

# Observation Report: Job Shadowing at Institut Celesti Bellera, Granollers

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This report synthesizes the pedagogical observations and didactic reflections gathered during a job shadowing experience at the Institut Celesti Bellera in Granollers, Spain, from December 1 to December 5, 2025. The purpose of this document is to provide a structured analysis of the school's organizational framework, teaching methodologies, and strategic educational initiatives. The experience was exceptionally positive, characterized by a welcoming and professional atmosphere. The gracious hosting by teachers Deborah and Alicia, combined with the collaborative spirit of the entire teaching staff, created a rich environment for professional exchange and observation.

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## 1.0 School Profile and Organizational Framework

Understanding a school's organizational and cultural context is fundamental to interpreting its pedagogical practices. This context serves as the foundation upon which teaching and learning are built. This section details the institutional identity, student demographics, and operational structure of the Institut Celesti Bellera, providing a comprehensive overview of the environment in which the observed educational activities take place.

### 1.1 Institutional Identity and Evolution

The Institut Celesti Bellera has undergone a significant evolution, adapting its mission and identity to meet the changing needs of its community. This transformation can be understood through several key milestones:

- **1974:** The institution was founded as a primary school, initially serving the children of Spanish immigrants.
- **1980:** It transitioned into a secondary school, adopting Catalan as the language of instruction.
- **2007:** The school primarily served its local neighborhood. The introduction of a specialized dance program (coreutico) attracted a more diverse and "extravagant" student population, which had a revitalizing and positive impact on the surrounding community.
- **Present:** Through strategic linguistic and artistic projects, the school has cultivated a highly mixed student body. It now serves local students, students from immigrant backgrounds, and students from affluent families attracted by its specialized programs. Its current identity is best described as an "artistic and dance high school" (liceo artistico e coreutico).

### 1.2 Student Population and Grouping Policies

The school's historical evolution has directly shaped its current student body, which is notably diverse and reflects the success of its specialized programs in attracting a broad cross-section of

the community. The institutional structure is organized into four compulsory years for students aged 12-16, followed by two optional years of “bachillerato”, which prepare students for university entrance. To manage this diverse population, a key pedagogical policy is the implementation of ability-based grouping for mathematics and language instruction. This practice begins in the second and third years, allowing for more targeted teaching within these core subjects.

### 1.3 Staff Organization and Teacher Workload

The school operates with a lean administrative structure. The core leadership and management team consists of four key roles: the principal (DS), the pedagogical head, a manager responsible for timetabling and substitutions, and the secretariat, which includes two administrative staff and two janitors.

The teacher workweek is structured to balance in-class instruction with essential collaborative and planning duties. The schedule of Mariona, the school's digital lead, provides a representative example:

- **Total Weekly Hours:** 24
- **In-class Teaching (Technology):** 13 hours
- **Coordination:** 7 hours
- **STEAM Project:** 1 hour
- **Meeting with Principal (Miriam):** 1 hour
- **Departmental Planning:** 2 hours

This allocation of hours underscores the institution's belief that a teacher's role extends beyond classroom instruction, formally valuing coordination, planning, and strategic project leadership as integral components of professional practice. Additionally, the school has a policy allowing for a two-hour reduction in the weekly workload for teachers with over 25 years of service.

### 1.4 Daily School Life and Culture

The school's daily culture fosters a professional yet relaxed and student-centered environment. Several distinct practices contribute to this atmosphere:

- **Atmosphere:** Teachers are addressed by their first names, promoting a more informal and accessible rapport with students.
- **Class Changes:** The transition between lessons is signaled by broadcast music (filo diffusione) rather than a traditional, disruptive bell.
- **Classroom Logistics:** In a model that centers the learning space around the students, teachers rotate between classrooms for different subjects while students remain in their designated room.
- **Student Representation:** The school actively promotes student voice and responsibility through elected representatives for ecology, equal opportunities, and each individual class.
- **Grading System:** The grading scale considers a score of 5 as the threshold for a sufficient pass.

This unique organizational framework—characterized by a lean administration, structured teacher collaboration, and a student-centric daily culture—creates a fertile ground for the diverse and often experimental teaching methodologies observed across the curriculum.

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## 2.0 Analysis of Didactic Methodologies by Subject Area

This section forms the core of the observational report, offering a critical analysis of the pedagogical approaches witnessed across different subjects. The observations reveal a dynamic educational landscape at the Institut Celesti Bellera, characterized by a thoughtful blend of innovative, student-centered methods and more traditional, structured instructional practices.

