

Creating sound effects and dialogues in video games

Previous compulsory steps / Prior students' knowledge	Editing sound clips using Audacity or a free online tool (The basic steps are easy to learn in minutes)
Learning objectives	Finding, creating, editing, and adding sound clips to the video game
Subjects	Arts, Computer Science
Recommended Age	10 - 14
Material needed	Videos with sound effects, online game creator, computer with a microphone and a sound editor software installed like Audacity (=freeware / open source)
Sequence duration	110-120 minutes
Individual or group activity	Individual and Group activity
Expected production	Creation of sound clips
Skills developed	Creativity, critical thinking
Price range of the game (platform)	It depends on the game platform. For example, RPG Maker MV costs 73,99 €, but Scratch is free.
Extension / differentiation activities (after or before sequence)	creating the graphic design, creating the animation; creating the video game
Tips for inclusion	Hearing aids (headphones) are strongly recommended for people with hearing difficulties

Tips for shortening the duration of the sequence

Step 1 can be completed at home, and, if necessary, step 3 can also be performed at home. Have your students take notes about their preferences, and discuss them at school

Step by step: how to implement the sequence

In this sequence, students can either choose from game (inner) libraries or online free libraries or they can create and edit the sound effects they want for their game.

- **Step 1 – Hearing different sound clips (15 minutes)**

Firstly, it is important to point out the importance of sound in video games and show different examples from various games. For this step, different videos with sounds are needed to show various examples to the students. For example:

- [100 Most Iconic Video Game Sound Effects \(1980-2019\) - YouTube](#)
- [Popular Gaming Sound Effects \(HD\) - Bing video](#)
- [Game Show Sound Effects All Sounds - Bing video](#)

Ask your students to close their eyes and listen to the sound clips.

What do they hear? Ask them to imagine what is making that sound in the real world. You can make some students “the eyes” and others “the ears” of the videos and ask them to cooperate with each other to understand better the sound effects and how they are used in games.

- **Step 2 – Brainstorming for appropriate sounds for the game (20 minutes)**

Ask your students to imagine and select the appropriate sound effects for the game. Explain that the sound effects must be appropriate and correlate to other sounds, style, situation, age, emotions, and characters of the game.

Questions like these could be used:

- What kinds of sound effect you think you will need for your game?
- Should the sound effects support emotions?
- Do you think you will need also voice clips (dialogues) in the game?
- Could you write down the dialogues that will be used?

You can prepare (and find) a list of possible sounds they will need like explosions, kisses, shouts, drinking sounds, smashing sounds (of various things), funny sounds, sad sounds, frustrating sounds, happy sounds, mystical sounds, real voice weather phenomena' sounds, everyday sounds, electrical devices, etc.

You can let your students give you some first answers and then support them in finding more answers enhancing in that way their imagination and their creativity. You could also ask them to work as a team, in groups of 3 to 4 students. Finally, students can create a list (on the whiteboard) with the sound clips that they will need for the game. Especially if the game includes characters and storytelling or quizzes with real voices then specific dialogues must be written down in order to be created (or found) later.

If you use Scratch as a game creator platform, you can find sound clips inside Scratch, create your own sound clips, editing them and add them to the game easily through

the editing tab. If you are planning to use other platforms without that kind of tool you should find, edit and/or create sound clips differently.

- **Step 3 – Online search for (recorded) sound clips (30 minutes)**

In order to find the appropriate sound clips these websites can be used:

- [Free SFX](#)
- <https://freesound.org/browse/>
- [Free Sound Effects to Download | ZapSplat](#)
- [Free Sound Clips | SoundBible.com](#)
- [Free Sound Effects, Royalty Free Sound Effects, Nature Sounds \(partnersinrhyme.com\)](#)
- [Royalty Free Sound Effects Sounds Download FX Stock Audio \(videvo.net\)](#)
- [Download Free Sound Effects \(audiomicro.com\)](#)
- <http://soundimage.org/>

In addition, full sound effect packages can be downloaded for free from here: [Kenney • RPG Audio](#), here: [Retro Arcade Game Sound Effects | Free Download | The Motion Monkey](#) and here: [Free Sound Effects - 99Sounds](#).

