THE CO-CREATE CURRICULUM

FOR CREATIVE PROFESSIONALS

DISCLAIMER

Edited by the CO-CREATE consortium with contributions from Aiur Retegi, Brigitte Sauvage, Barbara Predan, Enrique Tomás, Gisa Schosswohl, Martin Kaltenbrunner and Denisa Draganovská.

This document can be downloaded and shared from CO-CREATE´s website http://www.cocreate.training/

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1/ Introduction

The final objective of this document is to **provide a curriculum for the realisation of educational activities in collaborative design at professional scenarios.** This curriculum includes the aims and content of the learning outcomes, training methodologies and learning approaches, its evaluation and the necessary quality assessment. This document also incorporates a handbook for guiding trainers to the production of learning units.

The term **collaborative design** (or co-design) describes an approach to design that attempts to actively involve all stakeholders (e.g. employees, partners, customers, citizens, end users) in the design process to ensure the result meets their needs and is ultimately usable. This brings about a great range of benefits for their product or service such as a better fit to the customer's needs, profitability or brand loyalty.

> **Stakeholder:** groups, individuals, organisations which have a claim, gain or benefit, or feel they should have some ownership of a process, program or project.

This curriculum for training students in co-design was prepared to be mapped to nonformal learning activities. In particular, this curriculum aims at specifying the objectives, competences, content, evaluation criteria and methodologies of a Train-the-Trainer workshop. It must be seen, for example, as a possible module within a master programme or as a course embedded in a larger educational plan. As explained in detail later in this document, the Train-the-Train workshop format allows rapid training and effective dissemination of practical knowledge within dynamic professional scenarios.

Non-formal learning has been defined by the EU Commission[1] as:

> *Non-formal learning is purposive but voluntary learning that takes place in a diverse range of environments and situations for which teaching/training and learning is not necessarily their sole or main activity. These environments and situations may be intermittent or transitory, and the activities or courses that take place may be staffed by professional learning facilitators (such as youth trainers) or by volunteers (such as youth leaders). The activities and courses are planned, but are seldom structured by conventional rhythms or curriculum subjects. They usually address specific target groups, but rarely document or assess learning outcomes or achievements in conventionally visible ways.*

Especially for collaborative design activities, non-formal education is adequate because (source ibid):

> *it commonly emphasises the learner's intrinsic motivation, voluntary participation, critical thinking and democratic agency. It is widely acknowledged and recognised that non-formal learning provides unique learning opportunities to millions of young Europeans on a daily basis.*

Therefore, this curriculum also provides resources and structures to prepare co-design learning activities while it aims at training students to become trainers in the future. The Train-the-Trainer model consists of a double training and learning strategy. The trainer, a subject-matter expert, trains other employees and simultaneously teaches them how to

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1 http://pjp-eu.coe.int/en/web/youth-partnership/non-formal-learning

train others in the use of the subject. It allows the rapid expansion of knowledge and skills in, for example, corporate populations. The method offers distinct advantages over other training models because trainees typically learn faster and retain the information better than in other teaching models.

Finally, it is crucial to declare that this curriculum has been produced under the umbrella of the project **CO-CREATE**[2] funded by the **Erasmus+ Framework** of the European Commission. For preparing and evaluating this document, the partners of the Co-Create project have been active collaborators. First, this curriculum inherits from the document *Co-Design Best Practice Report*[3] , an overview of best practice projects from Austria, Denmark, Slovenia, Slovakia and Spain in Creative Industries. The best practice examples chosen by project partners have served to identify idiosyncratic viewpoints of successful (or not) co-design cases at real professional scenarios. Second, the training format of this document has been tested extensively by the Co-Create consortium partners. After a first workshop in February 2018 which served to share our methodological approach, each partner acquired the necessary competences to organise their own local workshops from June to September 2018. Both the organisers and participants were asked to evaluate each workshop using questionnaires. Therefore, this process has served to progressively test, evaluate and improve various aspects of this curriculum.

1.1/ Follow-up process to elaborate this Curriculum

This Curriculum has been elaborated in the context of the Erasmus+ project CO-CREATE. Its production began in the last months of 2016 and it was publicly released[4] in late 2018.

Figure 1: CO-CREATE Project Schedule

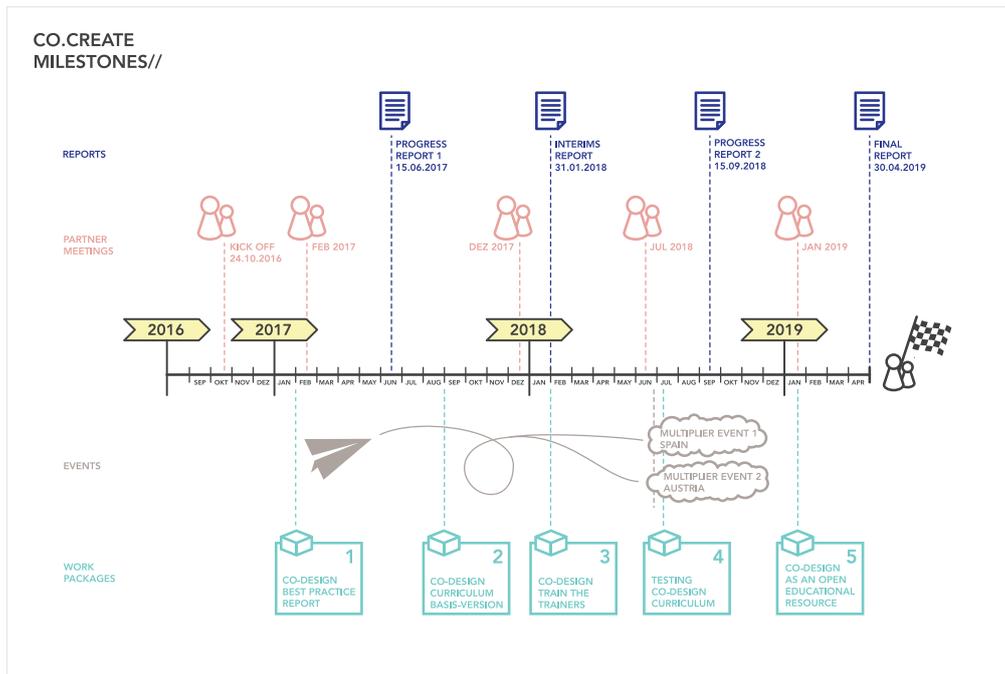2 http://www.cocreate.training
3 It can be downloaded from the URL:
   http://www.cocreate.training/wp-content/uploads/2017/07/co-design_best-practice-report.pdf
4 CO-CREATE has also produced a number of useful deliverables and resources supporting
   co-design training. All these training materials can be downloaded from:
   http://www.cocreate.training/downloads

