SilverCoders

DIGITAL LITERACY IMPROVEMENT THROUGH EFFECTIVE
LEARNING EXPERIENCES FOR ADULTS

LEARNING SHEET #2
PAIR
PROGRAMMING

LEARNING SHEETS DESCRIBE ACTIVITIES
THAT HELP INSTRUCTORS INTEGRATE THE
SILVERCODERS CHALLENGES AND TOOLS
INTO THEIR TRAINING PRACTICES.

CODING TRAINING PROGRAMME
FOR +55 ADULTS

SILVER CODERS

Co-funded by
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STRUCTURE OF THE ACTIVITY

GENERAL DESCRIPTION, CONTEXT AND GOAL

Pair programming is a software development methodology where two developers work as a team to create code. The idea is that by working in pairs, developers can brainstorm potential solutions, therefore being more creative, one developer compensates the weaknesses of the other and can always spot the errors of the other (normally one of the developers is more experienced than the other). It also develops teamwork and collaboration abilities.

The main goal of the activity is for the learners to be able to work as a team and develop the corresponding competencies. Learners will use one of the more complex challenges available in the SILVERCODERS methodology and they will make coding changes to the game to observe the effect of those changes.

LEARNING OBJECTIVES

In the end of this activity, the learner will be able to…

1. Understand what pair programming is and what are its advantages
2. Be able to apply collaboration and teamwork skills
3. Assess the advantages and shortfalls of the method

INSTRUCTIONS

STEP 1 - PREPARATION

The trainer should read the learning sheet beforehand and follow all the instructions to make sure he/she fully understands the required steps. This will also allow the trainer to make sure that all resources are available and to look for additional resources if the original ones are not available.

RESOURCES

- Any challenge from 24-32 (available on the SILVERCODERS platform)
- https://en.wikipedia.org/wiki/Pair_programming

STEP 2 - PRESENTATION

The trainer presents the problem to the class and shows the required resources. Learners are challenged to read the web page on Pair Programming. The trainer should discuss this with learners how pair programming develops collaboration and teamwork. The trainer should explain how the different roles (developer/observer) should be applied during the exercise. He/she should also explain the protocols for collaboration and discussion between the pair.

STEP 3 – PLAY THE GAME

Learners should then play the initial version of the scenario. They should discuss between themselves what should be the goal of the development and how to advance.

STEP 4 – CODE THE GAME

The trainer should then ask the learners to create the final version of the game.

STEP 5 – DISCUSSION

In the end, the different pairs should present and discuss the way they were able to collaborate, the difficulties they had in the process (and how that could be improved) and the positive aspects.

STEP 6 - ASSESSMENT

THE TRAINER CAN ASSESS LEARNERS ON THE BASIS OF THE ACHIEVED RESULTS IN STEP 4 BUT IT CAN ALSO ADD SOME CONTRIBUTION RESULTING FROM THE DISCUSSION IN POINT 5.