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L'INGÉNIERIE D'ACCOMPAGNEMENT
COMME LEVIER D'INNOVATION PÉDAGOGIQUE

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LEVERAGING INNOVATION IN EDUCATION THROUGH SUPPORT ENGINEERING

L'INGÉNIERIE D'ACCOMPAGNEMENT COMME LEVIER D'INNOVATION PÉDAGOGIQUE



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Leveraging Innovation in Education Through Support Engineering

L'ingénierie d'accompagnement comme levier d'innovation pédagogique

General Introduction

The subject of pedagogical innovation is a recurring challenge within educational systems in many countries.

Learning how to learn, training differently, ensuring young people succeed through alternative methods, designing and implementing educational projects in classrooms, and preparing the citizens of tomorrow in line with institutional priorities (such as sustainable development and eco-citizenship) are key objectives associated with teaching in most of the countries involved in this project. Additionally, integrating digital educational tools and resources into training strategies, whether individually or as a team, is a common goal.

Engaging in a project-based approach, especially an innovative one, can sometimes be complex, risky, and uncertain in terms of success and academic performance. This raises the need to reflect on and clarify the concept of pedagogical innovation—to define it in order to establish a shared culture and ensure a common understanding of what pedagogical innovation truly means.

The purpose of this guide is, therefore, first to define the concept of pedagogical innovation and then to help everyone understand its mechanisms, enabling them to identify and grasp the levers that drive its implementation and support learner success—whether they are learners in primary, secondary, vocational training, or adults in further education programs.

This guide is structured into five sections:

1. **The Concept of Pedagogical Innovation** – This section aims to define pedagogical innovation and understand how it emerges. It will draw on key examples that have significantly or sustainably influenced teaching practices.

2. **Observing Pedagogical Innovations** – This part will present and explain the contexts and observable elements that help distinguish standard projects from innovative ones. It will mainly provide tools and a method for observation.

3. **Factors of Pedagogical Innovation** – The objective here is to list the main "constants for the emergence and success of pedagogical innovation," particularly based on cross-observations conducted during this project's transnational exchanges and international observations. It will also explore how and why these factors can either facilitate or hinder innovation.

4. **The Typology of Pedagogical Innovation Actors** – This section will identify the different types of stakeholders involved in innovative projects, depending on the specificities of various countries and organizations. It will distinguish between "field actors" and those who initiate or mandate new practices through "institutional directives." Additionally, this part will introduce a systemic analysis of roles and interactions among these actors.

5. **The Engineering of Pedagogical Innovation** – The main goal of this section is to explain how to engage in pedagogical innovation at any level. It will provide an understanding of the innovative project approach, identifying possible entry points and participation methods.

This guide is primarily intended for frontline practitioners—teachers, education assistants, and school staff—who work directly with students. However, it also addresses other key stakeholders including trainers, school leaders, inspectors, department heads, and delegation managers, as well as professionals outside the educational community, such as local authorities and partner organizations. All these actors can engage with the content and identify their role in the innovation process.

The guide is designed for indexed sequential use, meaning that readers can access any section or subsection independently, without requiring prior reading of previous parts. Each section explores a key aspect of pedagogical innovation and can be supplemented as needed with experiences, reflections, and examples contributed by readers.

As a result, this is an open and customizable document, adaptable to the specific needs of each user.

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All related materials are available online on the project's website :



[Projet de coopération l'Ingénierie d'accompagnement comme levier d'innovation pédagogique]

Part 1

The Concept of Pedagogical Innovation

Part 1 - The Concept of Pedagogical Innovation

"Pedagogical innovation:
I develop an idea of what it is and where it comes from,
what it produces, for whom and with whom,
I grasp the concept."

This section aims to clarify the concept of pedagogical innovation by exploring its origins, motivations, and effects on both learners and educational systems. It provides insight into what pedagogical innovation entails.

Innovative teaching practices are often driven by a small number of dedicated and enthusiastic educators who are willing to take a "step aside" to better meet students' needs. However passionate and inspiring they may be, they frequently embark on the path of pedagogical innovation alone or in very small teams.

Moreover, the institutions in which they work (schools, middle schools, high schools, training centers) or the broader educational organizations within their territories (municipalities, districts, regional authorities—according to the country) are not always equipped to support them effectively in this endeavor. This often results in a fragmentation of efforts, insufficient or inadequate resources, difficulties in accessing relevant materials, and an uncertain or untested methodological approach. Furthermore, even when the added value of these innovations is measured, it is rarely recognized, let alone promoted, for broader dissemination or transferability. As a result, these efforts often remain at the experimental stage, without systematic evaluation or scaling up.

It is therefore essential to reflect on the concept of pedagogical innovation.

1.1 Why Pedagogical Innovation?

1.1.1 The Question of the Concept of Pedagogical Innovation

Pedagogical innovation is a concept that is difficult to define precisely due to its complex and multidimensional nature. A multidimensional approach to observing pedagogical innovation is essential, as it involves examining, understanding, and analyzing teaching practices that create a disruptive effect—breaking away completely from previously accepted ideas, practices, and methodologies.

Here are some reasons that explain this complexity:

- **The versatility of approaches**: Pedagogical innovation can take many forms, ranging from new teaching and learning methods to the integration of educational technologies, as well as changes in learning environments or curricula. This diversity makes it difficult to establish a single definition that encompasses all possibilities.

- **The need for contextualization**: What qualifies as pedagogical innovation in one context may not be considered as such in another. Learners' needs, available resources, educational priorities, and institutional cultures vary from one place to another. This makes it challenging to establish universal criteria for defining pedagogical innovation.

- **Constant evolution**: The field of education is continuously evolving, influenced by technological advancements, educational research, societal changes, and the shifting needs of learners. This dynamic nature further complicates the definition of pedagogical innovation.

- **Interconnection with other concepts**: Pedagogical innovation is closely linked to other concepts such as educational reform, teaching transformation, and teacher professional development. These interconnections can blur the boundaries between these concepts and make their individual definitions more complex.

- **The subjectivity of perceptions**: Educators' attitudes, beliefs, and personal experiences influence their perception of what constitutes pedagogical innovation, adding a subjective dimension to its definition.

Thus, the primary question is: "What exactly do we mean by pedagogical innovation?"Beyond this, it is also essential to consider the related questions of who, how, why, and for whom. Defining this concept means providing answers to these inquiries. Not everything is innovation, and not every teaching practice that breaks away from established habits or traditions necessarily qualifies as pedagogical innovation, even if it is disruptive.

1.2 What Is Pedagogical Innovation?

Pedagogical innovation lies at the heart of the teaching profession and is considered a positive

value in our society, even though this concept must be examined and nuanced. As previously mentioned, pedagogical innovation cannot be confined to a single definition. The way it is understood and perceived by educational stakeholders varies significantly depending on their roles, geographical contexts, experiences, and specific environments.

1.2.1 The Concept of Pedagogical Innovation

1.2.1.1 Conceptual Approaches in Educational Science

Pedagogical innovation is defined as a deliberate approach to improving educational practices. It is part of a maturity process within a project, evolving through stages of development, testing, and refinement.

Source : site eduscol 2022
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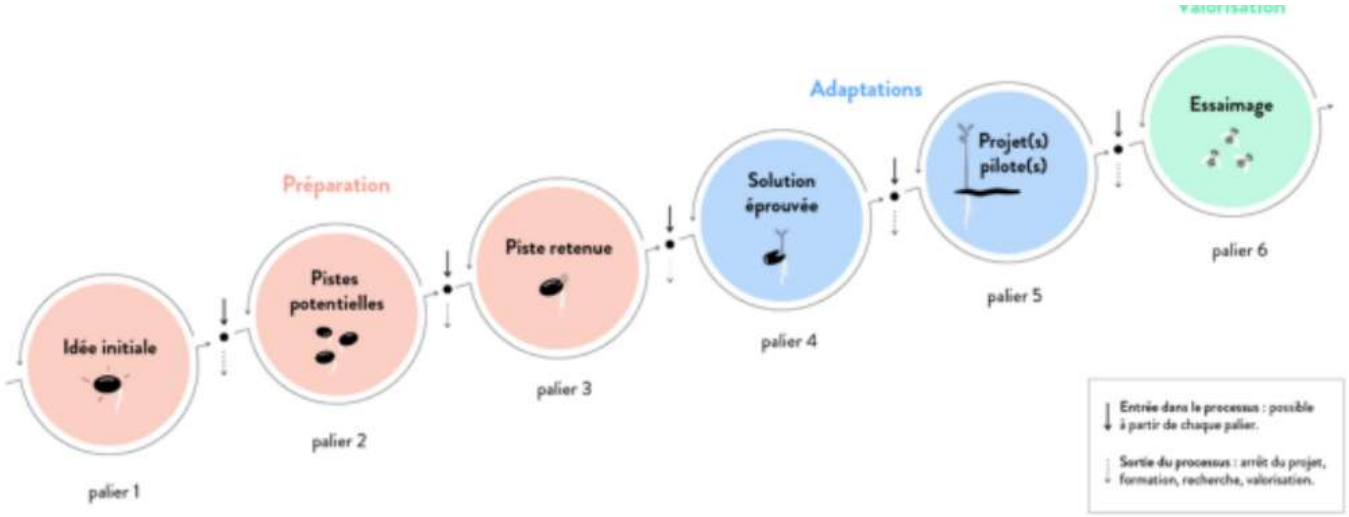
MATURITY LEVELS

Depending on the maturity of the project, support can begin at level 1, 2, 3, etc. These levels do not define the project's timeline but indicate working spaces to position the project and support its development. The entry and exit arrows indicate that the process can start or stop at different maturity levels.



LEGEND : Stages of Maturity:
Preparation: Level 1: *Initial idea* ***Level 2:*** *Potential directions* ***Level 3:*** *Selected direction*
Adaptations: Level 4: *Tested solution* ***Level 5:*** *Pilot project(s)*
Valorization : Level 6: *Scaling and dissemination* ***Entry into the process:*** *Possible at any project stage*

Some authors have described the concept of pedagogical innovation:

- **Béchard and Pelletier (2001)** state that pedagogical innovation aims to transform teaching methods to promote better learning outcomes.

- **Brodin (2002)** highlights the time and energy costs that innovation represents for teachers, while others emphasize the importance of collective efforts and educational values such as student success and well-being. In all cases, innovation involves **taking risks** and is goal-oriented in the sense that it introduces progress and seeks to improve learning and teaching practices.

- **Beacco (2002)** urges caution regarding superficial and secondary modifications. He distinguishes between novelty and innovation, emphasizing that true innovation involves **breaking away from existing practices**, reshaping them in the process. According to him, novelty is only a **relative innovation**, as its uniqueness depends on the perspective of the observer. For example, conceptualization exercises are "new for those who have never encountered them before." Instead of merely identifying and describing innovations—or even revolutions—in language didactics, he invites us to adopt a **structural perspective**, characterizing the various forms of change shaping the field.

- **Tricot (2001)** challenges several common assumptions about pedagogical innovation, such

as the impact of digital tools, flipped classrooms, competency-based approaches, and the role of authentic materials in the classroom. He examines whether these ideas truly help **teachers teach better and students learn better**, based on current scientific research. For him, pedagogical innovation serves as a means to **reflect on teaching practices** with the fundamental mission of **equipping individuals with the tools to resist imposed certainties**.

- **Enrique Navarro Asencio (2017)** states that *"educational innovation involves the planned and systematic implementation of processes, strategies, and ideas with the goal of introducing changes to existing educational practices. Its purpose is therefore to transform educational reality for improvement by modifying attitudes and methodologies that influence teaching and learning processes" (2017, p. 27).*

Many other authors could be cited, but they generally reinforce these ideas, emphasizing **the complexity of the concept** and its **disruptive nature**.

1.2.1.2 The Work and Analysis of Teacher-Researchers

Many teacher-researchers around the world have made significant contributions to defining the concept of pedagogical innovation. Here are some key figures who have been particularly engaged in this field:

- **John Dewey**: An American philosopher and educator, Dewey promoted the idea of **learning through experience** and emphasized the need to adapt education to students' needs.
- **Lev Vygotsky**: A Russian psychologist who developed the **socio-constructivist theory of learning**, highlighting the role of social interaction in knowledge acquisition.
- **Jean Piaget**: A Swiss psychologist known for his **theory of cognitive development**, which explains how children construct knowledge as they grow.
- **Seymour Papert**: A computer scientist and educator who played a major role in **discovery-based learning**, particularly through his work on the **Logo programming language** and constructionism.
- **Howard Gardner**: An American psychologist famous for his **theory of multiple intelligences**, which challenges the traditional notion of a single measure of intelligence.
- **Ken Robinson**: A British educator and author who emphasized the importance of **creativity in education**, arguing that schools should foster students' creative potential.
- **Mihaly Csikszentmihalyi**: A Hungarian psychologist known for his **theory of flow**, which explores the conditions for optimal engagement and deep learning.
- **Philippe Meirieu**: A French pedagogue and professor who has worked on **individualized learning, transversal skills, and teacher training**.
- **Catherine Becchetti-Bizot**: A French professor of mathematics and science didactics who has contributed to research on **mathematics education and pedagogical strategies**.
- **Yves Chevallard**: A French mathematician and didactician who developed the **anthropological theory of didactics**, which examines learning processes and the relationships between **taught knowledge and learned knowledge**.

1.3 The Origins of Pedagogical Innovation

1.3.1 Origins of Pedagogical Innovation

Pedagogical innovation originates from the desire to make learning more effective and better suited to learners' needs. Educators such as Johann Heinrich Pestalozzi and Friedrich Froebel advocated for the importance of experience and interaction in education. Later, theorists like Jean Piaget and Lev Vygotsky influenced learning methods by emphasizing cognitive and social

development.

With the rise of digital technologies, pedagogical approaches have evolved to incorporate distance learning, digital tools, and active learning methods. Pedagogical innovation is based on research and experimentation to renew educational practices. Today, it continues to adapt to social and technological challenges, aiming to provide a more inclusive and personalized education.

1.3.2 Major Changes in Teaching Practices

The significant evolutions in teaching practices reflect **major societal, technological, and pedagogical changes**. Here are some of the key developments:

19th Century: The Institutionalization of Education

- Education becomes a **state responsibility** in many countries.
- Traditional **teacher-centered methods** begin to evolve, integrating more **progressive approaches** that encourage active student participation.
- Expansion of the **curriculum**, with a growing emphasis on **science, languages, and the arts**.

20th Century: Active and Personalized Pedagogy

- The rise of **active learning approaches**, such as **constructivism**, which emphasize student engagement in their own learning and the influence of social and cultural contexts.
- **Educational technologies** emerge, introducing tools like television, educational films, and later, **computers and the internet**, transforming access to resources and classroom interactions.
- **Diversification of educational approaches**, including **alternative methods** such as **Montessori and Freinet**.
- A growing recognition of **lifelong learning**, with education adapting to labor market changes, leading to the development of **adult education programs**.

Early 21st Century: Focus on Diversity and Inclusion

- Movements promoting **inclusive education**, aiming to integrate students with disabilities or from disadvantaged backgrounds.
- Emphasis on **citizenship education**, fostering social responsibility, sustainability, and peace education.

The Rise of Technology and Digital Learning

- The growth of **the internet, online learning platforms, and digital resources** has revolutionized education.
- The availability of tools such as **tablets and educational apps** has transformed student-teacher interactions.
- **Blended learning models** (combining in-person and online instruction) have become widespread.

Skill Development for the Future

- Increasing focus on developing **creativity, collaboration, communication, and critical thinking skills** to prepare students for a rapidly changing world.

1.3.3 The Impact of Reforms on Educational Systems

Educational reforms play a crucial role in improving the **quality of teaching** and integrating **pedagogical innovations**. Here are some key aspects:

- **Adapting to Contemporary Needs**: Educational reforms often aim to align the education system with **modern demands**, such as globalization, technological advancements, and societal changes.
- **Encouraging Pedagogical Innovation**: Reforms can introduce **new teaching methods**, such as **project-based learning, collaborative work, and flipped classrooms**, which promote **active student participation** and develop **critical and creative skills**.
- **Teacher Training**: Pedagogical innovation cannot take place without adequate teacher training. Reforms often include **professional development programs** to help teachers adopt and integrate **new teaching methods** effectively.
- **Assessment and Research**: Educational reforms can promote the use of **formative assessments** and **research-based methods** to measure the **effectiveness of pedagogical practices** and adjust teaching strategies accordingly.
- **Equity and Inclusion**: Many reforms aim to **reduce educational inequalities** and address the needs of all students, including those from disadvantaged backgrounds.
- **Stakeholder Participation**: Reforms that involve **students, parents, and the community** in the decision-making process are often more effective. This approach helps **better address local needs** and ensures broader support for changes.
- **Sustainability of Changes**: For reforms to be effective in the long term, they must be designed with **sustainability in mind**. This requires **long-term commitment** and a **school culture that values innovation and experimentation**.

In conclusion, **educational reforms are not just policy decisions; they represent opportunities to transform teaching and learning in meaningful ways**. Their success depends on various factors, including **teacher engagement, institutional support, and the involvement of different education stakeholders**.