The project was developed taking into account the following schedule (figure 1):

1. Elaborating a **Best Practice Report in co-design**. At the very beginning of the project, four *focus group*[5] sessions were organised at four different European countries. These sessions assembled creative professionals who shared their expertise in co-design projects. After that, the consortium's partners elaborated the 'Best Practice Report' featuring representative examples of co-design projects and training activities in Austria, Spain, Slovakia, Denmark, Netherlands and Slovenia. The results of this first round of focus group sessions and the knowledge gained after the elaboration of the report helped us dramatically to ground the objectives of this curriculum.

2. Producing a **Curriculum for developing training activities in co-design.** Prior to its elaboration, four new focus group sessions were developed in Denmark, Austria, Slovakia and Spain. In this case, the topics to discuss included 'what a curriculum for co-design might comprise' and 'which training formats would be more adequate for their successful application at creative industries'. The resulting 'Findings Report', together with the already produced 'Best Practice Report', triggered the production of the very first version of this curriculum. Subsequently, this curriculum has been periodically updated. In particular, the workshops 'Train the Trainer' and 'Train the Professionals' (organised in 2018) helped us to test the adequacy of particular aspects of this curriculum. The lessons learned at these workshops were included in the latest versions of this document.

3. Elaborating a **Handbook for training trainers in co-design.** Once the Curriculum was advanced, the Handbook appears as a document supporting both participants and organisers. On the one hand, it assists organisations in designing successful workshops in co-design. On the other, it includes useful content for practicing codesign, understanding its theory and gaining training skills. It also presents case studies and real scenario applications. Therefore, the handbook should be seen as a resource showing ways to implement the curriculum. For elaborating it, the authors took into account all the previous deliverables and know-how produced along the project.

4. **Evaluating both the co-design curriculum and the handbook** at two series of workshops. First, in February 2019, we organised a 'Train-the-Trainer' workshop in Linz, Austria. This workshop was developed with the intention of training co-design professionals who, after this workshop, became also trainers in co-design. Together with these experts, we tested many aspects of the curriculum and obtained important contributions for it. Second, the five workshops 'Train-the-Professionals' helped us to definitely evaluate both the Curriculum and the Handbook. They were guided by participants of the previous workshop who implemented our methodology at their local professional environments. Through the results obtained from these five workshops (in Austria, Slovakia, Slovenia, Netherlands and Spain), we evaluated the adequacy of our curriculum at real professional scenarios where non-experts in co-design were trained. From these experiences, we modified various aspects regarding the implementation of our curriculum.

5. **Disseminating the curriculum and handbook through learning materials and community building.** The last year of the project has been devoted to the elaboration

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5 A focus group is a group of people who participate in a discussion about a product or service before it is launched. Their main task is to provide feedback and share opinions about an issue in question before a company starts its design phase.

of attractive graphic training materials which can be easily distributed and managed. These useful resources complement our handbook supporting co-design workshops. But they also serve as graphic resources attracting professionals to the field of co-design. Our plan, through the dissemination of these learning materials and the organisation of multiplier events, is to boost the creation of co-design training communities.

2/ For whom do we write this Co-Design Curriculum?

This curriculum is written for **organisations which are interested in implementing collaborative design training activities.** Due to the particular sector of the CO-CREATE consortium, our curriculum was especially developed for the implementation in creative industries. The expected participants of the training activities specified in this curriculum are **creative professionals** who wish to acquire or improve their collaborative design skills.

The minimum requirements for participants of a co-design training activity are explained in the following section.

3/ Participant requirements in relation to the European Qualification Framework (EQF)

To make the multiple European education and training systems more transparent and comparable, the EU Commission suggested changing the way professional curricula have been traditionally set up. The European Qualifications Framework (EQF) is an instrument for mapping qualifications from national education system to other educational systems in Europe. The EQF can be seen as a translation tool which is necessary to reference all national qualifications and to make them comparable. Each Member State of the EU is able to implement its own qualification framework but it must allocate specific national qualifications to a European reference level system. This system based on eight levels serves to compare qualifications along local EU Member States systems. Interestingly, the eight reference levels used at the EQF are described in terms of the **learning outcome** concept:

> *"Learning outcomes are defined as statements about what a learner knows, understands, and is able to do on completion of a learning process. They are defined in terms of knowledge, skills, and competences." (Recommendation of the European Parliament and Council on the EQF, 2008)*

In this context, learning outcomes are practically defined using three descriptors: **knowledge, skills, and competences.** Knowledge is theoretical and/or factual, skills describe the ability to apply knowledge in practice and competences describe responsibility and autonomy. Learning outcomes do not depend on the length of study or on the setting where learning takes place and the form of learning. The basis and objective is to further develop the curricula of all programmes that award qualifications to give them a learning outcome focus.

Within the EQF, **there are 8 levels defined by a set of descriptors which indicate learning outcomes and relevant qualification requirements** for each level in any system. For the scope of our co-design curriculum project, **the fifth EQF level** will be involved. An example of EQF Level 5 is the „Diploma of Higher Education" which is awarded after two years of full-time study at a university or other higher education institution. For instance, a Bachelor degree would be mapped as EQF level 6.