Ask your students to find and download the ones that seem interesting and appropriate and ask them to save them using filenames with appropriate description that fit the content. During the research phase ask them to give special attention to the copyrights (creative common etc.) rights so if it is allowed, they can edit it at the standards of duration and format (mp3, wav) they have decided for the game.

Furthermore, you can ask your students to add one or two forming effects to the sound clip: like fade in / fade out. All these are small procedures easy to be learnt and used

in minutes by your students (if they don't already know how to do it). **Tutorials** for Audacity you can see here: <https://manual.audacityteam.org/#tutorials> and for a free online sound editor like "twistedwave", here: <https://twistedwave.com/online>.

- **Step 4 – Record your own sound effects (35 minutes)**

The sound effects that you can find on the Internet are countless. But even in that way maybe the appropriate one cannot be found for many reasons (copyrights, different language, or special culture elements, etc.). The solution is simple and fun as you can easily record and edit your own sound clips using a freeware sound editor like Audacity or using a free web-based sound editor (like: <https://twistedwave.com/online>).

The websites below can give ideas for creating special sound effects easily (even at home with the use of a smartphone).

- [The Guide To Sound Effects | Epic Sound](#)
- [Homemade Sound Effects With Big-Budget Impact - Videomaker](#)
- [Make special sound effects using household items - YouTube](#)
- [\(176\) DIY Sound Effects at Home | Sound Effects Tips - YouTube](#)

- **Step 5 – Importing the sound clips in the game or game creator platform (10 minutes)**

At this point you have created a database with various sound clips. The idea is to find or create more sound clips than you will eventually need. In this step and during the development of the game you will add (through the platform which you are developing the game) the appropriate sound effect for every step or interaction and fit them properly with the gameplay in the next steps of the game creation.

Resources

Audacity Software: <https://www.audacityteam.org/download>

Tutorials for Audacity: <https://manual.audacityteam.org/#tutorials>

Online Editor TwistedWave Online: <https://twistedwave.com/online>

Free sound effects: <https://www.freesfx.co.uk/>

Free sound: <https://freesound.org/browse/>

Zap Splat: <https://www.zapsplat.com/>

SoundBible: <https://soundbible.com/>

Partnersinrhyme: <https://www.partnersinrhyme.com/pir/PIRsfx.shtml>

Videvo: <https://www.videvo.net/royalty-free-sound-effects/>

Audiomicro: <https://www.audiomicro.com/free-sound-effects>

SoundImage: <http://soundimage.org/>

Full sound effect packages can be downloaded for free from here

- Kenney • RPG Audio: <https://kenney.nl/assets/rpg-audio> ,
- The Motion Monkey: <https://www.themotionmonkey.co.uk/free-resources/retro-arcade-sounds/>
- 99Sounds: <https://99sounds.org/free-sound-effects/>

Ideas for creating special sound effects easily:

- Epic Sound: <https://www.epicsound.com/sfx/>
- Videomaker: <https://www.videomaker.com/article/c9/3186-homemade-sound-effects-with-big-budget-impact>

References

Ensnare. (2021, June). 100 Most Iconic Video Game Sound Effects (1980-2019) [Video]. YouTube.

https://www.youtube.com/watch?v=GB6v9tdZ0D0&ab_channel=Ensnare

GFX Sounds. (2020, September). Popular Gaming Sound Effects (HD) [Video]. YouTube.

https://www.youtube.com/watch?v=Nc6AluQ6kdU&ab_channel=GFXSounds

All Sounds. (2019, September). Popular Gaming Sound Effects (HD) [Video].

YouTube. https://www.youtube.com/watch?v=jDGCCrJxeZc&ab_channel=AllSounds