1.4 Key Elements of Pedagogical Innovation

1.4.1 The Scales of Pedagogical Innovation



MACRO LEVEL

Large-scale changes impacting the global education system.



MESO LEVEL

Innovations at the level of universities, high schools, and schools.



MICRO LEVEL

Innovations at the level of teachers and the classroom.

1.4.1.1 Macro Level

On a large scale, at the societal level, **educational policies and national directives** set the main directions to **drive or facilitate innovation**. This is referred to as **educational innovation**, which extends beyond the classroom context.

Example: Educational Innovation in Romania

After the **fall of communism**, educational innovation in Romania was marked by the transition from a **centralized and rigid education system** to a **more open and flexible model**, aligned with **democratic values and European orientations**. This transition occurred in several stages:

- **Starting in 1989**, a series of **curriculum reforms** aimed to modernize educational content and **adapt it to new social and economic realities**.
- **New subjects** were introduced, and the focus shifted toward **developing transversal**

skills rather than **rote memorization**.

- **Democratic values, critical thinking, and creativity** were promoted as essential components of education (**see: *A Journey Through Time to Understand the Romanian Educational System*, Monica Popescu**).

1.4.1.2 Meso Level

This level concerns **educational institutions and their organizational structures**. It refers to a **transformation process that impacts various aspects of educational establishments**. Unlike isolated interventions within individual classrooms, teachers, or subjects, **this type of change aims to innovate within the entire educational ecosystem of a school**.

Example: Germany (Berlin) – Hermann Hesse High School

At **Hermann Hesse High School in Berlin**, the curriculum is designed to provide a **comprehensive and balanced education**. In addition to traditional academic subjects such as **mathematics, sciences, languages, and humanities**, the school offers a **wide range of artistic and sports activities**.

- Students have the opportunity to develop in areas such as **music, theater, and visual arts**, as well as participate in various **sports activities**.
- The school regularly organizes **conferences, debates, and educational trips** to broaden students' perspectives and raise awareness of **social and environmental issues**.
- Hermann Hesse High School also encourages students to **engage in community projects**, fostering **active citizenship and social responsibility**.

Example: Italy – The Reflex Tool

In Italy, **schools periodically use the Reflex tool**, which allows them to **measure progress or regression over time** in relation to various educational processes. This **data-driven approach** helps institutions assess and **improve their educational strategies** effectively.

Example: Spain (UAM – Autonomous University of Madrid)

In Spain, **the UAM (Autonomous University of Madrid) has focused on opening up to external institutions** to enhance the training of **future teachers of French as a Foreign Language (FLE)** in secondary education, vocational training, and Official Language Schools.

- This is achieved through **partnerships and exchanges** with other **educational organizations**, including schools, high schools, and **French Institutes**.
- The initiative aims to create a **stronger connection between universities and real-world teaching environments**, ensuring that future educators are **better prepared for the challenges of modern language teaching**.

1.4.1.3 Micro Level

Teachers as Everyday Innovators

Teachers innovate daily through practices such as **using digital resources to enhance lessons**. These innovations are often the result of **personal experimentation**, adapted to meet learners' needs.

Example: After attending a training session, a teacher decides to experiment with a **new teaching method** and introduces students to the **flipped classroom model**, encouraging them to create **visual-thinking-based learning materials**.

The **innovative teacher** can be seen as a **"bricoleur" (*DIY-er* or *tinkerer* in English)** in the positive sense of the term, as described by **Philippe Meirieu** in *Le nouvel art d'apprendre* (*The New Art of Learning*):

> *"The question that constantly troubles the educator is how to give the learner the space they need to construct their own knowledge. To do this, the educator is ultimately left to their own devices and must 'bricoler."*

This concept of **bricolage** is also explored by **Claude Lévi-Strauss** in *La pensée sauvage* (*The Savage Mind*):

> *"The bricoleur is not an engineer; however, their work is far from insignificant. The difference between an engineer and a bricoleur is that the bricoleur works with pre-existing materials. They collect various objects over time, storing them in their workshop. Then, when they need to create something, they look at what they have—an old wheel, a wooden board, a rubber piece—and, using these existing elements, they build something new without having fully planned it in advance.*

The engineer, on the other hand, subordinates materials to their project: the project comes first, and the necessary materials are created afterward. In this regard, the bricoleur is a model of a highly cultured individual—perhaps even more so than the engineer—because their work relies on ***reusing and repurposing existing knowledge*** *to create something new."*

ES Spain (Madrid)

- **"Innovate in My Classroom" Project**: Teachers are invited to propose a project that allows them to experiment with **innovative activities** in a **safe environment**, aiming to improve their teaching practices. They work in pairs and keep a **reflective journal**. **Example:** How can we **motivate and engage teenagers**, while promoting **well-being and responsibility** in a French class? One proposed solution: **designing an entire lesson around sports and the invention of a new sport**.

PT Portugal (Madeira)

- **ELABORA Project – An Action Research Initiative**: A university professor introduces a **new pedagogical approach** and tests it with students. **Objective:** To integrate **AI in a different way**, as traditional knowledge acquisition methods are seen as **unsatisfactory in university contexts**. Instead of passively receiving knowledge, learners must **construct their understanding**. This approach emphasizes **dialogic knowledge-building**, where **interactions with AI interfaces** play a central role, fostering **active engagement and interaction**.

1.5 Determinants of Pedagogical Innovation

1.5.1 The Driving Force

The Different Driving Forces of Pedagogical Innovation

Several **key drivers** of pedagogical innovation challenge existing practices, encourage their evolution, and facilitate the implementation of transformative actions. These include:

- **The political, economic, and social context**, which directly influences a country's **educational landscape**.
- **Technological innovations**, as technological advancements often lead to pedagogical innovation. **Staying up to date with technology is essential**, as it is an integral part of today's learning environment.
- **Academic research and university training** (education sciences, didactics), which can **inspire, justify, or sometimes discredit** certain innovations.
- **Teachers' practical experience**, as they are the ones who **experiment, adapt, and implement innovations in real-world classrooms**.

Example: Innovation in Language Teaching

In **language learning**, different methodologies have emerged based on prevailing educational theories:

- **Behaviorism**: This theory, based on **positive and negative reinforcement**, inspired the **audio-oral method**, which became widespread in the **1940s in the United States**. The development of **language laboratories** later enabled the large-scale implementation of this method.
- However, in the **1970s, behaviorism was discredited** by linguists, as it relied on a **decontextualized approach** to language learning, focusing on structures rather than communication.
- **Today, socio-constructivism is the dominant approach** in language teaching. It encourages learners to **collaborate, exchange ideas, and interact**, fostering **active knowledge construction** rather than passive memorization.

1.5.2 The fuel

Sustaining Pedagogical Innovation Over Time

Pedagogical innovation **takes time to develop and solidify**. To ensure its long-term success, it requires **sustainable resources**, including:

- **A budget, equipment, and teaching materials** to support the implementation of new methods.
- **Competent individuals**, whose expertise and involvement drive innovation:
  - Through **training, support, recognition, and instructional design** (*pedagogical engineering*).
  - Through **creativity and motivation**, as the **key actors** behind innovation.

1.5.3 Notable Examples in the Erasmus Project Countries

Here are some significant examples of pedagogical innovations in the countries involved in the project.

FR France

- **Alternative Methods**: Approaches such as **Montessori and Freinet** are widely used in France. They emphasize **autonomy, self-directed learning, and individualized instruction**, providing children with a **prepared environment** and activities tailored to their developmental level.
- **Flipped Classroom**: This pedagogical approach **reverses the traditional teaching process** by providing students with learning materials (videos, readings, etc.) **at home** to acquire knowledge, while **class time is dedicated to practical activities, discussions, and exercises**.
- **Project-Based Learning**: An increasing number of schools in France adopt **project-based learning**, where students **work on interdisciplinary projects over an extended period**. This method allows them to **apply their knowledge in real-world contexts** while developing **cross-disciplinary skills**, such as **collaboration and problem-solving**.

DE Germany

- **Education for Sustainable Development**: With a strong focus on **environmental and social issues**, many German schools integrate **sustainability education** into their curriculum, emphasizing **eco-friendly practices, social responsibility, and global awareness**.
- **Work-Based Learning (Dual Education System)**: Some schools in Germany implement **experience-based learning approaches**, where students participate in **practical projects, internships, or work-integrated learning programs** to gain **real-world professional skills** while continuing their studies.

- **Intercultural Education**: Due to its growing cultural diversity, Germany places a strong emphasis on **intercultural education**, integrating programs that promote **cross-cultural understanding, respect for diversity, and intercultural dialogue** in schools.

RO Romania

- **Industry-Focused Vocational Training**: Romania is working to **modernize its vocational education system** by establishing **partnerships between schools and businesses**, providing students with **practical training and internships** to develop skills aligned with industry needs.
- **Integration of ICT in Education**: Romanian schools are increasingly incorporating **Information and Communication Technologies (ICT)** into teaching, using **online platforms, educational applications, and digital resources** to enhance **accessibility, engagement, and learning efficiency**.
- **Education for 21st-Century Skills**: Aware of modern labor market demands, Romania focuses on developing **21st-century skills** such as **critical thinking, creativity, collaboration, and communication** within its education system.

ES Spain

- **Bilingual Programs**: Spain has developed **bilingual education programs** in many regions, allowing students to take courses in **two languages** (typically Spanish and English). This fosters **early language acquisition** and enhances **international openness**.
- **Inclusive Education**: Spain is committed to **inclusive education**, ensuring that all students, including those with **special educational needs or disabilities**, receive appropriate support and learn in **inclusive environments**.
- **Service-Learning Programs**: Some schools in Spain integrate **service-learning programs**, where students participate in **volunteer projects** and activities that **benefit their local communities**. This fosters **active citizenship and social responsibility**.

IT Italy

- **Education for Sustainable Development**: Since 2022, the **Italian education system** has been actively engaged in **sustainability education**, in collaboration with the **Italian Alliance for Sustainable Development (ASviS)**. The **integration of sustainability themes** into **national education policies, curricula, student assessment, and teacher training** serves as a driving force for reflection and **pedagogical innovation**.
- **Active Language Learning Approaches**: Italy adopts **innovative methods** for teaching foreign languages, focusing on **interactive, communicative, and playful approaches** to facilitate language acquisition.
- **Outdoor Education and Biodiversity Conservation**: Outdoor education in Italy follows two key **innovative educational principles**:
  - **Place-Based Education**: Recognizes **open environments** as primary sources of **stimuli for authentic, individualized, and meaningful learning**.
  - **Experiential Learning**: Puts direct **emotional, sensory, and cognitive experience** at the heart of the learning process, emphasizing **learning by doing and reflecting**

in external environments. A notable example is the **Torre Flavia Marshland Special Protection Zone**, which serves as a model for this innovative approach.

- **Socio-Educational Inclusion for Students with Special Educational Needs**: Italian schools uphold **the principles of the Constitutional Charter**, ensuring **inclusive education** for all students.

PT Portugal

- **Education for Sustainable Development**: Portugal integrates **sustainability principles** into its **school curriculum**, focusing on **awareness of environmental, social, and economic issues**.
- **Project-Based Learning**: Portuguese schools increasingly adopt **project-based learning**, where students work on **multidisciplinary projects** in collaboration with peers and teachers. This approach fosters **engagement, creativity, and autonomy**.
- **Alternative Learning Spaces**: Some Portuguese schools explore **learning beyond the traditional classroom**, using **alternative spaces** such as **community gardens, museums, and educational centers** to enhance **experiential learning**..

1.6 Pedagogical Innovation: What Are the Goals?

Pedagogical innovation is a **process and an essential didactic approach** that leads teachers to **reflect on the need for action** to address a specific situation of **student failure or renewed ambition**. This approach is often **disruptive**, bringing about a **new relationship between the student and the teacher**, which can **enhance academic success**.

In this perspective, **pedagogical innovation takes on its full meaning**, as it provides **effective solutions** to improve learning outcomes and adapt teaching methods to students' evolving needs.

1.6.1 Meaning and Objectives of Pedagogical Innovation

If we consider teaching as a **constantly evolving process**, it becomes evident that **pedagogical innovation is an integral part of this transformation**. An innovative approach, based on **seeking possible solutions to meet the needs of a specific class**, is both **justified and valuable**—it can be seen as an **adaptation to learners' needs**.

As a result, pedagogical innovation **aims to address contemporary educational challenges** and **enhance the learning experience for students**. This approach is rooted in the idea that **education must evolve** to align with **learners' changing needs and societal developments**.

What Are the Objectives of Implementing Pedagogical Innovation?

Here are some key goals:

- **Developing Key Competencies**: Strengthening skills such as **collaboration, creativity, and critical thinking**, which are the foundation of a **high-quality education**.
- **Encouraging Self-Reflection and Self-Assessment**: Promoting a mindset of **personal reflection** that enables both teachers and students to **evaluate progress, identify areas for improvement, and measure success**.
- **Enhancing Collaboration Among Stakeholders**: Encouraging **teamwork** among students and teachers to **enrich collective learning and foster cooperation** in the educational process.
- **Improving the Quality of Teaching**: Providing teachers with **resources and professional development opportunities** to help them **experiment with and adopt new teaching practices**.
- **Enhancing the Teaching-Learning Process**: This can be done by **focusing on a specific aspect of education** or taking a **holistic approach** to improving **overall learning outcomes**.

1.6.2 - Benefits and Impacts of Pedagogical Innovation

Pedagogical innovation offers numerous benefits for **students, teachers, and educational systems**. Below are some of the **key advantages**, though this list is not exhaustive:

For Students:

- **Increased Engagement and Autonomy**: Improved access to **high-performance resources** that facilitate learning.
- **Personalized Learning**: Consideration of **individual learning needs and work pace**, as well as support for students with **specific learning requirements**.
- **Development of New Skills**: Encourages **critical thinking, creativity, and collaboration**.
- **Motivation in and Beyond the Classroom**: **Remote learning tools and collaborative platforms** foster **interaction beyond the school setting**.

For Teachers:

- **Professional Renewal**: **Training and exploration of new teaching practices** foster **continuous professional development** and expertise growth.
- **Peer Collaboration**: The **co-design of innovative solutions** encourages the **sharing of ideas and resources**, strengthening the educational community.
- **Pedagogical Efficiency**: Access to **diverse resources and collaborative networks** enhances teaching effectiveness.
- **Institutional Recognition**: Teachers who develop **new skills, knowledge, and expertise** may receive **certifications** and career advancement opportunities.

For Educational Systems (National or Regional):

- **Structural Evolution**: **Successful pedagogical innovations** can **inspire systemic changes**. Those that have been **tested and randomized** can be expanded beyond the pilot territories and **institutionalized through reforms or policy decisions** (e.g., changes in school schedules, level-based grouping, etc.).
- **Curriculum Adaptation**: Training content is **adjusted based on impact assessments** of innovative teaching practices with proven **positive effects**.
- **Institutional Recognition**: Schools and educational entities that **implement innovative practices** gain visibility and **recognition both internally and externally**.
- **Enhancing Inclusion and Differentiation**: Innovation helps **better address the needs of students with specific learning requirements**.

Beyond the Education Sector

The impact of pedagogical innovation extends **beyond students, teachers, and institutions**. When innovative teaching methods are implemented, **external stakeholders**—such as **local governments, businesses, parents, associations, and community organizations**—are often involved in the process.

The **success of these innovations**, especially in terms of **academic performance**, also helps **recognize and empower external partners** (parents, families, local communities, etc.). In this sense, **pedagogical innovation fosters collaboration and new commitments**.

Even when **disruptive**, pedagogical innovation allows **practitioners to become change agents**, promoting **thoughtful change** to improve, build, and advance education. This approach requires **open-mindedness, strategic vision, and a commitment to teamwork** in a **bi- or multi-directional manner**.

Most importantly, **fear of failure must not be a barrier**—successful innovation requires a willingness to take risks and **"think outside the box."**

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Part Two

Observing Pedagogical Innovation

2 Part Two – Observing Pedagogical Innovation

"Now that I know what Pedagogical innovation is ,
I can observe it to strengthen my understanding."

This section aims to **facilitate the observation of innovative practices** so that educators can better understand what **pedagogical innovation** truly entails. However, simply sitting at the back of a classroom and watching a lesson **is not enough** to grasp innovation. It is essential to first consider:

- **What is being observed?** (Identifying key observable elements and understanding how to observe them).
- **How to conduct the observation and from what perspective?** (Considering subjectivity and contextual factors).
- **How to characterize the observed practice to determine whether it qualifies as pedagogical innovation?**

This section will be divided into two main parts:

1. **The Method** – Defining **operational observation** within the framework of **action research**.
2. **Observation Tools** – Providing practical instruments for structured and effective observation.

2.1 Observation within the Framework of "Action Research"

2.1.1 Purpose and Associated Objectives

Action research is a **systematic approach** used by **researchers, educators, and practitioners** to **identify and address problems or observe situations within a specific context**. Also referred to as **"experimental research"** or **"intervention research,"** action research is a **widely used method** for collecting data in research projects. It is particularly well-suited for **observing pedagogical innovation**.

This research technique requires **staying connected to the field and real-world experiences**. The goal of this approach is to:

- **Identify needs or problems**
- **Characterize situations or processes** (e.g., pedagogical innovation)
- **Analyze findings and determine actions to take**

Action research is often applied to **topics related to social change, education, and pedagogy**. Its purpose is to develop **real solutions to concrete social challenges**.

