

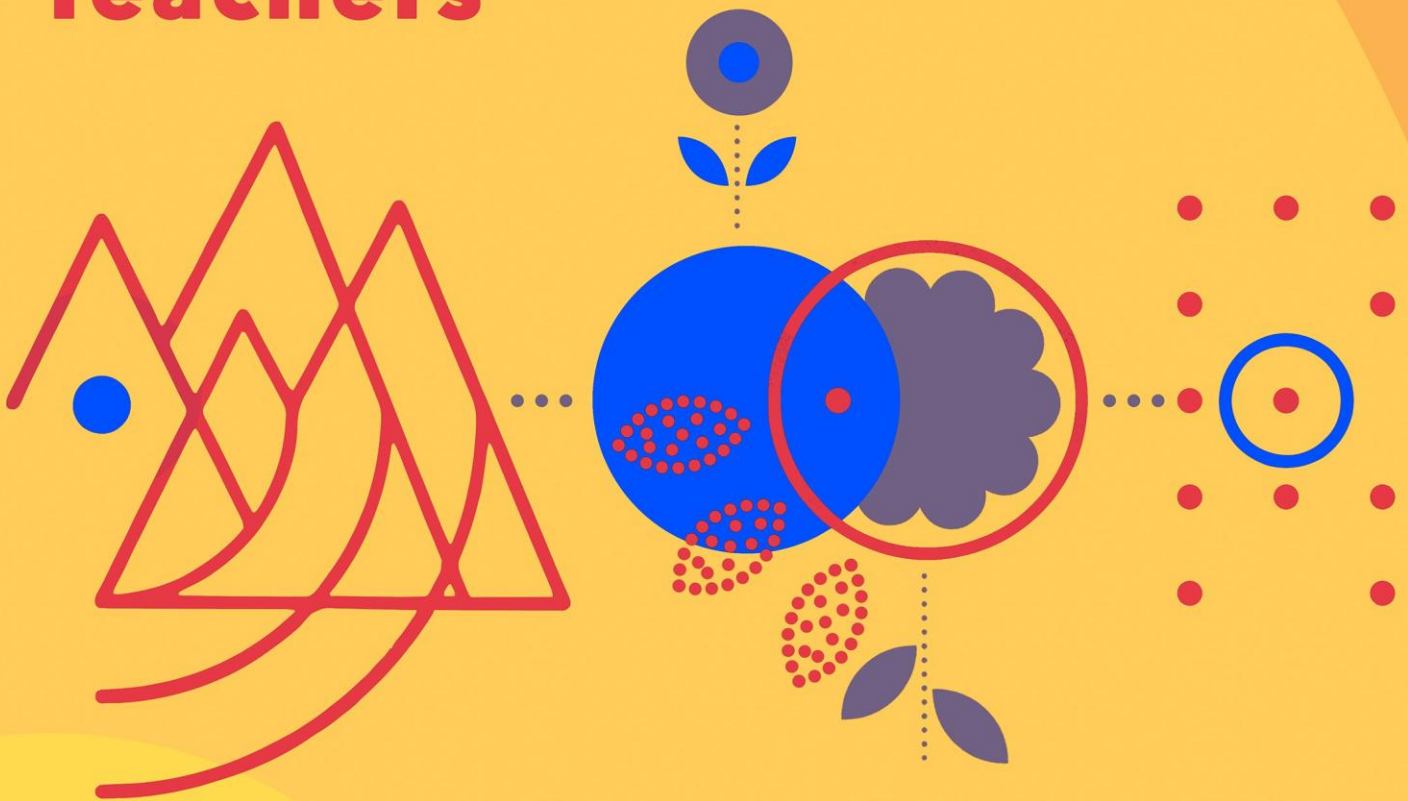


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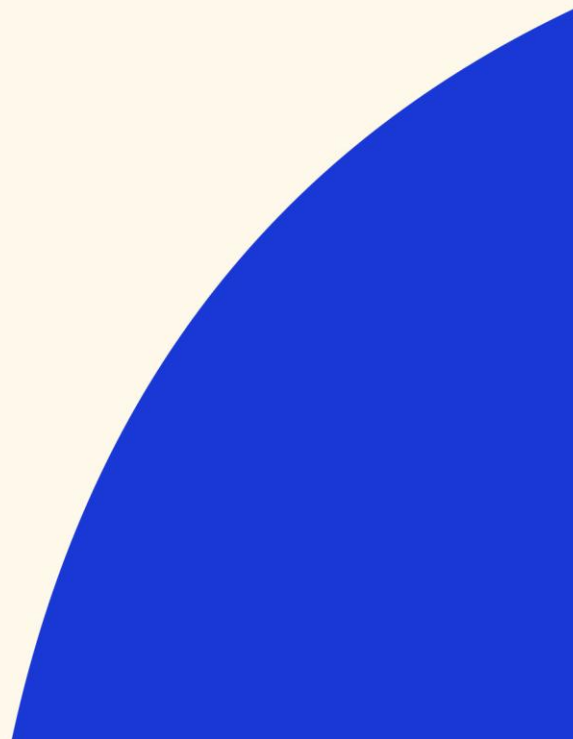
LEARNING LANGUAGES WITH SENSE(S)

Guide for Teachers



— LANSEN • ERASMUS+

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GUIDE FOR TEACHERS

LANSEN

Learning languages with sense(s)

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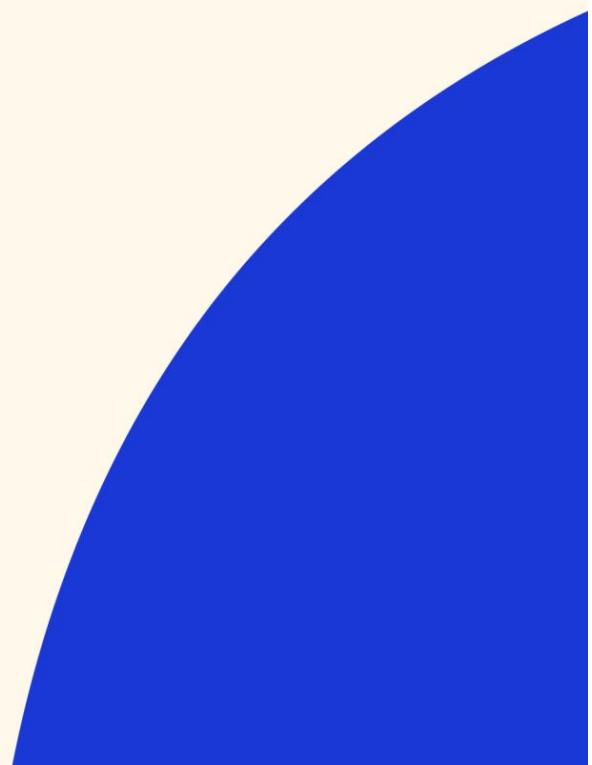


TABLE OF CONTENTS

1.	INTRODUCTION	9
1.1.	Project Overview.....	9
1.2.	Objectives	9
1.3.	Target Groups.....	10
1.4.	The 17 Sustainable Development Goals (SDGs) as a Framework for Language Learning.....	10
1.5.	Guide Structure: How to use this guide.	12
2.	THEORETICAL FOUNDATIONS: TOOLS OF THE BRAIN.....	13
2.1.	The Coordinating Brain	13
2.1.1.	Cognitive Mechanisms and Linguistic Impact.....	13
2.1.2.	Artificial Intelligence in Language Learning: Multimodal and Multilingual Applications	15
2.1.3.	Sensory Stories and Snoezelen Environments: Artificial Multisensory Simulation	15
2.2.	NEUROSCIENCE AND PSYCHOLINGUISTIC APPROACH	17
2.2.1.	How New Words Get into Memory	18
2.2.2.	Why Emotions matter for Learning	18
2.2.3.	Why Multisensory Learning Works	19
2.2.4.	What This Means in Practice	20
2.2.5.	Can Adults Really Learn Languages?	21
2.2.6.	The Bottom Line: Synthesis and Implications	22
2.2.7.	Moving Beyond Myths: A Balanced Practical Framework	23
3.	HOW TO LEARN LANGUAGES NOWADAYS	25
3.1.	The LANSEN Method: Bridging Neuroscience and the Classroom	27
3.2.	A Typical LANSEN Lesson	28
4.	TEACHING THROUGH THE FIVE SENSES	29
4.1.	Classroom Ideas.....	29

4.1.1.	Hearing.....	29
4.1.1.1.	Hearing and LANSEN.....	29
4.1.2.	Touch	30
4.1.3.	Smell	32
4.1.3.1.	Smell and LANSEN	32
4.1.3.2.	Sensory Mind Maps in the LANSEN Project.....	33
4.1.4.	Taste	34
4.1.4.1.	Taste and LANSEN	35
4.1.5.	Sight	38
4.1.5.1.	The Sight and LANSEN	38
4.1.5.2.	Sight and Hearing in LANSEN.....	41
4.1.5.2.1.	The Literary Ear: the Little Prince and LANSEN. A Didactic Approach.....	41
4.1.5.2.2.	Research and poster creation	41
4.1.5.2.3.	Shared reading	42
4.1.5.2.4.	Philosophical Debate.....	43
4.1.5.2.5.	Bookmarks creation.....	44
4.1.5.2.6.	The Little Prince in eTwinning.....	44
4.1.5.2.7.	Other ideas.....	46
5.	FICHE PÉDAGOGIQUE (WORKSHEETS)	47
6.	EUROPEAN CULTURAL INSPIRATION	51
6.1.	Introduction	51
6.2.	Examples of Activities Ready to Use	51
6.2.1.	Challenges in Kraków - Multisensory Urban Pedagogy	51
6.2.1.1.	The Polish Initiative: Sensory Priming and Foundations.....	52
6.2.1.2.	The German Initiative: Narrative Scavenging and Documentation	52
6.2.1.3.	The French proposal: Structural Analysis and Olfactory Mapping	52
6.2.1.4.	The Spanish Initiative: Rapid Multimedia Synthesis	53

6.2.1.5.	The Portuguese Initiative: Human Interaction and Global Goals	54
6.2.1.6.	Comparative Framework of Learning Outcomes	54
6.2.1.7.	Conclusion.....	54
6.2.2.	Cologne Cathedral Challenge - meet a never-ending story.....	55
6.2.3.	City breakout - Exploring Murcia city.	57
7.	DIGITAL RESOURCES	58
7.1.	GOOGLE EARTH In Education: Linking Spaces to the 5 Senses	58
7.2.	Visual Literacy and Digital Media: How to Take Photos and Film	58
7.3.	Webpages and Apps for Accessibility	60
7.4.	The LANSEN Project Digital Repository	62
8.	DIGITAL INNOVATION	63
8.1.	Intellectual Property in the Digital Era: CCL.....	63
8.2.	LANSEN'S Period Table of Language Apps	64
8.2.1.	Getting Started	64
8.2.2.	Exploring the Apps	65
8.2.3.	Contributing to the Table	66
8.3.	LANSEN interactive Museum	69
8.3.1.	Interactive Museum – Designing Perfume Bottles through the Senses	69
8.4.	eTwinning	71
9.	CONCLUSIONS	72
11.	BIBLIOGRAPHY	75
11.1.	Recommendations & Reports.....	75
11.2.	Books.....	75
11.3.	Articles & Chapters	76
11.4.	Web Resources	78
12.	ANNEXES.....	79
12.1.	Record of AI Prompts Used for Illustration Generation	79



1. INTRODUCTION

1.1. Project Overview

The **LANSEN Project** (Language Acquisition through Sensory Engagement) constitutes a transnational educational initiative aimed at developing, implementing, and evaluating multisensory approaches to foreign language instruction. The project is grounded in contemporary research in applied linguistics, cognitive psychology, and neuroscience, and seeks to operationalize theoretical insights into practical pedagogical frameworks.

The LANSEN Project aims to explore and promote innovative, multisensory approaches to language learning across the European Union.

A project of this magnitude needs an institutional image. Therefore, the LANSEN team created a contest to involve our students from the first steps. Every country selected a winner and then, a survey was carried out. The winner was the logo by **Weronika Małysa**, a 2nd year high school student from ALO, Poland.



Figure 1. LANSEN's logo.

Author: Weronika Małysa, ALO, Poland.

You can also find us on [Instagram](#), [Facebook](#) and our [webpage](#).

1.2. Objectives

1. To raise the level of competence in linguistic communication in French, English and Spanish of the students receiving the project.
2. To conceptualize and validate a multisensory methodology for language learning aligned with CEFR levels A1–B2.
3. To enhance student motivation, engagement, memory retention, and communicative competence emotional engagement through sensory rich instructional practices.
4. To create innovative, attractive, functional educational materials, tools and resources that are consistent with the scientific theories studied during the implementation of the project.
5. To strengthen teacher competences in designing and implementing multisensory tasks supported by digital and AI based tools.

6. To improve the educational quality of centres involved, in order to provide comprehensive training that contributes to improving their environment.
7. To foster international collaboration and knowledge exchange among educational institutions and create a shared European platform for exchanging good practices.
8. To generate real communication situations in an international context that motivate students and provide them with a European perspective on life.
9. To contribute to the acquisition of civic and democratic values in a transversal way, through the materials and themes used.
10. To strengthen the European dimension of partner institutions through cooperation between teachers and students.

1.3. Target Groups

- Students A1–B2 (secondary and adult learners).
- Language teachers and teacher-educators seeking innovative pedagogical tools.

1.4. The 17 Sustainable Development Goals (SDGs) as a Framework for Language Learning

Sensory engagement becomes vastly more impactful when hooked to meaningful, real-world themes that inspire genuine emotional responses. To fulfill this pedagogical condition, the Portuguese team integrated the United Nations' 17 Sustainable Development Goals (SDGs) as the core content engine for linguistic production.



Figure 2. The 17 Sustainable Development Goals.

Source: United Nations (<https://www.un.org/en/file/57285>).

Note: Used for educational/informational purposes.

During the mobility, specific SDGs were systematically mapped onto physical excursions and workshops across the regions of Setúbal, Almada and Lisbon:

SDG	Activity	Description
All SDGs	Presentation: “The 17 Sustainable Development Goals”	Introduced participants to the UN 2030 Agenda and encouraged the integration of sustainability principles into educational activities and project outputs.
SDG 4 SDG 9	Google Earth in Education	Promoted the innovative use of digital and geographical tools to support interactive, inclusive and technology-enhanced learning.
All SDGs	Workshop: “How to Take Photos and Film”	Developed participants’ digital, creative and communication skills through practical multimedia production.
SDG 4 SDG 11	Workshops: “Sensory Stories – Parts 1 and 2”	Supported inclusive and multisensory learning while encouraging participants to explore the cultural, social and urban characteristics of Portuguese communities.
SDG 11	Territory walkthrough in Lisbon and Almada	Promoted awareness of local heritage, public spaces, urban identity and the importance of inclusive and sustainable communities.
SDG 4 SDG 17	Welcome by the Education Deputy of Setúbal Municipality	Reinforced cooperation between educational organisations and local public authorities and highlighted the role of municipalities in supporting quality education.
SDG 8 SDG 12	Livramento Market tour	Introduced participants to local employment, traditional commerce, regional products and the importance of supporting sustainable local economic activity.
SDG 4 SDG 11 SDG 15	Visit to the Michel Giacometti Museum	Promoted learning about Portuguese rural culture, traditional ways of life, cultural heritage and the relationship between communities and the natural environment.
SDG 4 SDG 9	SELFIE for Teachers	Encouraged reflection on the effective use of digital technologies and supported institutional digital development in education.
SDG 4 SDG 16	Presentation: Creative Commons	Increased awareness of copyright, ethical content sharing, open educational resources and responsible digital citizenship.
SDG 4 SDG 9	Workshop: Artificial Intelligence in Language Learning	Explored innovative approaches to language education and promoted the responsible use of artificial intelligence in teaching and learning.

Table 1. Mapping of Portuguese Mobility Activities to the UN Sustainable Development Goals (SDGs).

Source: own elaboration.

By embedding target language exercises into these civic themes, the affective filters of the learners are naturally lowered. Students no longer focus on the mechanical anxiety of grammar rules; instead, they use the target language as a vital tool to debate environmental resilience, analyze ethical economics, and explore solutions for sustainable global futures.

1.5. Guide Structure: How to use this guide.

This guide is organized into four main components:

- **Theoretical foundations** - neuroscience, psycholinguistics, and cognitive principles
- **Pedagogical Framework** – the LANSEN Method and the Decalogue of Sensory Learning
- **Practical Applications** - classroom activities, digital tools and AI supported resources
- Partner contributions
- **Evaluation and research Tools** – surveys, assessment instruments, and project evaluation guidelines of the educational materials

Teachers can use it as:

- a training manual,
- a source of ready-to-use activities,
- inspiration for designing their own sensory-based lessons.



2. THEORETICAL FOUNDATIONS: TOOLS OF THE BRAIN

2.1. The Coordinating Brain

Within the transnational framework of the LANSEN Project (Learning Languages with Sense(s)), Portugal operates under a deeply scientific and metaphoric mandate: acting as *The Coordinating Brain*. Just as the human brain serves as a central hub that harmonizes raw, disparate inputs from our five senses into a cohesive, meaningful perception of reality, the Portuguese mobility, hosted by Eagle Intuition from January 13 to 17, 2025 — focused on integrating experiential technologies, social sustainability, and multisensory design to revolutionize language pedagogy.

2.1.1. Cognitive Mechanisms and Linguistic Impact

Following the technical and thematic workshops, the Polish team presented **The Coordinating Brain**, an analytical session that explored the neurocognitive foundations behind multisensory integration.

Language acquisition is a whole-brain activity (Isaee, 2026). This is exemplified by the phenomenon of **synaesthesia**, where sensations typically experienced separately—such as sound and taste—are neurologically joined (Simner, 2005). Brain imaging (fMRI) has shown that in some individuals, the **primary gustatory cortex (taste centers) activates** in direct response to hearing words, proving that linguistic input can trigger involuntary multisensory perceptions (Simner, 2005).

When a child or adult encounters a foreign language, multiple neurological networks must fire simultaneously to recognize phonemes, decode semantic meaning, and produce coherent vocalizations (Isaee, 2026).

This process is scientifically grounded in **Dual Coding Theory (DCT)** (Paivio and Walsh, 1993), which posits that information encoded through both verbal and non-verbal channels creates redundant and robust retrieval pathways. While isolated sensory tracks—such as exclusive visual text processing—leave neural pathways narrow and memory retrieval fragile, multi-channel streams allow the brain to build rich, overlapping cognitive connections (Isaee, 2026).

This multisensory synergy ensures that if one retrieval pathway fades (e.g., forgetting the auditory sound of a noun), an alternative sensory track, such as a **tactile memory or a motor trace** created through gestures, can successfully bring the full memory forward (Agalyasri & Bhuvaneshwari, 2023; Hamdan & Aziz, 2026).



Figure 3. Workshop in Poland.
Source: Photo by Renata Klimek-Kowalska.

However, the session also addressed **Cognitive Load Theory (CLT)**, noting that multisensory input must be strategically designed because adding more modalities does not automatically increase effectiveness (Liu & Wang, 2026). To avoid overloading finite working memory, instruction should account for specific word-type preferences: **concrete words** are most effectively perceived through visual-auditory combinations, while **action words** benefit significantly from gestural input that activates the same motor cortex areas involved in the physical act (Liu & Wang, 2026). Furthermore, research suggests that **emotion words** are best supported by combined auditory and gestural input, as prosodic features naturally convey affective states (Liu & Wang, 2026).

In modern education, this **embodied cognition** perspective fundamentally shifts the role of the learner from a passive information recipient to an **active, embodied protagonist** (Lan & Fan, 2026). Immersive environments, such as "**smart classrooms**," **Augmented Reality (AR)**, or **Virtual Reality (VR)**, create situated interactions where linguistic meaning is generated through physical presence and active meaning-making (Lan & Fan, 2026). This whole-body approach fosters communicative resilience and ensures inclusivity, allowing students with neurodiverse profiles—such as those with **dyslexia** or **speech and hearing impairments**—to utilize their strongest sensory channels to build essential linguistic associations (Isaee, 2026).