The descriptor for the higher education short cycle (within or linked to the first cycle), developed by the Joint Quality Initiative as part of the Bologna process, corresponds to the learning outcomes for EQF level 5 involving the following outcomes:

- Knowledge: Comprehensive, specialised, factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge.
- Skills: A comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems.
- Competence: Exercise management and supervision in contexts of work or study activities where there is unpredictable change; review and develop performance of self and others.

This curriculum has been designed to be implemented at professional sectors interested in developing collaborative design activities within their actual professional training plans. In these sectors, we expect a **target audience with professional career and higher education level (at least pre-Bachelor)**, what corresponds to at least the first two years of a first cycle of University studies completed. Thus, **this curriculum corresponds to level 5 of the European Qualifications Framework (EQF)**.

The spectrum of candidates expected can be wide but our curriculum has been designed from the **creative industries** perspective. Candidates with this profile would be, for example, designers, artists, architects, creative software developers or managers of creative industries.

4/ European Qualification Framework (EQF) Certification

This curriculum provides the foundation for implementing a course on Co-Design at diverse institutions offering non-formal education to academic students and professionals. For example, an organisation interested in offering this course would take our curriculum as the guide to organise the learning content and competences to be assured, the methodologies to employ and the validation and evaluation of what students have learned. Before its practical implementation, organisations may certify this course at their National Qualification Framework Office or NCP[6]. For each country, an officially certified course will correspond to a number of ECTS credits applicable to the level of education mapped to that level. For instance, professional designers could attend a certified Co-Design course to improve and progress in their educational level while being sure of obtaining an educational degree comparable within the EU.

As this curriculum aims at implementing Co-Design workshops at a transnational level, we highly recommend organisations to register and certify their courses following the national educational and structural specificities of their countries at their respective national offices. Bringing this co-design curriculum in line with EQF standards allows its easy implementation within any national qualification framework (NQFs). Any organisation in Europe interested in implementing this curriculum will be able to validate it within the European Qualifications Framework at national certification offices usually dependent on their respective local professional sectors offices. For instance, in Austria, the NQF is called NQR (*National Qualification Framework*) and coordinated by the NKS (*Koordinierungsstelle für den NQR*).

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6 For example, in Austria this office is the Qualifikations Register

Finally, as we have described in the last two sections, this curriculum has been elaborated **taking into account the recommendations of the EQF**. Therefore, those institutions which may have decided to implement educational courses following this curriculum will be sure that their activities will be totally **EQF-compatible**. For example, a professional course on co-design offered by a local Chamber of Commerce which has followed the recommendations of this curriculum could opt to be officially certified under the EQF. The interest of students in receiving this certification is twofold. First, students will receive a certification which can be fully translated to the framework of other EU national educational systems. Second, this certification assesses the quality of the educational activities.

5/ EQF Compatibility of this Curriculum

To assure the EQF compatibility of particular implementations of this curriculum, the CO CREATE consortium has taken into account the recommendations offered by national agencies coordinating certifications (NKS). In particular, we have designed our curriculum following the documents *Handbuch für die Zuordnung von Qualifikationen zum Nationalen Qualifikationsrahmen (NQR)* and the *Checkliste zu Festellung der NQR-Zuordnungstauglichkeit*[7] edited by the Austrian *NKS (Koordinierungsstelle für den NQR Österreich)*. The first document is a handbook describing the qualifications context and how new educational programs have to be formatted to be EQF-compatible. The second acts as a checklist to assure the EQF suitability of the evaluation procedure before its certification. Roughly, these documents focus on two main aspects every educational program must feature:

- The specification of the educational activity within the new European Qualification Framework: defining its qualification level (I to VIII, see previous sections) and adapting its content to the specified learning outcomes, skills, knowledge and competences stipulated at each EQF level.
- The necessary conditions to set a new qualification: transparency, accessibility and quality.

In this regard, this curriculum has taken into account these aspects offering an EQF-compatible educational activity whose implementations can be certified by European national agencies. Along the following sections, we will describe into detail proposed learning outcomes, the qualification procedure, evaluation criteria and quality assessment.

6/ Structure of this Curriculum

This curriculum has been structured following the standards of the EQF which specifies that educational activities have to be described in terms of **learning outcomes** defined by three descriptors: **Knowledge, Skills and Competences**.

Learning outcomes have been defined as a statement of what a learner is expected to know, understand, or be able to do at the end of a learning process. **Knowledge** is theoretical and/or factual, **skills** describe the ability to apply knowledge in practice and **competences** de-

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(Koordinierungsstelle für den NQR Österreich (www.qualifikationsregister.at)
7 It can be found at the Austrian NKS website:
https://www.qualifikationsregister.at/public/Downloads

scribe a student's responsibility and autonomy.

Additionally, for completing a curriculum other elements have to be introduced:
- Training Methodologies
- Evaluation Criteria
- Educational Quality Assessment

Training methodologies are understood as a set of strategies, procedures and actions organised by teachers with the objective of enabling students' learning. The evaluation criteria constitute the referents to evaluate students' learning levels. Finally, a strategy to assess the quality of the various possible implementations of this curriculum also needs to be defined.

In the following sections of this document, we will describe each of these elements into detail.

7/ Learning Outcomes

Defining learning outcomes means specifying the professional tasks and activities the holder of a qualification in Co-Design is supposed to be able to carry out as well as the competences that need to be acquired for that purpose.

On successful completion of the training module, students will be able to (learning outcomes ‚LO'):

1. *Think over a collaborative design methodological strategy for the issue in question (LO1)*
2. *Define key structural aspects to develop the collaborative process: funding, division of responsibilities, production of the events, etc. (LO2).*
3. *Facilitate and develop completely the collaborative process (LO3).*
4. *Prepare specific co-design workshops for training others in collaborative design (LO4).*

Each of the following learning outcomes is described below in terms of knowledge, skills and competences.