This method is particularly effective for **observing innovative teaching practices**. However, its successful implementation requires **following specific steps and principles**.

2.1.2 Principles Related to the Method

Creating a Climate of Trust

Before implementing observation within an **action research** approach, it is essential to **establish a climate of trust and mutual respect** between the **observers and those being observed**, both **before, during, and after the observation**. This helps to **build confidence, facilitate exchanges, and encourage open dialogue and feedback**.

The goal is **not** to adopt the stance of an **inspector or hierarchical superior evaluating teaching practices**. Instead, observation should be seen as an **interpersonal exchange**, where all participants **benefit**—whether through **gathering information, collecting data, asking questions, or seeking explanations**.

Reciprocal **Transparency**

Transparency must work **both ways** in the observation process:

- **Clarifying the purpose of the observation**: It is crucial to explain to the observed individuals **what is being studied, what is expected, how the observation will be conducted, and what aspects will be analyzed**. This ensures that innovative practitioners understand the **focus and goals** of the study.
- **Considering what the observed participants want to showcase**: Those being observed should also have the opportunity to **highlight aspects they consider important**. This might **extend beyond the initial research focus**, guiding **new areas of inquiry** for the observers.

The Researcher's Commitment

Engaging in observation requires a **personal commitment** and **immersion in the field**. Researchers must maintain **constant reflexivity** regarding their **role, biases, and influence** on the observed context (Lapassade, 2006, p.25).

- **Balancing participation and distance**: The researcher must **find a delicate balance** between **involvement and detachment** to **grasp the internal logic of the field** while maintaining a **critical and objective perspective**. This **reflective practice** enriches the **interpretation of collected data** (Lapassade, 2023, p.42).
- **Observation as a dialogical process**: Ethnographic observation is **not just about collecting facts**; it requires researchers to **engage in a dynamic, reciprocal relationship with the field**. In this sense, **subjectivity becomes a valuable resource** for gaining a **holistic understanding** of the studied phenomena.

Research and Measuring Added Value

Action research is a practical approach that must always be **followed by evaluation and self-evaluation** of all participants. Anyone involved in the **issue being researched** or **affected by the outcomes of the action** should be included in the **research-action team**.

As **Marrow (1977, p.45)** states:

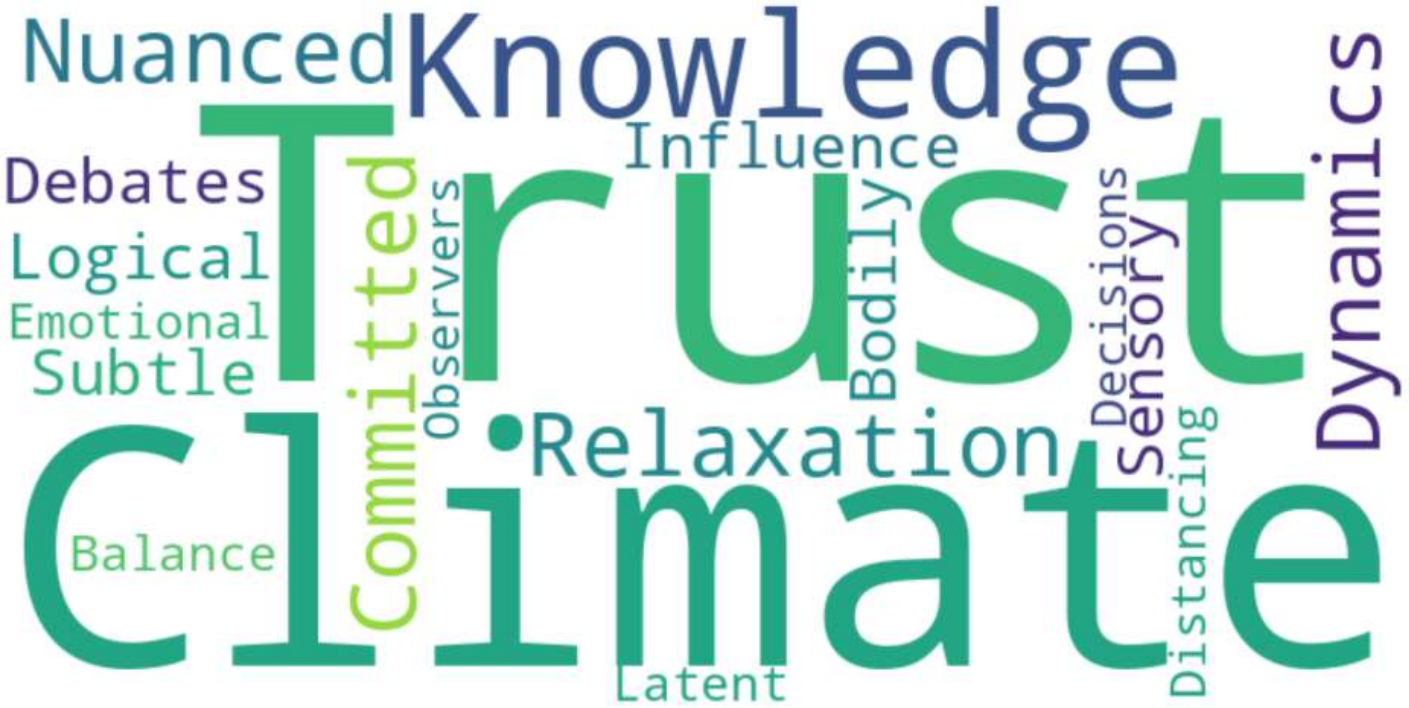
> *"External recommendations and advice, when disconnected from the changing context, risk causing insecurity, defensiveness, or rationalization. However, when suggestions emerge from a collaborative team, they are embraced by the community of practitioners and become motivating factors for change."*

In the case of the **IACLIP project** (*Support Engineering as a Lever for Pedagogical Innovation*), **action research is an ideal method** to **analyze long-term changes and their impact on educational systems**, both **before, during, and after** the implementation of **pedagogical innovations**.

Diagram 1 - Les étapes de l'innovation pédagogique à observer

1 Context	2 Intentions	3 Process	4 Transformations	5 Evaluation
The origin, initial values, the trigger	**Goals, objectives, modalities, support**	**Implementation and regulation**	**New pedagogical practices and professional development**	**Impacts and newly shared values**
Example questions for inquiry (non-exhaustive list)				
- What problems led to the pedagogical innovation? - What observations were made? - What diagnosis was established? - What triggering elements were identified?	- What new aspects have been introduced compared to the initial context? - What needs were identified? - What support is provided? - What expected effects are anticipated? - What is the phasing plan?	- What is changing? - How is the change occurring? - What is the engagement of teams and other stakeholders? - What are the unintended effects? - How is regulation managed?	- How is didactic construction being addressed? - What skill development is occurring? - What sustainable changes are taking place?	- What are the results? - What new values have emerged? - What modeling can be applied? - What is the potential for scaling and dissemination?

Diagram 2 – Key Words Characterizing the Principles



To conclude, an Action Research Plan Follows Four Fundamental Steps

1. **Formation of the Group**: A mixed team consisting of **trainers, teachers, educators, school leadership, and researchers** (an open team that can welcome new observers).

2. **Defining the Scope of Observation and the Working Methodology**:
   - Establishing the **data collection methods**.
   - Analyzing the data.
   - Formulating **hypotheses for action**.
   - Conducting **evaluation** and **further team development**.

3. **Observation Action**:
   - Developing the **general action plan**.
   - **Regulating and adjusting** the process.
   - **Evaluating** the outcomes.

4. **Data Analysis and Reflective Analysis of Action Research**:
   - **Processing and interpreting data**.
   - Producing **reports, conclusions, and analysis** of the observation practice.

2.2 Action Research Tools for Observation

2.2.1 Questioning Tools

There Are Various Tools for Conducting Observations in Action Research, But Regardless of the Tool Used, It Is Essential To:

- **Involve** from the very beginning the **key actors** of innovative pedagogical practices in the **action-research-pedagogy team**.
- **Proceed with transparency**, a **constructive mindset**, and an **inclusive and motivating approach** that embraces diversity.
- **Encourage open and relaxed participation and exchanges**.
- **Advance step by step** at the pace of the participants.
- **Continuously communicate** the results of discussions and observations.

Essential Considerations Before Conducting an Observation of an Innovative Pedagogical Practice:

Each observer (and visiting organization) should, before conducting any observation:

- **Understand the mechanisms and key principles of pedagogical innovation** (refer to prior sections).
- **Conduct a preliminary interview** with the innovative team to:
  - Gain **mutual clarity** on what will be observed and how.
  - Understand the **challenges and objectives** of the innovative practice.
  - Define the **operational aspects** of the observation in a way that does **not disrupt the usual flow and effects** of the practice.
  - Ensure that observation does **not excessively interfere** with interactions between teachers and students.
- **Plan a post-observation exchange session** with those being observed, to:
  - **Complement data collection and immediate analysis** with practitioners.
  - **Avoid judgmental feedback** on what was observed and discussed.
  - **Maintain a highly supportive and considerate** approach, ensuring the **well-being of participants** who contributed to the research.

The Heuristic Map

The **heuristic map** presents all observable elements **by domain** (as discussed and agreed upon by project members and validated by the scientific committee).

- These elements are **expressed as questions**, making them adaptable and customizable according to the **specific observation goals** of each participant.
- This map **serves as a guide** rather than a **strict checklist**, meaning that not every point must be "checked off".
- Each observer **can adapt the document** by adding or modifying elements **except for the six core domains**, which maintain the structure's coherence.

The Six Core Domains of the Heuristic Map:

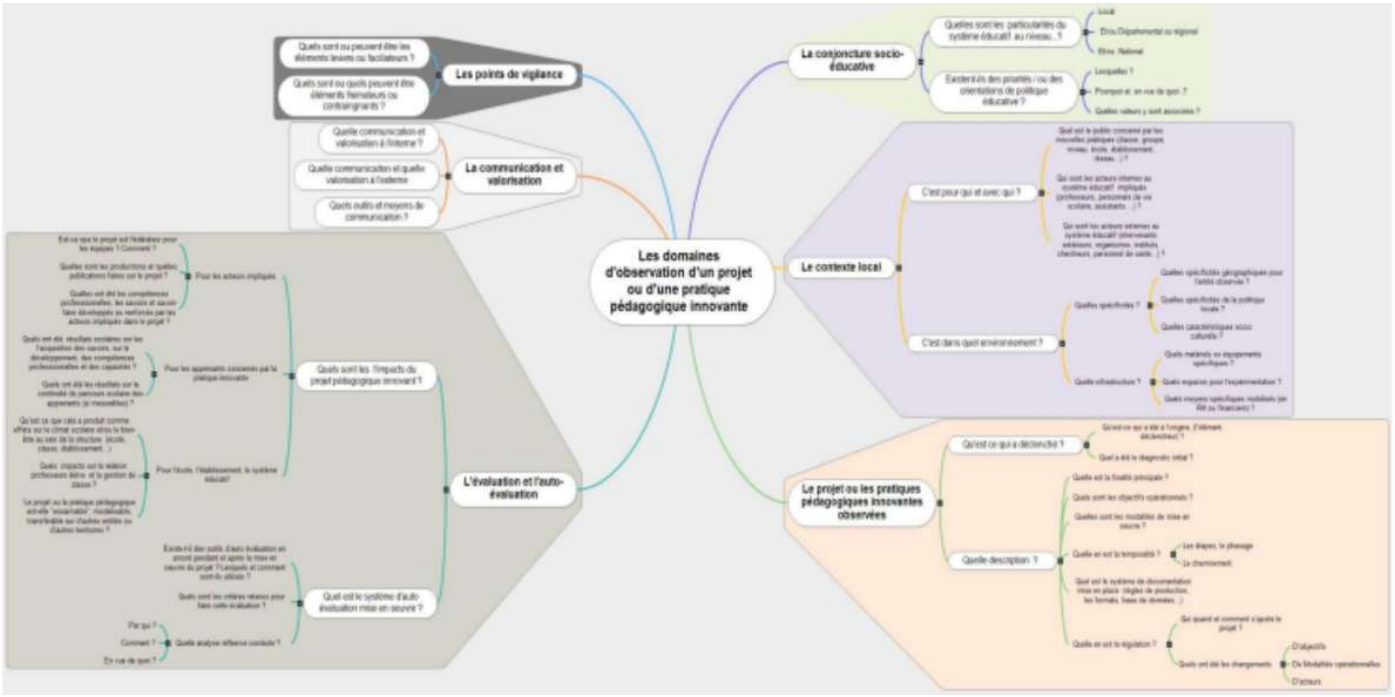
1. **The socio-educational context**
2. **The local context**
3. **The observed pedagogical project or practices**
4. **Evaluation and self-evaluation**
5. **Communication and valorization**
6. **Critical points to consider**

Analysis Methods Used in the Field

Field-based analyses rely on **multiple tools and methodologies**, including:

- **Qualitative methods** such as **interviews, observations, focus groups, and case studies**.
- **Quantitative methods** such as **surveys and questionnaires**.

These tools ensure **a comprehensive understanding** of **innovative pedagogical practices** while respecting the **authenticity of real-world educational settings**



Translator's note : This mind map having been designed in French, here is a summary in English.

Key Domains for Observing an Innovative Pedagogical Project or Practice

The heuristic map presents six key domains of observation for analyzing and understanding an innovative pedagogical project or practice. Each domain includes guiding questions to facilitate structured observation.

1. Socio-Educational Context

- Identifies specific characteristics of the educational system at local, regional, and national levels.
- Examines whether there are priorities or educational policies influencing innovation.
- Investigates the values associated with these policies.

2. Local Context

- Defines who the project is for and who is involved (teachers, students, institutions, communities, etc.).
- Analyzes how the project interacts with stakeholders, considering social, cultural, and political influences.
- Examines the physical, educational, and institutional environment in which the project operates.

3. The Project or Observed Pedagogical Practices

    - Investigates the triggers of the innovation:
        - What was the initial problem?
        - What needs or gaps were identified?
- What was the diagnostic process?
- Describes the project in detail:
- Objectives, methods, phases, operational modalities.
- Regulation and evaluation of the project.
- Observed changes and impacts on teaching and learning.

4. Evaluation and Self-Evaluation

- Analyzes the impacts of the innovation on:
  - Students, teachers, institutions, and the educational system.
  - Did it foster collaboration or engagement?
- Reviews evaluation mechanisms:
  - What self-evaluation system is in place?
  - How is feedback collected and used for improvement?

5. Communication and Valorization

- Examines internal and external communication strategies:
  - How is the project shared and promoted within the institution?
  - How is it communicated externally (other schools, policymakers, the public)?
  - What tools and media are used for dissemination?

6. Key Considerations and Challenges

- Identifies key enablers and barriers that influence the project's success.
- Evaluates potential constraints or risks.
- **Assesses scalability and sustainability:**
  - Can the innovation be adapted or expanded?
  - What challenges could arise during implementation or dissemination?

Conclusion

This heuristic map serves as a flexible guide for structuring the observation and analysis of innovative pedagogical practices. It encourages a holistic, multi-dimensional approach, ensuring that both contextual factors and practical impacts are taken into account.

2.2.2 Technical Sheets Associated with the Method

Here follows a series of technical sheets related to the method.

The "Focus Group" (Decker, Shawn, Riley, Siemer, 2012)

WHAT IS IT?

This is a **qualitative research method** that has been known since the **1920s**. It is currently very popular in **market research** and **social sciences**.

PROCESS

First, it is necessary to **identify a theme** to be explored with a **small group** (typically **6–10 individuals**) of **key stakeholders** involved in a specific case of **territorial pedagogical innovation** under examination.

It is very important to **select participants** who have **played or are playing a key role** in the **innovative pedagogical experience**.

Each group should be **relatively homogeneous** in terms of **interest and stakes** in the subject. (To include other stakeholders, **additional focus groups** should be organized.)

The **moderator** prepares a **list of guiding questions**, but not a **fixed questionnaire**. The focus group encourages **spontaneity and in-depth exploration** of a subject or phenomenon.

The session is usually **recorded and transcribed** for later **analysis and use in the research process** (it may sometimes be recorded on video).

Participants are actively involved in the implementation of innovative pedagogy within a specific territory, school, or educational network.

STRENGTHS

✓ **Quick to set up**

✓ **Low cost**

✓ **Face-to-face interaction**, allowing for **clarification of questions or misunderstandings**

✓ **Encourages deliberation and discussion** on key points

POINTS OF CAUTION

⚠ **Not suitable for generalizing** results to an entire population of stakeholders

⚠ **Can be misused** to give the impression of being **more comprehensive or conclusive than it actually is**

⚠ **Requires a skilled and knowledgeable moderator** to ensure meaningful discussion

The Nominal Group (Decker, Shawn, Riley, Siemer, 2012)

WHAT IS IT?

The **nominal group method** is a technique for **generating and ranking ideas** during a meeting or workshop.

