

“GIRLS + BOYS = IN MATHS”

Promoting gender equality in primary education by addressing stereotypes and fostering inclusive teaching practices.



From March 9 to 12, 2026



Clermont-Ferrand, France



This training supports primary school teachers in understanding and addressing gender stereotypes in education, particularly in mathematics. You will explore inclusive teaching approaches and discover tools adaptable to your national context to promote gender equality from the earliest years of schooling.

PROGRAM “GIRLS + BOYS = IN MATHS”

9–12 MARCH 2026, CLERMONT-FERRAND, FRANCE



DAY 1 - MONDAY, MARCH 9

Arrival at “Kyriad Hotel”, *51 Rue Bonnabaud*

7:30 PM - Welcome dinner



DAY 2 - TUESDAY, MARCH 10

9 AM - Opening by Magali Gallais Deputy, in charge of Equal Rights and Anti-Discrimination

Equity Fresk by Paulina Rabell at the Tourism office, *Place de la Victoire*

12:45 AM - Lunch at “la Place”, *69 bis Bd François Mitterrand*

2:30 PM - Presentation by Lola Girerd at *Salle Alexandre Vialatte in the Maison de la Culture, 71 Bd François Mitterrand*

4 PM - Interactive workshop for teachers by Chloé Jacquet : Co-Creating classroom practices for gender-inclusive education

5 PM - Visit to the art initiation centre for children aged 0–6 “mille formes”, *23 Rue Fontgieve, 63000 Clermont-Ferrand*

7:30 PM - Dinner at “l’Odevie”, [1 Rue Eugène Gilbert, 63000 Clermont-Ferrand](#)



DAY 3 - WEDNESDAY, MARCH 11

8:15 AM – Meeting at Bus station, *Boulevard Gambetta*

Bus to the Saint Gervais d’Auvergne middle school. Intervention by Julien Coupat, mathematics teacher involved in gender equality and Amandine Thiriet, mathematics inspector

1 PM - Lunch at “Bistrot Murmure” [13 Bd Charles de Gaulle](#)

2:30 PM - Intervention by the Clermont-Ferrand Rectorate, followed by a presentation by F. Turco, Head of Research at the Centre for Gender Studies (University of Turin), at *Jeanne D’Arc Middle School*.

7:30 PM - Dinner at “Brasserie Madeleine”, *3 Pl. de la Victoire*



DAY 4 - THURSDAY, MARCH 12

8:30 AM - Meeting at *Place de Jaude*; visit to the “*Pierre Mendès France*” primary school, involved in gender equality initiatives

