

I quaderni della ricerca n42

Language learning in 3D immersive virtual environments, facilitated by using games, role-plays and simulations

- Aspects of competition

(lati positivi e lati negativi delle gare nei mondi immersivi: consigli, dos/donts)

Dos

- When you teach through Immersive teaching, your class becomes a players community, opened to all. In Immersive teaching everyone looks out for others, because they work peer to peer. Pupils more experienced learn to look for their beginner schoolmates. Pupils learn to respect everyone's needs, planning and organising their activity to solve the immersive game. In order to allow everyone to participate at learning path actively, usefully and independently.
- Use some other didactic methods based on game: Gamification and Game Based Learning, for example, because game is important in our children life. McLuhan said "It's misleading to suppose there's any basic difference between education & entertainment".
- Teachers must speak clearly with their pupils about the objective of the game: what must they to discover or achieve?
- When pupils are young, for example at primary school, it's better let them working in a small team, 3/5 pupils. It lets them to strengthen people self-confidence and to believe the one in the other one
- You must explain about game rules. Sentences about rules must be simple and clear, with a user oriented language, less open to misunderstanding. It could be interesting ask your pupils to repeat the rules. So they can internalize them
- Prizes or rewards are very important for pupils' learning motivation. You can print a nice certificate for winners and another one for all the players in the game. So nobody will be sad at the end of the race. This is very important, otherwise someone could lose learning motivation.
- A playing area should be limited, so pupils can't get distracted from the objective of the game
- Remember to ask your pupils their friendship, so if they go around the area out of your control, you can teleport them near your avatar to play with their schoolmates.
- It's important that teachers have appropriate game skills and must be able to control every part of the game.
- Set up your pupils viewer on the language that you want they learn, for example English. So they will build their own lexicon about the tool and the content of the game

- You can plan an interesting CLIL lesson by Coyle model: LANGUAGE OF LEARNING (content) essential vocabulary and grammar associated with the topic for a communicative approach. The language is used in authentic interactive settings in order to develop communicative skills, rather than focusing exclusively on grammar; LANGUAGE FOR LEARNING (meta-cognition and grammar system) the kind of language needed to operate in a foreign language environment. Learners need skills for pair work, cooperative group work, asking questions, debating, enquiring, thinking, memorizing...; LANGUAGE THROUGH LEARNING (cognition) new meanings would require new language. It needs to be captured while during the learning process, then recycled and developed later.
- You can ask your pupils to make two digital dictionaries about: language of learning and language for learning
- You can use a roleplaying game to take your pupil a right language to communicate in real life. For example, create a hotel or a train station. In the hotel, someone is the receptionist, someone the hotel director, someone a waiter or waitress, some other customer. They will play the role appointed using an appropriate language.
- Another kind of game apt for immersive teaching is treasure hunt. For example it can take place in a woods by night. Use bright prisms, hidden in the crown of the trees. They are easy to find. Put in every prism some notecard with question for your treasure hunt. It isn't possible to create this experience in real life and your pupils will say you: "Learning is amazing!". The treasure hunt content could be about every subject: Science, Grammar, History, Geography.

Donts

- Don't let your pupils play individually: collaboration is one of the most important skills of XXI century
- Don't kill the creativity: a good teacher is an open mind people and creativity is one other XXI century skill. Your pupils can suggest you some interesting changes to the game, remember: everything is perfectible.
- Don't forbid the communication between pupils: peer to peer confrontation is the way for make progress in the understanding. Communication is another XXI century skills
- Don't let the game overpower the teacher. You must have the control of the game. Prepare yourself to answer to your pupils questions.
- Don't let that the competition aspects take precedence over didactic aspects. This working method let your pupils to proceed according the computational thinking steps: decomposition, solving the game by breaking it in smaller phases; pattern recognition, analyzing the data finding the right order of them; algorithmic design, creating solution of the game, using a series of ordered step.

- Minecraft
(suggerimenti sull'uso dei giochi in Minecraft ecc.)

Dos

- There are a lot of Minecraft edition: Pocket Edition, Education Edition... Chose the version adapt to your job. If you want to do coding activity, you will choose Minecraft Education Edition, because there is Agent, a virtual robot and you can program it.
- Nowadays some schools have a robotic curriculum. Using didactic robots isn't cheap. Most of the robots are quite expensive, but it isn't a problem if you do robotic through your Agent in Minecraft EE. You can program it through MakeCode, Tynker, Code.org, Scratch.
- Your school hasn't a large space to show pictures, posters, papers or compositions that your pupils have done? Don't worry, Minecraft can be a virtual space for your exhibit, for example for 3d Pixel Art, drawings, digital storytelling materials.
- Do you want to let your student a particular experience in some far away places, and you can't go there? In Minecraft you can use biomes, a climate zone used in the game to set what kind of surface the ground has (sand? grass?), whether it should rain or snow, what trees grow there, and sometimes also what kind of animals that are allowed to spawn there. You can use, for example, a cold beach or a frozen river, Taiga or plains, various kind of forest and so on...
- Doing experiments about electric energy could be dangerous if your students are children, for example at primary school. In Minecraft, you have Redstone, a virtual electricity, pistons, levers, buttons. Your pupils can make virtual electronic circuits, that may be complicated too, but they will learn without difficulty about laws of Physics
- Set up your Minecraft program using a foreign tongue: it will be a wonderful tool for a CLIL lesson.
- Let your students use the chat in Minecraft, but you must explain them what is the Netiquette and the chat rules. You will help your student to do ICT proper management
- Organize some gamification activity in the gaming activity, for example a treasure hunt, some puzzling questions

- When you work with Project Based Learning method and you divide your class in small groups, you can ask every group to choose the right skin for their Steve. So when they work all together in the virtual world, they can recognize their Steve and they can understand, seeing the other's skin, what is the role of others in the coworking.

Donts

- Don't use survival mode, your pupils mustn't collect resources, build structures, battle mobs, manage hunger, and explore the world in an effort to survive and thrive. They must think at the project focus, for example, building of a palace, or a monument, or archaeological site...
- Difficulty is an option in Minecraft that has a direct impact on the ease of gameplay. There are four difficulty levels in the game: Peaceful, Easy, Normal and Hard. Set up peaceful difficulty, so everyone can try to play fearless and everyone learn quickly
- Don't propose a learning activity without the right group organization. Teacher decide the roles in pupils groups
- Teacher must explain clearly tasks assigned and the project focus.

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