WOMEN
</POWER CODE>

O3/A1 Definition of Framework

Guidelines for the development of the Training Kit

Empowering Women to acquire digital skills

DOCUMENT CHANGE RECORD

Issue date	Version	Author	Sections affected / Change
12-07-2018	V1	Christopher Morgan - BDF	First concept

"As caterpillars become butterfly's, so do educated women fly free"

Inhoud

1. Introduction

In order to programme and coordinate all the partners to obtain an efficient Training Kit the consortium will have to create a Framework. Business Development Friesland is the lead partner for this activity and all partners will provide input.

The Framework will guide the consortium describing in details contents, learning objectives, framework, task and responsibility of the partners, as well as timing and deadlines for the proper development of the training kit. This means that it will be used by all partners as a guide for the development of content materials with a common document of reference.

Once the framework is ready, the project partners will develop the contents of the training kit. Daniel is the lead partner for the development of the Training Kit.

2. Training course description

2. 1 Title of the course

The course title chosen is; Women Power Code (WPC). This title sums up the mission this project embodies. To empower women in Europe to grasp the knowledge of technology, in specific 3Dprinters and computer programming and coding.

The project WPC aims at celebrating the art of creating code, motivating adult women to start learning to code, as well as connecting individuals, groups, organizations and companies who are willing to help more women experience the joy and relevance of coding. (www.allyouneediscode.eu)

2.2 Short description of the training

Women Power Code envisages the development of training modules, structured around the competence framework previously developed in IO2. IO2 has led to the creation of a new curricula and a new profile. This has been accomplished in cooperation with the consortiums and external partners, like IT companies, universities, VET providers, ECVET (European Credit system for Vocational Education and Training) national authorities, etc., while using a 'Design Thinking' methodology.

This Code Course in Internet of Things meet a range of content and competences necessary for the learner to get enough skills to develop a professional work in this IT area.

Basic coding skills are needed for many jobs. More than 90% of professional occupations nowadays require digital competences, including programming. There is also a talent shortage as the education system is slow to react to new workforce demands.

The element of innovation of Training kit is delivery environment based on social learning cloud based Learning Management System.

The entire project focusses on five pillars:

❖ Creation of a KEY INTERNET OF THINGS (IoT) CONCEPT

❖ Elaboration of a NEW CURRICULA AND NEW EXPERT PROFILE in the IT field

❖ Elaboration of training manual with 6 modules for a new specialization in the IT field for women

❖ Creating a WOMAN POWER CODE VIDEO GAME for ADULT WOMAN and their daughters to play and learn from

❖ Setting up a SOCIAL LEARNING COMMUNITY for ADULT WOMAN

2.3 Used methodology

The project will follow a methodology used in Service Design (SD) processes. SD is a process where the user is situated in the centre of the service and the user's experience is analysed as a whole. This process is composed by 5 steps: Empathize, define, idea, prototype and testing. Besides the use of SD process in design of the project, SD tools will be included in the training materials how techniques to design new and innovative programming the Internet of Things (IoT) products for adult women above 40 years of age.

2.4 Main objective and outcome

The main objective of WPC is the digital empowerment of women in Europe. At the end of the training, the participants that complete it will be known as WPC experts.

2.5 Key learning outcomes

The main product of this project is a video game designed and developed to educate woman of a certain age group. The mail focus goal is to enrich their lives and inspire them to join the digital world.