11 AM - Visit to the middle school “*Baudelaire*” with Andrée-Ann Bouffard and Audrey Imberdis education advisor

12 PM - Lunch at the canteen of “*Baudelaire*” middle school

15 PM - Visit of museum/ departures

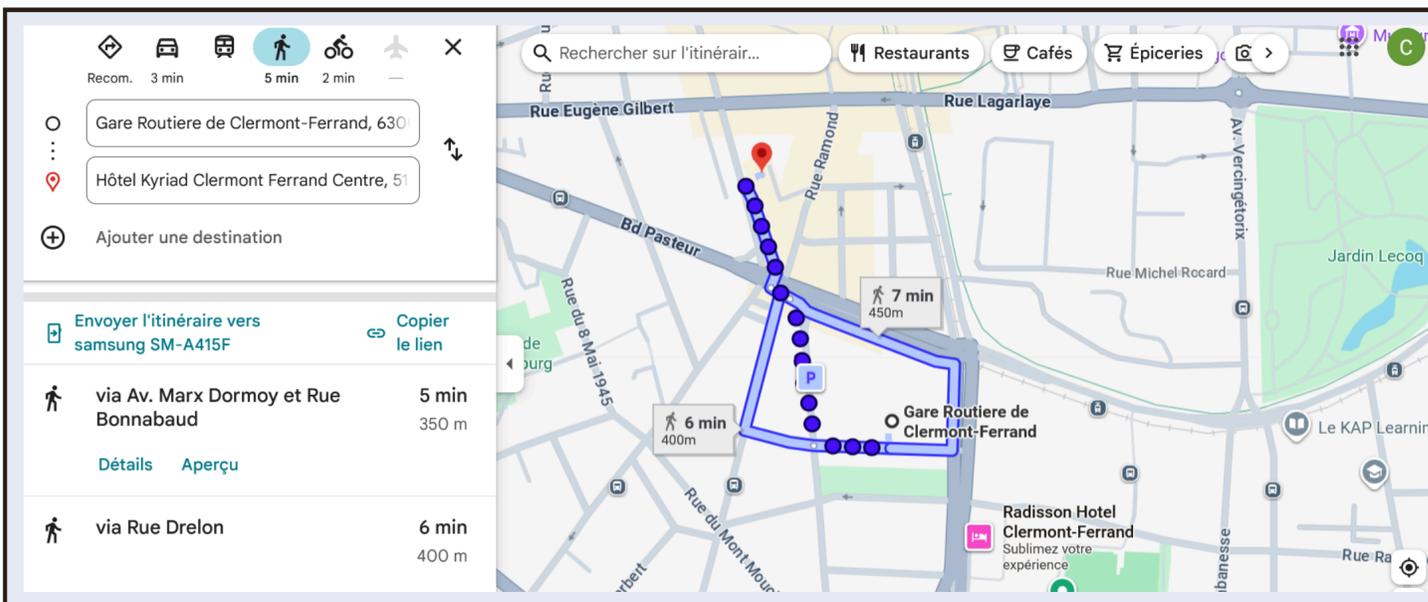
IMPORTANT INFORMATION

Hello everyone!

To help everything run smoothly and support the organization, we are sharing the most important information below.

