



ERASMUS+

Strategic Partnerships for
School

Education

GE-STEAM

Gender Equality in Science,
Technology, Engineering,
Art and Mathematics

GE-STEAM

IO4 - Peer Mentor Portfolio



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INTRODUCTION

The aim of this portfolio is to provide mentors with a guide to organizing their activity with the help of various instruments. Appendices section widens the range of templates available for observing and evaluating girl-students' interests and attitudes towards STEAM domains. The guide intends to identify learning needs of teachers to de-construct gender stereotypes and help them to develop skills to engage more girls in STEAM careers; counter stereotypes. The goal of a peer-mentoring program is to improve supportive relationships between two people sharing knowledge, points of view and experience. Peer-mentors trained will observe colleagues and will apply their knowledge acquired in the training sessions. Mentoring is using your skills in order to support and help others. You can use your mentoring skills in several ways.



1. SKILLS OF PEER MENTORS

You may find the following list helpful in reviewing the skills which will be of use to you as a STEAM Mentor.

As a STEAM Mentor you will need to be able to:

- Guide and support
- Listen and counsel
- Negotiate and set clear targets for STEAM mentoring
- Analyze needs
- Set priorities
- Monitor and review progress
- Manage time
- Observe and assess
- Negotiate and resolve conflict
- Write reports

What do mentees look for in a STEAM mentor?

- **Someone who offers a supportive relationship**
- **Someone who can give direct career guidance**
- **Someone who can link theory to practice**
- **Someone who offers structured opportunities for a STEAM career**
- **Someone who can provide non-threatening evaluative feedback**

TIPS:

Active listening

Active listening is the most basic mentoring skill. When you listen well, you demonstrate to your mentees that they have been understood. The way you demonstrate you are listening is by performing observable behaviors such as paraphrasing certain comments, summarizing the key elements of what you have said, remember and show interest in things mentees have said.



Organization and Planning

Identify where your mentoring tasks fit into your other priorities. Break your tasks down into their component parts. Making things more do-able means you are less likely to become overwhelmed.

Openness

Encourage your mentees to ask any question that comes to mind.

Reflection

Reflection is about getting to know ourselves and bringing this knowledge forward so we become more ourselves as we move on in life. It's a key Peer Mentor skill but one which may take some time to develop.

Whatever activities you decide on for your mentees, spend a little time reflecting on them – what made you decide on this particular activity? What are you looking forward to about it? Are you anxious about any aspect of it? How does it play to your strengths? Similarly, when you've completed an activity, spend some time reflecting on the experience for you. How did it go? What did you learn? What kind of feedback did you get? What did it say about you?

Motivation

Don't engage in self-limiting thinking. If you find that you suddenly have a great idea for an activity for your mentees and then you find yourself dismissing it, revisit it and spend some time assessing your options. Too often we dismiss our own potential and creativity.

Working with another peer mentor can help to stimulate your creativity.

Establishing goals is a great way to get motivated. Make sure your goals are specific, not vague. They should also be flexible to respond to changes in people's circumstances.

Giving information

Collaborate with your mentees when it comes to giving information. Ascertain from them what they want to know in addition to telling them what you think they should know. That way, they create what they want to know and feel that they are being listened to.

Remember that it's ok not to know the answer to a question. It is so much better to say "I don't know, but I'll try to find out" than to give incorrect information. Not knowing something does not mean you failed – it



means you're confident enough to recognize that you are not all-knowing. In fact, it probably will help your mentees identify better with you.

(Self) Confidence Building

Confidence is not about how you present yourself. It's about how you feel about yourself. It's not related to how much talent or knowledge you have. It's about accepting yourself for who you are. As a Peer Mentor, it's about taking risks and putting yourself out there. This is a positive thing! Listen to your internal dialogue. What do you tell yourself when faced with challenging situations? "I'm no good", "I won't be able to do this", "I'm always messing up", "Everyone else is better than I am". Becoming familiar with these self-criticisms can help us change them into something more positive.

Encouraging

A valued mentoring skill is giving encouragement. This includes giving your mentoring partners recognition and sincere positive verbal feedback.

Providing positive feedback

In addition to giving frequent and sincere positive feedback, effective mentors should also be willing and able to give mentees corrective feedback. When you observe your mentees making mistakes or performing in less than desirable ways, you should be direct with your mentees, letting them know what you perceive and providing some better ways for handling the situations. It will probably be better for them to hear it from you than from others. This is an aspect of the mentor's protection skill. One of the first things you can discuss with your mentees is if and how they'd like to receive this feedback.

