher might also long for the opportunity to provide the human face of teaching that they feel is lacking in the online environment.
3. **The Designer.** The future of language teaching might well be in designing materials and learning environments, creating opportunities for language learners to learn as independently and autonomously as possible. The teacher as an expert is definitely stepping back from the limelight in this scenario. This teacher includes fun and games as elements of language teaching and does not mind taking a backseat once the design stage has been completed.
4. **The Mediator.** Teachers have already started curating content from a variety of sources. As learning supporters and organisers, they are brokering communication opportunities rather than explicitly teaching the target language. Many teachers welcome this chance to become mediators and facilitators rather than the 'sage on the stage' of old. For a language teacher, mediating cultural differences is also part of the task. This type of language teacher finds resources online, evaluates and vets them and recommends the best for their students' use. The development of this mediation role is made possible through the OER (*Open Educational Resources*) movement, the free sharing of OERs, *Open Educational Practices* (OEPs), and the recommendation and cataloguing of open and free online tools.
5. **The Critical Voice.** Some language teachers see their role as going beyond the teaching of just language or culture; they take into account social issues and aim at making students aware of the wider world. This type of teacher identifies the impact of new technologies on society and wants to develop this critical awareness in their students as well [...] by claiming "sensitivity to students' needs and the critical issues of the socio-economic, political and historical context, critical reflection on the affordances of recent technologies" (anonymous questionnaire response, 2021, Portuguese)




Pragmatically approaching the 5 categories above, teachers may have at hand a framework which enables them to fit in any of the categories, depending on the mix they choose to use in terms of visibility of technology, the authenticity of communication, and teacher intervention. According to Stickler (2022: 23),


"...technology can be normalised (Bax, 2011) or almost invisible (0 or very low on the scale of 0 to 10), or it can be highly dominant (10) when new and unfamiliar gadgets or apps are being introduced. Communication situations can be placed on a continuum from inauthentic drill and kill practice (0) to the highest level of unstructured and free conversation with competent speakers (10). Teacher intervention can vary from tightly structured and teacher-led activities (10) to planned and scaffolded but greatly independent tasks or projects (0). Teachers can choose to move their practice along any of these three dimensions."

This leads to examples like (cf. Stickler 2022:42):

-  10 - 10 - 10 Hypothetical and not realistic
-  10 - 0 - 10 In-class pronunciation drill (e.g., NewPeppertone recognition software)
-  10 - 0 - 0 Supplementary online grammar drills (e.g., <https://german.net/exercises>)
-  10 - 10 - 0 Encourage use of Google Translate
-  0 - 10 - 10 eTwinning under teacher guidance
-  0 - 10 - 0 eTandem with normalised tools (e.g., Skype)
-  0 - 0 - 10 In-class Cloze test with a word document or pen and paper
-  0 - 0 - 0 Not a teaching or learning event.












In the following, pieces of advice for teachers on how to stay abreast of the latest technologies available are presented, in order to be able to introduce, use and adjust them to the teaching process (cf. Stickler 2022: 19-20):

-  *The Systematic Approach* – To receive information on new publications in a specific topic area, you can set up an online literature alert. Online search engines (e.g., Google Scholar) or reference management systems (e.g., Mendeley) allow you to set up an email alert. Based on your search criteria or specific keywords, you receive a message as soon as new publications enter the catalogue of your chosen software.
-  *The Random Approach* – If you already have a reading list or a selection of articles you always wanted to read, you can set yourself a time every month to read just one article, and maybe get inspired to dive deeper into the topic. Follow this up by practising what you learned, reading more on the same topic, or discussing it with colleagues. Online conferences and webinars are also good sources of information if you want to move from the random approach to a more systematic one.
-  *The Social Approach* – Social media have become an almost indispensable source of information for teachers. Twitter, for example, has a number of online communities of language teachers exchanging and sharing information (e.g., communities identified by the hashtags #MflTwitterati, #LangChat, #ELTchat). These and other hashtags can be searched on Twitter without prior registration. Once you find an expert or a group who delivers reliable and up-to-date information, you may want to follow them on Twitter, and follow up on their recommended reading or announcements of new articles. The advantage of social media is that new research papers are advertised as soon as they are published, and they are pre-filtered so you don't have to search through everything that would appear in a search engine.

 *The Expert Approach* – As a language teacher or researcher, you are already knowledgeable and experienced in your particular field. You can give back to the academic community, for example, as a reviewer for journals. Editors often look for volunteer peer reviewers, and you will gain by getting advanced access to research. As a language teacher, you also bring a very important skill to peer reviewing: You know about giving carefully gauged and supportive feedback and you can balance critique with encouragement. Of course, there is work involved but the overall benefit of reading exciting new developments in your area of interest may outweigh the effort invested.

5.2. Specialised terminology

Useful acronyms and specialised terminology are provided by Stickler (2022: 65-67) so that familiar jargon pertaining to the field of teaching and technology makes the same sense to all professional users in the field:

-  **DOTS:** Developing Online Teaching Skills. A collaborative teacher training project supported by the ECML.
-  **ECML:** European Centre for Modern Languages. A division of the Council of Europe, concerned with supporting language teachers and policy-makers across Europe. With thirty-four member states, it covers a wider area than the European Union.
-  **eTandem:** Any form of tandem language learning that uses electronic means. Different terms, such as teletandem, email tandem or telecollaboration are used by different researchers.
-  **Flipped pedagogy (Flipped classroom):** A pedagogy that uses synchronous interaction mainly to discuss concepts and theories learned outside of the classroom. Teachers prepare the content for students to learn before the concept is then activated and discussed during class time.
-  **ICT:** Information and communication technology.
-  **MOOC:** Massive open online course. Originally designed as free learning materials, MOOCs are aimed at independent learners who can select and access pedagogically structured online materials, mostly without teacher support. Platforms include: Coursera, edX, Future Learn, and Udacity.
-  **OER:** Open educational resources, also OEPs (open educational practices). An educational movement advocating free access to educational resources for all, expressed in the Paris declaration: <https://en.unesco.org/oer/paris-declaration>.
-  **Online:** Using digital tools (e.g., networked computers, mobile devices, etc.), to access information or to communicate over a WIFI or internet connection.
-  **STAR structure:** Using the structuring elements of Space, Time, Accreditation, and Role to describe differences in how a language course is set up, managed, and perceived.
-  **Three Axes framework:** this framework places technology use in language teaching on three axes or dimensions of a cube: visibility of technology, the authenticity of communication, and teacher intervention. It allows language teachers to position their actual or intended technology use and align it with their pedagogic aims.
-  **VLE:** Virtual learning environment. Also known as Course Management System or Learning Management System. A platform that allows teachers and schools to collect and manage tasks set by teachers, work submitted by students, and often also the administration of the assessment. Open Source examples are Moodle and Sakai.