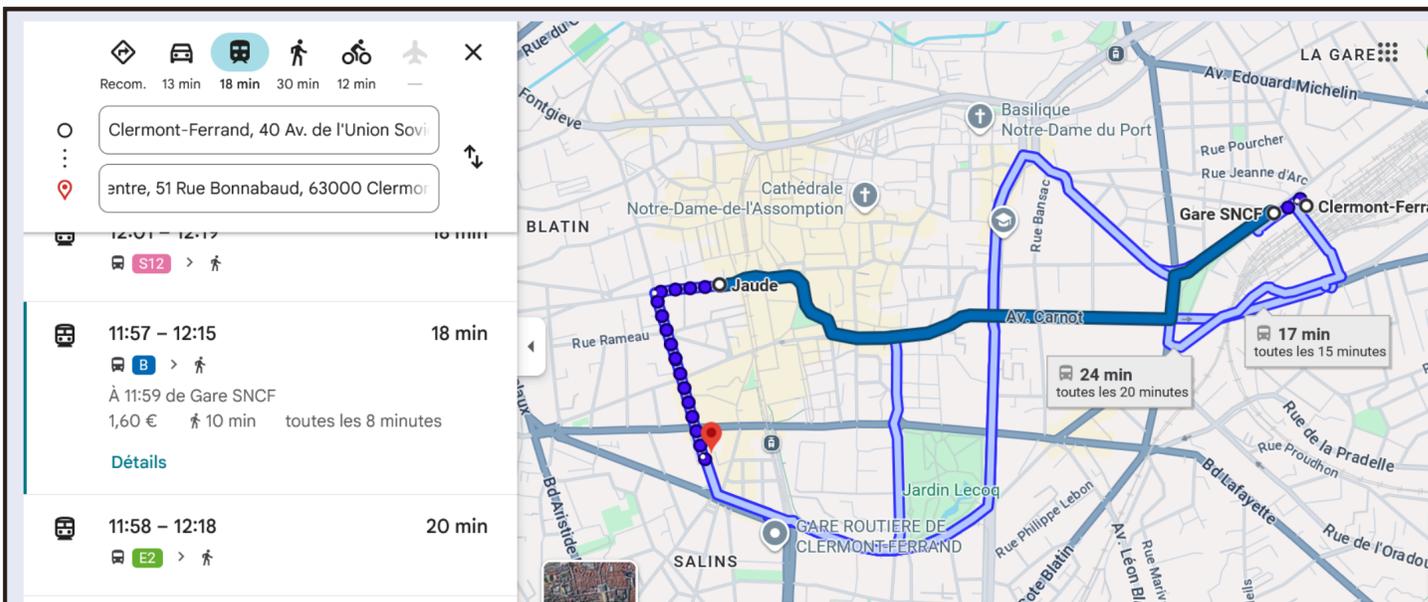
ARRIVALS AND ACCOMODATIONS

During your entire stay from March 9th to 12th, you will be hosted at the Kyriad Hostel : 51 Rue Bonnabaud, 63000 Clermont-Ferrand where breakfast will be provided everyday.



Some of you will arrive at the bus station “les Salins” at the following address :

“Bd Gambetta, 63000 Clermont-Ferrand”.



And some of you will arrive at the Clermont-Ferrand SNCF train station, located at :

“40 Av. de l'Union Soviétique, 63000 Clermont-Ferrand”.

In both cases, we will be waiting for you and will take you to your hotel.

USEFUL CONTACTS

Francesca D’Orazio → phone number : +33 6 58 56 83 46

Feel free to communicate on the WhatsApp group that was created

- Police Emergency Line : 17
- Fire Department : 18
- Medical Emergency (Ambulance) : 15
- European Emergency Number (from a mobile phone) : 112



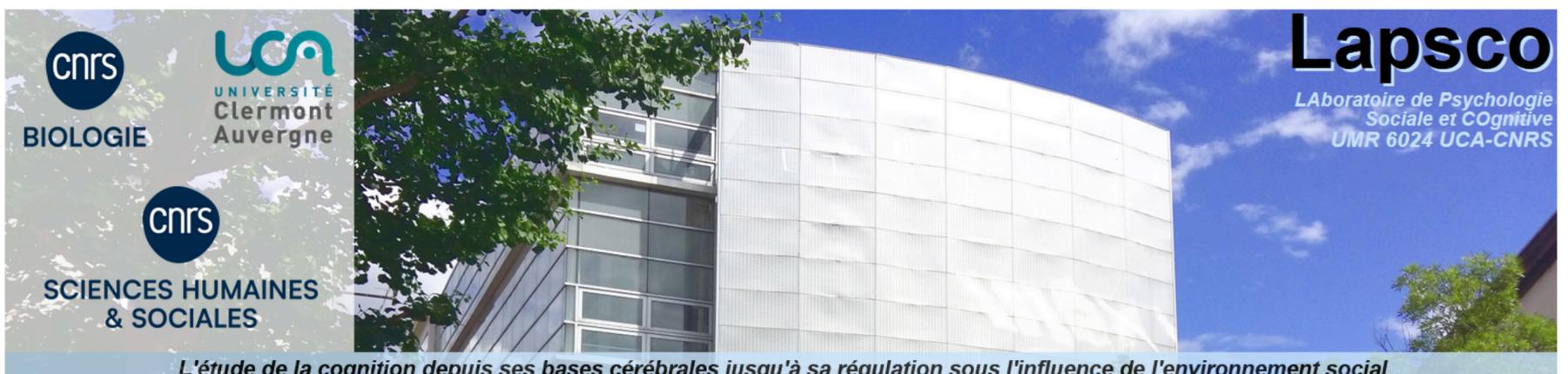
WORKSHOP 2
10/03/2026

"Laboratoire de Psychologie Sociale et Cognitive" (LAPSCO)

It was founded in 1984 and is associated with the National Center for Scientific Research (CNRS).

It is directed by **Pascal Huguet** and is composed of
4 research teams:

- 1- "Cognition-Behavior-Context"
- 2- "Social Behaviors and Collective Dynamics"
- 3- "Physiological and Psychosocial Stress"
- 4- "Social and Cognitive Ethology".