People are more willing to hear corrective feedback if they've given permission and know in advance it's coming. At the same time, you'll be more likely to give feedback if you're invited to do so. Attempt to:

- use positive, non-derogatory, business-like words and tone of voice with mentees when their behaviors or products aren't satisfactory
- give corrective feedback in private;
- give the feedback as soon as feasible after performance
- give specific feedback on behaviors and offer useful suggestions.



2. RECORD OF CLASSROOM OBSERVATION

2.1 INTRODUCTION

The decision to start a mentoring program stems from the belief that a need exists for such a program. The promotion of gender equality in and through education is a prerequisite to the achievement of equality between women and men in all spheres of life in society. The Council of Europe has promoted gender equality and non-stereotyped education at all levels. By shaping gender representations, attitudes and behaviors, early education is an essential factor to combat stereotypes and bring about social and cultural changes. Gender mainstreaming will play an active part in implementing awareness-raising and training on gender equality. Policymakers and educators worldwide should not underestimate the importance of early childhood education on the development of deeply ingrained gender norms. It is important to consider the cognitive and affective formation of gender identity which develops in early childhood. The types of skills, personality attributes, and career aspirations learned through teacher-child interactions and childhood play can form stereotypical masculine and feminine attitudes toward gender roles, which develop before adolescence. By associating gender equality and STEAM focused on preschool, primary and junior secondary education the project addresses the underrepresentation of girls in STE(A)M (Science, Technology, Arts, Engineering and Mathematics) who will be the future women in STE(A)M careers. Language not only reflects the way writers think; it also shapes the thinking of listeners or readers and influences their behavior. Word choices often carry unconscious assumptions about gender roles. The use of terms only referring to males is not accepted anymore, as excluding women is considered an offense. Language should therefore be used with a high degree of precision.

Avoiding discrimination between men and women starts with language, as the systematic use of gender-biased terminology influences attitudes and



expectations and could relegate women to the background or help extending the survival of a stereotyped view of masculine and feminine roles. The United Nations directives in that regard invite United Nations staff to avoid to the extent possible the use of language which refers explicitly or implicitly to only one sex, and to ensure (according to each language's characteristics) the use of non-sexist/gender-sensitive/neutral languages

Terms to take into account:

Sex: biological and physiological characteristics that define men and women. Sex characteristics do not vary between societies (for example menstruation, reproductive capacity and breast feeding are women's characteristics, while men generally have more massive bones).

Gender: socially constructed attributes, roles, behaviors and activities that a given society considers appropriate for men and women. Gender roles are the activities ascribed to men and women on the basis of perceived societal differences. Gender roles vary greatly between societies: division of labor in families, communities and the marketplace; access to education, health care, job opportunities, financial resources and decision-making roles; and other issues.

2.2. PROGRAMME DESIGN AND PLANNING

This mentoring programme will serve teachers who will be observed by their colleagues in the same school. Peer mentor after a short intense training will observe two colleagues will be in total 20 peer mentoring classes and teachers. The type of mentoring will be Peer -mentoring at work which is a way of mentorship that involves an intentional one-on-one relationship that normally takes place between professionals at the same career.

The programme goals are:

- To increase capabilities to reduce stereotypes, especially in STEAM and in what concerns teachers and youngsters.
- To improve inclusive attitudes concerning gender.
- To improve mentor's capacity to detect unbiased attitude towards gender and STEAM
- To promote mentees self-reflection regarding gender and STEAM through mentor's observation.



Expected outcomes:

- Define unconscious biases and gender stereotypes in preschool, primary and secondary STEAM education by raising awareness of target groups
- Support pre-school, primary and lower-secondary school teachers by providing them training, materials to deal with diversity and gender-balance in their classrooms
- Engage more girls in STEAM education

Program Evaluation:

Ongoing quality improvement is a hallmark of effective mentoring programs. It is necessary to establish:

- A plan to measure the programme process accurately;
- A process for measuring whether expected outcomes have occurred. **Possible**

questions for the mentor and mentees include:

- How is your match going?
- How do you feel about being a mentor?
- Do you and your mentee enjoy spending time together?
- Do you and your mentee have trouble thinking up things to do together?
- Is there anything interfering with your match?
- How would you describe your mentee's behavior?
- Does your mentee exhibit any behavior that you do not understand?
- Are you satisfied with how things are going?
- Is there any training you think would be helpful for you?
- Do you enjoy spending time with your mentor?
- What do you enjoy most about having a mentor?
- What do you enjoy least?
- Do you like talking to your mentor?
- Have you observed any positive or negative changes?
- A process that reflects on evaluation findings and disseminates them to appropriate parties.