5.3. Gamification

Addressing the third category introduced by Stickler (2022: 58), aka the Designer, teachers have the opportunity to adjust the technique based on games not only by improving the types of games used, which, with the help of technology, look very much different than what they used to when firstly considered, but also to take the game of teaching to another level, that of **gamification**. The gamification of learning represents the idea of introducing elements that define the design of electronic games into the teaching-learning process and is considered, nowadays, one of the most modern approaches to teaching, based on technological concepts (see Werbach & Hunter: 2015, 2020).

According to Rabah, Cassidy & Beauchemin (2018), this is though a current controversial trend in education. The arguments in favour of this concept revolve around the ability to reinforce the candidates' learning of essential skills such as: problem-solving, collaboration, communication and interaction, all of it being a key-factor which engages students into playing active roles in the learning process, thereby increasing both their engagement in online forums and projects as well as their motivation through the spirit of competition. The arguments against gamification consider key words such as aimless distractions and unnecessary competition stress, at the same time failing to address certain pedagogical needs.

After conducting serious research, Rabah, Cassidy & Beauchemin (2018) concluded that obvious positives can be undoubtedly gathered around gamification, in terms of 'effectiveness in terms of cognitive, emotional/motivational, and behavioural outcomes' while the major concern remains to be solved in connection to "the nature of learning objectives and the quality of learning activities that are gamified. Furthermore, a contextual bias towards STEM (Science Technology Engineering and Mathematics) courses limits the generalizability of evidence to other contexts." This conclusion is highly challenged these days by groups of researchers trying to identify ways through which successful gamification can be applied even to classes pertaining to the philology domain such as teaching Romanian as a foreign language (Săftoiu et al. 2022, Nechifor et al. 2022).

In this field of humanities, examples like digital storytelling, described in detail by Kent (2015), can constitute very good practices of language teaching with technology, as:

"digital storytelling combines traditional storytelling skills alongside those of audio narration, graphics, text, music, and video (Ohler, 2008)". A digital story therefore comes to be a primarily visual medium of presentation, with scripts that are often first-person narratives, telling a story in one's own voice and style. Each story usually revolves around a central theme, and contains a single concise viewpoint presented within a 2- or 3-minute timeframe." (Kent, 2015: 119)

The way in which technology can be combined with teaching storytelling can be performed like this:

"Educators in all teaching contexts can employ digital storytelling in a multitude of ways, from introducing new material to assist students in learning to conducting research, through to synthesizing large amounts of content and gaining expertise in the use of digital communication and authoring tools. Instructor-created digital stories can also be deployed as a lesson hook, a way to integrate multimedia into the curriculum, assist in making difficult or complex content more easily understood, or serve as a jump point for facilitating classroom discussion" (Robin, 2008). "Student-created digital stories, on the other hand, can come to assist learners with idea organisation as they begin to develop stories for an audience and present their ideas and knowledge in uniquely meaningful, individual, and personal ways" (Bull & Kajder, 2004). (Kent, 2015: 119)

Being it either personal, historical or event-oriented, under the form of an electronic encyclopaedia entry or a mini-digital documentary, any digital story is specifically created to deliver learning content, which can cover areas from medicine to academia. In this regard, both Kent (2015), and Lambert (2010) list the seven key elements that combine to form an effective digital story: point of view, dramatic question, emotional content – all three familiar with a traditional approach to story-telling, followed by the economy, pacing, gift of voice and an accompanying soundtrack which are more digital oriented and make the specific difference in terms of the format.

Thus,

"script economy is perhaps one of the most difficult elements of digital storytelling to perform well. Digital stories are concise, normally 2-3 minutes in length (about one double-spaced page of text), and particular emphasis on this aspect in educational settings may make the construction process more manageable for learners. [...] Pacing of speech is important, as pausing and varying speech rhythms are essential to avoid monotony. [...] Gift of Voice is one of the most important for language classrooms. Many teachers have those unheard students who are seen entering, submitting work, and leaving at the sound of the bell without participating in discussions, group activities, or any task that asks for their verbal participation. The process of digital storytelling allows these students to record themselves verbally narrating their own scripts, and if still too shy to speak the process uniquely allows them to voice their opinions through text titles, highlighting their opinions and presenting their voice in 'silent movie' style. [...] A well-chosen and well-timed, accompanying soundtrack is extremely important. Music can enhance and underscore aspects of a digital story by adding additional layers of complexity and depth to the narrative." (Kent, 2015: 120)

5.4. Digital literacy

The only possible challenge that may occur when trying to work with these types of technologically enhanced teaching techniques is the concept of **digital literacy**, which can represent a minus on either side of the process: that of the teachers/ educators/ tutors/ professors and that of the students/ pupils/ candidates to learning:

"Challenges can range from difficulties in formulating a sound argument through to learners holding a low interest in storytelling. Aspects of the digital divide may also see some students have limited access to the appropriate hardware and software to work with digital storytelling, dissemination and development. Other students may simply not possess adequate multimedia literacy skills to develop a digital story. Further, content creation with Digital storytelling is time-consuming, moreover, students and teachers who embark on this endeavour need to be well-versed in educational fair-use policies, along with the copyright and intellectual issues pertaining to digital content creation and dissemination (Robin, 2008)." (Kent, 2015: 119-120)

This particular issue of digital literacy was addressed by Stockwell (2015, 2022) in terms of user expectations in education, with a particular application on second language teaching and learning. In his article from 2015 named *Digital Media Literacy in Language Teaching*, he looks at different types of literacies required by both parties involved in the teaching-learning process, as well as at the impact technology may have on cognition, only to end with offering suggestions for teachers on how to provide adequate training for learners in a digital teaching environment.

What is important to bear in mind, according to Stockwell (2015: 376), is the following:

"While technology has the potential to bring with it a range of tools and resources that can enhance the learning environment, if teachers and learners lack the appropriate digital media literacies to capitalise upon them, then much of this potential can be lost. Apart from the technical skills appropriate for using the various technologies that exist, both should have a clear idea as to how they can be used effectively for learning purposes as well. From the teacher's perspective, they need to also take on a curative role where they can make sense of the flood of available resources, but also provide learners with the skills to be able to make sensible choices as well."