Knowledge
On successful completion of the educational activity the graduate will:
- Have detailed knowledge and understanding of a wide range of collaborative design frameworks and methodologies and the manner in which these can be combined in a real collaborative process for solving the issue in question (LO1).
- Demonstrate knowledge in a large set of real case studies in collaborative design as well as in best practices (and worst) to organise the collaborative design schedule and its production (LO2).
- Have a good understanding of methods for project facilitation as well as knowledge to create adequate facilitating strategies at every step of the collaborative process (LO3).

- Have adequate knowledge on modern training methods adequate to collaborative design, on the production of educational documents and on communication methods specific to each training scenario (LO4).

Skills (Know-How)
On successful completion of the educational activity the graduate will:

- Be able to analyse and identify issues and problems of the matter in question and propose adequate solutions based on collaborative design (LO1).

- Be able to confidently engage in and successfully prepare the following collaborative design processes, visualise possible pros and contras of the strategies adopted, manage and prepare in advance the difficulties of the production of the collaborative events, create teams of work and divide the tasks, deal with the specific funding for the development of the process (LO2).

- Guide the collaborative process using the acquired facilitating and communication skills and be able to evaluate the decisions taken during the process and communicate effectively their resolution (LO3).

- Be able to prepare successful training activities for diverse professional learning environments and assure that others will be trained in collaborative design after a train-the-trainer workshop (LO4).

Competences
On successful completion of the educational activity the graduate will:

- Be able to apply collaborative design concepts and skills learned in a variety of contexts for solving the issue in question (LO1).

- Have an appreciation of the necessity of including or excluding particular stakeholders from collaborative decisions and design events (LO1).

- Be able to learn from experiences of collaborative design gained in different contexts (LO1).

- Be able to take responsibility for his/her own learning (LO1).

- Have insights into the dynamics of a collaborative design process in the professional world (LO2).

- Be able to work effectively in a team (LO2).

- Be able to research and design management issues and find adequate solutions (LO2).

- Appreciate the importance of stressing collaboration and participation at the resolution of problems and decision taking (LO3).

- Be able to guide independently the collaborative process (LO3)

- Be able to communicate effectively with groups of people engaged in a collaborative process (LO3).

- Demonstrate the ability to comprehend multiple perspectives and personal identifications (LO3).

- Be able to find adequate training content in collaborative design in various contexts (LO4).

- Be able to communicate the basics of collaborative design and their specificities in diverse learning contexts (LO4).

8/ Training Methodologies

The training vehicle: a Train-the-Trainer Workshop

When planning *non-formal* educational activities, we identify two types of training: *instructor-led* and *self-paced* training.

The first would include one-to-one training, group training, lectures, hands-on seminars, etc. They are all characterised by having a person, the instructor, who personally decides and controls the steps (as to time and its resources) to implement an educational plan for the participants. A workshop, for instance, where participants learn some techniques is usually developed by one or various instructors controlling its development.

The latter possibility is called *self-paced* instruction, in contrast to *instructor-led*. That would include training based on distance education, web tutorials, CD-ROM, etc. In this case, the educational plan is offered to participants who will define their own pace. For instance, this document can be considered a self-paced resource.

An important aspect taken into account for designing this curriculum was the crucial difference between various methodologies for delivering educational experiences. In particular, we discussed the differences between teaching and training (see Table 1). As we expect this curriculum to be implemented in dynamic professional sectors, we decided to shift our focus towards the training format. Training activities will be guided by a facilitator who will propose methods for finding solutions at various co-design challenges. Training means that trainees must take part actively in developing solutions for those challenges, work together and acquire knowledge from other participants. During the educational activities, trainees will be able to create their own idiosyncratic visions which can be applied to particular sectors. Intuitively, this is a methodology naturally applicable to co-design activities.

Training	Teaching
Role of Facilitator: helping a group of people to understand their common objectives and assist them to develop a plan to achieve these objectives	**Role of Expert:** a reliable source of technique or skill whose ability for judging or deciding rightly, justly, or wisely corresponds to authority and status
Real-Life Approach: approaching education based on the constraints and various contexts of the particular situation.	**Theoretical Approach:** offering a priori models without including real-life contexts and situations
If you do it: educating participants based on cooperation, acquisition of knowledge and expertise, while they are actively and directly involved in developing solutions.	**Watch me:** participants mostly see how an expert would develop solutions without being involved.
What would it be like for you?: participants can find their own idiosyncratic solutions	**Here's how to use it:** learning in this context means following solutions which do not include the personal aspect.

Table 1: Training versus Teaching

Which is the best option to map co-design training to a particular educational activity? Among different options, we have decided to rely on the **Train-the-Trainer Workshop** format. A **workshop** is a brief intensive educational program for a relatively small group of people

that focuses especially on techniques and skills in a particular field. In dynamic professional sectors, we may not expect participants to take part in regular educational activities, some requiring many weeks or months of regular attendance. The intensive format of a workshop will allow participants to focus in a very intensive way along a few days on the activity without having to cancel their normal working activity. Therefore, all learning units and methodologies are specifically designed to develop a workshop.

As it has been introduced, the **Train-the-Trainer** model consists of a double training and learning strategy. The trainer, a subject-matter expert, trains other employees and simultaneously teaches them how to train others in the use of the subject. It allows the rapid expansion of knowledge and skills, for example in corporate populations. The method offers distinct advantages over other training models because trainees typically learn faster and retain the information better than with other teaching models.

The methodology we have implemented can be described through a **three-step process:**

1. PHASE I: **Attending a Train-the-Trainer workshop** to learn and practice co-design both from theory and practice with the development of co-design solutions for a briefed challenge following collaborative methods. It serves to acquire theoretical and practical knowledge on collaborative design as well as to learn how to train others on the same topic.

2. PHASE II: **Preparing a Train-the-Trainer workshop** on co-design for his or her own professional environment. In our methodology, this phase serves as an assignment for the personal application of the knowledge and competences acquired during the previous phase.

3. PHASE III: **Facilitating a new Train-the-Trainer** workshop in the professional scenario of the candidate. This phase serves to practice the actual specificities of running a collaborative process at a real professional environment. It is also understood as a phase of self-evaluation of the competences that the candidate may have.