2.1.2. Artificial Intelligence in Language Learning: Multimodal and Multilingual Applications

The central pillar of mobilities was the future of education: **Artificial Intelligence in Language Learning**. It does not replace sensory learning; rather, AI serves as an exceptional digital amplifier, allowing language teachers to design highly customized, multimodal materials. By intelligently pairing AI with embodied, sensory-based instructional design, the LANSEN project bridges historical human heritage with the technical toolsets of tomorrow, ensuring that language learning remains an effective, inclusive, and profoundly human experience.

During Portuguese mobility, participants were introduced to a wide range of AI tools and platforms currently shaping educational practices. Practical demonstrations included the use of **ChatGPT, Gemini, Notebook LM and Microsoft Copilot** for content creation, lesson planning, and personalized learning support. These tools reflect a broader shift identified in recent research, where **AI-enhanced multisensory interventions** have shown a moderate positive effect on language acquisition (Hedges' $g = 0.61$) (Isaee, 2026). Meta-analyses indicate that AI-powered systems ($g = 0.72$) significantly **outperform static multisensory tools** ($g = 0.47$) because their algorithm-driven adaptivity allows for dynamic responses to learner performance (Isaee, 2026).

Participants also explored various digital applications and **AI-powered chatbots** designed for pronunciation and speaking practice. These technologies are particularly effective in fostering **affective outcomes**, such as reducing communication anxiety and increasing learner confidence (Isaee, 2026). By simulating authentic dialogues in a safe, non-judgmental environment, chatbots cultivate the "flow" and engagement necessary for sustaining long-term language learning (Isaee, 2026; Risdianto et al., 2025). Furthermore, the integration of **AI with Extended Reality (XR)**—explored through visual learning materials and storytelling—magnifies the benefits of immersion by providing personalized feedback that static VR/AR environments cannot offer (Isaee, 2026).

The sessions encouraged participants to critically reflect on the ethical, pedagogical, and practical implications of AI. By embracing these innovative tools, educators can create more dynamic and inclusive environments that support **personalized learning trajectories** (Isaee, 2026). Such professional readiness is central to building human-centered, sustainable digital learning ecosystems that prepare learners for an increasingly interconnected world.

2.1.3. Sensory Stories and Snoezelen Environments: Artificial Multisensory Simulation

At the very heart of the Portuguese contribution lies the profound exploration of **Sensory Stories**. While outdoor pedagogy offers a wealth of spontaneous sensory stimuli, the LANSEN project recognized the immense value of structured, controlled environments like **Snoezelen Rooms** (multisensory environments) for deep cognitive focus and neurodiverse inclusion.

This paradigm was **originally conceptualized in the Netherlands in the mid-1970s** at institutions such as Haerendaal and De Hartenberg. The method was pioneered by **Ad Verheul and Jan Hulsegge**, who were influenced by the 1966 work of American psychologists Cleland and Clark regarding "sensory cafeterias" for individuals with developmental and cognitive impairments (Verheul, 2009; CDHAF, n.d.). The term "Snoezelen" itself is a linguistic blend of the Dutch words "**snuffelen**" (**to sniff**) and "**doezelen**" (**to doze**), reflecting its dual purpose: to soothe overstimulated nervous systems or gently activate under-stimulated ones through tailored stimulation (Verheul, 2009; van Weert, 2004).



Figure 4 – Example of a Snoezelen room.

Source: image created in ChatGPT with the keywords: create, room, Snoezelen.

In the context of the LANSSEN Method, these environments function as an exceptional accelerator for foreign language acquisition. This approach aligns with the concept of **Smart Classrooms**, where immersive technologies create a "**being-there**" **quality**, shifting the learner's role to an **active protagonist** who generates meaning through situated interaction (Lan & Fan, 2026). Within these spaces, language learning is enhanced through several key mechanisms:

1. **Controlled Olfactory Priming:** By diffusing distinct aromas, teachers can trigger targeted emotional and memory networks. This process facilitates **Targeted Memory Reactivation (TMR)**, as the olfactory system has direct access to the limbic system and hippocampus, which are critical for memory consolidation (Cipollone et al., 2024). Research indicates that olfactory

stimulation during learning and subsequent sleep can lead to an average **improvement of 23% in memorization** tasks (Cipollone et al., 2024).

2. **Dynamic Visual Focus:** Fiber-optic light strands and color projections match visual fields with auditory soundscapes, reducing screen fatigue and strengthening the **Dual Coding** of information through independent verbal and non-verbal channels (Isaee, 2026; Paivio & Walsh, 1993).
3. **Tactile and Kinaesthetic Grammar:** Interacting with textured surfaces or weighted objects allows students to map linguistic concepts onto physical actions. Such **embodied interaction** ensures that even if one retrieval pathway fades, a motor trace can bring the memory forward (Agalyasri & Bhuvaneshwari, 2023; Hamdan & Aziz, 2026).

For neurodivergent learners, including those with **dyslexia, ASD, or ADHD**, Snoezelen environments serve as safe havens. They dramatically lower the **"affective filter"** by removing environmental stress, allowing students to utilize their strongest sensory channels to build essential linguistic associations (Agalyasri & Bhuvaneshwari, 2023; Almahrag, 2021).



Figure 5 & 6. Two distinct workshop settings illustrating multi-sensory language acquisition: applying kinesthetic, gestural cues during interactive instruction (right) and utilizing tactile, creative production in a relaxed learning environment (left).

Author: Renata Klimek-Kowalska

2.2. NEUROSCIENCE AND PSYCHOLINGUISTIC APPROACH

Language acquisition is not an isolated cortical activity; rather, as contemporary cognitive psychology and neurosciences indicate, it is an inherently embodied process (Lan & Fan, 2026; Macedonia, 2025). The brain encodes information with significantly higher efficiency when multiple sensory pathways are triggered simultaneously (Isaee, 2026; Paivio & Walsh, 1993). By contextualizing abstract vocabulary within concrete



physical spaces, emotional narratives, and multi-layered digital architectures, the Portuguese chapter established a practical framework for teachers to operationalize these neuroscience findings. This section outlines the structural segments, workshops, and innovative methodologies realized during the LANSEN Portugal deployment.

This approach is rooted in the understanding that language learning is a **whole-brain activity** (Isaee, 2026). When a learner encounters a foreign language, multiple neurological networks must fire simultaneously to recognize unfamiliar sound patterns, decode semantic meaning, and eventually produce coherent vocalizations. This neural coordination is exemplified by the phenomenon of **synaesthesia**, where sensations typically experienced separately—such as hearing and tasting—are neurologically joined (Simner, 2005). Brain imaging (fMRI) has demonstrated that linguistic input can trigger involuntary multisensory perceptions in some individuals, proving that the brain naturally seeks to link diverse sensory streams to build meaning (Simner, 2005).

2.2.1. How New Words Get into Memory

When a learner first encounters a new word, the brain holds the sound pattern briefly in echoic memory (Neisser, 1967; Darwin et al., 1972). Often described as a 'mental echo chamber,' this sensory auditory buffer provides a raw acoustic trace that is subsequently passed to the phonological loop for rehearsal and vocabulary acquisition (Baddeley et al., 1998). However, hearing a word once is insufficient for long-term retention. For a new word to become part of a learner's permanent vocabulary—the kind that can be recalled without effort—it must undergo a gradual process of consolidation (Cipollone et al., 2024).

Sleep plays a critical role in the success of this stabilization process (Cipollone et al., 2024). During sleep, specifically during the NREM and REM phases, the brain reorganizes and strengthens recently acquired information by transferring memory traces from the hippocampus to the neocortex (Cipollone et al., 2024; Rasch & Born, 2013). Research indicates that after a night's sleep, or even a short nap, the brain spontaneously reactivates these traces, allowing learners to process words more like a native speaker (Cipollone et al., 2024). This consolidation can be intentionally strengthened through Targeted Memory Reactivation (TMR) (Cipollone et al., 2024). Evidence shows that introducing specific olfactory stimuli (scents) during learning and re-introducing them during sleep triggers hippocampal reactivation, leading to an average 23% improvement in memorization (Cipollone et al., 2024). Consequently, spaced repetition, the practice of revisiting material at increasing intervals—remains one of the most reliable strategies for achieving automaticity (Almahrag, 2021; Isaee, 2026).

2.2.2. Why Emotions matter for Learning

The human brain is biologically wired to **prioritize information that triggers an emotional response**, such as curiosity, excitement, or surprise (Tyng et al., 2017). We have all experienced this phenomenon: while a mundane detail, such as what one had for lunch two days ago, is quickly forgotten, the details of an **emotionally charged moment remain vivid**. This occurs because emotions act as a neural gatekeeper for

deep encoding; when a stimulus is emotionally salient, the brain pays closer attention and encodes the experience more robustly into long-term memory.

In the context of the classroom, these emotional states are fundamental to lowering the **"affective filter"**—a psychological barrier often caused by **anxiety, boredom, or a lack of motivation** that can actively interfere with the brain's ability to process and retain new information (Agalyasri & Bhuvaneswari, 2023; Isaei, 2026). When learners feel personally connected to the material, or when a task feels genuinely meaningful, they learn with **significantly higher efficiency**. Conversely, chronic stress or high anxiety narrows attention and impairs the consolidation of memory.

An important nuance identified in modern pedagogy is that emotional engagement is not limited to purely positive feelings. A moment of **surprise following a mistake** or the mild tension of a challenging task can actually **strengthen a memory trace**, provided the overall learning environment is perceived as safe. To operationalize this, the use of **immersive AI-driven environments and chatbots** has proven highly effective (Isaei, 2026; Risdianto et al., 2025). These tools provide a safe, non-judgmental space for practice, which **reduces communication anxiety** and increases learner confidence by allowing for "flow" and autonomous discovery.

Furthermore, research indicates that the effectiveness of emotional engagement is tied to specific sensory modalities. For instance, **emotion words** are most effectively acquired when **auditory input is paired with gestural cues** (Liu & Wang, 2026). This is because prosodic features of the voice naturally convey affective states, while expressive gestures reinforce the emotional communication, creating redundant and powerful neural pathways for retrieval (Liebenthal et al., 2016; Liu & Wang, 2026). By aligning instructional design with these emotional and sensory principles, educators can move beyond passive reception toward **active, contextually embedded language use** (Lan & Fan, 2026)

2.2.3. Why Multisensory Learning Works

Our brains evolved in a world where information almost always arrives through multiple senses simultaneously. Consequently, language acquisition is not an isolated cortical activity but an inherently **embodied process** (Lan & Fan, 2026; Macedonia, 2025). When we see, hear, and physically interact with a stimulus, the brain creates richer, more interconnected memory traces than when relying on a single sense alone. This works because each sense activates a different area of the brain; when these areas are engaged together, they form neural connections that function as **redundant retrieval pathways** (Agalyasri & Bhuvaneswari, 2023; Isaei, 2026).

This approach is scientifically grounded in **Dual Coding Theory (DCT)**, which posits that information encoded through both verbal and non-verbal channels creates robust cognitive traces (Paivio & Walsh, 1993). In the context of language learning, if one retrieval pathway (e.g., the auditory sound of a word) fades, an alternative track, such as a **tactile memory or a motor trace** created through gestures, can successfully pull the full memory forward (Agalyasri & Bhuvaneswari, 2023; Macedonia, 2025). For example, if a learner forgets the phonology of a verb, the specific gesture learned alongside it can trigger the semantic recall.

However, instructional design must strictly respect **Cognitive Load Theory (CLT)**, as adding modalities does not automatically increase effectiveness (Liu & Wang, 2026; Sweller et al., 2011). Sensory inputs must be **relevant and connected** to the learning objective to be beneficial. Seeing a teacher's mouth form a difficult sound while hearing it provides genuine multisensory reinforcement, which aligns with the **Principle of Inverse Effectiveness**: multisensory integration provides the greatest benefit when individual sensory stimuli are weak or ambiguous (Isaee, 2026).

In contrast, irrelevant stimuli—such as background music or decorative visuals unrelated to the lesson—can impair learning by competing for the finite resources of **working memory** (Isaee, 2026; Liu & Wang, 2026). This "redundancy effect" leads to sensory overload rather than enhanced retention (Liu & Wang, 2026). Therefore, the key to successful LANSEN implementation is **meaningful sensory richness**, ensuring that every triggered pathway directly supports the linguistic target.

2.2.4. What This Means in Practice

The practical application of multisensory principles requires matching the specific sensory modality to the linguistic domain being addressed. By aligning instructional design with how the brain processes different types of information, teachers can transform abstract symbols into experienceable input (Lan & Fan, 2026; Liu & Wang, 2026).

For Vocabulary: Pairing a new word with an image and its spoken form creates multiple, redundant memory connections. Research indicates that the **distinctiveness and vividness** of the pairing significantly impact the strength of the memory trace; for instance, a photo of a specific red apple provides a more robust sensory referent than a generic clipart image (Liu & Wang, 2026). Furthermore, instruction should account for word types: while **concrete nouns** benefit most from visual-auditory combinations, **action verbs** are best acquired through **embodied interaction** and gestures that recruit the same motor cortex areas involved in the physical act (Hamdan & Aziz, 2026; Macedonia, 2025; Liu & Wang, 2026).

For Pronunciation: Acquisition is sharpened by a **visual-auditory combination** where the learner watches how a sound is physically produced—specifically focusing on **lip and tongue positions**—while simultaneously hearing the phoneme. This "visual phonology" is especially powerful for distinguishing and reproducing unfamiliar phonemes that do not exist in the learner's native language. Modern **"smart classrooms"** and AI-enhanced speech recognition tools support this process by providing real-time feedback and visual modeling of articulatory movements (Isaee, 2026; Lan & Fan, 2026).

For Grammar and Sentence Structure: Physical movement and gesture can make abstract syntactic patterns more concrete and perceivable. Techniques like **Total Physical Response (TPR)**—where learners physically act out verbs and commands—help anchor grammatical structures in **bodily memory** (Hamdan & Aziz, 2026). Over time, this embodied practice makes complex linguistic rules more intuitive, lowering the cognitive load required for spontaneous production by creating redundant retrieval pathways (Agalyasri & Bhuvaneswari, 2023; Hamdan & Aziz, 2026).

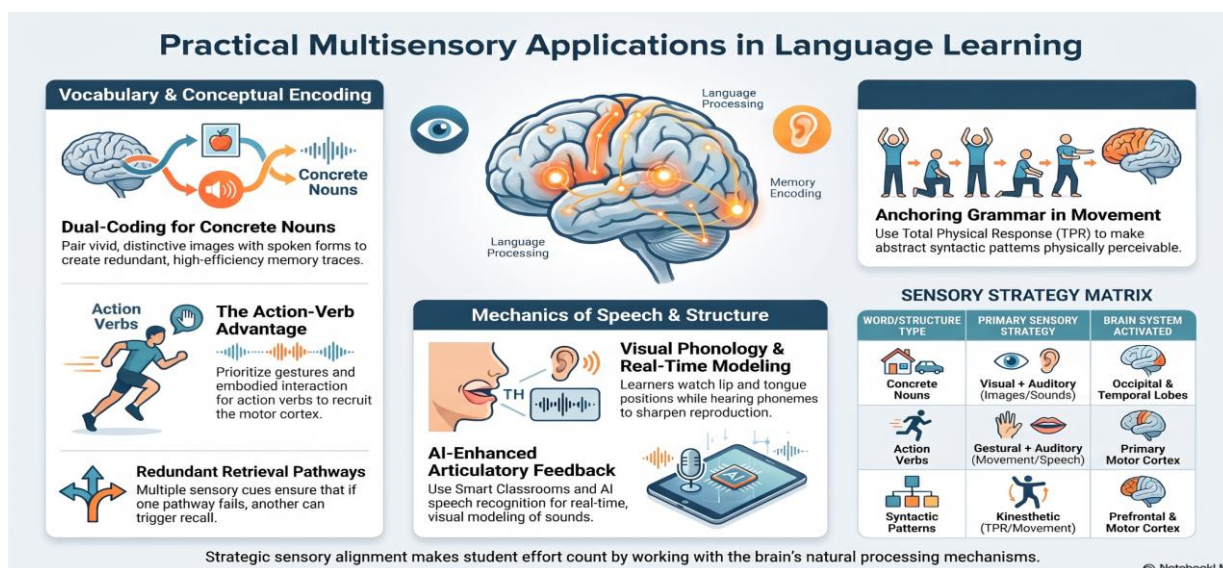


Figure 7. Multisensory Language Learning

Source: Image generated using Gemini NotebookLM (July 21, 2026). Prompt: see annexes.

2.2.5. Can Adults Really Learn Languages?

One of the most persistent myths in language education is that adults cannot learn languages effectively—that only children possess the "right kind of brain" for acquisition. Contemporary neuroscience and applied linguistics indicate that the reality is far more encouraging; while children and adults learn differently, the capacity for linguistic acquisition remains robust throughout the lifespan (Almahrag, 2021; Isaee, 2026). The perceived decline in learning speed is not a loss of the ability itself, but rather a developmental shift in **how the brain processes new information** (Almahrag, 2021).

Adults learn differently from children due to the transition from implicit to explicit learning mechanisms. Children are naturally adept at picking up pronunciation and absorbing complex grammar patterns implicitly, often without conscious effort. Adults, however, effectively utilize **explicit learning strategies** supported by lifelong **neuroplasticity** (Almahrag, 2021; Isaee, 2026). They bring powerful cognitive tools that children lack: the ability to study grammar rules consciously, leverage knowledge of their first language to make semantic connections, and apply deliberate strategies such as **spaced repetition and active recall** (Almahrag, 2021).

The biological foundation for this continued success is the fact that the brain remains capable of functional and structural rewiring throughout life (Almahrag, 2021; Isaee, 2026). Consistent, multisensory engagement allows the adult brain to develop new neural connections and increase connectivity between brain regions involved in language processing. While certain biological constraints exist—often referred to as **"sensitive periods"** regarding the acquisition of native-like phonology (accent)—adult learners can achieve high levels of communicative competence and linguistic proficiency by utilizing their strongest sensory channels and explicit cognitive schemas (Almahrag, 2021; Isaee, 2026). By shifting from a passive recipient to an **active**,

embodied protagonist, the adult learner can successfully navigate the complexities of a second language (Lan & Fan, 2026; Macedonia, 2025).

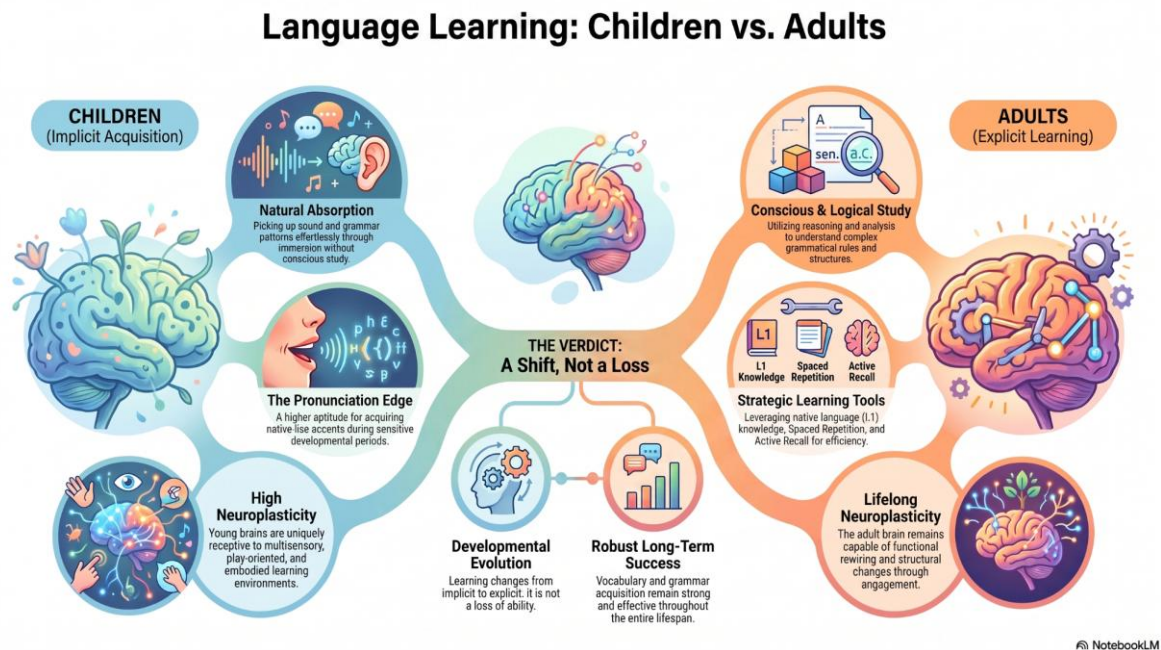


Figure 8. Language Learning: Children and Adults.

