

Declic'In

**Meeting
Barcelona**

19-20/02/2014

Participants:

CEPS: Oscar Martínez, Berenger Dupont, Joan Pedregosa (ES)
Droit et Devoir Asbl: Samawi Bouchaïb, Anna-maria Toscano (BE)
Nieuwland Automatisering BV: Kars Kamp, Ad Punt (NL)
BBAG: Klaus Schmidt, Mario Parade, Bernd Stiegitz (DE)
TimeLab: Suzanne Hendrickse, (BE)
Greta du Velay, FormaLab: Jérôme Combaz, Pierre Carrolaggi (FR)

1. Feedback on the Christmas design common task

Presentation of objects by partners.

Greta du Velay (FR)

Deer designed by learners – The programming was finalised with Cinema 4D by the trainer. Photos and program can be found on the web site that disseminates the activities in French (<http://formalab.fr/declic-in>).

CEPS (ES)

Traditional catalan figure for Christmas (A shepperd for the crèche).
As in the other countries, it was not organised as a competition among learners but as a collaborative task.

Nieuwland Automatisering BV (NL)

Droit et Devoir (BE)

Picture of a ball taken from Thinkgiverse
They wanted to learn how to redesign and reprogram it.
Learners have benefited from an Autocad training (Autocad because Sketchup as a free software has limited capacities).

Timelab (BE)

Object published on thinkgiverse.
Program written for Ultimakers
Logo/text/dimension can be changed.
Printed in 12 minutes.

BBAG (DE)

Summary

TO DO: All partners upload their program and pictures of the work on Springpad in the dedicated section.
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2. 3D printer construction process and state of art in each country

Droit et Devoir (BE)

Presentation of the 3D printer construction process
Events organised during the digital week and for the waste reduction week (visit of the training center)

Idea to try next year with silica.

Idea of Mobile fablab to go to schools. This exist in NL, in a bus, rural area. Use the leader program to finance it (100000 euros for a mobile demo of roman empire in NL).

Greta du Velay (FR)

The printer was constructed by the a group of young learners with cognitive disabilities, half a day per week during 2 months. Some plastic pieces that needed to be exactly identical (supporting the 7 carriage) were slightly different because they had been made on a peer-to-peer approach (the printing of the pieces had been split). Then printer has melt by staying on the sun in a car in July.

All plastic pieces have been re-printed by the same person, more homogeneous. And the functioning of the printer was better. Quite a long time was needed to parameter it. Still it is limited to small objects. The learners are not able to design their own objects. They have understood the principles and the chain of command, they are able to look for objects and to print them. Some are able to modify slightly the program. They are able to monitor the printer.

Timelab (BE)

Price estimated at 50 euros per hour (a small object can cost 100 euros – an object is a project, not a small object. With a Ultimaker, the final product is not perfect quality.

1 printer + 1 instructor in a school = 100 euros per hour.

What is important to provide a 3D experience, not to print objects.

CEPS (ES)

Five sessions 2 hours for 5 weeks (4,11 euros per hour).

2 workshops on 3D printing, stencils and vinyl cutter)

2 projects with children: open workshop to them, 3 euros per hour - workshop printing Minecraft figures (a free internet game)

1st week of june: call opens end of March – music for the chapels of the convent.

Work with the neighbourhood.

Nieuwland Automatisering BV (NL)

BBAG (DE)

Summary

TO DO:

1. Each partner fills a file to document the building process of 3D (End of April) and send it to Greta.
2. Each partner fills a file to document the objects printed by learners (End of April) and send it to Greta.
3. Each partner upload all the documentation on Springpad in the dedicated sections.
4. Partners collect the “evaluation of transversal skills” filled by learners.
5. XX makes a synthesis of the evaluation of transversal skills.

3. Production of the common video

Reminder: the project has to produce a video that will gather the experiences of all partners. The partner responsible for the video was not approved.

All partners have made videos during the construction process.

Summary

TO DO:

1. Every partners sends to Greta 30s to 2 min taken from their experience – Minimum quality HD 720 to 1080p by the end of March
2. The Greta will do the editing.

4. Communication activities

Timelab (BE)

They have been approached by companies (jubilee day, family day, open day...) to present 3D printing. They charge per printer per hour (can include a presentation or just print).

Library that want to show technologies to the public – all day – demonstration done by Timelab users (design of a bicycle including a 3D printer).

CEPS (ES)

We plan a activity to present the MakerConvent and the 3D printer in the Mini Maker Faire in Barcelona the 22th of june. Is a all day faire in the street with a lot of makers.