The outcomes are:

❖ get familiar with good gamification methods practices applicable to adult education;

❖ master on how to make e-learning courses fully based on motivational mechanics for learner engagements;

❖ get familiar on specific languages about code;

❖ learn how to go from face-to-face training to video game training and increase the efficiency, impact and reach compared to traditional teaching practices;

❖ get familiar with functional video game practices for all, including people with disabilities;

❖ assess, evaluate and provide suggestions of improvement on the current video game courses for adult education; -establish a network of potential partners or clients from all over Europe and consider other educational and cultural differences.
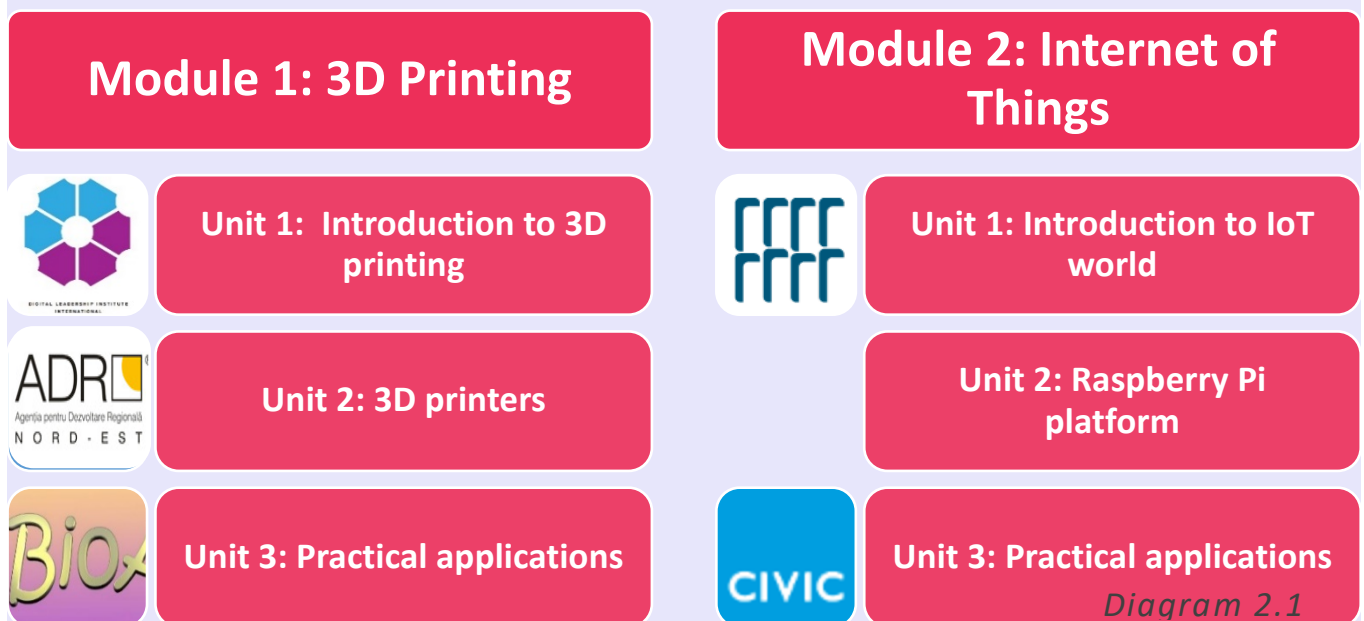
2.5.1 Key learning outcomes for the training kit

After finishing the new curricula and new profile, an intense designing of training content, following the guidelines of the for mentioned steps will be created. The key outcomes for this training is:

❖ Innovate a new curricula and new expert profile in adult education and training kit for programming the Internet of Things.

❖ Creating individual units that anyone can make their own learning path through specific pills of interest

❖ The training must be self-learning and tailored to the needs of professionals in an innovative way

❖ The training should link mothers and daughters in a common process of learning, to find out the benefits of using IoT band acquiring new (IT) skills

❖ 140 adult women from seven EU countries will test the educational video game (direct target group)

❖ Incorporate 630 women learners together with their (630) daughters throughout Europe (indirect target group)

❖ Creating transnational cooperation between the participating partners

2.6 Building up the training modules by using units

The training will consist of these two modules (diagram 2.1) and six units. These units show a continuation as they go up in numbers. For example, unit two is the follow-up of unit one. The units are unique and can be used simultaneously or individually.