The best way to evaluate the progress and success of this programme will be through observation sheets that reflect relevant issues toward gender and STEAM.



2.3. MENTORS TASKS

Before the session

Organization and Planning. Identify where your mentoring tasks fit into your other priorities and work it into your own planner. Peer mentoring shouldn't be an afterthought. Break your tasks down into their component parts. Making things more do-able means you are less likely to become overwhelmed. Encourage your mentees to ask any question that comes to mind.

During the session

Used appropriate and effective communication skills. These may include supportive listening, questioning, providing constructive feedback, challenging limitations and non-verbal communication.

After the session

The mentee and mentor will have the opportunity to discuss together what worked and didn't work in their relationship and to identify ways to handle future situations more effectively. A conversation between the mentee and mentor in order to make sure that both parties express themselves positively and constructively. Both parties should be encouraged to share their feelings about their relationship.

2.4. MENTORING LOG TEMPLATE

Here you can record your mentoring activities:

DATE	ACTIVITY- DISCUSSION/FEEDBACK/REVIEW OF TARGET



3. GIVING AND RECEIVING FEEDBACK

Giving positive feedback is straightforward. Giving less positive feedback is more difficult but to help girl-students development, it is important to give an honest, constructive response.

The following points may be helpful to you when you are giving feedback at the end of the session:

- Always start with the positive comments.
- The mentee needs to feel the mentor still values them even if giving a less positive feedback
 - It is important to comment objectively on what happened(facts), rather than giving opinions
 - Listen carefully using your body language, eye contact
 - Clarify problems. Restate and summarize issues
 - Set targets
 - Try not to convey disapproval or anger
 - Do not allow the discussion to become unproductively prolonged

Tools for receiving feedback:

- Based on the Stop, Start, continue framework, it goes like this:
 - Which behaviors should I stop?
 - Which behaviors should I start?
 - Which behaviors should I continue?
- Remember: Giving and receiving feedback from your peers will improve everyone's effectiveness.

Why should I give feedback?

- It is your obligation to help your mentee identify and learn the skills and knowledge needed for a successful career.
 - Feedback allows you to acknowledge your mentee's strengths and to motivate the mentee to work on areas of weakness.
 - Your mentee wants and needs your feedback to move forward in his or her career.



When should I provide feedback?

- There is no answer set in stone, but the general answer is that you should provide feedback frequently.

It is helpful to provide feedback on a regular basis so your mentee doesn't get bogged down pursuing the wrong path in his or her research or professional development.

- Feedback should be given on a timely basis. It is not helpful to provide feedback about a behavior or research method long after the behavior has occurred or the experiment has been completed.

- Prompt and frequent feedback will go a long way toward cementing your relationship.

How do I give constructive and effective feedback?

- The most important element in providing effective feedback is establishing an atmosphere of mutual trust and regard. When a feeling of trust has been created, it is easier both to give and to accept feedback.

- Make sure that the mentee understands that you are working toward a mutual goal – the mentee's success. Providing and receiving feedback can be a very positive experience for the mentor and the mentee as long as you both understand that you share the same commitment to developing the mentee's career.

- When you give feedback, it is important to acknowledge the mentee's accomplishments and successes along with the areas in which he or she needs to improve.

- You should always be specific in providing feedback. It is not terribly helpful to say, "Your work is sloppy." It is much more useful to describe the specific element of work that concerns you.

- Keep the feedback simple. When planning to give feedback, decide on a small number of areas that you want to cover. You don't want to create a shopping list of faults that could overwhelm and discourage the mentee.

- If a mentee is falling behind in his or her work, don't automatically assume a lack of commitment. Explore with your mentee what is really going on.

- When providing feedback, offer to work with your mentee to develop solutions to any problems that he or she is encountering.



What do I do while I am receiving feedback?