The social nature of learning is emphasised, where interaction is a key term in learning and brings digital competencies to the forefront, as this is based on interactivity. In this way, Stockwell (2015: 362) states:

"Developments in technology have resulted in their adoption directly because of their suitability to specific learning activities, essentially as another tool which can be used to accomplish learning outcomes. The impact of digital technologies obviously extends beyond simply providing extra tools to teachers. Technology has pervaded into essentially every aspect of our daily lives, and as such, not only does it provide more options for teachers and learners, but it directly affects the roles of both teachers and learners, and has even shaped the relationship between them. Thus, it could be said that a complex interrelationship has emerged between technology, teachers and learners, where each has the potential to influence the others. For example, the use of technologies such as a learning management system (LMS) means that teachers may require assignments and other assessment items to be submitted through the system rather than in paper."

Simple examples are provided regarding this relationship established between the way in which the technological behaviour of the actants is mutually shaped, in order for the previously mentioned inclusion of technology into the class environment, to become a practical and pleasant activity (Stickler: 2022). In this way, Stockwell (2015: 363) says:

"The students are required to prepare documents in digital format and upload them into the system so that the teacher can grade it. Consequently, the introduction of a technology has changed behaviour of both the teacher and the learners involved in that environment. Decisions made by the teacher can also impact what technologies are used and the ways in which they are used by students. If a teacher has a particular interest in using mobile phones for listening, then learners may be required to use their own mobile phones in a manner stipulated by the teacher to carry out learning activities. The technology is one that already exists and maybe owned by learners, but their behaviour in using it is shaped the by the teacher. Finally, technologies used by the learner can also influence teacher choices of technology, as well as how they are used in that learning environment. For example, if learners commonly use a certain social networking service (SNS), teachers may choose to adopt this as part of the learning environment in the belief that learners are already familiar with using it. Accordingly, the use of a technology by learners for non-educational purpose may be adopted by teachers, which in turn shapes how it is used, and to some degree how it is viewed as well."

More complex examples regarding the introduction and use of technology in the teaching continuum are provided by Cruz-Cunha, Carvalho and Tavares (2011), with focus on game-based learning, not only from a conceptual framework point of view in *Games Development for Pedagogical and Educational Purposes, The Educational Value of Digital Games: Possibilities and Limitations of the Use of Digital, Affective Educational Games and the Evolving Teaching Experience, Can Computer Games Motivate and Sustain Learning?*, but also from a practical perspective, providing real situations and contexts for the introduction of digital games into the teaching process, in different areas in *Creating Computer Games for Class Instruction and Games as Educational Tools, Computer Games and Libraries, Games and Simulations in Distance Learning, Business*

Simulators for Business Education and Research: Educational Games, A Multi-Disciplinary Approach to Designing Business Management Games.

In conclusion, CALL, WALL, TELL and MALL have become more than just popular acronyms for what language learning means today. Computer Assisted Language Learning (CALL), Web Assisted Language Learning (WALL), Technology-enhanced Language Learning (TELL), and Mobile Assisted Language Learning (MALL) started being introduced in the mechanics of teaching and learning foreign languages and even methodologies have been suggested for their employment, in order for consistency and accuracy to be met at a didactic level.

From personal computers to pocket-sized devices such as mobile phones, MP3 and MP4 players, tablets and personal digital assistants, the range of connectivity to linguistic information has grown considerably in recent years, as, together with portability and accessibility, these gadgets enable, ease and facilitate access to not only sources of general knowledge, but, especially to language frameworks of learning, reducing the time and place barriers in language learning (Mosavi, Miangah, and Nezarat 2012).

Introducing technology into the habits of learning foreign languages candidates create for themselves has turned into a must-do in the digital era of teaching as e-pub books, educational software, online dictionaries, dedicated applications and platforms such as *GooseChase*, *Storyjumper*, *Plickers*, *Wordwall*, *Kahoot*, *Moodle*, *ClassDojo*, as well as massive open online courses (MOOC) offered by integrated platforms, such as *edX*, *Coursera*, *Udemy* and *Udacity* have filled the modern needs of the digital learning market nowadays. Consequently, it is not only that in today's foreign language classroom practice, instead of asking pupils and students to put their mobile phones away or to turn them off, teachers can very diligently ask them to put them to good use, as proven to be the case even for foreign language acquisition by Dimulescu and Nechifor (2021) and their contribution to the methodology of integrating MALL into ESP classes but they can also rely on the mobility this approach has brought and surpass the physical limits of a room, assigning good practice on the go.

6. Principles of Foreign Language Teaching in Blended Learning Formats

Blended learning is a teaching strategy that combines both traditional face-to-face and online teaching in one setting. It is a growing trend in the age of technological development. Blended learning is a promising idea that has linked together many significant fields such as teaching methodology, educational technology, online teaching and learning. Research has shown that using blended learning instead of traditional teaching or online teaching approaches alone results in many benefits not only for students' learning but also for the learning environment (see Albidali 2019).

Moreover, the combination of face-to-face and online lecturing, good programs, seminars, lectures and projects can also help students and offer them different learning opportunities. This blended approach appeared in 2000 and today it is a significant term that refers to various methods and learning styles in order to provide a progressive and productive environment for students that will be able to use and benefit from the tools and resources used in the digital environment with optimal conditions provided (cf. Radosavljevskij 2017).






6.1. Constructive work in blended learning formats

How to really make the blended learning model work?

The first step is to **understand our audience**. Teachers must consider students' learning maturity, their technological skills, their readiness for blended learning with its demands for independent learning, as well as their home environments, which will impact any learning at a distance. It is also important to ensure that the time students spend at a distance supports and leads to their attainments in school, and vice versa.

Blended learning is not about giving more homework or providing an online repository of materials. Learning in the two environments should result in various integrations, should be complementary and overlapping, and learners should have some control over time, place and pace (cf. Staker & Horn 2012).

Key considerations for managing the in-school and distance environments should include:

-  Organisation of the school timetable
-  Access to devices
-  Digital tools
-  Individual support for learners
-  Helping learners manage the distance environment

(cf. Blended learning in school education 2020)

6.2. From group work to collaborative work in blended learning formats












Involving students in the process of learning as well as collaborating with each other increases the learning dynamic. Student motivation and involvement are always questioned when implementing a blended learning model. The participation of the students and motivation outside the classroom rather than only using the resources and course content or the techniques used is a question of major concern when it comes to the blended learning approach.

