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Multimedia Didactics

- The Art and Science of Teaching Host Country Language –

2021-1-DE01-KA220-HED-000031184



PRACTICAL HANDBOOK

The Shortened version

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TEACH ME – Multimedia Didactics – The Art and Science of Teaching Host Country Language	
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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.

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.

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:

- 🖥 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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Introduction to the document

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).

The goal of this document is to summarise the content of one of the key products of the TeachMe project, namely the Handbook, thus providing the readers with primary information about Neurodidactics and the key concepts of the Handbook full version, which is freely downloadable from the official project website <u>www.teachmproject.eu</u>.

The advanced character of the Handbook and its core aim, promoting itself as an innovative didactic concept, bases mainly on two highlights:

- 1. the way teachers facilitate the language learning process with consideration of learner variables,
- 2. the way learners respond to the teaching.

Foreign language teaching should help learners to cope with the real language use of the host country. For this very reason, this innovative concept enables language teachers and educators to effectively teach the host country language in a neurodidactically and learner-oriented way.

This shortened version of the Practical Handbook is part of the Erasmus+ TEACHME project [2021-1-DE01-KA220-HED-000031184]: "PR2: A didactic concept for intensive teaching of a host- country language as a foreign language through multimodal and blended learning approaches", November 2022.





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.

If you are interested to dive deep, you may find more detailed information on the Cortex, the Limbic system and the forms of memory in the Handbook full version.

When it comes to Memory associated to 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).

From this perspective, 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).

Factors that promote learning

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

- Humour and laughter for it provides more oxygen for the body to use and evokes the release of endorphins in the blood
- $^{\&}$ Movement for the recirculation of the blood through our body and up to the brain
- Visuals and games for students are now acclimated to a multisensory environment and are more likely to pay attention if there are interesting, colourful visuals
- Classroom climate for when students feel physically safe and emotionally secure they produce a feeling of euphoria and stimulate the frontal lobes, thereby making the learning experience more pleasurable and successful.
- Mindsets and successful previous information for 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.

The Handbook full version provides also with more detailed descriptions of the aforementioned elements, as well as further information on (1) the teaching techniques for implementing learning boosters into classes, (2) the strategies for teaching the whole brain, and (3) the Factors affecting retention of learning.



Principles of Modern Foreign Language Teaching

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:

- Competence orientation
- 😼 Success orientation
- Action orientation
- 🗟 Task orientation
- 🕅 Interaction orientation
- 🕅 Contextualisation / Authenticity
- 🗟 Personalisation
- Learner activation

Additional principles may be:

- 🔯 Content orientation
- 🕅 Promotion of learner autonomy

In this shortened version, we do not deepen into each of these aforementioned methodological principles, which have been elaborated in the full version of the Handbook.



Language Learning in Digital Formats

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.

Besides the Stickler's 5 categories of teachers based on their use of technology in their process, that may be found in the full version of the Handbook, we present here pieces of advice for teachers on how to stay abreast of the latest technologies available and to adjust them to their 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.



Regarding the different blended learning models that can help teachers elaborate their 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 <u>the *self-blend model*</u>, 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).

Another digital methodology that has gained great consideration nowadays, is the so-called *Gamification*, which represents the idea of introducing elements that define the design of electronic games into the teaching-learning process and is considered, at our present, 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.

When trying to work with these types of technologically enhanced teaching techniques, the only possible challenge that may occur 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. 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."



Foreign Language Teaching

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. These are all explained in the Handbook full version, whose given sections have been structured as follow:

Principles of Foreign Language Teaching in Blended Learning Formats

- Constructive work in blended learning formats How to really make the blended learning model work
- $^{\&}$ From group work to collaborative work in blended learning formats
- 🕅 Balancing digital distance through interactive methods

Neurodidactic Main Methods in Foreign Language Teaching

- Language learning processes in the brain
- 🔯 Teaching methods that enhance successful language learning
- Recommendations for teaching foreign languages
- Brain-based methods, like the Social and observational learning, based on knowledge about mirror neurons.
- 🕅 Key factors in brain-friendly teaching

It has become 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.



Conclusions

In conclusion, there is no way backwards: 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).

i. Consequently, instead of asking students to put their mobile phones away or to turn them off, teachers could 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). Teachers, in this sense, can also rely on the mobility this approach has brought and surpass the physical limits of a room, assigning good practice on the go.



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