Source: Image generated using Gemini NotebookLM (July 21, 2026). Prompt: see annexes.

2.2.6. The Bottom Line: Synthesis and Implications

The cumulative evidence from neuroscience and psycholinguistics points to several fundamental principles for effective language instruction. To optimize acquisition, teachers should engage multiple senses in ways that are directly relevant to the target material, as redundant or irrelevant stimuli can lead to cognitive overload (Isaee, 2026; Liu & Wang, 2026). Furthermore, instructional design must prioritize emotional engagement through meaningful, personally relevant tasks that lower the "affective filter" and trigger deep encoding (Agalyasri & Bhuvaneswari, 2023; Tynng et al., 2017). Lessons should also build in regular opportunities for active recall and **spaced repetition** to strengthen neural pathways (Almahrag, 2021). Finally, educators must recognize that **sleep** is an essential part of the learning cycle, as it is during this time that the brain consolidates new words into the long-term mental dictionary (Cipollone et al., 2024; Rasch & Born, 2013).

These evidence-based facts were the focal point of the international LANSEN workshop held in Poland. During this deployment, students and teachers collaborated to create **mind maps** that illustrated their conceptual understanding of these neurological and psycholinguistic issues. These visual representations served as a bridge between theory and practice, allowing participants to operationalize how sensory and emotional input facilitates the transition of vocabulary from short-term to long-term memory.



Figure 9. Students creating mind maps during activities in Poland.
Source: Photo by Renata Klimek-Kowalska.

Ultimately, the integration of multisensory environments—ranging from the historical foundations of **Snoezelen rooms** created in the Netherlands in the 1970s (Verheul, 2009; van Weert, 2004) to modern **AI-enhanced Smart Classrooms**—represents a paradigm shift in education (Lan & Fan, 2026). This holistic approach shifts the learner from a passive recipient of information to an **active, embodied protagonist** who is physically and emotionally invested in the acquisition process (Lan & Fan, 2026; Macedonia, 2025). Most importantly, this framework ensures **inclusion for neurodiverse profiles**, such as individuals with dyslexia or speech and hearing impairments (Agalyasri & Bhuvaneswari, 2023; Almahrag, 2021). By allowing these learners to utilize their strongest sensory channels to build essential linguistic associations, educators give every student a real advantage—not by making learning effortless, but by making their effort count (Agalyasri & Bhuvaneswari, 2023; Isae, 2026).

2.2.7. Moving Beyond Myths: A Balanced Practical Framework

The objective of this guide is not to suggest that every language lesson must simultaneously stimulate all five senses. On the contrary, neurobiological evidence regarding **Cognitive Load Theory (CLT)** warns that sensory input is only beneficial when it is relevant to the learning target; irrelevant or excessive stimuli can lead to **sensory overload**, where redundant information competes for the brain's limited attention resources (Isae, 2026; Sweller et al., 2011). Instead, this framework encourages teachers to adopt a **diverse and meaningful delivery**, supplementing traditional lessons with new experiences and activities that align with how the brain naturally processes information (Agalyasri & Bhuvaneswari, 2023; Lan & Fan, 2026).

To implement this approach effectively, it is essential to clarify several persistent myths that often cloud the understanding of language acquisition and multisensory learning.

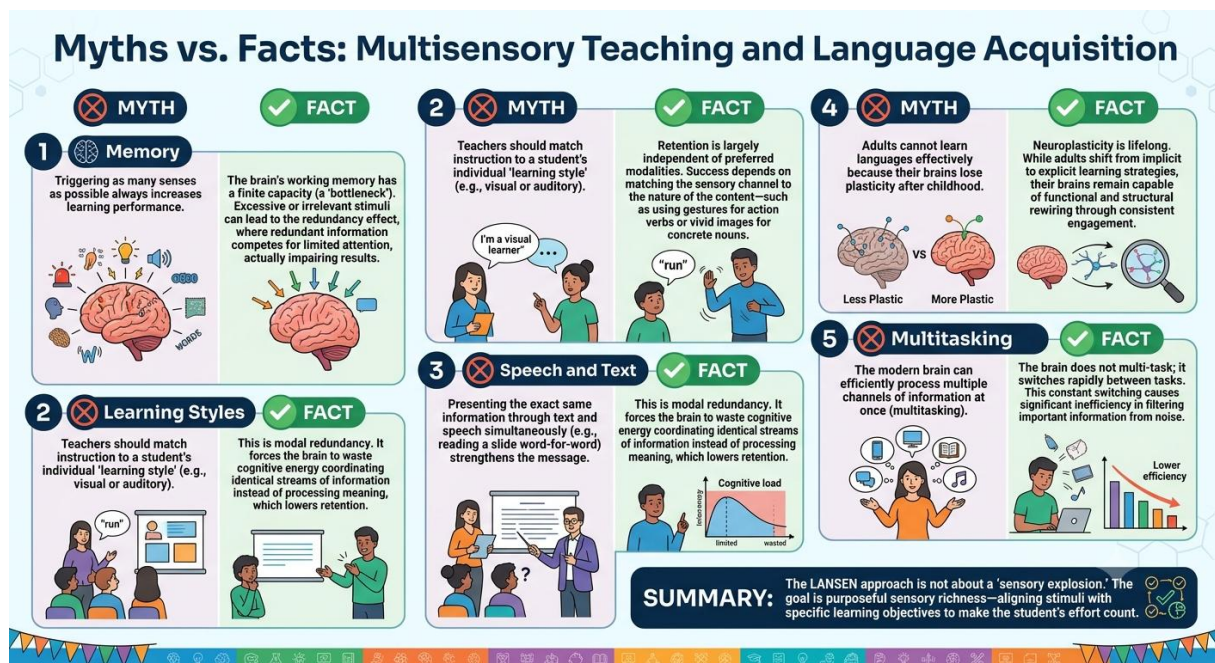
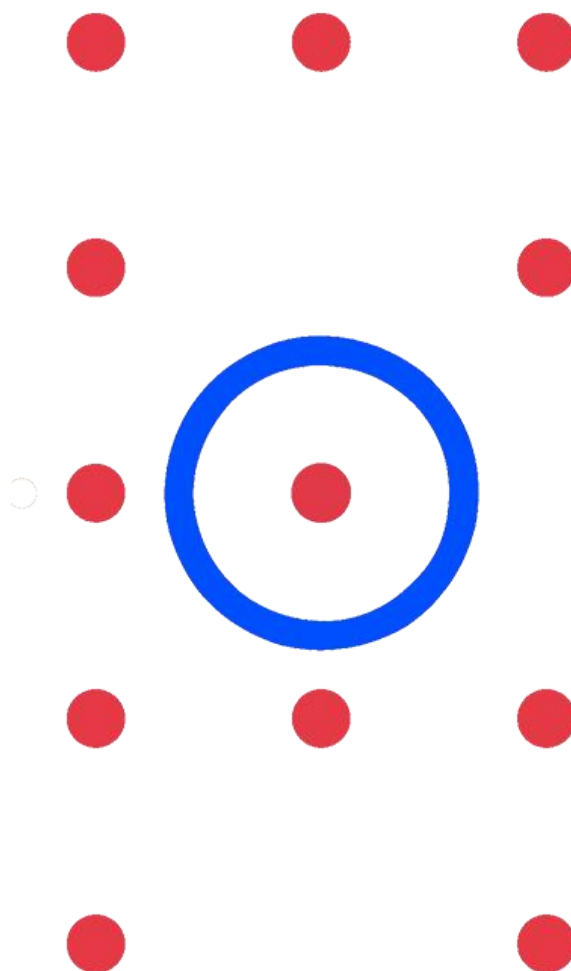


Figure 10. Myths vs. Facts. Multisensory Teaching and Language Acquisition

Source: Image generated using Gemini July 21, 2026, prompt: see annexes.

- **The Myth of Constant Sensory Intensity:** There is a common belief that more senses triggered at once always leads to better results. In fact, the brain's **working memory has a finite capacity** (Baddeley, 2012). According to the **Principle of Inverse Effectiveness**, multisensory reinforcement is most powerful when individual sensory cues are weak or ambiguous, rather than when the brain is overwhelmed by high-intensity, redundant stimuli (Isaee, 2026).
- **The Myth of Learning Styles:** While individuals may have preferences (e.g., "visual" or "auditory" learners), research indicates that long-term retention is largely independent of these preferences. Success depends more on matching the sensory modality to the nature of the content—such as using gestures for action verbs or images for concrete nouns—rather than sticking to a student's perceived "style" (Liu & Wang, 2026; Pashler et al., 2008).
- **The Myth of Modal Redundancy:** Presenting the exact same information simultaneously through text and speech (e.g., reading a slide out loud word-for-word) can actually **impair learning**. This "redundancy effect" forces the brain to waste cognitive energy coordinating two identical streams of information instead of processing the meaning (Liu & Wang, 2026; Mayer, 2009).
- **The Myth of the Adult Brain:** The idea that adults lose the ability to learn languages because their brains are no longer plastic is scientifically unfounded. While adults shift from implicit to **explicit learning strategies**, lifelong **neuroplasticity** ensures that the brain can still undergo functional and structural rewiring through consistent, multisensory engagement (Almahrag, 2021; Isaee, 2026).

By dismantling these misconceptions, educators can move toward a more sophisticated use of LANSEN principles. The goal is not to make learning effortless through a sensory explosion, but to **make student effort count** by providing a safe, emotionally engaging, and sensory-rich environment that supports the brain's natural path to automaticity (Agalyasri & Bhuvaneswari, 2023; Tyng et al., 2017).



3. HOW TO LEARN LANGUAGES NOWADAYS

Education is shifting away from traditional models that treat students as "empty receptacles." As society and neuroscientific understanding evolve, teachers must also transform from mere knowledge providers into "creators of contexts". Language acquisition is now recognized as an inherently embodied, whole-brain activity rather than an isolated mental exercise.

To bridge the gap between contemporary research and classroom practice, we have established the LANSEN Decalogue. This 21st-century toolkit provides a practical framework to implement the LANSEN method, designed to shift the student from a passive recipient to an active, embodied protagonist through sensory-rich and emotionally engaging instruction.



Figure 11. LANSSEN Decalogue.

Source: Image generated using Google Gemini (July 20, 2026). Prompt: see Annexes.

3.1. The LANSEN Method: Bridging Neuroscience and the Classroom

The **LANSEN Method** is a systematic approach to language instruction that translates complex neuroscientific findings into actionable classroom strategies (Porter, 2024). It is designed to be fully aligned with **CEFR descriptors**, ensuring that multisensory engagement directly supports the development of **communicative, intercultural, and cognitive competences** (Council of Europe, 2020; Porter, 2024). By intentionally merging digital tools with the principles of **embodied cognition**, this framework shifts the student from a passive recipient of information to an **active protagonist** in their own acquisition journey (Lan & Fan, 2026; Macedonia, 2025). Rather than overwhelming students with stimuli, the method focuses on meaningful sensory richness that makes every learner's effort count (Liu & Wang, 2026).

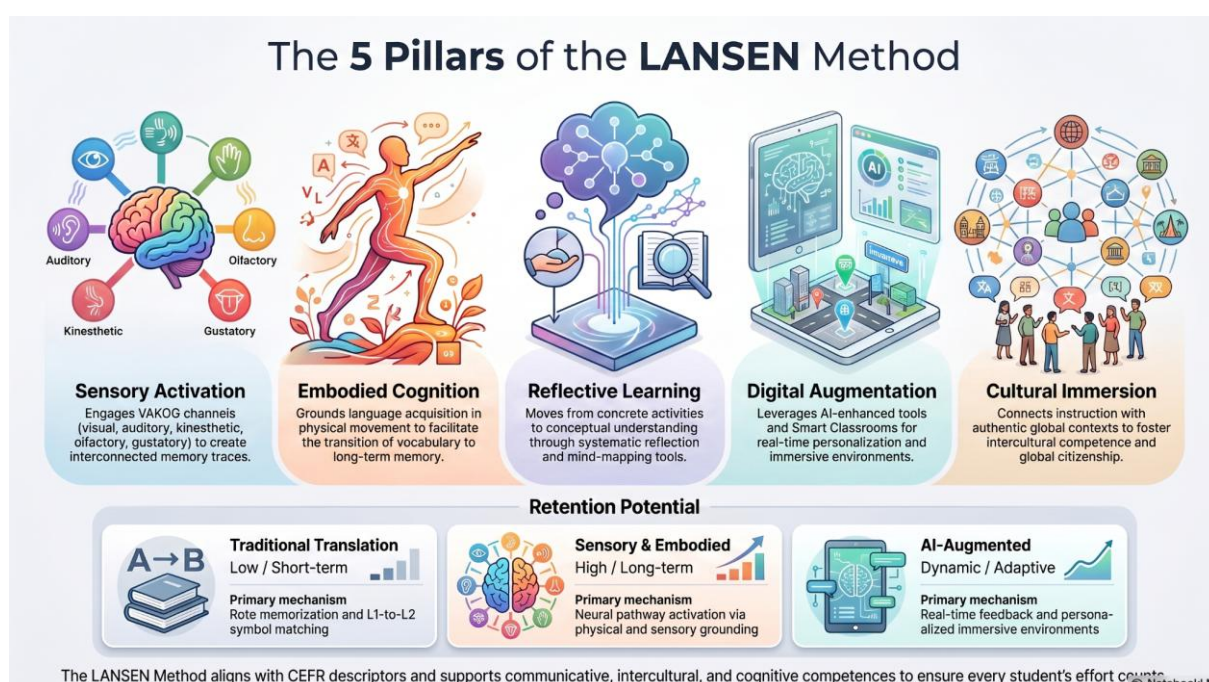


Figure 12. The 5 Pillars of the LANSEN Method.

Source: Image generated with Google NotebookLM. <https://notebooklm.google.com> (July 29, 2026). Prompt: see Annexes.

The infographic below details the **five foundational pillars** of this methodology:

1. **Sensory Activation:** Engaging visual, auditory, kinesthetic, olfactory, and gustatory channels to create richer and more interconnected memory traces in the brain (Porter, 2024; Tubele, 2022).
2. **Embodied Cognition:** Grounding language acquisition in physical movement and sensorimotor experiences to facilitate the transition of vocabulary to long-term memory (Hamdan & Aziz, 2026; Macedonia, 2025).
3. **Digital Augmentation:** Leveraging **AI-enhanced tools** and **Smart Classrooms** to provide real-time personalization, adaptive feedback, and immersive learning environments (Isaee, 2026; Lan & Fan, 2026).

4. **Reflective Learning:** Moving from concrete classroom activities to a deeper conceptual understanding through systematic reflection and evidence-based tools like mind maps (Labak et al., 2022).
5. **Cultural Immersion:** Connecting linguistic instruction with authentic global contexts to foster **intercultural competence** and a sense of global citizenship (Porter, 2024; Lan & Fan, 2026)

3.2. A Typical LANSEN Lesson

Designing a lesson is a complex process that requires meticulous planning, pedagogical expertise, and a thorough understanding of learners' needs. LANSEN tried to create effective lessons which align learning objectives, teaching methodologies, activities, and resources while taking into consideration the different learning styles and classroom contexts.

For this reason, the **Accelerated Learning Cycle** has had a vital role in the creation of our lessons. It was developed by Dave Meier in 1980 taking as a basis Georgi Lozanov Suggestology, which later evolved into Suggestopedia. It was in the 1990s, when the educator Alistair Smith transferred it specifically for classroom contexts. The Accelerated Learning Cycle is a powerful methodology that fosters our ability to absorb and retain information. In addition, this methodology defends and recognizes the richness of multisensory experiences, using **sight, sound, touch, taste, and smell** to create lasting connections. Furthermore, it contains four main steps, namely, connection, demonstration, activation and consolidation.

In LANSEN, we have adapted it taking into account the type of skill it is worked in. Here you can find an example of a LANSEN lesson structure:



Figure 13. LANSEN lesson structure.

Source: Ana Varela

4. TEACHING THROUGH THE FIVE SENSES

4.1. Classroom Ideas

Using the senses as the guiding thread throughout our lessons greatly enhances learner motivation, regardless of age, from young children to adult learners. As discussed earlier, this approach also offers a wide range of benefits for language acquisition. Framing instruction through the senses opens up countless opportunities to design engaging, varied, and meaningful learning activities. Below are just a few examples of sensory activities:

- Olfactory lexical categorization tasks
- Taste-based cultural comparisons
- Visual narrative construction
- Auditory discrimination and soundscape interpretation
- Tactile grammar sequencing
- Smell-based guessing games
- Taste-and-describe cultural workshops
- Soundscapes for listening comprehension
- Visual storytelling with images and [videos](#)

4.1.1. Hearing

Hearing is fundamental for the development of receptive and productive oral skills. It enables learners to perceive the sound system of the target language and to internalise its prosodic features. Moreover, it takes part in diverse aspects of the language such as **phonological awareness**. It refers to the ability to recognise and manipulate the sound structures of a language. This includes distinguishing between phonemes, identifying stress patterns and understanding intonation.

Developing this awareness is particularly important when the target language contains sounds that do not exist in the learner's first language. Through focused listening activities, learners become more sensitive to these differences, which enhances both comprehension and pronunciation accuracy.

Listening and speaking are closely interconnected processes. Learners rely on auditory input as a model for producing language. By listening to proficient speakers and engaging in repetition and imitation, they gradually refine their pronunciation, intonation and fluency.

Oral practice activities, such as dialogues, role-plays and pronunciation drills, reinforce this connection by allowing learners to actively apply what they hear. This process contributes to the development of intelligible and effective spoken communication.

4.1.1.1. Hearing and LANSEN

Music plays a significant role in both general learning and language acquisition by enhancing memory, motivation, and emotional engagement (Schön & Tillmann, 2015). **Rhythm** and **melody** help learners retain information more effectively, as patterns in music support the brain's ability to store and recall new words and

structures. In language learning, songs expose learners to authentic pronunciation, intonation, and cultural context, making the process more natural and enjoyable. Additionally, music reduces anxiety and creates a positive learning environment, which is especially important when practicing speaking and listening skills. By combining cognitive, emotional, and social elements, music becomes a powerful tool that supports deeper understanding and long-term retention in educational settings.

In LANSEN, we had Mario Cánovas, music teacher and psychologist who created a theoretical and practical workshop on how music affects learning and how learning music is similar to learning a language. With this information we could amplify our knowledge and understand our brains.



Figure 14. Workshop with Mario Cánovas.
Source: Photo taken by Ana Varela.

4.1.2. Touch

A great number of scholars have studied how people learn and why real experiences significantly enhance both the speed and effectiveness of learning. From Piaget and Bruner to Baddeley and Asher, a common thread emerges: the use of real objects and meaningful experiences play a fundamental role in making learning more engaging, memorable, and effective for learners.

Although the sense of touch was not included in LANSEN, we want to highlight its importance when learning a language. Although few language teaching methodologies focus exclusively on the sense of touch, some approaches incorporating tactile experiences or manipulation of real objects can be found.