These three phases may be seen as the basic methodological mechanism of our curriculum for delivering education. We understand it as an 'operating system' which will be iterated several times and can be customised for specific professional applications. We integrated dynamic and integrative forms of collaborative design training into the curriculum. Far from proposing unique formulas or training methodologies which will be soon outdated, w e aim at understanding this methodology as a customisable system to run at Train-the-Trainer activities in co-design. Therefore, the 'operating-system' metaphor is a three-phase set of co-design and educational principles which allow to create specific and successful educational experiences.

As we do not intend to limit the areas of application of this curriculum, this 'operating system' will serve us to create a methodology open to its use at different contexts and fields. It can be used to train students in design organisations or at social campaigns, or to boost the quality of design processes in companies, just to mention a few.

Learning at a Train the Trainer co-design workshop involves the following training processes:

1. Learning from experts: facilitators and instructors will share their expertise.
2. Learning from knowledge: this means knowing where one can find other sources of knowledge in order to become state-of-the-art.

3. Learning from each other: participants are aimed at sharing knowledge and developing common ideas about the field of study.

4. Integration of learning outcomes into common design ideas and artefacts: all ‚voices‘ of the workshop will be taken into account.

9/ Taining Evaluation and Qualification Evaluation Criteria (IHV)

The format of evaluation of this curriculum has also been shaped by EQF requirements. In particular, the EQF context assesses the need for transparency and accessibility of the whole evaluation process. For this reason, various coordination offices have edited recommendation handbooks and checklists to assure the EQF suitability of the evaluation procedure before its certification. In our case, we have followed the recommendations of the *Checkliste zu Festellung der NQR-Zuordnungstauglichkeit*[8].

The EQF checklist determines if your evaluation procedure:

1. is regulated and appropriate for obtaining the qualification.

2. goes beyond the mere participation of students in the educational activity.

3. does not only consist of student self-evaluation.

4. has been clearly presented in advance, transparent and accessible. The specification of the evaluation procedure has to determine exactly its format, how students can inspect the evaluated results and how and when a student can repeat the evaluation process.

5. has been designed transparently and if there exists a schema informing how it will be evaluated outlining its evaluation criteria.

6. is comprehensibly documented by the implementing institution.

7. defines which knowledge, skills and competences applicants must demonstrate in order to achieve a qualification.

8. is based on the fact that the defined knowledge and skills as well as the competence are not tailored to individual applicants.

Further evaluation procedure criteria:

9. The type of qualification obtained by students is defined (e.g. certificate, diploma, etc.).

10. The qualification certificate includes the name of the qualification holder, the name of the qualification obtained and the date of issue and

11. shows the institution issuing the qualification and the person responsible for the educational procedure (e.g. director, examiner, etc.).

This checklist determines the requirements allowing EQF compatibility for a particular implementation of this curriculum. To ensure that this curriculum is suitable, we will describe our evaluation and qualification schema in the following sections.

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8 It can be found at the Austrian NKS website:
https://www.qualifikationsregister.at/public/Downloads

8.1/ Definition and Evaluation Criteria: Knowledge, Skills and Competences to achieve Qualification

The evaluation of applicants will be obtained from a typical „Can-Do" statement structure which is summarised in Table 2. Inherently, this Can-Do structure creates relationships between specific competences, learning units and the methodologies which they imply. Each of the applicants will be evaluated following the same evaluation procedure (explained in the following section) in order to demonstrate if the minimum of the described knowledge, skills and competences are fulfilled.

8.2/ Definition of an Evaluation Procedure

The organiser of the workshop must guarantee the candidates **the right to an objective evaluation**. Their dedication, effort and performance must be valued and recognised with objectivity, therefore certain procedures which guarantee objectivity must be implemented.

1. The implementing organisation will define a responsible person (e.g. the examiner) which will be responsible of carrying out the qualification procedure. The examiner will be introduced to the applicants before the workshop begins.

2. The implementing organisation will be responsible of introducing both the evaluation procedure and evaluation criteria to the applicants before the workshop. These will be accessible to the participants during the duration of the workshop.

3. What candidates have learned will be evaluated in two phases. First, it will be continuously evaluated during the workshop. Second, it will be resumed and qualified at the end of the workshop taking into account the whole educational process. Due to the particular format of our non-formal education activity, competences and skills can only be evaluated at particular phases of the workshop. For instance, facilitating skills can only be shown at practical sessions. For this reason, the examiner will determine the evaluation schedule taking into account a temporary workshop structure.

4. Examiners will take into account the learning outcomes, skills and competences described in this curriculum and only those will be evaluated and qualified. The examiner will make use of the Can-Do shown in Table 2 to evaluate each of the competences and skills.

5. The examiner will guarantee objectivity in the evaluation of the Can-Do structure taking into account the overall result of the educational activity and not only particular moments of the workshop.

6. At the end of the workshop the examiner will analyse to which extent applicants have fulfilled the Can-Do structure and a feedback document will be produced and delivered to the candidates. This feedback document will be also accessible to the organisation implementing the workshop. The feedback document will resume the evolution of the applicant along the workshop and the competences, knowledge and skills gained or not.

7. Applicants will have the right to ask for a revision of the results obtained from the examiner. The examiner will meet the applicant and a revision of the evaluation will take place.

8. The examiner will also produce an evaluation document (for each of the applicants) to inform the organisation about the training event. This document includes the feedback document describing into detail the training processes and skills, knowledge and competences gained or not during the workshop.

9. At the end of the workshop, the organising institution, will **decide if the candidate has achieved the learning objectives and the adequate degree of correspondent competences**. In case of a negative decision, the student will have the right to repeat certain phases of the workshop to improve a number of competences. For that, the organising institution will coordinate the necessary resources. In case of positive qualification, the candidate will obtain the certification of having achieved the learning outcomes, a certificate of qualification and optionally a corresponding number of official ECTS credits.