Module 1: 3D Printing	Module 2: Internet of Things
Unit 1: Introduction to 3D printing	Unit 1: Introduction to IoT world
Unit 2: 3D printers	Unit 2: Raspberry Pi platform
Unit 3: Practical applications	Unit 3: Practical applications

Diagram 2.1

A short text overview of the diagram;

Module 1: 3D Printing

·   Unit 1: Introduction to 3D printing (DLI)

·   Unit 2: 3D printers (NERDA)

·   Unit 3: Practical applications (BIOANIM)

Module 2: Internet of Things:

·   Unit 1: Introduction to IoT world (EUROCREA)

·   Unit 2: Raspberry Pi platform (DANIEL)

·   Unit 3: Practical applications (CIVIC)

2.7 Languages

The training manuals will be translated in six different languages; Romanian, French, Italian, Dutch, Bulgarian and Slovenian.

3. Description of the module units

Module 1: 3D Printing

Unit 1: Introduction to 3D printing

1.1 WHAT 3D printing is

1.2 WHY 3D printing (farmbot example)

1.3 HOW is it going to make a change business + personal life

1.4 Successful female entrepreneurship stories about 3D printing

Unit 2: 3D printers

2.1 Types of 3D printers: filament / laser

2.2 Pros / cons

2.3 What software are available

2.3 STL format (export standard)

2.4 Free tutorials

Unit 3: Practical applications

3.1 Two options

3.2 Buy your own 3D printer

3.3 Design your model and outsource the printing

3.4 Best free 3D software

3.5 Designing vs. reproducing object

3.6 AGISOFT (simplest /cheapest effective software to build models from photos)

Module 2: Internet of Things

Unit 1: Introduction to IoT world

1.1 Understand what 3D printing is

1.2 Understand why you should use 3D printing in your life

1.3 Understand where you can apply this skills in a professional context

1.4 Know what kind of jobs / professional profiles are available

1.5 Be able to design a 3D objects

Unit 2: Raspberry Pi platform

2.1 WHAT is IoT (key concepts)

2.2 HOW is it changing our daily life

2.3 What to expect in the future / future applications

2.4 IoT, using safely

2.5 Relevant workplaces and professional profiles

Unit 3: Practical applications

3.1 What is the Raspberry PI

3.2 Why use Raspberry PI

3.3 Hardware additions and software

3.4 Practical examples

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3.1 Structure

In the overview of the description of the module units there is a clear structure.

Partners must use 4.1. Template – module and unit template

The training course will consist of two modules, each with three units in total. Each unit starts with an overview, using the template (4.1) describing:

- Introduction: introducing the unit in no more than 15 sentences.

- Learning aims: Explain separately what the trainee is going to learn about the unit's topic.

- Content/Topics: giving an overview of the topics that are discussed.

    Build up your content with the three guidelines: history, current situation, future

- Duration: giving an indication of the duration of the unit. Remember, a unite should be 30 pages long.

NOTE: In the footer you can write down the name of the author and the date the content was created.

3.2 Content

Every unit must consist of 30 pages, two self-made videos and one quiz. It is preferable to have at least one image/graph/diagram per two pages. This means that the whole document/manual will consist of (around) 180 pages of text, six quizzes and twelve videos.

3.2.1 Videos

The video can be shot by; GoPro, an I-phone 6 model (or above) or something similar, or a standard digital camcorder. All partners will edit their material with the https://h5p.org/ website. The end results may differ in length. No video should surpass the six minute mark.