It is called **"nominal"** because interactions between group members are **limited**—it is essentially a group **"in name only."**

This method is useful for **developing ideas** that will later be tested in **quantitative research.**

PROCESS

The **nominal group** is typically led by a **facilitator** and follows four steps:

- **Silent generation of ideas** (in response to a question) in **written form.**

- **Recording and presentation of ideas** (usually on flipcharts or mobile whiteboards).

- **Discussion of each idea** to clarify its meaning.

- **Voting process** to rank the ideas in order of priority.

Small groups of **5 to 9 people** are optimal, but it is possible to accommodate up to **12 participants.**

STRENGTHS

✓ **Easy to manage.**

✓ Works well even **among people who do not know each other** or **who have never worked together.**

✓ Gives **all participants an equal voice**, ensuring that no **single individual dominates** the discussion.

✓ Helps to **quickly identify key priorities** from the group's input.

POINTS OF CAUTION

⚠ May involve a **lack of agreement on which idea is the most effective.**

⚠ Should **not be used in situations where generating a broad range of ideas is the main goal**—it is best suited for **ranking and prioritizing** existing ideas.

Participant Observation (Ferrarotti, 2013, 2023, 2024; Levi-Strauss, 1958)

WHAT IS IT?

Participant observation is the process of **scientifically observing, reporting, and analyzing** what happens in an educational setting by **closely watching teachers, school leaders, inspectors, and students without interfering.**

The observer must be **integrated into the setting** to capture authentic interactions.

PROCESS

Fundamental Conditions:

- **OBJECTIVITY**: The observer must be **neutral and honest**, setting aside their own **beliefs, preferences, and biases.**

- **TOTALITY**: Observation should capture **the full picture** of **social life**, meaning all elements of **innovative pedagogical practices** should be observed, **described, recorded, and analyzed**. This includes **values, pedagogical culture, and interactions** between those involved.

- **SIGNIFICATION**: The goal is to understand the **most cultural aspects** of pedagogical practices, including the **values, norms, and motivations** behind them.

STRENGTHS

✓ The **best method** for observing **multicultural groups** and diverse environments with **cultural barriers.**

✓ Allows researchers to **capture and describe social processes, group dynamics, and the origins of innovation.**

✓ Helps collect **rich contextual data** about the **conditions that drive educational change.**

✓ A useful way to explore **sensitive or complex educational subjects**, often including **innovative pedagogies** responding to **new learning needs** or **special needs education.**

✓ **Encourages relationship-building** between observers and key educational figures.

POINTS OF CAUTION

⚠ **What behaviors or attitudes should be recorded and analyzed?**

⚠ **To what extent should observation be discreet or explicit?**

⚠ How much should be interpreted rather than simply observed?

⚠ How can we ensure that observed behavior is valid and meaningful?

⚠ What results and conclusions should be drawn from the collected data?

Ethnographic Interview (Georges Lapassade, 2006)

WHAT IS IT?

The **ethnographic interview** is a technique that requires:

- **Anchoring in the cultural and institutional context**: It is deeply embedded in the **specific context of the group being studied**. The researcher aims to understand **perspectives, meanings, and internal logic.**

- **Flexibility and co-construction**: Conducted **openly and flexibly**, allowing for the **exploration of emerging themes** and co-constructing dialogue with the interviewee.

- **Comprehension**: The goal is not merely **data collection** but **understanding meanings, values, and lived experiences** within their **context**.

- **Trust-based relationship**: An **empathetic and trusting relationship** must be established to foster **open dialogue in a safe space**.

- **Iterative nature**: The interview **occurs iteratively** as part of **fieldwork**, allowing the researcher to **immerse themselves** in the context.

PROCESS

Estimated Duration: Over 60 minutes :

- **Preparation**: The researcher familiarizes themselves with the **institutional and cultural context** of the studied group to **adapt their approach and questions**.

- **Preparation**: The researcher familiarizes themselves with the institutional and cultural context of the studied group to adapt their approach and questions.

- **Contact and trust-building**: Establishing empathy and trust by explaining the research objectives and ensuring confidentiality.

- **Conducting the interview**: A flexible, semi-structured conversation where the interviewee freely expresses themselves while the researcher guides the discussion and adjusts questions based on responses.

- **Progressive deepening**: The conversation evolves as new themes emerge.

- **Closing the interview**: Ensuring the interviewee has shared everything they wish to express.

During the interview :
- **Active observation** (verbal and non-verbal language, cultural context).
- **Active listening** (paying close attention to meanings, values, and experiences).
- **Reflective questioning** (open-ended questions to explore perspectives).

- **Notes and recording** (with the interviewee's consent).
- **Reflexivity and adjustment**: The researcher self-reflects and adjusts their approach as needed.

STRENGTHS

✓ **Provides deep insights** into participants' **perspectives, values, and lived experiences** within their **institutional context**.

✓ **Flexible and adaptive**: Allows researchers to explore **field-specific aspects** and **emerging themes**.

✓ **Builds trust and reciprocity**, fostering **authentic and in-depth expressions** from interviewees.

✓ **Rooted in cultural and institutional contexts**, enabling **better understanding of systemic dynamics**.

✓ Can be **effectively combined** with **participant observation** for a **holistic field study**.

POINTS OF CAUTION

⚠ **The researcher's close involvement** with participants **may introduce subjectivity** in conducting and interpreting interviews.

⚠ **Highly contextual and in-depth**, making it **difficult to generalize results** to other settings.

⚠ **Time-consuming**: Conducting, transcribing, and analyzing ethnographic interviews **requires significant resources**.

⚠ **Prolonged researcher presence** may **influence participants' behavior** and **disrupt natural institutional dynamics**.

⚠ **Establishing trust and gaining access** to interviewees can be **challenging**, particularly in **closed institutional settings**.

The World Café

WHAT IS IT?

The **World Café** is a **creative process** designed to **facilitate constructive dialogue** and **knowledge-sharing**, fostering a **network of exchanges and actions**.
This process **recreates the ambiance of a café**, where participants **debate a question or topic in small groups** around tables.

PROCESS

Estimated Duration: Variable, depending on the topics and objectives of discussion.

Facilitator Responsibilities:
- Collaborate with the **planning team** to define the **goal of the Café** and the **participants to invite**.
- **Set up a welcoming environment** where participants feel comfortable.
- Clearly **explain the purpose of the event**, the **discussion themes**, and ensure that **each table has a visible guiding question** (on a transparent board, flipchart, or cards).
- Outline **rules and logistics**, including the role of the **"Table Host"**, who remains at their table throughout the session to **welcome new participants**.
- Move from table to table during conversations, **encouraging participation** and reminding participants to take notes and summarize key ideas.
- **Signal transitions**, inviting participants to **switch tables** and begin a new round of discussions.
- Ensure **ideas are visually recorded**, either collected as notes or documented.
- Adapt the **guidelines and dynamics** of the Café to suit **specific needs and contexts**.

Working Group Responsibilities:
- **Engage in discussions** in small groups, reflecting on **guiding questions**.
- **Share ideas and results** at the end of the sharing session.
- Contribute to an **interactive exchange**, in a **relaxed and welcoming** atmosphere.
- Participate in **table discussions** by **building upon previous contributions** before moving to the next round.
- Identify **common principles and key takeaways** from multiple tables, which are then **shared with the full group**

STRENGTHS

✓ Encourages **friendly, open, and in-depth discussions** in an **informal setting**.
✓ Works well for **all participants**, stimulating **new ideas, projects, and improvements**.
✓ Supports **collaborative thinking** and the exchange of **good practices** and **innovative strategies**.

POINTS OF CAUTION

⚠ **Discussion topics or initiatives** should be **well-prepared in advance** to ensure effective exchange and avoid confusion.
⚠ **Managing group dynamics** is crucial to maintaining a **collaborative environment** and **preventing competition**.
⚠ The **time allocated to each table** must be **carefully planned** to allow **meaningful contributions** without rushing discussions.

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Part Three

The Factors of Pedagogical Innovation

3 Part Three – The Factors of Pedagogical Innovation

"The Factors of Pedagogical Innovation?
I identify factors or elements that influence
the emergence and success of innovation."

Identifying the Key Factors of Pedagogical Innovation

This section aims to identify the key factors of pedagogical innovation, particularly those observed in projects conducted during mobility and transnational exchanges.

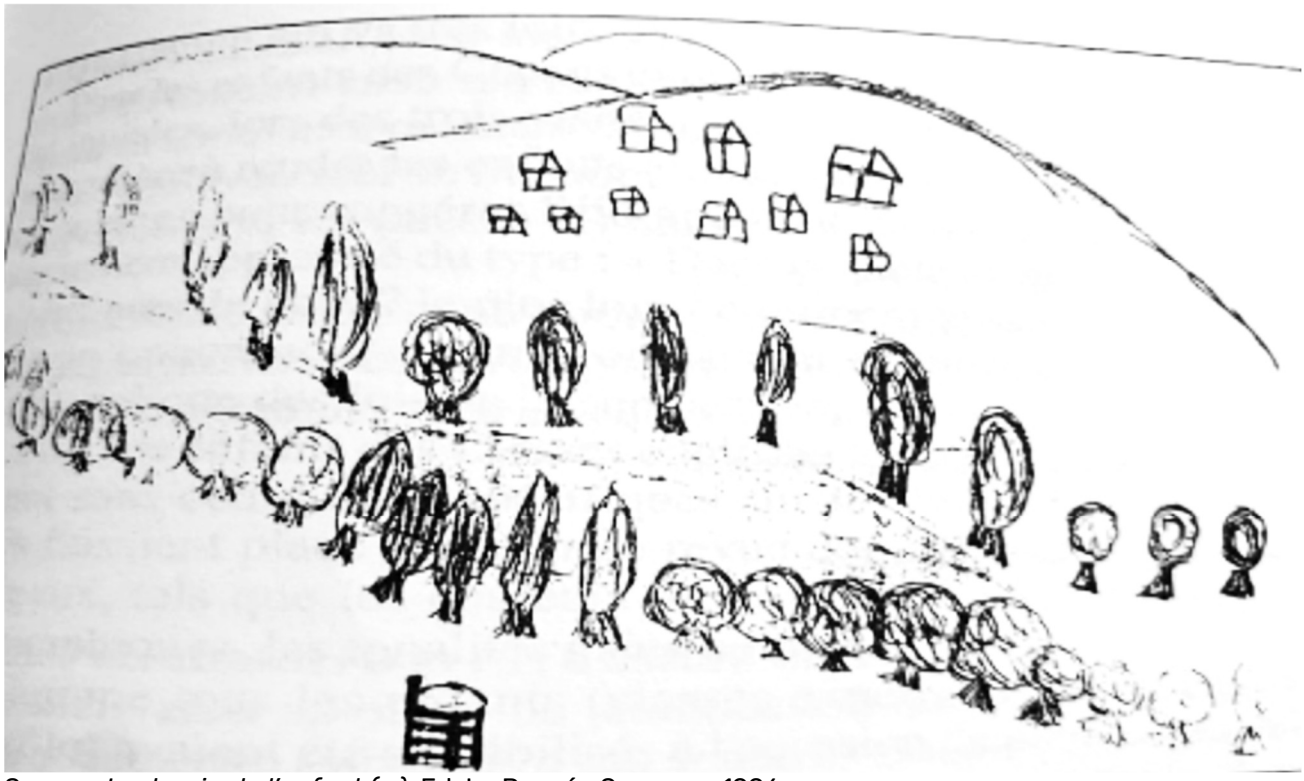
Doubt is often the starting point of pedagogical innovation—it triggers questioning about teaching practices, socio-economic needs, regional contexts, learning environments, and time management. Most importantly, it raises fundamental questions about the role and mission of educators and trainers. (See the "Reports of Astonishment" related to mobilities, available on the IACLIP website, and the heuristic observation map referenced in section 2.2.1.2.)

However, beyond the teaching act itself and the critical role of the teacher in the classroom, many additional factors support pedagogical innovation. New pedagogical methods (immersive, inclusive, integrative, participatory, etc.) also rely on adaptability and connectivity as key drivers.

Through this cooperation project, observers have identified three essential facilitators for the emergence and success of pedagogical innovation:

- Time
- Space
- Human Factors

3.1 The time factor



Source: *Le dessin de l'enfant (...)*, Ed. La Pensée Sauvage, 1996

3.1.1 The Past as a Unifying Element for the Future

3.1.1.1 The Country's Collective Memory (Folklore, History, Events...) as a Source of Pedagogical Innovation

Cultural identity has a significant impact on a nation's past, present, and future. Collective memory serves as a source of innovation, connecting the past, present, and future.

For example, in Romania, Transylvanian cultural identity—shaped by its resistance to foreign influences—is being rediscovered today through events and educational programs. Innovation leverages traditions as a starting point to reimagine the future, creating a continuity between historical heritage and modern technologies.

3.1.1.2 Histories, Narratives and the Interculturality of Nations

The **historical background** of each country, as well as shared histories between nations, provides a solid foundation for embracing pedagogical innovation—building on what is known to move forward and create new approaches.

Educational projects that **bridge disciplines**, **interconnect values and cultures** from different countries, and promote multilingualism enrich the learning experience and better prepare students for an open and complex world.

The implementation of **EU educational policies and practices** encourages the development of new cross-disciplinary skills, such as those related to sustainability, biodiversity conservation, and climate change mitigation (e.g., the European Green Deal and climate strategy). In this sense, cross-disciplinarity and multilingualism become key drivers of innovation.

Within this project (**6 countries and 9 organizations**), it has become evident that understanding each other's perspectives and languages is essential for fostering mutual comprehension and identifying the key success factors of pedagogical innovation. These cultural specificities are valuable assets, not only for their own countries but also as sources of inspiration and catalysts for innovation.

It is crucial to **recognize and understand** these aspects:

Country-Specific Perspectives on Pedagogical Innovation

DE Germany

- The term **"collective work"** is not used due to its **negative connotation** since the fall of the Berlin Wall. Instead, **"collaborative work"** is preferred.

PT Portugal

- The country has an **ambitious educational policy** focused on **making schools attractive** and **encouraging innovation** to **reduce inequalities**.
- Schools function as **community hubs**, staying open until **9 PM**, offering **free cultural and language activities** from an early age (**0 to 5 years**).

RO Romania

- In **rural schools**, communities **revive traditional and cultural practices**, **reinventing them with new meanings** or adapting them to **modern realities**.
- Example: **Playing musical instruments**, which once brought **community members together**, now **preserves tradition** while also **connecting students to the future**.
- **Radu Vancu**, poet, novelist, essayist, translator, and professor at **Lucian Blaga University of Sibiu**, actively promotes **poetry appreciation in school projects**.

IT Italy

- **Environmental education for sustainable development** has a long tradition in Italy.
- The **Italian Sustainable Development Education Observatory** is managed by **ASviS (Italian Alliance for Sustainable Development)** in collaboration with the **Le Mille e Una Notte social cooperative**.
- Since **2000**, the **Torre Flavia region** has led a project on **protecting Marsi e Torre Flavia**, covering **40 hectares with 499 species—the first protected area managed by children**.
- 2022 report on **SDG 4.7 from Agenda 2030**: Read more here.

ES Spain

- The **decentralization into 17 autonomous communities** allows for **customized educational policies**.
- **Multilingualism is a key priority**, aiming to **enhance the appeal of foreign languages**.
- A **biannual cross-category working group** (**inspectors, teachers from primary and secondary levels**) develops training programs that offer **bilingual and even trilingual pathways** to students.
- These programs:
  - **Encourage critical thinking**
  - **Improve understanding of complex issues**
  - **Promote recognition and respect for diverse ideas**, aligning with the principles of **Bruno Latour**: Read more here.

France:

- **Pedagogical innovation is a key element** of the **National Education system**.
- **Article 34 of the 2005 Education Law** grants the **right to experimentation** in schools.
- Full legal text available here.

3.1.2 The Timeline of the Innovative Project

An **innovative project** is primarily designed **for students**, aiming to **enhance their success by adopting new approaches**. In this sense, it is fundamentally **transformative for pedagogical practices**. However, this transformation **takes time**.

Observations of **innovative projects across different countries and institutions** reveal that every project inevitably goes through **phases of maturity**, where the **stakeholders, actions, tools, resources, and expected (or unintended) outcomes vary significantly**.

The **timeline of a project** is a **critical factor**. An innovative pedagogical project **cannot be decreed in a short time frame**; instead, it **unfolds over a longer process**, with a **clear progression through different phases**. *(See "Le parcours-guide pour innover" on **Éduscol, Ministry of National Education, Directorate-General for School Education*** Le parcours-guide pour innover | éduscol | Ministère de l'Education Nationale| Direction générale de l'enseignement scolaire *)*

Based on these frameworks, the **implementation of an innovative project** can be divided into **three major phases**

3.1.2.1 Focus on Addressing Immediate Needs

The **implementation of a project**, as an act that **analyzes, questions, and initiates movement in a different way**, depends on the **observation of needs** that has been conducted.

Initially, **identified needs** are often **individual and immediate**, making the **response relatively simple and quick**. Addressing **immediacy** in this context is **straightforward** in terms of response.

However, when **individual needs** are **grouped and categorized**, it becomes possible to create **"need-based groups"** or **"ability groups."** In such cases, the **response shifts from an individual to a collective level**, and immediacy can be **managed differently, over a longer timeframe within the innovation process**.