### 2.1 Mathematics

The mathematics lessons provided a compelling contrast in pedagogical strategy, tailored to the specific needs of different student groups.

**Student-Centered Inquiry (Advanced 2nd Year)** In a lesson on percentages and proportions, the teacher acted as a facilitator of learning rather than a dispenser of information. The session began with a review of homework, where students were actively encouraged to share the diverse problem-solving strategies they had employed. The pedagogical focus was on:

- Valuing all proposed strategies and stimulating divergent thinking.
- Guiding students to reflect on the logic behind their methods, ensuring they were not accidental.
- Utilizing “early algebra” to generalize mathematical concepts from specific examples.
- Prompting students to propose and debate solutions, fostering an environment of inquiry and discovery.

**Differentiated Practice (3rd Year)** A lesson taught by Sofia in preparation for an assessment showcased a highly structured and differentiated approach. To engage a class described as reluctant to work at home, the teacher implemented a clear system:

- **Targeted Exercises:** Problems were categorized by difficulty to correspond with specific grade outcomes: mandatory, simpler problems for a passing grade (5-6); intermediate problems for higher scores (7-8); and advanced problems for top marks (9-10).
- **Motivational Strategy:** The upcoming test was designed to include the very same exercises assigned for homework, creating a direct incentive for students to complete the practice work.
- **Targeted Support:** A support teacher (mediator) was present to provide dedicated assistance to a specific student.
- **Tool Policy:** Calculator use is strategically managed: forbidden in the first year to build foundational skills, it becomes optional from the second year onward, depending on the topic.

This approach, while highly pragmatic, reveals a pedagogical tension between fostering intrinsic motivation and ensuring curriculum coverage, a common challenge in mixed-ability classrooms.

### 2.2 Science and Laboratory Work

Science instruction also demonstrated a spectrum of approaches, ranging from project-based learning to more traditional lecture formats.

**Project-Based Learning in the Lab (2nd Year)** A lesson on the history of atomic models, led by a young teacher named Celia, was structured as a hands-on project. Students, working in teacher-assigned groups, were tasked with researching information online to create an analog

timeline on A4 cardboard. A notable aspect of this lesson was the resource context: students used school-provided PCs and notebooks but did not have a science textbook. The teacher expressed that while digital resources are valuable, the absence of a textbook deprives students of a consistent, reliable point of reference.

**Traditional Instruction (3rd Year)** In contrast, a lesson on the respiratory system, taught by Barbara, followed a more conventional model. The teacher used a projector to present notes, which students were required to copy into their notebooks. All materials were also made available on Google Classroom. The lecture-based portion of the class was followed by group work, where students applied their knowledge by completing exercises on respiratory mechanisms.

## 2.3 Technology and Maker Education

The technology and maker lab classes clearly demonstrated the school's commitment to applied, hands-on learning and developing practical skills.

- **First-Year Project:** Students undertook the task of constructing a "magic cube" from a block of wood. This project guided them through the process of using workshop tools under close teacher supervision and emphasized the importance of documentation by requiring them to photograph each stage for a final report.
- **Fourth-Year Project:** In the Maker Lab, older students engaged in a more complex electrical installation project. This involved creating a scale representation of a house and utilizing drafting tools, blending technical skills with spatial reasoning. Notably, the teacher was accompanied by a trainee teacher, suggesting an active in-house model for professional training and mentorship.
- **Classroom Management:** The teacher, Carlos, demonstrated an effective strategy for managing a challenging group of students. He initially ignored their disruptive behavior, allowing the situation to de-escalate, before intervening to provide focused, one-on-one assistance. This approach allowed all students to proceed at their own pace.
- **Lab Resources:** The technology classroom is exceptionally well-equipped to support this hands-on pedagogy. Available tools include hammers, screwdrivers, saws, a circular saw, a laser cutter, and four 3D printers (two enclosed and two open models).
- **Preparation for External Engagement:** In a separate robotics class, the same teacher prepared students for an upcoming visit to the Barcelona Microelectronics Institute, demonstrating a clear connection between classroom activities and real-world scientific institutions.

This spectrum of subject-specific methodologies, ranging from inquiry-based mathematics to project-driven technology labs, demonstrates a deliberate institutional strategy to equip students with both foundational knowledge and applied skills, a philosophy that finds its fullest expression in the school's ambitious STEAM and international initiatives.