The interaction of the students with each other (peer assessment) as well as teacher-student interaction is also a matter of student involvement, dedicated time and effort, as well as investment in learning tasks. If students successfully participate in a computer lab during the blended learning content delivered, the progress and improving their language skills may result in motivation and satisfaction so they may want to continue to study as independent learners (cf. Radosavlevskij 2017). Allowing learners to **dialogue, debate, and negotiate concepts** in multiple learning environments supports the development of a **community of inquiry** required for higher levels of learning. Interdisciplinary learning helps trainees become “autonomous, articulate, and socially and intellectually mature” (Radosavlevskij 2017). Such realities are inclusive of demands that require professionals to collaborate within teams and with families, to advocate for appropriate services, and to generate efficient and effective intervention models. The shift in focus, away from the mere delivery of content to learner development and knowledge-building, responds to the need to prepare trainees to meet such demands (cf. Lotrecchiano 2013).

6.3. Learning guidance

Good teaching involves an active role of both teachers and students in every situation as well as the use of various methods, approaches and strategies for developing maximum knowledge in the target language. Sometimes it is necessary to revise the curricula as well as the instructional and advising practices in order to set the right climate for improving student learning skills, which eventually lead the students to become independent learners and learn how to think, produce and evaluate knowledge, providing the basis for lifelong, independent learning (cf. Blended Learning: Strengths, Challenges and Lessons Learned: 2013).

Key considerations concerning the role, competencies and working conditions of teachers in a blended learning approach include the ability to:

-  select an appropriate teaching and learning approach with learning tasks that are complementary and coherent across learning environments
-  shift mindset and share challenges
-  take risks in order to innovate practice and build new experiences
-  design appropriate assessment for learning
-  support pupils as individuals and as a class community
-  undertake regular reflection and continuous development
-  share practice
-  take a leadership role where appropriate
-  liaise with families and the wider school community
-  support newly qualified teachers
-  manage own working conditions

(cf. Blended Learning in School Education: 2020)

6.4. Balancing digital distance through interactive methods

Let's explore different blended learning models that can help you to elaborate your own version of blending in-school and distance learning. One of the best-known and simplest blended learning methods is the [flipped classroom model](#). A flipped classroom requires students to learn at home via online activities and lectures and allows teachers to use class time for practice or projects. The model offers more opportunities for personalised learning but also has some challenging aspects. In the [individual rotation model](#), students rotate among different stations and learning opportunities in a personalised way. In the [flex model](#), content and instruction are delivered mainly online, as in the flipped classroom model, with a teacher providing support on-site. One more blend worth highlighting is [the self-blend model](#), in which students supplement their typical school classes with an additional online course chosen by themselves or recommended by the teacher according to the student's interests or needs (cf. Staker & Horn: 2012).

7. Neurodidactic Main Methods in Foreign Language Teaching

7.1. Language learning processes in the brain

In the 1980s, another inter-discipline was recorded in the field of education which is called *neurodidactics*. This term was used for the first time in Gerhard Preiß's work, him being a professor of *mathematical didactics* at the College of Education in Freiburg at the time. Since 1988, neurodidactics have been regarded as a relatively new scientific interdisciplinary field of study that combines both research on the brain and didactics, connecting to brain research findings and providing suggestions for effective learning and teaching. The latest research results in neurodidactics show that there is no singular and unique brain-based way of learning and teaching.

The left hemisphere of the brain is the centre of analytical thinking, speech and logic. On the other hand, the right hemisphere is responsible for our synthetic thinking. It reflects our creativity and imagination. Using it, we are able to perceive colours, pictures, music and rhythm. It represents the seat of our emotions. By stimulating the brain cells, positive changes become visible as the development of neural networks in the brain is enhanced.

When it comes to language learning, the left and right brain hemispheres work simultaneously while learning new words. Verbal speech is heading into the left hemisphere while the picture accompanying it is heading into the right one. If several senses are simultaneously used during foreign language teaching, certain linguistic schemes are developed in the brain which accelerates the process of remembering and prevents forgetting the vocabulary. Vocabulary in general is installed in the brain and is automatically and naturally used in speaking. Therefore, the correct choice of textbooks is equally important so that especially both perception channels - ear and eye - are involved in learning. Additionally, it should not be forgotten about good acoustics and lighting in classrooms as well as the decent print quality of the teaching materials and high-quality recordings without any side noise in the listening texts. An excellent and at the same time enjoyable method of learning vocabulary in a natural context is watching movies in the original language. To make the dialogues easier to understand, set the subtitles in the original language so that you can listen and read at the same time

7.2. Emotions

Emotions are also highly relevant in the process of learning. The middle part of the brain is considered the centre of emotions. Our memory and motivation are interrelated with those emotions. It is not surprising that we do remember the most positive and negative situations of our life and, on the contrary, we cannot recall our emotionally less significant situations. Many language teachers thus consider emotions to be a kind of key to helping language learners learn new languages. They colour our lives, strengthen our memories and they also function as strong motivators. The last findings have shown that emotions are a particular driving force in stimulating learning.

Never forget that the progress in mastering language acquisition is highly individual. Each learner has his or her personal style of learning. For this reason, many renowned researchers have started to show and highlight existing neuro-functional networks that are specialised in exclusively processing some special language aspects during the process of language acquisition (cf. Moravcová & Maďarova 2016: 635-637).

7.3. Teaching methods that enhance successful language learning






Regarding foreign language teaching, extensive knowledge of methods and broad methodological skills must undisputedly be part of the didactic competence of teachers (cf. Hallet et al. 2020: 13). *"Methods are ways of language learning. They deal with the procedures and goals of teaching and learning foreign languages in institutional contexts"* (Hallet et al. 2020: 13).

If we look at the development of the concept of methods, we can see that researchers no longer assume that a single method as a closed system can structure and ensure successful foreign language teaching because teaching and learning are simply too complex actions (cf. Hallet et al. 2020: 15).






In the field of teaching and learning, there is currently more talk of approaches that allow for a variety of methods as well as the use of a combination of different approaches and procedures. In this context, macro methods are overarching methodological approaches that influence decisions about instructional methods in concrete lessons. These main methods are recognised over longer periods of time and involve theoretical assumptions (cf. Hallet et al. 2020: 16). In foreign language teaching the use of different methods is a desirable key feature (cf. Riemer 2020: 29). Riemer defines the change of methods as follows: "The justified change or sequence of work and social forms, tasks and exercises, media and materials, staging of teacher language and teacher action, and concrete patterns of action in classroom interaction" and the variety of these methods aims at a wide range of these methodological forms and teaching techniques (cf. 2020: 29). Variety and changes of methods keep the learners interested, motivate them and foster their readiness to learn (cf. Riemer 2020: 29). If methods and the learning group fit together in the best possible way, learning processes may be supported by the use of are additionally supported which can also be reached by changing approaches and a variety of methods (cf. *ibid.*). In the following, four macro methods are outlined that are in line with neurodidactic results.