Nieuwland Automatisering BV (NL)

Droit et Devoir (BE)

Greta du Velay (FR)

The Greta has organised an afternoon “discovering the jobs in the industrial sector” including: discussion with technical teachers, with learners preparing industrial diplomas, visit of the practical workshops, and hands on session in the Formalab. The target group was a group of 12 young adults in orientation process.

A visit was also organised for all the teachers of technology from secondary schools in the Haute-Loire (private and public sector). The objective was to show them the possibility of the 3D printing workshop and to evaluate with them how they could organise events for their pupils as well as informing them about careers in the industry.

Representatives (usually tutors) from companies that welcome learners are presented the 3D printing activity and the workshop in which it takes place. This communication is done on a regular base when companies are coming to the premises.

Articles are regularly published on the web site that publishes information in French to inform about the development of the declic'in project (<http://formalab.fr/declic-in>).

BBAG (DE)

5. Taking into account equal access for female and male

CEPS (ES)

Oscar explains the participation in the maker convent: girls are very interested in working with the 3D printer and printing little robots. Oscar's group of youngsters is mostly girls, they print models that they created themselves.

Oscar: we don't favour girls in this process, we don't have links with production industries. In Barcelona level: people who work in education are interested in this project, community workers. Natural process, women, kids can use the 3D printers.

Approach in Maker Convent:

It 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.

Face to face approach, very direct, close to the community. There's always a women in the team who approaches the people in the neighbourhood.

Barcelona is promoting technical courses for children. In his opinion, it is very sexist. The boy says he wants to be a scientist, mechanical. The girl says she likes to be a doctor.

Nieuwland Automatisering BV (NL)

Develop a 3D printing programme for girls in schools.

Make sure that the creative part of 3D printing is included in the 3D printing workshop.

3D printer can be seen as a tool to find out what your skills are.

Greta du Velay (FR)

The 3D printing activity has been proposed to a group of learners that counted males and females. In total 14 boys and 3 girls have been involved. It was not possible to change the composition of the group for the project (as the young adults

who come for the training are sent to Greta by external bodies such as the *Missions locales* or *Cap Emploi*, in charge of the employment of disabled workers. In terms of participation and involvement, it was not noted any difference. In the orientation process conducted with the young adults, the trainer works with them on stereotypes.

Open discussion

Terminology –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

Try to find other words to describe the 3D printers. You can describe the process. It’s a machine that creates stuff. It creates plays – toys.

Playing and making.

Show what they can make.

We have to adapt the message

Summary

TO DO:

1.

6. How to motivate learners to engage in technical training / to work in the industry?

Droit et Devoir has developed a personality test to determine the main areas of interest of a learner. It shows the preferences. The job of the trainer is to develop the other skills.

With the questionnaire they find out what the preconceptions are about working in technical jobs. In order to get people more motivated to work in the industry, it is needed to take away the barriers.

In the experience of Droit et Devoir, after 6 months they validate the competences. Some went to a technical school after the 3D printing process experience.

Greta du Velay tries to organise practice periods in production companies after the 3D printing workshops. It has also presented existing local job opportunities in the industry and organised a visit of the vocational and technical high school with a discussion with teachers and students.

Open discussion

- Use of the 3D workshop for detecting intrinsic motivation.
- Use of the 3D workshop as an orientation tool.
- “Profiling” learners to see in which areas they are more capable.
- Linking the evaluation to all the phases of 3D printing (building the machine, designing objects, selling objects) – to find out how confident learners would be in these parts.
- Organising several evaluations, so that learners can see that they have developed their skills.

Summary

TO DO:

1. Droit et Devoir will send the methodology and the test adapted to Declic'In to analyse the motivation (that includes internal and external factors).
2. Partners will evaluate how it is suitable for our own organisations and send feedback to Droit et Devoir
3. Droit et Devoir makes the synthesis = common methodology

7. Developing links with companies

Timelab (BE)

Invite every company at Openlab on wednesday night so that they can see by themselves (better than a specific event for them) and so that they can experiment.

Up to now, it has not so much been engaged towards employment. Job seekers do not add their skills gained in the fablab in their portfolio on LinkedIn.

Nieuwland Automatisering BV (NL)

A bank gives money to organise a day for secondary schools – the bank has entrance to companies.

Droit et Devoir (BE)

Contact from an industrial school so that they can print their final work in Droit et Devoir instead of hand-making the

mock.

Greta du Velay (FR)

CEPS (ES)

Develop the use of 3D printers

It is known that 3D printers can be used for educational purposes

BBAG (DE)

Summary

TO DO:

1. NL brings in Potsdam, a communication strategy targeted to production companies

8. Final product – formalisation of the model

BBAG is responsible for the final formalisation of the Declic'In model.