Indeed, new **pedagogical approaches** must respond to **collective needs** without **erasing or standardizing individual needs**. **Time must be allowed** for **pedagogical development** to unfold effectively.

3.1.2.2 Focus on Considering Emotions

It has been observed that the **emergence of an innovative project** is also linked to **another form of urgency**—that of **security and trust**.

Considering emotions and feelings among **all stakeholders** must happen **early in the project timeline**—not only **within the classroom** but also in interactions with **school administration, academic authorities, and local institutions**.

Emotional barriers must be **addressed quickly**, and a **climate of trust and mutual respect** must be established. This can be achieved through **training** and **team-building activities**, ensuring that **emotional involvement does not become a limiting factor** in the project's success.

3.1.3 Establishing Long-Term Sustainability
Pedagogical Innovation as a Long-Term Process

Pedagogical innovation is a **process** *(see phases of maturity)*, and its **success is observed over time**, with **different evaluation criteria at each stage**. The **elements analyzed** during the **ideation phase** are not the same as those assessed during the **design phase** or the **impact measurement phase**.

Additionally, **intended effects** can be **clearly identified and planned**, but **uncertainties remain** due to the **unpredictability and complexity of a project**. Unexpected **sudden or unplanned effects** may arise. Establishing innovation **over the long term** allows for a **better analysis of these effects**.

- **Sustainable transformation of teaching practices**:
  - Long-term changes in **teacher gestures, posture, didactic construction, and methodology** must be embedded into practice.
- **Effects on student success and academic performance**:
  - These are best measured **over extended periods**, demonstrating **knowledge retention** and **competency mastery**.
- **Impact on the local education system, partners, and the broader educational community**:
  - The **perception, belief, and confidence** in the **project and its teams** can only evolve **over time**.

Thus, it is essential to emphasize the **importance of continuous, long-term observation**, accompanied by **regular feedback mechanisms**.

The **"time factor"** is **key to both success and emergence**—as the saying goes, *"Time must be given time."* Every project **must go through all its phases of maturity** to achieve meaningful, lasting impact.

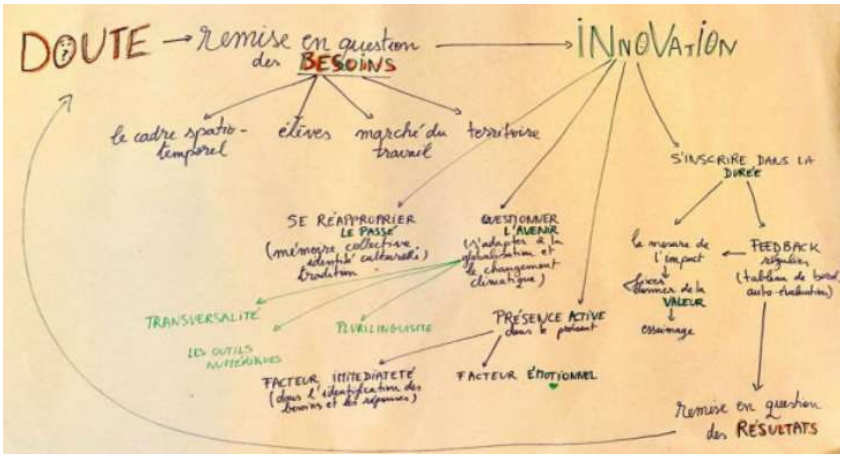
3.1.4 Summary Elements: The Impact of the Time Factor

Pedagogical innovation takes time and therefore relies on motivation, commitment, and the quality of relationships among stakeholders.

It is essential to create "bridges" and "dedicated spaces" that foster exchange, collaboration, and the sharing of best practices, as well as creativity at the local, national, and European levels.

Translators note :

This **mind map** (in French) illustrates the **link between doubt, questioning needs, and innovation**, emphasizing the **impact of time** in the innovation process.



Key Elements of the Diagram:

1. **DOUBT** → **Questioning Needs**
   - Needs arise from various **contexts**:
     - **Spatio-temporal framework**
     - **Students**
     - **Labor market**
     - **Territory**
2. **Questioning the future : Adapting to globalisation**
   - **Transversality**: Integration across disciplines.
   - **Multilingualism**: Encouraging diverse linguistic competencies.
   - **Digital Tools**: Leveraging technology for innovation.
3. **Pathways to Innovation**
   - **Reappropriating the Past**:
     - Using **collective memory, cultural heritage, and traditions** as a foundation for innovation.
   - **Questioning the Future**:
     - Anticipating **changes, advancements, and transformations** in education and society.
   - **Active Presence**:
     - Being engaged in the **present moment** to adapt to **immediate needs**.
     - **Immediacy Factor**: **Adapting quickly** to identified needs and student learning styles.
     - **Emotional Factor**: Recognizing the role of **emotions in learning and change**.
4. **Sustaining Innovation Over Time**
   - **Embedding change into long-term strategies.**
   - **Measuring and demonstrating value.**
   - **Providing continuous feedback** (e.g., assessment tools, self-evaluation).
   - **Re-evaluating results** and refining approaches accordingly.

Conclusion:
Doubt and the questioning of needs serve as the starting point for innovation, which is shaped by historical reappropriation, future foresight, and present engagement. The time factor is crucial, as innovation must be integrated, evaluated, and sustained for long-term impact.

3.2 The Space Factor

3.2.1 The Spatial Dimension of Interactions

3.2.1.1 The Contexts of European and National Spaces

Various **political, socio-economic, and demographic contexts** influence **national education policies**. For example:

- **Centralized national education systems** (e.g., **France, Romania, Portugal**).
- **Regionalized systems** where education is managed at the level of **Länder** or **autonomous communities** (e.g., **Germany, Spain**).
- **Hybrid systems** (e.g., **Italy**) combining **national education governance** with **strong school autonomy** at the **regional level**, influenced by **cultural, natural, and economic** factors.

Additionally, **certain national and European priorities** shape **educational choices and innovations**. Key focus areas include:

- **Sustainability and environmental education**,
- **Multilingualism**,
- **Inclusion and well-being**,
- **School climate and fundamental knowledge**.

Some examples country by country :

PT Portugal (Madeira)

- A **reflective approach to education** is emphasized, incorporating an **ethnographic perspective** on learning. Highly **innovative projects** are offered to students, such as the **Colorum Project**.

DE Germany (16 Länder) & ES Spain (17 Autonomous Communities)

- A **decentralized education policy** allows for **greater autonomy and differentiation** based on the **socio-economic context** of each **Land** or **community**.
- The **German education system** is particularly **open to collaboration** with **non-formal education actors**, such as **popular education initiatives and associations**.

RO Romania

- A **strong cultural identity** has been **reaffirmed over the past 35 years**, with **arts and sports** at the **core of educational projects**.
- **Extracurricular projects** in Romania, supported by the **National Education Law No. 1/2011**, aim to **complement formal education** by fostering **practical and social skills development**.
  🔗 More details here : https://resana.numerique.gouv.fr/public/document/consulter/20062739

3.2.1.2 Institutional Frameworks

The **regulatory framework** (laws, regulations, decrees, orders, circulars…) established by **governing bodies** with **decision-making power** (ministries, regional councils, supervisory organizations…) has a direct **impact on pedagogical innovation**.

Two Types of Examples:

FR France

- At the **national level**, a **Training and Innovation Office** operates within the **DGESCO** (Directorate-General for School Education). Additionally, **every academic region** has **CARDIEs** (Academic Centers for Research, Development, Innovation, and Experimentation).
- The **Council for National Renewal** (**Conseil National de la Refondation**) also drives pedagogical innovation through initiatives like *"Notre école, faisons-la ensemble."*
  🔗 Learn more.

RO Romania

- The **Ministry of Education** actively supports pedagogical innovation through various initiatives:
  - **Educația pentru secolul XXI** promotes **digital skills development**.
  - The **CRED program** trains teachers to use **modern teaching methods**.
    🔗 More details.
  - **Școala de Valori** fosters **non-formal education initiatives**.
    🔗 More details.
  - **Teach for Romania** supports **underprivileged schools** with educational programs.
    🔗 More details.

3.2.2 The "Local-Global" Dimension

3.2.2.1 Reinventing Space and Time

New **pedagogical practices** and **educational projects** can lead to the **redefinition or creation of new learning spaces**. Examples include:

- **New classroom layouts**,
- **Open spaces**,
- **Third places and incubators**,
- **Swimming pools, immersive learning environments**,
- **Theaters and outdoor learning spaces** (*"school beyond the classroom"*),
- **Murals and creative expression spaces**.

All these **newly designed or repurposed spaces**, adapted to **specific projects**, act as **catalysts for pedagogical innovation**.

Additional Considerations:

- **Online platforms** allow students to continue learning outside of school with **greater flexibility and autonomy**, enabling **new forms of collaborative projects**.
    - Example: Two classrooms from **different countries** can collaborate to create a **Vlog, Blog, or radio production**.
- **Collaborative spaces** are increasingly being used by schools, offering **open, flexible environments** where students can **work in groups**, fostering **less hierarchical and more cooperative learning**.
- **Expanding the project's scope** to include a **broader network of interactions** encourages **multilingual communication**, fostering **greater engagement and production**. Involving both **local and global stakeholders** helps a project gain visibility and momentum.
- **Emotional investment** from teams in **innovative approaches** must be **anticipated** to prevent **isolation or perceived lack of legitimacy**.

Examples Observed:

ES Spain (Madrid)

- The **Institut Français de Madrid** promotes **strong integration** between **cultural activities**, including **exhibitions, theater, media libraries, and libraries**.

PT Portugal (Madeira)

- **Schools function as community hubs, staying open until 9 PM**, allowing parents to be **fully engaged** in the learning environment.
- To **facilitate early education**, teachers travel between multiple schools to **offer all options** and **reduce the burden on parents**.
- **Innovative "Colorum" Project:** Focuses on **biodiversity** and the **use of cochineal-based dyes** to **recreate island insects at scale**, incorporating **numerous outdoor activities**.

FR France

- **Flexible classrooms in Lyon:**
  🔗 Label for Innovative Project – Learning Differently, but While Moving.
- **BEA (Bâti et Espace des Apprentissages) Unit:** Supports the **transformation of learning spaces** within Lyon's academic institutions. Led by the **Rectorate of Lyon and the French Institute of Education - ENS Lyon**.
  🔗 More on BEA.
- **Funding for new learning spaces within the NEFLE initiative:**
  🔗 Notre école, faisons-la ensemble.

RO Romania

- **Outdoor learning** is encouraged during the **national "Green Week" program**, also implemented at **Roșia School**.
- **Green Week is a national initiative** focused on **sustainability and environmental education**.
  🔗 More on Green Week.

IT Italy

- A **significant portion of school innovations** is coordinated by **INDIRE** (National Institute for Pedagogical Innovation and Research).
- INDIRE promotes:

  - **Flipped classrooms**
  - **Debate-based learning**
  - **Spaced learning**
  - **Scenario-based teaching**
  - **Self-directed learning and peer tutoring**
  - **Community learning**
  - **Outdoor schooling**
  - **Classroom 3.0**
  - **Biodiversity conservation education in ecosystems**

- **"Avanguardie Educative"**: A national initiative supporting **cutting-edge educational methodologies**.
  🔗 Learn more about Avanguardie Educative.

3.2.2.2 New Practices in These Spaces

Acting "on" and "within" space—rethinking how learning environments are used, such as through **project-based learning, digital tools, or outdoor education**—has a **positive impact on student success**. These approaches **enhance engagement, personalize learning, and develop essential transversal skills**:

✅ **Improved engagement**: Interactive and collaborative methods **capture students' attention more effectively**.
✅ **Personalized learning**: Digital tools allow for **content adaptation based on individual needs** and **self-paced progression**.
✅ **Development of transversal and psychosocial skills**: Encourages **critical thinking, problem-solving, and collaboration**, which are essential for long-term success.

New pedagogical practices **reshape the spatial and temporal aspects of learning**, such as:

FR France

- **Flipped Classroom by Jean-Charles Caillez**: Students **become the orchestrators** of learning, taking control of lessons while the teacher acts as a guide.
  🔗 More on flipped classrooms.

RO Romania

- **Multilingualism to prepare students for a globalized world**: European programs influence **pedagogical innovation** and help integrate **language learning into educational strategies**.
- **"Săptămâna Verde" (Green Week)**: A **national initiative** focused on **environmental education and pedagogical innovation**.

PT Portugal (Madeira)

- **Madeira's insular specificity** has driven **innovative projects** like **ELABORA**, which combats **isolation** and enhances the **value of local training programs** for students.

DE Germany (Berlin)

- **The Théalingua Method**: A **holistic, environment-focused approach to language learning**. This **fun and engaging method** makes learning more **interactive, human-centered, and teamwork-oriented**.

IT Italy

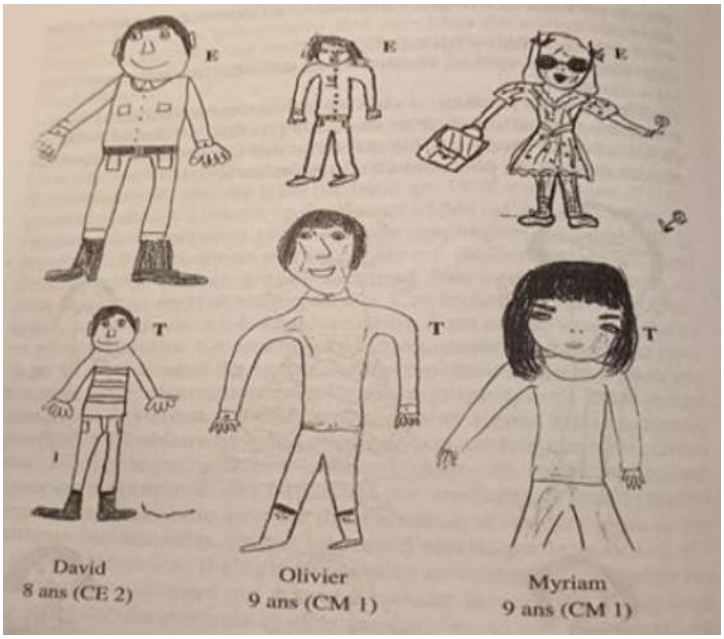
- **Outdoor Education ("Scuole all'aperto")**: Based on **two innovative educational principles**

that emphasize **learning in and through nature**.
🔗 Learn more about Outdoor Education.

3.2.3 Summary Elements: The Holistic Nature of the Space Factor

EUROPEAN AND NATIONAL CONTEXT	INSTITUTIONAL CONTEXT
• Influence of national education policies in FR France, RO Romania, and PT Portugal. • Decentralization in DE Germany and ES Spain. • Hybrid education system in IT Italy. • Cultural identity and arts in RO Romania.	• Support for innovation (CARDIE). • Teacher training. • Innovative methodologies. • Freedom to bring external contributors into schools. • Transforming schools into "living spaces." • "Innovate in the Classroom" program.
SPATIO-TEMPORAL FRAMEWORKS	**IMPACT ON PEDAGOGICAL PRACTICES**
• Expansion of educational spaces. • Removal of barriers between formal and informal spaces—flexible learning spaces. • Projects focused on sustainability and ecology (outdoor learning).	• Increased student engagement. • Interdisciplinary projects integrating multilingualism and sustainable development. • Development of project methodology and transversal skills. • Collaboration in global projects (Erasmus+).