- **Total Physical Response (TPR):** developed by James Asher (1977), it is a methodology which integrates touch and physical action into language learning. Learners respond to verbal input by carrying out physical actions. Activities such as *pick up the key*, *open the envelope* are carried out.
- **Communicative Language Teaching (CLT)** (Littlewood, Richard & Rodgers) promotes the use of authentic material (realia) to create meaningful communicative situations. Everyday objects provide learners with physical interaction with the materials while developing vocabulary and communicative competence in realistic contexts.
- **Experiential Learning:** According to David Kolb's (1984) theory of Experiential Learning, knowledge is constructed through concrete experiences followed by reflection. In language learning, tactile experiences such as experiments, cooking, or creating products enhance learners' linguistic development.
- **Content and Language Integrated Learning (CLIL):** learners acquire knowledge through the target language. As a result, they often manipulate materials such as laboratory equipment, works of art, or musical instruments.



Figure 15. Feel and Draw activity, Cracow, Poland.
Source: Photo by Barbara Klimek

4.1.3. Smell

Smell plays an important role in learning because it is strongly connected to **memory, emotion and personal experience**. Olfactory stimuli can trigger immediate associations with places, people, situations or past experiences, making smell a particularly powerful sense for creating meaningful and lasting memories.

In language learning, smell can be used as a stimulus to develop both receptive and productive language skills. Learners can identify, classify and compare different scents while associating them with specific vocabulary, adjectives, emotions and cultural references. This helps them enrich their lexical repertoire and encourages them to use language in a more concrete and experiential way.

Olfactory activities can also promote descriptive language. Learners are encouraged to express sensations that are often difficult to define, using adjectives and comparisons such as sweet, fresh, spicy, floral, smoky, strong, delicate, or earthy. They may also connect a smell with memories, emotions or imagined situations. In this way, smell becomes a starting point for speaking, writing, storytelling and interaction.

Unlike visual information, which can often be described immediately, smell requires learners to interpret an invisible sensory stimulus. This encourages observation, reflection and critical thinking. Learners must analyse what they perceive, make hypotheses, justify their choices and compare their impressions with those of others. Since the perception of smell can vary considerably from one person to another, olfactory activities also demonstrate that interpretation is subjective and influenced by personal and cultural experience.

The connection between smell and language therefore goes beyond vocabulary acquisition. By linking sensory perception, memory and emotion, learners can develop more meaningful associations with new words and concepts. This multisensory approach can make learning more engaging and memorable while encouraging creativity, communication and personal expression.

4.1.3.1. Smell and LANSEN

Smell plays an important role in LANSEN because it shows how language learning can be connected to **memory, emotion, culture and sensory experience**.

During the activities in **Réunion Island**, teachers took part in a perfume-making workshop to discover new fragrances, local spices and essential oils specific to the island. Beyond the cultural experience, the workshop also had a pedagogical aim: teachers first experienced the activity themselves so that they could later adapt it for their students.

These future classroom projects can integrate Réunionese essential oils and encourage students to describe scents, express preferences, compare sensations and justify creative choices in the target language.

The experience was also extended through the **design of perfume bottles**, linking smell with creativity, visual identity and storytelling. In this way, LANSEN

demonstrates how language can be learned differently, through multisensory, interdisciplinary and meaningful experiences.

4.1.3.2. Sensory Mind Maps in the LANSEN Project

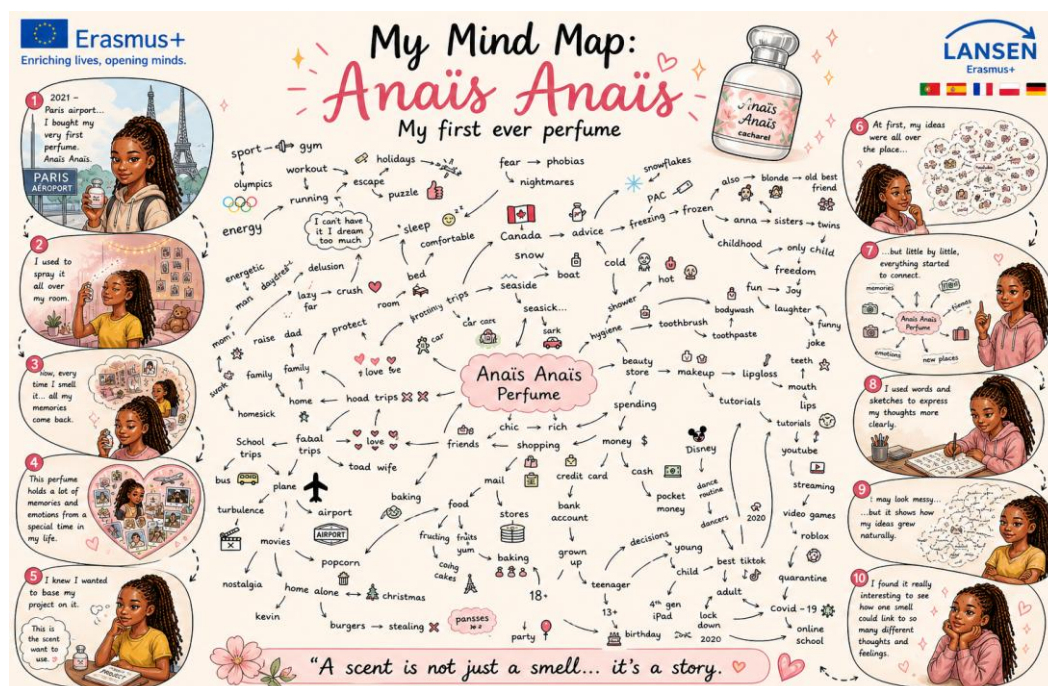


Figure 16: Anaïs's sensory mindmap.

Source: Content elaborated by Anaïs and visually *Generated with Chatgpt*, 20th March 2026.

Creating a **sensory mind map** helps students connect language learning with their senses, memories, emotions and personal experiences. Starting from a smell, sound, taste, image or texture, they explore associations and organise vocabulary in a visual and meaningful way.

In the LANSEN project, this activity develops **creativity, critical thinking and language skills** at the same time. Students learn to make connections between ideas, explain their choices and express sensations that are sometimes difficult to put into words. By linking sensory experiences to language, the mind map makes learning more personal, memorable and engaging.



Figure 17: Clovis's sensory mindmap
Source: Content elaborated by Clovis and visually *Generated with Chatgpt*, 20th March 2026.



Figure 18: Zoe's sensory mindmap
Source: Content elaborated by Anais and visually *Generated with Chatgpt*, 20th March 2026.

4.1.4. Taste

Taste is not the predominant sense, as we all use the senses of sight, smell and touch first before we decide to really taste e.g. new food. And we taste in a very pre-cautious way, biting off a small morsel first, checking what it feels like in your mouth, what noises you hear, when you chew on it, and then at last what it really tastes like – spicy or hot, fruity, aromatic, sour, sweet ... and a lot more. Thus, if we come to taste something new, we are sure that this food is ok and we are curious to learn more about this new encounter.

Taste is the sense to explore and take learning to a higher level. The earlier you start to try and taste, the more open-minded to new experience pupils will become – as an experience in the sense of the German word „Erlebnis“ – meaning the immediate encounter with the world in a limited time-frame just opening up to something new. But there is another aspect of experience, as in the German word of „Erfahrung“ – meaning that through repeated tastings a thematisation of present and precious encounters with the world takes place, paving the way for new understandings and memories of this very world by means of taste. In order to mouth these new experiences (i.e. „Erlebnis“ and „Erfahrung“), we need the right words to describe it precisely – in one's own language first, which can then easily be transferred to other languages as you know what you are talking about. Taste experience can easily be included in any lesson, if

the teacher dares to use it – providing the material and learning surrounding and checking for allergies and hygiene.

4.1.4.1. *Taste and LANSEN*

How can you taste a country? First off, if you let pupils stay in host families offering traditional food to gain first-hand experience.

In the LANSEN project we took the next step and cooked meals ourselves. Each country produced cooking videos to learn about how to make traditional dishes via eTwinning to warm up. But the real experience came in a teaching kitchen in Bonn. Here the students were divided into international groups, given German recipes and having to cook these dishes themselves. A professional cooking instructor and the teachers supervised the event and stepped in to give a hand if necessary.

During this hands-on learning experience, students interacted with each other trying to figure out the best way to create a good result for the common meal in the end (active learning by creating). They read, explained and planned the different steps together (promoting teamwork and cooperation). In the end, they not only enjoyed a common meal at a long table together – chatting about the different taste experiences (e.g. liver sausage on dark rye bread with pickles or sugar beet syrup or mustard), comparing it to dishes they know from their country and the different taste experiences. After this bonding activity enjoying a home-cooked meal together, they also learned to clean up after the cooking event in order to prepare the kitchen for the next group using it (the social component: learning to take responsibility in a sensible and natural way).

Here is the link to the menu cooked and served in the teaching kitchen: [menu](#)



Figure 19: Ready for take-off to the cooking event.
Source: photo - Petra Lewalder.



Figure 20: In the teaching kitchen.
Source: photo - Petra Lewalder.



Figure 21. Kneading the dumpling dough
Source: photo taken by Petra Lewalder



Figure 22. Rhenish entrée
Source: photo taken by Petra Lewalder

A sensory visit to Cologne, experiencing the Cathedral with all their senses in a self-conducted scavenger hunt and a visit to the Chocolate Museum on a guided tour and tasting chocolate from the raw beans via various stages of the production process to the final product you can buy in a shop, focused on the time and effort it takes to produce a high quality semiluxury food.

Getting to know about the planting, growing and harvesting of cocoa in the tropics with all the pros and cons of an industrialized production on huge plantations, plus learning about the production process in the consumer countries at all stages in a factory, plus having a look at the marketing strategies to sell the product by means of wrapping, advertising and vending machines as highly priced products, makes students appreciate the product, they like to enjoy, more highly and realize the role they play as critical or uncritical consumers demanding, buying and affording the semiluxury product (with reference to the sustainable development goals).

Here is the link to the Cologne Cathedral sensory experience: [Cologne](#)



Figure 23: Tasting the raw beans
Source: photo - Yvonne Woelke



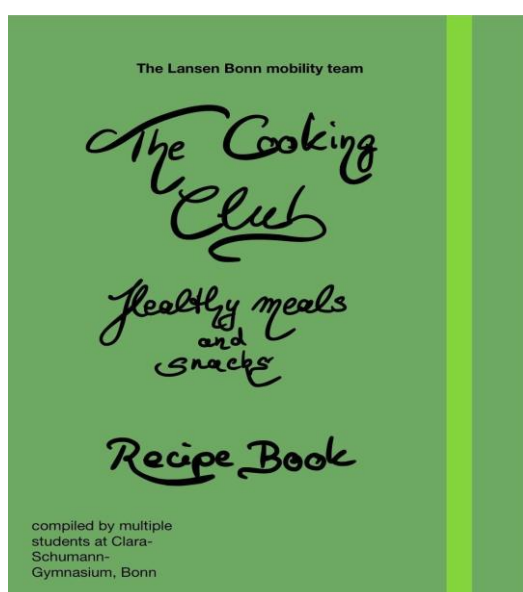
Figure 24: At the fragrance bar
Source: photo - Yvonne Woelke



Figure 25: In the museum's tasting location
Source: photo - Yvonne Woelke



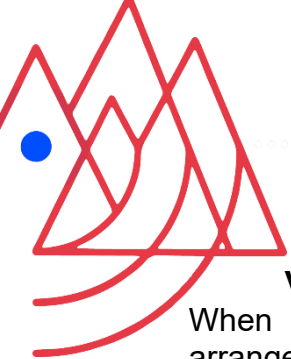
Figure 26: Tasting raw chocolate
Source: photo - Yvonne Woelke



After the mobility, different groups of students created a recipe book of easy-to-cook and healthy meals and snacks, preparing them themselves in the classroom and trying and tasting them. In these mini projects, pupils had a lot of fun and it was easy to integrate into a spare lesson. Just ask pupils to present their best snack recipe in English, vote for the next one to be done in class, do it – and enjoy together.

Figure 27: Cover of our recipe book.
Source: created by Yvonne Woelke.

Here is the link to the book of recipes that shows their work: [Book of recipes](#).



4.1.5. Sight

Visual processing plays a crucial role in encoding and storing new information. When learners associate words or structures with images, colours or spatial arrangements, they create stronger cognitive links that facilitate recall. For instance, vocabulary presented through images or colour-coded categories is often retained more effectively than isolated word lists.

Additionally, visual strategies such as mind maps (as we saw above), diagrams and graphic organisers help learners structure information hierarchically, making complex linguistic content more accessible and memorable. These tools also support different types of learners, particularly those who benefit from visual reinforcement.

4.1.5.1. *The Sight and LANSEN*

In LANSEN we did not want to miss the opportunity of including different spots of our incredible area in a video. To enrich it, the capital of Murcia was visited in order to appreciate its cultural heritage, as three cultures coexisted, namely Christian, Jewish and Muslim, leaving an incredible cultural heritage in architecture, buildings, painting.

But how to engage teenagers to see the details of this beautiful city? The answer is simple, a gymkhana. Students were given a QR code that led them to a [Genially presentation](#). They had to follow different directions and questions to answer. They had to solve the questions by moving throughout the city. Moreover, they were asked to take pictures of the different tasks. The result? An amazing gymkhana enjoying the most beautiful and interesting places in Murcia.

Furthermore, students and teachers also visited the Mar Menor area where a specialist explained it in depth, focusing on the different environmental problems the area is suffering, connecting it with one of the four main keystones of Erasmus + programmes.

This type of activity provided multiple educational benefits. Firstly, it fostered active learning, as students had to interact directly with the environment, interpret clues and use the target language in real-life situations. Secondly, it promoted teamwork and cooperation, since participants needed to collaborate, share ideas and make decisions together in order to complete the tasks successfully. Moreover, the gymkhana encouraged problem-solving and critical thinking skills, as students were challenged to analyse information and find creative solutions.

In addition, working in international groups enhanced intercultural awareness and communication, allowing students to learn from each other's perspectives and cultural backgrounds. Finally, the dynamic and playful nature of the gymkhana increased motivation and engagement, making the learning experience more meaningful and memorable.

What is more, nowadays our students are used to consuming a great quantity of videos. That's why we decided on the creation of a collaborative video. This type of activity offers significant benefits for language learning. Firstly, it promotes active use of the target language, as students must plan, script, and communicate ideas clearly. This process enhances speaking, writing, and pronunciation skills in an authentic

context. Additionally, working in groups fosters interaction and negotiation of meaning, which are key elements in language acquisition.

Moreover, creating videos encourages creativity and learner autonomy, allowing students to take ownership of their learning while engaging with meaningful content. It also improves digital competence, as learners develop technical skills alongside linguistic ones. Finally, sharing and watching the videos increases motivation and confidence, providing a real audience and making the learning experience more engaging and memorable.



Figure 28. LANSEN team in Murcia.
Source: photo taken by Ana Varela.



Figure 29: LANSEN team in Murcia.
Source: photo taken by Ana Varela.

Visual Routes was an activity linked to the previous one, (“The view”). Students were organised into international groups again and were given a geographical area and a topic linked to Mar Menor. They had to research the area and then create a brochure which they explained orally to the rest of students. Moreover, the students worked on a route created using Google Maps or Google Earth.

The use of digital tools such as **Google Earth** and **Google Maps** in the general educational context helps bring learning closer to reality in a visual, interactive, and meaningful way. These applications allow students to explore places, analyse geographical and historical contexts, and develop digital competence, while also supporting active methodologies such as project-based learning and guided discovery. Learners can investigate real environments, plan routes, or study changes in landscapes, which contributes to a more dynamic and contextualised learning experience.

In the field of language learning, these tools offer great potential for developing communicative competence in authentic contexts. By exploring cities, landmarks, and cultural spaces, students can acquire contextualised vocabulary, practise descriptions, give directions, or simulate real-life situations such as travelling or participating in exchanges. Furthermore, the use of Google Earth and Google Maps supports the integration of different language skills (listening, speaking, reading, and writing) and enhances motivation by connecting learning with meaningful and engaging experiences.

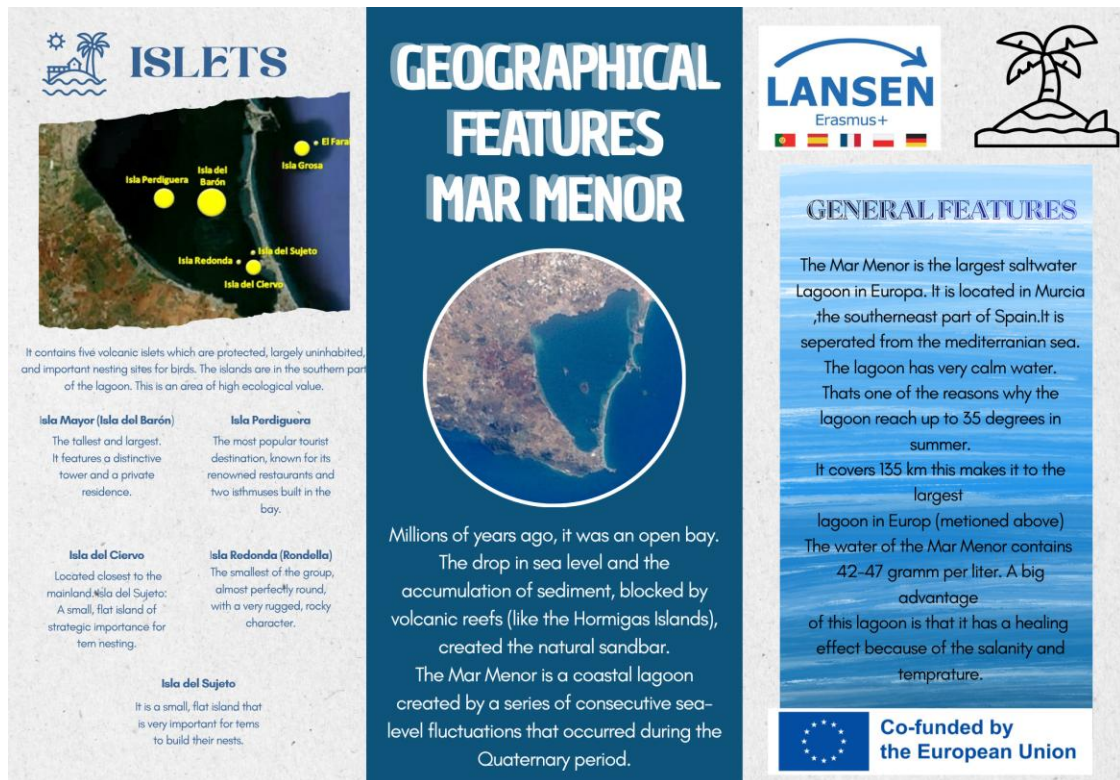


Figure 30. Educational Infographic: Mar Menor.
Source: Image created by LANSEN students using CANVA.



Figure 31. Educational Infographic: Mar Menor.
Source: Image created by LANSEN students using CANVA.

4.1.5.2. *Sight and Hearing in LANSEN*

The combined use of sight and hearing offers several pedagogical advantages. It strengthens memory by creating multiple cognitive pathways for storing information and enhances understanding by providing complementary cues.

Additionally, multisensory input increases learner engagement and motivation, as it makes learning more dynamic and interactive. It also reflects authentic communication, where individuals naturally use both visual and auditory information to interpret meaning.

Despite its benefits, a multisensory approach must be carefully balanced. Excessive or poorly structured input can lead to cognitive overload, making it difficult for learners to focus and process information effectively.

It is also important to consider individual differences. Learners may have varying preferences, strengths and needs, which should be taken into account when designing activities. Some learners may require more visual support, while others benefit more from auditory input.

Accessibility is another key consideration. Teachers should ensure that materials are inclusive and adaptable for learners with sensory impairments, for example by providing captions, transcripts or alternative formats. (See 8.5 chart below).

4.1.5.2.1. *The Literary Ear: the Little Prince and LANSEN. A Didactic Approach.*

The work selected for our project was *The Little Prince (Le Petit Prince)* by Antoine de Saint-Exupéry, a text particularly suitable for language learning due to its symbolic richness, linguistic accessibility and profound literary value. This work offers multiple opportunities to develop reading comprehension through the sense of sight, thanks to its illustrations and its clear narrative style, which facilitates the visualisation of scenes and abstract concepts. At the same time, reading it aloud or using audio versions activates the sense of hearing, supporting the acquisition of pronunciation, rhythm and intonation.