7.3.1. Communicative foreign language teaching

The overall objective of this main method is communicative competence. Components of this competence are:




-  grammatical competence (ability to produce formally correct utterances)
-  sociolinguistic competence
-  strategic competence
-  discourse competence (ability to negotiate the meaning)
-  intercultural communicative competence (knowledge about the target language and culture resulting in diverse appropriate behaviours and open-mindedness - resulting in the ability to communicative action (cf. Doff 2020: 34-35))

Methods of the communicative classroom foster action and situation-related skills as well as linguistic knowledge and skills. The most important methodological basic principles (cf. Doff 2020: 36) are:






-  content orientation
-  priority of learner's communication needs over formal aspects of language
-  communicative exercises that serve to activate the learners and to prepare, build up, structure and simulate authentic communication situations
-  usage of flexible teaching material (in addition to textbooks) that create communication occasions
-  social forms that promote communication and exchange among the learner (discourse skills)

7.3.2. Intercultural foreign language teaching

Foreign Language Teaching has a great capability to foster intercultural education (cf. Reimann 2020: 38). Equality, recognition, understanding and dialogue skills are central aspects of intercultural pedagogy (cf. *ibid.*). The aim is to arouse a general curiosity about foreign languages and cultures and to promote the ability to change and coordinate perspectives (cf. Reimann 2020: 38). Concrete examples of methods in intercultural foreign language teaching are:

-  encounter with places of memory of the target language region (focus on knowledge)
-  diversity experience: evaluation of various phenomena and issues in the learning group (focus on attitudes)
-  enable real encounter situations for exchange in the target language country (focus on understanding)

Intercultural learning processes can be triggered when:

-  topics are dealt with that show the encounter of two or more cultures
-  learners are confronted with what is new to them and have to expand or differentiate what is known to them
-  background knowledge about their own or the presented culture is required from the learners
-  a systematic approach to what is presented is required
-  change of perspective and coordination is required the learners become aware of their own perspective and have to reflect on it.

7.3.3. Open teaching

There are different types of *open teaching*. The type of open teaching presented in this chapter does not mean *radical* (exclusively) open teaching but open teaching as a single part of an overall choreography of teaching. This means that teachers should be careful to consent freedom on only individual time-limited phases of the entirety of the course (cf. Lin-Klitzing 2020: 46). The essential goal of this macro method is to increase self-regulation and self-direction of the learners. The plan and content of the lessons, the teachers and also the teaching institution should therefore open up to enable open learning processes. Open forms of teaching are, for example, *a simulation game, project work, free work, station learning* and so on.

Example - Station Learning:

In station learning, learners are mainly self-regulated because they can choose to work with whom, when and on what. The teacher prepares the classroom(s): he/she chooses different types of material and exercises (related to the specific class) and distributes them in the classroom (or classrooms) in different stations. Learners can work alone or in groups. There would be both elective and compulsory tasks which are marked as such. This allows learners to partially make their own content choices and work at their own pace. Results can either be compared together afterwards or there are control sheets with which the learners can control themselves. The teacher is available as a contact person if necessary. Self-directed learning is more fostered in free work or project work when learners are also able to choose the contents themselves. (cf. Lin-Kitzling 2020: 47-49).

7.3.4. Project method

Project method means a temporary form of teaching that is focused on a specific goal or product with high learner autonomy (cf. Schart 2020: 49). Schart states that the ground for this method is the assumption that dealing with complex tasks and interaction widely fosters learning processes (2020: 49). The aim is that learners gain valuable, practical experience that may be connected to future situations they might experience

in their future life. It is important to state that this method is very flexible concerning learning goals, types of tasks and social forms (cf. Schart 2020: 50). The planning of a project is a mandatory condition and Schart quotes one of the many existing stage models by Stoller (2002) for orientation:

1. agree on a topic
2. set goals
3. structure project
4. prepare step 5 linguistically
5. obtain information
6. prepare step 7 linguistically
7. analyse and prepare information
8. prepare step 9 linguistically
9. present results
10. evaluation of the project

It is essential that the project plans are created jointly by both teachers and learners and that the teacher's considerations are incorporated as well as the learners' interests (cf. Schart 2020: 50). The project method can be very challenging for instructors because preparing a project phase demands a lot of effort as well as creativity and they have to find a way to support but not limit the learners during the project phase (cf. Schart 2020: 50 - 51), knowing that the possibilities inside the classroom grow parallel to the development of digital media Schart (2020: 51)

7.4. Recommendations for teaching foreign languages

In this section, you find a selection of recommendations of exercises to promote different skills. Try out which methods work well for your class and feel free to adapt and further develop the methods described - also together with your courses.

7.4.1. Use action research

Teachers are recommended to do research in order to evaluate the effectiveness of their teaching practices. This is called action research and it involves six steps: Finding a research question, collecting information, analysing information, sharing information with friends and colleagues, implementing the new practice, and trying new practices regularly (cf. Sousa 2011b: 13-14).

7.4.2. Involve physical exercise

Physical exercise influences the cognitive performance of students in two ways. First, exercise increases blood flow, which positively affects the hippocampus. As a brief reminder, the hippocampus is involved in the process of storing information in long-term memory. Second, exercise increases the biological chemical named *BDNF* (brain-derived neurotrophic factor) which is responsible for the growth and maintenance of neurons (cf. Sousa 2011b: 34).

7.4.3. Manage emotions

Emotions have a great deal of influence on the learning situation and process. Hence, positive emotions should be increased and negative emotions decreased. In order to help students to manage their emotions, teachers should converse with them about stress management, impulse control, expression of feelings, as well as

controlling relationships and the feeling of gratification (cf. Sousa 2011: 48). Educators should also be aware of the principle of the self-concept. This concept controls how students respond to new information and whether the input is stored. To put it in Sousa's words (2011b: 58), teachers should try to "convince the learner to allow the perceptual register to open the blinds and pass the information along". There are always reasons why some students are reluctant learners so it can be beneficial to approach them with emotion-based learning.