3.2.2 Quizzes

The quizzes will consist of a multiple choice of six questions each, with four possible answers. One of these answers is correct, the rest are not. Every unit will have a quiz. The context of the quiz must refer to the subject/topic of the unit.
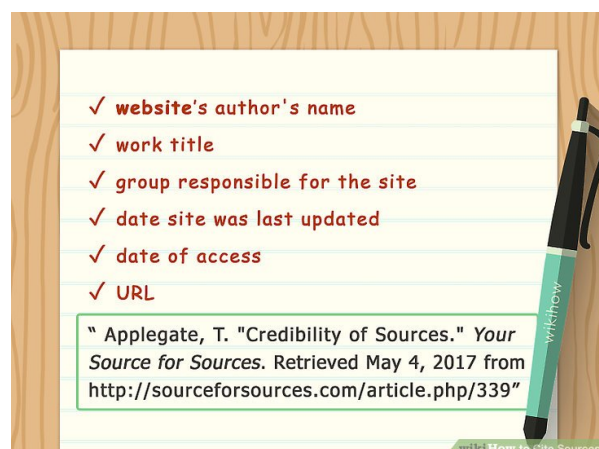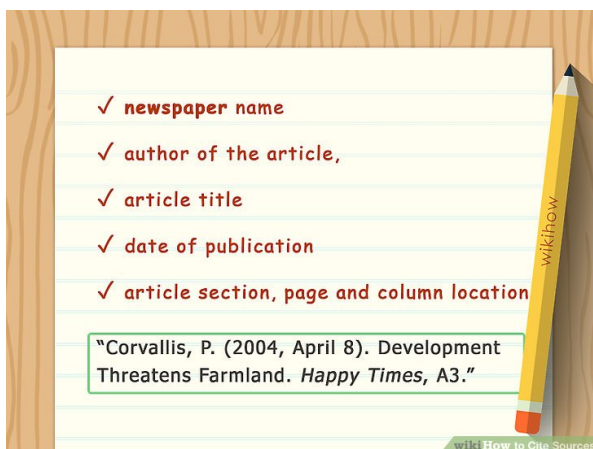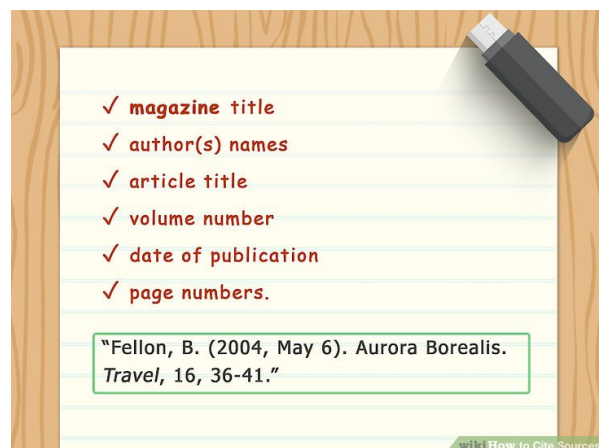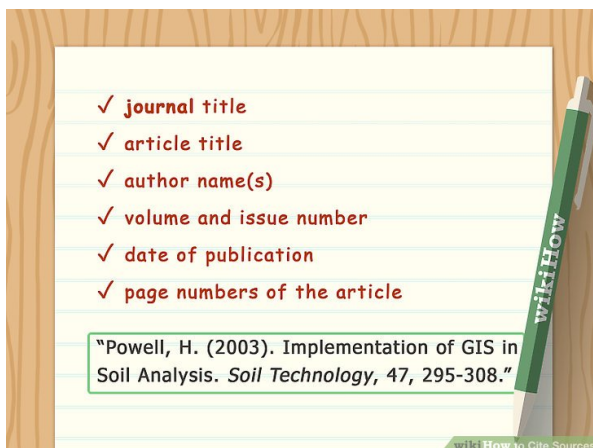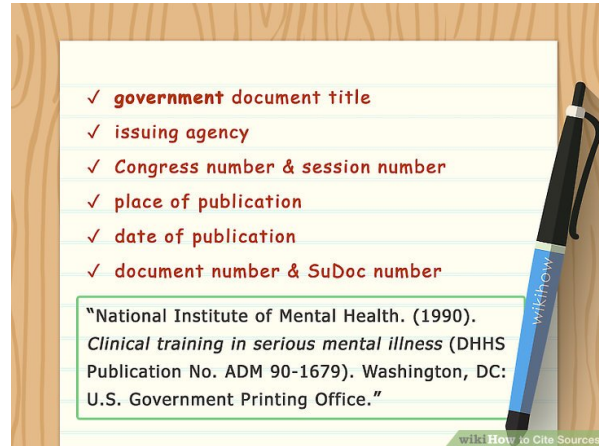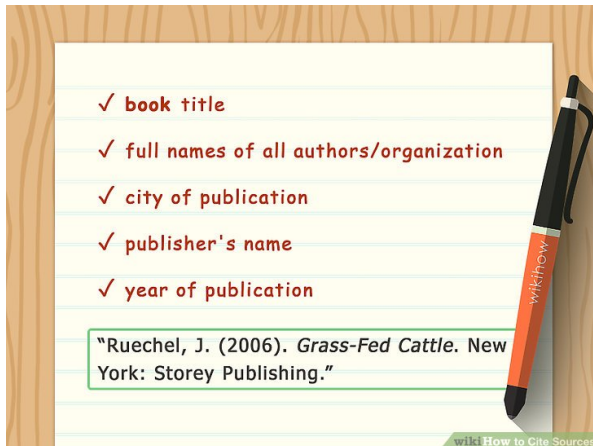
3.3 Glossary