WORKSHOP 2
10/03/2026



Lola Girerd

Postdoctoral researcher at LAPSCO of the University of Clermont Auvergne. Her research focuses mainly on the ideological processes of maintaining the status quo, on gender inequalities, and on collective actions aimed at challenging the status quo.

Notes :

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KEY CONCEPTS

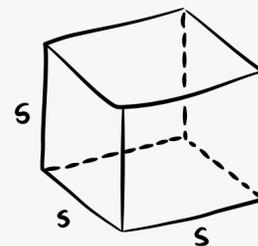
Stereotypes

What is a gender stereotype ?

Gender stereotypes are beliefs or preconceived ideas, often unconscious, that attribute specific characteristics, abilities, or behaviors to one gender. They are not based on scientific facts but on social expectations.

Examples of common stereotypes:

- *“Boys are naturally better in science”*
- *“Girls are more comfortable with language and caregiving.”*
- *“Maths is a male domain”*



These ideas circulate in children’s environments (family, school, media, peer interactions) and influence how they perceive their own abilities.

Even without any intention to discriminate, small differences in encouragement, expectations, or the way tasks are presented can reinforce these beliefs.

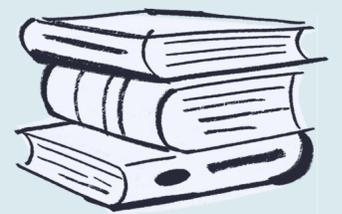
Stereotypes

Why do these stereotypes have an impact as early as primary school ?

Because children begin to construct their identity very early on ("who I am," "what I can do").

Between the ages of 6 and 7, they are particularly sensitive to social comparison and to what adults think.

Gender stereotypes can:

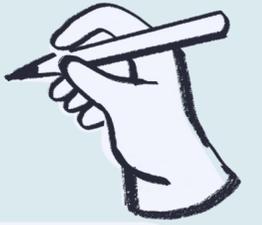


- Affect childrens' sense of competence.
- Influence their motivation toward mathematics.
- Increase anxiety when they have to solve a problem.
- Reduce participation or willingness to take initiative.

Their impact is not only emotional : they also directly influence cognitive performance, for example by reducing working memory in stressful situations.

These effects are part of a well-documented mechanism known as stereotype threat.

Stereotypes threat



Stereotype threat is a psychological phenomenon in which awareness of a negative stereotype about one's group can negatively impact performance.

→ In the context of primary school mathematics, this means that girls who are aware of the stereotype that “boys are better at math” may experience stress and worry about confirming it, even unconsciously.

This worry increases stress, reduces working memory, and can directly affect their ability to solve problems.

In the classroom, this can lead to less risk-taking, lower participation, hesitation to answer aloud, or reduced performance on complex tasks.

In other words, this is not a lack of ability, it is the classroom environment and implicit expectations that can unintentionally limit girls' performance.

Teachers play a crucial role in creating a supportive atmosphere that encourages all students to engage confidently in mathematics from the very beginning.



STUDIES



International research findings: girls' early math performance

International studies show that girls do not start with lower math abilities than boys, but a gap appears quickly due to school environment and gender stereotypes. Key findings include:

1. Cohort studies in France (with P. HUGUET - director of LAPSCO)

A study of over 2.6 million first- and second-grade students found that girls and boys start primary school with similar scores. A significant gap in favor of boys appears after just 4 months. The growth of the gap with schooling, not age, indicates that school practices, not innate ability, drive the difference.

2. Neuville & Croizet

When girls are reminded of their gender before a math task, their performance drops on difficult tasks (not on easy ones). This is explained by increased stress, anxiety, and reduced working memory, showing that stereotype activation affects performance even at a young age.

3. International studies: Germany and China

In Germany, the idea that mathematics is a male domain diminishes girls' sense of competence. In China, similar stereotypes reduce girls' performance (especially those less confident) and benefit boys.

Overall conclusion

Gender stereotypes impact confidence, motivation, anxiety, and performance, and can also influence later educational choices, with girls less likely to pursue advanced STEM (Science, Technology, Engineering, Mathematics) subjects.