7.4.4. Teach the strategy of "chunking"

Teachers should keep in mind that the capacity of the working memory of students between five and adolescence is more limited. The limitation varies between three to seven learning items, but it always depends on the type of information, how the information is presented, and age. A solution can be found by using chunks. As previously mentioned, "chunking" is the main ability needed in problem-solving where bigger amounts of information are transferred from the long-term memory to the working memory. The long-term memory stores the knowledge, but the working memory makes use of it. The strategy of chunking also supports students in difficult tasks, such as reading and acting at the same time. Educators can teach their students how to use the strategy of chunking effectively in order to build meaningful and logical associations (cf. Sousa 2011b: 49-50, 117-119).

Sousa (2011b) also suggests teaching the strategy of "pattern chunking" and the one of "categorical chunking". Pattern chunking is a process that uses patterns in order to remember longer information. For instance, in order to remember a telephone number, the numbers can be split up into pairs that the student can connect to familiar experiences or information. Categorical chunking teaches students how to split up longer pieces of information into categories. Thereby, complex information is easier to understand. These categories can occur in all types: for example, advantages and disadvantages, structure and function, etc. (ibid.: 138-139).

7.4.5. Establish meaning

Long-term memory storage only occurs when the learner is able to create meaning and sense. Meaning, however, is more important than sense. Therefore, the teacher's role is to support students in establishing meaning. This can be done by adapting new information to the past experiences of today's young students. In most situations, teachers confuse their own experiences with past learning experiences (cf. Sousa 2011b: 45-55). Depending on the grade and age of students, tools such as *short stories*, *interviews*, *graphic organisers*, *collages or murals*, *music activities*, and *models* can be used to link new input to the past experiences of students. In addition, students should always be asked for their opinions and ideas (cf. Sousa 2011b: 160). Helpful tools for creating meaning can be models (for example, maps, and concrete objects), examples from the student's past experiences, and mnemonics (cf. Sousa 2011b: 74). Furthermore, Sousa (2011b: 75) reaffirms the importance of a thoughtful closure as a successful creator of sense and meaning. Closure is the process of summarizing new information that occurs in the working memory. Teachers can support this process by giving students time to think about and repeat the new input, through dedicated reflection time.

7.4.6. Keep an eye on sensory preferences

Teachers should use multisensory activities in class in order to address as many students as possible and to enable them to store and retain knowledge. It is important to realise that students do not possess simply one sensory preference that influences their learning behaviour. Thus, a low degree of motivation and attention can be due to the wrong input provided by the teacher. Another essential consideration is that students teach the way they learn, similar to the teacher. As a result, teachers should not insist on a certain type of testing and should always involve students in the choice of test types for the sake of including as many sensory preferences as possible (cf. Sousa 2011b: 59-60).

7.4.7. Include humour

The numerous benefits of humour on the body have been proven by research. Laughing, for instance, helps to fuel our brain better, releases endorphins, and it counteracts unwelcome emotions such as stress and body functions such as high blood pressure. Besides biological benefits, humour also helps to get attention, create a learner-friendly atmosphere, and to increase mental health. It can be also used as a less harmful tool for disciplining. Additionally, laughing as a positive emotion supports the storage and retrieval of knowledge (cf. Sousa 2011b: 68-69).

7.4.8. Raise the motivation level

By increasing motivation, teachers can expand the processing time of working memory. As a short repetition: The longer data is processed in the working memory, the more likely information is stored. Motivation naturally arises when an individual shows personal interest in the subject area. Teachers can assure this intrinsic interest by involving students in the development of lessons, giving clear instructions, providing challenging tasks, developing assessment criteria together, creating a relationship between the new information and the real world, and giving them the choice to learn self-determined. Other essential aspects are the responsibility of students and the feedback of teachers (cf. Sousa 2011b: 71-72). By using rewards, extrinsic motivation is easier to apply rather than intrinsic motivation. Yet, the most effective type of motivation is the one that comes from inside ourselves.

7.4.9. Test long-term storage

Whether information has been retained in the long-term memory or not should be checked by accurate testing within 24 hours. In the best cases, the test is not announced and there is no time for preparation. Afterwards, the tests should be analysed properly for the purpose of finding information or areas that need to be explained again or in a different way. Students should also be encouraged to talk about the methods they used to remember certain answers and facts. Ideally, students will not view this sort of testing as a punishment or a mere gathering for grades, but as a helpful tool for remembering information (cf. Sousa 2011b: 76 - 77).

7.4.10. Encourage students to work together

The situation of people who work together towards a certain aim is known as synergy. Interaction is a keyword for efficient learning and can lead to active participation, positive emotional involvement, better socialisation, the activation of multiple senses, and a better understanding. For productive teamwork or work in groups, students should change partners on a regular basis to avoid tedium and monotony. Teachers should ask for and clarify misunderstandings. Moreover, movement can and should be involved as often and much as possible (cf. Sousa 2011b: 78 - 79).

7.4.11. Consider the Primacy-Recency Effect

The primacy-recency effect gives an insight into the time intervals of a learning episode. During some time intervals, the learner can achieve and keep more information than during others. The learner retains most during the first interval (called *prime-time-1*, i.e. first 20 minutes), he or she learns least during the middle part of the lesson (called *down-time*), and he or she remembers second best during the last phase (called *prime-time-2*). When teachers desire to plan successful lessons, thus, they should remember this principle. According to this effect, new information should be introduced during prime-time-1.

Sousa (2011b: 130) advises educators, teachers, and professors to avoid referring to class management-related topics during this important first phase. In addition, asking students for their knowledge about an unknown topic is unnecessary because during prime-time-1 students remember the most also including wrong information. Hence, prime-time-1 as the most important phase of retention should not be wasted. During *down-time*, students can practice the new material. Prime-time-2 offers the perfect opportunity to let the students work on their own or in groups. In other words, their brains should start working on their own (cf. Sousa 2011b: 129 - 130).

7.4.12. Practice successfully

Sousa (2011b: 133) says that practice is only successful if it is applied permanently. Practice should be accurate and it should always involve constructive teacher feedback. Hunter (as cited in Sousa: 2011) points out the most crucial aspects when practising: the amount of material should be limited to a minimum because otherwise students are overloaded with information they cannot establish any meaning for. Second, especially *prime-times* should be used for practising as they can be used as short and intensive practising periods. Third, newly acquired knowledge should be practised on a regular base, and later on over a longer period of time. Fourth, teachers can observe the intervals for practising and give constructive feedback. During observations, teachers can assure whether the students understand what was taught or not (cf. Sousa 2011b: 133).