Furthermore, the reflective and emotional nature of the text encourages a personal connection with the content, contributing to more meaningful learning. In this context, *The Little Prince* becomes an ideal resource for integrating the senses of sight and hearing in a balanced way, promoting a multisensory approach that enriches the language learning experience.

To develop this activity, we counted on a team directed by Eloína Marín-Baldo (Universal and Spanish Literature Teacher with a long career), Gema Bueno (French teacher) and Pablo García (Philosophy teacher).

4.1.5.2.2. *Research and poster creation*

The Spanish team was responsible for preparing this activity, which took place in Spain in March 2026. First, the students were assigned a chapter from *The Little Prince*. They read and analysed it in depth. Later, together with their Universal

Literature teacher, they explored its philosophical meaning, discovering that *The Little Prince* is much more than a simple story.

Afterwards, the students created individual murals that became part of a larger collaborative panel. Each mural included the chapter translated into another language, its philosophical interpretation, and artistic decorations representing its main ideas through a combination of sensory elements.

Interdisciplinary learning played a key role in the project. The Arts Department contributed by designing and creating impressive illustrations of the Little Prince and the Fox, which were used to decorate the final mural and enhance its visual impact.

This mural was showcased during the LANSEN activity held in Spain. Several students from the Universal Literature programme prepared and delivered a presentation for the visiting participants, introducing them to the project and encouraging reflection. Visitors had the opportunity to engage with the murals through multiple senses: they could read, smell, see, hear, and touch the different creations, making the experience both interactive and memorable.



Figure 32. LANSEN & The Little Prince.

Source: Photo taken by Ana Varela.

4.1.5.2.3. Shared reading

What an opportunity it is to have the pleasure of having students from different nationalities in your school. The team took advantage of that and we had a shared reading experience. We selected chapter number one and read it first in English, later on in French and later in Spanish, the languages worked and developed in our

LANSEN project. However, we did not want to miss the opportunity to listen to our Polish, Portuguese and German teams with their readings in their amazing languages.

What is more, IES José Luis Martínez Palomo counts with a great portion of students coming from different countries and therefore, different languages. The Universal Literature teacher wanted to include every nationality in this activity so she selected different students who prepared their readings. The “icing on the cake” was a student who developed the translation of one of her classmates by using sign language. This was an inclusive and engaging experience.



Figure 33. LANSSEN & The Little Prince.
Source: Photo taken by Ana Varela.

4.1.5.2.4. Philosophical Debate

The Spanish team was fortunate to have the support of two outstanding teachers for this activity. Pablo, the Philosophy teacher, led the discussions in English, while Gema, the French teacher, guided the sessions in French.

Students were provided with selected extracts from The Little Prince along with a series of thought-provoking questions. First, they worked in international groups, reading and analysing the assigned chapters together. They then discussed the questions, sharing their opinions, reflections, and personal experiences.

Following the group work, Pablo and Gema moderated a larger debate based on the themes explored in the extracts. This gave students the opportunity to express their ideas, listen to different perspectives, and engage in meaningful intercultural and philosophical discussions in both English and French.

4.1.5.2.5. Bookmarks creation

As a complementary activity, the team asked the students to create their own bookmarks on the Little Prince. This linked perfectly the sense of sight to the book read. In addition, many students exchanged their creations with their new friends.



Figure 34. LANSEN & The Little Prince: bookmarks.

Source: Photo taken by Ana Varela.

4.1.5.2.6. The Little Prince in eTwinning

However, we did not want to pass up the opportunity to continue using The Little Prince as a resource for fostering language learning. This is why we continued developing activities on our eTwinning platform.

The first activity was rewriting. Students were given a chapter and some instructions to rewrite it. The result was incredible “new chapters” given a special emphasis on senses.

Secondly, students from other countries had to record the text, in order to connect the senses of sight and hearing.

Finally, different students were given the new written chapters to create an illustration that represents the text.

The result... an incredible digital book including text and images, everything created by our students. To sum up, this activity was an engaging activity that allowed lots of students to be part of it. Some of them are writing, speaking, debating, and drawing. Definitely, a collaborative project.



Figure 35. The Little Prince.

Source: Image created by Amelia Gajda - Polish student from ALO/

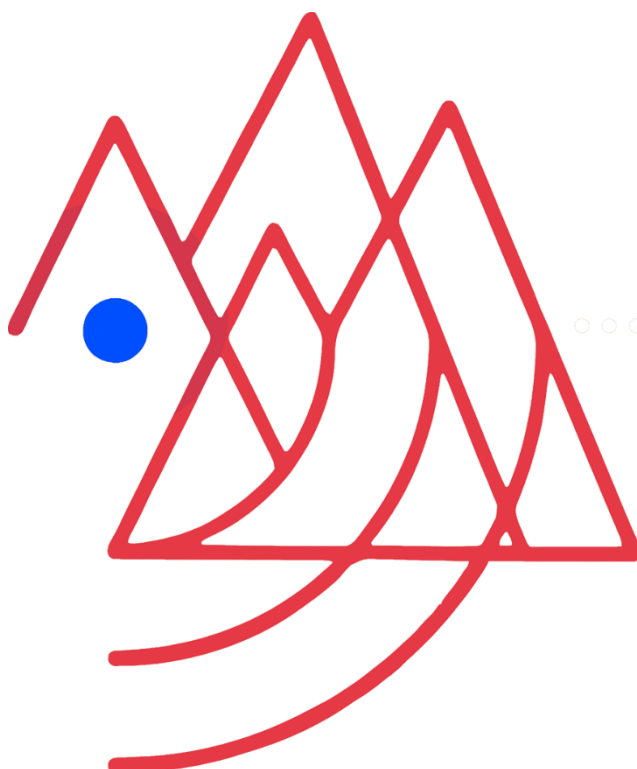
4.1.5.2.7. Other ideas

In addition, using plays in the language learning classroom strongly supports the development of key competences promoted by the Erasmus+ programme, particularly multilingual competence, cultural awareness, personal, social, and learning competence (European Commission, 2018). Through drama activities, learners engage in authentic communication, improving their speaking, pronunciation, and fluency in meaningful contexts. At the same time, performing plays encourages collaboration, creativity, and empathy, as students explore different perspectives and cultural situations, directly contributing to intercultural competence. Drama-based learning also enhances confidence and reduces anxiety, supporting personal development and active participation in group settings.

Furthermore, it fosters learning-to-learn skills by encouraging reflection, interpretation, and problem-solving. By integrating verbal, emotional, and social dimensions, the use of plays creates an inclusive and engaging environment that aligns closely with Erasmus+ priorities for holistic, competence-based education (Council of Europe, 2020).

In conclusion, literature is a highly valuable pedagogical resource in language teaching, as it offers wide-ranging possibilities for the development of students' linguistic, cultural, and communicative competences. Through literary texts, learners are exposed not only to authentic and rich language, but also to diverse cultural perspectives, which foster critical thinking and enhance interpretative skills.

Furthermore, when approached from a multisensory perspective, literature engages different learning channels, supporting comprehension, memory retention, and both oral and written expression. For these reasons, the inclusion of literature in the language classroom contributes to more meaningful, inclusive, and motivating learning experiences, establishing it as a didactic tool with extensive educational potential.



5. FICHE PÉDAGOGIQUE (WORKSHEETS)

LANSEN was created to enhance students' language skills in English, French and Spanish. However, its sensory approach and pedagogical activities can be easily adapted for teaching and learning any language.

In order to organise a common axis, the LANSSEN team created a template. This helped to create homogenous and harmonious lessons.





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SENSE 	TITLE	 45 minutes
AUTHORS	KEY WORDS	LANGUAGE
LEVEL	TARGET GROUP	AGE OF STUDENTS
COMPETENCES		
☐ Global	☐ Oral Production	
☐ Oral comprehension	☐ Written Expression	
☐ Oral expression	☐ Written Comprehension	
OBJECTIVES		
COMMUNICATIVE		
FUNCTIONAL		
CULTURAL		
METHODOLOGY		
TECHNIQUES		
RESOURCES		
ICT TOOL		

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DESCRIPTION OF ACTIVITIES		
Salad	20'	Activity 1 -
	10'	
Main Dish	30'	Activity 2 -
	30'	Activity 3 -
Dessert	30'	Activity 4 -

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ERASMUS+ Project Nr: 2024-1-ES01-KA220-SCH-000253288
KA220-SCH - Cooperation partnerships in school education

[DOWNLOAD HERE](#)

It is essential to bear in mind that LANSSEN was designed to promote English, French and Spanish languages. Nevertheless, both our methodology and fiche can be adapted to any language. Here you can find an example of different activities in different languages.



French activity [Download here](#)

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SENSES	TITRE	
	DIS-MOI CE QUE TU MANGES, JE TE DIRAI QUI TU ES!	
		45 minutes

AUTRES	LES MOTS CLÉS	LANGUE
Barbara Kimek Adelejo Patyk Renata Kimek-Kowalska	Petit déjeuner, boissons, fruits, légumes, adjectifs	FRANÇAIS

NIVEAU	GRUPE D'ÉLÈVES	ÂGE DES ÉLÈVES
A2	Lyotens	15-17

COMPÉTENCES	
☐ Globale	☒ Production orale
☐ Compréhension orale	☒ Expression écrite
☒ Expression orale	☐ Compréhension écrite

OBJECTIFS	
COMMUNICATIFS	- Exprimer ses goûts et préférences (j'aime, je n'aime pas). - Parler de petites choses du quotidien qui rendent la vie agréable. - Exprimer des émotions et des sentiments.
FONCTIONNELS	- Identifier et comprendre le vocabulaire de la nourriture (du petit déjeuner). - Comprendre des structures liées à l'expression de l'opinion. - Utiliser les adjectifs (bon, savoureux, tendre etc...). - Renforcer la compréhension orale (lacunes, repérage, reformulation). - Découvrir une artiste française de la scène pop moderne, Joyce Jonathan et son style musical. - Observer la place des "petites choses" dans la culture française — célébration du quotidien, du minimalisme, des moments simples. - Sensibilisation à la culture musicale française contemporaine (chanson douce, variété française).
CULTURELS	

FORMES DE TRAVAIL travail individuel, en binôme, en équipe

TECHNIQUES écoute globale et écoute sélective, repérage linguistique, boule de neige, catégorisation, reformulation.

RESSOURCES Les petites jolies choses https://www.youtube.com/watch?v=6owngYD9Mk&list=RD6owngYD9Mk&start_radio=1
Wordwall <https://wordwall.net/resource/102374510/francuski-boisson-pain-fruits-accompagnements> 11.07.2028

ICT TOOL YouTube, Wordwall, <https://spinthewheel.io/>, Padlet,

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DESCRIPTION DES ACTIVITÉS	
Entrée	Activité 1 - Rechauffement Les élèves échantent 3 mots / courtes phrases décrivant les petits plaisirs du quotidien. Activité 2 Les Jolies Choses (Compréhension visuelle et vocabulaire) Activité : l'enseignant diffuse le clip vidéo de la chanson Joyce Jonathan – Les jolies petites choses sans le son, jusqu'à 0:45 min. Consigne : notez les produits alimentaires que vous avez observés. Comparez vos notes d'abord en binômes, puis en groupes (« boule de neige »). Chaque groupe présente le vocabulaire et l'inscrit au tableau afin de compléter la liste.  Source: video clip
Salade	Activité 3 Dans l'application Wordwall, les élèves classent le vocabulaire de l'exercice 2 selon les catégories suivantes : boissons, fruits, pain, accompagnements. Activité 4 Répartition en groupes : chaque groupe choisit 1 à 2 produits d'une catégorie et note des adjectifs (bon, délicieux, dur, mou, salé, sucré). Activité 5 À l'aide de l'application https://spinthewheel.io/ , les élèves tirent au sort des mots (ex. jus d'orange, baguette, confiture, etc.) et expriment leur opinion sur leurs préférences alimentaires en utilisant les adjectifs appris.  Ils utilisent la structure : J'aime parce que... / Je n'aime pas parce que...
Le plat principal	Activité 6 Introduction du comparatif et du superlatif des adjectifs. Les élèves décrivent leur petit-déjeuner en utilisant les degrés de comparaison. Ils présentent leur description devant la classe.
Dessert	Établir un contact avec les pays partenaires afin d'échanger des opinions sur les petits-déjeuners typiques de chaque pays. Publication de photos et de descriptions sur un Padlet commun. Comparaison des petits-déjeuners des pays partenaires.
TBC	BONUS

ÉVALUATION FORMATIVE (ANNEXE 1)

Assisté par l'intelligence artificielle Attribution : Activité originale from Erasmus + LANSEN project

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Spanish activity [Download Here](#)

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SENTIDO	TÍTULO	TEMPORALIZACIÓN
	No me chilles que no te veo	55 minutes

AUTORES	PALABRAS CLAVE	LANGUE
Rita Bonilla	tocar, texturas, ciego	Español

NIVEL	GRUPO DE ALUMNOS	EDAD DE LOS ALUMNOS
A2	Alumnos extranjeros con desconocimiento de la lengua española	12 - 16

COMPETENCIAS	
☐ Global	☒ Producción Oral
☒ Comprensión Oral	☒ Expresión Escrita
☐ Expresión Oral	☐ Comprensión Escrita

OBJETIVOS	
COMMUNICATIVOS	- Describir cualidades físicas: Los alumnos serán capaces de expresar cómo se siente un objeto al tacto utilizando adjetivos específicos. - Interactuar en un entorno de juego: Participar activamente en un intercambio comunicativo bajo presión de tiempo (contexto de concurso), comprendiendo instrucciones y reaccionando a ellas. - Expresar duda y certeza: Utilizar fórmulas como "Creo que es...", "No estoy seguro, pero parece...", "Es claramente [adjetivo]". - Identificar y clasificar: Relacionar sensaciones físicas con conceptos léxicos (vocabulario del tacto). - Comparar sensaciones: Utilizar estructuras comparativas básicas ("Es más áspero que...", "Es tan suave como...") para matizar sus descripciones. - Normas de cortesía y contacto físico: El sentido del tacto implica una proximidad física. En la cultura española, el contacto es más común que en otras culturas (como las asiáticas o anglosajonas). La actividad permite explorar de forma segura los límites del espacio personal (proximidad) en un contexto lúdico. - Cultura del aula: Fomentar el trabajo en equipo y la competitividad sana, valores muy presentes en las dinámicas de grupo de los países hispanohablantes.
FUNCIONALES	
CULTURALES	

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DESCRIPTION OF ACTIVITIES	
Apertivo	Actividad 1 "Unboxing". Los alumnos ven un fragmento del concurso "La caja misteriosa".
Ensalada	Actividad 2 El Museo de las Sensaciones: Para asentar el input, los alumnos trabajan con un texto breve descriptivo. Actividad 3 "Nube de palabras": El profesor hace una pequeña nube de palabras en la pizarra con el vocabulario clave: Suave, rugoso, áspero, liso, blando, duro, puntiagudo, pegajoso. Actividad 4 - "El Dictado Artístico" Se les entrega una lista de objetos cotidianos (una tija, un peluche, una piedra, una esponja, pegamento) y deben emparejarlos con el adjetivo correcto de la nube de palabras. Actividad 5 Dividimos la clase en dos parejas concursantes. El resto del grupo es el "público". Reglas: 1. Un miembro de la pareja se vende los ojos en el centro del aula. 2. El compañero tiene 60 segundos para buscar por la clase (o de una caja sorpresa) objetos que representen 3 texturas diferentes. 3. Silencio total: El compañero que busca no puede hablar. Solo entrega el objeto. 4. El concursante con los ojos vendados debe decir: "Esto es [adjetivo]". Puntuación: 10 puntos por cada adjetivo acertado. Actividad 6 Compara los objetos: Cada pareja debe escribir tres frases sobre los objetos que tocaron durante el concurso, pero usando comparaciones. Ejemplo: "El cuaderno es más liso que la pared del aula" o "La mesa es tan dura como el suelo".
Plato principal	
Postre	

EVALUACIÓN

Diana de Autoevaluación: los alumnos marcan del 1 al 5 su nivel de confianza en las siguientes puntos. Cuanto más cerca del centro esté el punto, más debe mejorar: cuanto más lejos, más domina la competencia.

- Léxico:** Puedo identificar al menos 6 adjetivos de textura sin ayuda.
- Comprensión:** He entendido las instrucciones del concurso en español.
- Expresión Oral:** He podido nombrar los objetos y sus texturas con claridad.
- Participación:** He colaborado activamente con mi pareja en el concurso.

Registro de observación directa: el profesor anota aspectos como: el alumno usa el vocabulario aprendido, describe objetos cotidianos, etc.

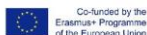
 

Atribución: Actividad original del proyecto Erasmus + LANSEN Asistido con Inteligencia Artificial

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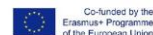
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English activity [Download here](#)



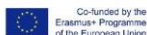
SENSE	TITLE	
	SENSE AND SENSIBILITY...IN INDIA	
		45 minutes
AUTHORS	KEY WORDS	LANGUAGE
Patrick Maillot	India, senses, sight, smell, culture	English
LEVEL	TARGET GROUP	AGE OF STUDENTS
B2	Secondary Students	16-17
COMPETENCES		
☐ Global	☒ Oral Production	
☐ Oral comprehension	☒ Written Expression	
☒ Oral expression	☒ Written Comprehension	
OBJECTIVES		
LINGUISTICS	- Activate and enrich the vocabulary of smells and perceptions - Use figurative language and sensory adjectives - Express opinions and emotions with precision	
COMMUNICATIVES	- Share impressions through discussion - Interpret literary description with sensory empathy	
CULTURALS	- Explore how India is perceived through the senses - Reflect on cultural relativism and perception bias	
METHODOLOGY	Image Description Interpretation of metaphorical descriptions and sensations Discussions and debates	
RESOURCES	- Picture: Vendors at a flower market - Text extract BY Gregory David Roberts's popular novel <i>Shantaram</i> - Sounds from BBC sound data base: https://sound-effects.bbc.com/sound-effects/india&resultSize=50	
ICT TOOL	MENTIMETER LEARNINGAPPS.ORG CAPCUT (video editing) AUDACITY (sound editing)	

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ERASMUS+ Project Nr: 2024-1-ES01-KA220-SCH-000253288
KA220-SCH - Cooperation partnerships in school education



DESCRIPTION OF ACTIVITIES	
Starter	Warm-up Activity – "Scented Impressions of India" (10–15 min) Objective: Activer le champ lexical des odeurs et de la culture indienne avant la lecture. Stimuler les représentations mentales et la discussion interculturelle. Step 1 – Sensory brainstorming (5 min) ANNEXE 1 - VENDORS AT A FLOWER MARKET Describe the picture and tell which smells comes to your mind when visiting this market. What comes to your mind when you think of India through your sense of smell? Good smells and bad smells MENTIMETER: students create an interactive word cloud Instructions: 1. Display the question on Mentimeter "What comes to your mind when you think of India — through your sense of smell?" 2. Students post words / short expressions (e.g. spices, incense, curry, pollution, flowers, smoke, rain, cows) 3. Observe the emerging word cloud. Discuss: "Are these smells positive, negative, or mixed?" "What do they reflect?" https://www.menti.com/aladso2mu59 Good smells: flower • perfume / scent / fragrance • spices • aroma • aromatic • sweet • nice • pleasant • good • odorous... - the aromatic fragrance of flower • the sweet smell of a cake, the strong aroma of coffee. Bad smells: smelly • stinky • unpleasant • rotten • disagreeable • putrid • heady • overpowering • the garbage, the sewers • animals • urine
	Activité 1 - Step 2 – Arouse another SENSE : Sound & Guess (5 min) Play a short Indian soundscape Pick one sound: https://sound-effects.bbc.com/sound-effects/india&resultSize=50 How do you picture this scene? and to go further: "What smells could go with these sounds?" https://sound-effects.bbc.com/sound-effects/india&resultSize=50 → Students associate sounds with possible smells, imagining the full sensory context. Question for transition "What do you expect the narrator to describe — pleasant or unpleasant smells? Why?" Write 2 columns on the board <i>pleasant / unpleasant</i> and students must identify the tone of the passage.
Salad	5'
Main Dish	15'

