

Participation of females in Declic'in activities

This document describes the place of females and males in the project, in terms of numbers and participation. It also describes some specific actions implemented to attract girls, to promote their participation to technical activities or to orient them towards the industry.

In the Netherlands, the 24 participants of the project were 3 women and 21 men. Although there are no formal thresholds for the participation of women in ICT projects, it turns out that these project mostly attract men. In order to promote these projects for women, the emphasis was moved from the classic technical skills to different skills, like presenting the products and designing the project website. To distinguish different roles in the project, the expectation was that more women would join the project, but as shown in the figures with little success.

As the participants all have a serious medical background, they come to the project through the local or regional social and medical services. These institutions advise the participants on possible projects. And linking participants to projects is done in a classic way, women to “service “projects, and men to more “technical projects”. To change that habit is a big challenge within the institutions.

The project team tried a possibility to promote ICT among women. The Fablab Wageningen and Nieuwland developed a workshop for schools. The aim was to interest children in the age of 10-15 in technical jobs. The workshops were held over 2 days. One day the preparation and introduction of the 3 D printer at the school, and the second day, the children would visit the Faclab and put their new knowledge into practice. There, the participation of girls was equal with the participation of boys. After the workshop each participant was able to design and print a product with the 3 D printer. Both girls and boys were very excited about the workshop so the project team is now investigating the possibilities of expanding this method. A target group could be the social and medical institutions in order to change their policy. And a second group should be human resource managers of companies. For Nieuwland Automatisering BV, the method for promoting equal opportunities for women and men has been an extra value of the project.

Timelab has been invited by “Design Regio Kortrijk” and the Kortrijk based fablab (BUDA::lab) on 20 & 21 October 2012 to organise a workshop weekend for teams to build their own Ultimaker. Timelab trainers, Kurt van Houtte, Lieven Standaert and Wendy van Wynsberghe coached the 9 teams that each built their own printer. Timelab launched a call via Facebook to invite girls to join the “girls only” team and build a pink Ultimaker. From the 14 applicants, 4 girls have been selected to build the printer, and 3 girls to print objects.

For international women’s day, on 8 March 2013, Timelab has printed pink bracelets with this pink Ultimaker and gave them away to the visitors of Ghent library.

A pink 3D printer, and a recruitment message for girls:



In Spain, girls are very interested in working with the 3D printer and printing little robots. The group of youngsters are mostly girls, they print models that they created themselves. CEPS don't favour girls in this process. In Barcelona, people who work in education are interested in the project, and also community workers. Maker Convent is located in the activities centre where lots of cultural activities take place. The strategy of the cultural center is to promote women in all workshops. The technical activities form approx. 20% of the activities. Communication is also done through a face to face approach, direct, close to the community. There's always a women in the team who approaches the people in the neighbourhood.

In France, the 3D printing activity has been proposed to a group of learners that counted males and females. In total, 14 boys and 4 girls have been involved. It was not possible to change the composition of the group for the project, as the young adults who participate are sent to Greta by external bodies in charge of accompanying unemployed or disabled workers such as the *Missions locales* or *Cap Emploi*. In terms of participation and involvement, it was not noted any difference, the differences being more linked to the cognitive capacities. In the orientation process conducted with the young adults, trainers works with them on stereotypes using specific exercises, some of them based theater forum techniques.

Conclusion

Partners are not always responsible for the sex composition of the groups of learners that can be in the hands of external bodies. Nevertheless, through their experience and discussions in the meetings, they would like to emphasize the following tips for involving more girls:

- Pay a special attention when communicating about the workshop activities. The terminology used in labs is not appealing. The name "3D printer" is very technical and probably not very attractive. What do you do when you use the 3D printer? >> Play and make and learn. We have to adapt the message. Try to find other words to describe the 3D printers. We can describe the process. It's a machine that creates stuff. Playing and making. It creates plays or toys. It is important to show what they can make.
- Do not hesitate to exaggerate, even by being caricatural, to force people to think about participation of girls, as done for example in Timelab by painting the printer in pink.
- Organise events only for girls.
- Organise actions in collaboration with schools, primary or secondary, where there is a parity de facto.
- Pay a special attention when recruiting learners (for example by including a woman in the team).
- Why not sensitize the intermediaries between the potential learner and the training center (at institutional and individual levels) and work in collaboration with them.
- Organise visits of production companies that are not too noisy or too "dirty".
- Invite women workers to present their work.
- Invite company managers to Declic'in-like workshops managed by girls, or where girls have an important role so that they can help the managers change their view about employing women on technical jobs by seeing that they can develop the needed skills.