

## **Short evaluation note: Developing Scratch games in 4 steps by different groups**

### **How we did it in the classroom:**

I have built groups of 3 students – one of them a more experienced student (that meant 8 different groups). Students had experience in creating games with Scratch. The first group should note the idea of the game and start with only a few lines of code. The second group should code according to the description of the first group and should add keyword of what is needed for the third group to implement. For the last group the same. They should present the final version of the game. There was a detailed plan how to name the files but not on a paper only at the whiteboard.

The time for each step was limited to 45 minutes.

### **How it worked:**

4 groups could present a game according to the idea of the first group. 2 Groups have presented a game that had less to do with the first idea. Two groups had got at step two or three a game with code that did not work and had had too much to do to correct it and implement more.

### **Evaluation by talking with the students:**

1. The idea was a challenge. Students liked it. But ...
2. Time of 45 min. was too short.
3. Description of groups at several steps was not exact enough. Some did not know how to go on.
4. Coding mistakes took a lot of time.
5. The first ideas were often too elaborated. To code it took too much time.
6. Students proposed that the teacher should give a sheet for the first group with an idea that really could be realised („A teacher has a better overview what can be done than students).
7. For some the name of the file/version (written on the white board) was not clear.
8. Some students did not stay on schedule.

### **What to change next time:**

1. Teacher chooses different types of games and describes it in a few words with enough possibilities to realize it. On the sheet there will be a table in which students fill in more concrete how this game should work, if the keyboard and keys should be used, ... They also have to give more information about the first step that the next group should implement and the name of the file. The first group may choose a background and/or sprites according to their idea and realise a minimum of code. All groups have to make annotations for the following group. Name of each file in the row of developing the final version is given to a teacher in order to have clear for each group which file they have to choose for further work.
2. Time will be longer for the first and second step. Students are told that is necessary to stay on schedule.
3. Perhaps the fourth steps could be realised by an experienced student at home.

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