Social competences on collaboration and participation	Do you understand the social and human difficulties of collaboration? Can you explain the motivations of collaboration? Can you define the core ethical aspects of collaboration and participation?
Competences in facilitating collaborative projects	Can you create frameworks for specific collaborative projects? Can you reframe a collaborative project presenting the difficulties of a shared goal? Can you encourage participation? Can you seek for inclusive solutions?
Administration and management competences in co-design activities	Can you prepare, initiate and manage the phases of a collaborative design project? Can you identify the particularities of a collaborative project and define: - a methodological strategy? - an inclusive list of stakeholders? - the tools for supporting communication and transparency? - the type of collaborative events you have to organize? Can you initiate a collaborative project: - gaining information of the issue in question? - thinking over a strategy for the process? - defining structural aspects? Can you prepare a collaborative project: - defining the assignments of every part involved? - defining the financial structure and timeline? - organizational aspects? Can you manage the realization of collaborative projects: - informing about participants' roles and powers? - informing about the rules of collaboration? - controlling the development and compliance of rules? - controlling the implementation of results? - evaluating the final results?
Training competences	Can you plan the content of a co-design workshop? Can you prepare diverse educational materials for developing workshops on co-design? Can you apply pedagogic methods in your teaching activities? Can you specify and contextualize those methods for particular learning environments?

Table 2: Evaluation Criteria

10/ Quality Assurance

The EQF specifies that quality assurance processes are more transparent and therefore more efficient if they are based on learning outcomes. Although the quality of a particular implementation of this curriculum can only be granted after its certification and validation, we must explicitly include quality assurance in our learning outcomes on our own initiative. For example, the practically implemented course must provide defined learning outcomes in line with criteria and standards.

This curriculum ensures quality through a continuous evaluation of our operating system, the three phases of the training methodology: getting knowledge, preparing a workshop and developing it. At each phase, the graduate candidates are evaluated based on the learning outcomes of this curriculum and the „Can-Do" evaluation criteria explained in the previous section. If students show difficulties at a learning outcome, the requirements of the training units and educational activities to gain the knowledge, skills and competences must be revised to ensure the quality of the training process. For example, if a high percentage of the candidates show difficulties in project facilitation, it may be a signal that the courses on facilitation methods and their application at real professional scenarios have to revised. This self-evaluation of the operating system of the curriculum must be produced after every training event, analysing the issues that may have occurred and identifying strategies to solve them.

We propose periodic evaluation of the examiners for the quality assurance in the evaluation procedures. Therefore, applicants will be asked to give feedback not only about the content of the workshop, but also about how the evaluation procedure was seen. It is very important to focus on the aspects of transparency and accessibility. For this reason, evaluation que tionnaires must explicitly formulate questions like: *How transparent was the evaluation procedure? How accessible was the evaluation criteria? Was the evaluation process objective?* A periodic internal evaluation of how the evaluation procedure is seen by applicants is radically important to assure its quality. Revisions of this procedure will have to be accomplished to adequate our initial intentions to the real vision of the applicants.

11/ Training/Content Units

A curriculum must establish the minimum content which has to be covered during the training activities. For our „Train-the-Trainer" workshop the content is organised around units which are listed and summarised below. These training units are numerically referenced to specific blocks of content which are fully described at the separate handbook produced by our CO.CREATE consortium. The handbook must be understood as a toolkit for helping organisations trying to implement a Train-the- Trainer workshop in Co-Design.

This curriculum is organised around the following content units:

1. Introduction to Collaboration and Participation: definition, formats, benefits and difficulties.

2. Introduction to Collaborative Design: definition and comparison to other design-methodologies.

3. Management of Collaborative Design: theory and practice of management of co-design projects.

4. Stakeholder Analysis: analysis of types of stakeholders and their inclusion.

5. Facilitation for Co-Design Projects: abilities, skills and practice of facilitation.

6. Materials for the Production of Co-Design Projects: hardware, software, visualisation tools, prototyping environments and materials.

7. Methods and Frameworks: Examples of existing frameworks and creation of custom methods.

8. Cases Study in Co-Design: Analysis of real Decision-Making and Product/Service/Experience design projects. Study of best and worst practices.

9. Co-Design Project Practice: Solution for an issue or challenge using co-design.

10. Training Others in Co-Design: Educational methodologies for teaching Co-Design

12/ Duration of the Training Activities

For a better definition of the temporal duration of the workshop, we propose it is necessary to take two aspects into account:

1. It is quite feasible that candidates will require compatibility of workshop attendance and their actual professional activities.

2. This workshop proposes three different phases as training methodology (first, training workshop; second, the preparation of a new workshop where the candidate acts as trainer, third, the development of the prepared workshop). Each of these phases has to be organised with some temporal distance.

The organisations involved in the implementation of this curriculum will have to accommodate the professional needs of the candidates with the training exigencies of the workshop. As it is explained in the following sections, **a minimum of three full working days of training** are needed to cover well the first phase of the methodology. These three daysessions can be divided and developed along more days. It is, however, not recommendable to separate them too much temporally. Otherwise common criteria fixed and old discussions could be forgotten or revisited.

13/ Example of the Implementation of a Train-The-Trainer Workshop on Co-Design

This curriculum was evaluated through a series of five workshops sequentially developed by the partners of the Co-Create consortium during 2018. The goal was to test if both structure and content would fit actual professional scenarios. Table 3 resumes the general information regarding the organisation of these workshops (place, date, topic and participants' background). Information about the content and methods of each of the workshops can be found in this section. The 'lessons learned' after the realisation of these events are discussed in the following section.

As each of the partners was responsible for the development of one workshop at a different city and in diverse professional contexts, we decided to harmonise the whole series of events. The Slovenian partner ALUO created a 'guideline' document offering similar structure to all workshops. This served well to unify a diversity of focuses. It also helped us to compare obtained results.