RESOURCE SHARING

REDUCING GENDER STEREOTYPES IN MATHS & STEM



Evaluation as a Learning Tool

- ✓ Approach evaluation as part of learning, not as competition.
- ✓ Use assessment to understand, learn, and improve, rather than rank children
- ✓ Avoid any form of competitive comparison between girls and boys.

Better Results for Everyone! ↗



Promote Altruism and Cooperation

STEM fields are often perceived as male, individualistic, competitive (Diekmann et al, 2016).

A competitive culture leads girls to feel:

Less legitimate in the course or career.

Less competent

Less motivated to pursue STEM.

- ✓ Encourage a culture valuing cooperation, collective success, and peer support.



Peer Composition in Groups

In maths/science:

- ✓ Constitute groups with **equal or more girls** than boys.
- ✓ **Never place girls in minority!**



Effects:

Girls feel less threatened by maths.

Participation increases, confidence improves.

Generally, emphasize effort in success.



Learning Climate

- ✓ Counter the **myth** that maths is a “talent-based” subject.
- ✓ Normalize learning difficulties for all students.
- ✓ Highlight that **effort** leads to success (Fuesting et al., 2019).

Girls participate more and feel more competent when the teacher supports a growth mindset.

Encouraging Girls' Speaking

- ✓ Boys participate significantly more than girls (meta-analysis, 81 studies).

Strategies:

- ✓ Alternate questioning between girls and boys; start with a girl.
do not make gender explicit ('it's the girls' turn').
- ✓ Avoid signaling gender when encouraging participation – this reduces stereotype salience.



Peer Models in Maths

- ✓ Present successful peer models before difficult tests
- ✓ Success must appear accessible: choose a student at least 1 year ahead.
- ✓ Never choose a peer at the same level.
- ✓ Success should be linked to **effort** and regular work, not innate ability



Famous Scientists Women

- ✓ Avoid biographies as the only intervention, they seem inaccessible.
- ✓ Use famous women mainly for **historical/cultural context** (Combat the Mathilda effect: denial or recurring minimization of the contribution of women scientists to research).

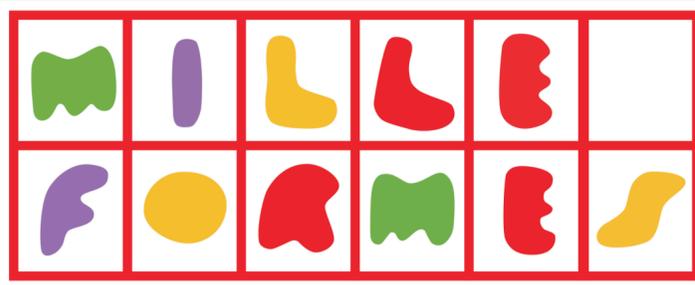


Present Careers in Feminine Form

Evidence people think of women only 28% of the time if a profession is presented in masculine form (Gygak et al., 2022).

- ✓ Always present both masculine and feminine forms, especially in STEM
- ✓ Show **girl's** performance is valid and recognized without reducing boys' perception.





The Mille Formes Center is an art initiation center specifically designed for children aged 0 to 6 and their caregivers in Clermont-Ferrand, in partnership with the Centre Pompidou in Paris. It was conceived as a space for experimentation, discovery, and encounters with contemporary art adapted for toddlers.

Objective : To allow children to engage with diverse artistic forms through gestures, interactions, and sensory experiences, while fostering exchange and connection between the child and their accompanying adult.

Activities offered : Interactive exhibitions adapted for young audiences. Artistic and creative workshops led by contemporary artists.

Audience : Open to families, groups, and also professionals in the arts, culture, and early childhood sectors who wish to deepen their practices and pedagogical approaches.

Pedagogical Approach : learning takes place through movement, manipulation, and exploration, with an emphasis on creativity, curiosity, and sensory awareness. Children discover art by doing and actively participating in the activities offered.