Pick the words that are unfamiliar to the student and provide definitions. Define and explain the words as simply and transparently as possible. Put the words in alphabetic order. After finalizing all the units all glossaries will be combined to avoid overlap. There will be one glossary for the whole course.

3.4 Sources

Give the sources that you used for this topic.

NOTE: In the footer you can write down the name of the author and the date the content was created. Quoting and naming sources can be tricky. On the site; https://www.wikihow.com/Cite-Sources you will see how it is done and what the differences are. Quoting a book source differs to a website or journal.

✓ **book** title

✓ full names of all authors/organization

✓ city of publication

✓ publisher's name

✓ year of publication

"Ruechel, J. (2006). *Grass-Fed Cattle*. New York: Storey Publishing."

✓ **government** document title

✓ issuing agency

✓ Congress number & session number

✓ place of publication

✓ date of publication

✓ document number & SuDoc number

"National Institute of Mental Health. (1990). *Clinical training in serious mental illness* (DHHS Publication No. ADM 90-1679). Washington, DC: U.S. Government Printing Office."

✓ **journal** title

✓ article title

✓ author name(s)

✓ volume and issue number

✓ date of publication

✓ page numbers of the article

"Powell, H. (2003). Implementation of GIS in Soil Analysis. *Soil Technology*, 47, 295-308."

✓ **magazine** title

✓ author(s) names

✓ article title

✓ volume number

✓ date of publication

✓ page numbers.

"Fellon, B. (2004, May 6). Aurora Borealis. *Travel*, 16, 36-41."

✓ **newspaper** name

✓ author of the article,

✓ article title

✓ date of publication

✓ article section, page and column location

"Corvallis, P. (2004, April 8). Development Threatens Farmland. *Happy Times*, A3."