- Listen while your mentor is giving feedback, and wait until he or she is finished before you respond.
- Make sure you understand the feedback. It's useful to paraphrase the feedback to your mentor to ensure that you captured the intended meaning. Ask the mentor to clarify or to be more specific if he or she has not been. Or ask for strategies to resolve the issues and work together to develop solutions.
- Try not to be defensive. Your mentor is trying to help you succeed. If you're feeling defensive, it might be a good idea to ask if you can make an appointment to discuss the feedback later, after you've had time to consider it. You don't want to continue the conversation while you are upset. It's best to have a cooling down period. You also don't want to ask your mentor to defend the feedback, since feedback generally involves subjective perceptions and opinions.
- Finally, whether you agree with the feedback or not, thank your mentor for his or her time and for being helpful to you.

What if I get feedback that I don't agree with?

- Step back a bit. It's useful to consider the feedback calmly and to think about it in the overall context of moving forward in your career. An important element of receiving feedback is evaluating it, but evaluating it without emotion.
- Your mentor may want to give you additional feedback. Listen to it and think about it before you finalize your decision. And if you decide not to use the feedback at this time, keep the feedback in mind, since it may make more sense to you down the road.

General tips for both delivering and asking for feedback:

- Use positive feedback. Positive feedback is very important for establishing a positive and trusting working relationship.
- Be clear and specific.
- Focus on specific behavior or action, not individual.
- Show your peers that you want them to succeed, which is why you sharing your feedback
- Consider personality style differences
- Remember, feedback always requires a conversation



Tools for delivering peer feedback:

According to the Center for Creative Leadership, the SBI or Situation, Behavior, Impact model is as follows:

- Situation: Describe the situation in which behavior that needs to be modified occurred.
- Behavior: Describe the behavior from the situation that needs to be modified. The key is to describe observable actions (something that was said or done).
- Impact: Describe the impact their behavior could have on your colleagues.



4. WORKSHOP GUIDE FOR PEER MENTORS

Workshop objectives:

- To provide peer mentors with the tools for pre-school, primary and lower secondary mentoring.
- To rouse awareness of the importance of peer-mentor's tasks

Activity time: 2 hours

Materials:

- Powerpoints
- Worksheets

Areas:

- Understanding the role of a mentoring
- Understanding our mentees
- Taking action

Reflection

Workshop evaluation

Workshop practical application: Peers class observation and feedback (trained peer-mentors will observe two colleagues) on applying the counterarguments (Annex 1, 2 and 3) on the identified stereotypes will be observed.



ANNEX 1: Peer mentor observation sheet

During each observation interval, note if the teacher uses, or does, any of the following:

1. Comments that suggest gender-role stereotyping (examples: "be neat like a girl", "well done for a girl").

2. Apparent assignment of any tasks or lesson activities according to student gender.

3. Use of sexist (or non-sexist) language in class, in handouts, or in tests. As possible, provide examples of any observed. [refer to handout from class]

4. Use of sexist humor. If observed, list examples. Also list any instances where a teacher might correct another person's use of sexist humor.



ANNEX 2: Peer mentor observation sheet (Language stereotypes)

Languages issues to be observed	Yes	No	Occasionally	Comments	Feedback	Day
Bias-free language is used						
Expressions or words that suggest superiority of one gender are used						
Avoid gender biased language, such as using male words to mean all of humanity						
Gender is visible when relevant for communication						
Gender-neutral words are used						
The gendered word is omitted						
Using words suggesting gender-role stereotyping						



ANNEX 3: Peer mentor observation sheet (Language stereotypes)

Stereotype I:

Girls show an aptitude for art and humanities

CA1. Girls have the potential to excel in STEAM subjects.

CA2. There are many successful role models for girls in STEAM.

Stereotype II:

Boys show an aptitude how things work – linked to engineering work

CA 1. Boys are given more opportunities to construct, build and fix things. (This is in the nature of toys they are encouraged to play with).

CA2. Many women work in engineering too. (There are still opportunities for girls to work in this sector).

Stereotype III:

Girls like pink, boys like blue. Girls like glitter, boys like mud

CA1. Colors are neutral. Society attributes gender characteristics to colors.

CA2. Girls like mud too - girls can enjoy activities that are often associated with action.

Stereotype IV:

STE(A)M is not for girls

CA1: Since the introduction of ART in STEM many opportunities open for girls.

CA2: There is a new (somehow imposed) attitude towards girls and women in STEAM career paths.