Notes :

ART IN PRIMARY EDUCATION

A tool for inclusion and equality

Integrating art into education, particularly at the primary school level, plays a vital role in reducing gender stereotypes.

By adding Art to the STEM acronym (Science, Technology, Engineering, and Mathematics) to form **STE(A)M**, creativity and artistic expression are recognized as key elements of science and technology education.

Art provides a space where children, regardless of gender, can freely explore and express their ideas. This fosters a culture of inclusion and diversity within the school.

By exposing children to diverse models and artistic activities integrated with science, we dismantle preconceived notions that certain subjects are reserved for a particular gender.

Furthermore, art encourages critical thinking and innovative problem-solving—essential skills for everyone, regardless of gender.

Finally, by fostering an environment where art and science meet, primary schools can help to shape open and egalitarian minds, ready to meet the complex challenges of the modern world.

The “Gender Equality”

label :



ÉGALITÉ
FILLES
GARÇONS

WORKSHOP 3
10/03/2026

Its three main objectives are:

- the creation of a culture of respect
- the fight against all forms of gender-based and sexual violence
- the fight against gender stereotypes and access for all to less gendered career guidance

The Gender Equality label is a tool that provides greater clarity and consistency to actions undertaken or planned within the institution. Obtaining it is based on a voluntary, progressive, and long-term approach.

There are three levels of certification:

Level 1: commitment to a gender equality approach

Level 2: further development of this approach

Level 3: implementation of an action plan involving the entire educational community



Levels 1 and 2 are awarded by the Academy, while level 3 is awarded by the french ministry

Do you have any gender equality labels in your schools ?



yes

no

dont know

In the Clermont-Ferrand academy

To date, 74 middle schools and high schools have been awarded the label in the Clermont-Ferrand school district (34 level 1, 36 level 2, and 4 level 3).

The Clermont-Ferrand school district has also decided to offer elementary schools the opportunity to participate in this certification process.

↪ Fourteen schools were certified in June 2025 (10 at level 1 and 4 at level 2).



FEMACT-Cities

Transforming cities for women



WORKSHOP 4
11/03/2026



Federica Turco

Communication and Research Manager at CIRSDDe, The Research Centre for Women's and Gender Studies of the University of Turin, she is project manager of several projects concerning gender issues. Moreover she is the Gender Equality Manager of the University of Turin and is involved in the Fem'Act project.

Notes :

GENDER EQUALITY STAKEHOLDERS

IN CLERMONT-FERRAND

25 Gisèle Halimi

This is a unique center in Clermont-Ferrand, named after Gisèle Halimi, a French lawyer and iconic figure of feminism who fought for women's rights and gender equality.

It offers a centralized and secure space where all women can find support and access to specialized services.

It brings together essential services to meet three main needs:



1) Support for women victims of violence

Psychological support, assistance with leaving the home, rehousing, access to rights, and professional integration.

→ Managed by AVEC France-Victimes 63



2) Access to sexual and reproductive health care

Medical follow-up for all women, including minors and people in gender transition. Consultations with marriage and family counselors.

→ Managed by Planning Familial 63



3) Access to rights and professional integration

Specialized legal clinics in family law
Employment support.

→ Managed by CIDFF 63



Target audience: All women living in Clermont-Ferrand, the surrounding area, and the Puy-de-Dôme department.

Ongoing services (gynecological and transgender care, psychological & social support) : provided by Family Planning 63, AVEC France-Victimes 63, CIDFF 63, and the City of Clermont-Ferrand's Equal Rights Department (coordination and reception).

Occasional services: interventions by partners (the Departmental Council, CAF, Defender of Rights). Group activities: socio-aesthetic workshops, arts, support groups, physical activities...

Since its opening in December 2023, the 25 Gisèle Halimi has assisted and supported more than 7800 women.

Astu'sciences is a Clermont-based association committed to disseminating scientific, technical and industrial culture to all audiences, through collaborative projects, events and mediation activities.