✓ **website**'s author's name

✓ work title

✓ group responsible for the site

✓ date site was last updated

✓ date of access

✓ URL

" Applegate, T. "Credibility of Sources." *Your Source for Sources*. Retrieved May 4, 2017 from http://sourceforsources.com/article.php/339"
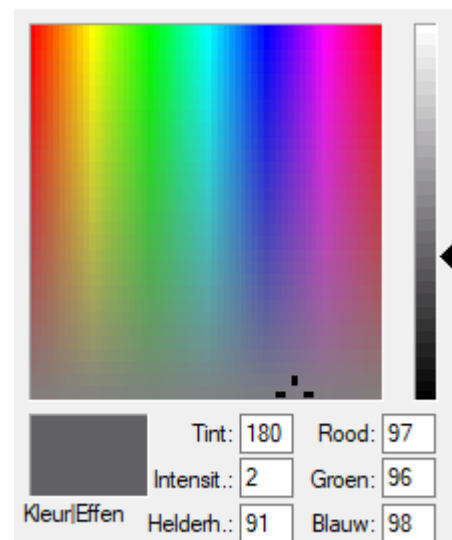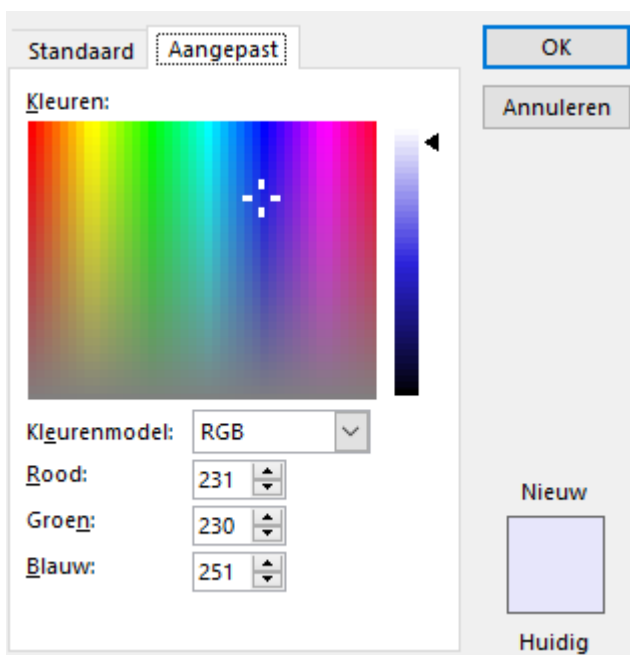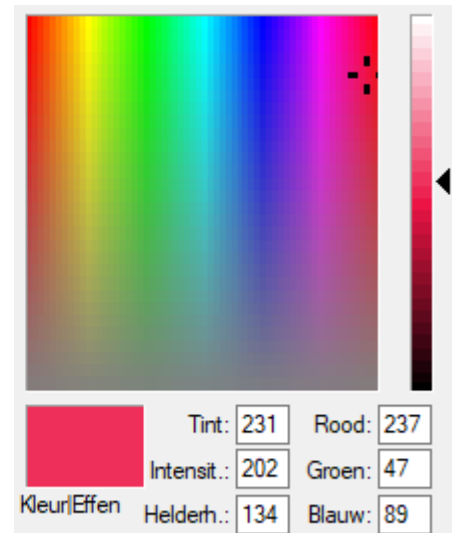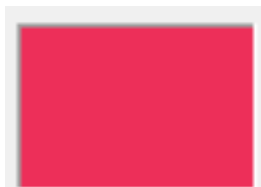
3.5 Design

The *modules* and *units* have been divided amongst the different organizations. We ask the partners to write their assigned documents in the same style as this document.

The colour scheme

Watermark/background colour

3.6 Tasks

An overview of the tasks ahead

Consortium	Task	Deadline (date)
BDF	Make template	16-07-2018
BDF	Send template to NERDA	16-07-2018
ALL	Comment on template	15-8-2018
DANIEL	Consult CIVIC-NERDA gamification methodology	
ALL	Finalise unit content	26-10-2018
BDF	Evaluate content & feedback	09-11-2018
ALL	Translate content to own language	31-12-2018

4. Templates

A template has been created in an appropriate colour and design. We want the client to have a pleasant read and experience, without losing our market image. Pastel colours have been known to caress the eyes and send out a calming effect. The text colours are the same as the Woman Power Code logo. This will strengthen our corporate identity.

4.1 Template for all users

In the second added document partners will find the template you to use to uphold our corporate identity and make it easier to marry the two modules and six units together. The colour scheme in the template is the same as in this document.