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## 3.0 Strategic Focus on Project-Based and International Learning

Beyond the daily curriculum, the Institut Celesti Bellera extends its educational mission through a deep investment in large-scale strategic initiatives. This section evaluates two of the school's key

pillars: its comprehensive commitment to STEAM education and its robust program for fostering international collaboration and global citizenship.

### 3.1 The Central Role of STEAM and Robotics

The school's dedication to STEAM (Science, Technology, Engineering, Arts, and Mathematics) is evident in its curriculum, extracurricular activities, and teacher development.

- **Curriculum Integration:** Since 2021, two hours of STEM have been mandatory each week for all students in the first three years, cementing its importance as a core part of the educational experience.
- **Regional Robotics Project:** The school is an active participant in a major regional project spanning 260 schools over six years. Students are provided with kits to tackle challenges in problem-solving, coding, and robotics, with a thematic focus on energy efficiency and ecology.
- **External Competitions:** To motivate and challenge high-achieving students, the school places a strong emphasis on participating in external contests and projects.
- **Support Structures:** The educational ecosystem is bolstered by a "Mentor digital," a support figure analogous to Italy's "Équipe Formative Territoriali", who provides pedagogical and technical guidance. Furthermore, the state supports these initiatives by providing primary schools with robots and secondary schools with programmable boards.
- **Teacher Development:** The commitment to STEAM extends to the faculty. During the visit, the observer had the opportunity to participate in a teacher training course focused on Making and the use of 3D printers, highlighting the institution's investment in ongoing professional development.

### 3.2 Fostering Global Citizenship through International Projects

The school actively cultivates a global perspective through a variety of ambitious international projects that integrate language learning with real-world application.

- **Erasmus+ Program:** An observed project involved 22 selected students preparing to teach Spanish to peers at a school in Prague. The students worked in collaborative groups to design four distinct 25-minute lessons on assigned topics, tailored to different proficiency levels. The school maintains a strong Erasmus+ presence, typically sending 20-30 students on exchanges each year to destinations such as Prague, Sweden, and Portugal.
- **Inquiry-Based International Project:** A project led by Deborah for 4th-year students employed an investigative, scientific approach to explore cultural and social differences within Europe. The process began with students brainstorming non-obvious investigative questions in both English and French, which then guided their research toward a final exhibition or report.
- **STEAM and Language Integration:** A project on sustainable transport demonstrated a powerful cross-curricular approach. Students researched and developed proposals to improve local transport sustainability, which they formalized in a letter to the mayor. The culminating task was to produce a final video presenting their findings in English, seamlessly blending civic engagement, scientific inquiry, and language skills.

These strategic initiatives demonstrate a coherent, forward-thinking educational philosophy, positioning the school not merely as a place of instruction but as a hub for applied innovation and global engagement, themes that warrant further reflection.

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## 4.0 Conclusion: Key Reflections and Professional Takeaways

This job shadowing experience at the Institut Celesti Bellera offered a profound and inspiring look into a dynamic educational institution. This final section synthesizes the most significant observations from the visit into key strengths and actionable takeaways for professional reflection.

### 4.1 Synthesis of Key Strengths

The school's success appears to be built upon a foundation of several core principles, which were consistently observed across different subjects and programs.

1. **A Culture of Inquiry and Student Agency:** The methodologies observed, particularly in advanced mathematics and the inquiry-based international projects, consistently empower students to explore multiple solutions, ask their own questions, and take ownership of their learning journey. This approach moves beyond rote memorization to foster critical thinking and intellectual curiosity.
2. **Integration of Technology and Hands-On Learning:** The school has made a significant investment in maker education and STEAM, not as isolated subjects, but as core pedagogical tools. The well-equipped technology lab and projects like the "magic cube" construction demonstrate a commitment to developing practical skills, problem-solving abilities, and the crucial habit of documenting one's work.
3. **A Supportive and Collaborative Professional Environment:** The welcoming atmosphere was palpable. This supportive culture is formalized through structures like dedicated weekly hours for departmental planning and is embodied in the active mentorship model observed in the technology lab, where an experienced teacher (Carlos) worked alongside a trainee.

### 4.2 Final Professional Reflection

The job shadowing experience at Institut Celesti Bellera was overwhelmingly positive and professionally enriching. It provided a valuable opportunity to observe an educational system that, despite organizational and structural differences, shares a common ground of pedagogical values rooted in innovation, collaboration, and a profound focus on the student. The visit served as an excellent source of professional comparison and inspiration, reaffirming the universal power of thoughtful, engaging, and student-centered teaching practices.