3.3 The Human Factor: A Central and Subjective Dimension



Source *: Le dessin de l'enfant (...),* Ed. La pensée sauvage, 1996

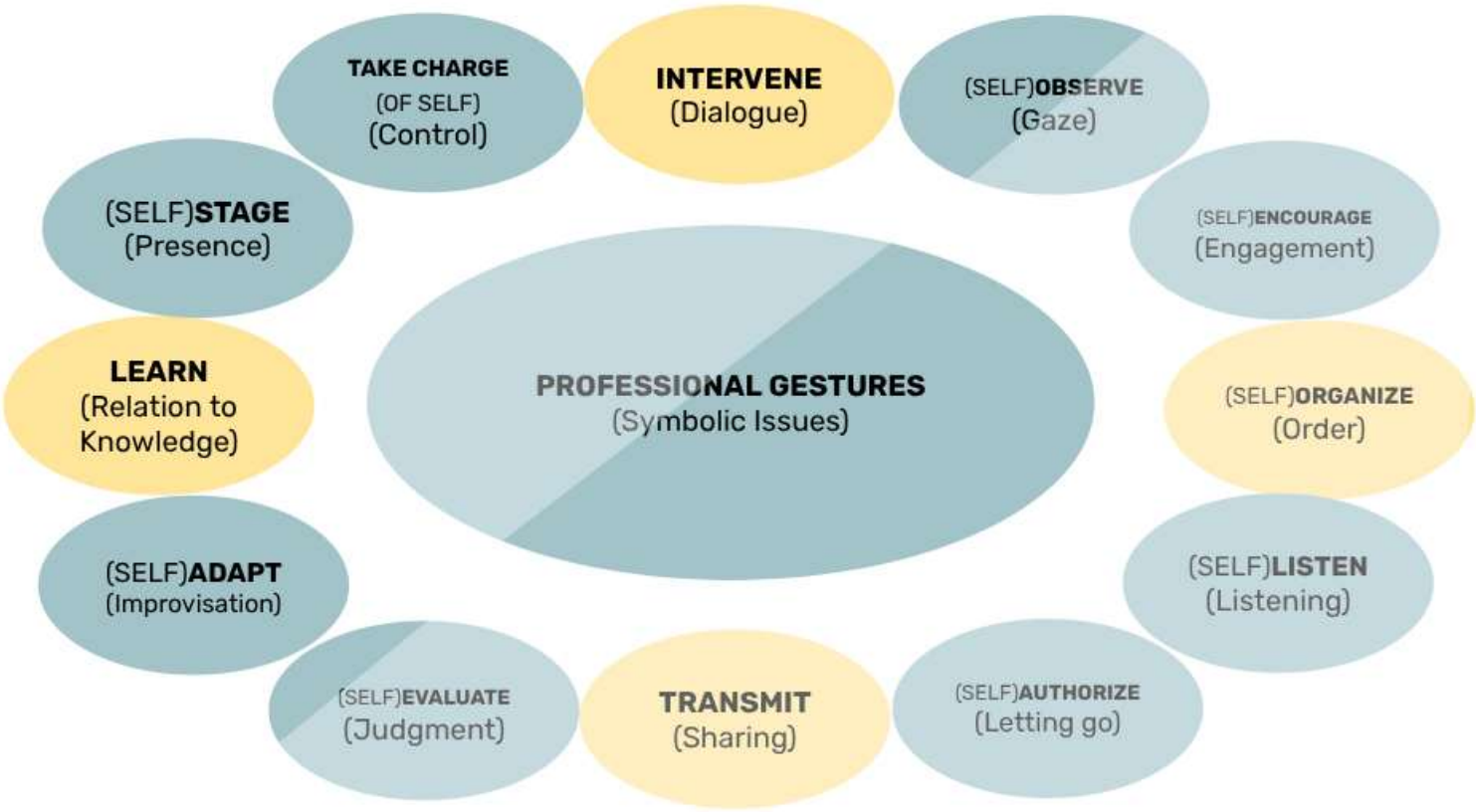
The initiative for an innovative project can emerge from any educational stakeholder— a passionate teacher, a visionary school leadership, or even students eager to change their learning environment.

3.3.1 The Body, Posture, and Gestures of the Teacher-Trainer

3.3.1.1 Professional Gestures and Postures

In occupational psychology, professional gestures are embedded in the expert trainer. They are implicit, unspoken, and therefore unconscious. The professional no longer consciously thinks about their gestures. The concept of professional gestures, as proposed by Alin (2014), is linked to the analysis of work practices.

The Matrix of 12 Professional Gestures by Alin C. (2014)



Letting go and giving learners freedom of action, daring not to control everything and trusting them, **(self-)authorize**

Defining a safe framework: trust, respect, ethics, and structure to work in a caring environment, **(self-)organize**

Practicing active listening and observation, **(self-)listen** and **(self-)observe**

Improvising: the unexpected is part of any training; daring to improvise and accepting it as a strength, **(self-)stage** and **(self-)adapt**

Being able to juggle between different roles:

- **Trainer**: conveys knowledge adapted to learners and the relevant project, **transmit** and **learn**
- **Facilitator**: offers a variety of materials or playful activities, energizes and leads sessions, asks questions, reformulates, verifies, and ensures proper group functioning, **(self-)train**
- **Regulator**: sets the framework, manages different types of behavior in a group, and organizes groups, **(self-)take charge**

3.3.1.2 Focus on the Trainer/Learner Trust Relationship

The **UNICEF International Commission** has launched a **school safety development program** called the **Comprehensive School Safety Framework**. This initiative focuses on implementing solutions to reduce stress, ensure inclusion, and maintain educational continuity. Link to the framework.

The **school safety framework** primarily aims for **global security**, establishing a **system and policies** equipped to address **physical, psychological, and environmental risks** associated with sustainable development. In this regard, **international educational communities** are encouraged to continue their efforts in this direction and work towards creating a **school climate conducive to student well-being**.

This concern is also a **top priority for the French Ministry of National Education**, which has introduced a **ministerial plan** for the safety of students, staff, and school institutions. Learn more about the plan.

Furthermore, students are expected to become active participants in **citizenship education** and **school safety**. More details on citizenship and safety education.

The Role of the Teacher in Creating a Trusting Learning Environment

Within the **intimate space of the classroom**, teachers are expected to adopt a **posture that fosters student confidence**. This is an **essential prerequisite**, as students can only develop **trust in their teacher** if they first feel secure.

A teacher's role extends beyond instruction—it involves being a **responsible adult and a role model in society**, embodying values essential for **building a harmonious future together**.

European Initiatives Supporting School Safety and Well-being

Several **European programs** work towards ensuring **student safety, well-being, and inclusion**:

- **WHO Mental Health Program**: Focuses on supporting students' mental well-being. (WHO Europe)
- **Safer Internet Program (EU Initiative)**: Ensures digital safety and emotional well-being in online environments. (Better Internet for Kids)
- **Whole School Approach (Council of Europe)** & **European Child Guarantee Initiative**: These projects aim to **guarantee access to quality education** in a **safe and inclusive** learning environment.

Examples of School Safety and Well-being Projects in Europe

- **The CREAL Center's Shared Safety Framework**, which is integrated at the start of every workshop.
- **Erasmus+ PACTE Project (Share, Learn, Understand for Ecological Transition)**, fostering sustainability in education. (PACTE Project Details).

3.3.2 Considering Emotions

3.3.2.1 Knowing Oneself Better to Successfully Innovate

For an **innovative project** to have a greater chance of success, it is essential that **teachers know their students well**, but even more importantly, that they **know themselves**. This **introspective approach** is absolutely necessary. While **evaluation methods** in educational systems (such as **PPCR** and **career reviews**) contribute to this process, they are **not sufficient** on their own. Teachers need **specific tools** to develop **self-awareness**.

Professional development programs addressing this issue can help, but so can the **implementation of dedicated times and spaces** that promote well-being. For instance, **teachers' relaxation areas** are increasingly designed to offer moments of **pause and reset** during the workday—such as **micro-naps during lunch breaks**.

Additional Tools for Self-Awareness & Well-being:

- **Human Design**: A personal development tool for self-discovery.
- **Meditation and self-hypnosis** for emotional regulation.
- **Sophrology (or breathwork)** to reduce stress.
- **Sports and creative activities** for relaxation and focus.
- **Personality and values tests**, as well as **bullet journaling** or **journaling**, to encourage self-reflection.

3.3.2.2 Better Managing Individual and Collective Emotions

In the field of **innovation**, even more than in **traditional practices**, it is essential to consider the **emotional well-being of students**. **Psychosocial skills** must be integrated into **innovative projects**—both for **students and teachers**.

For more details on **developing psychosocial skills in students**, refer to: 🔗 Developing Psychosocial Skills in Students.

FR France

- **Fighting bullying**: The PHARE program is dedicated to combating school bullying: PHARE - Fighting School Bullying.
- **Developing empathy**: A pedagogical kit has been designed to introduce empathy sessions in schools, helping teachers become facilitators of **well-being**, beyond their role as **knowledge transmitters** (Meunier, 2017).

RO Romania

- **Emotional management in tutoring hours**: In Romania, **tutoring sessions** emphasize emotional management for students.
- **"The Good Deeds Pancake" project**: This initiative creates a space for students to **reflect on positive actions**, reinforcing their **emotional well-being**. Encouraging students to recognize good deeds—either their own or others'—helps develop positive emotions such as **gratitude, joy, and empathy**, fostering a **positive classroom atmosphere** and strengthening **group belonging**.

ES Spain (Madrid)

- **Tracking emotional skills in teacher training**:
  - Claudia Messina, a **scientific committee member at the Autonomous University of Madrid**, has introduced an **innovative system for tracking and assessing the emotional skills** of future teachers during internships.
  - **An emotional journal** allows students to document the **challenges they face**, helping them **monitor emotions** and **manage stress**.
  - This creates **a supportive space** for **interaction, guidance, and mentoring**, fostering a **positive and constructive educational environment**.

DE Germany (Berlin)

- **Thealingua workshops**:
  - **Movement, emotions, and relationships** are integrated into learning, helping students **develop personal skills** like **self-confidence and well-being**.
  - **Theatrical productions** provide students with a **strong sense of group belonging**, creating a **positive and stimulating learning environment**.

IT Italy

- **Inclusion and Special Educational Needs (SEN) policy**:
  - **Italian schools** follow the principles of the **Italian Constitutional Charter**: Read the Constitution (French Version).
  - The **Ministerial Directive of December 27, 2012**, introduced the **BES (Special Educational Needs) framework**, grouping students into three main categories:
    - **Students with psycho-physical disabilities** (e.g., **autism, Down syndrome**).
    - **Students with specific learning difficulties** (e.g., **dysgraphia, dyslexia, ADHD** - DSA).
    - **Students with social, economic, cultural, or linguistic disadvantages**.

3.3.3 Relationships Between Educational Stakeholders

3.3.3.1 Uniting Stakeholders Around the Innovative Project

Throughout the **pedagogical innovation process**, interactions between stakeholders are **crucial** to achieving the **desired outcomes**. A **collective commitment** is essential. Stepping out of one's comfort zone, accepting **new practices**, and shifting perspectives require **active listening** and **openness** to others.

In a **collaborative group**, every stakeholder must find their **place** and be able to contribute their **skills and expertise** to benefit the **innovative team**. **Educational alliances** are **necessary**, and it is **essential to avoid** the **"free-rider problem."**

> **The Free-Rider Theory** suggests that any **collective system** inevitably leads to **parasitic behaviors**, where some **individuals or groups** seek to **benefit from advantages** without contributing **to the effort or cost**.

Observations show that **innovative projects** engage **diverse stakeholders**, and their interactions can either **drive** or **hinder** the innovation. Understanding these **interactions** is **key**, but it is also important to **develop strategies** to **mitigate or prevent obstacles** when they arise.

Examples of Interaction Strategies:

PT Portugal (Madeira)

- **Colorum Project**: An **educational alliance** involving the **university** (departments of **entomology, biology, and chemistry**), the **high school** (teachers of **art, chemistry, and drawing**), the **museum**, and **city authorities**.

FR France

- **3PM Excellence Project**: An **educational alliance** between the **high school, businesses, associations, local authorities, and the regional education authority (rectorat)**.

3.3.3.2 Taking The Learner Into Account

Personalized or Differentiated Teaching

It is essential to **adapt teaching** to the **individual needs of students**, considering **their learning rhythms and styles** to enhance engagement and success (Leclercq, 2016).

The goal is to create a **tailor-made educational experience** that values the uniqueness of each learner.

Collaborative Learning and Critical Thinking

Collaborative learning **encourages students to develop critical thinking and problem-solving skills** by working in groups, fostering the ability to **argue and accept diverse opinions**.

It also **strengthens social bonds**, creating an **inclusive and motivating learning environment** (Bélisle, 2018).

Examples:

FR France

- **Archiclasse Webinar**: Emphasizing the **importance of body posture in learning**, particularly in **visual arts**, featuring testimony from **David Cohen**, digital resources and services mediator at **Canopé 06 (Nice)**.

PT Portugal (Madeira)

- A **disruptive approach** to **pedagogical innovation**, using a **pedagogy of deconstruction and resistance**, positioning students at the **center of the learning process**.

- The **Elabora and Colorum projects** apply **the flipped classroom pedagogy**.

DE Germany (Berlin)

- **Thealingua Method** (previously mentioned):
    - **Dynamic learning** through **role-playing games**.
    - **Emotional management** techniques.
    - **Active student learning** through **theater, forums, miming exercises, improvisation games, and literature exploration**.

ES Spain (Madrid)

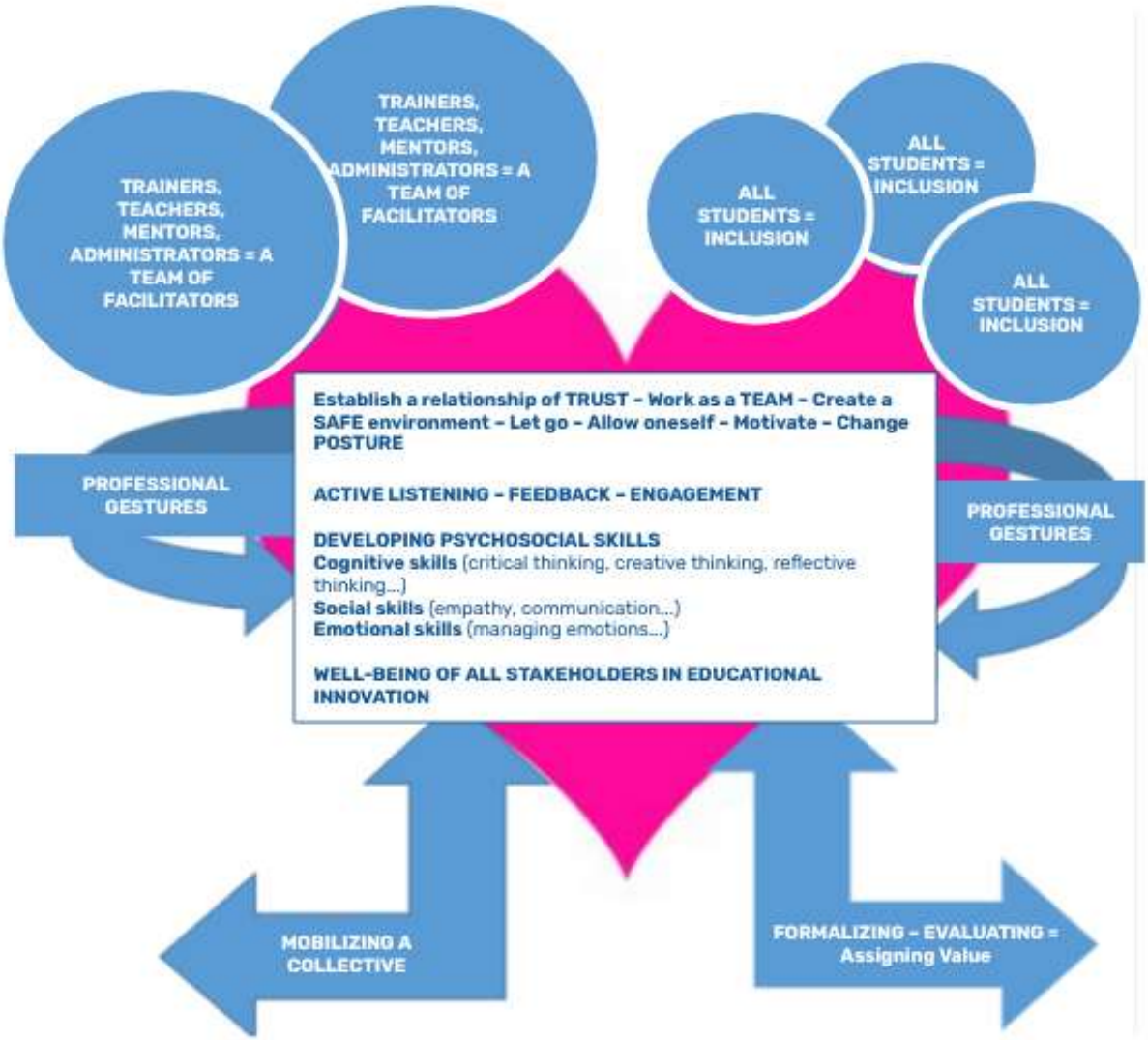
- **Emotional Journal** for **student teachers** during **classroom internships**, implemented at the **Autonomous University of Madrid**.

IT Italy

- **Development of Individualized Educational Projects (PEI)** that **address specific needs** through:
    - **Oral methods** (storytelling, podcast creation, etc.).
    - **Visualization techniques** (with or without ICT tools).
    - **Artistic approaches** (improvisational theater).
    - **Outdoor education and nature-based learning**.

3.3.4 Summary Elements

The Human Factor: A Central and Subjective Dimension



The lack of motivation among teachers, caused by a lack of recognition, the absence of a network among innovative teachers, and insufficient space for relationship-building, acts as a barrier. Teachers who engage in pedagogical innovation often feel that their efforts go unrecognized. There are few formal mechanisms to "reward" pedagogical innovation. The success of innovation also depends on the ability of institutions to acknowledge and value this commitment.

Technology is evolving very rapidly.

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Part Four

The Stakeholders of Pedagogical Innovation

4 Part Four – The Stakeholders of Pedagogical Innovation

"Finally, I can clearly identify the individuals or entities that implement or facilitate it."

This section aims to identify the key players in innovation by examining their general typology as well as the national specificities of their interactions.

Pedagogical innovation relies on a complex network of actors with complementary and interdependent roles. These actors operate at different levels, from the most local (the teacher in their classroom with their students) to the most institutional (such as policymakers and international organizations). While this general typology of actors is common to most educational systems, the nature of their interactions and the influence of each level vary significantly from one country to another, shaping the way pedagogical innovation emerges and develops.