7.4.13. Use Wait-Times

Wait-time is a period of time that should occur between a question asked by the teacher and the response to this question given by a student. Studies have shown that wait-times at school are too short for students to be able to recall their knowledge. This process of retrieval is essential because it helps students to relearn information. Each individual needs his or her own amount of time for this process, and if the wait-time is way too short, the process of retrieval is interrupted and comes to a sudden end. Mary B. Rowe (as cited in Sousa 2011b: 137) stresses the best wait-time to be at least five seconds long. This does not only increase the number of responses and people who participate but also the quality of the answers. As a result, teachers can enhance their questions' level of difficulty (cf. Sousa 2011b: 137).

7.4.14. Avoid teaching similar concepts simultaneously

It should be avoided to teach similar concepts at the same time. It is further problematic to introduce a new concept by drawing a connection to a similar theory. This confuses students and often when they retrieve information, they start to mix up both concepts, especially if the two concepts have more similarities than differences. If it is necessary to introduce both concepts at the same time, their differences should be listed first (Sousa 2011b: 163).

7.4.15. Teach communication competencies in a second language








After elementary school, it is important for students to gain better communication competencies in their second language (cf. Sousa 2011b: 108). The skills involved in communication help them to get used to a second language and to see it in a positive way. When students lack communicative skills, they often start to be afraid of speaking and writing in this language. Teaching the four competencies involved in communication can counteract the students' fear of talking. Knowing about them also assures the use of both hemispheres of the brain.

The four competencies related to communication are: grammatical skill, sociolinguistic skill, discourse skill, and strategic skill. Grammatical skill refers to the knowledge about grammatical structures and rules that are processed in the left hemisphere. Sociolinguistic competence is the knowledge about sociocultural and individual differences that tell students when to use formal or informal wordings. Language production in combination with context is handled by the right brain hemisphere. Discourse competence involves both hemispheres and helps students to express themselves coherently. Finally, strategic competence includes verbal and nonverbal strategies for communication (cf. Sousa 2011b: 208 - 209).

7.5. Brain-based methods

7.5.1. The seven stages of a lesson plan

Jensen (2008) designed seven stages for a brain-friendly lesson plan:

-  Stage 1: *Pre-exposure*. For an introduction of a new topic, an overview should be provided in order for students to be able to design cognitive conceptual maps.
-  Stage 2: *Preparation*. It is the job of teachers to raise their students' excitement and interest for the topic.
-  Stage 3: *Initiation and Acquisition*. The teacher can give further input, information, material, and a variety of tasks. Students should have the opportunity to choose the way they learn best.
-  Stage 4: *Elaboration*. Students are supposed to work and participate actively for the purpose of processing new information.
-  Stage 5: *Incubation and Memory Encoding*. Practice and revision are important tools for memory encoding.
-  Stage 6: *Verification and Confidence Check*. Students should give an insight into what they learned by giving a presentation, presenting a project, etc.
-  Stage 7: *Celebration and Integration*. At the end of a session, positive emotions should be involved. For instance, the final results of a project can be presented to the external members of the school, such as parents (215-217).

7.5.2. COOL

COOL is the abbreviation for *Cooperative Open Learning* and it combines multiple cooperative and open teaching methods. These teaching methods are based on the principles of the *Dalton Plan* (e.g. Dalton International: n.d.): freedom, budgeting time, and co-operation. Teachers function as supporters and guiders, whereas students can choose when they want to work, where they want to work, and what activities they want to do. On the one hand, students operate independently and freely, and are guided and supervised by teachers. This enables educators to respond to their students' individual needs more effectively. COOL takes several approaches of neuroscience and neurobiology into consideration, for instance, the fact that the brain is social, and the function of mirror neurons (Wittwer n.d.).

7.5.3. Learning by teaching

This method refers to the belief that the person who teaches learns. Students should slip into the role of a teacher. By doing that, they recall information from the memory, which supports the retention process. Learning by Teaching can be used for teaching core, soft, and professional abilities (Grzega n.d.).

7.5.4. Learning by doing

Students are assigned an active role where they should try out things themselves. Learning by Doing enables them to choose breaks independently and follow their own learning speed. Additionally, multiple sensory skills are activated and used. As a result, this method enhances the understanding and meaning of new input.

7.5.5. Exploratory learning

Exploratory or Discovery Learning is a type of self-teaching where students are supposed to teach on their own without a teacher's instructions. They discover rules and structures themselves. An example of an exploratory learning method is project work. The more past experiences a student has about a new topic, the more likely exploratory learning will be proved effectively. The neuroscientific approach of this learning method is that it makes use of pattern recognition and rule extraction.

7.5.6. Social and observational learning

This method is based on knowledge about mirror neurons. Hence, students should observe models and imitate them. These models do not necessarily have to be humans, but models can also refer to any kind of media.

7.6. Key factors in brain-friendly teaching

Movement: Students are encouraged to move during group work. Students have to stand up for example in order to collect the material they need for their diagrams, and in the end, they walk around to have a look at the results of their classmates. Students can also be allowed to move during their group work for the purpose of asking questions to their peers or the workshop leader. It is also possible to rearrange the seating and to choose their working places on their own.

Motivation: The workshop leader tries to help students to create a connection between the model and the problems that occur when understanding and writing texts. This should lead to an intrinsic way of motivation. On the other hand, there are no rewards or punishments to enhance extrinsic motivation. At the beginning of the activity, clear instructions are given and they are repeated by one student to reassure that the class knows what it is supposed to do. There are no specific guidelines for group work in order to give students the opportunity to work self-determined. Another motivating factor is feedback which should be given by the teacher individually to each group.

Emotions: The aim is to enhance positive feelings, for example, excitement and fun. In general, students feel excited when daily routines change. Many of the participants show an increased level of interest and excitement during the activities due to the fact that there are changes in the familiar lesson procedure, new and unknown topics, and/or a change of environment. Moreover, the level of fun can be increased by giving children the chance to be creative and make use of their hands. Negative feelings, such as stress and fear, are avoided. Even though students are given a time limit, they are assured that it is not the general aim to finish their work in time but to learn new things.

Meaning: For the sake of establishing meaning, the leader can provide examples regarding the relevance of a specific activity for students' lives inside and outside of school. The leader can ask the students if they faced problems when reading and writing texts – e. g. if students had problems summarizing a text, understanding a text's content, learning grammar, or producing a text without guidelines.

