

EUROPEAN ACADEMY ON YOUTH WORK - WORKSHOP REPORT

STEAM in Youth Work

Marie Cullen, National Youth Council of Ireland
Contact: jeanmarie@nyci.ie

TOPIC DISCUSSED

STEAM in Youth Work. The National Youth Council of Ireland use innovative methodologies to increase the use of STEAM (science, technology, engineering, art and maths) to support the achievement of youth work outcomes and build capacity to support the young people they work with to deal with both the risks and opportunities that living in an increasingly digitalised world bring.

Why STEAM?

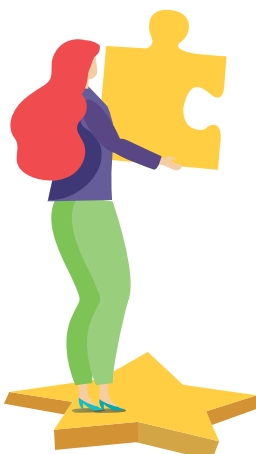
- Tools to engage young people they struggle to engage with through other approaches.
- Enhances youth work outcomes related to learning and development, e.g. problem solving skills or resilience.

Why the Youth Work Sector?

The youth sector plays a valuable role in the STEM education ecosystem.

There is much greater scope within the youth work sector, with its much greater flexibility than formal education, to allow for the important hands on and experiential learning aspects of STEAM education:

- Relevant to young people, capturing imaginations
- Making STEM practical and hands-on: process where failure is important, and mistakes provide learning opportunities.
- Changing perceptions and engaging the underrepresented in STEM.



AN IMPORTANT INTENDED OUTCOME OF THE PROJECT IS TO CHANGE PERCEPTIONS ABOUT SCIENCE AND STEM.

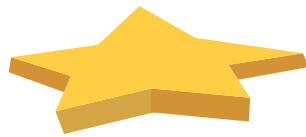
METHODOLOGY

Mixture of presentation; hands on practical STEAM activities for participants and handouts of evaluation resources.

KEY ISSUES RAISED SUCH AS CHALLENGES

Challenges to introducing and implementing STEAM in youth work:

- Balance between youth work and STEAM education/engagement
- Science learning/communication needs to improve
- Language: needs to be considered in regards to inclusion
- Engagement – resistant mind-sets
- Evaluation is an important aspect.
- Another key challenge relates to the inquiry-based and constructionist learning model that our project is based on, and which is central to effective STEAM and Maker education. There is a certain degree of discomfort for some youth workers in taking a step back, in limiting instruction, in taking on a more nuanced facilitation role, and in allowing young people to make, experiment, explore, encounter problems and solve them (almost 20% of those we train in some way struggle with this). Supporting youth workers through this discomfort is an ongoing area of learning for us and the focus of much of our upcoming activity.



INNOVATIVE RESPONSE(S) TO THOSE CHALLENGES

- Develop a model of science communication specific to youth work:
 - co-learning between youth workers & young people
 - youth work facilitation skills that include aspects of the scientific method & inquiry-based learning
 - link youth workers with STEAM communicators for shared learning and benefit
- One of the main challenges encountered relates to the 'resistant mind-sets', identified in Screenagers (NYCI, 2016), among parts of the youth sector to the involvement of youth workers in STEAM education. During our first year, we engaged the early adopters, but some did not get the organisational support to embed what they had learned within their practice and to continue to develop and deliver STEAM projects. Other youth workers did not see the relevance of STEAM to youth work. As a result, much of our effort has focused on awareness-raising through engagement with sector leaders to highlight how STEAM and Maker can be used within youth work to enhance youth work outcomes. In our second year, instead of filling our trainings through open calls, we 'pitched' it to managers to commission on behalf of their colleagues as continuous professional development opportunities. This approach is proving to be more effective in embedding STEAM as a methodology within youth work.
- The use of language through the project needs careful consideration; perception is important at these early stages. There are a number of different beneficiaries and audiences that the project is seeking to engage, which will have different interests in the project and communication needs- how the project is landed with these different groups (e.g. young people, youth workers, the wider STEM education ecosystem) needs careful consideration.



- The term ‘STEM’ can be alien and disabling to the types of young people that the project team hope will benefit. Depending on the language used, the project team may find it difficult to engage youth workers and young people; that said, an important intended outcome of the project is to change perceptions about science and STEM. While we do not want to evangelize about science, young people will need to know that they are doing and learning science. If this is not explicit within the project information that young people receive, this needs to be revealed to them at some point. There is something about being honest with young people here.
- There is a need to think deeply about the young people that we hope to engage with, to understand levels of disadvantage and to deliver and communicate the project responsively.
- Evaluation: Linking STEAM in Youth Work to Youth Work Outcomes.

Helpful resource: Capturing Magic: A TOOL FOR EVALUATING OUTCOMES IN YOUTH ARTS/STEAM PROJECTS and Skills Summary – an online tool for young people.

LINKS TO FURTHER RESOURCES OR INFORMATION ABOUT THE PROJECT AVAILABLE ONLINE

- STEAM in Youth Work
Website: <https://www.youth.ie/programmes/steam-and-digital-youth-work/>
Report: <https://www.youth.ie/documents/stem-in-youth-work-maker-project-final-report/>
And <https://www.digitalyouthwork.eu/>
- Evaluation: Capturing Magic: A TOOL FOR EVALUATING OUTCOMES IN YOUTH ARTS PROJECTS
<https://www.youth.ie/articles/capturing-magic-a-tool-for-evaluating-outcomes-in-youth-arts-projects-2/>
- Skills Summary: Skills Summary is an easy to use online tool that measures the skills young people gain by participating in youth work and volunteering opportunities
Website: <https://www.youth.ie/programmes/projects-initiatives/skills-summary/>
Video: <https://youtu.be/pCZTANvcgII>
Manual: http://www.youth.ie/sites/youth.ie/files/Skills%20Summary_Manual.pdf



The views and opinions expressed do not necessarily express the official view of the European Commission or the partners behind the European Academy on Youth Work. Reproduction of texts and pictures is authorised.

*Published by MOVIT, Ljubljana, Slovenia
October 2019*

Design and layout: AIKO, Maja Cerjak s.p.

*More information about the EAYW:
www.eayw.net*