LANSEN - Learning languages with sense(s)
ERASMUS+ Project Nr: 2024-1-ES01-KA220-SCH-000253288
KA220-SCH - Cooperation partnerships in school education



		hate; and it's the <u>sour</u>, <u>stuffed</u> smell of <u>greed</u>, which is the opposite of love. It's the smell of gods, demons, empires, and civilisations in resurrection and decay. It's the blue skin-smell of the sea, no matter where you are in the Island City, and the blood-metal smell of machines. It smells of the <u>str</u> and sleep and waste of sixty million animals, more than half of them humans and rats. It smells of heartbreak, and the struggle to live, and of the crucial failures and loves that produce our courage. It smells of ten thousand restaurants, five thousand temples, shrines, churches, and mosques, and of a hundred bazaars devoted exclusively to perfumes, spices, incense, and freshly cut flowers. (...) Whenever I return to Bombay, now, it's my first sense of the city — that smell, above all things — that welcomes me and tells me I've come home. Gregory David Roberts's popular novel <i>Shantaram</i> ANNEXE : ANNEXE 2, THE SMELL OF BOMBAY-TEXT Read the text and answer the following questions. Instructions: 1. Hand out the text or project it on the board. 2. First reading (individual): underline all words linked to smell and senses. 3. Pair work: classify them in a 2-column grid - Classify them (concrete good/ bad / abstract – positive/negative) Annexe 2_The Smell of Bombay (audio to be played)
Dessert	10'	Activité 3 - Sum up the overall impression of the city. Match the smells and the impressions https://learningapps.org/display?v=pw755xpg25 Annexe 3 : The smell of Bombay
Bonus Track	5'	Your turn ! Find an explanation for : "the sweet, sweating smell of hope" Correction: the phrase conveys a sense of positive anticipation mixed with the effort it takes to achieve what one is hoping for. It's as if one can almost "smell" the possibility of success / happiness in the air, despite the challenges faced. "It's the blue skin-smell of the sea" Correction: the phrase encapsulates the sensory essence of being near the sea—the visual blue, the tactile feeling on your skin, and the distinct smell of saltwater. It's a beautiful way to evoke the sea's presence

LANSEN - Learning languages with sense(s)
ERASMUS+ Project Nr: 2024-1-ES01-KA220-SCH-000253288
KA220-SCH - Cooperation partnerships in school education



ASSESSMENT
EVALUATION (formative or summative) WRITTEN ACTIVITY: Write a text that describes the different smells in a place of your choice. Create Your Own "Smell of..." Text (Writing Task) Objective: Reuse the descriptive and emotional patterns from <i>Shantaram</i>. INSTRUCTIONS Write a short literary paragraph entitled "The Smell of My Country" (or <i>The Smell of Réunion, The Smell of My City, etc.</i>). Describe the smells you associate with your homeland, linking them to emotions, places, and memories. Use 5-6 sensory adjectives and figurative expressions (smells like freedom / carries the scent of childhood / reeks of adventure). Option: Compile all students' texts into a collaborative Padlet or digital book "The Smells of Our Worlds."
Artificial intelligence aided Attribution: Original activity from Erasmus + LANSEN Project

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ERASMUS+ Project Nr: 2024-1-ES01-KA220-SCH-000253288
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You can find our complete set of *fiche* in our [webpage: https://lansenerasmusproject.eu/pedagogical-kit/](https://lansenerasmusproject.eu/pedagogical-kit/)

In order to provide a realistic resource that responds to current teaching and learning needs, all LANSEN activities were piloted in real classroom settings by teachers both within and outside the project. In addition, both teachers and students completed feedback questionnaires, which enabled us to refine and improve several of the activities throughout the piloting process. More than 400 surveys were collected.

It is also important to recognise that every educational context is unique. For this reason, the LANSEN activities have been designed to be flexible and can be easily adapted to meet the specific needs, learning objectives, and classroom realities of different teachers and learners.

Furthermore, the LANSEN team analysed the data collected during the piloting phase to conduct a **SWOT** analysis of the project and its teaching materials. This analysis helped identify the main strengths, weaknesses, opportunities, and threats associated with the implementation of the guide, providing valuable insights for its future use and development.

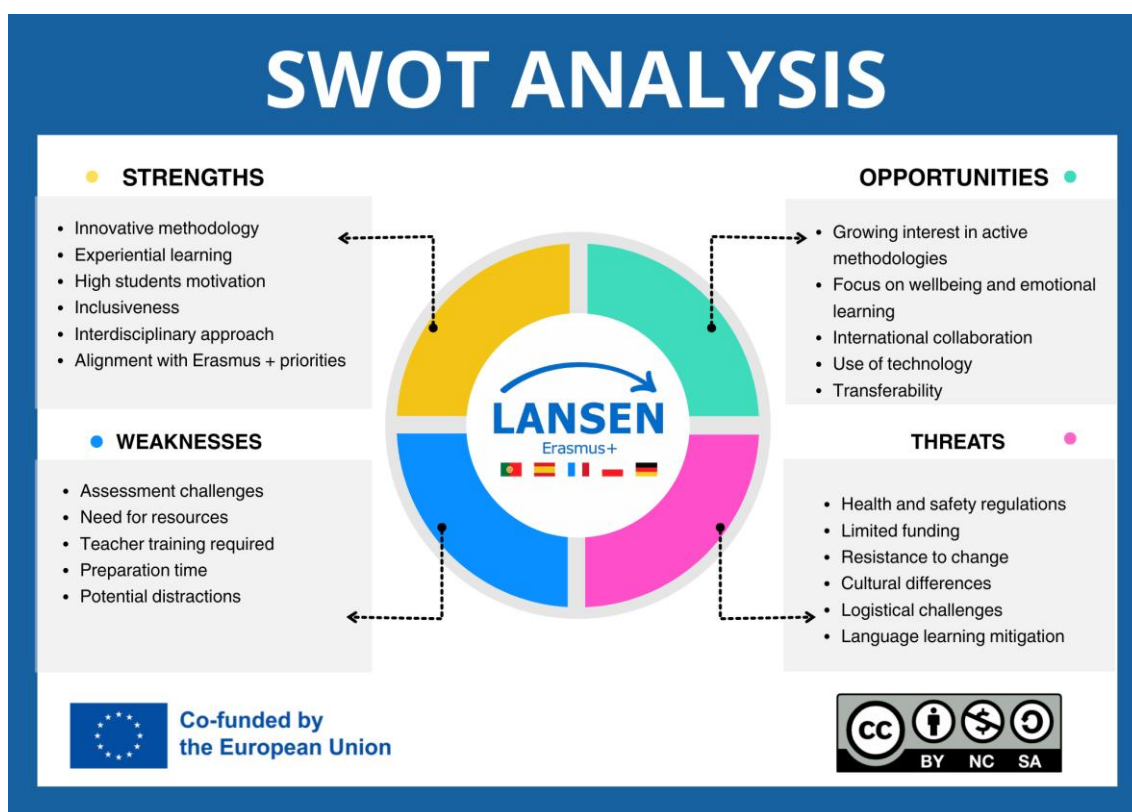


Figure 36. SWOT Analysis.

Source: Creation by LANSEN TEAM with Canva.

6. EUROPEAN CULTURAL INSPIRATION

6.1. Introduction

Giving students the chance to meet in a European context and work together in new surroundings is the best you can do as it is learning, working and thinking “outside the box” – here: outside the ordinary everyday routine of school which is so predictable and therefore often considered as boring by students and teachers alike. Stepping “out of the box” of the common school surroundings at times is enormously motivating. Not only will it boost input (of work) but also output (of products, knowledge, words, experience) – using foreign languages in the process. Of course, it is a challenge for students to step out of one’s personal comfort zone and adapt to new habits, traditions, meals, smells, surroundings, manners and customs. But it is a challenge that ignites the fire to learn more, see more, hear more, taste more, feel more of the life students and teachers in other European countries live. Thus, using and challenging all the senses in a new environment opens young people’s minds much better to social interaction, empathy and understanding than sitting in a classroom and just learning by reading page after page in silence. It is rewarding to collaborate with new people and accept different strategies to accomplish a given task. This meaningful experience adds to more self-confidence and mental health, the use of management strategies, critical thinking and (multi-) lingual approaches to gain the skills necessary to meet future challenges in the modern, digital and globalized world of the 21st Century.

For teachers meetings in a European context, exchanging with peers means learning about new teaching methods, alternative approaches to assessment, task design and digital tools, offering new resources in teaching. This will spark motivation and creativity in language teaching, using new contents and CLIL objectives. The chance to work together on a European level may lead to long-term partnerships or the building of new networks in teaching.

For students and teachers alike, European projects open new horizons by offering authentic experience beyond media stereotypes on a geographical, cognitive and emotional level, using language as a tool for more mutual understanding.

6.2. Examples of Activities Ready to Use

6.2.1. Challenges in Kraków - Multisensory Urban Pedagogy

Scientific discourse consistently highlights that **multisensory integration** is a catalyst for neural connectivity, fostering cognitive depth and long-term knowledge retention. To transition from theory to practice, we initiated an immersive educational adventure designed to decode the city of Kraków through a five-senses framework. This project aimed to answer a pivotal pedagogical question: *How can sensory-driven language acquisition be effectively integrated into outdoor, experiential learning?*



Figure 37. LANSSEN team in Cracow.

Source: Photo by Rui Baltazar

6.2.1.1. The Polish Initiative: Sensory Priming and Foundations

The Polish team established the project's baseline by developing "Sensory Priming" activities designed to lower affective filters and stimulate linguistic production. These icebreakers—such as the **Compliment Corridor** (Sight & Hearing), **Listen and Write** (Auditory Literacy), and **Feel and Draw** (Tactile Visualization)—required students to translate raw sensory input into descriptive language. By utilizing prompts like *"It smells like..."* or *"It tastes like..."*, learners were challenged to move beyond basic vocabulary and tap into evocative, metaphorical expressions.

6.2.1.2. The German Initiative: Narrative Scavenging and Documentation

The German cohort focused on the concept of the "Living Diary," where students curated a unique personal record of their urban immersion. This challenge required participants to navigate the city's logistical and historical layers, such as the "Survival Challenge" of procuring a traditional **Obwarzanek**. Beyond simple observation, students engaged in **Kraków Tales**, drafting original narratives inspired by the city's atmosphere, and analyzed the architectural resilience of **Kraków's Strongest Spots**. The most rigorous task, **Bloody Kraków**, involved investigative field research where students interviewed locals to verify historical theses regarding the city's darker past.

6.2.1.3. The French proposal: Structural Analysis and Olfactory Mapping

The French team proposed a highly structured, self-guided sensory adventure focusing on the intersection of space and sensation. This journey took students from

the visual symmetry of **Rynek Główny** to the pungent, authentic atmosphere of the **Stary Kleparz** market, where they engaged in comparative olfactory mapping. In the **Planty**, the focus shifted to auditory mindfulness and botanical identification, while at **Wawel Royal Castle**, students documented the "Tactile Landscape," recording textures and the emotions they evoked. This culminated in the digital synthesis of an **Immersive Brochure** via Canva, utilizing QR codes to bridge the gap between physical exploration and digital documentation.



Figure 38: A sensory guide to visiting Kraków.

Author: Patric Maillot, created with Canva.

6.2.1.4. *The Spanish Initiative: Rapid Multimedia Synthesis*

The Spanish team's approach was defined by high-intensity challenges designed for rapid execution and digital storytelling. Students were tasked with a **Street Art Hunt** in Kazimierz to analyze urban semiotics, followed by a mission to capture the **Acoustic Signature** of the Main Market Square through high-quality audio recordings. The "Street Food Challenge" forced a linguistic bridge between taste and video production, as students had to articulate flavors in real-time. This culminated in a 5-minute multimedia synthesis that required teams to edit and present their findings under strict time constraints.

6.2.1.5. *The Portuguese Initiative: Human Interaction and Global Goals*

The Portuguese contribution added a layer of social sustainability and interpersonal challenge. Through the **Stranger's Tale** interview and **Art Vibes**—a prompt for creative collaboration with local artists—students were pushed out of their comfort zones into active cultural participation. A unique analytical component was the **Sustainable Moment** challenge, which required students to identify urban initiatives and align them with the **UN Sustainable Development Goals (SDGs)**. Their final product, a multimedia presentation, served as a holistic reflection on how a city can be both a historical monument and a living laboratory for the future.

6.2.1.6. *Comparative Framework of Learning Outcomes*

To better understand the pedagogical impact of these diverse approaches, the following table synthesizes the primary learning objectives and competencies developed by each national team:

Team	Primary Sensory Focus	Core Pedagogical Objective	Final Deliverable
Poland	All 5 Senses	Social Integration & Vocabulary Priming	Interactive Workshops
Germany	Sight & Narrative	Historical Investigation & Storytelling	Personal Memory Diary
France	Olfactory & Tactile	Urban Spatial Analysis & Documentation	Immersive Digital Brochure
Spain	Auditory & Gastronomic	Multimedia Content Creation & Semiotics	5-Minute Synthesis Video
Portugal	Social & Analytical	Intercultural Dialogue & Sustainability	Multimedia SDG Reflection

Table 2: Comparative Framework of Learning Outcomes.

Source: Own elaboration.

6.2.1.7. *Conclusion*

This collaborative framework allowed us to address critical questions regarding the assessment of sensory-based tasks, the scalability of outdoor activities for large groups, and the necessity of inclusive design for neurodivergent learners. By engaging the senses, we moved beyond the "tourist gaze" and transformed Kraków into a high-functioning educational laboratory, proving that deep learning is most effective when it is felt, heard, and tasted as much as it is seen.

6.2.2. Cologne Cathedral Challenge - meet a never-ending story

Why Cologne Cathedral? Just like learning and teaching, building and keeping a gothic construction like that will never end - it is an ongoing task.



Cologne Cathedral is not only an outstanding example of Gothic architecture and a World Heritage site, but also the heart and soul of the city of Cologne, its people and their typical „Cologne way of life” meaning „no matter what, things always work out in the end”.

Thus said, the Cathedral has to be explored on a sensory tour – to relate to, understand about and focus on its symbolic meaning today, as after entering, you are overwhelmed by its sheer size, the light and colours, the atmosphere, the sounds, smell and feel of it.

Figure 39. LANSEN team in Cologne
Author: Ana Varela

As a lot of tourists, visiting every day, are often at a loss of words when it comes to describing their feelings, the following sensory tour helps to structure and mouth the feelings evoked by the visit.

Moreover, emotions put into words by means of the senses will stay in mind and be well-remembered until later in life – a long-lasting effect, the LANSEN method of learning is aware of (see 3.1).

A pecha kucha style presentation focusses on sight (i.e. the pictures shown to the audience), the spoken word (by the presenter) plus the memory and the senses by the core idea of story-telling. This method fosters long-term memory effects by using reflective learning (when you think of a good story to tell) and cultural immersion (by getting all the „vibes” displayed in the object presented, here: the Cathedral).

Erasmus+ Lansen – Bonn Mobility: Trip to Cologne, January 14th, 2026

Sensory Scavenger Hunt:

Experience Cologne Cathedral with All Your Senses

Follow the tasks step by step and note down your impressions to share later.

Please note before you enter: Cologne Cathedral is not only a world heritage site and a masterpiece of architecture but also a place of worship and needs to be respected as that. You are allowed to take photos without a flashlight.

Station 1: Sight – Find the High Altar

Task: Observe it closely

Guiding questions:

- What colours can you see?
- What materials have been used?
- What do you notice about the shape and design?

Station 2: Touch – Find the Shrine of the Three Holy Kings

Task: Observe the Shrine of the Three Holy Kings closely, then shut your eyes and imagine to touch it.

Guiding questions:

- How do you think the different parts of the shrine would feel? Imagine the feel of three parts.
- What textures can you imagine feeling on the decorations?
- What message do you think the feel might give you?

Station 3: Sound – Sense the Atmosphere in the Church Space

Task: Sit quietly in the church space and close your eyes for some time.

Guiding questions:

- What specific sounds can you hear? (e.g., voices, footsteps, the rustling of the wind)
- How does it make you feel?
- How does the sound change as you move with open eyes to different areas of the cathedral and close your eyes there?

Station 4: Smell – The Cloister

Task: Go to the cloister and take a deep breath.

Guiding questions:

- What smells can you perceive? (e.g., wood, stone, candles, possibly fresh air)
- How does the smell affect your feelings in this quiet space?

Station 5: Taste – Try a restaurant or a café nearby

Task: After the scavenger hunt, relax in a nearby café or restaurant and enjoy new tastes.

Guiding questions:

- What do the new tastes tell you about the country/ region/ city?
- Do you like the new taste?
- Does it remind you of anything you know from your country? What exactly?

Conclusion /reflection: Gather at the starting point in front of the cathedral after the scavenger hunt at 1:30 pm and **share your sensory impressions.**

Guiding questions:

- What impressed you the most?
- Was there one sense that stood out for you?
- How did the combination of all your senses change your experience of the cathedral, the city, the region?

Figure 40: Cologne Cathedral Sensory Scavenger Hunt.

Source: photo by Petra Lewalder

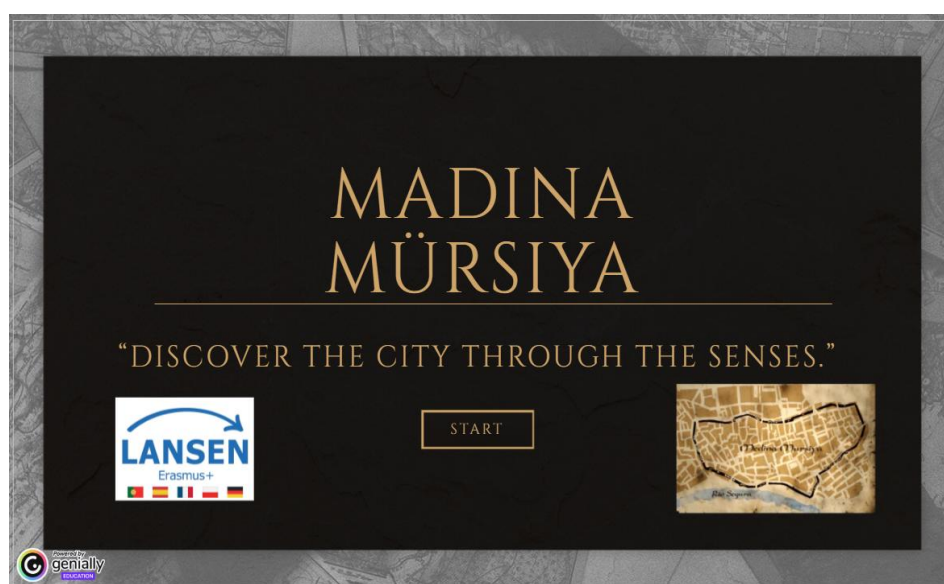
<https://drive.google.com/file/d/1z6JSKjwEbsJMnBkbcY25xKHndeSD3ilg/view?usp=sharing>

6.2.3. City breakout - Exploring Murcia city.

As stated before, we learn in a more efficient way, when we see, feel, smell, taste, it is to say when we are in real contexts. Learning a language goes further than studying just grammar in text books. We, as teachers, can take advantage of arts, gastronomy or music to teach our students, in other words, to make learning significant for them.

In the LANSEN project we did not want to miss the opportunity of exploring such a beautiful city with its incredible cultural heritage. Murcia is a historic city located in the southeast of the Iberian Peninsula. Throughout its history, it has been a meeting point where Christian, Muslim, and Jewish cultures coexisted, interacted, and shaped its rich cultural heritage. The mobility in Murcia focused on activities involving the senses of sight and hearing.