Social Interaction: Students should work together at any time. They are encouraged to ask their peers before contacting the activity leader. At first, they can work with their seatmates, and later on, they can work in groups where they are able to choose the group members without the interference from an instructor. Social interaction should guarantee a learner-friendly atmosphere.

Learning Atmosphere: It is important to build a learner-friendly atmosphere at the beginning of the learning activity. Students should be allowed to say their opinion, ask questions, work in groups, and talk to each other. The atmosphere is further influenced by the environment and surroundings. A common notion is that unfamiliar surroundings can foster positive feelings.

Primacy-Recency Effect: The teaching units could be divided according to the findings of the primacy-recency effect. The instructor should consider offering the students new input during prime-time-1 and giving them a short break during *down-time*.

Breaks: Especially in contexts that require longer lessons, students should be granted a break of five to ten minutes. Concerning the Primacy-Recency Effect, breaks are part of the down-phase.

Feedback: The students should receive brief feedback for their group work from the leader which should foster their motivation. In a few situations, they should also receive feedback from their classmates.

Learning styles: The teaching units could involve kinaesthetic, visual-iconic, visual-verbal, and auditory learning strategies (e. g. a short presentation at the beginning of each activity). The students have to work with texts and read the information on the blackboard that offers visual-verbal inputs. Students can view diagrams drawn on a poster without additional input text first (visual-iconic learning) or they can use their hands in order to draw and cut out forms for the diagrams (kinaesthetic learning).

Conclusion

In this handbook, modern ways of brain-friendly, motivational and effective language learning were presented as well as detailed recommendations for teachers regarding corresponding arrangements for digital formats.

It became evident that there is a tendency away from rigid singular methods in foreign language teaching towards dynamic and flexibly applicable macro methods. In digital and/or blended teaching, it is indispensable that teachers enhance participation of and interaction with their participants to keep the attention up.

Other important aspects regarding modern ways of foreign language teaching are the implementation of humour, meaning, movement, variety and structural clarity of instructional phases. Since there is not only one singular way of learning new things that fits all, (language) teachers should know the composition of their classes while keeping in mind at the same time that brain-based methods respectively findings from neurodidactics can generally lead to long-lasting learning effects for most of their participants. In order to learn languages competently – meaning to be able to use them in a linguistically and culturally adequate manner – the activation and collaboration of the participants, along with the contextualisation of learning content, is of main importance which applies specially to teaching formats with digital distance.

Finally, the awareness according to individual learning behaviours, learning goals and learner autonomy by teachers and participants can be beneficial for a successful learning process on a broader level.

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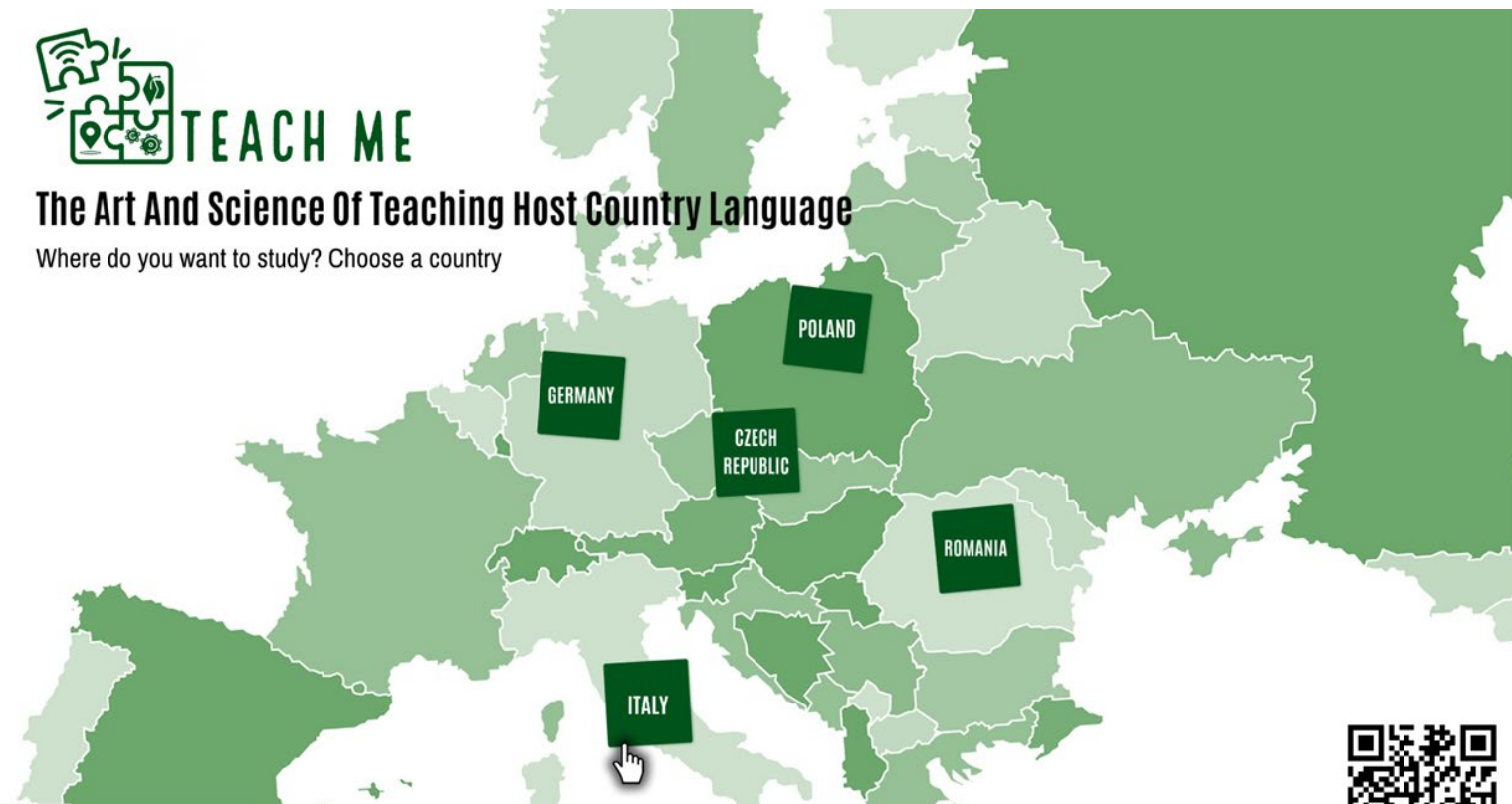
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