4.1 A Common Typology of the Actors Involved

Regardless of the educational system, country, or organization, and regardless of the context or the innovative pedagogical project, observations conducted in different countries clearly show the presence of recurring and permanent actors. Across all systems, we consistently find:

- **Learners**, in all their forms—students, schoolchildren, high school students, apprentices, adults in career transition, university students, in initial or continuing education. They are the target audience for whom and with whom innovation is implemented. Their level of involvement is not limited to merely following or "undergoing" innovation; they are also key players in innovative practices.

- **The teacher** (trainer, professor, facilitator) in their classroom (or with their group). Teachers are often the driving force behind pedagogical innovation, whether spontaneous or requested. They maintain continuous and direct interaction with learners, testing, adapting, facilitating, delivering, correcting, regulating, ensuring, and assessing the implementation of new practices, either individually or as part of a team.

- **Educational teams and innovative entities** (schools, institutions, training organizations, universities…). Under the coordination of a project leader, hierarchical supervisor, or designated referent, educational teams play a crucial role in supporting, disseminating, and implementing innovative initiatives at the local level. They form the collective framework surrounding innovation.

- **Training and research units** (universities, training centers, and educational research laboratories) contribute to reflection, provide resources, develop experimental and assessment protocols, and publish shareable results.

- **Decision-makers** (inspectors, school administrators, department heads, tutors, mentors…) and other **institutional actors** (ministers, rectors, advisors, delegates, directors) are involved in initiating, deciding, guiding, funding, and setting the regulatory and institutional framework for innovation.

- **Associated partners** such as businesses, professional sectors, chambers of commerce, unions, organizations, as well as families and parents of learners, are often stakeholders in pedagogical innovation (for example, in third-place learning spaces, educational vacation programs, or workshops led by external contributors).

- **National (state, government) and supranational (European) institutional levels** shape national educational strategies through policies and legislative actions.

4.2 Territorial Specificities in Interactions with Identified Actors

While this common typology is widely accepted, the influence and impact of these actors vary significantly depending on the context. The very nature of interactions differs, as does the level of involvement from one country or organization to another. Various contextual factors influence the success and emergence of innovation. As a result, the degree of engagement of each actor varies. Here are a few examples:

IT Italy:

- Innovative projects often emerge from collaborations between schools, universities, and cultural actors, with a strong emphasis on integrating students into their socio-cultural environment.

ES Spain:

- A more decentralized governance allows regions to experiment and develop their own pedagogical approaches, closely linked to local contexts while adhering to national guidelines.

DE Germany:

- The federal system makes the **Länder** key players, where synergies between educational institutions and local businesses foster innovations aligned with economic needs.

PT Portugal:

- Initiatives such as those in the Madeira region demonstrate strong local support for teachers, combined with an openness to European collaborations.

FR France:

- The central role of the state gives significant importance to ministerial decisions but sometimes limits the autonomy of schools and teachers in pedagogical experimentation. However, individual initiatives remain possible, notably through the law allowing exemptions in school environments.

RO Romania:

- While pedagogical innovation is expanding, limited resources and disparities between rural and urban areas pose challenges that require specific innovative approaches.

It is clear that while the actors remain largely the same, their level of engagement differs—whether it is voluntary or influenced by the actions of other stakeholders.

Furthermore, depending on the country or organization, engagement does not occur at the same stage of a project. The involvement of different stakeholders varies according to the project's maturity phase. Some actors will be present throughout the entire process (such as teachers/trainers or students), while others will enter and exit at different points (such as funders, initiators, or experimenters).

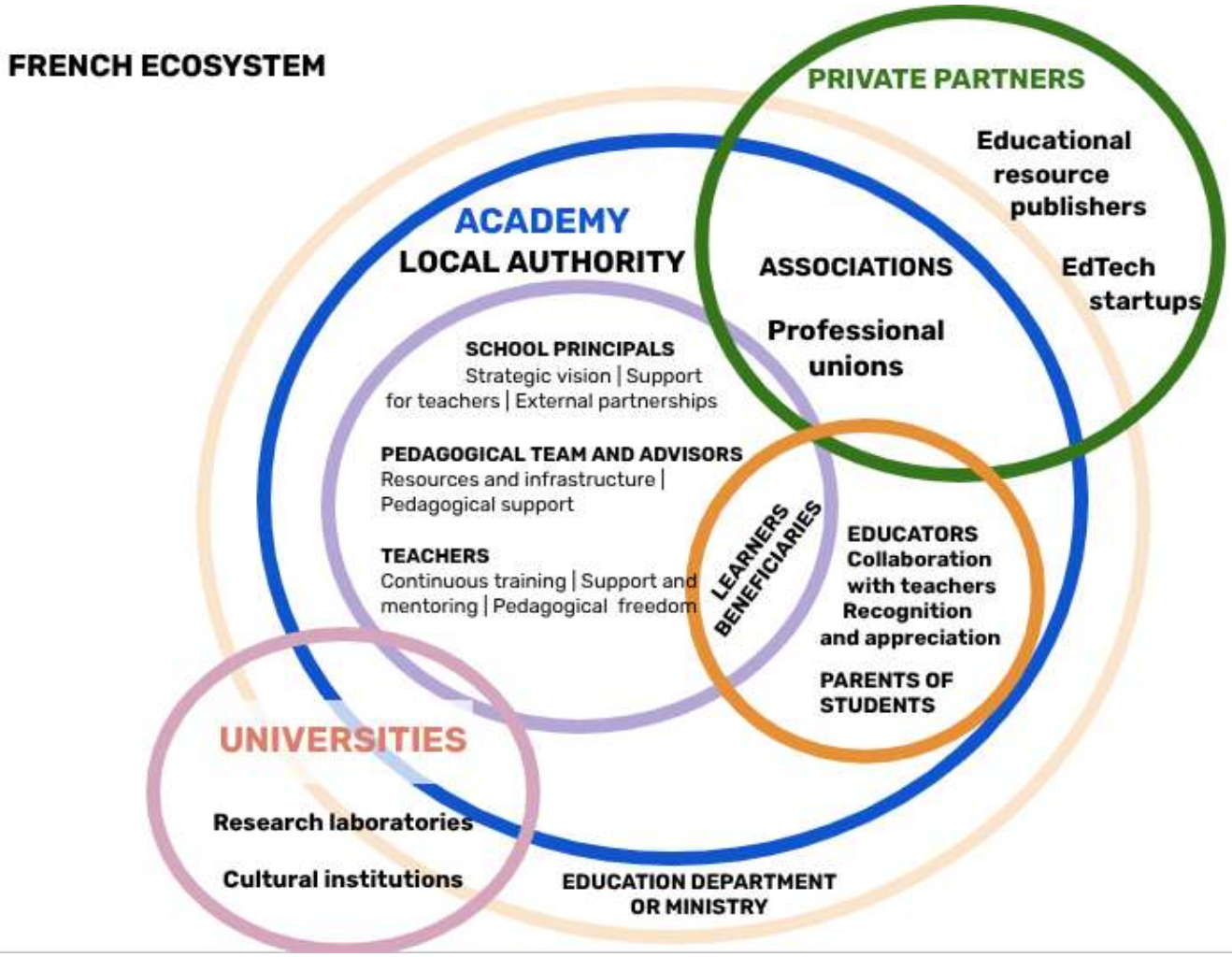
It is therefore crucial to:

- Understand the interactions between members of this community.
- Assess the "influencing power" of each actor to identify those who will have the greatest impact on the pedagogical project.

This also implies that, for any given pedagogical project, it is essential to establish collaborative working methods in advance to serve the project's objectives.

4.2.1 Attempt to Schematise Certain Systems or Projects

4.2.1.1 Focus on the Ecosystem in France



4.2.1.2 Focus on the Ecosystem of the Colorum Project, Madeira

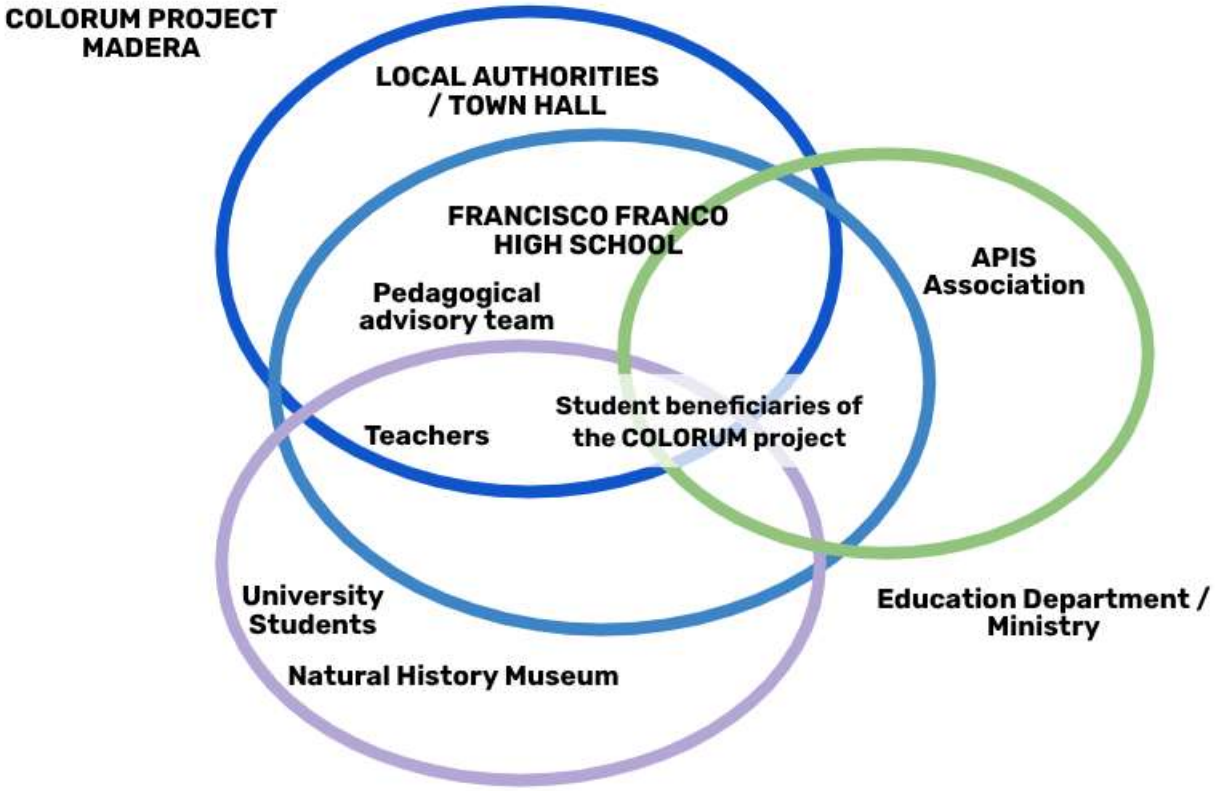
The **Colorum Project** was initiated in response to the need to preserve insects on the island of **Madeira** and to raise public awareness of this issue. The island, rich in biodiversity, is home to a variety of unique invertebrates that play a crucial role in the local ecosystem. Preserving these species is essential for maintaining ecological balance. The **cochineal**, at the heart of the project, is a representative insect of Madeira's insular fauna. This project is essential as it addresses a concrete need.

Several stakeholders are involved, including **Francisco Franco Secondary School in Funchal, the Funchal Natural History Museum, the City Hall, the Autonomous University of Madeira, and the APIS Association**. Each phase of the project involves interactions:

- **Research Phase in Physics**
  - High school students, under the supervision of their teachers, focus on studying the properties of the dye, exploring stabilization techniques.
- **Collaboration Phase with the University**
  - Students develop effective methods for stabilizing the dye while working closely with university students in **applied arts**.
  - These university students contribute their expertise in artistic techniques and design, helping the high school students create **artworks** showcasing the island's biodiversity.
- **Funding and Support Phase**
  - The **City Hall of Funchal** supports the project financially, allowing for the purchase of necessary materials for experiments and artistic creations.
  - The **principal of Francisco Franco High School** plays a key role in supporting **pedagogical innovation**, by granting teachers **freedom** in their methods and facilitating **logistical aspects** (funding, materials, space).
- **Project Promotion Phase**
  - **Final exhibition**, press conference, and presentation at the **Natural History Museum** featuring student-created artworks.
  - These artworks not only showcase the **creativity of young artists** but also highlight the **importance of science in artistic processes**.

This project exemplifies a **specific and effective network** tailored to the local system, demonstrating strong collaboration between different entities. This type of approach can serve as a **model** for other educational projects seeking to integrate **modern and relevant learning methods**.

If we were to visualize it schematically, the representation could be as follows:


COLORUM PROJECT
MADERA
LOCAL AUTHORITIES
/ TOWN HALL
FRANCISCO FRANCO
HIGH SCHOOL
Pedagogical
advisory team
APIS
Association
Teachers
Student beneficiaries of
the COLORUM project
University
Students
Natural History Museum
Education Department /
Ministry

4.2.1.3 Focus on the Ecosystem Related to the 3PME Project, France

The *Troisième Prépa Métiers* (3PME) class is designed for voluntary students who wish to explore and discover various professions to shape their career and academic paths. This program addresses several identified needs within the educational and social context of students at the *Lycée Polyvalent Sermenaz* in Rillieux-la-Pape.

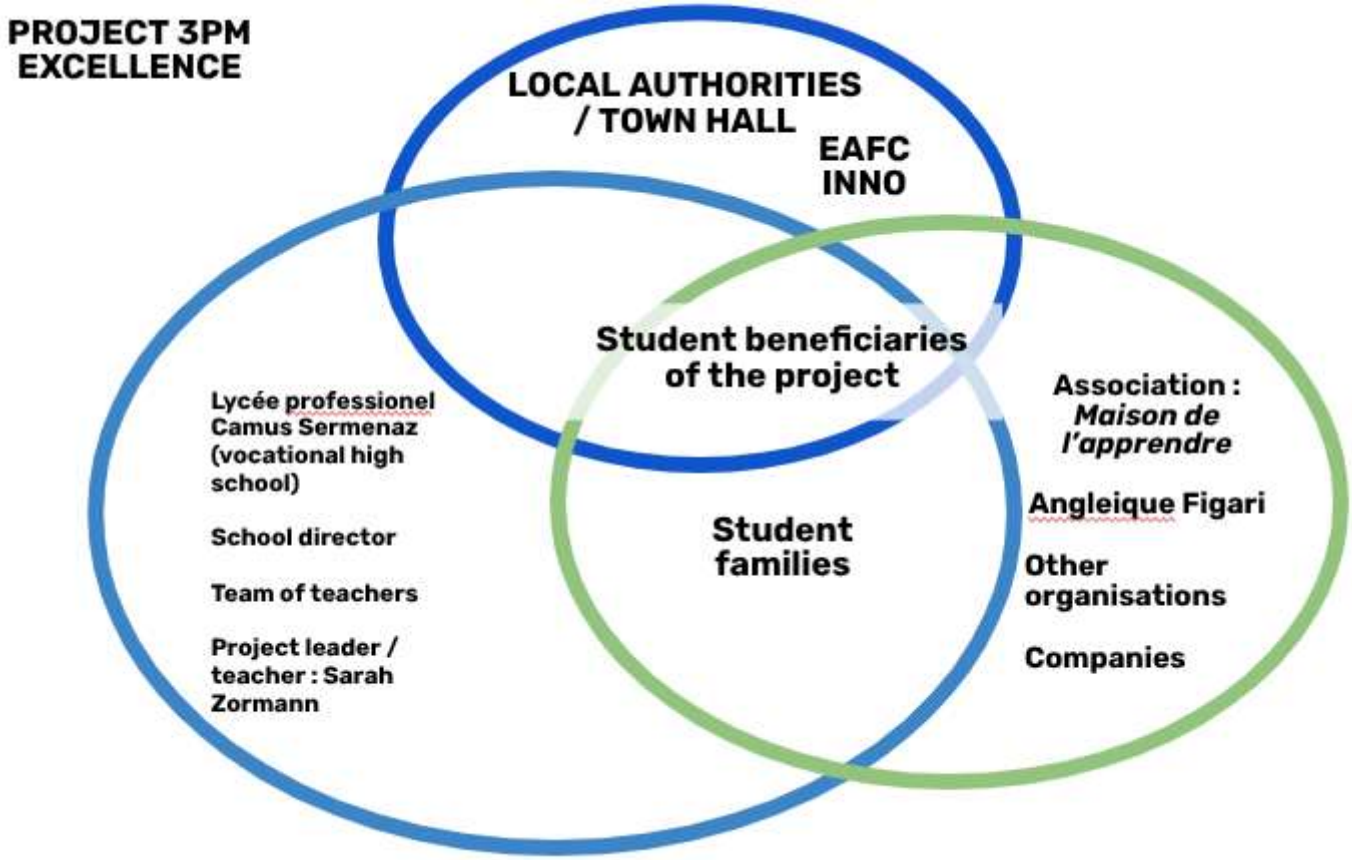
It aims to foster school perseverance while focusing on:

- Career guidance for young students,
- Professional skills development,
- Orientation processes and career exploration,
- A functional network of resourceful actors.