Formalisation includes everything that has been produced by our project.

- How to motivate people to work with 3D printers.
- Practical guide for when you decide to build your own printer.
- Practical tips for people that want to work in technical sector.

Topics to include are:

- What are the problems that can be encountered
- How to make a training programme for different groups
- How to include both men and women
- How to communicate about 3D printing and the added value of 3D printing in a learning process
- How to motivate learners to participate and to orient to careers in the industry
- How to build a relationship with production companies, with technical training centers/schools/institutes
- Evaluation of the process

...

Summary

TO DO:

1. BBAG finalises the organisation of the Declic'In model and integrates the data from other partners.

9. Various

Partners have filled the monitoring check list for ongoing partnerships provided by QAS. See Summary and improvement tools and tips in Annexes.

Timelab will prepare a grid for final evaluation to be given in Potsdam.

18/02/14 (after 5 pm)

Workshop (3D printing and funny robots). Timelab develops a workshop with childrens in the makerspace.

19/02/14 (pm)

Visit in MOB (Makers of Barcelona) a co-working space and a MadeSpace.

Next meeting planned in Potsdam: 12-13/06/2014

Bi/tri-lateral meeting planned on 21/03 or 28/03 in Gent (NL, DE) – to be confirmed.

ANNEX 1 - Summary of the Monitoring of on-going partnerships (QAS) tool

Organisation

	Average	Highest	Lowest	Comment
1. The project is implemented in the activities of the organisation	3,6	4	3	
2. A sufficient number of people are actively involved in the Partnership.	3,2	4	2	
3. The management of the organisation is supportive and involved.	3,5	4	2	
4. There is collaboration between the partners.	3,3	4	3	
5. We cooperate with associated partners.	2,7	4	2	Read Annex 2 for improvement
6. We cooperate with other projects or networks	2,5	4	2	Read Annex 2 for improvement

Project activities

	Average	Highest	Lowest	Comment
7. The aims/objectives are achievable.	3,8	4	3	
8. The expected outcomes of the project are realistic	3,8	4	3	
9. We have documented the project achievements and the project development.	3	4	2	
10. The project is integrated in the organisation	2,7	4	2	It is advised to continue with Quizz n°8 in order to improve this point. (cf. attachment)
11. We have made a preliminary budget for 2 years.	2,8	4	2	
12. We follow up on expenses and have all verifications neatly stored.	3,5	4	3	

Evaluation, monitoring and dissemination results

	Average	Highest	Lowest	Comment
13. We have made an evaluation plan indicating that we are going to do evaluations continuously	2,7	4	2	It is advised to continue with Quizz n°4 in order to improve this point. (cf. attachment)
14. All target groups participate to some extent in the various evaluations and we evaluate different factors that are important for the success of the project	2,7	4	2	It is advised to continue with Quizz n°4 in order to improve this point. (cf. attachment)
15. We have a good plan for how and what to disseminate continuously.	2,7	4	2	

ANNEX 2 - Extract from the QAS manual for monitoring

Theme: External partners and cooperation

Anyone embarking on a partnership has in mind that it should ultimately benefit a certain target group. The partnership should also affect you, personally, and other colleagues, as well as others not considered part of the primary target group. This means that you would need to identify who these groups are in the preliminary project planning phase and, if possible, involve them in the dissemination process. They should be people in your own organisation or others involved in similar partnerships. Try to identify the key groups locally; they can give the dissemination process impetus.

Below are some possible questions you can ask yourself:

How do we secure the support of management in our own organisation for the project and how we can try to make use of the insight they gain of the project in the dissemination process?

Are there any forums where we can present the partnership to more than one target group?

Do we have a plan for keeping our project partners in other countries updated?

What other players in the local communities, e.g. the employment office and social services, could be interested in the same end target groups and how should we work with them?

Associated partners can be very beneficial to the partnership by providing resources and/or additional funding support. Their input might be educational or business related work experience opportunities. They might support the partnership by providing equipment and/or training in various forms. They might also attend partnership meetings across Europe to help, train or guide the partnerships staff and learners in specific areas of relevance to the partnership

Which local, regional, national or international colleagues, associations, organisations or other players could possibly be interested?

What does my network look like ñ can I get support elsewhere?

Parents and community groups can be of much assistance during the lifetime of a the partnership. They may help with partnership related tasks due to individual experience or through group activities. They may assist during project meetings abroad or within their own country which might raise their own self-confidence and the learners by showing support to the organisations and commitment to learning overall. Parent and child collaboration might raise overall closer ties amongst families who might not otherwise spend much time together for various reasons. Parents are also likely to inform other parents and their local community of the on-going activities and spread the partnership and the organisations activities further.

