

OPINION

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The STEAM Coach Competence Profile: defining who a STEAM Coach is and who can become one



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When we talk about gender gaps in STEM, the conversation too often stops at awareness campaigns, information sessions, and visibility initiatives. These matter, but they are not enough. What girls and women need is not more information alone. They need a structured, relational, and human-centred process that helps them reconnect with their own potential, challenge internalised narratives of exclusion, and build the confidence to move forward. They need coaching that is intentionally designed with a gender lens, grounded in identity, and delivered by professionals who understand both the personal and the systemic dimensions of inequality.

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"Coaching is not about giving answers. It is about asking the questions that help someone discover they already have them"

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This is precisely the vision behind the STEAM Coach Competence Profile, one of the most significant contributions of the Erasmus+ STEAM Coach project. Developed by a five-country European consortium, the profile does more than describe a set of technical requirements. It helps define what a STEAM Coach is: a professional able to guide, facilitate, support, and empower girls and women through inclusive, gender-sensitive, and interdisciplinary learning processes in STEM-TVET contexts. In that sense, it is not simply a checklist, but a structured framework that brings together knowledge, skills, and attitudes across eight core competence areas: STEAM Expertise; Teaching and Communication; Inclusivity and Gender Sensitivity; Cultural Competence; Problem Solving and Critical Thinking; Creativity and Innovation; Collaboration and Facilitation; and Technology and Assessment.

What makes the STEAM Coach Competence Profile transformative is its holistic conception of what a coach needs to be: not just technically skilled, but emotionally present, culturally aware, and equity-committed. As the methodology makes clear, the goal is not to "fix girls," but to transform the environments that were never built for them. The profile operationalises this vision by equipping coaches to hold space for reflection, identify and affirm strengths that gendered systems routinely overlook, challenge limiting beliefs rooted in social norms, and introduce more inclusive and interdisciplinary ways of imagining participation in technical fields.

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Decoding STEAM in STEAM Coach: a progressive coaching model for STEM-TVET

The use of the acronym STEAM in this project should not be read simply as a reference to the already familiar STEM-to-STEAM shift in education. Here, STEAM primarily names the project's own progressive coaching model: a structured methodology designed to support girls and women as they navigate STEM-TVET pathways. Its meaning is grounded in five developmental phases that organise the coaching journey: **Start with Self** - **Trace Strengths** - **Explore STEAM** - **Activate Agency** and **Move Forward**. Rather than functioning as a generic label, STEAM becomes a practical framework that gives sequence, coherence, and purpose to the coach's work.

This matters because the model does not treat coaching as a vague supportive gesture. It offers a developmental route through which coachees can move from self-awareness and identity exploration to confidence-building, widening horizons, informed decision-making, and sustained action. The acronym therefore carries both communicative and methodological value: it is recognisable, but it also reflects the internal architecture of the coaching process itself. Within STEAM Coach, its significance lies above all in naming a progressive journey through which girls and women can be accompanied across the personal, social, and educational barriers that continue to shape participation in STEM-TVET.

What gives the Competence Profile particular relevance, however, is that it does not define the STEAM Coach as a narrow or closed professional category. On the contrary, it presents the role as intentionally inclusive and flexible. The STEAM Coach may be an educator, a trainer, a career counsellor, a mentor, a STEM professional, a youth leader, a community actor, or a woman already navigating technical fields whose lived experience can itself become a source of guidance and inspiration. The shift here is important: the focus moves away from formal title alone and toward the combination of competences, mindset, and ethical commitment required to accompany learners meaningfully.

That openness is not incidental. It reflects a deeper understanding that gender equity in STEM-TVET cannot depend on one professional figure alone. It requires a wider ecosystem of actors capable of creating belonging, visibility, encouragement, and continuity across formal, non-formal, and community-based settings. By broadening who can become a STEAM Coach, the profile also broadens where support can happen — in classrooms, training centres, youth initiatives, local ecosystems, mentoring networks, and workplaces.

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If we are not reflected in tools, media or social imaginaries, women can hardly project ourselves as engineers or scientists.

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For that reason, the STEAM Coach Competence Profile is more than a descriptive framework. It offers a shared European reference for recognising what a STEAM Coach needs to know, do, and embody, while also creating pathways for development through reflection, validation, and Continuous Professional Development. The CPDP developed within the project reinforces exactly this logic by supporting different professionals and stakeholders in strengthening the competences needed to foster more inclusive STEM-TVET environments. In that sense, the profile's contribution is both practical and systemic: it helps define the role, legitimise diverse entry points into it, and strengthen the human infrastructure needed to support girls and women not only to enter STEM-TVET, but to remain in it and reshape it from within.