- **Objective** : to enable all audiences, and especially young people, to discover and engage with science, technology, and mathematics through accessible educational experiences, while contributing to dismantling gender stereotypes, particularly those that hinder girls' and women's access to these fields.
- **Activities offered** : organization of science outreach events (festivals, screenings, meetings), highlighting career paths and female role models in science and technical fields, support for youth-led projects, educational workshops, and awareness-raising initiatives promoting gender equality in scientific disciplines.
- **Target audience** : Open to children, teenagers, families, and schools, as well as education, cultural, and science communication professionals who wish to develop practices that promote equality and diversity in science.
- **Pedagogical approach** : Learning is based on experimentation, active participation, and dialogue. Science is approached in a concrete, inclusive and collaborative way, encouraging confidence, curiosity and critical thinking, regardless of gender.

TRAINING SUMMARY

Key Takeaways

Gender stereotypes are formed very early:

from a young age, children internalize different social expectations based on their gender. These perceptions influence their relationship to school subjects, particularly mathematics and science, often seen as masculine domains.

Stereotype threat has real and measurable effects:

simply being aware of a negative stereotype can generate stress, decrease self-confidence, and impact performance. These effects do not reflect students' actual abilities, but rather the context in which they learn.

Teaching practices can reinforce or reduce inequalities

the choice of words, examples, teaching materials, the distribution of speaking time, and even the teacher's implicit expectations all play a crucial role. A thoughtful educational approach helps to limit the impact of gender bias.

Simple actions can have a significant impact:

valuing effort rather than "natural talent", showcasing female role models in science, encouraging everyone to participate, diversifying learning methods, and explaining that skills are developed over time are all accessible levers.

A sense of legitimacy is central:

helping girls feel comfortable in mathematics and science is a major challenge in combating self-censorship and promoting academic perseverance.

Teachers do not act alone:

drawing on existing resources, committed organizations, and teamwork strengthens the coherence of actions and ensures the long-term sustainability of initiatives.

Gender equality benefits all students:

challenging gender stereotypes helps create a fairer, more inclusive classroom environment that fosters learning for everyone.

PERSONAL REFLECTION

This page is neither an evaluation nor a mandatory commitment. Its purpose is to offer you time for personal reflection, related to your realities on the ground, your professional context, and your room for maneuver. It is perfectly normal to observe that some practices are already in place, that others seem difficult to implement at the moment, or that some questions remain open. Gender equality is built step by step, and every reflection, however small, counts. Consider this page as an invitation to reflect, without pressure, on what seems possible, relevant, and appropriate in your situation.

My Insights

This is about identifying what may have changed in your perspective or understanding.

A stereotype, bias, or situation that I hadn't fully noticed before the training course (or that I now see differently):

An element, exchange, or example from the training that particularly struck me, made me think, or inspired me:

My concrete commitments

These commitments can be simple, gradual, and adaptable over time. They can involve experimentation, an intention, or increased awareness.

In the coming weeks or months, I plan to:

- Test or experiment with:
- Pay closer attention to:
- Implement, when the context allows :

In my classroom practice

This section aims to identify a realistic, even very modest, lever, freely chosen.

- A practice I would like to develop or examine (language used, choice of materials, classroom organization, assessment methods, discussion management, etc.):
.....
- A specific activity, situation, or class period I could implement (new activity, adaptation of an existing activity, etc.):
- Proposed date or approximate implementation period (indicative and flexible):
.....

CONCLUSION

This training on gender stereotypes in mathematics and science is part of an awareness campaign designed to strengthen gender equality in educational practices. Its aim is to share key insights, tools, and opportunities for reflection to support the development of any professional practice.

We are very interested in continuing to share our reflections together in order to contribute to the development of more equal educational practices.

Thank You for your engagement on these essential educational and societal issues.



TRAINING BOOKLET

ORGANISED BY :



FRANCESCA D'ORAZIO

INMC Gender Equality Lab Coordinator



CHLOÉ JACQUET

Psychology student at the University of Clermont-Ferrand

WITH :