ANNEX 3 – Extract from the QAS manual for monitoring

Theme: Dissemination and use of results

Dissemination is also often described as a process that involves a sharing of results and experiences with the aim of influencing the way other people think and act, or of making them aware of a new idea, product or service. In partnerships you focus on the process rather than on the product, and on experiences rather than results, and of course that affects your dissemination activities and strategies. You should not wait until the project has been completed to share your experiences and your results. There is a link between information, communication and dissemination. If you think of information and communication as parts of the dissemination process you will be open for useful input from your target group from the very beginning of the process.

What would you like to achieve?

- Raise awareness in the intended target group.
- Generate understanding and obtain the support of others in disseminating information.
- Involve others outside your own organisation.
- Bring about a change in attitudes and ways of thinking.
- Bring about a change in attitudes for target groups.
- New patterns of conduct in the target group - the end users of the project results.

There are many more ways to describe the aims of the dissemination process - motivate, inspire, suggest, call attention to, arouse curiosity, enlighten, encourage, make visible, channel, sum up, concentrate, caution, prevent, introduce... The main thing is that you are aware of your aims and that you select an appropriate method.

Why is dissemination important and for whom?

- The project comes to an end but the results live on and are only meaningful if they are put to good use and result in functional changes.
- Concluded - but not finished. The project contributes to lifelong learning and personal development, both with respect to those undertaking the project and those whom the project aims to support.
- Make staff and learners aware of what a good job they have done.
- Make all interested parties and a wider public aware of what you have accomplished.
- Influence decision-makers - important to them, too, as a basis for decisions.
- Generate general interest in transnational cooperation.
- Generate interest in language learning.
- Raise awareness of European cultural diversity and similarity.

What needs disseminating?

It is vital that the participants in the project have a shared vision and understanding of what needs to be disseminated. Not only will this provide a common framework but will also enable the participants to describe the project and the planned dissemination in an informed manner.

Your choice of tool will depend on your understanding of the target group as well as on your aims. Are you aiming to raise awareness, change attitudes or create new patterns of conduct in your target group?

The aim can also vary depending where in the process you find yourself, and this calls for a deliberate, planned variation of methods. **Methods you can use in the dissemination process include:**

- Informal person-to-person meetings - unrivalled as a way of persuading.
- Briefings, seminars, workshops, conferences, exhibitions - provide opportunities to inform and discuss
- Printed materials, e.g. reports
- Websites - but don't forget to update them!
- Links to and from websites
- Videos, CDs, DVDs or other audiovisual materials
- Massmedia - have a strategy for attracting their attention!
- E-mail lists for mass mailing a newsletter - continuous dissemination of process results
- Direct application in a learning situation - the original aim of dissemination activities

- Information officers
- Press releases
- Braille to give access to the partially sighted or other methods specially adapted to cater for various other types of disability.

What needs to be avoided in your dissemination activities?

When you are totally immersed in an activity, it is easy to lose sight of who the recipients are. It is useful to bear the following points in mind when disseminating your results and experiences:

- Refrain from showing a lot of photographs of the project meetings you have had n) how much fun is it looking at a family album when you do not know anyone?
- Avoid giving detailed accounts of every meeting - get to the point!
- Share the experiences as well as the results ñ meta-learning is just as important!
- Written information can be given out in advance ñ personal meetings provide the opportunity to talk about things in more depth (in the form of seminars) and create a basis for influencing attitudes and changing future patterns of behaviour.
- Try not to give everyone the same information but tailor it to the target group.
- Do not fall into the trap of saving the dissemination activities until the end of the project ñ you will then miss the opportunity to get feedback and support from other interested players.
- Think in terms of quality, not quantity ñ you are better off choosing few words that generates interest
- Be clear right from the start who owns the project results so that discussions about copyright, for example, do not mar the end of the cooperation process.

What other effects does dissemination have besides the sharing of results?

All project activities have positive as well as negative side effects. Some of the most obvious positive side effects are listed below:

- Feedback during the project
 - change of direction
 - better quality
- Strengthened cooperation and the feeling of solidarity within your own organisation ñ if responsibility and authority are shared and the project has support from the start
- Increased visibility of the organisation in the local community
- Promotion of innovation in society
- New energy and ideas
- New contacts and new projects ñ contagious!
- Awareness of other cultures and readiness to take on cultural differences
- Foreign-language competence and better communication skills
- ICT skills
- An understanding of your own culture when faced with others
- Personal development and development of your own capabilities