Organization / City	Topic	Challenge	Number of Participants	Background of Participants
Academy of Fine Arts and Design (ALUO), Ljubljana, Slovenia. 15, 22 and 29 May, 2018	Social Design	The CoCreate workshoptackled the stigma connected to the term 'social design' in some areas of design. The challenge was to get rid of the cynical approach of some design circles.	20	Graphic designers, Photographers, Illustrators, Textile and Clothing Designers, Independent Artists
European Creative Business Network (ECBN), Utrecht, Netherlands. 7 and 19 June, 2018.	Urban Design	Co-creating a prototype for multimedia storytelling in a former industrial s ite in Utrecht.	11	Director of the Community, Business Organization Representatives, Designers, Cultural Managers, Artists, Real Estate Owners
Deusto University. Bilbao, Spain. 14 and 21 June 2018	System Design	Design ecosystem: Conceptual and organizational model for a Centre* aimed at promoting the integration of the value of design in the CAPV organizations strategies. *(Dynamizer node of the Basque design ecosystem)	24	Members of EIDE: Basque designer association (Product, Service and Graphic Design Professionals), Marketing personnel of small local companies, Students and professors of industrial design
Creative Industry Kosice (CIKE), Kosice, Slovakia. 3 and 4 July, 2018	Service Design	How to connect experts from Slovakia with experts from abroad and vice versa.	33	Project/Product Mana - gers, IT sector managers, Starting/ Experienced Entrepreneurs, Idea-makers, Entrepreneurs from Creative Industries
Creative Region Linz & Upper Austria (CREARE), Linz, Austria. 9 to 12 July, 2018.	System Design	Urban Living - new ways of home care for elderly people	11	Product Designers, Graphic Designers, Branding Experts, Innovation Managers, Representatives of elderly people's home, Project Managers

Table 3: Workshops Resume

The guidelines document described a train-the-trainer workshop divided in five slots or phases. This five-step structure was inspired by the *Sprint Design* methodology originally developed by Google. The Design Sprint helps at solving problems through designing, prototyping, and testing ideas with users. Participants first get to understand the problem in question and then explore divergent ways to solve it. Finally, a common criterion is found and a solution is chosen, prototyped and tested.

It is important to underline that the train-the-trainer workshop format we are introducing here offers an example of how this curriculum can be implemented by any organisation using a particular methodology. However, other methodologies may be applied on top of our 'operating system' depending on the professional sector and the particular interest of the organisation.

The phases describing of our particular workshop are:

- **SLOT 1 - Getting to know the basics:**
  guiding principles in a co-creation process.
  During this slot, trainers may also introduce theory about co-creation, methods for develop co-creation processes and examples. For illustrating real co-creation cases in this slot, our guide lines proposed making use of the examples described at the 'BestPractice Report'[9] in co-creation that this consortium has elaborated. These projects serve well to describe what a co-design process is and the issues related to its development.

  Participants also may get to know and understand that when engaging in a co-creation process, there are decisive elements to create an open mind. It is also the moment to explain how important the skills of the facilitators are, the preparation of a healthy environment for co-creation, the effective creation of working teams, the acceptance of diverse values and goals and the need to handle conflicts during the process.

- **SLOT 2 -Introducing the challenge and elaborating its map.**
  The challenge is the issue that participants will have to solve in this workshop using co-creation methods. In this slot, a challenge is briefed to the participants and later a so-called 'map of the challenge' has to be produced. The 'challenge brief' serves to put forward a specific issue and to improve. It is a comprehensive description, a detailed picture of the issue in question. Elaborating a map of the challenge means that the participants may gather as much expert knowledge on the topic as possible. During this phase, facilitators have to make use of various methods to engage participants in becoming experts of their challenge.

- **SLOT 3 -Coming up with solutions.**
  In the previous phase participants have gained enough expertise on the issue. The goal is now to propose as many solutions as possible and choose certain criteria to find the best solutions. The result of this third slot should be anonymous self-explanatory solution sketches. In this slot, facilitators may try to push participants to forge new connections, think differently and consider new perspectives. Often it is needed to support participants' creativity by coordinating activities which may boost the production of disparate solutions. After that, facilitators may also guide the participants through some methods helping them to define the criteria to find the solution. That decision will drive them to a particular set of solutions appearing acceptable. Among these possible solutions, one will be chosen by the participants.

- **SLOT 4 - Storyboard and prototyping.**
  The winning solutions are waved into a storyboard: a step-by-step plan for participants' prototypes. Making storyboards can take up a lot of time. In order to elaborate them during the workshop, facilitators may suggest certain constraints (time, extension, detail, etc.) to assure that participants will not reinvent new ideas or solutions. This step is then followed by turning the storyboard into a realistic prototype. The goal of prototyping will be the production of an artefact supposing that it will not be perfect but just enough to learn from it and suitable to explain long-term solutions to others.

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9 The Best Practice Report can be downloaded from: http://www.cocreate.training/downloads

- **SLOT 5 - Testing and setting up the next steps**
  In this phase participants will present the prototype. If possible, they may also have to test and interview possible users or stakeholders who can be affected by the solution obtained through co-design. The goal of this slot is to learn from their reactions and understand what has to be done next. Participants will understand how the entire prototype is reviewed. Facilitators may introduce methods to help participants to present their projects and to hold the interviews in an efficient manner. For example, activities to make users feel comfortable and to capture a real idea of how users react when they are confronted with a solutions and its prototypes.

The following pictures (Firgure 1) illustrate different captures of the slots described from the workshops developed by this Consortium.

(a) Warming up activities in ALUO helped participants to focus their attention and engage with others.

(b) Drawing portraits of participants was used as ice-breaking activity at Deusto University.
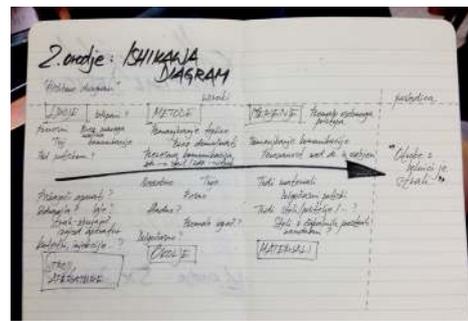
(c) Workshop atmosphere in CIKE. Participants were organized in groups at different tables. We followed a strict no-laptop policy.