To achieve this, the Spanish team designed a **digital city treasure hunt** (based on Murcia's one) that guided participants through Murcia's historic center, allowing students to explore and appreciate the city's remarkable architectural and cultural heritage through the senses.



<https://view.genially.com/69a328f6972fff0e3705ccb9>

7. DIGITAL RESOURCES

7.1. GOOGLE EARTH In Education: Linking Spaces to the 5 Senses

A pivotal component of the Portuguese agenda was the implementation of geospatial tools within language learning, exemplified by the session Google Earth in Education led by Teresa Pombo. Traditional language teaching frequently suffers from contextual detachment, where students learn vocabulary through static text blocks. By migrating the language classroom into interactive virtual environments, Google Earth transforms from a geographical program into a highly immersive canvas for sensory-rich storytelling.

When applied to language instruction, Google Earth allows teachers to anchor linguistic tasks directly onto specific physical or historical coordinates, mapping semantic networks directly onto the global landscape. This methodology creates an immediate cognitive bridge to the five senses:

- **Sight:** Learners can virtually walk through the streets of a foreign city using the 3D Street View functionality. They analyze architectural styles, parse cultural semiotics from public signage, and describe environments using rich spatial adjectives, which vastly improves lexical retention compared to generic clipart.
- **Hearing:** By pinning custom media assets or external soundscapes to specific geographical points, students can listen to real-world ambient noises—such as a bustling marketplace or the wind brushing against a coastal cliff—and perform auditory discrimination tasks linked to that exact location.
- **Touch and Motion:** Navigating a virtual globe requires continuous spatial orientation and kinetic manipulation. Students construct digital itineraries, charting paths across borders while utilizing action verbs, prepositional structures, and directional phrases in the target language.
- **Smell and Taste (Evocation):** While digital screens cannot physically emit odors or flavors, zooming into highly specific locales, such as the spice markets of Marrakech or a traditional bakery in Lisbon, uses visual priming to trigger sensory memories. Students utilize evocative, metaphorical language ("It smells like roasted coffee beans", "It tastes of saltwater") to express nuanced cultural concepts.

Through Google Earth, geography and language intertwine, moving beyond the superficial "tourist gaze" and converting digital coordinates into an experiential linguistic laboratory.

7.2. Visual Literacy and Digital Media: How to Take Photos and Film

To capture, synthesize, and reflect upon these sensory journeys, the Portuguese program included a high-intensity technical workshop titled How to Take Photos and Filming, designed and executed by filmmaker Daniel Ganço. Visual

storytelling is an essential digital competence that bridges aesthetic perception with structural linguistic output.

The workshop provided teachers with a robust foundation in cinematic grammar, focusing on framing, lighting, angles, and auditory capture. This technical training was immediately put into practice during the Sensory Stories: Film Creation lab, where international teams collaborated to write, shoot, and edit short multimedia products.



Figure 41. Put in practice the knowledge acquired during the workshop “How to Take Photos and Filming”

Source: Photo taken by Ana Varela

A primary highlight of this module was the exemplary [short film](#) created by Ivan's Group. Tasked with capturing the sensory essence of the Portuguese territory, the group produced a highly poetic short film combining cinematic sweeping shots of Setúbal's coastal borders with close-up tactile captures of traditional Portuguese azulejos (tiles). The film features a carefully mixed ambient soundscape layer, overlaying the sounds of the Atlantic Ocean with spoken word poetry delivered in multiple European languages.

This group successfully demonstrated how technical visual literacy can be utilized to articulate complex, sensory-rich human emotions without relying on literal native-tongue translations.

The complete multimedia output can be accessed via the official project library: Click here to see the [film](#)



Figures 42 & 43. Put in practice the knowledge acquired during the workshop “How to Take Photos and Filming”
 Autor: Renata Klimek-Kowalska.

7.3. Webpages and Apps for Accessibility

Addressing the needs of students with special educational needs is essential to ensure equity and inclusion in the classroom. Every learner should have access to meaningful learning opportunities adapted to their abilities and learning styles. In this sense, the use of digital tools and applications such as **RoboBraille** or **Speak It!** offers valuable support by making content more accessible and flexible. These resources help remove barriers, promote participation, and create a more inclusive learning environment where all students can succeed.

App	Use	Students & special needs
<u>RoboBraille</u>	Converts texts into accessible formats; facilitate access to written information; transform text into audio to improve comprehension.	Students with visual impairments or low vision, dyslexia, reading difficulties.
Speak It (Google App)	Reads digital texts aloud (text-to-speech).	Students with dyslexia or reading difficulties, special educational needs, foreign language learners.

Texthelp Read&Write	Reads text aloud; word prediction support; visual dictionaries; highlights key information; converts text into audio.	Dyslexia, reading and writing difficulties, ADHD.
NaturalReader	Converts PDFs, Word documents, and web pages into speech; natural-sounding voices in multiple languages; Adjustable reading speed.	Dyslexia, low vision, and reading comprehension support.
Adapro	Transforms texts into Easy-to-Read formats; simplifies vocabulary and complex sentence structures; improves comprehension.	Intellectual disabilities, ASD, and students with comprehension difficulties.
OpenDyslexic	Provides a font specifically designed to support readers with dyslexia; Makes letters easier to distinguish.	Students with dyslexia.
NVDA Screen Reader	Free screen reader software; reads all on-screen content aloud.; compatible with Windows.	Blind and visually impaired students.
JAWS Screen Reader	Professional screen-reading software; advanced navigation for websites and documents.	Older students and higher education.
Seeing AI	Describes images and surroundings; reads printed text aloud; recognizes objects, people, and currency.	Students with visual impairments.
Diffit	Adapts texts to different reading levels; generates comprehension questions and activities; translates and simplifies content.	Students with dyslexia, and language learners.
Rewordify	Replaces difficult vocabulary with simpler alternatives; maintains the original meaning of the text.	Reading comprehension support and English language learners.

Table 3. Webpages and Apps for Accessibility

Source: Chart created by Ana Varela.

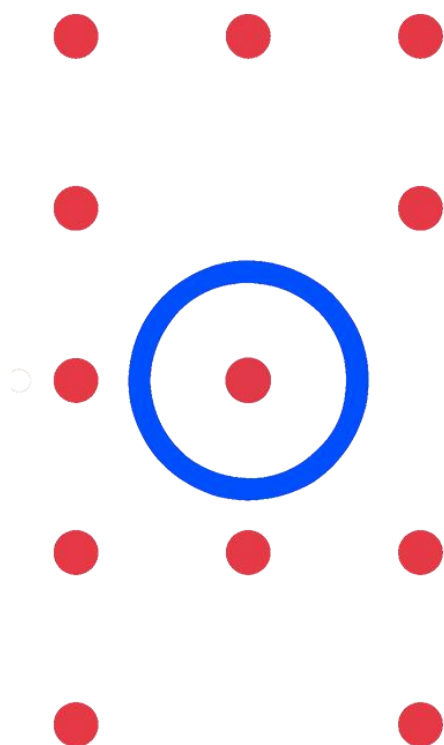
7.4. The LANSSEN Project Digital Repository

To fully immerse yourself in the LANSSEN ecosystem, we invite you to explore our **Project Padlet**, a collaborative digital repository designed to bridge the gap between neuroscientific theory and everyday classroom practice. This platform serves as a dynamic, 21st-century toolkit where educators from our international community share evidence-based materials and pedagogical innovations.

On the LANSSEN Padlet, you will find a wealth of resources, including:

- **Multisensory Lesson Plans:** Practical activities designed to activate all sensory channels—visual, auditory, kinesthetic, olfactory, and gustatory—to create lasting memory traces.
- **AI & Digital Tools:** Best practices for integrating Generative AI as a co-creative partner and leveraging Smart Classroom technologies for personalized instruction.
- **Embodied Learning Materials:** Strategies for using physical movement, gestures, and "visual phonology" to make abstract linguistic structures experienceable.
- **Collaborative Artifacts:** Mind maps, reflective journals, and creative projects developed by teachers and students during our international workshops.
- **Cultural Immersion Resources:** Materials that connect language learning with authentic global contexts and promote intercultural competence.

Link to Padlet: [Padlet](#)



8. DIGITAL INNOVATION

8.1. Intellectual Property in the Digital Era: CCL

As the LANSEN project relies heavily on the creation, alteration, and international dissemination of digital books, app tables, and media brochures, understanding open education legislation is paramount. To address this, the Portuguese hosting team delivered a comprehensive training session titled *Creative Commons*.

Creative Commons (CC) is a global non-profit infrastructure that provides free, standardized copyright licenses, allowing creators to grant public permission to share and use their creative work under flexible, legally sound conditions. For modern educators, CC licenses form the legal backbone of Open Educational Resources (OER), enabling a culture of legal co-creation and collaborative adaptation across international borders.

During the workshop, participants analyzed the core components of Creative Commons licenses:

- **Attribution** (BY): Requiring credit to the original author.
- **ShareAlike** (SA): Requiring modifications to be shared under an identical license.
- **NonCommercial** (NC): Restricting use to non-monetized purposes.
- **NoDerivatives** (ND): Preventing the public distribution of adapted versions.

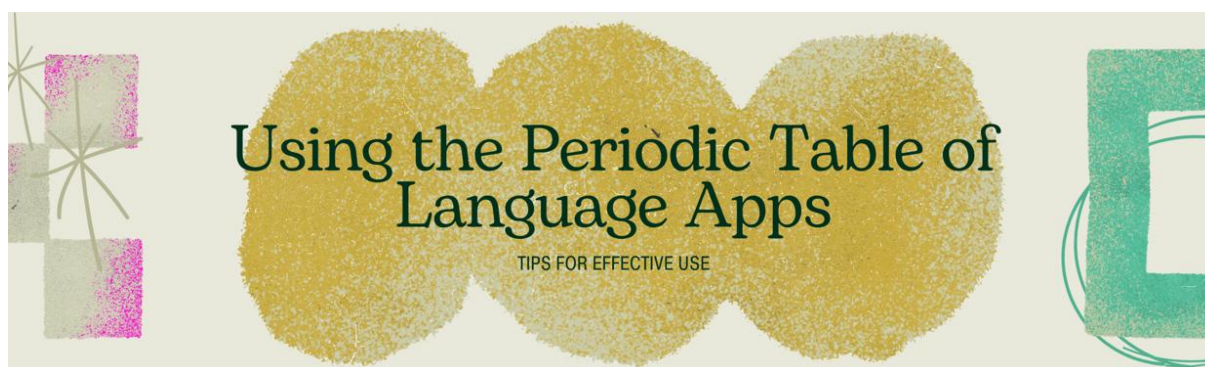
To visually anchor this legal literacy module within our teacher guide, the standard CC framework graphic is included below, serving as a constant operational reference for future curriculum developers:

THE DIFFERENT TYPES OF CREATIVE COMMONS DERIVATIONS OF LICENSES						
Creative Commons licenses help you share your work while allowing others to understand how they can use it.						
LICENSES	ATTRIBUTION (CC BY)	ATTRIBUTION-SHAREALIKE (CC BY-SA)	ATTRIBUTION-NODERIVATIVES (CC BY-ND)	ATTRIBUTION-NONCOMMERCIAL (CC BY-NC)	ATTRIBUTION-NONCOMMERCIAL-SHAREALIKE (CC BY-NC-SA)	ATTRIBUTION-NONCOMMERCIAL-NODERIVATIVES (CC BY-NC-ND)
	Allows others to distribute, remix, adapt, and build upon your work, even commercially, as long as they credit you.	Allows others to distribute, remix, adapt, and build upon your work, even commercially, as long as they credit you and license their new creations under the identical terms.	Allows others to redistribute your work, commercial or non-commercial, as long as it is passed along unchanged and in whole, with credit to you.	Allows others to redistribute, remix, adapt, and build upon your work non-commercially, and although their new works must also acknowledge you, they don't have to license their derivative works on the same terms.	Allows others to redistribute, remix, adapt, and build upon your work non-commercially, as long as they credit you and license their new creations under the identical terms.	Allows others to download your works and share them with others as long as they credit you, but they can't change them in any way or use them commercially.
HOW YOU CAN USE THE WORK	 Share  Adapt  Commercial use ✓ Attribution required	 Share  Adapt  Commercial use ✓ Attribution ✓ required ✓ ShareAlike ✓ required	 Share  No Adapt  Commercial use ✓ Attribution required ✓ NoDerivatives (required)	 Share  Adapt  No Commercial use ✓ Attribution required ✓ NonCommercial (required)	 Share  Adapt  No Commercial use ✓ Attribution required ✓ NonCommercial (required) ✓ ShareAlike required	 Share  No Adapt  No Commercial use ✓ Attribution required ✓ NonCommercial (required) ✓ NoDerivatives (required)
MEANING OF THE SYMBOLS	 Attribution (BY): You must give appropriate credit to the original creator.  ShareAlike (SA): If you remix, transform, or build upon the work, you must distribute your contributions under the same license.  NoDerivatives (ND): You may not remix, transform, or build upon the work.  NonCommercial (NC): You may not use the work for commercial purposes.  Allowed  Not Allowed					
CC licenses give you flexibility while protecting creators' rights.						

Figure 44. The different types of Creative Commons derivations of licenses

Source: Chatgpt with the keywords: Creative Commons, Table, difference between them.

8.2. LANSEN'S Period Table of Language Apps



8.2.1. Getting Started

1. Open the website

Go to: <https://erasmuslansen-table.vercel.app/> in your browser. The site loads an interactive grid of apps for language learning.

2. Understand the table layout

The page is styled like a periodic table, where each “element” is a language learning tool.

Each item shows the name of the app, a short category description, and information about available learning resources.

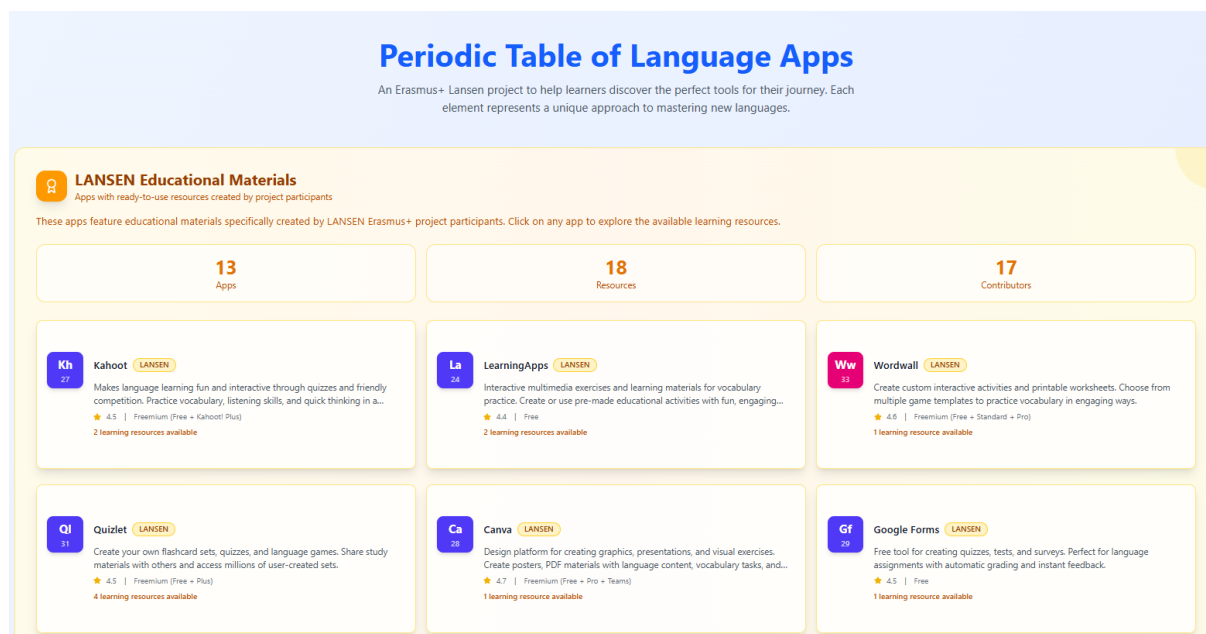


Figure 45. Home screen interface of the Periodic Table of Language Apps.

Source: Screenshot taken from <https://erasmuslansen-table.vercel.app/>, accessed 21 of July 2026.

8.2.2. Exploring the Apps

3. Click on an app tile

- Click any app box to open details about it.
- You will see what the app does (e.g., quizzes, flashcards, interactive worksheets), its general purpose, and how many learning resources are linked on the site.

4. Explore categories

The tools are grouped by type of activity or purpose (e.g., games, vocabulary, listening, creation tools). This helps you find tools for specific language skills.

5. Use the resource counts

Some apps display how many ready-made learning resources are available directly on the site - these are materials created by participants of the LANSEN project.



Figure 46. Screen of the Periodic Table of Language Apps.

Source: Screenshot taken from <https://erasmuslansen-table.vercel.app/>, accessed 21 of July 2026.

8.2.3. Contributing to the Table

6. Submit a new app

At the top of the table, there is a “Submit App” option. Use this if you want to add a new language tool to the table (e.g., one you use or create). This is helpful for sharing resources with other learners.

Tips for Effective Use

- Start by deciding what skill you want to improve (vocabulary, listening, grammar)
- Click apps in that category first.
- Try several apps to see which style you prefer (flashcards vs. interactive games, etc.).
- If you’re teaching others, check tools that allow you to create your own materials.

These can help you make learning more fun and engaging.

Author: Marcell Świerczek

Cooperators: Matilde Mendes, Michał Zahorski, Karolina Warnicka, Oliwia Gierlotka, Damian Karwat, Klaudia Korbel, Piotr Łysakowski, Michalina Więcek, Amelia Gajda, Zuzanna Pogodzińska, Lorraine Ribeiro, Leonor Santos, Milena Kania, Oliwia Skrzypiec, Emilia Kolar, Małgorzata Filipowicz, Mikołaj Mocek

Contact: marceli.swierczek@alorybnik.polsl.pl



Figure 47. Presentation of LANSEN'S Period Table of Language Apps in Poland.
Source: Photo by Renata Klimek-Kowalska

Some of the featured tools include:

- Kahoot - Game-like quizzes
- [Quizlet](#) - Flashcards & study sets
- **Google Forms** gives the LANSEN survey a modern and interactive format for exploring perfume habits, scent preferences and olfactory memories.

Participants can easily share personal experiences while developing vocabulary related to smell, emotions and identity. The automatic charts and summaries make the results visual, dynamic and easy to compare across different cultures. This digital approach transforms a simple questionnaire into a collaborative tool for language learning and intercultural exchange.

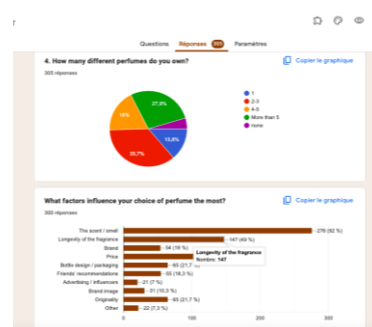


Figure 48. Screenprint of a result of a survey about perfume with GoogleForm.
Source: Patrick Maillot, GoogleForm March 2026.

- Wordwall - Interactive activities
- **Mentimeter** is used as an interactive warm-up tool to activate students' vocabulary related to smells and Indian culture. Students anonymously share words or short expressions describing the scents they associate with India. Their answers appear instantly in a collaborative word cloud, making the activity visual, engaging and inclusive. In the LANSEN project, this activity develops sensory awareness, intercultural reflection and oral interaction in English.

