



BLOOMING Project – Greece (UOWM)

Report Summary

Partner: University of Western Macedonia (UOWM)

Timeframe: September 2024 – December 2025

Work Packages: WP2 (Toolkit)

Testing of Educational Activities

Activity Title: Blooming Toolkit – Stories of the Past & Adapted Scientific Articles

Target Groups:

- University students (Early Childhood Education department - UOWM)

Implementation Context:

- Future educators
- Familiar with social aspects of gender gaps, teaching, storytelling, empathy maps
- Vast majority - Female

Student Demographics

- Students enrolled in a Digital Storytelling course (39 individuals)

Content Tested

- **Blooming Toolkit activities:**
 - Stories of the past (role models in STEAM)
 - Empathy Maps
 - Adapted scientific articles authored by women in STEM
- Classroom interventions included:
 - Reading and discussing Blooming stories and articles in physics and science courses
 - Student-led reflection activities (empathy maps, story-based discussion prompts)
 - Presentation of key ideas and stereotypes identified, followed by group Q&A



Feedback on Activities

Student Engagement:

- Students appreciated the simplification of the scientific articles, as their background is on humanities and thus, these topics are not easy for them to grasp.
- They found the simplification approach interesting and raised discussion about how to adapt teaching material for younger students
- Having experience in Empathy Maps for story-crafting (designing characters) and story-analyzing, they were very interested in this practical application of such tools.
- They related strongly to the personal stories and appreciated seeing historical and contemporary female scientists connected to physics and STEM.

Facilitator's Feedback:

- The material was easy to utilize and well accepted by the participants.
- The resources made an impact as the students discussed about ways of utilizing the Blooming approach for younger ages.
- The participants being mainly females, valued the resources and expressed their impression that this is an engaging way to integrate gender-inclusion topics into traditional classrooms.
- Recommendations included expanding the set of stories and providing more visuals and discussion questions tailored to mixed-gender classrooms.



Key Outcomes

Indicator	Result
% of students who used BLOOMING stories/articles and felt that they are inspiring for young girls to to pursue a career in STEAM	~80%
% of students who reported better awareness of gender stereotypes in STEM	~85%



Outcomes of Training Activities

Indicator	Result
% of students who improved awareness of inclusive teaching practices	~95%
% of students satisfied with the intervention activities	~95%
% of students who feel engaged in promoting inclusion in STEAM	~95%



Recommendations and Conclusions

- **Toolkit Improvements:** Provide detailed utilization guidelines. Consider expanding the resources, also for Arts.
- **Teacher Empowerment:** Develop lesson-integration guides for secondary and university educators.
- **Dissemination Focus:** Share outcomes through UOWM networks and academic channels to amplify impact.
- **Sustainability Strategy:** Incorporate Blooming Toolkit activities as regular interventions in the undergraduate courses related to STEAM, Digital Storytelling and Positive Sciences' didactics (including Informatics, Physics and mathematics). Design professional development programs through the Life Long Learning Center of UOWM for in-service teachers' training and summer schools.

BLOOMING Project – Greece (UOWM) Report

Summary

Partner: University of Western Macedonia (UOWM)

Timeframe: September 2024 – December 2025

Work Packages: WP3 (Storybook)

Testing of Educational Activities

Activity Title: Blooming Storybook– Stories of the Present & Lesson Plans

Target Groups:

- University students (Early Childhood Education department - UOWM)

Implementation Context:

- Future educators
- Familiar with social aspects of gender gaps, teaching, storytelling, empathy maps
- Vast majority - Female

Student Demographics

- Students enrolled in a STEAM course (108 individuals in 2 groups (74 and 34))

Content Tested

- **Blooming Storybook activities:**
 - Stories of the Present (contemporary role models in STEAM)
 - Lesson plans
 - Reflections
- Classroom interventions included:
 - Reading and discussing Blooming stories
 - Walkthrough and discussion on selected lesson plans

- Gender gap strategies' presentation, followed by group Q&A

Feedback on Activities

Student Engagement:

- Students appreciated the content of the lesson plans which were considered as understandable. It is to be noted that the participants' background is on humanities and thus, these topics are not easy for them to grasp.
- They found the choice of role models interesting. Many of the participants hadn't realized that women actually follow such professional careers.
- Having experience in Storytelling, they were very interested in this practical application of the approach.
- They expressed their confidence in being able to implement the lesson plans on their own.

Facilitator's Feedback:

- The material was easy to utilize and well accepted by the participants.
- The resources made an impact as the students discussed about ways of utilizing the Blooming approach for younger ages.
- The participants being mainly females, valued the resources and expressed their impression that this is an engaging way to integrate gender-inclusion topics into traditional classrooms.
- Recommendations included more details on the gender gap strategies..

Key Outcomes

Indicator	Result
% of students who used BLOOMING storybook and felt that they are inspiring for young girls to to pursue a career in STEAM	~85%
% of students who reported better awareness of gender stereotypes in STEM	~92%

Outcomes of Training Activities

Indicator	Result
% of students who improved awareness of inclusive teaching practices	~97%
% of students satisfied with the intervention activities	~92%
% of students who feel engaged in promoting inclusion in STEAM	~97%

Recommendations and Conclusions

- **Toolkit Improvements:** Provide detailed utilization guidelines. Consider expanding the resources, especially for gender gap issues.
- **Teacher Empowerment:** Develop lesson-integration guides for secondary and university educators.
- **Dissemination Focus:** Share outcomes through UOWM networks and academic channels to amplify impact.
- **Sustainability Strategy:** Incorporate Blooming Toolkit activities as regular interventions in the undergraduate courses related to STEAM, Digital Storytelling and Positive Sciences' didactics (including Informatics, Physics and mathematics). Design professional development programs through the Life Long Learning Center of UOWM for in-service teachers' training and summer schools.