(d) After being introduced to the challenge, participants gathered and organized information for the issue in Linz.

(e) Understanding the rehabilitation needs of an urban site in Utrecht and elaborating a commented plan.

(f) Ishikawa diagram in ALUO helped participants to identify causes producing 'social design stigmas' among designers.

(g) The facilitator in Linz guiding the convergence of solutions offered on the issue of improving home care for elderly citizens.

(h) CIKE decided to use the 'Personas' method to simulate diverse users affected by the challenge (experts in Slovakia and abroad)

(i) Solutions are organized in CIKE following a common criteria.

(j) The clustering information method in Deusto allowed many participants to pay attention and stay active.

(k) Visualizing the spatial flow of a storytelling solution in Utrecht

(l) Presenting part of a storyboard for the storytelling project in Utrecht.

(m) Visualizing the storyboard in Linz.

(n) Prototyping with Lego in ALUO.

(o) Prototype presentation with the goal of receiving feedback and triggering discussion in ALUO.

(p) Examples of prototypes produced in ALUO.

Figure 1: Photo Credits: Jürgen Gruenwald (d, g, m) and Ales Rosa (a, f, p)

14/ Lessons Learned after testing the Curriculum

For the evaluation of our workshops, we elaborated questionnaires whose results helped us to understand the most important aspects to be underlined during a training process. Therefore, we dedicate this section to share the most relevant 'lessons learned' after the development of these workshops.

From a Trainer's perspective it was important to:

- Choose a challenge's topic which is of the interest of all participants. If not, someparticipants will automatically loose interest and the general atmosphere of the workshop will be affected. If possible, propose real challenges with the participation of real people involved in the issue in question. Real tangible challenges motivated our participants much more than others which were more abstract.

- Create groups of participants with a diversity of approaches and mindsets. Homogeneity lead to expected solutions while diversity produced creative outputs.

- Prepare in advance a list of specific exercises and methods to guide participants through each of the phases of the workshop. Invest enough time in this preparation: there are a multitude of methods and activities, but they have to fit participants' mentalities and expectations. We realised that some participants did not share any interest for certain methods. Try to reduce this possibility as much as possible in advance.

- Find the adequate location and facilities. Participants will get radically more motivated if the environment and atmosphere of the workshop has been chosen with care. For example, make it easy for participants to find a place to eat and relax. Additionally, we noticed how these workshops required maximum participation. Therefore, participants required short sessions and going out of the working room often for physical refreshment.

- Share your methods and tricks with the participants. Participants will also become trainers and usually they showed us curiosity on facilitation methods and organisation of group dynamics. Share the source of your know-how and where to find more!

- Send information about co-creation to the participants in advance. Include references to books, projects and companies developing co-creation. In our workshops, participants who had accessed this information before the event showed more understanding about the context of co-creation. – During the workshop, use the adequate documentation about the theory you are using. Participants usually felt more comfortable if they had the possibility of revisiting those materials during and after the workshop[10].

- Help people learning by doing. Theory is important but at a workshop participants expect to gain knowledge mostly from practicing. Facilitators may find the adequate combination of theory and practice. Ask your participants constantly if they would like to focus more or less on theory.

- – Realise that sometimes, certain groups of participants will need more support than others in order to let their imagination fly. During the workshop, observe your participants and identify the difficulties they may find. Help them illustrating with examples and your collaboration. Take into account that sometimes more than one facilitator will be needed.

- Combine working periods with discussion sessions. We realised that participants were quite open to bring their expertise. Often they even had the need to share how certain processes worked in their organisations. Guide these discussions as part of the workshop. They are quite valuable!

From a Participant's perspective it was important to:

- Count with ample time to develop the workshop. Participants commented that managing its practice with flexibility requires some time. We learned that a minimum of three days was necessary to develop our train-the-trainer workshop.

- Adequate the difficulty of the workshop to participants' expertise. Even within the same workshop process, different groups can use more or less sophisticated methods and prototyping materials. This may help to reduce the amount of participants who loose motivation during the workshop.

- Count with enough pedagogical material to extend the content of the workshop. Participants often required lists with references and supplementary learning material. The reason for that are the limited training workshop sessions. However, there are many other methods and best practice examples participants also have to know. Prepare this material and make participants know how to access them.

- Revisit the methods and processes employed at the end of the workshop. A recap session was often suggested by the participants who had the feeling of not being able to abstract the big steps given in the workshop but the multiple small decisions taken during the process.

- Propose excursions and network sessions to engage with others' expertise and professional activity. An important aspect of these workshops is the new networks and relationships which will be created at real scenarios. Participants always expected it.

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10 This consortium has also preparing graphic Co-Creation materials available from: http://www.cocreate.training/downloads

- Offer enough time and material for prototyping. We noticed prototyping was the phase many participants liked more. Leave them ample time to experiment!

15/ Conclusion

The goal of the CO-CREATE consortium was the elaboration and distribution of a brand new curriculum on co-design: a set of valuable design skills that has gained increased relevance in recent years and can no longer be ignored. We think that this Curriculum is a relevant step in making co-design training more popular among educational organisations. This Curriculum shows an evaluated successful format and methodology of disseminating co-design at professional environments, especially in the context of creative industries.

We are sure that the implementation of this curriculum will allow educational institutions across Europe to provide hands-on knowledge to their students - knowledge they will need to apply this process to their future professional practice. Together with the Handbook, the learning materials and the rest of deliverables that can be found at our website, we are offering an up-to-date set of educational resources for both organisations and students interested in co-design.

In addition, the specificity of proposing an EQF-compatible curriculum allows particular implementations getting certified by national certification agencies. Our target groups are organisations interested in certifying their activities. Both organisations and candidates will clearly benefit from it. We are open to any feedback and hope that the curriculum will be helpful in making the co-design community and activity grow!