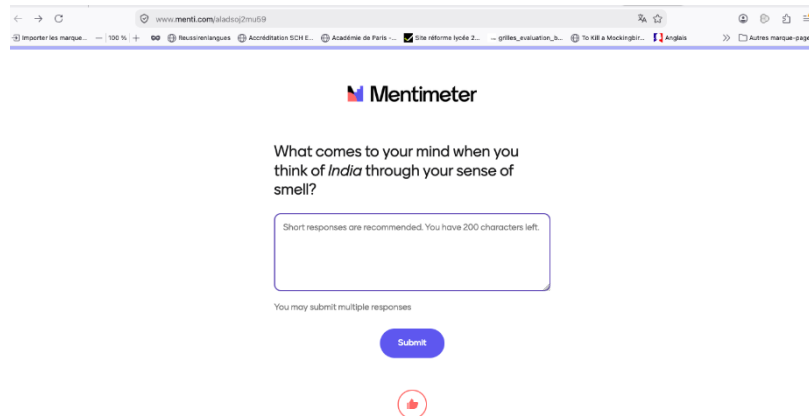
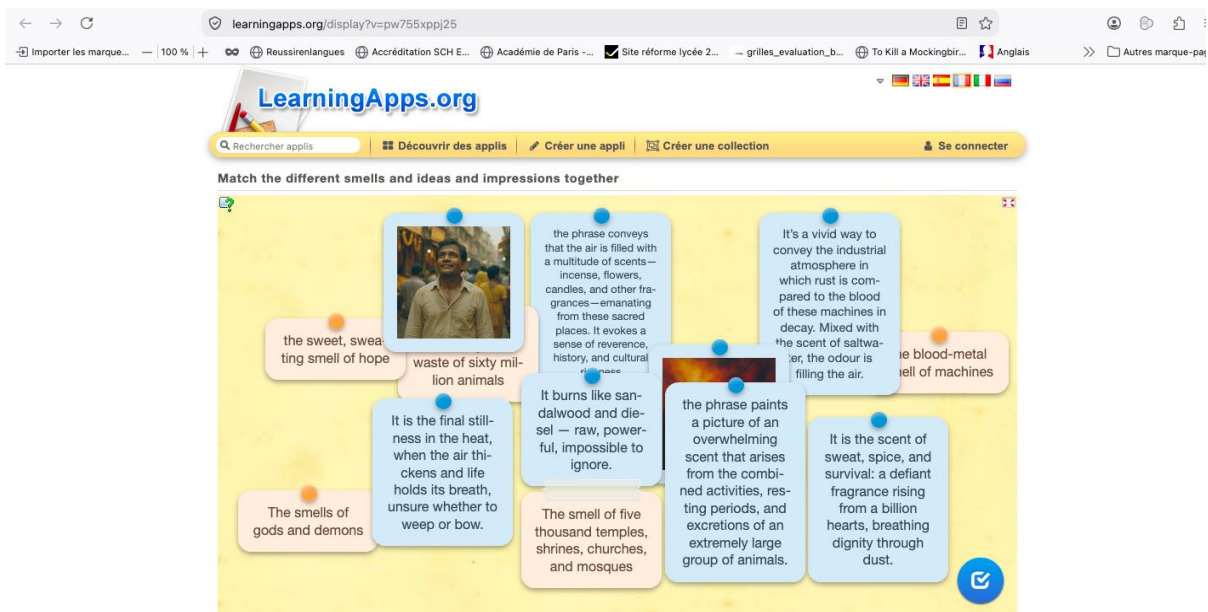


Figure 49. Screenprint of a question to generate a word cloud for a sensory activity
Source: Patrick Maillot, Mentimeter January 2026.

- **LearningApps:** LearningApps supports sensory language learning by offering interactive games such as matching, sorting, quizzes and memory activities. In the LANSEN project, students can connect sensory images, sounds or descriptions with relevant vocabulary and expressions. The platform encourages active participation, repetition and immediate feedback, helping learners memorise language more effectively. It also makes multisensory activities more



engaging, accessible and adaptable to different learning needs.

Figure 50. Screenprint of an activity with LearningApps.org
Source: Patrick Maillot, LearningApps.org, March 2026.

8.3. LANSEN interactive Museum

8.3.1. Interactive Museum – Designing Perfume Bottles through the Senses

This interactive museum is a continuation of the LANSEN activities carried out in Réunion Island, where teachers first explored the world of **smell and fragrance** and created their own perfume during a hands-on workshop. Each delegation had their own perfume and the idea was to ask the students to design an original perfume bottle that visually represents the emotions and the story of the fragrance.

Through this creative task, students do much more than simply design an object. They learn to **observe, describe, interpret, justify choices and communicate ideas in a foreign language**. They reflect on how colours, shapes, materials and symbols can express an invisible sensation such as smell, encouraging both creativity and critical thinking.

In the LANSEN context, the activity illustrates how languages can be learned differently: not only through textbooks and vocabulary lists, but through **sensory experiences, emotions and meaningful projects**.

The museum therefore showcases both the students' perfume bottle designs and their learning journey: **from smelling and creating a fragrance to imagining, explaining and sharing its visual identity**. It demonstrates how multisensory learning can make language acquisition more engaging, memorable and creative.



Figure 51: Sketch of a perfume bottle made by Martyna S. (Polish team).
Source: ChatGpt, 14th April 2026

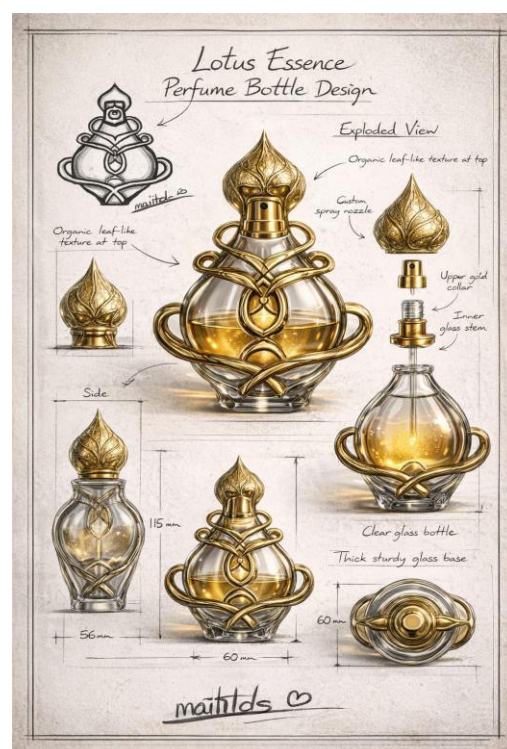


Figure 52: Sketch of a perfume bottle made by Juliette (Reunion team).

Source: ChatGpt, 15th April 2026



Co-funded by the
Erasmus+ Programme
of the European Union



PERFUME DESIGN

Creative & Custom Perfume Bottle Designs



Creative Visions

Emerging designers
reinterpret the perfume
bottle as a sculptural
and sensory object,
blending aesthetics
with narrative intention.

Extraordinary Focus

Dragon-Scaled Metallic
Organic Glass Forms
& Floral Inspirations
Hybrid Materials &
Experimental Craftsmanship



Signature Piece

A fusion of sculptural metalwork and luminous glass,
revealing a dynamic interaction between structure and fragrance.



Process & Method

From initial sketch
to efficient 3D render,
discover the iterative
design process
behind each creation

Inside the Design

Materials • Textures • Prototyping
Exploded Views & Technical
Drawings
Concept Development
& Visual Identity

DESIGN • CRAFT • INNOVATION

Figure 53. poster made with ChatGPT about the presentation of the Digital LANSEN Museum.

Source: ChatGpt, 14th March 2026.

The Lansen Museum is now inaugurated: you can visit it with the computer, or with VR goggles or simply with a phone (browser version). Here is the link:
<https://metasteps.com/viewer/5faf0ad1-6155-41a4-af20-d43b4737b25e>

8.4. eTwinning

Learning Languages with Senses web page: <https://school-education.ec.europa.eu/en/etwinning/projects/learning-languages-senses>

As part of the LANSEN project, the use of eTwinning follows a structured progression aimed at establishing a sustainable dynamic of intercultural exchange. This progression does not rely solely on student interactions, but is also grounded in prior pedagogical work, particularly through teaching materials designed by partner teachers around the five senses.



These teaching resources, developed at the initiative of European language teachers, provide a common foundation for teaching in a different way. They offer activities centered on sensory experience (seeing, hearing, touching, tasting, smelling), fostering a more concrete, immersive, and engaging form of learning. When used in the classroom, they prepare students for exchanges on eTwinning by equipping them with the necessary linguistic and cultural tools.

“Icebreaker” activities (posters, forums, quizzes) fit directly into this continuity: students reuse what they have learned in class to introduce themselves and discover their partners through a sensory-based approach. This initial phase helps highlight cultural similarities and differences in an accessible and engaging way.

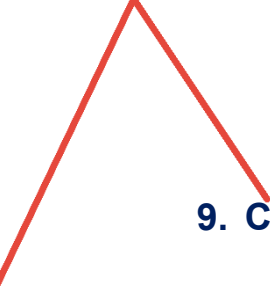
Link to our Digipad: <https://digipad.app/p/1359709/41b1ae2d06907>

In a second stage, collaborative activities such as sharing recipes or creating “fusion” dishes extend these learning experiences. The teaching materials serve as a framework to structure language use (describing tastes, textures, and smells), while eTwinning becomes the space for practical application and exchange.

It is also worth noting that this relationship works both ways. Some of the teaching materials have directly emerged from ideas and activities initially tested on eTwinning. Successful exchanges, such as intercultural quizzes or sensory-based descriptions, have been adapted and formalized into structured classroom resources. This iterative process allows teachers to refine their practices and transform authentic interactions into reusable pedagogical tools. As a result, eTwinning not only supports implementation but also actively contributes to the creation and evolution of teaching materials.

Finally, the creative work based on *Le Petit Prince* fully illustrates this articulation. Students mobilize the skills developed through the materials (sensory description, written and oral expression) to rewrite passages and record their partners’ productions.

Thus, eTwinning and the teaching materials operate in complementarity: the materials structure classroom learning, while the platform gives it meaning through real interactions. This articulation promotes a more dynamic approach to language teaching, centered on experience, collaboration, and intercultural openness.



9. CONCLUSIONS

As teachers, working on the LANSEN project has been a great opportunity to challenge our pedagogical practices and has obliged us to stretch and expand our creativity more than we are used to doing. Indeed, our pedagogical materials have rarely focused on only one aspect, and placing emphasis on the senses in all the activities has required us to be more inventive. Of course, it has also enabled us to work and collaborate with colleagues from different backgrounds and subject areas. This has reinforced our motivation as teachers to constantly find ways of optimising our students' interest and observing their progress in language learning.

Last but not least, working with teachers from different countries has given us the privilege of discovering other practices and approaches, allowing us to broaden and complement our pedagogical practices and sometimes even question them.

As for the students, using their senses has been very challenging since they have never been really used to learning that way at school, even if they have noticed it to be more instinctive. For example, they have been encouraged to associate words and expressions with emotions, memories, objects, sounds, tastes, smells and visual elements. In most cases, this has made the learning process more engaging and has helped them to memorise vocabulary and structures more easily. This project has shown them that learning a language can go beyond the traditional classroom and become a lively, enjoyable and memorable experience given to the fact that it adds meaning to what they learn.

By and large, the LANSEN project has been a rewarding experience for both teachers and students, as it has encouraged creativity, cooperation and a more meaningful approach to language learning.

The LANSEN project resources offer a wide range of chapters and activities rooted in the exploration of the senses through themes that are both original and varied, with the aim of renewing students' interest in language learning. They provide a broad selection of authentic materials, created and tested in the classroom by the teachers and students involved in the project. These resources expose learners not only to the specific features of the target language, but also to new perspectives and different cultural realities. By approaching the senses from a fresh angle, these themes help to develop critical thinking and encourage students to adopt an active, personal and reflective approach to their learning.

The structured activity sheets, together with suggested assessment tools, enable students to develop their language skills in a playful, practical and creative way. Each sheet therefore includes exercises designed to help students memorise vocabulary and work on grammar, comprehension, expression and phonology in a different manner, by drawing on their memories, sensory perceptions, emotions and feelings. Language is no longer studied solely as a set of rules and knowledge to be

acquired; it becomes a tool for describing an experience, sharing a sensation, expressing an emotion or comparing one's point of view with that of others.

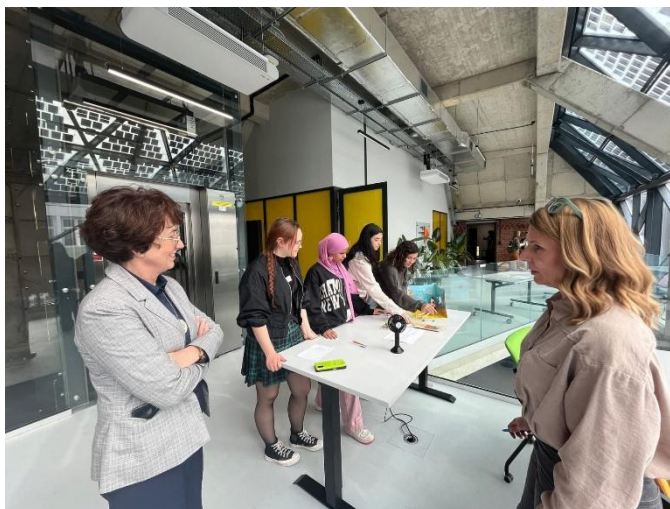


Figure 54 & 55. Polish language workshop at the Student Creativity Centre, Silesian University of Technology.
Author: Renata Klimek-Kowalska

The LANSEN method does not seek to replace traditional language-teaching practices. Instead, it offers a complementary approach that each teacher can adapt to their own context, curriculum and students' level. Teachers are invited to use the activity sheets in full, select specific activities or gradually integrate them into their own teaching sequences. A sensory activity can therefore be used as a starting point to arouse curiosity, as a resource for introducing or revisiting vocabulary, as an intermediate stage to encourage speaking, or as a final task leading to an individual, collaborative or creative outcome. Besides, digital applications can also be integrated into these activities to make learning more interactive and engaging. Tools such as online quizzes, collaborative platforms, digital mind maps or multimedia creation apps can encourage participation, creativity and cooperation while supporting the development of language skills.

The activity sheets should not be regarded as fixed models, but rather as open and adaptable resources. Teachers fully retain their role as designers and facilitators: they may modify the instructions, replace the materials, adjust the level of difficulty, vary the working arrangements or focus on particular senses according to the intended learning objectives. They may also enrich the activities by drawing on elements connected to the students' immediate environment, culture, personal history or the specific characteristics of their region. This flexibility makes learning more concrete and meaningful, while taking into account the diversity of learners' profiles, sensitivities and ways of learning.

By engaging the senses, teachers also create situations that encourage interaction and cooperation. Students are invited to observe, listen, handle objects, taste, smell, compare, make hypotheses and put their perceptions into words. The aim is not to look for a single correct answer, but to encourage each learner to justify their

interpretation and become aware that sensations can be perceived and expressed differently depending on individuals and cultures. This approach therefore helps to develop confidence, creativity, autonomy and participation, particularly among students who may experience difficulties in more conventional learning situations.

Ultimately, LANSEN encourages teachers to look at their practices from a different perspective by considering sensory experiences as genuine tools for learning, memorising and communicating. The method provides a shared framework while allowing teachers a high degree of pedagogical freedom. It enables them to experiment with new approaches, observe students' responses, adjust activities and gradually develop a form of teaching that is more engaging, inclusive and attentive to each learner's emotions, perceptions and personal experiences.



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12. ANNEXES

12.1. Record of AI Prompts Used for Illustration Generation

Figure 7: Multisensory Language Learning: Prompt: [Create an infographic in English titled 'Practical Multisensory Applications in Language Learning'. The content must cover these 3 domains: 1. Vocabulary Acquisition: - Strategy: Pair words with vivid, distinctive images and spoken forms to create redundant memory traces. - Nuance: Use visual-auditory combinations for concrete nouns, but prioritize embodied interaction and gestures for action verbs to recruit the motor cortex. 2. Pronunciation & 'Visual Phonology': - Strategy: Use visual-auditory combinations where learners watch lip and tongue positions while hearing phonemes. - Tooling: Leverage Smart Classrooms and AI-enhanced speech recognition for real-time visual modeling and articulatory feedback. 3. Grammar & Sentence Structure: - Strategy: Use physical movement and Total Physical Response (TPR) to make abstract syntactic patterns perceivable. - Outcome: Anchoring rules in bodily memory lowers cognitive load and creates redundant retrieval pathways for spontaneous production. Add a footer: 'Strategic sensory alignment makes student effort count by working with the brain's natural processing mechanisms.]

Figure 8. (Language Learning: Children and Adults). Prompt: [Create an infographic in English comparing language learning in children and adults based on the text in section 2.2.5. Title: Language Learning: Children vs. Adults Section: Children (Implicit Acquisition) - Natural Absorption: Picking up sound and grammar patterns effortlessly without conscious study. - Pronunciation Edge: Higher aptitude for acquiring native-like accents during sensitive periods. - High Neuroplasticity: Young brains are highly receptive to multisensory, play-oriented environments. Section: Adults (Explicit Learning) - Conscious Study: Utilizing logical reasoning to understand grammatical rules and structures. - Strategic Tools: Leveraging native language (L1) knowledge, Spaced Repetition, and Active Recall. - Lifelong Neuroplasticity: The adult brain remains capable of structural and functional rewiring through engagement. Conclusion: - Developmental Shift: It is a change in how the brain learns (from implicit to explicit), not a loss of ability. - Continued Success: While accents are harder to master later, vocabulary and grammar acquisition remain robust throughout life.]

Figure 11. (LANSEN DECALOGUE). Prompt: [Role: You are an expert instructional designer and visual graphic artist.Task: Create an engaging poster text and layout structure for the "LANSEN Decalogue – 10 Principles for Sensory-based Language Learning".Requirements: Divide the content into 10 distinct, clearly defined sections/cards.Keep the language concise, impactful, and clear. Use a layout structure optimized for visual design (e.g., clear headers and short, punchy descriptions,).10 Principles to include: (make it shorter and clear) Teach the Whole Person: Focus on the body and mind, not just the brain. Make Learning Tangible: Engage all senses in the learning process. Connect Emotion with Language: Every word carries a feeling. Make Students the Protagonists: Empower learners to drive their own experience. Engage the Senses: Incorporate sight, sound, touch, movement, and context. Create Immersive Environments: Turn the classroom into a sensory space. Foster Experiential Learning: Encourage learning by doing, exploring, and feeling. Prioritize Real Context: Link vocabulary to authentic physical and emotional contexts. Support Multimodal

Communication: Express meaning through body language, art, and sound. Build Lasting Memories: Deepen long-term retention through multi-sensory experiences.]

Figure 12. The 5 Pillars of the LANSEN Method. Prompt: [Create an infographic in English titled 'The 5 Pillars of the LANSEN Method' in a horizontal (landscape) layout. The content must cover these 5 pillars: 1. Sensory Activation: Engaging visual, auditory, kinesthetic, olfactory, and gustatory channels to create richer and more interconnected memory traces in the brain. 2. Embodied Cognition: Grounding language acquisition in physical movement and sensorimotor experiences to facilitate the transition of vocabulary to long-term memory. 3. Digital Augmentation: Leveraging AI-enhanced tools and Smart Classrooms to provide real-time personalization, adaptive feedback, and immersive environments. 4. Reflective Learning: Moving from concrete activities to conceptual understanding through systematic reflection and evidence-based tools like mind maps. 5. Cultural Immersion: Connecting linguistic instruction with authentic global contexts to foster intercultural competence and a sense of global citizenship. Add a concluding note at the bottom: 'The LANSEN Method aligns with CEFR descriptors and supports communicative, intercultural, and cognitive competences to ensure every student's effort counts.]

Figure 16: Anais's sensory mindmap. Prompt: [create a polished A3 visual poster combining the mind map, the explanatory text, the official LANSEN logo and the Erasmus+ co-funded logo. The original text from the attached document was lightly corrected for clarity and presentation. Make it into a polished canva style version and a comic strip version of the text—structured, visual, and ready to turn into a poster or student task. I've kept the tone personal and narrative, with clear panel progression.]

Figure 53: Digital LANSEN Museum. Prompt: [Create a professional A3 visual poster combining these pictures integrating the official logos of Lansen and Erasmus at the top of it. This poster should present in a canva style way the exhibition in an engaging and creative way with appealing arguments.]