STUDENT ENGAGEMENT IMPROVEMENT	TEACHER SKILL ENHANCEMENT	BUILDING STRONG PARTNERSHIPS	FAMILY ENGAGEMENT	PROJECT EVALUATION AND ADJUSTMENT
Actors	Teachers, *Maison de l'Apprendre*	*Maison de l'Apprendre*, trainers	Companies, local authorities, associations	Educational team, *Maison de l'Apprendre*
Actions	Innovative teaching methods and adapted modules (students showed better engagement, reduced incivility)	Teacher support, project management training (improved teaching posture, ability to manage challenging classes)	Creation of a student support network, access to internships, hands-on professional experiences	Active family participation in events and activities, school-home connection, fostering a climate of trust and student engagement

THE DIAGRAM OF INTERACTIONS



4.3 Impact of Stakeholders on Innovative Projects

Stakeholders in pedagogical innovation play a crucial role in the development, implementation, and success of innovative projects. They shape and influence pedagogical approaches. Their interaction and commitment can significantly impact the success of innovative projects. Below are some of the key ways in which stakeholders affect pedagogical innovation:

4.3.1 Teachers and Trainers

- **Adoption and adaptation of teaching practices:** Teachers are at the core of pedagogical innovation. Their willingness to adopt new teaching methods, such as educational technologies or student-centered approaches, can influence the success of an innovative project. Their openness to training and experimenting with new pedagogical practices allows real-time testing and adjustment of these innovations.
- **Creation of innovative content:** Teachers actively contribute to the development of teaching materials, digital resources, and pedagogical content adapted to students' needs. Their classroom expertise enables the design of tools that effectively address educational challenges.

4.3.2 Students and Learners

- **Feedback and evaluation of innovation:** Students are the primary beneficiaries of pedagogical innovation. Their feedback—collected through surveys, interviews, or informal discussions—is crucial in assessing the effectiveness of innovative projects. They directly influence the evolution of pedagogical practices.
- **Adoption of new methods:** Students' motivation and receptiveness to new teaching approaches, such as online or collaborative learning, play a key role in the success of innovations. A lack of engagement or resistance to change can hinder the adoption of new methods.

4.3.3 Researchers and Academics

- **Development of pedagogical models:** Educational researchers create theories and pedagogical models that can be applied to innovative projects. Their expertise in pedagogy, learning psychology, or social sciences helps develop evidence-based approaches.
- **Evaluation and research:** Researchers frequently assess the impact of pedagogical innovations by measuring the effectiveness of these projects on student performance and skill development. They play a crucial role in the continuous improvement of teaching practices.

4.3.4 Businesses and EdTech Startups

- **Educational technologies:** EdTech companies provide digital tools, online learning platforms, data analysis software, and skill assessment systems. Their ability to design user-friendly and effective tools can significantly transform classroom teaching practices.
- **Collaboration with schools and teachers:** EdTech companies often partner with schools to test their products and gather feedback. This enables them to refine their tools according to real-world needs and promote broader adoption.

4.3.5 Institutions and Policymakers

- **Funding and structural support:** Governments, education ministries, and regulatory bodies play a key role in funding and promoting innovative projects. They can facilitate educational policies (e.g., by introducing funding mechanisms for pilot projects or reforming curricula).
- **Setting standards and regulations:** Institutions define educational norms and standards. Their support for pedagogical innovations, such as establishing frameworks for educational technologies or alternative teaching methods, can be a decisive factor in the adoption of these projects.

4.3.6 Parents and the Educational Community

- **Support and involvement:** The engagement of parents and the local community in educational projects can influence the success of innovations. Parents, in particular, can support their children by fostering a positive attitude toward pedagogical innovation and encouraging active participation.
- **Communication and ownership:** Effective communication between schools, teachers, and parents is essential for the successful adoption of new teaching methods. Parents can provide valuable feedback on how innovations impact their children's development.

Conclusion

In summary, stakeholders in pedagogical innovation are essential for the success of educational projects. Their commitment, collaboration, and continuous feedback shape the development, implementation, and impact of these initiatives. Therefore, it is necessary to foster... *(Translator's note : The original paragraph stops suddenly in this way.)*

4.4 Webographie

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Part Five

Innovation engineering

5. Part Five – Innovation Engineering

"I am potentially an actor and wish to get involved
in the pedagogical innovation process,
either alone or with a team.
What is the innovative approach, and how do I enter it?"

This section aims to explain to readers what constitutes an innovative project approach to better position their role and entry (whether alone or within a team) into the process.

5.1 The Approach to Innovation Engineering

Pedagogical innovation engineering can be defined as a systematic and structured process aimed at designing, developing, implementing, and evaluating innovative educational practices. It *"does not merely rely on the means it is given, proposed, or even imposed, but rather becomes a source of creativity, inventiveness, and innovation—in short, it demonstrates ingenuity (ingenium) to explore new paths and provide relevant responses to actors within their context"* (Ardouin, 2011, p.159).

Several key points structure pedagogical innovation engineering:

- **Innovation as an Iterative and Regulated Transformation Process:** Pedagogical innovation should be seen as an iterative process of transformation. The objectives must be adapted to the specific context in which innovation unfolds.
- **Regulation as a Core Component:** Regulation is a fundamental aspect of this approach. It allows for the continuous adjustment of projects based on feedback and observations made throughout the process. Regulation should be understood as a reflective act where actors regularly assess the impact of implemented innovations.
- **A Cyclical and Flexible Development Process:** The transformation process occurs iteratively through cycles of development, promoting flexibility and agility while aiming for continuous improvement.
- **The Role of Targeted Observation:** Observation can be integrated at any stage of the process. It helps draw inspiration from existing practices, identify strengths, and pinpoint areas for improvement. This reality-based approach ensures that pedagogical innovation remains relevant and meets learners' needs, guiding project development.
- **A Collaborative and Participatory Approach:** Successful innovation relies on collective work. Dedicated time is needed for all stakeholders to contribute, share ideas, take ownership of changes, and clarify objectives. The coherence between ideas and actions emerges through ongoing and structured dialogue, taking into account different perspectives.

- **Support and Guidance Throughout the Innovation Process:**
  - Support can be provided throughout the entire innovation process or during critical transition phases. It helps navigate different project stages and ensures that objectives remain on track while encouraging teamwork.
  - It provides assistance in managing the human relationships inherent in the transformation process.
  - It relies on methodological tools such as project-based approaches, which serve as key levers for developing pedagogical innovation.
  - It contributes to the team's efforts by bringing ideas and concepts to life, translating them into real, structured, and thoughtful actions.

This structured yet adaptable approach ensures that pedagogical innovation remains dynamic, collaborative, and focused on real educational needs.

5.2 The Steps of This Approach

5.2.3 Needs and Context Analysis

This is a crucial first step in pedagogical innovation engineering. It involves an in-depth analysis of the needs, resources, and constraints of a specific context, allowing for a precise assessment before considering and implementing concrete actions. This step is called the initial diagnosis and consists of the following elements:

- **Identifying Needs:** Understanding the expectations and challenges of learners, teachers, and other stakeholders.
- **Assessing Available Resources:** Analyzing the human, material, and financial means at disposal.
- **Identifying Constraints:** Detecting potential obstacles to implementation.
- **Clarifying the Issues:** Highlighting the pedagogical, institutional, and societal challenges related to the project.

This includes:

- **Informed Decision-Making:** A rigorous diagnosis helps guide strategic and operational choices based on objective data.
- **Alignment of Actions:** Ensuring that the planned actions effectively address the identified needs, thereby increasing the project's relevance.
- **Engaging Stakeholders:** Involving different actors from the beginning promotes commitment and participation, which are essential to the project's success.
- **Anticipating Challenges:** Identifying constraints allows for the planning of solutions and minimizing risks of dysfunction.

The approach consists of **three key phases**:

1. **Data Collection:** Gathering information through observations, surveys, and interviews.
2. **Data Synthesis and Analysis:** Identifying strengths and limitations within the given context.
3. **Formulating Recommendations:** Developing strategic suggestions in the form of project intentions.

These intentions serve as the foundation for project development. By investing time in this process, the likelihood of a successful and well-adapted project increases significantly.

Ressources : - SWOT Analysis - Mind Map : Needs and Context Analysis

5.2.4 Designing and Structuring Innovation

Based on the identified needs and contextual elements, the innovation project can be developed in terms of expectations, objectives, scenario planning, action plans, and evaluation. The data from the analysis will be compared with the aspirations, expectations, desires, and experiences of the innovation initiator. This process will help "bring forth an inventory of possibilities" (Boutinet, 2010, p. 71). A selection will then be made to define the project's goals, which will guide the overall direction of the innovation and determine the key areas of focus. These goals are initially formulated to establish intentions and give meaning to the action:

- As an innovation initiator, what do I want to implement?
- For what purpose?

However, it will be necessary to define both general objectives and operational objectives:

- What are the expected results or outcomes of the innovation?

For example:

- A teacher defines learning objectives. - A school principal establishes strategic goals.

Once the objectives are set, the innovation can be further refined and structured by specifying contextual, material, and organizational aspects:

- The target audience for the innovation
- Partners or other stakeholders involved
- The timeframe for the project, actions, and implementation phases (adjustments and regulation)
- The available or planned space
- Required resources and materials
- The action plan
- Activities to be carried out by both the initiator and the participants
- The nature and criteria of evaluation in relation to the objectives *(see section C)*

The choice of scenario is subject to a dual negotiation between:

1. The intentions and aspirations of the initiator (and other involved actors)
2. The constraints of the field (institutional, professional, administrative, etc.)

Furthermore, to anticipate real-world challenges during the implementation and management of the innovation, it is wise to reflect on potential difficulties or obstacles that may arise and consider alternative solutions. Resources: - Outils de guidance pour la construction d'un projet

5.2.5 Implementation and Management of Innovation

"In every project, there is a paradoxical tension between the simplicity of design and the complexity of execution." (Boutinet, 2010, p. 74)

Once an innovation project is designed, it must be implemented, which requires constant adjustments. The practical application of the project involves managing the gap between what was planned (the concept, the initiator's vision of the innovation) and the reality of the field, with its uncertainties, unexpected challenges, and obstacles to overcome.

If the gap between the expected and the actual becomes too significant, adjustments may be necessary. This can be done in two ways:

- Modifying the designed project to make it more realistic.
- Reorienting the practice to maintain alignment with the original theoretical concept.

Managing real-world elements of practice requires project leadership, ensuring that the objectives and roadmap remain in focus, even if they need to evolve based on the context. As Boutinet (2010) suggests, every project is a journey through space and time, marked by ideas to develop, detours, crises, and transitions.

Having a well-structured innovation plan, including operational, contextual, material, and organizational aspects, allows for necessary adjustments while staying focused on the objectives and goals (see Section 5.2.5).

However, a project also generates a "meta-project" (surjet), meaning that it requires building connections, linking actors, and creating bridges (Boutinet, 2010, p. 57). Every project is a collaborative process shaped by the subjectivities of those involved. Successfully implementing the project requires cooperation and sometimes negotiation with stakeholders, a process that begins as early as the project design phase.

5.2.6 Evaluating Innovation

Evaluation is an essential process for measuring the effectiveness and impact of the implemented actions. It aims to gather insights into how the project unfolds and determine whether the set objectives have been met.

Objectives of the Evaluation Process:

- Measuring effectiveness → Assess whether the expected results were achieved and to what extent.
- Identifying strengths and weaknesses → Create a review that highlights successes and identifies areas for improvement.
- Providing recommendations → Suggest adjustments to optimize future actions.
- Accountability and reporting → Inform stakeholders (colleagues, administration, students) about the project's results and impacts to facilitate its recognition, resource production, and scalability.

Evaluation must assess both the project's process and its outcomes to enable necessary regulation and continuous improvement. Clear and measurable criteria should be defined based on the project's general and operational objectives.

The evaluation framework, including:

- Evaluation criteria,
- Data collection methods (tools and responsible persons), and
- Timing of assessments,

should be established during the project design phase to guide its development.

Qualitative and quantitative data can be collected through various methods:

- Statistics collection
- Questionnaires
- Interviews
- Analysis of student work

These data points are then compared with the initial diagnosis and among themselves over time. Discrepancies are analyzed to adjust the project for continuous improvement and refinement.

A positive evaluation highlights the project's successes, which in turn boosts motivation among teams and students.

Resources: - Exemple de grille d'évaluation d'un projet

5.2.7 Scaling and Promoting Innovation

The scaling and promotion of innovation are essential steps in the process of pedagogical innovation engineering. This process is not limited to the mere implementation of new educational practices, but also extends to the dissemination and recognition of these innovations within the educational community and beyond.

The goal of scaling innovation is to :

- Inspire other stakeholders → Share successes and lessons learned to encourage other education professionals to adopt similar approaches.
- Communicate social value → Highlight the social benefits of innovation, both for students and the community, by showcasing its positive impact on learning and personal development.
- Promote the process itself → Recognize and celebrate the innovation journey, demonstrating how a thoughtful and collaborative approach can lead to significant outcomes.

Strategies for Effective Scaling

To ensure successful scaling, several strategies can be implemented:

- Building networks → Establish connections between schools, teachers, and stakeholders to share experiences and resources.
- Organizing events → Host workshops, conferences, or open days to showcase the innovations and their results.
- Documentation and knowledge-sharing → Develop reports, case studies, or practical guides that detail the processes, challenges, and successes, facilitating adoption by others.
- Leveraging social media → Use digital platforms to widely disseminate information about the innovation, ensuring easy access to resources and testimonials.

Impact of Promoting Innovation

The promotion of innovation has a direct influence on several key areas:

- Stakeholder engagement → Effective communication about achieved results can strengthen the engagement of parents, students, and education personnel.
- Professional development → Teachers can benefit from continuous training opportunities based on shared innovations, supporting their ongoing professional growth.
- A culture of innovation → By highlighting successful initiatives, institutions foster an environment that encourages experimentation and continuous improvement.
- Attracting resources (human and financial) → The recognition of innovation can attract additional resources, whether in the form of experts, trainers, funding, or partnerships, which supports the continuous development of innovative projects.

Resources and examples:

AVANGUARDIE EDUCATIVE

Exemple de création des réseaux d'écoles « Avanguardie educative »
https://innovazione.indire.it/avanguardieeducative/

"Avanguardie Educative" is an action-research project initiated by Indire, aimed at exploring strategies for the dissemination and systematization of innovation, open to all Italian schools since 2014. Its mission is to rethink the organization of teaching, time, and school spaces in a society that is constantly evolving. The network is based on a collaboration between Indire and 22 founding schools, which have signed a "Programmatic Manifesto for Innovation."

These 22 schools, having experimented with innovation pathways based on the Manifesto, became the first pilot schools of the Movement. These innovations, called "Ideas", are adopted by participating schools with hybrid support.

The Movement is an expanding community, with a growing number of pilot and member schools, as well as specific schools that, at a regional level, support innovation through training and dissemination activities.

"BIBLIOTHÈQUE DE L'INNOVATION" - THE LIBRARY OF INNOVATION

Exemple de documentation: création d'un Bibliothèque de l'Innovation https://biblioteca.indire.it/

Environment developed by Indire, in collaboration with the Italian Ministry of Education, for video documentation and the dissemination of ideas and resources aimed at renewing the "traditional" school model. The Library serves as a space for inspiration and "creative contamination," where all school stakeholders can use, contextualize, transfer, and contribute their own pedagogical content.

Teachers, school leaders, and staff play a key role in the growth and transformation of the education system.

The Library offers two types of certified content:

- Experiences
- Resources

These are accessible through editorial and thematic groupings, such as Channels, Collections, and Learning Pathways.

Schools actively contribute to the content offering through the "Propose a Content" initiative.
– Format de documentation d'expérience d'innovation

5.3 Bibliography

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GENERAL CONCLUSION

The present memorandum is the result of the collective and cooperative work carried out by all the teams involved in the cooperation project. It is based on observations and cross-mobility experiences conducted in the different member countries during the first year of the project, with insights provided by the scientific committee (teacher-researchers).

Far from being exhaustive, its purpose is to define the concept of pedagogical innovation and, above all, to understand its functioning and mechanisms. This is achieved through the observation of educational systems, innovative experiments, and academic research while taking into account the history and culture of the participating countries and organizations.

The document will be hosted on the Erasmus platform as well as on the dedicated website managed by the project steering committee (IACLIP). This will allow for a selective and segmented reading experience. Each section can be explored independently without requiring prior knowledge of the others. Furthermore, each part will be supplemented with digital resources, testimonials, examples, and illustrations presented in the form of podcasts, videos, diagrams, and drawings. These materials may be updated or expanded based on feedback and suggestions.

This deliverable constitutes the first phase of the observation and reflection process carried out by the various stakeholders. From September 2024 to October 2025, the project teams will engage in a second phase of analysis and development: the **Pedagogical Support Guide**. This guide aims to provide insights for organizations and readers regarding the engineering of pedagogical innovation support. It will explore the following key questions:

- What type of support is needed, and how can it be implemented in specific contexts?
- What organizational structures, tools, techniques, resources, and networks are required?
- What collaborative modalities with academic research should be adopted?
- Which actors should be mobilized to create an ecosystem conducive to the emergence and success of pedagogical innovation?

Finally, in the last phase of the project, based on the conclusions drawn from the first two deliverables, the steering group will focus on developing a **competency framework** for facilitators and project leaders. This framework will include proposals for associated training programs. It will constitute the third and final deliverable of the project.

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May it serve as a valuable resource for many.

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